New Jersey Turnpike Authority
Newark Bay–Hudson County Extension
Interchange 14 to Interchange 14A / Newark Bay Bridge Replacement and Associated Improvements

FINAL ENVIRONMENTAL ASSESSMENT
APPENDIX A: CULTURAL RESOURCES

Submitted to:

UNITED STATES COAST GUARD
U.S. DEPARTMENT OF HOMELAND SECURITY

Submitted by:

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Appendix A-1

Phase I Archaeology Survey and
Intensive-Level Historic Architectural Survey

PHASE I ARCHAEOLOGICAL SURVEY AND INTENSIVE-LEVEL HISTORIC ARCHITECTURAL SURVEY

INTERCHANGE 14 TO 14A: NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

Cities of Bayonne and Jersey City, Hudson County, and Newark, Essex County, New Jersey

PREPARED FOR:

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EXECUTIVE SUMMARY

Richard Grubb & Associates, Inc. (RGA) completed a Phase I archaeological survey and Intensive-level historic architectural survey for the New Jersey Turnpike Authority's (NJTA) proposed reconstruction of the Newark Bay-Hudson County Extension (NB-HCE). The proposed reconstruction of the NB-HCE will be completed in four discrete projects, which will improve regional mobility and address critical structural needs. This reconstruction project includes the replacement of the Newark Bay Bridge between the City of Newark, Essex County and the City of Bayonne, Hudson County. Each individual project has independent utility and can be constructed whether or not the other projects are advanced. The work proposed for the segment of the NB-HCE from Interchange 14 to Interchange 14A, the focus of this current survey, requires a Bridge Permit from the United States Coast Guard (USCG) and approval of the location and plans for the proposed replacement of the Newark Bay Bridge. The USCG holds jurisdiction over the navigable waterways of the United States pursuant to the General Bridge Act of 1946, as amended (33 U.S.C. § 525-533).

Because of federal involvement, the undertaking is subject to Section 106 of the National Historic Preservation Act (NHPA), as amended and re-codified (54 United States Code [U.S.C.] § 306108), and its implementing regulations in 36 Code of Federal Regulations (CFR) § 800. The USCG, as lead federal agency for the undertaking, is responsible for ensuring compliance with Section 106, as well as the preparation of an Environmental Assessment (EA) under the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. § 4321 et seq.) and Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR §§ 1500-1508). The USCG will use its findings from the Section 106 process to provide the cultural resources component of NEPA. The proposed project will also receive funding from the State of New Jersey and, thus, necessitates compliance with New Jersey Executive Order 215 (EO 215) and is expected to require a Waterfront Development permit and a Freshwater Wetlands Protection permit from the New Jersey Department of Environmental Protection's Division of Land Resource Protection, which necessitates compliance with N.J.A.C. 7:7-9.34 and N.J.A.C. 7:7A, respectively. Due to the use of State funding, and the presence of the Morris Canal historic property (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004), which is listed in the New Jersey Register (NJR) and National Register of Historic Places (NRHP), the portions of the project within the Morris Canal footprint require compliance with the New Jersey Register of Historic Place Act (N.J.A.C. 7:4-7.1).

The Phase I archaeological survey consisted of background research, a field reconnaissance survey, an archaeological sensitivity assessment, subsurface testing within a portion of the Area of Potential Effects for Archaeology (APE-Archaeology), and laboratory analysis of recovered artifacts. Historic maps show that the Newark portion of the APE-Archaeology remained undeveloped salt marsh until the mid-twentieth century and is considered to have a low sensitivity to contain intact, significant pre-Contact or historic-period resources. No shipwrecks are mapped in the APE-Archaeology in the Newark Bay and only one submerged target, likely a submerged historic piling along the navigation channel, is in a temporary construction trestle pier footprint of the APE-Archaeology. The trestle pier footprint requires the installation of three-foot diameter piers placed at 18-foot or 40-foot on center intervals. No further archaeological survey is recommended for the likely submerged historic piling.

In the City of Bayonne and in the City of Jersey City, the infilled Morris Canal footprint transects the southeastern part of the APE-Archaeology. The portion of the canal's footprint on Block 30203, Lot 3; Block 30204, Lot 4; Block 30306, Lots 2 and 4; and Block 30303 TURN in the City of Jersey City and in the Right-of-Way for I-78/NJ Turnpike in the City of Bayonne has a high sensitivity for intact buried structural elements associated with the canal's prism and towpath. There, the proposed undertaking will have an adverse effect on the NJR and NRHP-listed Morris Canal and archaeological monitoring within the canal footprint is recommended. Additionally, a circa 1908 New York Bay Railroad Co. turntable was formerly located on Block 30306, Lot 2 in the City of Jersey City within the APE-Archaeology and in the footprint of the Morris Canal. Consequently, archaeological monitoring during construction of a proposed retention basin on Block 30306, Lot 2 is recommended to record Morris Canal-related features and features associated with the early twentieth century turntable, if exposed.

A small, narrow area on Block 13, Lot 1 in the City of Bayonne has an assessed moderate to high sensitivity for pre-Contact period archaeological resources. Phase I archaeological survey testing was conducted at this location in the form of 13 shovel test pits (STPs) dug at 25- to 50-foot intervals to determine the presence or absence of intact archaeological deposits. Two open construction trenches dug by the property owner for a private development were also observed. Extensive map documentation reveals that these tested and observed areas were not developed until the early twentieth century. In total, 338 modern and historic artifacts were identified within the STPs. Shovel test pits encountered notably varying soil stratigraphy over intact or truncated subsoil across the area of assessed moderate to high sensitivity on Block 13, Lot 1. The varying stratigraphy strongly suggests extensive earthmoving activities took place during the nineteenth and twentieth centuries. Evidence indicates that imported artifact-rich soils were used to increase grade. Contexts containing notably small fragments of early to mid-nineteenth-century material were found capping subsoil in four STPs. The contexts varied in color and depth suggesting landscape modification and lack of integrity. No pre-Contact period artifacts or features were found and no historic period cultural features were encountered. The artifact deposits lack integrity and are assessed as not significant. No additional archaeological survey is recommended for Block 13, Lot 1 in the City of Bayonne.

The multi-component pre-Contact and historic-period Jersey Eagle Site (28-Hd-45 [SHPO Opinion: 5/17/2013]) was previously identified on Block 30306, Lot 7 in and near the northern terminus of the APE-Archaeology during a natural gas pipe installation project. The deeply-buried Jersey Eagle Site was determined eligible for listing in the NRHP under Criterion A for its association with events that made a significant contribution to the broad patterns of history and Criterion D for the potential to yield new, important information in prehistory and history regarding the pre-Contact period occupation and early colonial settlement of Hudson County from 0 to 1850 AD. The site was identified at and near a proposed retention basin and outfall pipe for basin HUC3-F. The proposed outfall pipe may be within the disturbed 16-foot wide trench footprint for the existing natural gas pipeline. Archaeological monitoring of the basin HUC3-F outfall stormwater pipe trench excavation is recommended if the trench will extend below a depth of 2.3 feet below grade (i.e., the northern-most top depth of the deeply buried Jersey Eagle Site closest to Linden Avenue) to mitigate potential Proposed Action-related adverse effects to the archaeological historic property if the proposed outfall pipe will be located outside the former 16-foot wide gas pipeline trench. At the junction of the outfall pipe with basin HUC3-F, project related excavations will not exceed a depth of 5.0 feet below grade. Nearby, the southwestern portion of the Jersey Eagle Site exists is more deeply buried and present at 6.6 feet below grade. No monitoring is recommended where excavated will be above the top depth of the Jersey Eagle Site. The nearby pre-Contact period Greenville site (28-Hd-3), mapped immediately north of the APE-Archaeology and identified in the early twentieth century, may represent the same archaeological deposits as those at the Jersey Eagle Site.

Significant ground disturbance exists within the remainder of the APE-Archaeology associated with mid- to late twentieth-century residential and commercial development and the installation of underground utilities. Further disturbance occurred during the construction of the NB-HCE in the 1950s. As a result, these areas have an assessed low sensitivity for significant archaeological resources and no further archaeological survey is recommended.

The Intensive-level historic architectural survey identified 41 historic architectural resources more than 45 years of age in the APE for Historic Architecture (APE-Architecture), including four historic properties previously listed in the NJR and NRHP and/or formally determined eligible for listing in the NRHP: Newark and Elizabeth Branch of the Central Railroad of New Jersey Historic District (SHPO Opinion: 8/30/2000); Pennsylvania Railroad New York Bay Branch Historic District (SHPO Opinion: 12/18/2019); Lehigh Valley Railroad Historic District (SHPO Opinion 3/15/2002); and the Morris Canal historic property (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004). The remaining 37 historic architectural resources identified in the APE-Architecture comprise the following: the New Jersey Turnpike (NJT) main stem, the Newark Bay Bridge, the NB-HCE, the Port Authority Administration Building (Building 260), the Public Service Electric & Gas Co. (PSE&G)

Building, the Former Tide Water Oil Company Pumping Station, and a mixture of commercial, residential, industrial, and civic buildings primarily dating between the late nineteenth and mid-twentieth centuries.

RGA completed Intensive-level Architectural Survey Forms for the Newark Bay Bridge and the NB-HCE prior to the completion of this current survey to assist the NJTA with facilitating its planning for the proposed undertaking. The survey forms were submitted to the New Jersey Historic Preservation Office (NJHPO) to request Technical Assistance regarding the possible eligibility of the Newark Bay Bridge and NB-HCE for listing in the NRHP. In correspondence dated February 2, 2022, the NJHPO determined that the bridge would meet NRHP Criterion C as a well-preserved example of a mid-twentieth-century, cantilevered truss bridge. The boundaries of the historic property would include the bridge in its entirety, and the period of significance would be limited to its year of construction, 1956. In correspondence dated April 4, 2023, the NJHPO found the NB-HCE was not eligible for listing in the NRHP. The NJHPO comments were informal and did not constitute project review under any state or federal law; however, for the purposes of this survey, RGA considered the bridge an historic property.

RGA also previously surveyed the Port Authority Administration Building (Building 260) in 2018 as part of an Intensive-level historic architectural survey associated with a repair and reconstruction project for the building. In a letter dated April 12, 2018, the NJHPO provided informal comments on the NRHP eligibility of the Port Authority Administration Building (Building 260) stating that it may be eligible for the NRHP under Criterion C as an intact and representative example of New Formalism architecture. Based on this NJHPO correspondence, RGA considered the Port Authority Administration Building (Building 260) a historic property for the purposes of this survey.

Among the historic architectural resources identified within the APE-Architecture, the NJHPO previously determined the NJT main stem ineligible for listing in the NRHP and, as such, this historic resource was not evaluated further as part of the current survey. Similarly, the PSE&G Building and Former Tide Water Oil Company Pumping Station were previously surveyed and not recommended NRHP eligible, and therefore, were not further evaluated as part of the current survey. None of the remaining 32 historic architectural resources identified within the APE-Architecture surveyed at the intensive level were recommended eligible for listing in the NRHP.

As currently proposed, the project will constitute an adverse effect to historic properties. Due to project-related excavations within the footprint of potentially intact, buried sections of the NJR and NRHP-listed Morris Canal, south and west of the NB-HCE, archaeological monitoring is recommended in portions of the Morris Canal containing moderate to high archaeological sensitivity to mitigate any anticipated adverse effects to the historic property. Due to the use of state funding and direct impacts to the NJR-listed Morris Canal, completion of an Application for Project Authorization (APA) under the New Jersey Register of Historic Places Act (N.J.A.C. 7:4-7.1) will be required for the portions of the project within the canal footprint.

The proposed removal and replacement of the Newark Bay Bridge will also result in an adverse effect. Recommended mitigation measures include documentation of the Newark Bay Bridge to the standards of the Historic American Engineering Record (HAER), the development of interpretative signage and a historic context study addressing the Newark Bay Bridge's consulting engineers Howard Needles Tammen & Bergendoff (now HNTB) and the firm's New Jersey work, as well as an update to the New Jersey Historic Bridge Survey (A.G. Lichtenstein & Associates, Inc. 1994). Additional mitigation measures should be identified in consultation with the NJHPO and other project consulting parties through the development of a Memorandum of Agreement (MOA) to resolve adverse effects and conclude the Section 106 process.

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1.0 INTRODUCTION

Richard Grubb & Associates, Inc. (RGA) completed a Phase I archaeological survey and Intensive-level historic architectural survey for the New Jersey Turnpike Authority's (NJTA) proposed reconstruction of the Newark Bay-Hudson County Extension (NB-HCE). The proposed reconstruction of the NB-HCE will be completed in four discrete projects, which will improve regional mobility and address critical structural needs. The project discussed herein includes the replacement of the Newark Bay Bridge between the City of Newark, Essex County and the City of Bayonne, Hudson County and associated roadway improvements between Interchange 14 and Interchange 14A of the NB-HCE (Figures 1.1 and 1.2). Each individual project has independent utility and can be constructed whether or not the other projects are advanced.

The purpose of the Phase I archaeological survey was to assess the archaeological sensitivity of the Area of Potential Effects (APE) for Archaeology (APE-Archaeology), and to identify pre-Contact or historic archaeological resources within the APE-Archaeology. The purpose of the Intensive-level historic architectural survey was to assess the National Register of Historic Places (NRHP) eligibility of newly identified above-ground historic resources within the APE for Historic Architecture (APE-Architecture) and to evaluate potential project impacts on above-ground historic properties listed in the New Jersey Register (NJR) and/or NRHP or eligible for the NRHP within the APE-Architecture. Resumes for the Principal Investigators for Archaeology and Historic Architecture are included as Appendix A. Preliminary Design Plans can be found in Appendix B. Appendices C and D include correspondence with the NJHPO and a summary of the NRHP Criteria. A list of identified consulting parties is located in Appendix E and previous HPO survey forms are in Appendix F. The Phase I Shovel Test Pit (STP) Log and artifact catalog are included as Appendices G and H. Appendix I includes NJHPO survey forms and a Geotechnical soil boring log is included as Appendix J.

Michael J. Gall, MA, RPA served as the Principal Investigator for archaeology and Chelsea Mansky, MS served as the Principal Investigator for historic architecture. The professional qualifications of the Principal Investigators meet the requirements of 36 CFR 61 set forth by the National Park Service (see Appendix A). Allison Gall served as the project archaeologist, conducted the background research, and coauthored the report with Mr. Gall and Ms. Mansky. Phillip Hayden, Alison Eberhardt, Matthew Goldberg, Spencer Rubino, Marissa Agbunag, Rye Fitzgerald, and Lauren Dunkle authored the New Jersey Historic Preservation Office (NJHPO) architectural survey forms. Phase I archaeological survey fieldwork was completed by Allison Gall, Evan Robinson, MA, Mr. Gall, Richard Adamczyk, MA, and Michelle Davenport, MA. Carol Weed, MA, of Matrix New World and serving as a representative of The Alessi Organization, owner of Block 13, Lot 1 in the City of Bayonne, assisted with Phase I archaeological testing on the aforementioned parcel. Artifact analysis was conducted by Alison Butchko. David C. Strohmeier and Patricia McEachen produced report graphics. Allee Davis, Mr. Gall, and Richard C. Grubb served as report editors, and Catherine Smyrski and Natalie Maher served as technical editors. Copies of this report and all field notes, photographs, and project maps are on file at the RGA offices in Cranbury, New Jersey.

1.1 Regulatory Context

The proposed undertaking requires a Bridge Permit from the United States Coast Guard (USCG), approving the location and plans for the proposed replacement of the Newark Bay Bridge. The USCG holds jurisdiction over the navigable waterways of the United States pursuant to The General Bridge Act of 1946, as amended (33 U.S.C. § 525-533). Because of federal involvement, the undertaking is subject to Section 106 of the National Historic Preservation Act (NHPA), as amended and re-codified (54 United States Code [U.S.C.] § 306108), and its implementing regulations at 36 Code of Federal Regulations (CFR) § 800. The USCG, as lead federal agency for the undertaking, is responsible for ensuring compliance

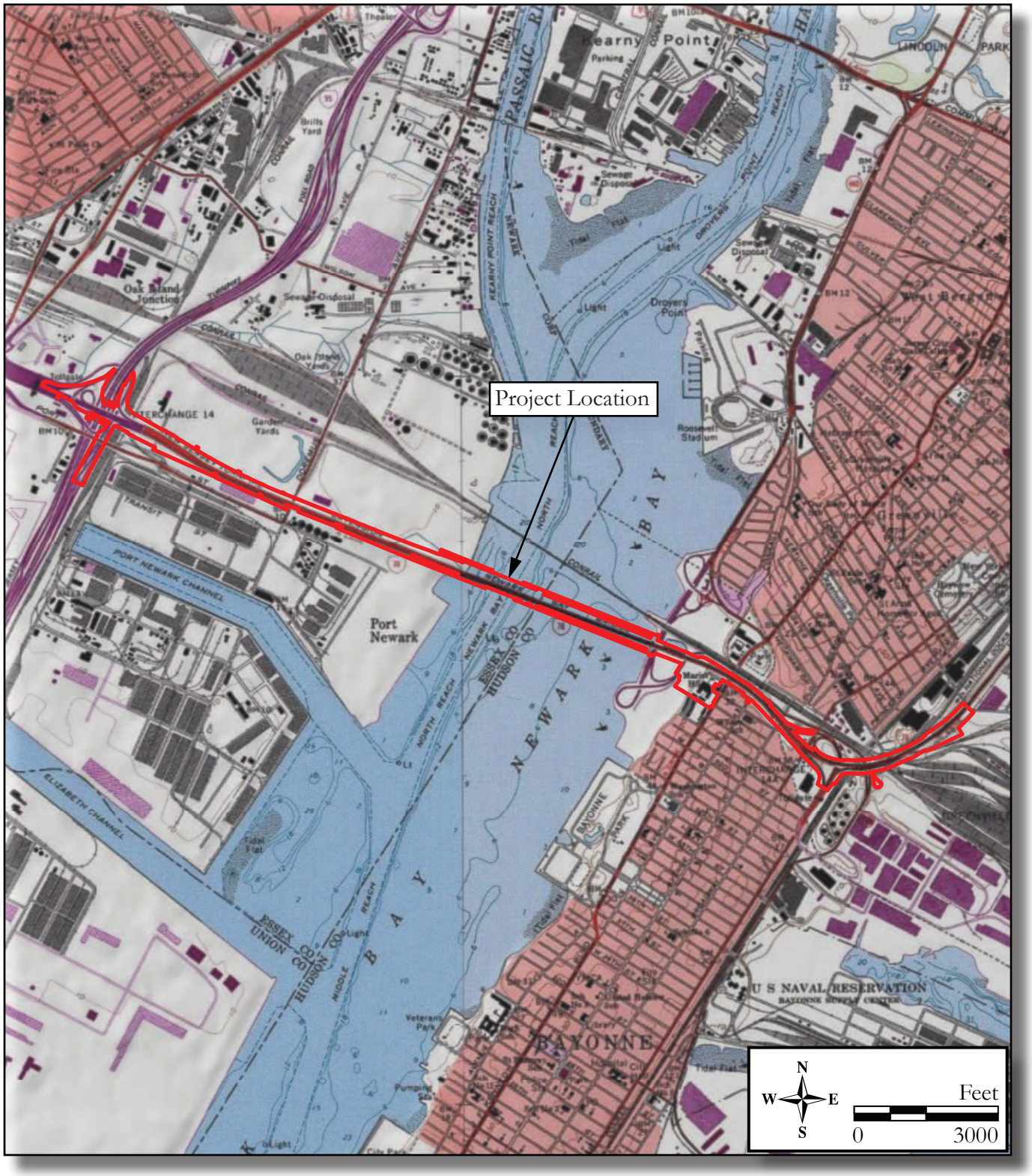

Figure 1.1: U.S.G.S. map
(1967 [photorevised 1981] U.S.G.S. 7.5' Quadrangles: Elizabeth, NJ and Jersey City, NJ).

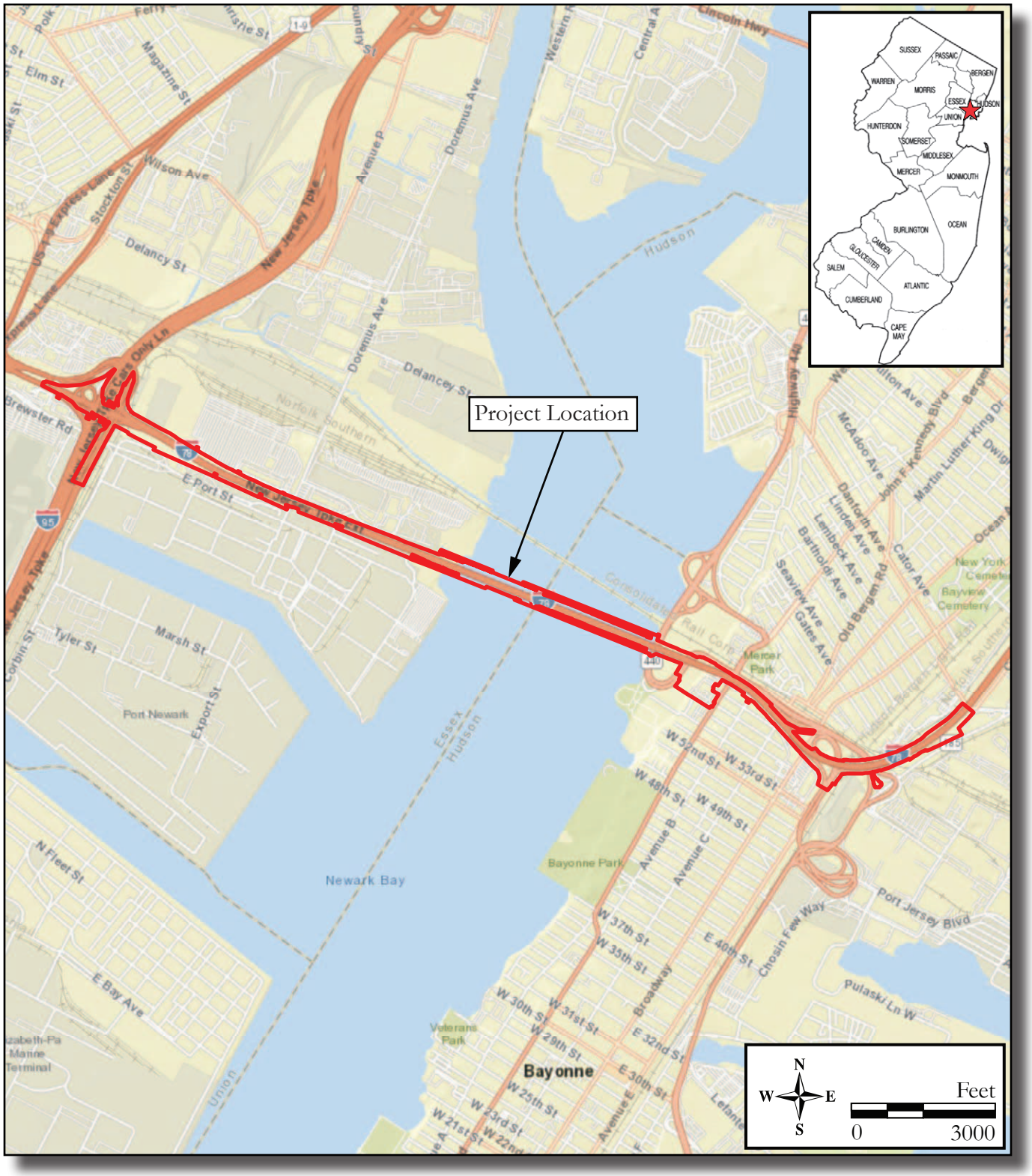

Figure 1.2: Road map
(World Street Map, ESRI 2021).

with Section 106, as well as the preparation of an Environmental Assessment (EA) under the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. § 4321 et seq.) and Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR §§ 1500-1508). The USCG will use its findings from the Section 106 process to provide the cultural resources component of NEPA.

The proposed project will also receive funding from the State of New Jersey and, thus, necessitates compliance with New Jersey Executive Order 215 (EO 215). In addition, the project is expected to require a Waterfront Development Permit and a Freshwater Wetlands Permit from the New Jersey Department of Environmental Protection (NJDEP), Division of Land Resource Protection (DLRP), which necessitates compliance with N.J.A.C. 7:7-9.34 and N.J.A.C. 7:7A, respectively. According to Waterfront Development and Freshwater Wetlands Act rules, archaeological, historical, and architectural resources listed in the NJR and/or NRHP or eligible for listing in the NRHP must be identified to determine if the project will affect such resources. Due to the use of State funding, and the presence of the Morris Canal historic property (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004), which is listed in the NJR and NRHP, the portion of the project within the Morris Canal footprint requires compliance with the New Jersey Register of Historic Place Act (NJRHPA) (N.J.A.C. 7:4-7.1).

This work has been conducted in keeping with the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation*, and the archaeological and historic architectural survey guidelines of the NJHPO (1994, 1996) (Splain 1999). This report includes a brief discussion of the environmental setting, background research and resulting cultural contexts, a sensitivity assessment, results of an archaeological reconnaissance and subsurface testing, and results of the intensive-level historic architectural survey.

1.2 Project Description

The NJTA has identified a preferred alternative for the proposed project to advance to Preliminary Design, which the USCG will assess under Section 106. The preferred alternative will rebuild the NB-HCE from Interchange 14 to Interchange 14A, as well as the portion of the Southeast Viaduct up to approximately Linden Avenue. The proposed project is divided into seven distinct areas (Figure 1.3; Appendix B). The seven areas and associated project elements include the following:

- Area 1 – Interchange 14 (Milepost [MP] N0.0 to MP N0.9): An interchange configuration that minimizes intrusion into the approach flight path to Newark Liberty International Airport Runway 29L while improving ramp profiling. This includes impacts to ramps and ramp bridges, as well as the bridges over the NJT's main stem;

- Area 2 – Newark Viaduct (MP N0.9 to MP N1.2): An alignment realigning the NB-HCE westbound to the north to avoid impacting an existing Colonial Pipeline facility while minimizing right-of-way (ROW) acquisition and allowing a crossover between the existing and proposed NB-HCE viaduct structures to facilitate construction sequencing. This includes replacing the Newark Viaduct with a new, wider structure expanding northward of the existing alignment and carrying four (4) travel lanes in each direction along with 14-foot wide shoulders on both sides to facilitate response to incidents and accidents, and to provide space to maintain travel lanes during future maintenance activity;

- Area 3 – West Approach (MP N1.2 to MP N1.7): A horizontal alignment realigning the NB-HCE westbound to the north to avoid staged demolition of the NB-HCE westbound viaduct structure, provide the necessary median gap width to accommodate the long span main span bridge over the Newark Bay, and minimize ROW impacts to the existing chemical facility property to the north. This includes replacement with a wider structure expanding northward of the existing alignment carrying four (4) travel lanes in each direction along with 14-foot wide shoulders on both sides.

- Area 4 – Main Span (MP N1.7 to MP N2.0): An alignment realigning the NB-HCE westbound to the north to provide the minimum distance between the existing and proposed bridges to accommodate a long span utilizing a cable-stay design. This includes replacement with a wider structure expanding northward of the existing alignment carrying four (4) travel lanes in each direction along with 14-foot wide shoulders on both sides. Minimum channel clearance requirements, both horizontal and vertical, will dictate the final height of the replacement structure, which will not differ significantly from the overall maximum height of the existing bridge;

- Area 5 – East Approach (MP N2.0 to MP N2.7): An alignment realigning the NB-HCE westbound to the north that transitions gradually from the main span offset to the horizontal curve in Area 6. This includes replacement with a wider structure expanding northward of the existing alignment carrying four (4) travel lanes in each direction along with 14-foot wide shoulders on both sides;

- Area 6 – Embankment Section and Interchange 14A Ramps (MP N2.7 to MP N3.4): The realignment improves substandard geometric elements (minimum radius, stopping sight distance, acceleration/deceleration lane length) while minimizing impacts to adjacent residences and avoiding impacting New Jersey Route 440. The existing connector roadway from JFK Boulevard to Avenue C/New Jersey Route 440 southbound will be eliminated and replaced with a new ramp directly connecting JFK Boulevard to New Jersey Route 440 southbound. This includes reconstructing the east at-grade section of the NB-HCE with replacement of the bridges over JFK Boulevard, Avenue C, and Garfield Boulevard, and Interchange 14A Ramps WT and TW;

- Area 7- Southeast Viaduct (MP N3.4 to MP N4.0): An alignment realigning the NB-HCE to the north and Ramp TE to the south. This includes the replacement of Structures No. N3.73 and N3.53D.

- Construction of stormwater retention basins within portions of the NJT's existing and new ROW, including areas between ramps at Interchange 14 and 14a beneath the Newark Viaduct and east and west approaches to the Newark Bay Bridge, on the site of the Marist High School property, and on Block 30306, Lots 2, 4, and 7; Block 30303, Lot TURN; and Block 27401, Lot 29 in the City of Jersey City.

- Associated utility relocation, grading, and filling.

1.3 Previous NJHPO Coordination

To facilitate its planning, the NJTA asked the NJHPO for Technical Assistance regarding the possible eligibility of the Newark Bay Bridge and NB-HCE for listing in the NRHP. In correspondence dated August 9, 2021, the NJTA submitted an Intensive-level Architectural Survey Form for the bridge recommending the structure not eligible for listing in the NRHP. The NJHPO requested additional information on September 24, 2021 (HPO-I2021-156; see Appendix C), which the NJTA provided in a subsequent submission dated December 6, 2021. On February 2, 2022 (HPO-B2022-011), the NJHPO responded by disagreeing with the survey form's not eligible recommendation (see Appendix C). The NJHPO concluded that the Newark Bay Bridge would meet Criterion C as a well-preserved example of a cantilevered truss bridge of the mid-twentieth century. The boundaries of the historic property would include the bridge in its entirety, and the period of significance would be limited to its year of construction, 1956. In correspondence dated March 14, 2023, the NJTA submitted an Intensive-level Architectural Survey Form for the NB-HCE recommending the roadway not eligible for listing in the NRHP. On April 4, 2023 (HPO-D2023-005), the NJHPO concurred with the survey form's not eligible recommendation (see Appendix C). All NJHPO comments were informal and did not constitute project review under any state or federal law.

In a virtual meeting held May 20, 2022, among the NJTA, USCG, NJHPO, Gannett Fleming, Inc., WSP, Inc., and RGA, the NJTA requested additional Technical Assistance from the NJHPO for the delineation of the APE for Historic Architectural Resources (APE-Architecture) and survey methodology for the Intensive-level Historic Architectural Survey. The NJTA presented the proposed APE-Architecture on a series of maps, which also illustrated the APE for Archaeological Resources (APE-Archaeology), a 500-foot viewshed buffer, previously identified historic properties (i.e., resources that have been previously determined eligible for or listed in the NRHP by the NJHPO), and historic resources that have not yet been formally evaluated by the NJHPO for the NRHP and which will be surveyed as part of the Intensive-level Historic Architectural Survey. During the meeting, Jennifer Leynes of the NJHPO generally agreed with the proposed APE-Architecture and survey methodology; however, Ms. Leynes's comments were informal and did not constitute approval of the proposed APE-Architecture or APE-Archaeology under Section 106. Additional details regarding the delineation of the APE-Architecture and APE-Archaeology and proposed survey methodology are included below.

1.4 Area of Potential Effects

The project area contains two APEs for the proposed undertaking. The APE includes locations that may be impacted by construction or that may experience effects once construction is completed. The APE was defined in accordance with the purpose and intent of 36 CFR 800.16(d), which defines the APE as "the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking." The combined APE-Archaeology and APE-Architecture is referred to as the project area.

The APEs take into account all locations where an undertaking may result in disturbance of the ground, from which elements of the undertaking may be visible, and where the activity may result in changes in traffic patterns, land use, and public access, for example. Project effects on historic resources may include both physical effects and contextual effects. Direct physical effects could include physical destruction, demolition, damage, or alteration of a historic resource. Indirect contextual effects may include isolation of a property from its surrounding environment; the introduction of visual, audible, or atmospheric elements that are out of character with a property or that alter its setting and context; or elimination of publicly accessible views to the resource.

<u>APE-Archaeology</u>
The APE-Archaeology encompasses any area of land disturbance required for obtaining permits or for successful completion of the project. Land disturbances include, but are not limited to, areas subject to excavation or deep grading, wetlands mitigation sites, construction staging areas, or borrow areas opened expressly for the project. The APE-Archaeology includes the expected limits of disturbance for the proposed reconstruction of the NB-HCE, which includes at the following: Interchange 14 and 14a improvements, Newark Viaduct, Newark Bay Bridge, east at-grade segment, stormwater management areas, temporary and permanent parking areas, and construction staging and laydown areas. Because project plans remain in the early stages of development, vertical and horizontal areas of direct physical disturbance have not been fully identified, including potential stormwater basins (Figure 1.4).

<u>APE-Architecture</u>
The APE-Architecture includes the area in which the project may directly or indirectly cause changes in the character of use of historic properties. The APE-Architecture includes all locations subject to ground-disturbing activities (consisting of the APE-Archaeology). To account for potential visual or contextual effects, the APE-Architecture extends beyond the actual construction limits to include those properties that may be impacted by visual changes, patterns of use, or may experience a change in historic character associated with the construction of the proposed project.

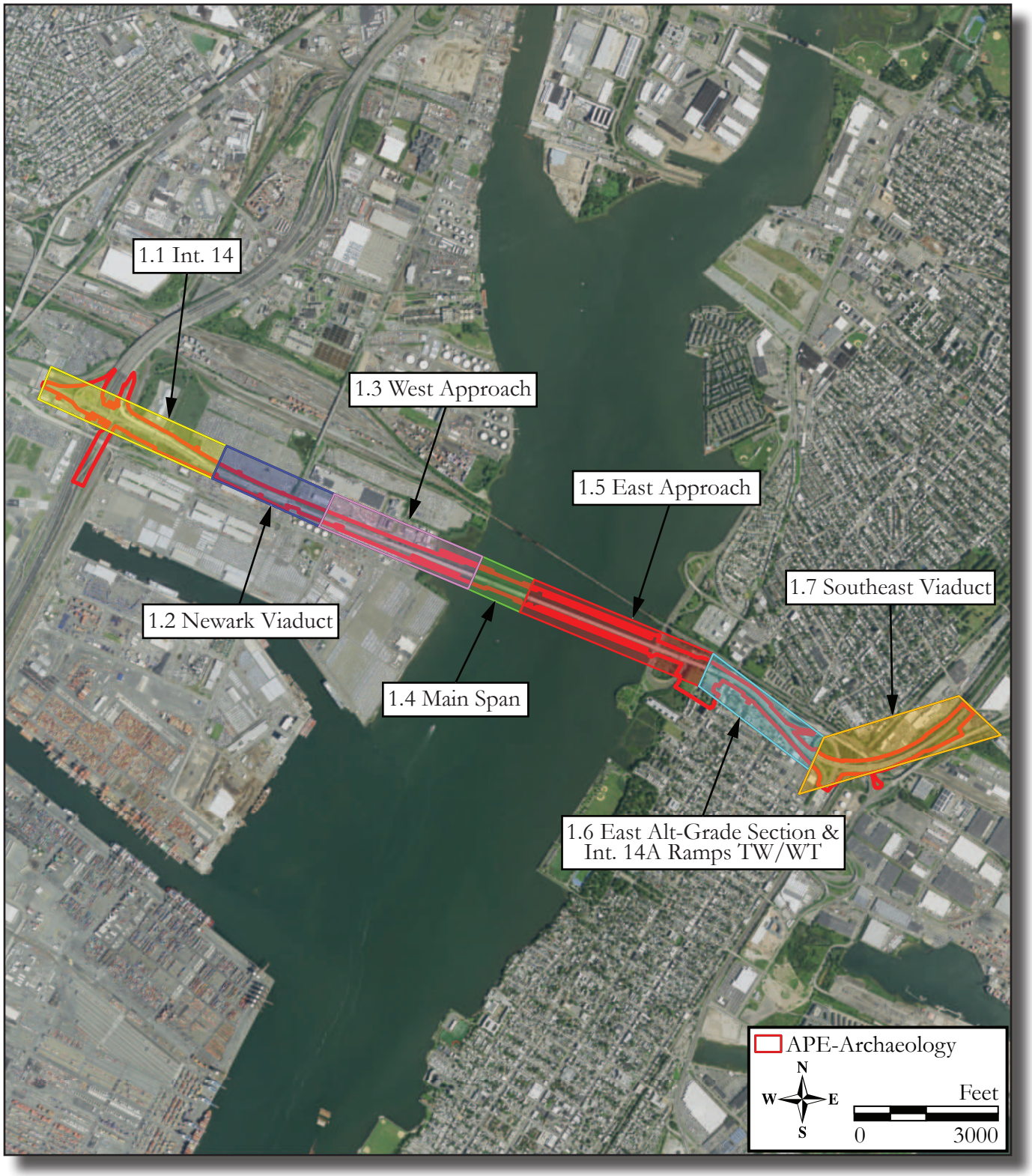

Figure 1.3: Aerial image showing the seven parts of the preferred alternative (NJGIS Digital Orthographic Imagery, 2020).

Figure 1.4: Aerial image showing the APE-Archaeology
(NJGIS Digital Orthographic Imagery, 2020).

The proposed preliminary preferred alternative alignment would expand the NB-HCE's existing footprint to the north, creating a wider structure. At 265 feet, the overall height of the new bridge would not change significantly from its current maximum height of 263 feet and its visibility from the surrounding area would remain largely unchanged. To verify the visibility of the new bridge, a 3/4-mile buffer was considered based on the Federal Communication Commission's guidance for cellular towers measuring between 200 and 400 feet. Within the 3/4-mile buffer, GIS-based viewshed modeling delineated areas of visibility and non-visibility based on the shifting height of the NB-HCE and intervening topography to determine areas in which the undertaking has the potential to be seen from street level (Figure 1.5). The viewshed modeling resulted in unnecessarily broad views due to the flat nature of the surrounding landscape. However, visibility was generally low to the horizon with little or no potential to affect historic properties, especially at greater distances. Further analysis using available street views indicated that intervening development and vegetation greatly reduced overall visibility to areas immediately fronting on the roadway, open space, and water. Accordingly, a 500-foot study buffer limit was adopted to account for reasonable visual, atmospheric, or audible effects. Using available street views and verified during field survey, the APE-Architecture was further refined to only include resources directly or partially within the line of sight of the proposed undertaking to ensure full coverage (Figure 1.6).

The western portion of the APE-Architecture in Newark includes certain industrial and commercial properties adjacent to the Newark Viaduct and West Approach and south of Interchange 14. To ensure proper coverage, certain portions of the APE-Architecture extend beyond the 500-foot study buffer to encompass the entire parcel limits of adjacent properties. Based on current project plans, the proposed Interchange 14 connector ramps to the east of the Newark Liberty International Airport are within an area of dense transportation infrastructure and will likely be at a similar height as the existing routes around the Port Street overpass. The potential for the proposed undertaking to create indirect visual impacts on any historic properties west of the New Jersey Turnpike (NJT) main stem within the Newark Liberty International Airport complex is negligible and would not introduce new incompatible visual elements within the current setting. As a result, the APE-Architecture was drawn more narrowly in this area, along the west side of the NJT, and excludes the Newark Liberty International Airport. Over the Newark Bay, the APE-Architecture follows the 500-foot buffer. In the dense urban environment of Bayonne and Jersey City, the southern boundary of the APE-Architecture was more narrowly defined to encompass portions of Sunset Avenue, John F. Kennedy Boulevard, West 53rd Street, West 54th Street, West 55th Street, West 56th Street, West 57th Street, West 58th Street, Avenues B and C, Garfield Avenue, and NB-HCE Interchange 14A. The eastern boundary of the APE-Architecture encompasses parcels flanking the NB-HCE, as well as certain industrial properties south of Caven Point Road (also known as New Jersey Route 185). In Jersey City and Bayonne, the northern boundary of the APE-Architecture follows a railroad embankment and the existing Hudson-Bergen Light Rail (HBLR) ROW. The railroad corridors coupled with the raised elevation of New Jersey Route 440 and surrounding pockets of dense vegetation provide a visual barrier from the NB-HCE and thereby limit potential visual indirect impacts on adjacent residential neighborhoods and commercial development to the north and west of the highway. The APE-Architecture terminates adjacent to the east of Linden Avenue.

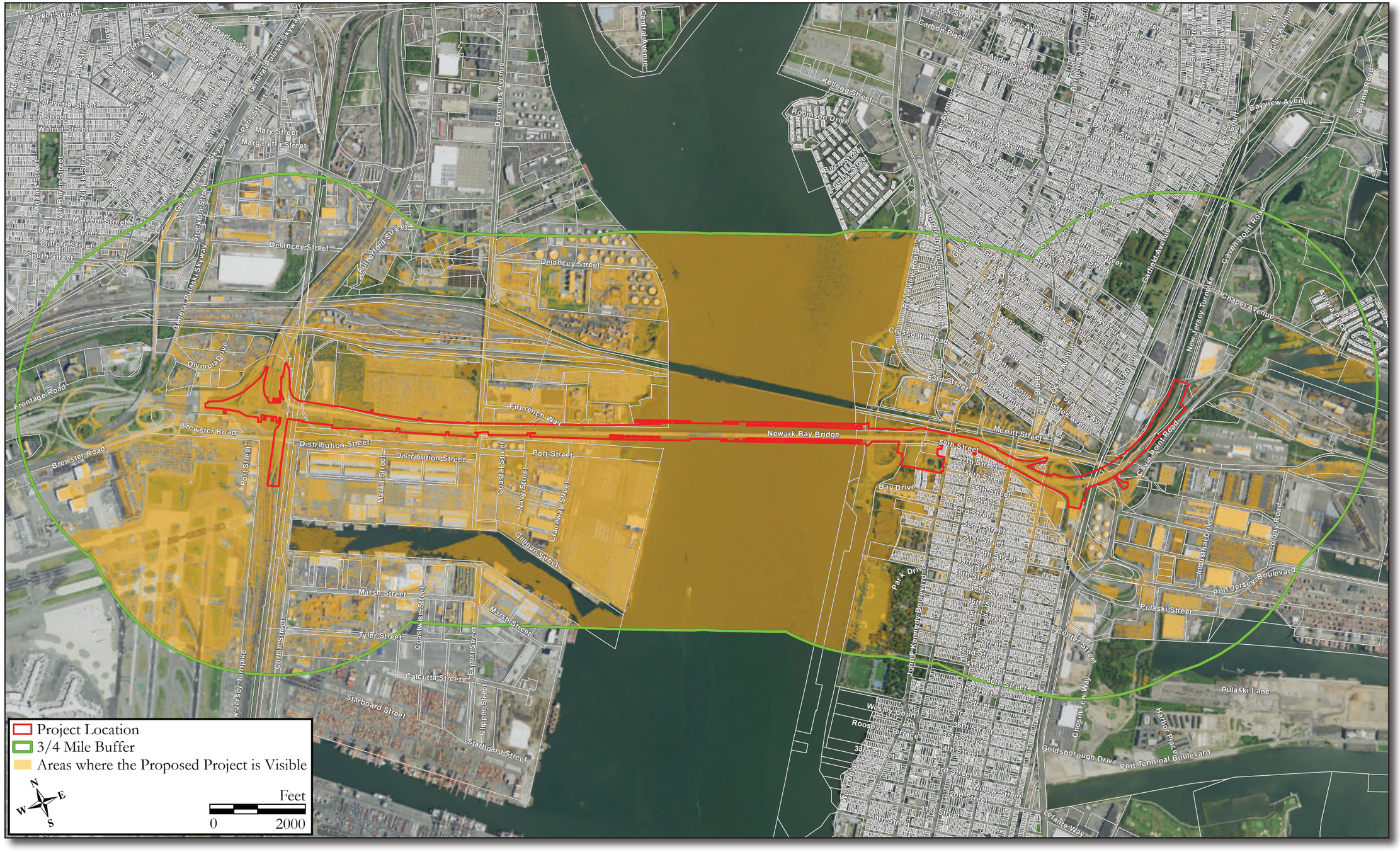

Figure 1.5: Computer-generated viewshed map of the proposed Newark Bay-Hudson County Extension (NB-HCE) within a 3/4-mile buffer of the project location.

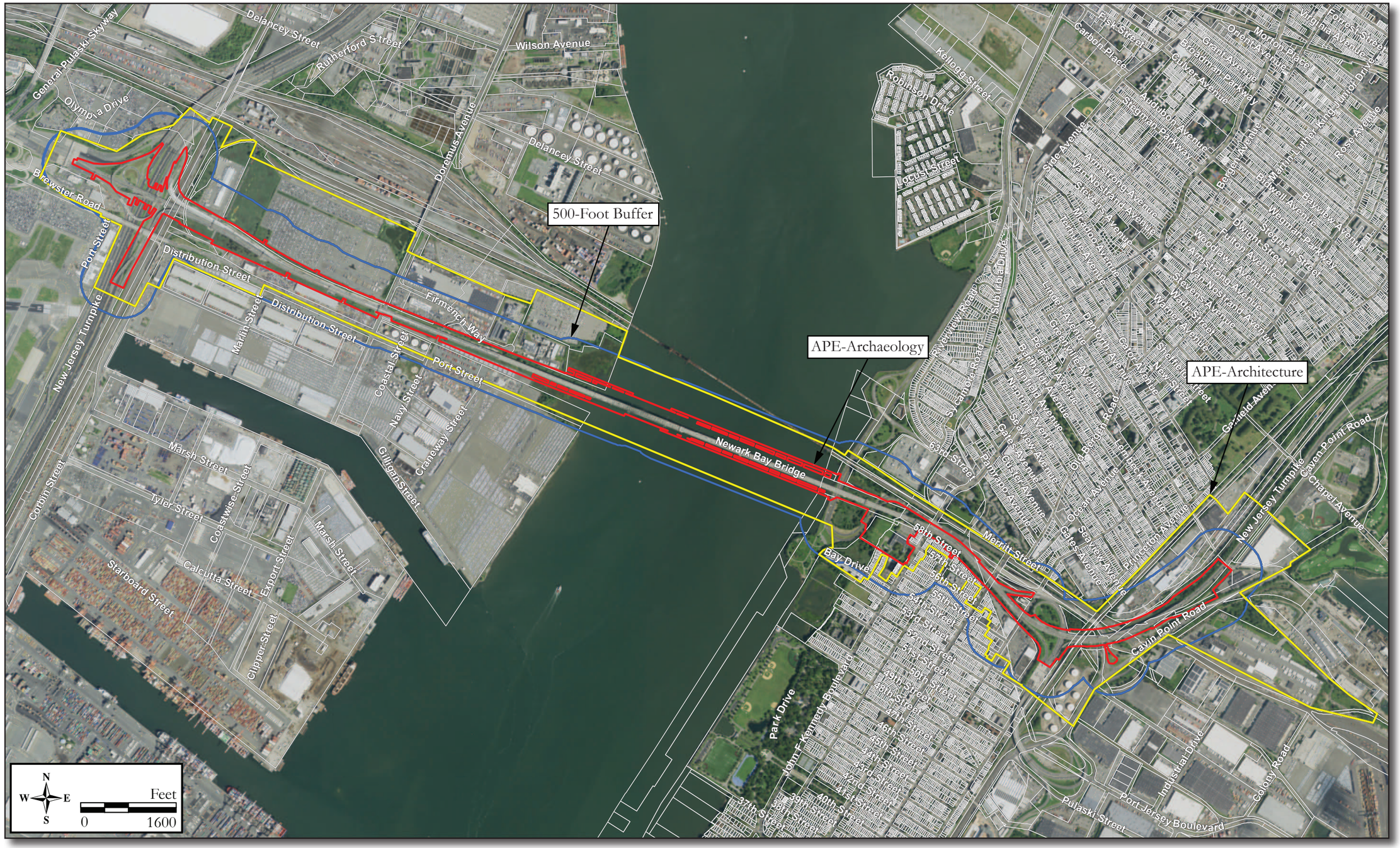

Figure 1.6: Aerial image showing the APE-Archaeology, refined APE-Architecture, and the 500-foot study buffer (NJGIS Digital Orthographic Imagery, 2020).

2.0 PROJECT APPROACH

This report presents the results of a Phase I archaeological survey and Intensive-level historic architectural survey, which were completed in compliance with Section 106, EO 215, the NJRHPA, and applicable NJDEP DLRP permits.

2.1 Research Methods

Research was conducted to determine if any archaeological sites or historic properties have been previously identified within the APE-Archaeology and APE-Architecture, to assess the potential for unidentified archaeological resources or historic properties, and to develop an appropriate historic context for the surrounding area. Research at the NJHPO's facilities in Trenton to identify listed or eligible historic properties and examine previous historic sites surveys and regulatory surveys on file at the NJHPO was not possible due to COVID-19 restrictions. However, a good faith effort was made to conduct NJHPO research by reviewing the NJ-GeoWeb database (NJDEP-GIS 2022), the updated list of historic properties and the list of cultural resources survey reports on the NJHPO's website, and surveys on file in the RGA in-house library. Files at the New Jersey State Museum (NJSM) were checked for the presence of registered archaeological sites within or near the APE-Archaeology. The National Oceanic and Atmospheric nautical maps showing shipwrecks were examined and the NJHPO was asked for mapping it has on file regarding previously identified submerged targets in the Newark Bay. Additional background research consisted of a review of pertinent primary and secondary sources available online.

2.2 Archaeology

The goal of the Phase I archaeological survey was to assess the sensitivity for the APE-Archaeology to contain known or previously unidentified significant pre-Contact and/or historic archaeological resources or previously identified archaeological historic properties. Determinations of significance are based on the NRHP Criteria for Evaluation (see Appendix D). The Phase I survey methods included background research, a site reconnaissance to examine existing conditions, assessment of archaeological sensitivity, subsurface testing, and laboratory analyses of recovered artifacts. Field notes were recorded and overview photographs of the APE-Archaeology were taken.

2.3 Historic Architecture

The goals of the Intensive-level historic architectural survey were to identify all historic architectural properties in the APE-Architecture that are listed in the NJR and/or NRHP or eligible for listing in the NRHP; to identify, survey, and evaluate the significance and integrity of previously unevaluated historic resources according to the NRHP Criteria (see Appendix D); and to assess the project's foreseeable effects on any NJR/NRHP-listed or NRHP-eligible historic properties in the APE-Architecture. Although the NRHP Criteria for Evaluation requires a resource to be at least 50 years of age, RGA expanded the minimum age requirement of previously unevaluated historic resources to at least 45 years to account for the project's extended timeline. Fieldwork included a pedestrian survey of the APE-Architecture to allow for the identification and assessment of all above-ground historic properties and historic resources over 45 years of age. Newly identified historic resources were photographed and recorded on NJHPO Survey Forms with individual resource descriptions, historical contexts, and assessments of significance, integrity, and NRHP eligibility in accordance with the NJHPO's *Guidelines for Architectural Surveys* (Splain 1999). Project effects on any listed or eligible historic architectural resources were assessed according to the NRHP Criteria of Adverse Effect (36 CFR 800.9) (see Appendix D).

2.4 Public Consultation

Because the views of the public are essential to informed decision-making in the review process, the public will be informed about this project, and will be given the opportunity provide comments on the proposed activity. Agencies and individuals with an identified interest in history or historic preservation will be contacted as part of this work (see Appendix E). In addition, it is the understanding of RGA that the USCG will perform tribal consultation.

3.0 BACKGROUND RESEARCH

Background research was conducted to provide environmental, pre-Contact, and historic contexts for the APE-Archaeology and APE-Architecture.

3.1 Environmental Setting

The APE-Archaeology lies within the New Jersey Piedmont Lowlands Physiographic Province (Figure 3.1; Wolfe 1977). The Piedmont consists of lowlands and low, gently rounded hills with elevations of 200 to 400 feet above sea level as well as higher areas of volcanic basaltic ridges, such as the Sourland Mountains and Watchung Mountains (Wolfe 1977). The bedrock geology consists of sandy mudstone of the Passaic Formation Mudstone facies; siltstone and shale of the Passaic Formation; arkosic sandstone of the Lockatong Formation Arkosic Sandstone facies; argillite, mudstone, sandstone, siltstone of the Lockatong Formation; and Jurassic Diabase (Drake et al. 1996). The surficial geology of the APE-Archaeology is mapped as Holocene-age salt marsh and estuarine deposits, late Pleistocene Eolian deposits, late Pleisocene, late Pleistocene and late Wisconsinan-age Rahway Till (Stone et al. 2002).

Soils mapped within the Newark portion of APE-Archaeology include: Bigapple loamy sand, 0-3 percent slopes (BhgA), Urban land, Bigapple substratum, 0-8 percent slopes (URBHGB), Urban land, loamy fill substratum, 0-8 percent slopes (URKTTB), and Odorthents, loamy fill substratum, 0-8 percent slopes (UdkttB). (Figure 3.2; Table 3.1; NRCS 2013, 2021). Soils characterized as Urban land consists of areas covered by pavement, concrete, buildings, and other structures underlain by disturbed and natural soil material. Prior to the mid-twentieth century, this portion of the APE-Archaeology was mapped as salt marsh upon which fill was placed to create made land (U.S.G.S. 1947a). The section of the APE-Archaeology within Bayonne contains: Laguardia artifactual coarse sandy loam, 0-3 percent slopes (LagA), Laguardia artifactual coarse sandy loam, 3-8 percent slopes (LagB), Urban land, Eolian substratum (UREOLB), and Westbrook mucky peat, 0-2 percent slopes, very frequently flooded (WectA) (see Figure 3.2; see Table 3.1; NRCS 2013, 2021). Laguardia artifactual coarse sandy loam, 3-8 percent slopes (LagB) soils and small pockets of Urban land, wet substratum, 0-8 percent slopes (URWETB) are mapped within the Jersey City section of the APE-Archaeology (see Figure 3.2; see Table 3.1; NRCS 2013, 2021).

The APE-Archaeology lies within a mostly flat, urban setting. The APE-Archaeology is bisected by the Newark Bay which drains into the Upper New York Bay via the Kill van Kull (see Figure 1.1). The Upper New York Bay flows through The Narrows into the Lower New York Bay and into the Atlantic Ocean. The location of wetlands, lowlands, and upland topography, as well as the breadth of the Newark Bay was altered throughout history. Historically, the entirety of the Newark portion of the APE-Archaeology and the eastern shoreline of the Newark Bay were mapped as wetlands and marshland well into the early twentieth century (Hills 1781; Gordon 1833; U.S.G.S. 1905a, 1947a, 1947b).

Generally, the natural vegetation of northern New Jersey is classified as Mixed Oak Forest, Northern Phase, a term that reflects the drastic decline in American chestnut since prehistoric times (Collins and Anderson 1994). During the early part of the twentieth-century, the Asiatic fungus (*Cryphonectria parasitica*) eradicated several billion trees in the eastern woodlands, although small pockets survive in Michigan and Long Island. This void was rapidly filled by species that took advantage of the new ecological niche, and the region is now part of the Mixed Oak Forest. Red, white, and black oaks, as well as species of hickory, red and sugar maples, white ash, tulip trees, American beech, black cherry, black birch, sour gum, and American elm trees compose the Mixed Oak Forest in northern New Jersey. An understory of dogwood, hornbeam, spicebush, sassafras, ironwood, witch hazel, blueberry, black huckleberry, pinxter flower, poison ivy, Virginia creeper, Japanese honeysuckle, and wild grapes are also found in the undisturbed Mixed Oak Forest (Collins and Anderson 1994:109). Vegetation within

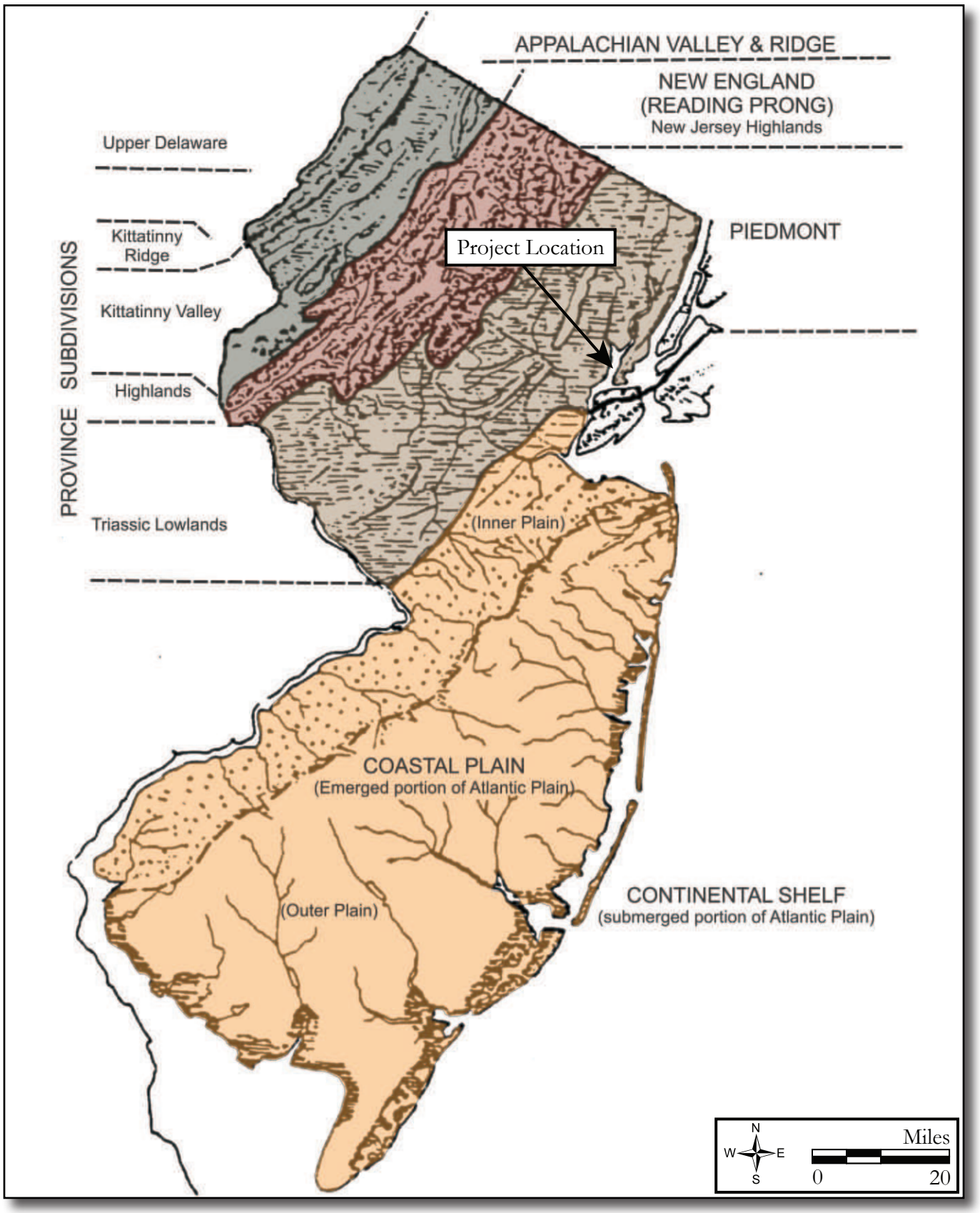

Figure 3.1: Physiographic provinces map
(adapted from Wolfe 1977).

Figure 3.2: Soils map
(2021 Soil Survey Staff, Natural Resource Conservation Service, United States Department of Agriculture. Soil Survey Geographic [SSURGO]).

Table 3.1: Characteristics of soil types mapped within the APE-Archaeology.

Name	Soil Horizon Depth Inches	Color (if available), Texture, Inclusions	Slope	Drainage	Landform
Bigapple loamy sand, 0-3% slopes (BhgA)	^Au: 0.0-3.1 ^E: 3.1-9.1 ^Bw: 9.1-20.1 C1: 20.1-29.1 C2: 29.1-59.1	^Au: Very dark grayish brown (10YR 4/2), fine sand ^E: Brown (10YR 5/3), fine sand ^Bw: Yellowish brown (10YR 5/4), fine sand C1: Light yellowish brown (10YR 6/4) and grayish brown (10YR 5/2), stratified very fine and fine sand C2: Grayish brown (10YR 5/2) and gray (10YR 5/1), stratified very fine and fine sand	0-3%	Somewhat excessively drained	Tidal flats
Laguardia artifactual coarse sandy loam, 0-3% slopes (LagA)	^Au: 0-7.9 ^BCu: 7.9-26 ^Cu: 26-78.7	^Au: Brown (10YR 4/3), artifactual coarse sandy loam ^BCu: Brown (10YR 4/3), very artifactual coarse sandy loam ^Cu: Brown (10YR 4/3), very artifactual coarse sandy loam	0-3%	Well drained	Summit, shoulder, backslope, footslope, toeslope
Laguardia artifactual coarse sandy loam, 3-8% slopes (LagB)	^Au: 0-7.9 ^BCu: 7.9-26 ^Cu: 26-78.7	^Au: Brown (10YR 4/3), artifactual coarse sandy loam ^BCu: Brown (10YR 4/3), very artifactual coarse sandy loam ^Cu: Brown (10YR 4/3), very artifactual coarse sandy loam	3-8%	Well drained	Summit, shoulder, backslope, footslope, toeslope
Odorthents, loamy fill substratum, 0-8% slopes (UdkttB)	A: 0-12 C: 12-60	A: Loam C: Silty clay	0-8%	Well drained	Low hills
Urban land, Bigapple substratum, 0-8% slopes (URBHGB)	H1: 0-12 H2: 12-26 2C1: 26-38 2C2: 38-60	H1: Material H2: Gravelly sand 2C1: Loamy sand 2C2: Gravelly loamy sand	0-8%	Varied	Tidal flats
Urban land, Eolian substratum (UREOLB)	M1: 0-6 M2: 6-20 2^C: 20-79	M1: Material M2: Material 2^C: Loamy fine sand	0-8%	Varied	Summit
Urban land, loamy fill substratum, 0-8% slopes (URKTTB)	H1: 0-12 H2: 12-41 C1: 41-60	H1: Material H2: Clay loam 2C1: Silty Clay	0-8%	Varied	Outwash plains
Urban land, wet substratum, 0-8% slopes (URWETB)	M1: 0-6 in M2: 6-20 in 2^Cu: 20 -79 in	M1: Material M2: Material 2^Cu: Very artifactual coarse sandy loam	0-8%	Varied	Summit
Westbrook mucky peat, 0-2% slopes, very frequently flooded (WectA)	0e1: 0-10 0e2: 10-40 0e3: 40-48 Cg1: 48-64 Cg2: 64-99	0e1: Very dark gray (10YR 3/1), mucky peat 0e2: Very dark gray (10YR 3/1), mucky peat 0e3: Dark olive gray (5Y 3/2), mucky peat Cg1: Very dark gray (5Y 3/1), silt loam Cg2: dark gray (N 4/) , silt loam	0-2%	Very poorly drained	Tidal marshes

the APE-Archaeology consists of deciduous trees, manicured and unmanicured grasses, weeds, and other undergrowth. The remainder of the APE-Archaeology is covered in asphalt paved roadways, driveways, parking lots, and structures.

3.2 Pre-Contact Context

Archaeologists organize chronological and cultural information about the pre-Contact period Native American occupants of New Jersey and the Middle Atlantic into three broad time periods: Paleoindian +/-9500B.C.-8000 B.C., Archaic 8000-1000 B.C., and Woodland 1000 B.C.-A.D. 1600 (Chesler 1982; Custer 1996; Grossman-Bailey 2001; Kraft 1986, 2001; Mounier 2003). These periods act as a framework in order to study the approximately 12,000 years of human occupation in the area. The Archaic and Woodland periods are subsequently subdivided into Early, Middle, and Late sub-periods. The prehistoric era is considered to have ended approximately 1550 to 1600 A.D., during the time of initial contact between Native groups and Old World populations, and is followed by a period of extensive colonization by the Dutch, Swedish, and English. More localized settlement pattern studies have helped to refine this Middle Atlantic prehistory with reference to subsistence strategies and occupational patterns in southern New Jersey and more specifically within the Lower Delaware River watershed (Fitting 1979; Mounier 1978; Pagoulatos 1998). A brief summary is presented below.

Soil borings indicate the presence of buried marsh peat within the City of Newark in areas of mapped historic salt marsh. The peat overlies sandy and/or silty sediment, which is underlain by varved clays associated with proglacial lake bottom. Several reports have suggested the potential for alluvial sediments sandwiched between Holocene marsh peat and varved lacustrine clays in the vicinity of the project location to contain Native American archaeological deposits (Boesch 2018; Hunter Research, Inc. 2006; Thieme 2003). Such archaeological deposits may date to the period between late Pleistocene drainage of Proglacial Lake Hackensack and subsequent Holocene marine transgression and marsh formation. Given this chronology, Paleoindian and/or Archaic period archaeological remains may be present in sediment underlying Holocene peat deposits within the project location.

Early human populations inhabiting the Delaware River Valley during the Paleoindian period were most likely organized as small hunter-gatherer bands characterized by low population density and high mobility that occupied caves and rockshelters as well as short-term open-air camps. The lower sea levels that resulted from glacial expansion exposed a broad, flat continental shelf of marshes and meadows cut by deep river channels and branching streams (Kraft 1977; Chesler 1982; Cavallo 1981). Based on the distribution of the over 200 fluted projectiles, primarily Eastern Clovis points and Dalton points, recovered throughout New Jersey, Paleoindian groups may have preferred riverine settings along the Delaware River and its main tributaries. Mason's (1959) study of uncontrolled Paleo-Indian projectile point finds determined that more than 50 percent were collected from within 16.0 kilometers (10.0 miles) of the Delaware River, and an additional 25 percent from along its principal tributaries.

The Early Archaic period was associated with a continuing expansion of forest habitats. Floodplains and river islands were attractive locations for hunter-gatherer camps as upland areas continued to be predominated by boreal forest. However, during this period, limited use of upland lakes and bogs is evidenced by a small number of archaeological sites adjacent to these locales. Sinkhole complexes may have supported clusters of natural ponds throughout the Late Pleistocene and Early Holocene that would have been attractive locations for migratory wildlife and the human populations that exploited them. Such freshwater wetlands added to the diversity of resources available in the periods immediately following the last glaciation and made broad-spectrum foraging a successful subsistence strategy for human populations (Custer 1996; Meltzer and Smith 1986; Cavallo and Mounier 1982; Pagoulatos 1991).

By the Late Archaic, more intensive utilization of sites in preferred ecological settings characterizes Native American settlement patterns. Moreover, use of more productively marginal resource areas increases and regional exchange networks appear for the first time. Overall, climatic changes during

the Late Archaic would have significantly enhanced the productivity of some habitats, such as coastal marshes and mixed interior forests, while diminishing the output of traditional resource rich areas (Carbone 1982; Custer 1996; Pagoulatos 1991). Significant increases in population density are noted in some areas as is a general decrease in mobility. Especially in proximity to riverine settings, large sites characterized by dense scatters of artifacts begin to appear. Use of swamp and marsh habitats intensifies during this period (Custer 1996:188). Finally, the far-reaching distribution of high-quality lithics may suggest the development of regional exchange networks as some groups' mobility patterns brought them into closer contact with other regional communities (Carbone 1982; Custer 1996; Pagoulatos 1991). Economic and technological changes reflect the selection of a broader range of habitats for settlements with larger encampments located near major rivers and small sites near coastal areas, estuaries, freshwater springs, lakes and drainage basin divides to take advantage of resource bases created by the formation of estuarine marshes and the development of oak-hickory forests.

The Early Woodland period (3000 to 2000 B.P./1000 B.C. to A.D. 0) marks the shift to modern climatological and environmental regimes in the Eastern United States. Vast deciduous forests dominate the landscape and temperature and rainfall patterns take on marked seasonal fluctuations. Culturally, the environmental changes of the Early Woodland favored the continued development of trends initiated during the Late Archaic. Intensification in the use of plant foods, as well as a trend toward increasing degrees of sedentism, marks the transition from the Archaic to Woodland eras. Floodplains and their surroundings continued to attract base camp settlement in an even more focused manner than the previous period. Finally, continuing trends of the Late Archaic, exchange networks and mortuary ceremonialism became further elaborated throughout the Early and Middle Woodland (Carbone 1982; Custer 1984, 1996).

The Middle Woodland period (2000 B.P. to 1100 B.P./A.D. 1 to A.D. 900) is represented by settlement patterns focused on the seasonal fission/fusion of hunter-gatherer social groups between large and small camps. Intensified use of coastal habitats is demonstrated in the large-scale exploitation of seasonal resources including shellfish at large coastal sites occupied on a semi-permanent basis. Large shell middens are reported along the estuaries and bays of the Inner Coastal Plain, located on promontories overlooking tidal marshes. Regional models for settlement systems suggest that seasonal fission/fusion of social groups occurred as people occupied different types of sites throughout the year. Large base camps where smaller extended family groups came together are often found in rich environments at mid- to upper tributary stream confluences. Smaller procurement camps and specialized work camps are found in many settings at shorelines, headwaters, and marshes (e.g., Custer 1996; Grossman-Bailey 2001; Mounier 1978; Stewart et al. 1986).

The Late Woodland period is distinguished from earlier periods largely due to the inception of maize horticulture, which originated in Central America and began to be practiced in the Middle Atlantic circa A.D. 900 and perhaps earlier. The growing of maize, and a suite of plants that included beans, pumpkins, squash, and tobacco, had significant implications for Native Americans. Horticultural activities were supplemented by hunting and gathering of food staples, such as large game, freshwater mussels and berries. During the Late Woodland, settlement patterns exhibit a shift away from estuarine settings in favor of more exclusively floodplain locations. Settlement patterns are characterized by unfortified hamlets and camps with a decrease in band territory size as seasonal economic strategies included hunting and foraging in upland areas as well as shellfishing and maize horticulture in riverine settings. Tools include small triangular arrow heads and various implements, such as bone awls, scrapers, celts and ceramic pipes, some with effigies. The prehistoric era ends at the arbitrary date of A.D. 1550 to 1600, about the time of first contact between Native groups and Old World populations, and the period of extensive colonization by the Dutch, English, Swedish and French. The territory surrounding the Holland Tunnel would have been a prime location for the procurement of estuarine resources throughout the Woodland period, and possibly during earlier periods of the Holocene (Historic Conservation & Interpretation, Inc. 1977:10). The Hudson River was an important travel route and figured prominently during the fur trade. Numerous prehistoric sites have been identified on upland and low-lying landscapes close to the Hudson River, including numerous shell midden sites (Cantwell and Wall 2001).

The early period of contact and colonization is also called the "proto-historic" period or the Contact period (Custer 1996). The first European settlements in northern New Jersey were established in the mid-seventeenth century at Bergen Neck and Paulus Hook, which are now part of Jersey City (Grossman and Associates 1992: 21; Wacker 1975: 123). In 1658, several sachems collectively associated with the Hackensack people sold lands likely including the project location on the west side of the North (Hudson) River up to an area north of Siskakes (Secaucus) Island (Wright 1988:18). The Hackensack River was an important travel route and figured prominently during the fur trade.

Edward J. Lenik's research in northern New Jersey (1985, 1989) indicates that areas including the Hackensack River drainage were used by Native Americans until the 1760s. Four Contact period sites have been documented on the Hackensack River, two situated in floodplain settings, and two on terraces (Lenik 1989: 110). One of the sites with extensive information available is the David Demarest House site, which contained both early historic and Late Woodland/Contact period components (Lenik 1985). A buried stone foundation and cobblestone floor or remains of a cellar were located. The recovery of artifacts, such as slip-decorated earthenware, creamware, delftware, scratch blue stoneware, machine cut nails, and ceramic pipe fragments, date the occupation of the Demarest House site to the eighteenth century. Late Woodland/Contact period artifacts include two wampum beads, a scraper, a thinning flake, a core, and a grit-tempered Native American ceramic fragment. Based on the stone tool assemblage, tool manufacture and food processing may have occurred at the site (Lenik 1985: 55). Despite the documentation of early historic sites in places such as Bergen, Paulus Hook and Little Ferry, no base camps or larger, more complex sites suggesting a more permanent occupation have been found for the Contact Period in northern New Jersey.

The Dutch West India Company generally maintained a hostile policy towards Native Americans in what that led to numerous uprisings and the destruction of many early settlements. After the English takeover of New Amsterdam in 1664, the area became more peaceful and settlers moved further west into previously unsettled areas (Fogarty, et al. 1985: 11; Wright 1988).

Portions of the APE-Archaeology lie within former industrial areas that were filled over time during the nineteenth and twentieth centuries, portions of which were once inundated as marshland of Newark Bay. Urban settings with complex industrial land use histories such as the APE-Archaeology often retain little or no prehistoric site potential due to the destruction of the original landscape. Submerged prehistoric sites could be expected in settings that were once coastal landforms during the early to middle Holocene in the absence of any historic dredging or other types of disturbance prior to filling. Although prehistoric artifacts have been discovered in dredged material from the New York Harbor area and can be recovered from fill, man-made landforms created by processes of infilling have no potential to contain intact prehistoric archaeological sites.

3.3 Historic Context

Due to the varying scales on historic maps, the APE-Archaeology is referred to herein and on associated figures of historic maps as the "project location."

Seventeenth- through Early Nineteenth-Century Development

The western portion of the project location lies within the City of Newark which was originally a part of larger territories settled in the late seventeenth century. Formed in 1683, Essex County was one of the earliest counties established in New Jersey and was initially comprised of the townships of New Barbadoes and Acquackanock, Newark, and Elizabethtown. Newark was first settled in May 1666, when a group of 30 Puritan families landed on the south bank of the Passaic River to establish "New Ark" as a township corporation (Wacker 1975; Gall 2014). The earliest colonial settlement area in Newark was along Market Street near present-day Washington and Military parks. The community took its name after Newark-on-Trent, the English home of the town minister, Abraham Pierson (Stellhorn 1982:1). Following the creation of Essex County in 1683, the area became known as Newark

Township. In 1836, Newark Township became the City of Newark. The current city boundaries were established on March 1, 1939 (Snyder 1969:125, 129, 130). The portion of the project location in Newark consisted of Newark Salt Meadows until the 1950s.

The portion of the project location along the east side of Newark Bay is situated within the City of Bayonne, Hudson County. The City of Bayonne is part of an area that was settled in the mid-seventeenth century, when a land patent was granted to Jacob J. Roy by the Dutch West India Company for the peninsular landform surrounded by Newark Bay, New York Bay, and Kill Van Kull, which became known as Constable Hook (Winfield 1874:50; Lurie and Mappen 2000:63). The present-day City of Bayonne was originally part of Bergen Township, which was incorporated by Peter Stuyvesant in 1661 and was made part of Bergen County by 1683 (Snyder 1969:145). Part of the original Bergen Township was later transferred to Hudson County, which was formed in 1840. Bayonne Township was formed from Bergen Township in 1861 and the City of Bayonne (Bayonne City) replaced Bayonne Township in 1869 (Snyder 1969:145).

The eastern terminus of the project location is situated within the City of Jersey City which was formed within Bergen Township, Bergen County in 1820 (Snyder 1969:147). Located along the Hudson River's western shore, settlement within Jersey City began shortly after the Dutch West India Company established a trading post at New Amsterdam. In 1629, the Company granted land between present-day Jersey City and Bayonne, known as the Patroonship of Pavonia, to Michael Pauw, a Hollander. Although Pauw may not have settled his land, other Dutch settlers established plantations near the Hudson River. The Dutch were encouraged to settle by the patroonship system that granted free land to those bringing other settlers with them. These settlements include Communipaw Harsimus, near present-day Harsimus Cove, the brinkdorp in Bergen (Burrow 2013) and Paulus Hook. With the exception of the fortified village at Bergen in present-day Jersey City, the other settlements were characterized by scattered farms that extended the length of the historic lower Hudson shoreline, and were based economically on limited agriculture and fishing (Panamerican Consultants, Inc. 2003). A Dutch massacre of Hackensack Indians led to years of Indian Wars that resulted in the destruction of existing farmsteads, preventing further settlement. Governor Peter Stuyvesant repurchased the land south of Weehawken between the Hudson and Hackensack rivers, and in 1660 established the fortified village of Bergen northeast of the project location, generally acknowledged to be New Jersey's first permanently occupied settlement (Wacker 1975:123). The transition into English rule in 1664 passed smoothly in Bergen, as residents signed an oath of allegiance to the crown and were allowed to establish a Dutch Reformed Congregation, the first church in New Jersey (Federal Writer's Project 1939:273). In 1820, Jersey City was incorporated, and later encompassed the former municipalities of Bergen City, Hudson City, Van Vorst Township, and Greenville Township (Winfield 1874:278).

The Newark portion of the project location was situated within the Newark Salt Meadows and the peninsula upon which Jersey City and Bayonne were established was considerably narrower during the eighteenth century than it is today prior to man-made land that extended the shoreline east and west (Figure 3.3; Hills 1781). Oystering and shad fishing were some of the economic pursuits undertaken by the early occupants of Bergen Township on the east side of the Newark Bay. Under British colonial rule, the peninsula that comprised the southern portion of Bergen Township developed as a trading post called Bergen Neck. Overall, settlement was light during the late eighteenth century with populations centered near Bergen Village (i.e., Bergen) and Communipaw, northeast of the project location. Early roads extended south from the settlement at Bergen towards Paulus Hook, Communipaw, and the Ferry to New York (Hills 1781).

Revolutionary War battles and skirmishes were fought throughout the northern portion of New Jersey. Two major skirmishes were fought in proximity to the project location, one within the Newark Bay in 1781 and another in 1782, along the east bank of the Newark Bay (John Milner and Associates 2009). A war-related site/resource/landmark from 1777 is also mapped near the eastern terminus of the project location (John Milner and Associates 2009). Paulus Hook, northeast of the project location, contained extensive Revolutionary War-era defensive fortifications on the uplands, which were bombarded and captured by the British in 1776 (Hills 1782). The Paulus Hook fortifications

were held by the British until 1783 (Alden 1945). In addition, on July 4, 1776, General Hugh Mercer was ordered to place a guard of 500 men at Bergen Neck, south of the project location, due to fear of an attack by the British from Staten Island. According to Lurie and Mappen (2000:63), British forces subsequently took over the fortifications at Bergen Neck and renamed it "Fort Delancey." According to a map depicting Bergen Neck during the Revolutionary War provided in Whitcomb (1904), Fort Delancey was located 1,500 feet south of the project location.

Throughout the eighteenth and early nineteenth century, Bergen Township's western farmlands and mudflats remained relatively unchanged (Panamerican Consultants, Inc. 2003). Oystering in the Communipaw Cove and other portions of the Hudson River was one of the area's earliest and most important industries, and farming was the dominant land use in the adjacent upland.

Although positioned along a navigable portion of the Passaic River, Newark remained largely isolated from the rest of New Jersey due to the surrounding salt marshes and a sandbar in Newark Bay (Bloomberg 1974:19). The regional transportation network in the eighteenth century incorporated plank roads and ferries to link Newark with other population centers. For example, a plank road ran between Newark and Paulus Hook (now Jersey City) and ferry services were established crossing the Passaic and Hackensack rivers after 1765 (Atkinson 1878). The expanding transportation network allowed Newark to become a central hub for the marketing of farm products, particularly poultry and dairy.

The industrial development of Jersey City began on a large scale in the 1820s with the opening of the Dummer Glass Works and the Jersey City Pottery Company (Van Winkle 1924). In the early nineteenth century, plans were drafted to establish a grid-system of roadways within the eastern portion of Jersey City, north of the project location near Paulus Hook extending to Hoboken (Burr 1832). The proposed expansion of the city grid also included 2,000 feet of the Hudson riverfront to be infilled as made-land (Burr 1832). Early nineteenth-century maps depict the location of eastern shoreline of Jersey City, south of Caven Point and east of the project location, running adjacent to and parallel with the route of the Morris Canal. Nearby population centers of Communipaw, Pamrepaw, and Newark were all well-established by the 1830s (Figure 3.4-3.5; Gordon 1833, United States Coastal Survey 1837). Population increased upon the establishment of the Morris Canal in Newark, Bayonne, and Jersey City in the 1830s as discussed below. With the exception of the Morris Canal and one road (later known as Avenue C), no other infrastructure or buildings stood within the project location at this time.

In 1834, an agreement was made to establish the border between New York and New Jersey in the middle of the Hudson River, which opened new possibilities to Jersey City (Panamerican Consultants, Inc. 2003). Prior to this agreement, New York City held rights to both sides of the river, denying Jersey City key waterfront opportunities. Upon the 1834 agreement, railroad moguls and companies competed for a spot on the western shores; Jersey City's location on one of the most important harbors in the country made it an optimal terminal for rail lines and freight shipment. Jersey City's mud flats along the Hudson River quickly became the heart of the region's industrial development (Panamerican Consultants, Inc. 2003). This industrial development led to continued settlement throughout Jersey City and Bayonne. Meanwhile, the population of Newark was focused west of the New Jersey Railroad and the City of Newark slowly began expanding east, though the marshland along the Newark Bay remained undeveloped until the mid-twentieth century (Figure 3.6; Hassler 1846; Sidney 1849, 1850; Walling 1859, 1860; Dripps 1860). In 1846, the project location west of Avenue C in present-day Jersey City is mapped as wooded and mostly undeveloped, and the former Newark Bay shoreline was significantly further east than its present-day location (Hassler 1846). By 1849, a building had been erected near the project location in Bayonne and several in the Jersey City portion, while the Newark side of the project location continued to be an expansive meadow (see Figure 3.6). In 1860, the portion of the project location east of the Newark Bay was undeveloped with the exception of Avenue C and the Morris Canal (Figure 3.7; Dripps 1860).

By the late nineteenth century, nearly the entirety of Jersey City had been mapped out for new city streets and was subdivided into numerous house lots (Figure 3.8; Hopkins 1873). The waterfront along the Hudson River had been expanded eastward with man-made land by approximately 2,000 feet to

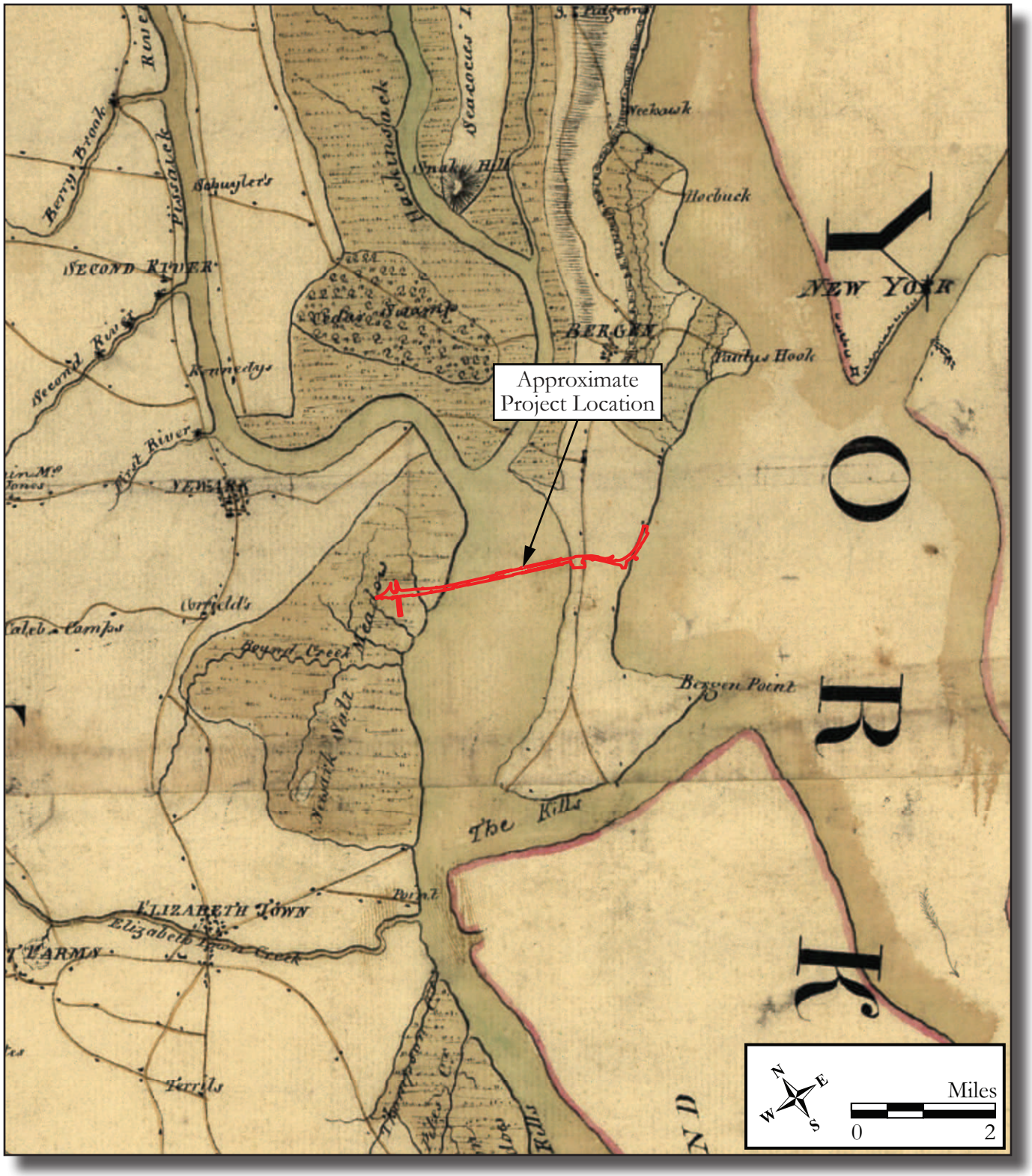

Figure 3.3: 1781 J. Hills, *A Sketch of the Northern Parts of New Jersey.*

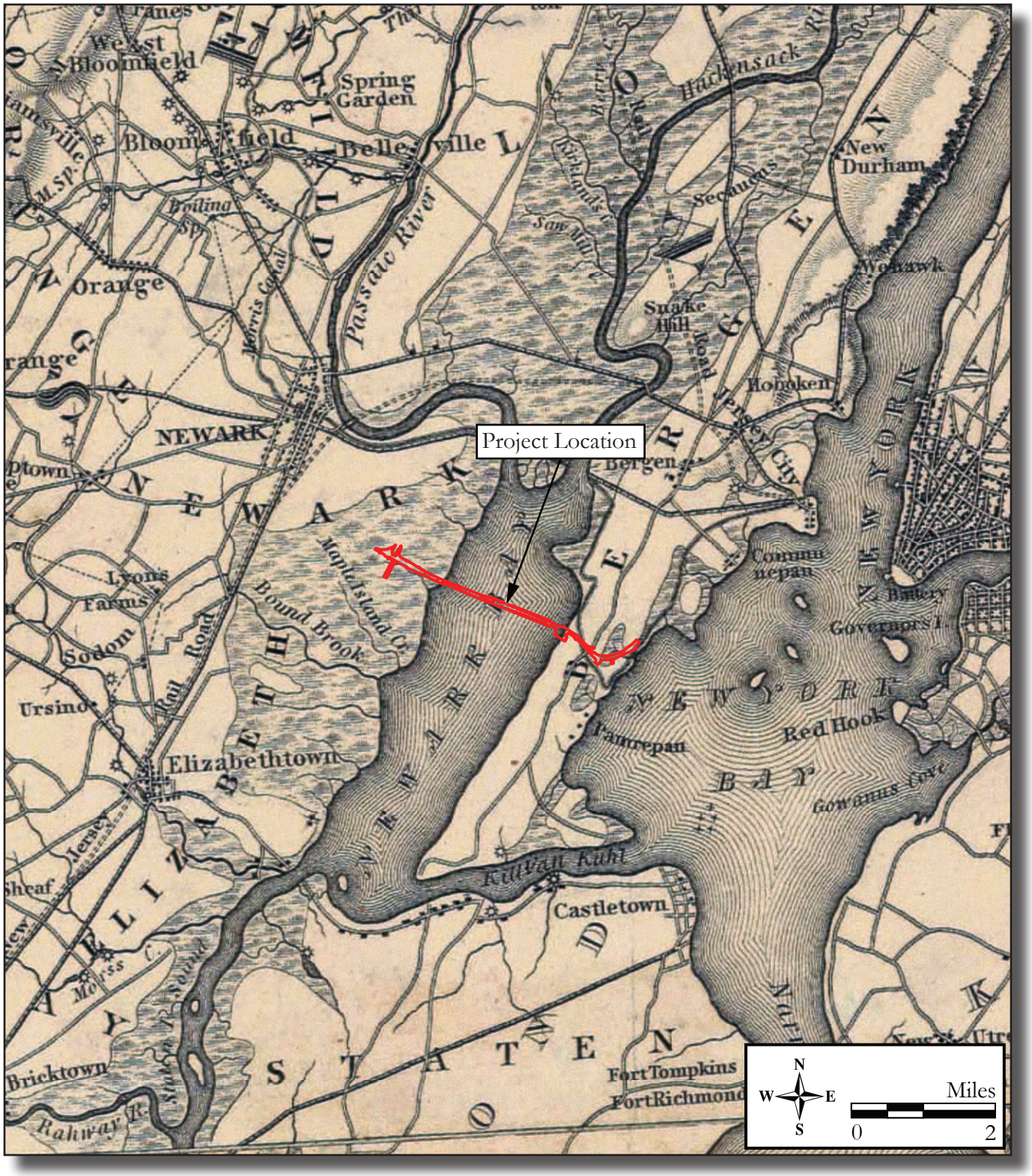

Figure 3.4: 1833 T. Gordon, *A Map of the State of New Jersey with parts of the Adjoining States.*

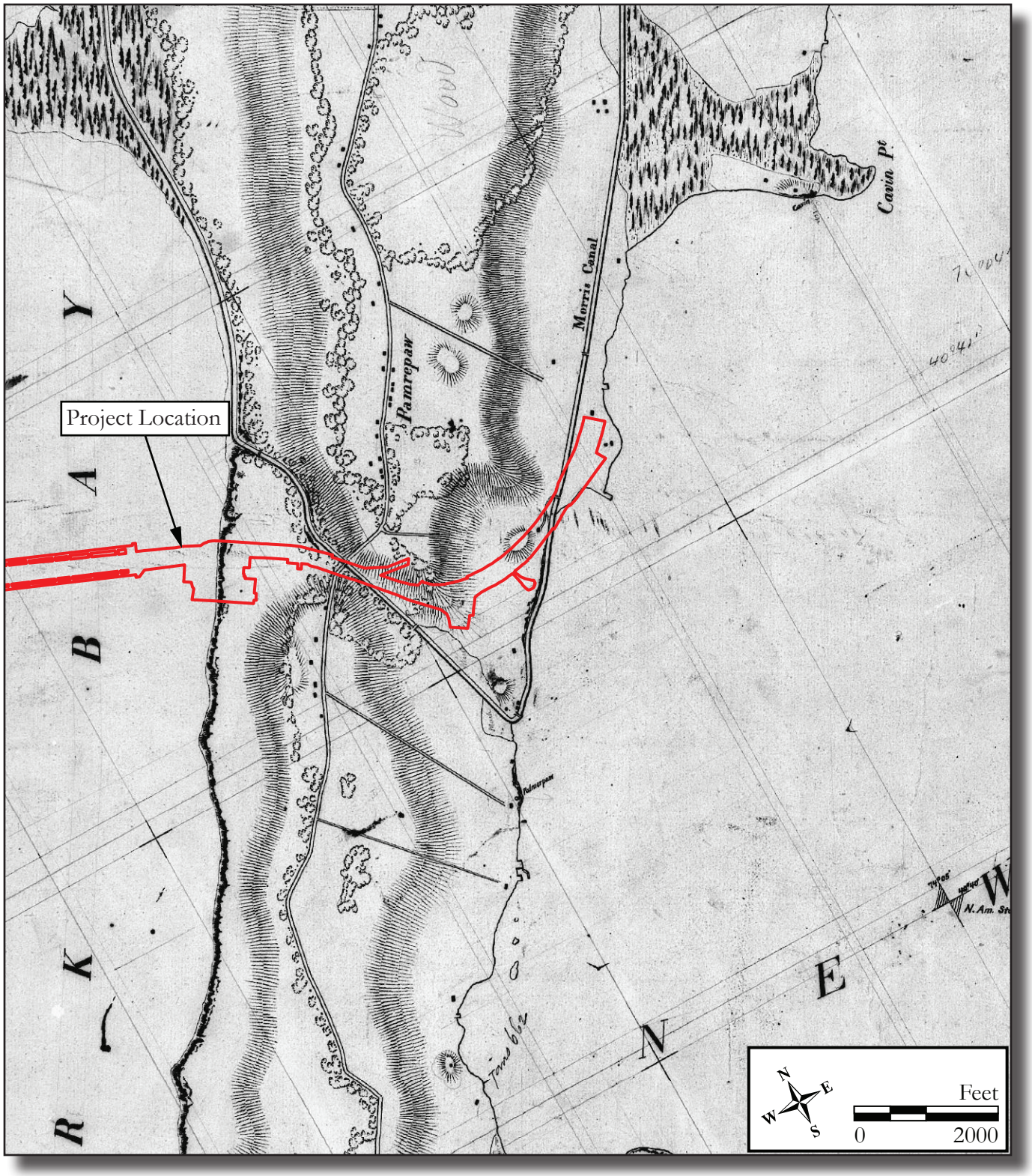

Figure 3.5: 1837 United States Coastal Survey, *U.S. Coast Survey from Jersey Pont to Constable Point, New York. Map T-18.*

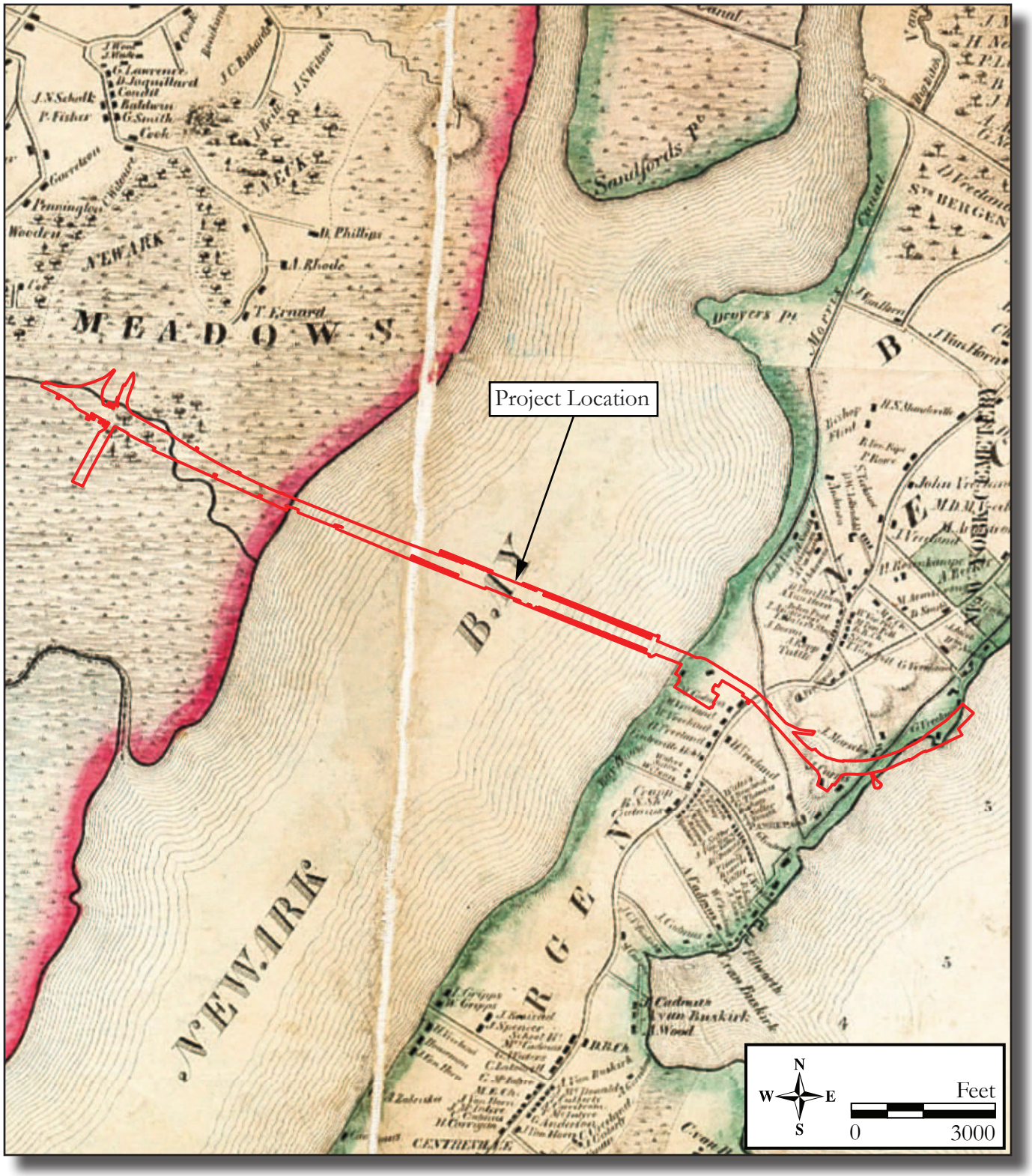

Figure 3.6: 1849 J.C. Sidney, *Sidney's map of Twelve Miles Around New-York.*

Figure 3.7: 1860 M. Dripps, *Map of the Cities of New York, Brooklyn, Jersey City, Hoboken & Hudson City.*

Figure 3.8: 1873 G.M. Hopkins, *Atlas of the Late Township of Greenville and the state of New Jersey, Greenville and Jersey City.*

accommodate additional residential and commercial districts, docks, and railroad depots (Hopkins 1873). Additionally, by the 1880s, a gridded street pattern had been planned along the eastern portion of Newark, along the Newark Bay, though it does not appear these roadways were ever constructed (Figure 3.9; Pidgeon 1881; Vermeule 1889; Scarlett and Scarlett 1889; U.S.G.S. 1905). By 1889, present-day John F. Kennedy Boulevard had been constructed and a topographic map reveals that several gullies and knolls were present along the eastern shoreline of the Newark Bay in present-day Bayonne (see Figure 3.9). The Jersey City road network was well established by the later part of the nineteenth century and a series of railroads were constructed within the southern part of Jersey City, the eastern part of Newark, and the northern section of Bayonne. These include: the Central Railroad of New Jersey (CRRNJ), National Docks Railway, and the Lehigh Valley Terminal Railway, New York Bay Railroad and the Newark Branch of the CRRNJ (Figure 3.10-3.11; Fowler 1894; Hopkins 1908, 1909; U.S.G.S. 1900; Sanborn Map Company 1898; Robinson 1901). Late nineteenth-century advances in transit and hauling via rails and freight canals transformed Jersey City from an agricultural settlement to a major manufacturing center and transport depot, with an exponentially growing population. Late nineteenth-century Sanborn Fire Insurance maps of Bayonne and Jersey City reveal that much of the project location was undeveloped except for the Morris Canal, a bridge carrying Avenue C over the canal, a residence known as Woodside Cottage that stood at the intersection of Fifteenth Street and Avenue D, a dwelling at the corner of West 59th Street and Hudson Boulevard (present-day John F. Kennedy Boulevard), and railroad-related structures in the northeastern part of the APE-Archaeology (see Figure 3.10). The Newark Bay shoreline within Bayonne had yet to expand west to its present-day location by 1898 (see Figure 3.10).

Construction of the Morris Canal

The Morris Canal transects the eastern part of the project location, travels south through Fiddler's Elbow, then extends north, parallel to the eastern shoreline of Jersey City, and empties into the Morris Canal Basin. On December 31, 1824, the New Jersey Legislature issued a charter for the Morris Canal and Banking Company (MC&BCo) to build a canal across northern New Jersey, from the Delaware River on the west, through Newark, to the Passaic River on the east. This route was later extended to Jersey City through the northern-most tip of Bayonne. The purpose of the canal was to transport anthracite coal from the Lehigh Valley of Pennsylvania to the iron industry of New Jersey and beyond to the industrial and urban center of New York (Kalata 1973, 1983; Clement 1983). The MC&BCo began construction of the Morris Canal in 1825. The canal opened in 1832 with its eastern terminus in Newark. An incredible engineering feat, the Morris Canal covered a distance of 90 miles from Phillipsburg to Newark and crossed the region's hilly topography and range of elevations using a complex system of locks and inclined planes to accommodate the considerable change in elevation over a relatively short distance (Lane 1939: 224-230). In 1828, the MC&BCo was granted the right to extend the canal east from Newark to Jersey City and the harbor of New York. The "Morris Canal Little Basin" was built in 1828 near the Morris Canal's outlet at the Hudson River (Kalata 1973; NJSA 2003). Construction continued throughout this period, with the first sections opening in 1829; however, a lack of funds delayed its completion. In 1832, the canal was finally put into full service from Phillipsburg to Newark (Kalata 1973; Lane 1939:230-231). In 1838, the Morris Canal extended to Jersey City from its initial terminus in Newark. The canal opened up the eastern reaches of Newark's undeveloped farms, woodlands, and salt marshes to industrial and residential development.

In 1844, the MC&BCo announced its bankruptcy and reorganized. Soon after, the Morris Canal was widened to accommodate larger boats. The increased capacity of the Morris Canal and wider variety and types of vessels that could travel the canal led to a peak in operations in 1866, when approximately 889,220 tons of freight goods were shipped along the canal (Historic Conservation and Interpretation, Inc. 1977:112). Population increase in the vicinity of the project location was likely related to the success of the Morris Canal. The use of the canal began to dwindle with the construction of the railroads, as trains could transport coal from Phillipsburg to Jersey City in eight hours, a trip that took five days by canal (Historic Conservation and Interpretation, Inc. 1985:100). In 1870, the New Jersey legislature allowed the Morris Canal and Banking Company to lease its property, and the Lehigh Valley Railroad took over control of the canal in 1871 (Kalata 1973). The canal was abandoned and infilled during the first half of the twentieth century (U.S.G.S. 1905, 1947b).

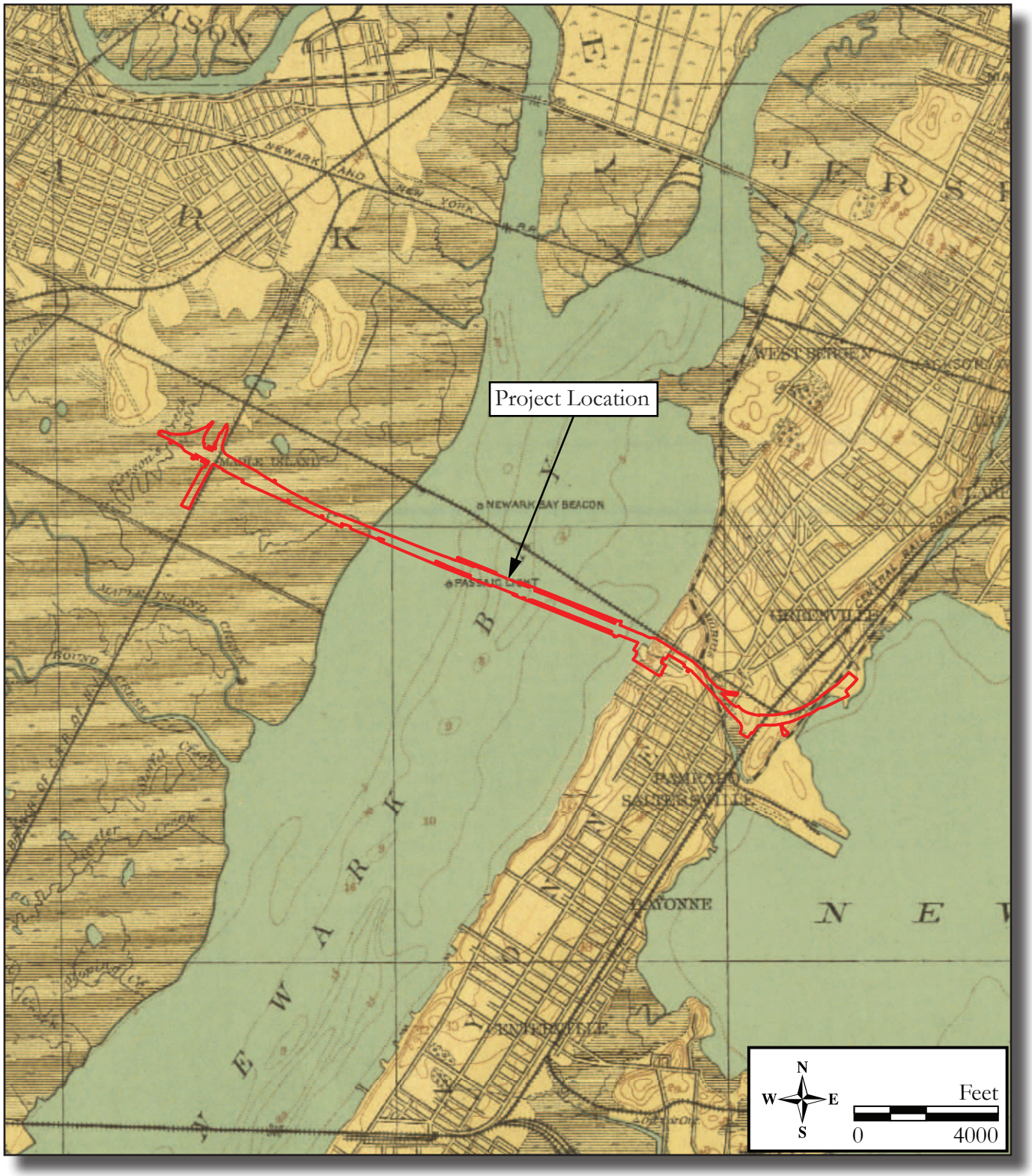

Figure 3.9: 1889 C.C. Vermeule, *A Topographical Map of the Counties of Bergen, Hudson and Essex, with parts of Passaic and Union, Atlas Sheet No. 7.*

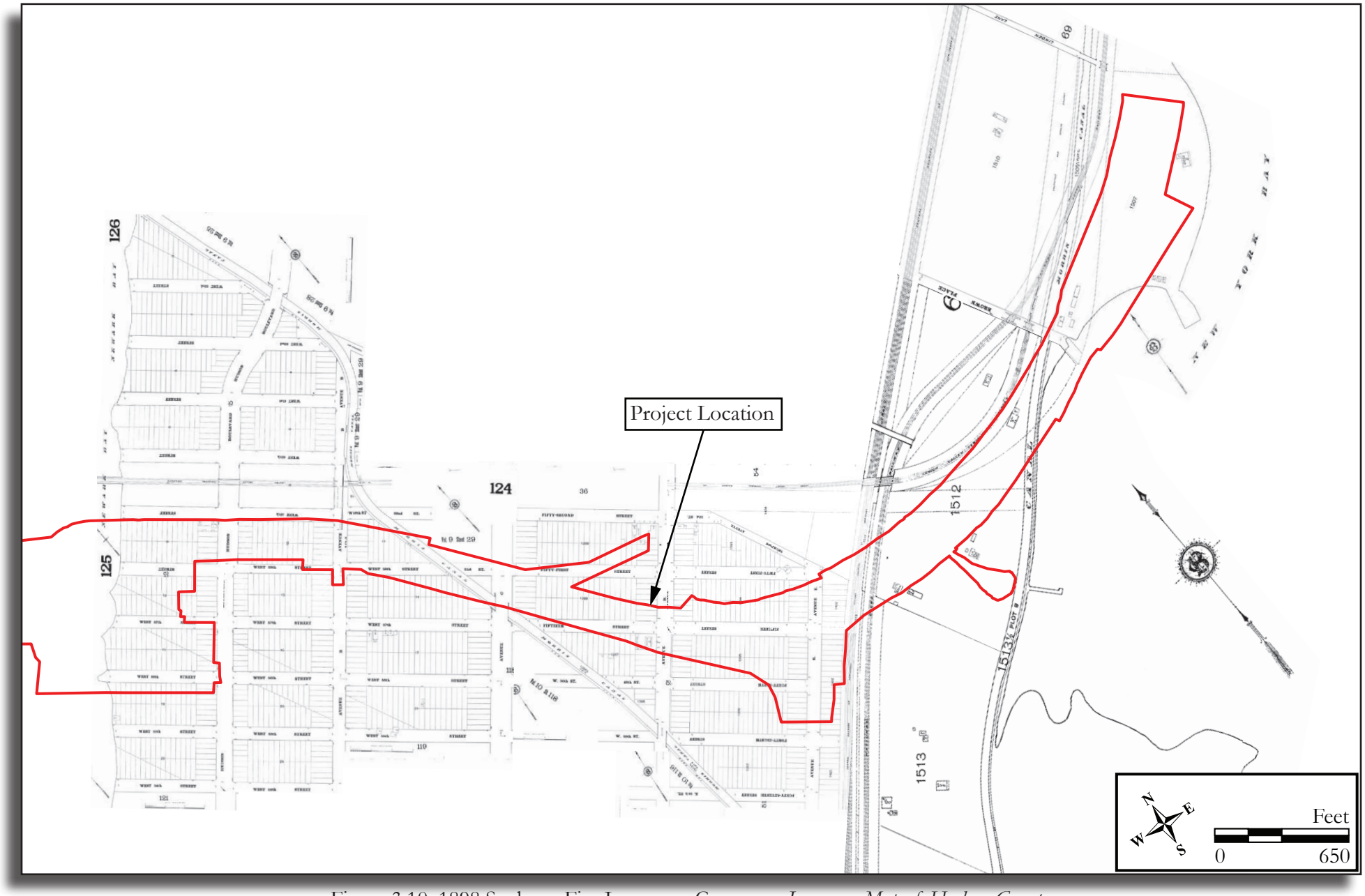

Figure 3.10: 1898 Sanborn Fire Insurance Company, *Insurance Map of Hudson County*.

Railroad Expansion in Jersey City, Bayonne, and Newark

Railroads were pivotal to the growth of the cities of Bayonne, Jersey City, and Newark in the late nineteenth and early twentieth centuries. In 1834, following the construction of the Morris Canal, the tracks of the New Jersey Railroad (NJRR) were laid through Newark (Kalata 1973; Martin 1836). The New Jersey Railroad, the third railroad incorporated in the state, became the first to reach Jersey City in 1834. By 1836, the railroad had reached Bergen Hill and, by 1838, was cut through the traprock to arrive at the Hudson River waterfront (Lane 1939:312). As a result of the greatly improved transportation infrastructure, the Morris & Essex Railroad (M&ERR), later the Delaware, Lackawanna, & Western Railroad (DL&WRR), opened a line connecting Newark to Orange in 1837 (Richard Grubb & Associates, Inc. 2000).

The New York and Erie Railroad (NYERR) filled portions of the Jersey City shoreline and established a sprawling railroad terminal facility along the Hudson River waterfront (Hungerford 1946:132-133). The Central Railroad of New Jersey (CRRNJ) transected the Newark portion of the project location and followed a route through Newark over the Passaic and Hackensack rivers, roughly 1.75 miles north of the project location. By the 1870s, 14 rail lines terminated in Jersey City, redeveloping and reshaping the historically agricultural character of Jersey City's eastern shores with infill, rail line construction, and an immense increase in industrial traffic (Panamerican Consultants, Inc. 2003). While small scale shops and factories had been established in Jersey City by the early nineteenth century, the railroads brought full industrialization to the city. Industrial plants and mills manufacturing Colgate soap, Dixon pencils, steel, paper, and beer, to name a few, abutted the railroad corridors and the extensive waterfront replete with wharfs, piers, and docks serving cargo ships, merchant vessels and luxury ocean liners (Federal Writer's Project 1939:275).

The Lehigh Valley Railroad was established in 1855 and was extended into New Jersey in 1875. The passenger trains running between Newark and Jersey City were operated by the Pennsylvania Railroad. The rail line carried freight trains beginning in the 1960s and was taken over by the Consolidated Rail Corporation (Conrail) in 1976 (Lurie and Mappen 2000). Freight terminals and passenger stations were abandoned, tracks were torn up, and piers were allowed to deteriorate. By the end of the 1960s, Jersey City freight terminals had become derelict and dilapidated, due in part to the rise of the trucking industry and, more specifically, the establishment of Port Newark that could handle the new, vastly more efficient container ships (French 2002:19). In 1967, the CRRNJ filed for bankruptcy, followed by the LVRR in July of 1970 (New York Times 1970). Recent decades have witnessed an urban renaissance in Jersey City as abandoned freight terminals, warehouses, and factories have been converted into apartments and office space, and a new skyline continues to rise on the west bank of the Hudson River.

Twentieth-century to Recent Development

The western side of the Newark Bay remained marshland well into the twentieth century while Bayonne and Jersey City continued to grow into residential, commercial, and industrial centers (Figure 3.11-3.14; Robinson and Tenney 1901; Hopkins 1908, 1909, 1919). The project location remained mostly unchanged in 1908/1909 relative to map documentation in 1898, though additional railroad-related buildings, including a railroad turntable, were constructed in the northeastern part of the project location (see Figures 3.10-3.13). Between 1909 and 1919, the Hudson County Parental School was constructed in Bayonne within the project location (see Figure 3.14; Hopkins 1919). The brick building was set back from Hudson Boulevard in an L-shaped configuration, while several wood frame outbuildings stood nearby.

During the first 15 years of the twentieth century, Port Newark was constructed on 156 acres of reclaimed land which was creating using excavated material taken from a channel dug within the Newark Bay. The reclaimed land eventually sat six feet above the surrounding marsh (New York Times 1915). Newark Airport was constructed to the southwest of the project location and by the 1930s, had become the busiest commercial airport in the country (Lurie and Mappen 2000: 561; U.S.G.S. 1947a; Figure 3.15). Much of the remaining marsh north of Bound Creek, had been filled and built upon by 1955 (Figure 3.16; U.S.G.S. 1947a, 1955a).

Figure 3.11: 1901 Robinson and Tenney, *Atlas of the City of Newark*.

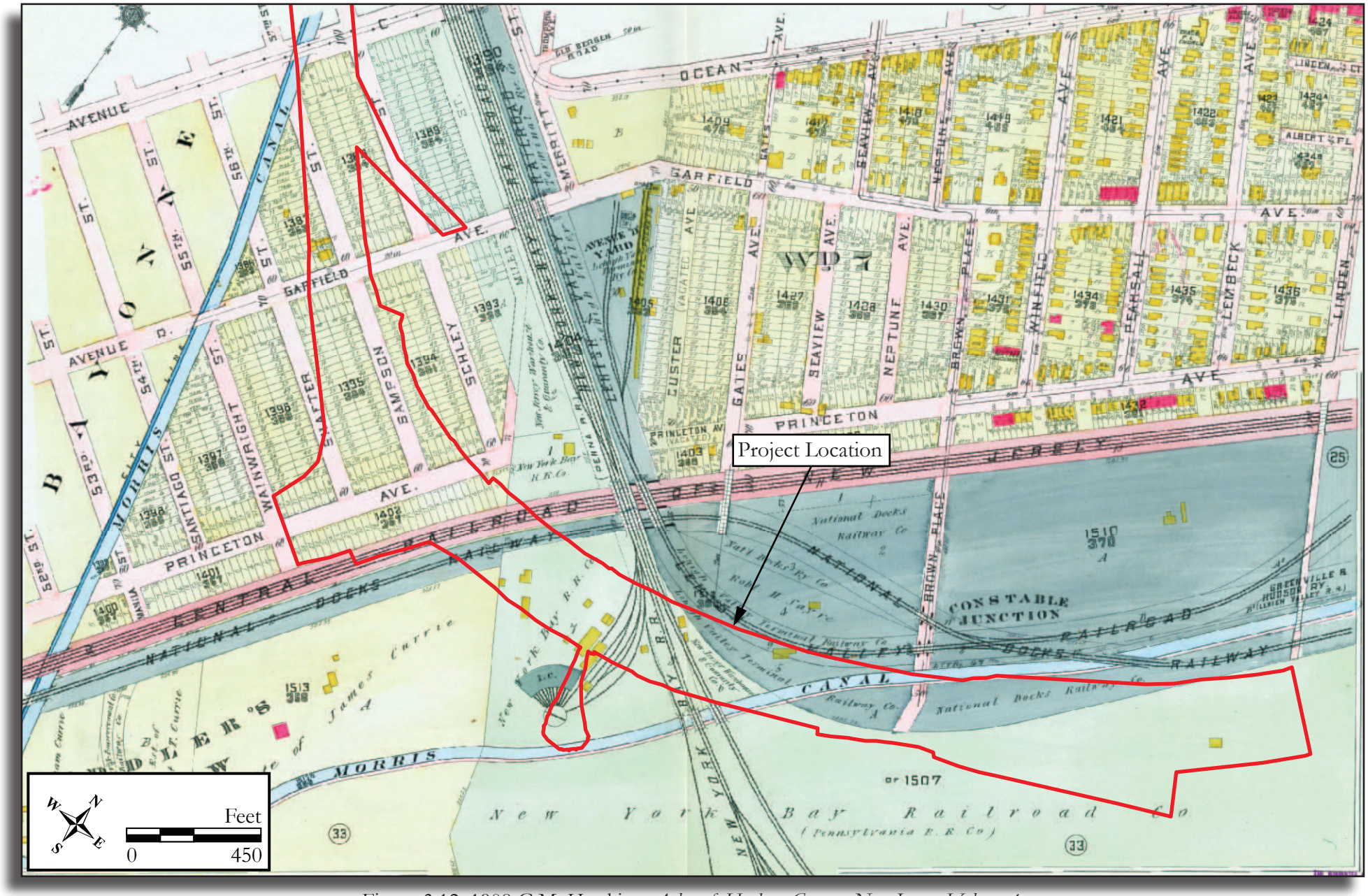

Figure 3.12: 1908 G.M. Hopkins, *Atlas of Hudson County, New Jersey, Volume 1.*

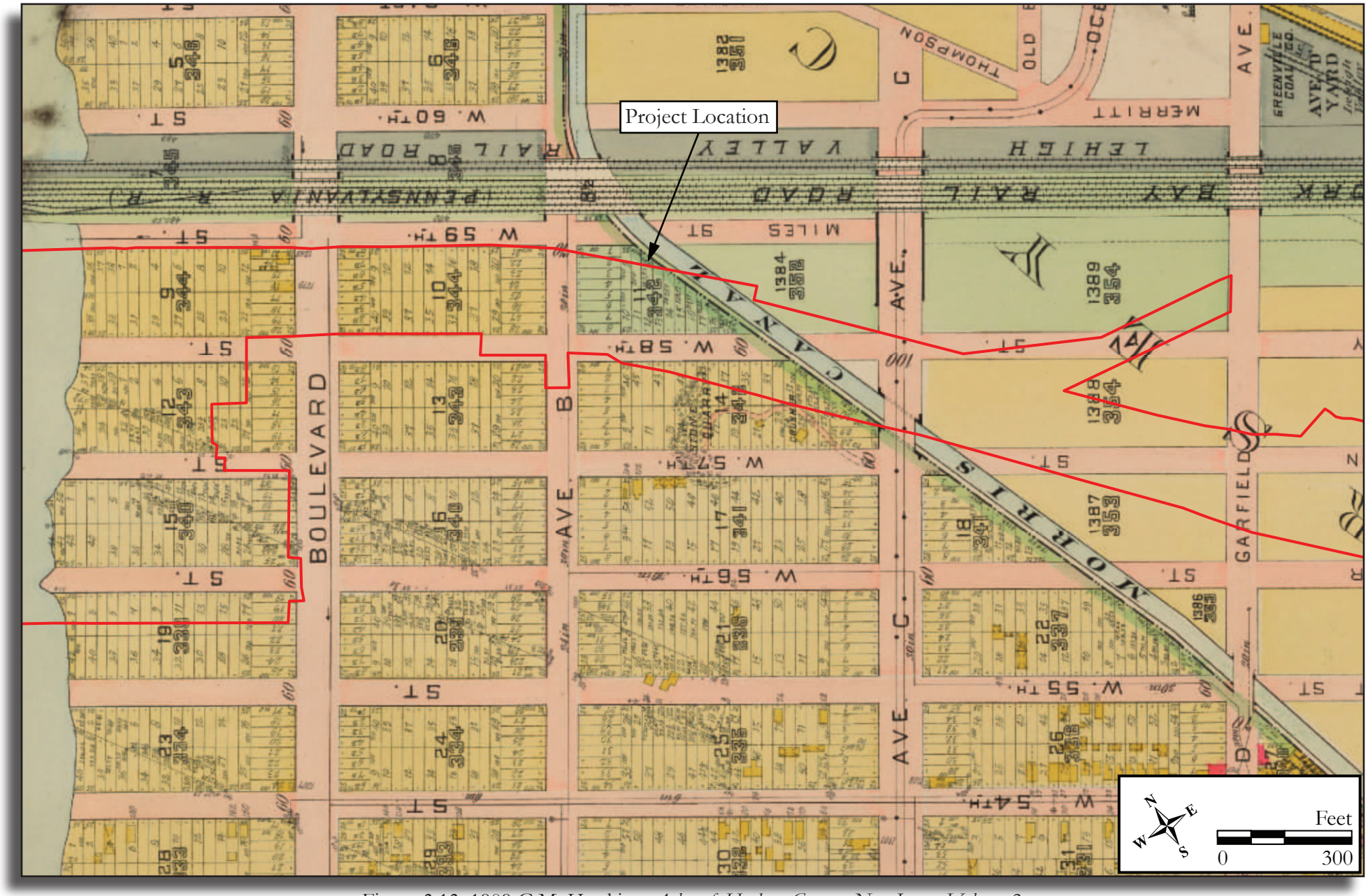

Figure 3.13: 1909 G.M. Hopkins, *Atlas of Hudson County, New Jersey, Volume 2.*

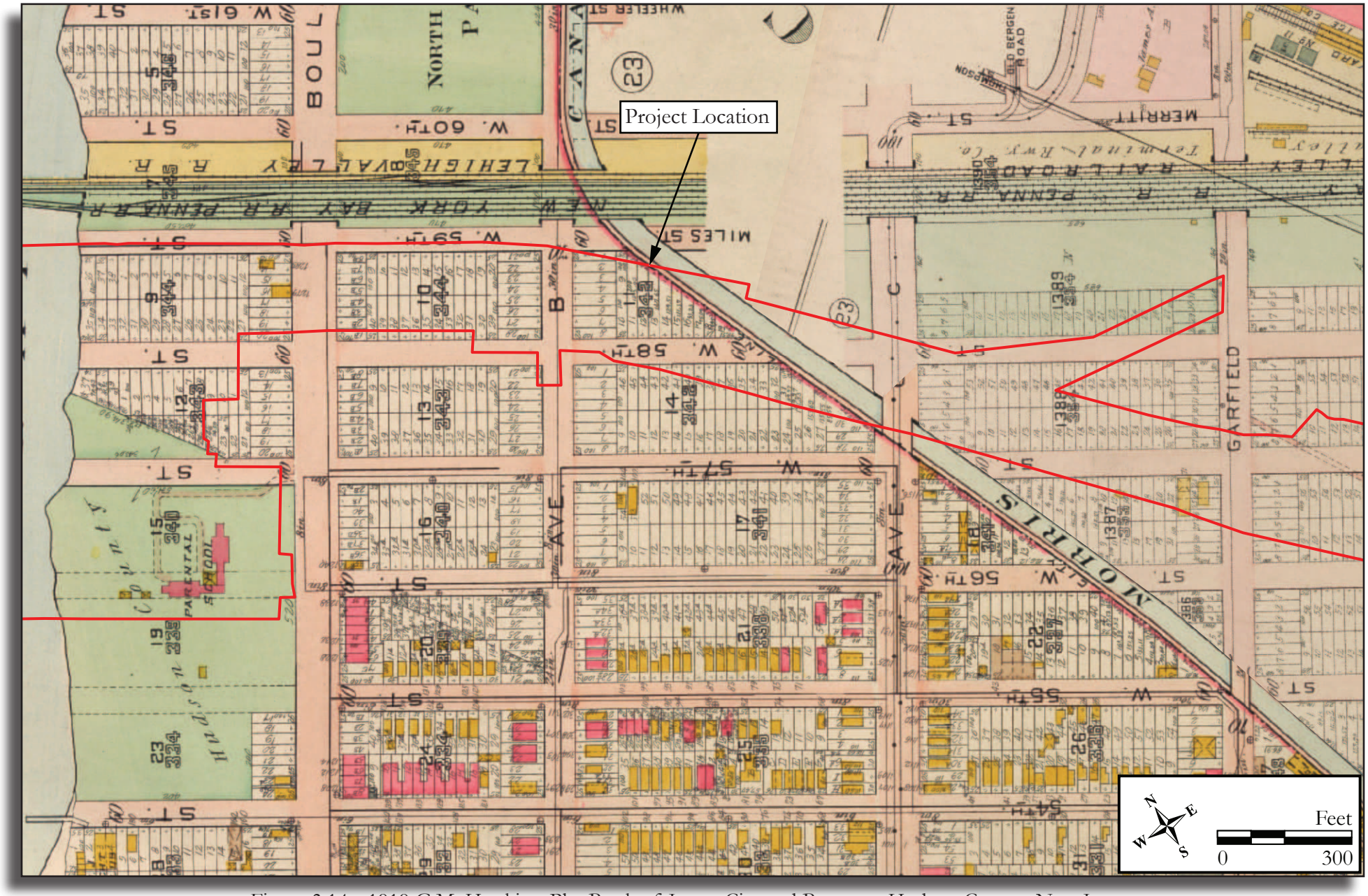

Figure 3.14a: 1919 G.M. Hopkins, Plat Book of Jersey City and Bayonne, Hudson County, New Jersey.

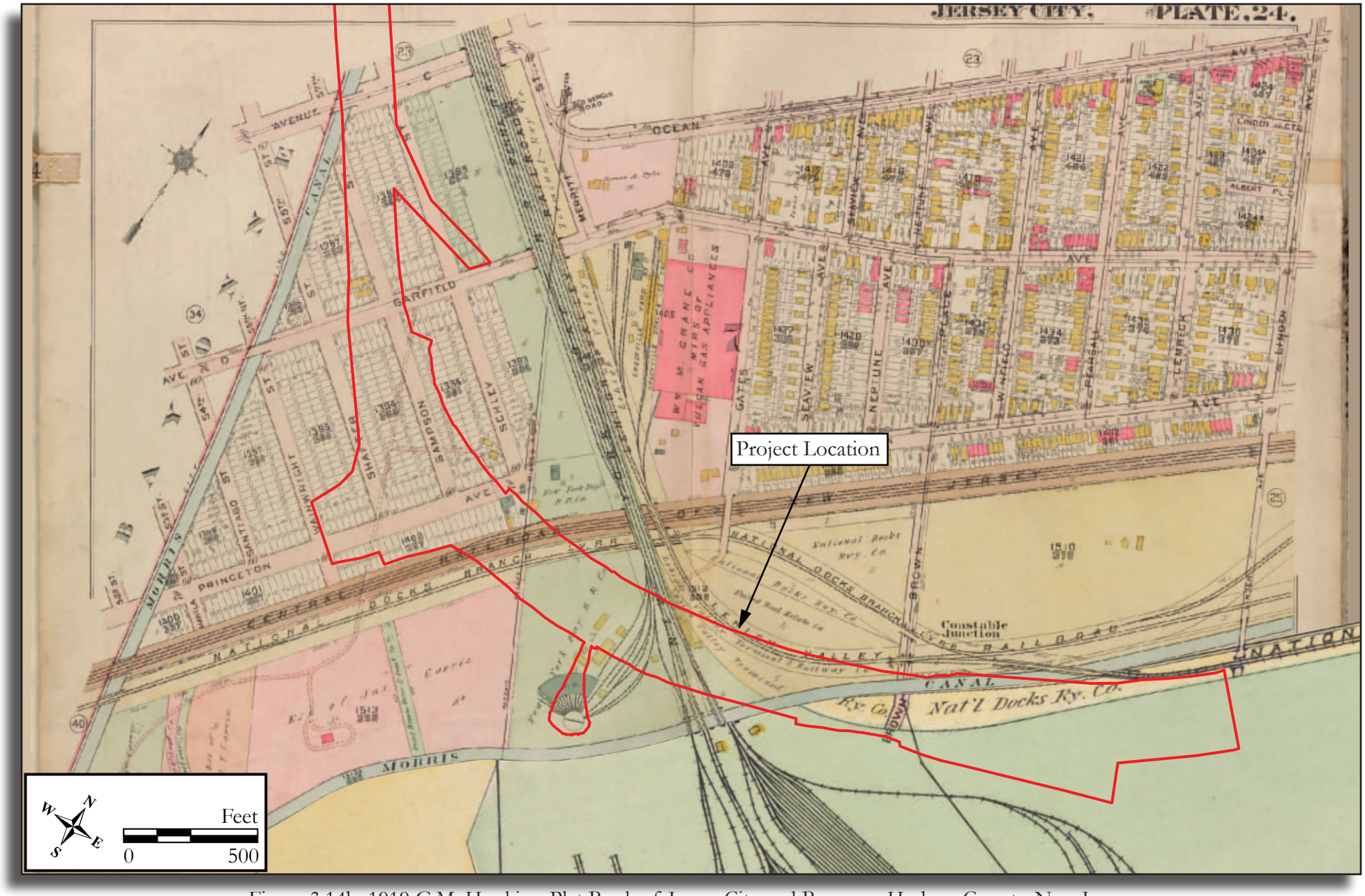

Figure 3.14b: 1919 G.M. Hopkins, Plat Book of Jersey City and Bayonne, Hudson County, New Jersey.

Jersey City's pronounced growth, combined with New York City's ascendancy as the economic capital of the nation, spurred the need for a better transportation connection between the two. Among proposals for the development of Jersey City was an extensive land reclamation plan for marshland along Newark Bay (Muirhead 1910). After World War I, commercial, residential, and industrial development in the vicinity of the project location was driven by plans to dismantle and repurpose portions of the Morris Canal as detailed in the Jersey City's comprehensive development plan, published in 1920 (Board of City Commissioners of Jersey City 1920). Among other things, this plan called for enhancing the eastern shoreline of Newark Bay by replacing the canal with a combination motor truck speedway and a beltline railroad. The plan also called for filling in the tidal lands surrounding Droyer's Point and constructing a massive marine waterfront development on the reclaimed land between the Newark & New York Branch Bridge on the north and the Bayonne City line on the south (Board of City Commissioners of Jersey City 1920:76-84). During the 1920s, Jersey City appropriated funds to begin the process of reclaiming lands along the Newark Bay waterfront and for transportation improvements like the Holland Tunnel. The opening of the Holland Tunnel in 1927, to the east of the project location, signaled the beginning of a complex road network in and around Jersey City to provide vehicular access to New York City. The post-World War II expansion of automobile use and highway construction came at the expense of railroads.

Construction of the New Jersey Turnpike

In 1948, Governor Alfred E. Driscoll presented a proposal in a special session of the New Jersey Legislature to create the New Jersey Turnpike Authority, an agency that would facilitate the financing of truck roads by the sale of revenue bonds to private investors. This legislation, known as the New Jersey Turnpike Act, was officially approved in August of 1948 (Jersey Journal [JJ], 28 August 1948:6). The modern, multi-lane thoroughfare would split the state lengthwise and extend 118 miles from north of the George Washington Bridge to Deepwater along the Delaware River. The new highway was designed to be the most modern in the world for safe and rapid transportation and incorporated state-of-the-art concepts in highway schematics. The northern section included six lanes and the southern section had four with adequate room for possible additions as deemed necessary. The ROW travel lanes were constructed with five- and 10-foot shoulders, "easy grades," long and sweeping curves to maintain uninterrupted speed, signage, towing services, and emergency telephones, as well as amenities including restaurants and modern service facilities (Trenton Evening Times [TET] 11 October 1949:21).

In order to finance the $230 million endeavor, a plan was developed on a "forward commitment" basis. This plan would enable the NJTA to obtain commitments for the total financing of the project, including provisions for the issuance of bonds and for a stand-by fee of one-half percent on the balance of the NJTA's total financial requirements (Noble 1951). In February of 1950, the NJTA announced the successful conclusion of negotiations with 53 institutional investors who would underwrite its financial needs. The agreement was formally signed at the Chase National Bank in New York, allowing for the immediate commencement of construction (TET 17 February 1950:1). Construction officially began on the NJT that March. The entire 118-mile length of the NJT took 25 months to construct and officially opened on January 15, 1952 (New Jersey Turnpike n.d.).

The construction of the NB-HCE began in 1953 and connected the Newark Airport to Hudson County, through Jersey City, to the Holland Tunnel and into New York City (Lapolla and Suszka 2005; Figures 3.16-3.18). The NB-HCE is roughly 8.1 miles long, almost 80 percent of which was constructed on elevated columns (Higgins 2022; see Figures 3.15-3.16). It was hoped that its construction would also help to alleviate traffic on local roadways (Lapolla and Suszka 2005).

Historic Map Review

Eighteenth Century

During the late eighteenth century, the western portion of the project location was situated entirely within the Newark Salt Meadows. A roadway connecting the community of Bergen to the southern tip of the Bayonne peninsula was present near the eastern shore of the Newark Bay. It is likely that a

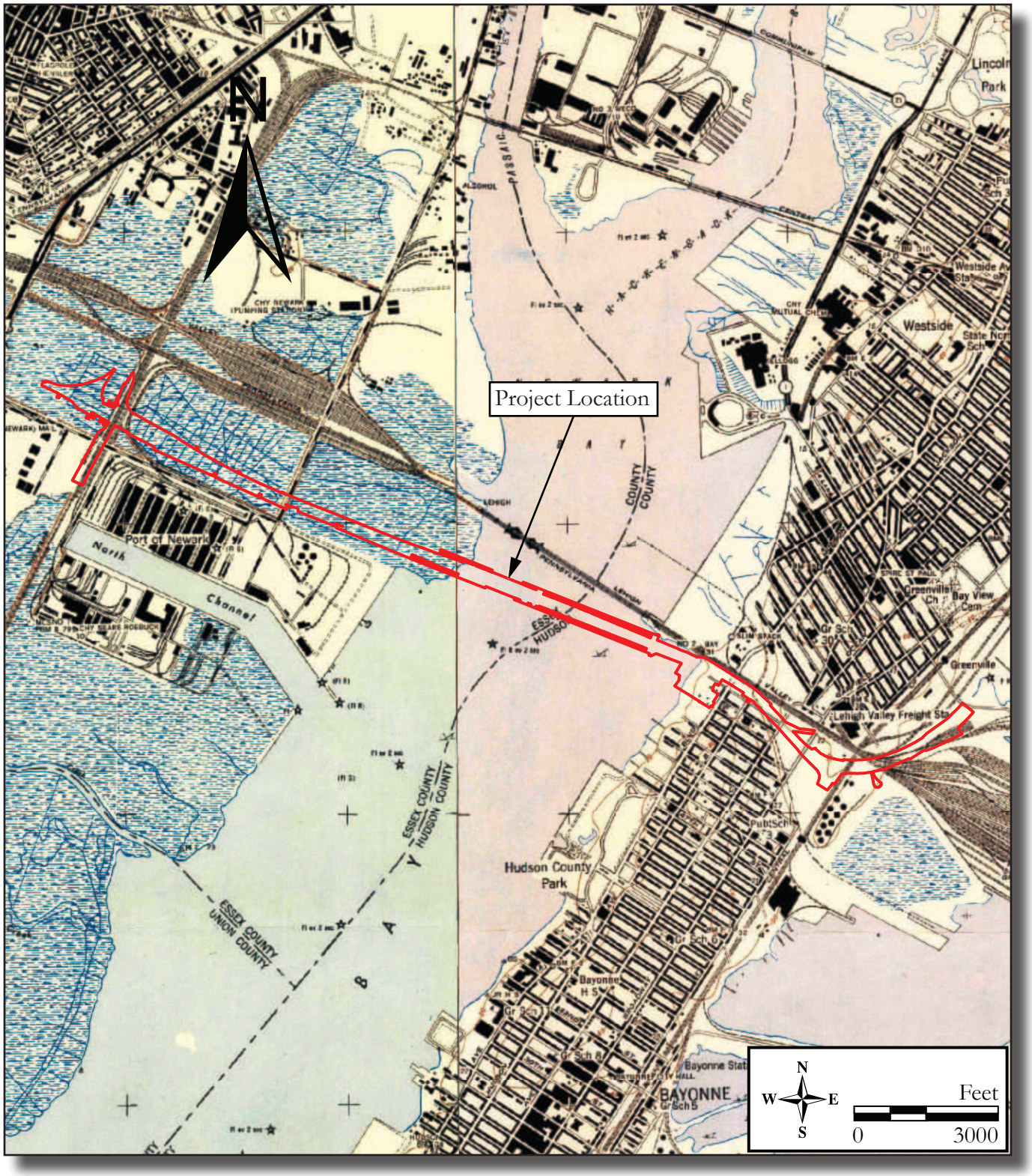

Figure 3.15: 1947 U.S.G.S. 7.5' Quadrangles: Elizabeth, NJ and Jersey City, NJ.

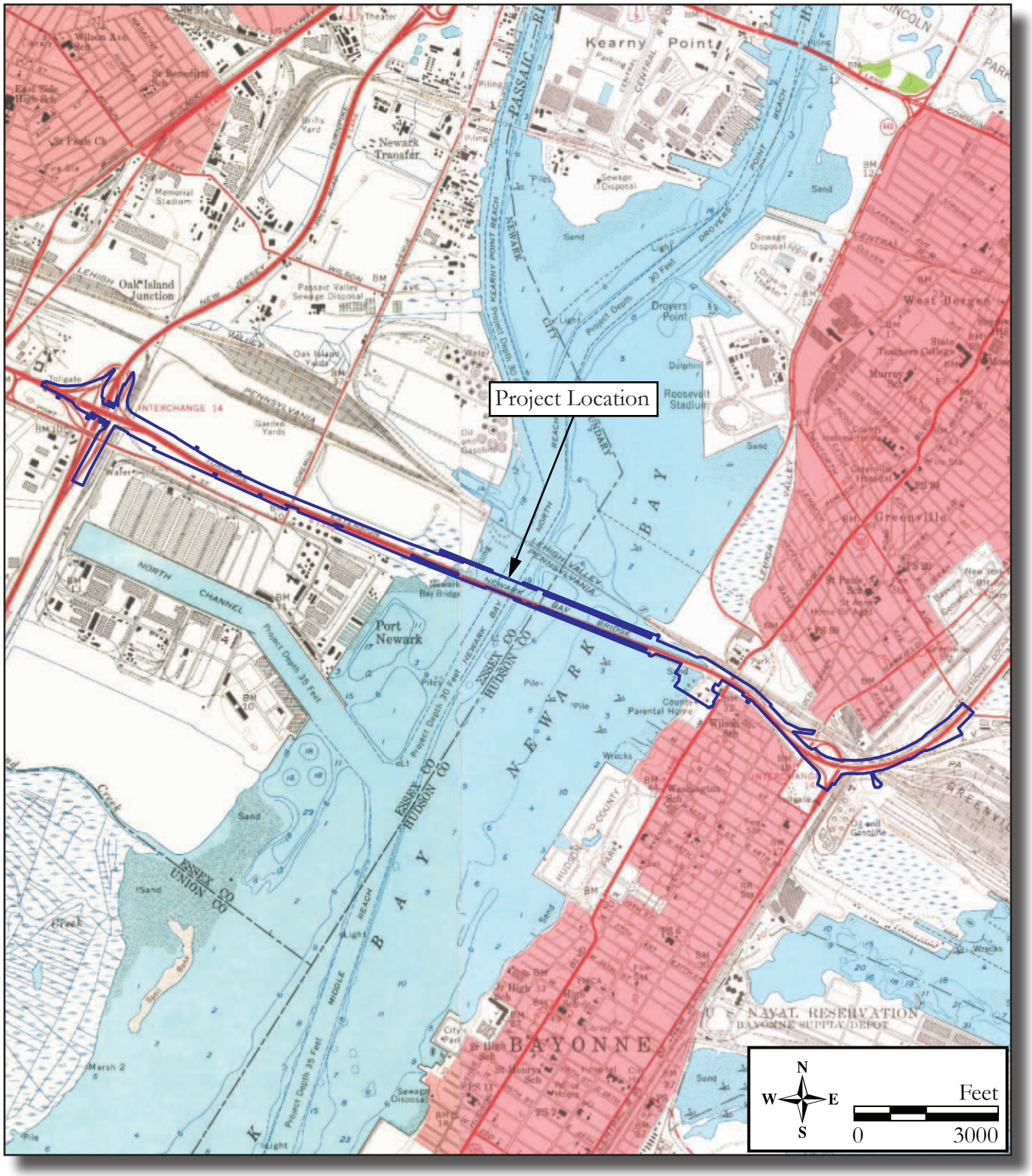

Figure 3.16: 1955 U.S.G.S. 7.5' Quadrangles: Elizabeth, NJ and Jersey City, NJ.

portion of this road represents present-day Old Bergen Road. The eastern part of the project location skirted the western bank of the Upper Bay and a single structure is mapped along the shoreline in proximity to the project location (see Figure 3.3; Hill 1781). No additional structures are depicted near the project location during the late eighteenth century (Table 3.2; see Figure 3.3; Hills 1781).

Nineteenth Century
The Newark portion of the project location remained marshland throughout the nineteenth century (see Figure 3.3-3.5; Gordon 1833; United States Coastal Survey 1837; Sidney 1849, 1850; Walling 1859; H.H. Lloyd & Co. 1867; Vermeule 1889). A series of gridded, paper roads were planned within the Newark portion of the project location during the 1870s and 1880s, though they were never constructed (Hughes 1874; Pidgeon 1881; Scarlett and Scarlett 1889).

Development on the eastern side of the Newark Bay in the vicinity of the project location remained sparse in the first half of the nineteenth century. The Morris Canal is first depicted bisecting the eastern part of the project location in 1833 (see Figures 3.4; Gordon 1833). Development in Jersey City was mostly focused along Old Bergen Road to the north of the project location in the community of "Pamrepaw" (see Figures 3.4-3.5; see Table 3.2; Gordon 1833; United States Coastal Survey 1837; Hassler 1846; Sidney 1849). Between 1833 and 1837, a building was constructed in the northeastern part of the project location (see Figures 3.4-3.5; see Table 3.2; Gordon 1833; United States Coastal Survey 1837). By 1846, two additional buildings are mapped along the Morris Canal in the northeastern part of the project location (Hassler 1846).

On 1846 and 1849 maps, several buildings are shown in proximity to the project location, including on the property of present-day Marist High School in Bayonne, as well as in the northeast part of the project location (see Figure 3.6; see Table 3.2; Sidney 1849, 1850). In 1858, small dirt roads or driveways crossed the wooded areas surrounding the eastern part of the project location though no new buildings are depicted in proximity to the project location (U.S. Coast Survey 1858). In 1860, new roadways are mapped on the east side of the Newark Bay but it is unclear if these roadways were ever constructed. Buildings are mapped along the former location of the roadway running from the community of Bergen to the southern tip of Bayonne and a series of five buildings are shown near the current intersection of the NB-HCE and New Jersey Route 440 (see Figure 3.7; Dripps 1860; Walling 1860). With the exception of Hudson Boulevard (present-day John F. Kennedy Boulevard), Avenue C, and the Morris Canal, the portion of the project location east of the Hudson Bay was undeveloped and the shoreline had not yet extended west to its present-day location (see Figure 3.7). In 1867, the "Passaic Light" is mapped in proximity to the project location within the Newark Bay. This was likely a stationary navigation light to assist boats traveling through the waterway (H.H. Lloyd & Co. 1867).

In 1873, a series of gridded roadways had been planned in the Bayonne and Jersey City sections of the project location, through it does not appear that these roads were ever constructed. Five structures are mapped in the Jersey City portion of the project location in 1873. The Central Railroad of New Jersey had also been constructed north of the project location on both sides of the Newark Bay (see Figure 3.8; Hopkins 1873). In 1889, topographic mapping of the project location east of the Newark Bay reveals that the area between the bay and Hudson Boulevard consisted of knolls that were separated by several small tributaries and gullies (see Figure 3.9). By 1894, the road network surrounding the project location had been laid in a gridded pattern and residential lots were established. Several railroads and railroad-owned properties are also mapped in proximity to the project location on an 1894 map (Fowler 1894). In 1898, Sanborn Fire Insurance maps show that parcel blocks in Jersey City, as well as Bayonne, had been divided into smaller lots. A dwelling and outbuilding are depicted at the intersection of Hudson Boulevard and West 59th Street in Bayonne. Three buildings and a shed are mapped at the intersection of Avenue D and 52nd Street just outside the project location, as are the outline of two buildings on Block 1387; a residence known as "Woodside Cottage" and two sheds are situated at the intersection of 50th Street and Avenue D in Jersey City. Structures and rail lines are depicted on railroad property in the northeastern part of the project location (see Figure 3.10; Sanborn Map Company 1898; see Table 3.2).

Table 3.2: Historic maps and resources in proximity to the project location.

Map Date	Structures/ Buildings/ Other in Proximity to Project Location	Figure Number (if applicable)	Citation
1781	Roadway (likely Old Bergen Road) and a structure present in the eastern part of the project location. Western part is within the Newark Salt Meadows.	3.3	Hills 1781
1833	Roadway and Morris Canal intersect the eastern part of the project location. Western portion is salt marsh.	3.4	Gordon 1833
1837*	Road and Morris Canal intersect the eastern part of the project location. Building mapped in the northeastern part of the project location along the Morris Canal.	3.5	United States Coast Survey 1837
1846	Two buildings depicted along the east side of the Morris Canal in the northeastern portion of the project location.	N/A	Hassler 1846
1849	Building depicted within the project location near the former Marist High School in Bayonne. Three buildings shown in proximity to northeast part of project location east of the Morris Canal.	3.6	Sidney 1849
1850**	Western part is within the Newark Meadows.	N/A	Sidney 1850
1858*	Nothing additional within the project location.	N/A	United States Coast Survey 1858
1859**	Nothing additional within the project location.	N/A	Walling 1859
1860*	Additional roadways and five buildings near the location of the present-day intersection of the NB-HCE and Route 440.	3.7	Dripps 1860
1860	New road layout and structures mapped along Old Bergen Road north of the project location.	N/A	Walling 1860
1867	"Passaic Light" within the Newark Bay outside of the project location.	N/A	H.H. Lloyd & Co. 1867
1873*	Numerous planned roadways, residential blocks, and housing throughout Jersey City. Five structures mapped within or adjacent to the project location. The Central Railroad of NJ/ Lehigh Valley Railroad had been constructed north of the project location.	3.8	Hopkins 1873
1874**	Gridded paper roadways planned in Newark section of the project location.	N/A	Hughes 1874
1881**	Gridded paper roadways planned in Newark section of the project location.	N/A	Pidgeon 1881
1889**	Undeveloped paper roads.	N/A	Scarlett and Scarlett 1889
1889	Newark section depicted as marshland. Streets were laid out within Bayonne and Jersey City.	3.9	Vermeule 1889
1894*	Gridded road network and residential lots surrounding the project location were established.	N/A	Fowler 1894
1898*	Blocks within the southwest portion of the project location had been subdivided into smaller residential parcels. A dwelling and outbuilding are depicted at the intersection of Hudson Boulevard and West 59th Street in Bayonne. Three buildings and a shed are mapped just outside of the project location at the intersection of Avenue D and 52nd Street. Two buildings are plotted on Block 1387 and a "Woodside Cottage" and two sheds are documented at the intersection of 50th Street and Avenue D in Jersey City. Buildings and rail lines are depicted on railroad property in the northeastern part of the project location.	3.10	Sanborn Map Company 1898, Volumes 9 and 10

Table 3.2; cont.

Map Date	Structures/ Buildings/ Other in Proximity to Project Location	Figure Number (if applicable)	Citation
1901	Newark portion divided into lots in possession of a multitude of owners. Landscape filling conducted to create stable land over the wetlands may have begun, though creeks and man-made channels still cross the project location. Gridded street plan had been established. No buildings or structures are depicted but the CRRNJ is present	3.11	E. Robinson and L.E. Tenney 1901
1905	No buildings depicted in the project location.	N/A	Westgard 1905
1908*	Five frame buildings on Block 353 are plotted near the intersection of Garfield Avenue and 57th Street (Jersey City). Multiple structures on New York Bay Railroad Company and National Docks Railway properties are illustrated. One of these is the New York Bay Railroad Company turntable.	3.12	Hopkins 1908
1909*	Three frame buildings and two frame sheds or stables are mapped at the intersection of 59th Street and Hudson Boulevard; and a stone quarry, frame building, driveway, and frame shed or stable are plotted on Block 342 between W. 57th and 58th streets and Avenues B and C (Bayonne).	3.13	Hopkins 1909
1912**	Most of the project location is undeveloped wetlands with gridded, paper roads and numerous owners' names shown. Non-extant Bay Avenue crosses the western part of the project location.	N/A	Lathrop and Ogden 1912
1916**	Port Newark south of the project location and a dwelling to the west are depicted.	N/A	Landis 1916
1919	"Parental School" had been established on the present-day Marist High School property in Bayonne. Two frame structures at the intersection of Hudson Boulevard and West 59th Street in Bayonne are depicted. Several buildings near the intersection of Garfield Avenue and West 57th Street in Jersey City are illustrated. Multiple structures on New York Bay Railroad Company and National Docks Railway properties are mapped. One of these is the New York Bay Railroad Company turntable.	3.14a-3.14b	Hopkins 1919
1927**	Project location is mostly undeveloped on property owned by the New York Bay Railroad Company or the City of Newark. Port Newark to the south and Doremus Avenue had been constructed and transect the project location.	N/A	Robinson, et al. 1927
1934*	Three frame buildings on the north side of West 58th Street between Hudson Boulevard and Avenue B are plotted and several new buildings associated with the Parental School complex are illustrated in Bayonne.	N/A	Hopkins 1934
1947	Doremus Avenue and the Central Railroad of New Jersey and the Parental School buildings are shown. After abandonment and infilling of the Morris Canal, several rail lines extend into the northeastern portion of the project location.	3.15	U.S.G.S. 7.5' Quadrangle: Elizabeth, NJ and Jersey City, NJ.
1955	The NB-HCE, the Newark Bay Bridge, and the New Jersey Turnpike had been constructed. Newark had mostly been infilled to support the roadways and the Parental School buildings remained present.	3.16	U.S.G.S. 7.5' Quadrangle: Elizabeth, NJ and Jersey City, NJ

*Map of just Bayonne and/or Jersey City portion of the project location

**Map of just Newark portion of the project location

Twentieth to Twenty-first Century

Early twentieth-century maps suggest that some filling may have begun in the Newark portion of the project location to create stable land over the wetlands, though creeks and man-made waterways cross the project location (see Figure 3.11; Robinson and Tenney 1901; Westgard 1905; Lathrop and Ogden 1912; see Table 3.2). This part of the project location was divided into lots in possession of a multitude of owners. No buildings are depicted in the Newark section of the project location in the early twentieth century but the CRRNJ is mapped along a north-south route transecting the western part of the project location. Additionally, a gridded street layout had been planned but not yet laid in Newark (see Figure 3.11; Robinson and Tenney 1901; Westgard 1905; Lathrop and Ogden 1912). It appears that the non-extant Bay Avenue had been constructed diagonally crossing the western-most part of the project location and development west of the project location had begun within former wetlands by 1912 (Lathrop and Ogden 1912; see Table 3.2). A bird's eye view of Newark completed in 1916 shows that Port Newark had been constructed south of the project location and that a lone dwelling was present near but outside the western terminus of the project location on an upland landform (Landis 1916; see Table 3.2).

Development increased within Bayonne and Jersey City in the early twentieth century (see Figures 3.12 and 3.13; Hopkins 1908, 1909; see Table 3.2). Three frame buildings and two frame sheds or stables were present at the intersection of 59th Street and Hudson Boulevard, and a stone quarry, frame building, driveway, and frame shed or stable stood on Block 342 between West 57th and 58th streets and Avenues B and C within the City of Bayonne. Five frame buildings were present on Block 353 near the intersection of Garfield Avenue and 57th Street in Jersey City. Multiple structures are mapped on New York Bay Railroad Company and National Docks Railway properties including the New York Bay Railroad Company turntable (see Figures 3.12-3.13; Hopkins 1908, 1909; see Table 3.2). Between 1909 and 1919, the Hudson County "Parental School" was erected in the Bayonne section of the project location as a large, L-shaped, brick building set back from Hudson Boulevard, along with three frame outbuildings and driveways (see Figure 3.14a; Hopkins 1919; see Table 3.2). With the exception of two frame buildings at the intersection of Hudson Boulevard and West 59th Street, multiple buildings near the intersection of Garfield Avenue and West 57th Street, and the multitude of railroad-related structures in the northeastern part, no other development had occurred within the project location by 1919 (see Figure 3.14; Hopkins 1919).

In 1927, the Newark side of the project location remained mostly undeveloped on property owned by the New York Bay Railroad Company or the City of Newark. Port Newark to the south of the project location and Doremus Avenue had been constructed by this time, transecting the project location (Robinson et al. 1927; see Table 3.2). Early twentieth-century aerial photographs show that the Newark side of the project location remained salt marsh and Bayonne/Jersey City side appeared mostly undeveloped (NETR 1931). In 1934, development within the City of Bayonne had grown substantially, though most occurred outside of, but surrounding, the project location. The only new construction within this part of the project location was three frame buildings on the north side of West 58th Street between Hudson Boulevard and Avenue B, as well as the construction of several new buildings associated with the "Parental School" complex (Hopkins 1934; see Table 3.2).

During the mid-twentieth century, the Newark portion of the project location was still characterized as wetlands crossed by Doremus Avenue and the CRRNJ. A small strip of man-made land associated with the Newark Airport was present in the project location on the northwest side of the CRRNJ. With the exception of the buildings associated with the Parental School, no buildings are depicted in the remainder of the project location (U.S.G.S. 1947a, 1947b; see Figure 3.15). A U.S.G.S. map from 1955 shows the location of the recently constructed NB-HCE and the Newark Bay Bridge within the project location after its construction. The lands around the NJT in Newark had mostly been infilled to support the footprint of the NB-HCE, and the Parental School buildings remained present south of the NB-HCE on the east side of the bay. Little other new development is mapped within the project location at this time (U.S.G.S. 1955a, 1955b; see Figure 3.16). The degree of filling and extensive earthmoving that occurred within the project location during the construction of the NB-HCE is visible in 1955 aerial photographs taken for the NB-HCE project (see Figures 3.17-3.18).

Figure 3.17: Aerial photograph, Thruway, Jersey City, N.J.
(Fairchild Aerial Surveys, Inc. 1955).

Figure 3.18: Aerial photograph showing the construction of piers used to support the NJTP Extension. Image is looking east from Interchange 14 along Port Street on the Newark side of the APE-Archaeology toward Newark Bay
(from Lopalla and Suszka 2005).

By 1954, the "Parental School" changed hands and was operated as Marist High School, a Catholic school, and by 1966, the school complex had been expanded in size with additional buildings (NETR 1966). Prior to the mid-twentieth century, the eastern shore of the Bayonne section of the project location was situated roughly 1,000 feet east of its current location and was gradually infilled and expanded west during the 1950s and 1960s to extend the buildable land area further into the Newark Bay (NETR 1954, 1966). The current shoreline was present by 1979 (NETR 1979). Development surrounding the Newark section of the project location through the remainder of the twentieth century was mostly industrial while the area surrounding the Bayonne and Jersey City portion of the project location appeared to contain mostly residential and commercial, as well as industrial properties (NETR 1984, 1995, 2006, 2012, 2019).

3.4 National and State Register of Historic Places Eligible and Listed Properties

A review of NJ-GeoWeb cultural data confirmed the presence of five historic properties listed in the NJR and NRHP or eligible for listing in the NRHP within the APE-Architecture: Newark and Elizabeth Branch of the Central Railroad of New Jersey (SHPO Opinion: 8/29/2000), Pennsylvania Railroad New York Bay Branch Historic District (PRRNYBBHD) (SHPO Opinion: 12/17/2019), Lehigh Valley Railroad Historic District (LVRRHD) (SHPO Opinion: 3/14/2002), the Morris Canal historic property (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004), and the Jersey Eagle Site (28-Hd-45 [SHPO Opinion: 5/17/2013]) (Figures 3.19a and 3.19b).

The Morris Canal, which was completed in 1836 after little more than a decade of construction, was listed in the NJR and NRHP in the early 1970s as a linear historic district under Criteria A, B, C, and D. The canal is significant under Criterion A for its association with canal transportation, American technical education, and the demographic and industrial growth in northern New Jersey, New York City, and the Lehigh Valley. Because several inventors, engineers, and important men were associated with the construction and operation of the canal, the canal is significant under Criterion B. The Morris Canal meets Criterion C as a major technological feat of construction and operation, including the inclined plane design. The potential information relating to canal engineering and construction as well as the lifeways of nineteenth-century canal culture that archaeological investigations may yield makes the canal significant under Criterion D (Guzzo 2004). The period of significance established in the Morris Canal nomination form covered the years 1836 to the turn of the century (Guzzo 2004). In 2004, the NJHPO expanded the period of significance for the Morris Canal to 1930 when the closure of the canal was complete (Guzzo 2004).

The Jersey Eagle Site (28-Hd-45 [SHPO Opinion: 5/17/2013]) represents a below grade archaeological historic property. Located near the northern terminus of the APE-Archaeology on Block 30306, Lot 7 in Jersey City, the site is a multi-component pre-Contact and historic-period archaeological site that was determined eligible for listing in the NRHP under Criterion A for its association with events that made a significant contribution to the broad patters of our history and Criterion D for the potential to yield new, important information in prehistory and history regarding the pre-Contact period occupation and early settlement of Hudson County from 0 to 1850 AD. The site is deeply buried below 2.3 feet of imported fill on its northern side and 7.9 feet of fill on its southern side.

The remaining three historic properties are discussed in further detail in Section 5.1.

3.5 Known Archaeological Sites and Prior Cultural Resources Investigations

Previously Identified Archaeological Sites

A review of NJSM site files and published accounts (Cross 1941; Skinner and Schrabisch 1913) indicated that there is one registered archaeological site within the APE-Archaeology, one site adjacent, as well as two sites within 1,000 feet. Site 28-Hd-45 (Jersey Eagle archaeological site) (aka The Jersey Eagle Site; SHPO Opinion: 5/17/2013) is a multi-component site on the western shore

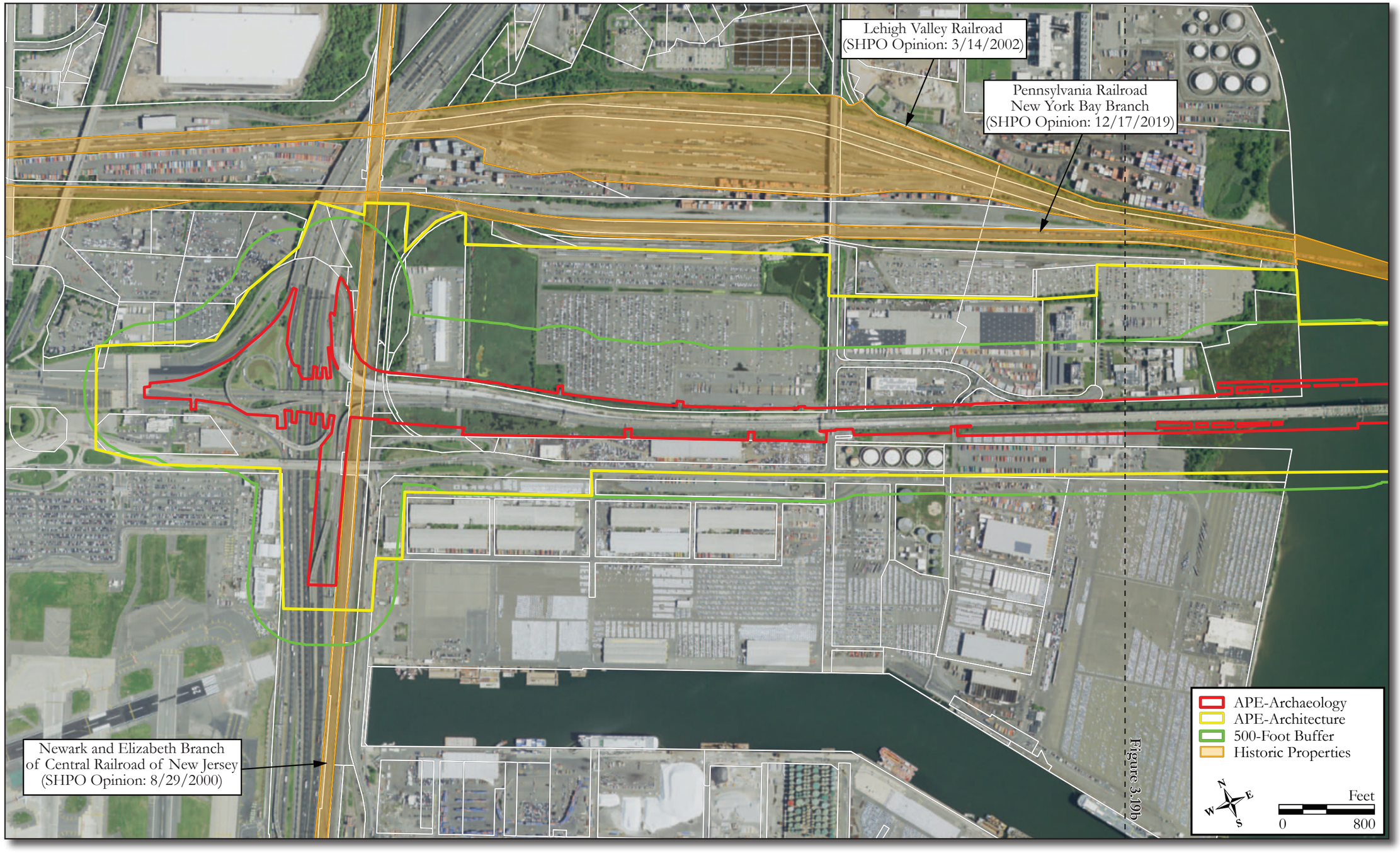

Figure 3.19a: Aerial image showing the locations of historic properties within the APE-Archaeology, APE-Architecture, and 500-foot study buffer in the City of Newark (NJGIS Digital Orthographic Imagery, 2020).

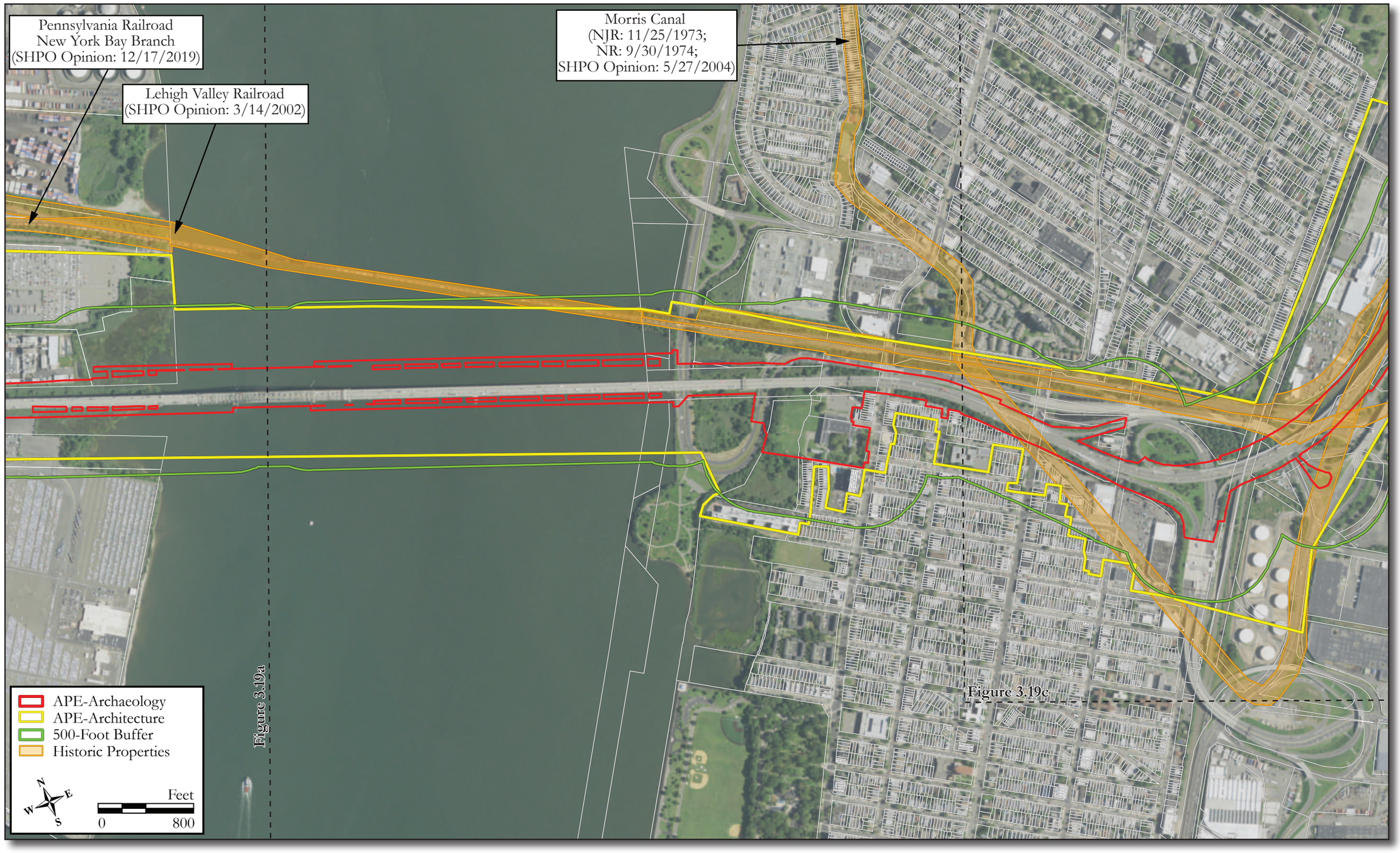

Figure 3.19b: Aerial image showing the locations of historic properties within the APE-Archaeology, APE-Architecture, and 500-foot study buffer in the cities of Bayonne and Jersey City (NJGIS Digital Orthographic Imagery, 2020).

Figure 3.19c: Aerial image showing the locations of historic properties within the APE-Archaeology, APE-Architecture, and 500-foot study buffer in the cities of Bayonne and Jersey City (NJGIS Digital Orthographic Imagery, 2020).

of the Hudson River situated within the footprint of a Conrail railroad access road. This site is located south of Linden Avenue within the northeastern terminus of the APE-Archaeology. The pre-Contact Native American component of this site was first identified during Phase IB archaeological survey mechanical trench excavations in 2012 when eight pre-Contact artifacts were recovered. The full extent and boundaries of the site have not been determined and are currently limited to the excavations performed by the Public Archaeology Laboratory (PAL) within the footprint of a natural gas pipeline trench (Figure 3.20; PAL 2013). Figure 3.20 depicts the identified footprint of the site in relation to a proposed nearby 5.0-foot deep stormwater basin and a proposed stormwater outfall pipe for the current undertaking. Available geotechnical soil boring information reveals that likely modern fill over graded hydric wetlands soils is present within the stormwater basin location (see Appendix J; AmerCom Corp. 2022). The Phase IB and subsequent Phase II archaeological survey completed by PAL yielded 51 pre-Contact artifacts. While no pre-Contact period features were found, the artifacts indicate stone tool manufacture and maintenance, as well as subsistence-related resource processing. The artifacts were recovered from buried plowzone layers found at top depths ranging from 2.3 in the northern part of the site to 7.9 feet below current grade in the southern part of the site (Figure 3.21). The historic period component of the site yielded artifacts related to eighteenth- to twentieth-century domestic refuse. Only one historic feature was identified, a stone wall feature, unlikely to be associated with a structural foundation as indicated by PAL (2013). The site was determined eligible for listing in the NRHP under Criterion A for its association with events that made a significant contribution to the broad patters of our history and Criterion D for the potential to yield new, important information in prehistory and history regarding the pre-Contact period occupation and early settlement of Hudson County from 0 to 1850 AD.

The Greenville Site (28-Hd-3), identified in the early twentieth century, is a Woodland period Native American site on the western shore of the Hudson River adjacent to the northeast terminus of the APE-Archaeology near Linden Avenue. This site was first recorded by Skinner and Schrabisch in 1913 who reported that "potsherds daubed over with red paint" were said to have been collected on the point at Greenville (Skinner and Schrabisch 1913: 42). Based on the proximity of the of the Greenville and Jersey Eagle sites, it is very possible that the pre-Contact components of the two sites represent the same archeological resource.

Files indicate that two additional previously identified archaeological sites are located within 1,000 feet of the APE-Archaeology. Site 28-Hd-12 is a temporally and functionally undetermined pre-Contact period Native American site located roughly 200 feet north of the APE-Archaeology. The Morris Canal Fiddler's Elbow Segment Archaeological Site (28-Hd-47) is situated roughly 1,000 feet south of the APE-Archaeology and is associated with the abandonment and filling of the Morris Canal, circa 1920-1940.

In addition, a review of cultural resources survey reports indicated that geoarchaeological testing east and west of the APE-Archaeology in proximity to the Morris Canal identified traces of historic fill associated with the Morris Canal historic property (Geismar 1995b, PAL 2011b). The historic fill was not registered as an archaeological site.

One archaeological site (number 2) was plotted on the collector's maps on file at the NJHPO. This likely represents the previously discussed Greenville Site (28-Hd-3). The APE-Archaeology is located within archaeological site blocks EV94 and EW94.

Submerged Targets

Eight submerged targets have been documented in proximity to APE-Archaeology between the Newark Bay Bridge and the Conrail Line Bridge based on information provided by the NJHPO in a July 1, 2021 email (see Figure 3.16; Figure 3.22; U.S.G.S. 1955a, 1955b). The closest of these targets is located within the footprint of the proposed bridge replacement temporary construction trestle, and the farthest is situated near the Conrail Line Bridge roughly 700 feet north of the APE-Archaeology. According to the NJHPO, these targets may represent "debris of some kind and/or pilings." In an email dated July 1, 2021, the NJHPO specified that the submerged targets would require survey to

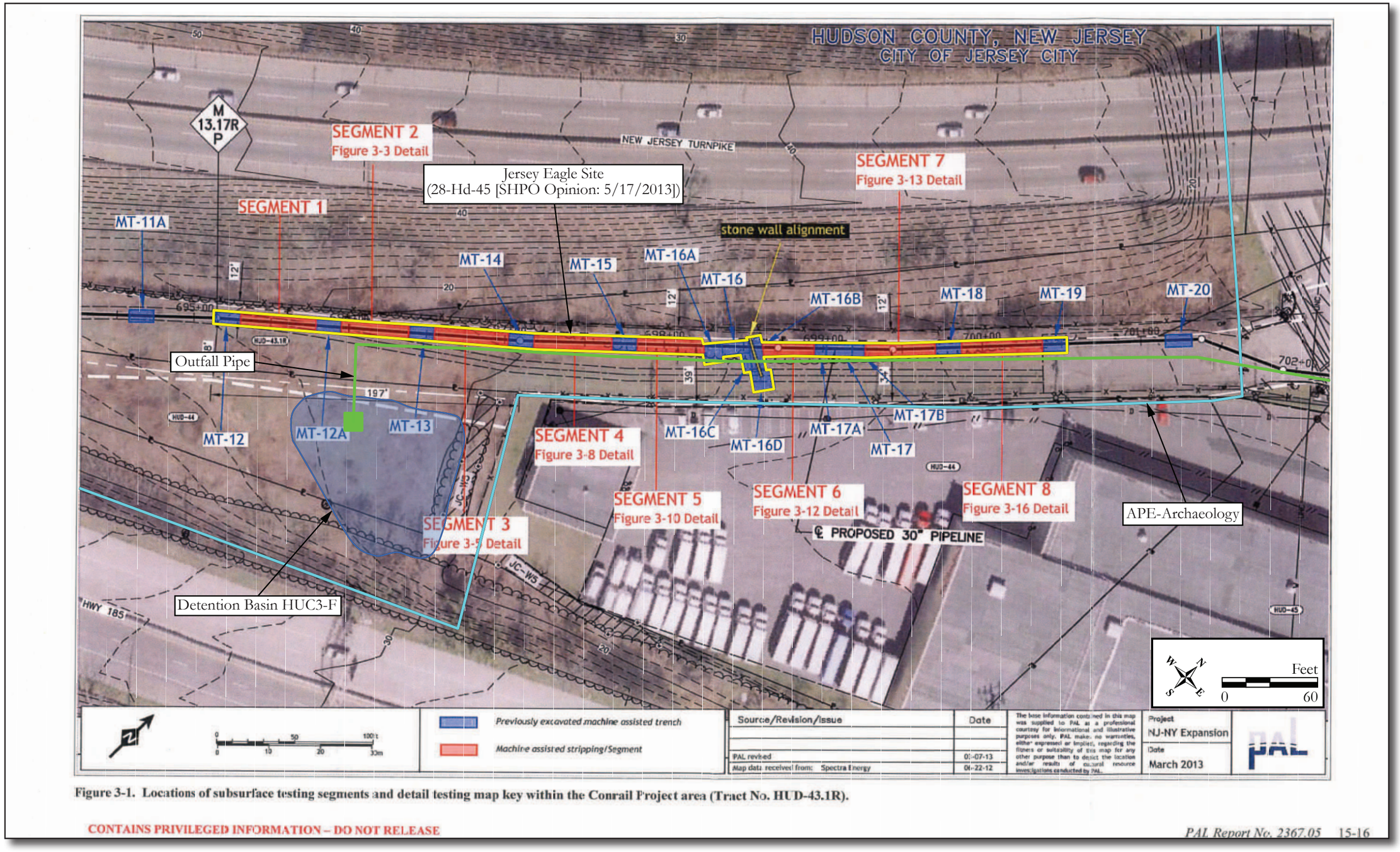

Figure 3-1. Locations of subsurface testing segments and detail testing map key within the Conrail Project area (Tract No. HUD-43.1R).

CONTAINS PRIVILEGED INFORMATION – DO NOT RELEASE

PAL Report No. 2367.05 15-16

Figure 3.20: Map of the 2013 area of excavations, the location of the Jersey Eagle Site and the APE-Archaeology (from Public Archaeology Laboratory, Inc. [PAL] 2013).

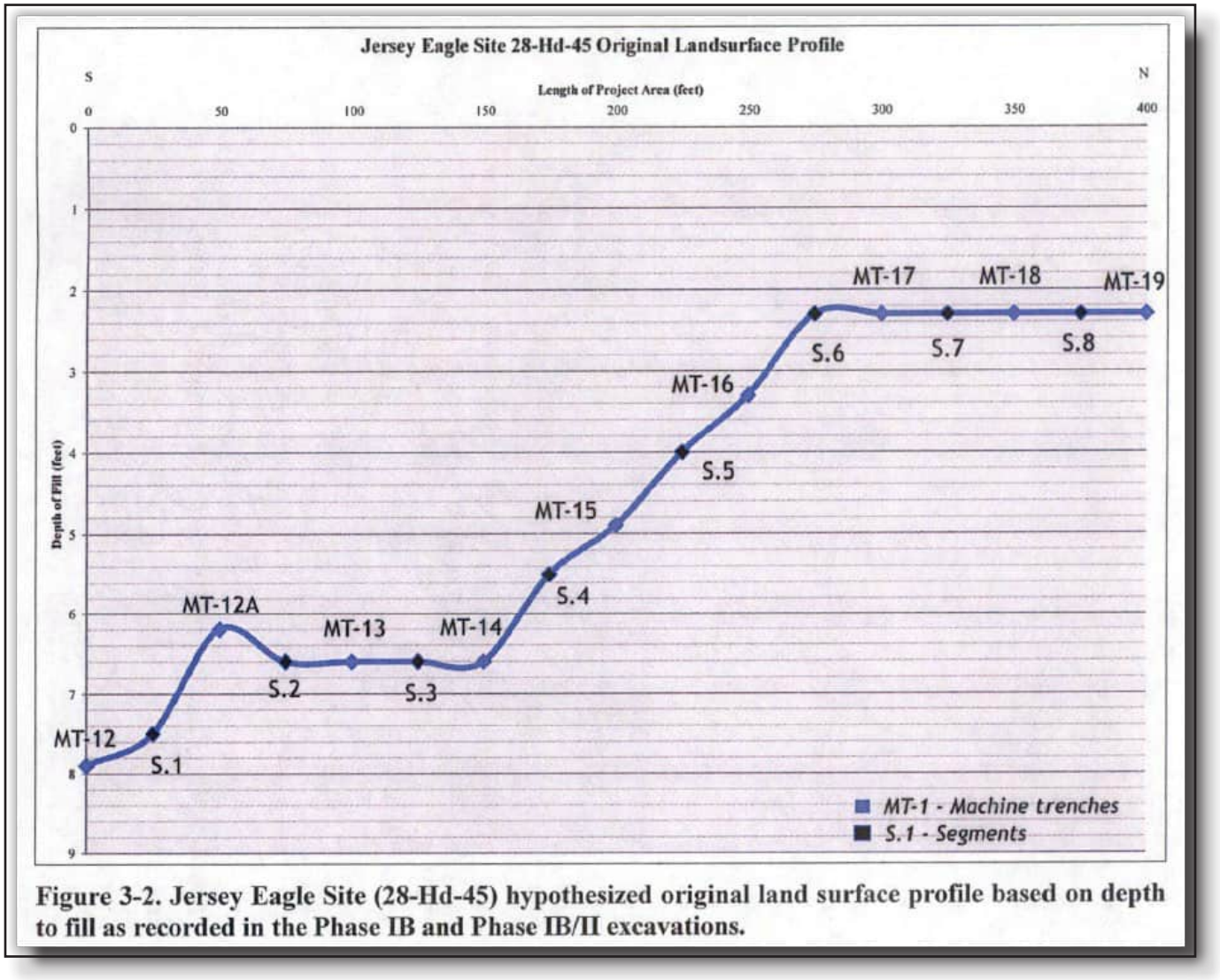

Figure 3-2. Jersey Eagle Site (28-Hd-45) hypothesized original land surface profile based on depth to fill as recorded in the Phase IB and Phase IB/II excavations.

Figure 3.21: Depth of fill within the Jersey Eagle Site
(from Public Archaeology Laboratory, Inc. [PAL] 2013).

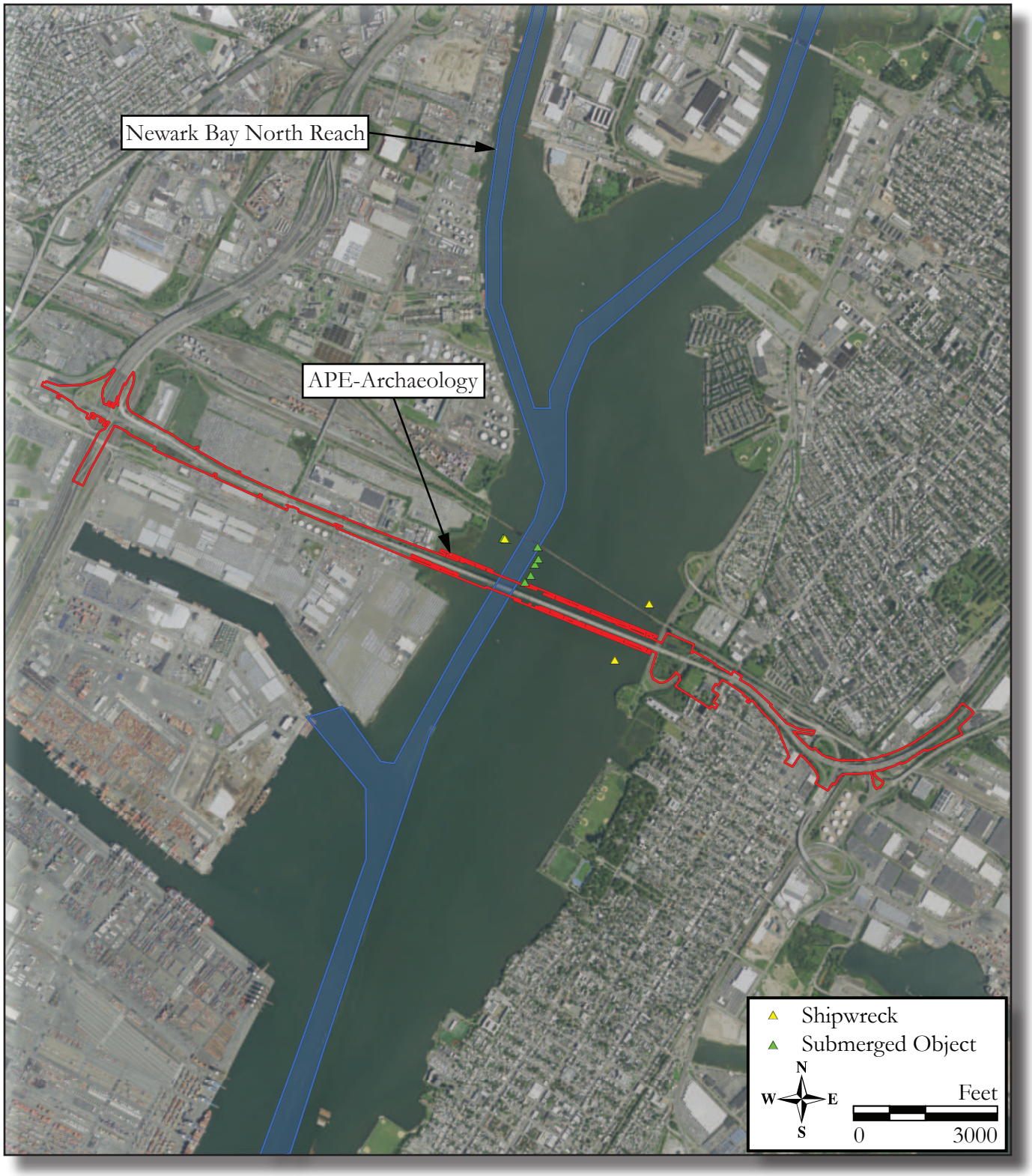

Figure 3.22: Aerial image showing the location of submerged objects (likely former piers along the drainage channel) and shipwrecks within the Newark Bay
(NJGIS Digital Orthographic Imagery, 2020).

confirm if the target represents an archaeological resource. Examination of historic U.S.G.S. map from 1955 indicated that three of the targets are located within an area containing wooden pilings along the Newark shoreline along the west side of the dredged navigation channel while the other submerged targets, one of which is in the APE-Archaeology near the east side of the bridge span, appear to align with the east side of the dredged navigation channel, strongly suggesting that they correspond with pilings installed to ensure large vessels did not venture from the dredged channel in this portion of the bay (see Figure 3.16, 3.22; U.S.G.S. 1955a, 1955b). Additionally, a visible shipwreck is also mapped about 480 feet to the south (Latitude 40.692181, Longitude -74.113403) of the Newark Bay Bridge and a submerged wreck is roughly 600 feet to the north (Latitude 40.699108, Longitude -74.121117) of the Newark Bay Bridge, in proximity to the Conrail bridge (NOAA 2021) (see Figure 3.16 and 3.22). Both previously identified wrecks are outside of APE-Archaeology and are not registered as archaeological sites.

Previously Conducted Cultural Resources Surveys

Research to discover previously conducted surveys was conducted utilizing information available online and located within the RGA in-house library. This research indicated that 32 archaeological surveys have been conducted within or adjacent to the APE-Archaeology (Crossroads of the American Revolution National Heritage Area 2011; E^{2}PM 2016; EAC 1978; Geismar 1995a, 1995b, 1997, 2002; Geoarchaeology Research Associates 2013; Historic Conservation & Interpretation, Inc. 1978; Historic Sites Research 1985; Kardas and Larrabee 1976, 1978; The Louis Berger Group, Inc. 2001; Lynn Drobbin & Associates 1994; New Jersey Turnpike Authority 1986, 1987, 1989; Parsons Brinkerhoff Quade & Douglas, Inc. 1991; The Public Archaeological Laboratory (PAL) 2010, 2011a, 2011b, 2011c, 2012, 2013a, 2013b; RGA, Inc. 2017; Richard Grubb & Associates, Inc. 1998, 2005; URS Corporation 2009, 2010, 2014; U.S. Army Corps of Engineers 1996). A summary of these surveys is provided in Table 3.3. The majority of the surveys did not identify archaeological resources within or adjacent to the APE-Archaeology (E^{2}PM 2016; EAC 1978; Geoarchaeology Research Associates 2013; Historic Sites Research 1985; Kardas and Larrabee 1978; Lynn Drobbin & Associates 1994; New Jersey Turnpike Authority 1986, 1987, 1989; PAL 2010, 2011c, 2012; Richard Grubb & Associates, Inc. 1998, 2005; U.S. Army Corps of Engineers 1996; URS Corporation 2009, 2010, 2014). Seven surveys note the presence of the Morris Canal in proximity to the APE-Archaeology (Historic Conservation & Interpretation, Inc. 1978; Kardas and Larrabee 1976; The Louis Berger Group, Inc. 2001; Geismar 1995b, 1997, 2002; PAL 2013a; Parsons Brinkeroff Quade & Douglas, Inc. 1991; RGA, Inc. 2017; see Table 3.3).

A Stage IA cultural resource survey for the Hudson County Sewerage Authority notes, in addition to the Morris Canal, that the seventeenth-century Dutch settlement (Currie's Woods) was located roughly 5,550 feet north of the APE-Archaeology (Historic Conservation & Interpretation, Inc. 1978; see Table 3.3). Testing for the Bayonne Extension to the Vince Lombardi Park-Ride indicated that the 1862-1872 Dummy Railroad formerly bisected the eastern part of the APE-Archaeology (Geismar 1995b; see Table 3.3). Two surveys indicate the presence of the pre-Contact period Greenville Point Site (28-Hd-3) immediately northeast of the APE-Archaeology (Geismar 1995b; Parsons Brinkerhoff Quade & Douglas, Inc. 1991; see Table 3.3). The pre-Contact site contained several fragments of pre-Contact ceramic. A management plan for the Crossroads of the American Revolution National Heritage Area showed that two major Revolutionary War skirmishes occurred in proximity to the APE-Archaeology in 1781 and 1782 (Crossroads of the American Revolution National Heritage Area 2011; see Table 3.3). Numerous surveys determined that portions of the APE-Archaeology or surrounding areas were considered to have a low potential for archaeological resources (The Louis Berger Group, Inc. 2001; Richard Grubb & Associates, Inc. 1998, 2005; Kardas and Larrabee 1978; New Jersey Turnpike Authority 1986, 1987; Geoarchaeology Research Associates 2013; E2PM 2016; URS 2009; see Table 3.3). Geismar (1995a) and Parsons Brinkerhoff Quade & Douglas, Inc. (1991) indicate that the southeastern terminus of the APE-Archaeology is located within a potentially sensitive pre-Contact zone (see Table 3.3).

Beginning in 2010, PAL conducted a series of archaeological surveys for the New Jersey-New York Expansion Project that extended along the eastern side of the APE-Archaeology. The first survey, completed in 2010, was a Phase IA that did not identify any archaeological resources within or adjacent

Table 3.3: Summary of archaeological surveys conducted in proximity to the APE-Archaeology.

Report Number	Title	Author	Year	Phase	Location of Survey within APE-Archaeology	Archaeological Resource(s) Identified In/APE-Archaeology	Archaeological Sensitivity for APE-Archaeology (if noted)/Comments
ESS E9	Phase I Cultural Resource Survey: Force Main, Newark Bay Pumping Station to Proposed Sludge Facility, Newark, NJ	EAC	1978	I	Northeast of Interchange 14	None	No subsurface testing in/adjacent to APE-Archaeology
HUD A50(1)	Cultural Resource Reconnaissance, New York Harbor Collection and Removal of Drift Project, Bayonne Reach, Hudson County, New Jersey	Historic Sites Research	1985	IA	Within the Newark Bay immediately south of the APE-Archaeology	None	No sunken vessels were noted in proximity to the APE-Archaeology
HUD A50a	Final Report, Cultural Resources Mitigation Bayonne Reach II, Documentation of the Bayonne Peninsula Ship Graveyard, Hudson County, New Jersey, New York Harbor Collection and Removal of Drift Project	U.S. Army Corps of Engineers	1996	Mitigation	Within the Newark Bay immediately south of the APE-Archaeology	None	No sunken vessels were noted in proximity to the APE-Archaeology
HUD E13	Stage IA Cultural Resource Survey for the Hudson County Sewerage Authority, 201 Wastewater Facility Plan-District II, Bayonne, Hudson County, New Jersey	Historic Conservation & Interpretation, Inc.	1978	IA	Within the Bayonne section of the APE-Archaeology	Seventeenth century Dutch settlement (Currie's Woods) 550 feet north of APE-Archaeology; Fiddler's Elbow part of the Morris Canal 350 feet south of the APE-Archaeology	-
HUD F40	Survey for Prehistoric and Historic Archaeological Sites and Historic Sites and Structures, Route 169 and Route 440 from the Bayonne Bridge in Bayonne to the Vicinity of Bayview Avenue in Jersey City, New Jersey	Kardas and Larrabee	1976	I	Along the Newark Bay within Bayonne	Fiddler's Elbow part of the Morris Canal 350 feet south of the APE-Archaeology	No subsurface testing within the APE-Archaeology
HUD F858	Cross Harbor Freight Improvement Project, Greenville Yards, Jersey City, Hudson County, New Jersey, Stage IA Archaeological Assessment	The Louis Berger Group, Inc.	2001	IA	Within the southern portion of APE-Archaeology near Greenville Yards	Morris Canal is located in the western part of the Greenville Yards project, through any remains of it have likely been destroyed	Low potential for archaeological deposits due to the presence of imported fills or displaced soils
HUD S28a	Supplemental Information for the Phase IA Archaeological Survey, New Jersey Transit Grid Traction Power System, City of Bayonne, Town of Kearny, City of Jersey City, City of Hoboken, Township of Weehawken, City of Union City, and Township, of North Bergen, Hudson County, New Jersey	RGA, Inc.	2017	IA	Bisects and adjacent to the southeastern part of the APE Archaeology	None	Area of historic sensitivity at the crossing of the Morris Canal near East 53rd Street, south of the APE-Archaeology

Table 3.2; cont.

Report Number	Title	Author	Year	Phase	Location of Survey within APE-Archaeology	Archaeological Resource(s) Identified In/APE-Archaeology	Archaeological Sensitivity for APE-Archaeology (if noted)/Comments
HUD Y184	Stage IA Cultural Resources Survey, Combined Sewer Overflow Planning Study, City of Bayonne, Hudson County, New Jersey	Richard Grubb & Associates, Inc.	1998	IA	Along the Newark Bay within Bayonne	None	Low potential for pre-Contact or historic resources.
HUD Z21	Bayonne Extension, Archaeological Study for the Hudson-Bergen Light Rail System, Technical Report (IA Assessment)	Geismar	1995a	IA	At the southeastern terminus of the APE-Archaeology and follows along the APE-Archaeology alignment to the west	Greenville Point Site, Pamrapo (pre-Contact artifacts), Area of known/potential pre-Contact sites with extensive nineteenth to twentieth century filling/land alteration, Morris Canal, Home of Colonel Thomas Brown (principal slave trader).	A "potential prehistoric sensitive zone" adjacent to the APE-Archaeology.
HUD Z21b	Bayonne Extension to the Vince Lombardi Park-Ride Archaeological Testing for the Hudson –Bergen Light Rail System, Technical Report (IB Assessment)	Geismar	1995b	IB	At the eastern terminus of the APE-Archaeology	Morris Canal and Dummy Railroad (1862-1872) bisect the APE-Archaeology	A "potential prehistoric sensitive zone" within the APE-Archaeology. No subsurface archaeological testing was conducted within/adjacent to the APE-Archaeology
HUD Z21c	Archaeological Resources Technical Backup Reports, NJ Transit Hudson River Waterfront, Transportation Project AA/DEIS.	Parsons Brinkerhoff Quade & Douglas, Inc.	1991	IA	At the eastern terminus of the APE-Archaeology	Greenville Point Site (28-Hd-3) roughly 3,400 feet northeast the eastern terminus of the APE-Archaeology. Included several sherds of pre-Contact ceramic. The Morris Canal crosses the eastern part of the APE-Archaeology. Morris Canal crosses the southern part of the APE-Archaeology. Lehigh Valley Railroad trestle piers and the Chapel Avenue (concrete piers)/ Lehigh Valley Railroad bridge (surviving twentieth century steel girder bridge) at the southern part of the APE-Archaeology.	Within potentially sensitive pre-Contact zone. Areas are located on an upland terraces within Jersey City marsh overlooking Upper New York Bay which have extensive filling and land alteration during the late nineteenth and early twentieth centuries.

Table 3.2; cont.

Report Number	Title	Author	Year	Phase	Location of Survey within APE-Archaeology	Archaeological Resource(s) Identified In/APE-Archaeology	Archaeological Sensitivity for APE-Archaeology (if noted)/Comments
HUD Z21e	Memo Report Regarding Installation of an Underground Pipeline at the Morris Canal on the Bayonne-Jersey City Boundary, An Archaeological Assessment.	Geismar	1997	IA	Between East 53rd Street and the NJTP	Morris Canal	Photo documentation was recommended for the stone bridge abutments of the National Docks Branch of the Lehigh Valley Railroad and the metal truss pipeline bridge, both contributing to the Morris Canal. Archaeological monitoring was recommended to record any buried components to the Morris Canal.
HUD Z21i	Bayonne Cultural Resource Survey, The Bayonne Extension, The Hudson River Waterfront Light Tail Transit, Bayonne, Hudson County, New Jersey	Lynn Drobbin & Associates	1994	IA	Near Gates Avenue	None	-
HUD Z21q	A Compendium of Evaluations of MOA Archaeological Items for the Hudson Bergen Light Rail (HBLR) project, MOS-1 Segment from the Jersey City-Bayonne City Lone to Paulus Hook, Jersey City, Hudson County, New Jersey	Geismar	2002	IA	Southeastern portion of the APE-Archaeology	Crossing of the Morris Canal	-
MULT A12	A Preliminary Archaeological Reconnaissance for Cultural Resources, Kill van Kull and Newark Bay Channel Dredging Project	Kardas and Larrabee	1978	IA	Within Newark Bay	None	Low potential for intact resources. Previous dredging destroyed sites if formerly present within the Newark Bay.
MULT A55	New Jersey Turnpike 1985-90 Widening, Technical Study Volume IV: Cultural Resources, Interchange 8A to Interchange 9 and Interchange 11 to U.S. 46	New Jersey Turnpike Authority	1986	I	Along New Jersey Turnpike in western part of the APE-Archaeology	None	Low pre-Contact and Historic Archaeological Sensitivity within APE-Archaeology. No subsurface testing in/adjacent to APE-Archaeology

Table 3.2; cont.

Report Number	Title	Author	Year	Phase	Location of Survey within APE-Archaeology	Archaeological Resource(s) Identified In/APE-Archaeology	Archaeological Sensitivity for APE-Archaeology (if noted)/Comments
MULT A55(1)a	New Jersey Turnpike 1985-90 Widening, Final Environmental Impact Statement, Interchange 11 to U.S. Route 46	New Jersey Turnpike Authority	1987	I	Along New Jersey Turnpike in western part of the APE-Archaeology	None	Low pre-Contact and Historic Archaeological Sensitivity within APE-Archaeology. No subsurface testing in/adjacent to APE-Archaeology
MULT A55(2)	New Jersey Turnpike Widening Project, Cultural Resources Investigation, Interchange 11 to Southern Mixing Bowl	New Jersey Turnpike Authority	1989	I	Along New Jersey Turnpike in western part of the APE-Archaeology	None	No subsurface testing in/adjacent to APE-Archaeology
MULT A261	Geomorphology/Archaeological Borings and GIS Model of the Submerged Paleoenvironment in the New York and New Jersey Harbor Navigation Project, Port of New York and New Jersey	Geoarchaeology Research Associates	2013	Geomorphology/ Archaeological borings/ GIS Model	Within Newark Bay	None	Low to moderate archaeological sensitivity for underwater archaeological resources
MULT A351	Cultural Resources Overview for Hudson-Raritan Estuary, Comprehensive Restoration Plan	URS Corporation	2014	Background research/ data collection	Encompasses the entire APE-Archaeology	None	-
MULT C1101e	Phase IA Archaeological Assessment, Bayway to Bayonne Underground Transmission Corridor Project, Elizabeth City, Union County and Bayonne City, Hudson County, New Jersey	E²PM	2016	IA	Bisects APE-Archaeology between the Newark Bay and John F. Kennedy Boulevard	None	Low sensitivity for archaeological resources
MULT GB254	Crossroads of the American Revolution National Heritage Area Management Plan; Part II Implementation Plan. Crossroads of the American Revolution Association, Morristown and Trenton, New Jersey.	Crossroads of the American Revolution National Heritage Area	2011	Background research/ data collection	Encompasses the entire APE-Archaeology	-	Major Revolutionary War skirmishes (1781, 1782) along the APE-Archaeology
MULT R89	Phase IA Cultural Resource Assessment, Bayonne Delivery Lateral, Newark, Essex County to Bayonne, Hudson County, New Jersey	URS Corporation	2009	IA	Within the eastern part of the APE-Archaeology	None	Low potential for archaeological resources based on previous disturbance
MULT R89a	Letter Report: Cultural Resources Addendum to Phase IA Cultural Resource Assessment/Bayonne Delivery Lateral Report, January, 2009	URS Corporation	2010	Addendum IA	Within the eastern part of the APE-Archaeology	None	-

Table 3.2; cont.

Report Number	Title	Author	Year	Phase	Location of Survey within APE-Archaeology	Archaeological Resource(s) Identified In/APE-Archaeology	Archaeological Sensitivity for APE-Archaeology (if noted)/Comments
MULT Z123	Cultural Resources Investigation, Conrail North Jersey Terminal, Capacity Improvement Infrastructure Project, City of Elizabeth, Union County and City of Newark, Essex County, New Jersey	Richard Grubb & Associates, Inc.	2005	IA	Bisects the APE-Archaeology Interchange 14 along the NJTP	None	Low probability for pre-Contact and historic resources
MULT R100	Archaeological Overview Survey, Texas Eastern Transmission , LP, New Jersey-New York Expansion Project, Linden, Bayonne, Jersey City, Hanover, and Mahwah, New Jersey	The Public Archaeological Laboratory (PAL)	2010	IA	Roughly follows along the eastern side of the APE-Archaeology	None	Much of the project area closest to the APE-Archaeological was considered to have no or low to moderate archaeological sensitivity. Soil borings were recommended
MULT R100c	Results of Geoarchaeological Soil Borings and Proposed Phase IB Archaeological Surveys, New Jersey-New York Expansion Project, Staten Island, New York and Linden, Bayonne and Jersey City, New Jersey	The Public Archaeological Laboratory (PAL)	2011a	Geo-archaeolo-gical soil borings	East of the APE-Archaeology, south of Linden Avenue and north of Greenville Yards	Potential for remains of eighteenth century Colonel Thomas Brown property and mid to late-nineteenth century resources	Deep fill (4.7 feet bgs*) deposits noted in soil boring capping an intact living surface and subsoil. Phase IB trenching was recommended
MULT R100f	Results of Geoarcheaological Soil Borings and Proposed Phase IB Archaeological Surveys, Report #2, New Jersey-New York Expansion Project, Bayonne and Jersey City, New Jersey	The Public Archaeological Laboratory (PAL)	2011b	Geo-archaeolo-gical soil borings	Various locations, east of the APE-Archaeology	Area west of Greenville Yards contains historic fill associated with the Morris Canal (8-14.4 feet bgs*). Fill (1.6 to 8.5 feet) over estuarine sequences in the remaining borings	Phase IB trenching recommended near Greenville Yards.
MULT R100g	Archaeological Overview Survey-Addendum #3 to Technical Report, New Jersey-New York Expansion Project, Linden, Bayonne, and Jersey City, New Jersey	The Public Archaeological Laboratory (PAL)	2011c	IA	Roughly follows along the eastern side of the APE-Archaeology	None	Much of the project area closest to the APE-Archaeological was considered to have no or low to moderate archaeological sensitivity. Soil borings and trenching were recommended

Table 3.2; cont.

Report Number	Title	Author	Year	Phase	Location of Survey within APE-Archaeology	Archaeological Resource(s) Identified In/APE-Archaeology	Archaeological Sensitivity for APE-Archaeology (if noted)/Comments
MULT R100q	Results of Geoarchaeological soil borings, Report #9, New Jersey-New York Expansion Project, Caven Point Road, Jersey City, New Jersey	The Public Archaeological Laboratory (PAL)	2012	Geo-archaeolo-gical soil borings	Various locations, east of the APE-Archaeology along Caven Point Road	None	Area north of Greenville Yards contains 3 to 20 feet of fill over estuarine deposits. Areas between the US Military Reservation and south of Bayview Avenue contains 15 to twenty feet of fill
MULT R100t	Phase IB Archaeological Identification Survey, Tract Nos. HUD-43, HUD-43R, and HUD-43.1R: Jersey City Redevelopment Agency and Conrail Properties, New Jersey-New York Expansion Project, Jersey City, Hudson County, New Jersey	The Public Archaeological Laboratory (PAL)	2013a	IB	Between NJ Route 440 and Linden Avenue	Morris Canal crossing. No evidence of the prism was noted. Stone boundary marker and modern utility trench were found. Identified pre-Contact Jersey Eagle site (28-Hd-45).	28-Hu-45 consisted of seven fragments of quartz chipping debris, quartz uniface, quartz biface fragment, and pre-Contact ceramic. Middle to Late Woodland site used for tool maintenance or manufacture and resource processing
MULT R100v	Technical Report Addendum, Phase IB/II Archaeological Identification Survey, Tract No. HUD-43.1R: Conrail Property-Jersey Eagle Site (28-Hd-45), New Jersey-New York Expansion Project, Jersey City, Hudson County, New Jersey	The Public Archaeological Laboratory (PAL)	2013b	IB/II	North of Greenville Yards at 28-Hd-45	Pre-Contact ceramic (n=6), chert biface and projectile point (n=2), chert debitage (n=2), jasper scraper and biface (n=2), jasper debitage (n=16), quartz manuport (n=1), quartz debitage n=2), FCR** (n=1)	Middle to Late Woodland site used for tool maintenance or manufacture and resource processing. No features identified, suggesting intensive site occupation was located outside the PAL project area, possibly at the Greenville Point site (28-Hd-3) located to the northeast. Boundary of site likely extends outside PAL project area

APE-Archaeology - Area of Potential Effects for Archaeology
APE-Architecture - Area of Potential Effects for Historic Architecture

to the APE-Archaeology and no or low to moderate archaeological sensitivity in the project area closest to the APE-Archaeology. PAL recommended soil borings (PAL 2010a; see Table 3.3).

In 2011, PAL completed a geophysical soil borings archaeological survey south of Linden Avenue and north of Greenville Yards. PAL discovered deep fill deposits (4.7 feet below ground surface), an intact living surface, and subsoil, identified the potential remains of the Colonel Thomas Brown property, and mid to late-nineteenth-century resources. Based upon the findings, PAL recommended Phase IB trenching (PAL 2011a; see Table 3.3).

A second geophysical soil borings archaeological survey was performed by PAL in various locations in Jersey City east of the APE-Archaeology in 2011. During testing, PAL discovered that the area west of Greenville Yards contained historic fill related to the Morris Canal located 8.0 feet to 14.4 below ground surface. The remaining borings showed fill 1.6 to 8.5 feet below ground surface over estuarine sequences. Based upon these results, PAL recommended Phase IB trenching near Greenville Yards, southeast of the APE-Archaeology (PAL 2011b; see Table 3.3).

Two addendum reports by PAL noted most of the project area proximate to the APE-Archaeology had no or low to moderate sensitivity for archaeological resources, and no identified archaeological resources. The lack of sensitivity for pre-Contact archaeological resources was due to the marshland in those areas before the infilling in the mid-twentieth century for man-made land. PAL recorded 10 to 14 feet of fill below ground surface in nearby soil borings and recommended further testing with soil borings and trenching (PAL 2011c, 2011d; see Table 3.3).

In 2012, PAL completed a Geoarchaeological soil boring survey at various locations east of the APE-Archaeology along Caven Point Road. PAL did not identify any archaeological resources within or adjacent to the APE-Archaeology. The report documented three to 20 feet of fill below ground surface over estuarine deposits in the area north of Greenville Yards, and 15 to 20 feet of fill below ground surface in areas between the U.S. Military Reservation and south of Bayview Avenue (PAL 2012; see Table 3.3).

In 2013, PAL conducted a Phase IB archaeological identification survey within the APE-Archaeology between New Jersey Route 440 and Linden Avenue. The survey recorded the Morris Canal including a stone boundary marker and modern utility trench, and the pre-Contact Jersey Eagle Site (28-Hd-45) as archaeological resources within the APE-Archaeology (PAL 2013a, see Figures 3.20-3.21; see Table 3.3). PAL returned to the Jersey Eagle Site (28-Hd-45), north of Greenville Yards, to complete a Phase IB/II archaeological survey and found no features; however pre-Contact artifacts were recovered, including: six ceramic sherds, two chert bifaces/projectile points, two chert debitage fragments, two jasper scrapers and a biface, 16 jasper debitage fragments, one quartz manuport, two quartz debitage fragments, and one fire cracked rock. The site was documented as a Middle to Late Woodland site used for tool maintenance or manufacture, and resource processing (PAL 2013a, 2013b; see Table 3.3). The historical component of the site contained artifacts related to eighteenth- to twentieth-century domestic refuse, including ceramic and bottle fragments, personal items, shell, coal, and slag. Architectural material including window glass, nail, and brick were also found. A stone wall feature was identified by PAL but determined by the firm to unlikely to be associated with a structural foundation (PAL 2013). Instead, the wall was interpreted as a boundary wall. The historic component of the site was interpreted as consistent with field scatter in a former agricultural field. The artifacts in the Jersey Eagle Site were recovered from deeply buried plowzone layers with top subsurface depths ranging from roughly 7.9 feet below grade in the southern portion of the site to 2.3 feet below grade in the northern portion of the site. Excavations at 28-Hd-45 suggest the presence of deeply buried pre-Contact archaeological sites within this portion of the APE-Archaeology (see Figure 3.20-3.2; PAL 2013a, 2013b).

3.6 Known Historic Architectural Resources and Prior Investigations

NJ TRANSIT Historic Railroad Bridge Survey
The NJ TRANSIT Historic Railroad Bridge Survey was completed in 1991 as a joint effort between NJ TRANSIT and DeLeuw, Cather and Company. The survey identified historic railroad bridges along commuter rail lines in New Jersey which are either owned or maintained by NJ TRANSIT. Of the many bridges surveyed, no railroad-related historic resources were identified within the APE-Architecture (DeLeuw, Cather and Company 1991).

New Jersey Historic Bridge Survey
The New Jersey Department of Transportation (NJDOT) sponsored the New Jersey Historic Bridge Survey, which was completed in 1994. All bridges in the state built prior to 1947 were surveyed and assessed as to their possible eligibility for listing in the NRHP. Railway bridges that did not span a road or had been surveyed by 1991 were excluded from this historic bridge survey (see above; DeLeuw, Cather and Company 1991). The Newark Bay Bridge was not included in the New Jersey Historic Bridge Survey because the structure post-dates the survey cut-off of 1947 (A. G. Lichtenstein & Associates, Inc. 1994).

The survey identified one bridge formerly located within the APE-Architecture: the Gates Avenue Bridge over Conrail Bayonne Branch (Structure No. 0962156) (A.G. Lichtenstein & Associates, Inc. 1994). The survey describes the bridge as a two-span, Warren through truss structure built by the CRRNJ in 1906 and recommended individually eligible for the NRHP as an intact example of its type (A.G. Lichtenstein & Associates, Inc. 1994). In 1994, the NJHPO determined the structure individually eligible for listing in the NRHP; however, the bridge has since been demolished (Hall 1994).

New Jersey Historic Roadway Survey
The New Jersey Historic Roadway Survey identified no historic roadways within the APE-Architecture (KSK Architects Planners Historians, Inc. 2011).

Planning Surveys
The Phase 2 Survey of Ward A in Jersey City did not identify any resources within the APE-Architecture (Mary B. Dierickx Architectural Preservation Consultants 1986). The historic property survey completed for Bayonne in 2000 as part of its master planning effort (see below) identified two extant resources within the APE-Architecture: the Woodrow Wilson School at 101 West 56th Street and the Newark Bay Bridge, which the survey identifies as the Vincent R. Casciano Turnpike Extension Bridge (Cultural Resource Consulting Group [CRCG] 2000). Base survey forms completed as part of the 2000 reconnaissance-level survey offer limited information on both resources. No recommendations for listing in the NRHP were included in the survey (CRCG 2000).

In 2018, the New Jersey Transportation Planning Authority funded a greenway study of the Morris Canal to analyze the potential of a continuous, mixed-use route within or adjacent to the former canal path (NV5 et al. 2018). A portion of the historic Morris Canal route traverses the APE-Architecture and was considered as part of the 2018 study. The study did not identify any extant features historically associated with the canal within or adjacent to the APE-Architecture.

Regulatory Surveys
Twelve previously conducted cultural resources surveys with a historic architectural component have been completed within or adjacent to the APE-Architecture, including the Crossroads of the American Revolution Association plan and the URS Corporation Hudson-Raritan Estuary (HRE) cultural resources inventory, previously discussed in Section 3.5. No Revolutionary War-associated historic architectural resources were identified in the Crossroads of the American Revolution Association plan are located within the APE-Architecture (Crossroads of the American Revolution National Heritage Area 2011). The URS Corporation HRE cultural resources inventory only identified existing historic properties at the time of its survey, three of which are located within the APE-Architecture: the Morris Canal, LVRRHD, and PRRNYBBHD (URS Corporation 2014).

Four cultural resources surveys were conducted generally within the western portion of the APE-Architecture in Newark. In 1986, a cultural resources technical study was completed as part of the proposed widening of the NJT main stem (New Jersey Turnpike Authority 1986). The study identified two resources between NJT Interchanges 13 and 14, proximate to and within the APE-Architecture, that were previously mentioned in Terry Karschner's discussion of Newark industrial resources: the Newark Airport and Port Newark (New Jersey Turnpike Authority 1986). Neither resource was examined further as part of the cultural resources investigations for the initial and subsequent proposed NJT widenings, and no additional historic resources were identified by these studies in the current APE-Architecture (New Jersey Turnpike Authority 1986, 1987, 1989).

In 2002, RGA completed a cultural resources screening as part of a proposed wireless communications project at Firmenich Way in Newark, within the APE-Architecture. The building to house the proposed communication equipment was located north of the NB-HCE ROW and was less than 45 years of age at the time of the screening. The visibility of the proposed project from nearby historic properties, including the LVRRHD, was negligible and no additional investigation was recommended (Richard Grubb & Associates, Inc. 2002).

In 2005, RGA completed a cultural resources investigation for the proposed improvement of the Conrail North Jersey Terminal facilities, a portion of which traversed the current APE-Architecture at Interchange 14. The intensive-level survey of the cultural resources investigation identified the NRHP-eligible LVRRHD and NRHP-eligible Newark and Elizabeth Branch of the Central Railroad of New Jersey within and adjacent to the APE-Architecture (Richard Grubb & Associates, Inc. 2005). The PRRNYBBHD was surveyed at the intensive level as part of the investigation and recommended eligible for listing in the NRHP. As a result of the survey, the historic district was formally determined NRHP eligible by the NJHPO on April 22, 2005.

In 2018, RGA completed an intensive-level historic architectural survey of the Port Authority Administration Building (Building 260) at 260 Kellogg Street in Newark as part of a proposed building repair and reconstruction project. The APE for the 2018 survey was limited to the building parcel and did not identify any additional historic architectural resources within the current APE-Architecture. In review correspondence dated April 12, 2018 (HPO-D2018-109), the NJHPO determined that the Port Authority Administration Building (Building 260) appears to be eligible under NRHP Criterion C as an intact and representative example of the New Formalism style, an architectural style characteristic of 1960s high-profile cultural, institutional, and civic buildings (RGA, Inc. 2018; Marcopul 2018; see Appendix F). The boundaries of the historic property would encompass the property boundaries, and the period of significance would be limited to its year of construction, 1967. Based on the NJHPO correspondence on file and review of the resource on NJ GeoWeb, it appears that the NJHPO's comments were informal and did not constitute project review under any state or federal law. As such, the building has not been formally designated eligible for listing in the NRHP by the NJHPO.

The remaining six cultural resources studies were conducted within the eastern portion of the APE-Architecture in Bayonne and Jersey City. In 1978, a Stage IA cultural resource survey for the Hudson County Sewerage Authority identified two historic resources within and/or adjacent to the current APE-Architecture: the Marist High School and the Fiddler's Elbow section of the Morris Canal. The Marist High School was a two-and-a-half story, early twentieth-century school building located at 1241 John F. Kennedy Boulevard and recommended potentially eligible for listing in the NRHP (Historic Conservation & Interpretation, Inc. 1978). The building and larger school complex has since been demolished. The Fiddler's Elbow section of the Morris Canal was identified on the border of Bayonne and Jersey City, near present-day Mercer Park. The survey identified no above-ground canal remains but indicated the potential of surviving subsurface remains adjacent to Mercer Park (Historic Conservation & Interpretation, Inc. 1978).

During the 1990s, three studies were undertaken near the east end of the APE-Architecture as part of the proposed Hudson-Bergen Light Rail (HBLR) Transit System. In 1994, Lynn Drobbin & Associates completed a reconnaissance-level survey of historic resource located within 500 feet of the former

Central Railroad of New Jersey Bayonne Branch from Gateway Park-Ride in Liberty State Park, Jersey City to Newark Bay in Bayonne (Lynn Drobbin & Associates 1994). A portion of the railroad ROW examined in the survey falls within the current APE-Architecture. The Gates Avenue Bridge (now demolished) was the only resource identified in the APE-Architecture and was recommended eligible for listing in the NRHP. The report also evaluated the potential NRHP-eligibility of the Central Railroad of New Jersey Bayonne Branch and recommended the resource ineligible due to a lack of sufficient architectural integrity as a linear historic district.

In January of 1995, Lynn Drobbin & Associates submitted a Historic Architectural Resources Background Study (HARBS) that identified historic properties previously determined eligible for or listed in the NRHP as well as the previously unevaluated historic architectural resources within a 500-foot buffer of the entire proposed HBLR Transit System (Lynn Drobbin & Associates 1995a). Of the historic properties and resources identified within 500 feet of the HARBS project area, three were located within the current APE-Architecture: the Morris Canal, the Gates Avenue Bridge, and the Linden Avenue Bridge over Conrail Bayonne Branch. At the time of the 1995 HARBS report, the Gates Avenue Bridge received a formal Opinion of Eligibility from the NJHPO (Lynn Drobbin & Associates 1995a). The Linden Avenue Bridge identified within the current APE-Architecture was not recommended NRHP-eligible. In December of 1995, Lynn Drobbin & Associates completed an effects assessment for historic properties located within the proposed HBLR project, including the Morris Canal and Gates Avenue Bridge, which are located within the current APE-Architecture. The report indicated no adverse project effects on these two historic properties (Lynn Drobbin & Associates 1995b).

In 2011, Dewberry-Goodkind, Inc. completed a Technical Environmental Study associated with the proposed improvements at NB-HCE Interchange 14A, the project area of which encompasses the eastern portion of the current APE-Architecture. The study identified four previously identified historic properties located within the APE-Architecture: the Morris Canal, LVRRHD, Greenville Yard Historic District, and the PRRNYBBHD (Dewberry-Goodkind, Inc. 2013). Since the completion of the 2011 report, the NJHPO issued an opinion of ineligibility for the Greenville Yard Historic District, and it is now identified on the NJ GeoWeb database as an ineligible resource. The study also identified 14 historic architectural resources, three of which are fully or partially located within the current APE-Architecture: the Interchange 14A Toll Plaza Building, the Former Tide Water Oil Company Pumping Station, and the PSE&G Building at 41 Garfield Avenue. The study recommended all three surveyed resources ineligible for listing in the NRHP (Dewberry-Goodkind, Inc. 2013). The survey forms for the Former Tide Water Oil Company Pumping Station and PSE&G Building were updated in November 2013; however, no changes were made to its original NRHP recommendation (Dewberry-Goodkind, Inc. 2013; see Appendix F). The survey concluded that the project would not have an adverse effect on the LVRRHD or PRRNYBBHD. Since the study identified no above-ground features associated with the Morris Canal, it was not formally assessed for project effects.

In 2017, RGA completed a HARBS and Effects Assessment for NJ TRANSIT's proposed NJ TRANSITGRID TRACTION POWER SYSTEM project. The APE-Architecture for the 2017 study partially overlaps with the current APE-Architecture around Interchange 14A. Where the APEs overlap, three historic properties were identified: the Morris Canal, LVRRHD, and PRRNYBBHD (RGA 2017b). The Gates Avenue Bridge was also identified in the 2017 study; however, it was noted to have been demolished. No historic resources identified in the 2017 study are located within the APE-Architecture (RGA 2017b).

Historic Preservation Element (Master Plan)

The Historic Preservation Plan Element of the City of Jersey City Master Plan indicates that Jersey City has designated four local historic districts and 13 local landmarks for protection that are under the jurisdiction of the Jersey City Historic Preservation Commission (City of Jersey City 2015: IX-4). None of the locally designated resources identified in the master plan are located within the APE-Architecture.

At the time of its publication in 2000, the Historic Preservation Plan Element in the City of Bayonne's master plan identified 15 historic resources listed in the NJR and/or NRHP or are eligible for listing in the NRHP (City of Bayonne 2000). None of these resources are located within the APE-Architecture. As part of an initial historic property survey performed at the reconnaissance level in 2000, supporting the master planning effort, more than 500 properties were catalogued as potential historic resources (CRCG 2000). Of the properties identified, only the Woodrow Wilson School and Newark Bay Bridge are located within the APE-Architecture; however, the survey did not include recommendations regarding the NRHP eligibility of either resource (CRCG 2000).

In 2017, the City of Bayonne completed a re-examination report on the 2000 master plan that included a re-evaluation of the historic preservation element (DMR Architects 2017:100). The report recommended one resource for local designation, the Eighth Street Historic District. The proposed district is located at the southern end of the City of Bayonne and is outside of the APE-Architecture.

4.0 PHASE I ARCHAEOLOGICAL SURVEY

4.1 Archaeological Field Inspection Results

A pedestrian survey of the APE-Archaeology was conducted on August 30, 2021 and April 8, 2022, to document existing conditions as part of the archaeological sensitivity assessment (Figure 4.1a-4.1c). The APE-Archaeology was examined and photographed with a digital camera, except in places of limited or restricted access (see Figure 4.1a-4.1c; Plates 4.1-4.24).

The western-most portion of the APE-Archaeology is located within the City of Newark, on the west side of the Newark Bay. This part of the APE-Archaeology is situated within a former salt marsh and the majority of the NB-HCE in this area is elevated on concrete piers above the filled landscape and wetlands, or on earthen berms carrying the NB-HCE over the roadways and rail lines which bisect the APE-Archaeology (see Figure 4.1a; see Plates 4.1-4.8).

Extending east from Newark, the APE-Archaeology crosses the Newark Bay via the Newark Bay Bridge and enters Bayonne (see Figure 4.1b; see Plates 4.9-4.11). The APE-Archaeology on the east side of the Newark Bay is surrounded by residential and commercial properties. The majority of the NB-HCE within this part of the APE-Archaeology is also elevated via concrete piers and earthen berms (see Figure 4.1b; see Plates 4.12-4.14).

A detention basin (HUC2-1) is proposed on the property of the former Marist High School on Block 13, Lot 1 in Bayonne (see Figure 4.1b; see Appendix B, Sheet 203). The western portion of the property, to the rear or west of the former school building, sits on roughly 20 feet of imported fill comprised of soil, brick, concrete, rock, and other refuse which was imported during the 1950s and 1960s (see Figure 4.1b; see Plates 4.16-4.17). Recent demolition activities and associated earthmoving by the current property owner have extensively disturbed much of the Marist High School property (see Figure 4.1b; see Plate 4.18). Marked underground utilities, such as gas, water, and sewer lines were present throughout the Marist High School property (see Figure 4.1b; see Plates 4.18-4.19). A grassy area in the front (east) side of former Marist High School building within 75 feet of John F. Kennedy Boulevard appeared to lack any visible disturbance (see Figure 4.1b; see Plates 4.18-4.19). Based on an 1889 map, an unnamed tributary extended through the southeast corner of the Marist High School property in an area that is current grassy and was infilled by the late nineteenth century (see Figure 3.9).

The footprint of the Morris Canal traverses the APE-Archaeology in Bayonne and the City of Jersey City and is currently covered in areas of overgrown vegetation west of Avenue C and in asphalt paved parking lots and roadways between Avenue C and Broadway (see Figure 4.1c; see Plate 4.15). The Morris Canal footprint then clips an existing detention basin and crosses the APE-Archaeology into a lightly wooded area on the northwest side of and parallel to the NB-HCE (see Figure 4.1c; see Plate 4.23). This existing basin also is the location of a former, nineteenth-century New York Bay Railroad turntable (see Figure 3.12, 3.14). It is unclear if the basin's construction resulted in the complete removal of the turntable that once existed. This area, also the location of a new proposed basin (HUC3-C), appears to have been graded and filled to allow for proper drainage off the surrounding roadways and interchange (see Appendix B, Sheet 204; see Figure 4.1c; see Plate 4.23). Although portions of this area may have been disturbed, remnants of the Morris Canal and turntable may be present within this grassy area of the new proposed basin. Within the APE-Archaeology, the Morris Canal was present on Block 30203, Lot 3; Block 30204, Lots 3 and 4; Block 30306, Lots 2, 3, and 4; and Block 30303 TURN, in the City of Jersey City, as well as other parcels that lack block and lot numbers, including an area in the City of Bayonne adjacent to the south side of I-78 and the NJ Turnpike (see Figure 4.1c).

The majority of the NB-HCE in the southeastern part of the APE-Archaeology is carried on a viaduct over New Jersey Route 440, entrance and exit ramps, and multiple rail lines (see Figure 4.1c; Plates 4.21-4.23). The NJT Toll Plaza 14A and exit and entrance ramps are

located on earthen berms within the southeast part of the APE-Archaeology (see Figure 4.1c; Plates 4.20-4.23). Evidence of underground utilities were noted during the pedestrian survey (Figure 4.1c; Plate 4.19-4.20). The installation of the concrete pillars to create the viaduct used carry the southern portion of the NB-HCE within the APE-Archaeology would have necessitated extensive excavation and earthmoving operations. Therefore, the majority of the eastern part of the APE-Archaeology contains disturbance from the NB-HCE construction, as well as the construction of multiple rail lines and installation of underground utilities.

Northeast of the Toll Plaza 14A, the APE-Archaeology transects several Conrail railroad tracks, parking lots, the north and south bound lanes for New Jersey Routes 185 and 440, and open land covered in refuse, weeds, shrubs, and trees (see Figure 4.1c; see Plates 4.21-4.22). A detention basin (HUC3-F) is proposed north of Caven Point Road, roughly 450 feet southwest of Linden Avenue on Block 30306, Lot 7 proximate to the previously identified Jersey Eagle Site (28-Hd-45) (Appendix B, Sheet 205). The area surrounding the Jersey Eagle Site is currently covered in low-lying weeds and light vegetation and does not appear to contain any surface-visible disturbance, but does contain extensive fill based on data from nearby prior archaeological excavations ranging from 6.0 to 7.9 feet thick (see Figures 3.20-3.21, 4.1c; see Plates 4.24). The soils present below the fill at the site closest to proposed basin HUC3-F consisted of a 0.82-foot thick very dark grayish brown (10YR 3/2) buried plowzone over a 0.32-foot thick interface, followed by a 0.45-foot thick olive gray (5Y 4/2) alluvium/B1-horizon, over a 0.59-foot thick yellowish brown (10YR 5/6) clay B2-horizon, above a strong brown (7.5YR 5/6) fine sand C-horizon (PAL 2013). A sandstone regolith was present several of the excavations in the B2-horizon that made continued excavation impossible. Immediately west of the proposed basin, excavations conducted in 2013 by PAL reveals that modern fill in Segments 1, 2, and 3 is present to depths ranging from 6.6 to 7.5 feet below grade (see Figure 3.21).

RGA reviewed soil boring SWN-12(OW) dug at proposed basin HUC3-F (see Appendix J; AmerCon Corp. 2022) which started at ground surface at 18.5 feet above mean sea level. The top stratum measured 5.0 feet thick and ranged from black to brown coarse to fine sand similar to fill encountered at the Jersey Eagle Site. This fill capped an apparent truncated hydric light gray course to fine sand present between 5.0 and 7.0 feet below grade. This second stratum appears to be an alluvium or B-horizon that was underlain by a hydric olive brown coarse to fine sand second B-horizon or alluvium present from 7.0 to 9.0 feet below grade. At a depth of 9.0 feet below grade a reddish brown coarse to find sand was identified which appears to be a third alluvium or C-horizon. This fourth stratum capped a light gray coarse to find sand present from 11.0-13.0 feet below grade, which terminated on a reddish brown coarse to fine sand that extended to 15.0 feet below grade. Boring excavation ended at 15.0 feet below grade. The data strongly suggests a different stratigraphic profile exists at proposed basin HUC3-F than that present at the Jersey Eagle Site to the northwest and that the natural soils in the proposed basin location were partially truncated and subject to a seasonally high water table, making them hydric and gray in color. This suggests they were unsuitable for habitation.

With the exception of the aforementioned proposed basins located within the Marist High School property, the area at the Jersey Eagle Site, and within the footprint of the Morris Canal and former circa 1908 railroad turntable, the remainder of the land on which the proposed stormwater detention basins within the APE-Archaeology will be situated is within or adjacent to the footprint of the HB-NBE and is disturbed (see Appendix B, Sheets 198-205). The proposed basin near Interchange 14A in the southern part of the APE-Archaeology has likely been disturbed through the installation of underground utilities, as well as the construction of the roadway and toll plaza (see Figure 4.1; see Plate 4.20c; see Appendix B, Sheet 204).

4.2 Assessment of Archaeological Resources Sensitivity

The assessment of archaeological sensitivity considers environmental characteristics of known prehistoric sites locally and in the region and historic records to identify locations within the APE-Archaeology likely to contain prehistoric and historic archaeological resources. In areas where no sites

are documented, the potential presence of prehistoric resources is based primarily on topography, availability of lithic and other critical resources, proximity to water, and soil characteristics. The potential presence of historic resources is determined through analysis of historic primary and secondary records and cartographic materials. The proximity of historic transportation routes and valuable natural resources (water, building material, energy sources) also increases the potential for historic sites to be discovered.

Pre-Contact Period Archaeological Sensitivity

Previous archaeological investigations and regional settlement pattern studies indicate that in New Jersey, and elsewhere in the Middle Atlantic region, areas of well-drained soils within a few hundred feet of a perennial water sources are highly favored locations for pre-Contact period Native American sites (Cavallo and Mounier 1982; Chesler 1982; Grossman-Bailey 2001:136; Kinsey 1972; Kraft 1986, 2001; Ranere and Hansell 1985, 1987; Wall et al. 1996; Walwer and Pagoulatos 1990). Areas closest to wetlands are considered zones of highest sensitivity for the location of prehistoric archaeological resources (Hasenstab 1991). Other possible zones of sensitivity for pre-Contact period Native American occupation include locations with well-drained soils, level topography, historic trails, and a good vantage point, particularly on drainage divides, and upland areas farther from water that may contain key exploitable technological or subsistence resources (Cavallo and Mounier 1982; Pagoulatos and Walwer 1991).

Background research identified one previously registered multi-component pre-Contact and historic-period archaeological site, the Jersey Eagle Site (28-Hd-45), within the APE-Archaeology. The site, southwest of Linden Avenue, has a pre-Contact component dating to the Middle to Late Woodland period. The Phase IB and subsequent Phase II archaeological survey yielded 51 pre-Contact artifacts. While no pre-Contact period features were found, the artifacts indicate stone tool manufacture and maintenance, as well as subsistence-related resource processing activities took place. The site was determined eligible for listing in the NRHP under Criterion A for its association with events that made a significant contribution to the broad patterns of history and Criterion D for the potential to yield new, important information in prehistory and history regarding the pre-Contact period occupation and early colonial settlement of Hudson County from 0 to 1850 AD. The artifacts in the Jersey Eagle Site were recovered from deeply buried plowzone layers with top subsurface depths ranging from 7.9 feet below grade in the southern portion of the site to 2.3 feet below grade in the northern portion of the site. Excavations at 28-Hd-45 suggest the presence of deeply buried pre-Contact archaeological sites within this portion of the APE-Archaeology. Therefore, the area at the Jersey Eagle Site is considered to have a high potential for deeply buried pre-Contact resources (see Figure 4.1c). A review of geotechnical boring log data for proposed basin HUC3-F reveals a different stratigraphic profile than that present at the nearby Jersey Eagle Site, suggesting deeper historic disturbances and the presence of a different landscape where hydric and inundated soils formerly existed that were likely not conducive for human occupation. Proposed excavations for the stormwater management basin adjacent to the location of the Jersey Eagle Site will extend to 5.0 feet below grade and will likely be contained within modern fill deposits above the depth of the nearby site. The stormwater outlet pipe that will extend from the proposed basin to Linden Avenue may be within the 16-foot wide trench footprint of the adjacent natural gas pipeline that was installed in 2011 (see Figure 3.20; see Appendix B, Sheet 205).

A stormwater management basin (HUC2-1) is proposed at the location of the former Marist High School on Block 13, Lot 1 in the City of Bayonne, which recently witnessed extensive demolition by the current property owner (see Appendix B, Sheet 203). The western part of the Marist High School property was located within the Newark Bay until the mid-twentieth century when several dozen feet of imported fill was placed to build up the landscape and extend the buildable terrain further west (NETR 1966). The eastern part of the property was former uplands overlooking the shoreline, with the exception of the southeast corner of the property, which contained a tributary as of 1889 (see Figure 3.9). Some disturbance is likely present from the construction of the 1919 "Parental School" as well as the mid-1950s-1960s school complex expansion and the recent demolition activities at the Marist High School. Despite this, a roughly 75-foot wide by 188-foot long area immediately east of the

former school and west of John F. Kennedy Boulevard may remain undisturbed and has an assessed moderate to high sensitivity for pre-Contact period Native American archaeological resources (see Figure 4.1b).

Elsewhere, the majority of the APE-Archaeology on the east side of the Newark Bay consists of well-drained Laguardia artifactual coarse sandy loam, 0-3 percent slopes (LagA) and Laguardia artifactual coarse sandy loam, 3-8 percent slopes (LagB) with pockets of disturbed, Urban land, Eolian substratum (UREOLB) and Uban land, wet substratum, 0-8 percent slopes (URWETB) soils as well as, very poorly-drained Westbrook mucky peat, 0-2 percent slopes, very frequently flooded (WectA) (see Figure 3.2; see Table 3.1; NRCS 2013, 2021). Historic maps and photographs reveal that much of the natural landscape in the Bayonne and Jersey City portion of the APE-Archaeology has been significantly altered during the mid-twentieth century during the construction of the New Jersey Turnpike (Fairchild Aerial Surveys, Inc. 1955) (see Figure 3.17-3.18). A 1955 photograph shows earthmoving and grading within the APE-Archaeology between the Conrail Line and the former location of Morris Canal in Jersey City. A large berm had been constructed to carry the HB-NBE of the NJT over Garfield Avenue and smaller berms appear to have been created near Hudson Boulevard (present-day John F. Kennedy Boulevard) and the approach to the Newark Bay Bridge (see Figure 3.17). The pedestrian reconnaissance also noted additional twentieth-century disturbance from utility installation and roadway maintenance through much of the APE-Archaeology. With the exception of the area surrounding the Jersey Eagle Site and the 75-foot by 188-foot area on the Marist High School parcel in the City of Bayonne, the degree of grading and filling within the Bayonne and Jersey City sections of the APE-Archaeology suggest a low sensitivity for intact prehistoric archaeological resources.

Soils mapped within the Newark portion of the APE-Archaeology include: somewhat excessively drained Bigapple loamy sand, 0-3 percent slopes (BhgA); Urban land, Bigapple substratum, 0-8 percent slopes (URBHGB); Urban land, loamy fill substratum, 0-8 percent slopes (URKTTB); and well-drained Odorthents, loamy fill substratum, 0-8 percent slopes (UdkttB) (see Figure 3.2; see Table 3.1; NRCS 2013, 2021). The Newark section of APE-Archaeology is located within built land that was historically salt marsh and filled in the twentieth century. Soil borings placed within the City of Newark for previous surveys indicate the presence of buried marsh peat within the City of Newark in areas of mapped historic salt marsh. Several reports have suggested the potential for alluvial sediments sandwiched between Holocene marsh peat and varved lacustrine clays in the vicinity of the project location to contain Native American archaeological deposits (Boesch 2018; Hunter Research, Inc. 2006; Thieme 2003). Such archaeological deposits may date to the period between late Pleistocene drainage of Proglacial Lake Hackensack and subsequent Holocene marine transgression and marsh formation. Given this chronology, Paleoindian and/or Archaic period archaeological remains may be present in sediment underlying Holocene peat deposits within the APE-Archaeology. However, this area was scoured during the creation of extensive drainage ditches during the nineteenth century, therefore, it is unlikely the pre-Contact deposits remain intact in Newark portion of the APE-Archaeology and therefore, this area has a low sensitivity to contain pre-Contact archaeological resources

Historic Archaeological Sensitivity

Historic site sensitivity is assessed as high near documented historic occupation and low in areas with little record of historic land development. The presence of standing historic buildings indicates a high probability for associated historic archaeological sites. Information obtained from cartographic evidence also contributes to assessments of historic site probability. While early historic maps do not depict historic structures or roads with accuracy, nineteenth-century maps often record details of settlement pattern, ownership and occupation. From an environmental perspective, the factors contributing to prehistoric sensitivity often apply to early historic sensitivity as well.

A review of eighteenth- to twentieth-century historic maps and atlases indicated that the Newark portion or the APE-Archaeology was situated within salt marsh throughout most of its history. Land filling occurred south of the NB-HCE in Newark between 1905 and 1931 when Port Newark was

Figure 4.1a: Aerial image showing photograph locations in the Newark portion of the APE-Archaeology (NJGIS Digital Orthographic Imagery, 2020).

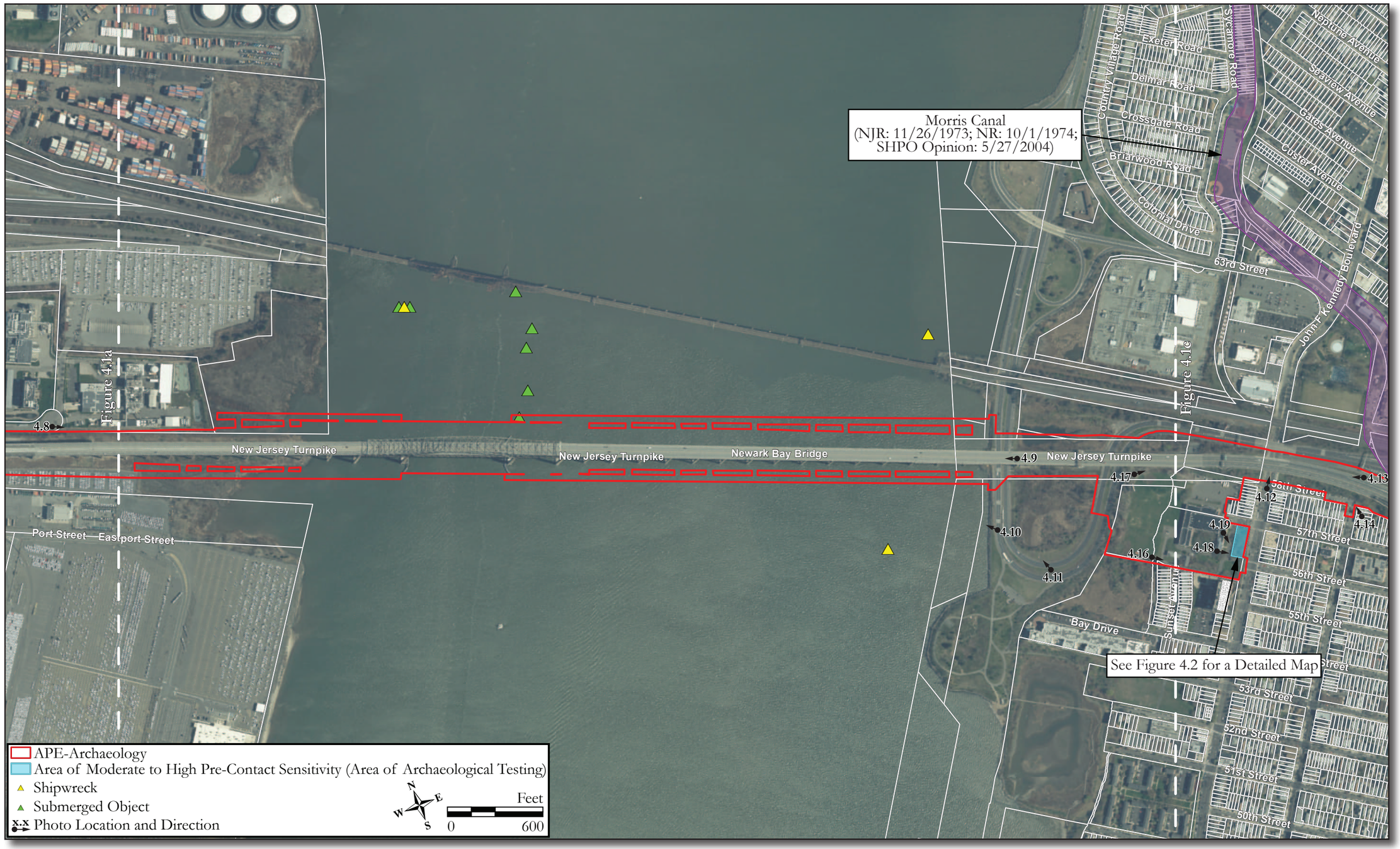

Figure 4.1b: Aerial image showing photograph locations, submerged object and wrecks, and areas of archaeological sensitivity (NJGIS Digital Orthographic Imagery, 2020).

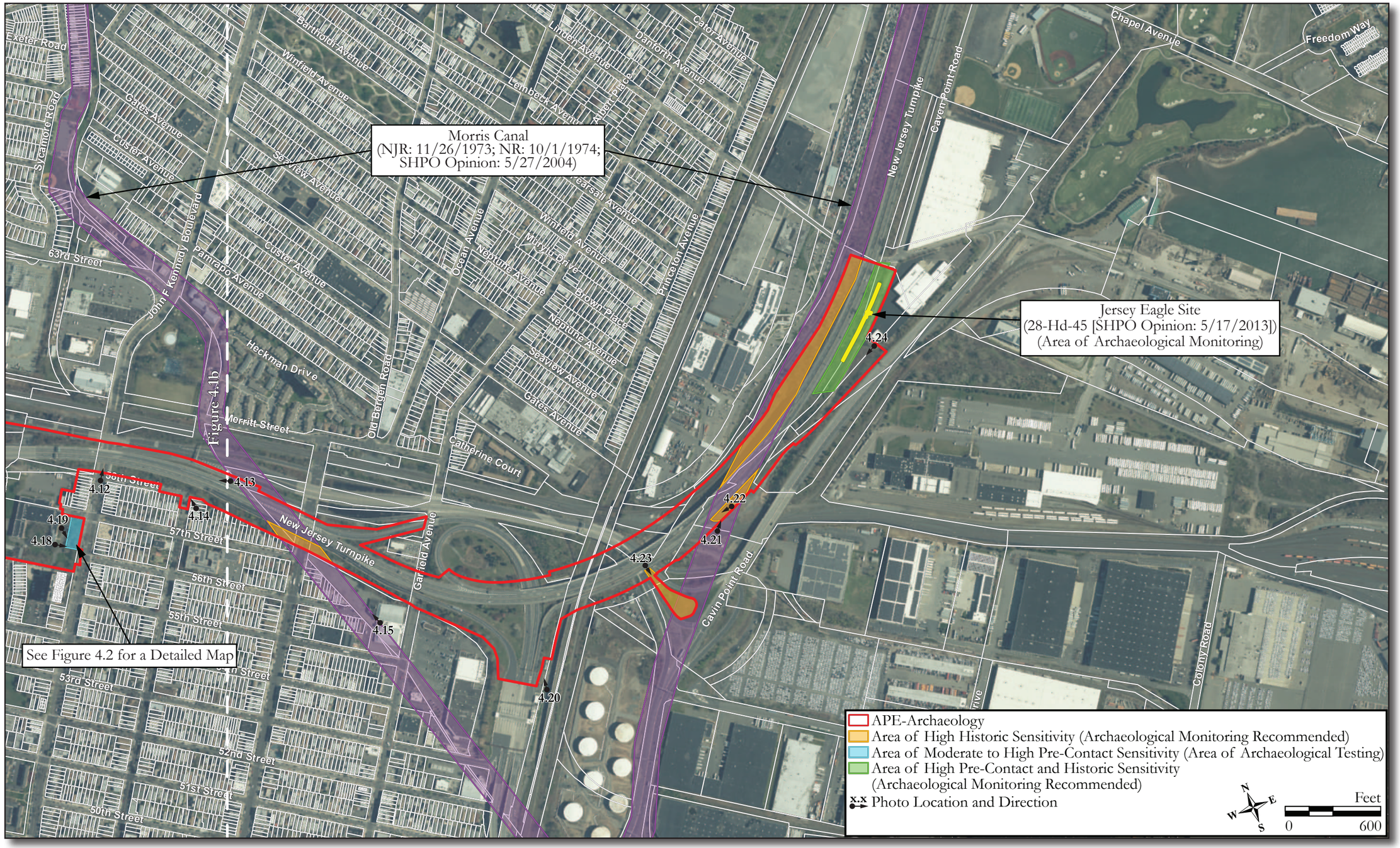

Figure 4.1c: Aerial image showing photograph locations, the footprint of the Morris Canal, and areas of archaeological sensitivity (NJGIS Digital Orthographic Imagery, 2020).

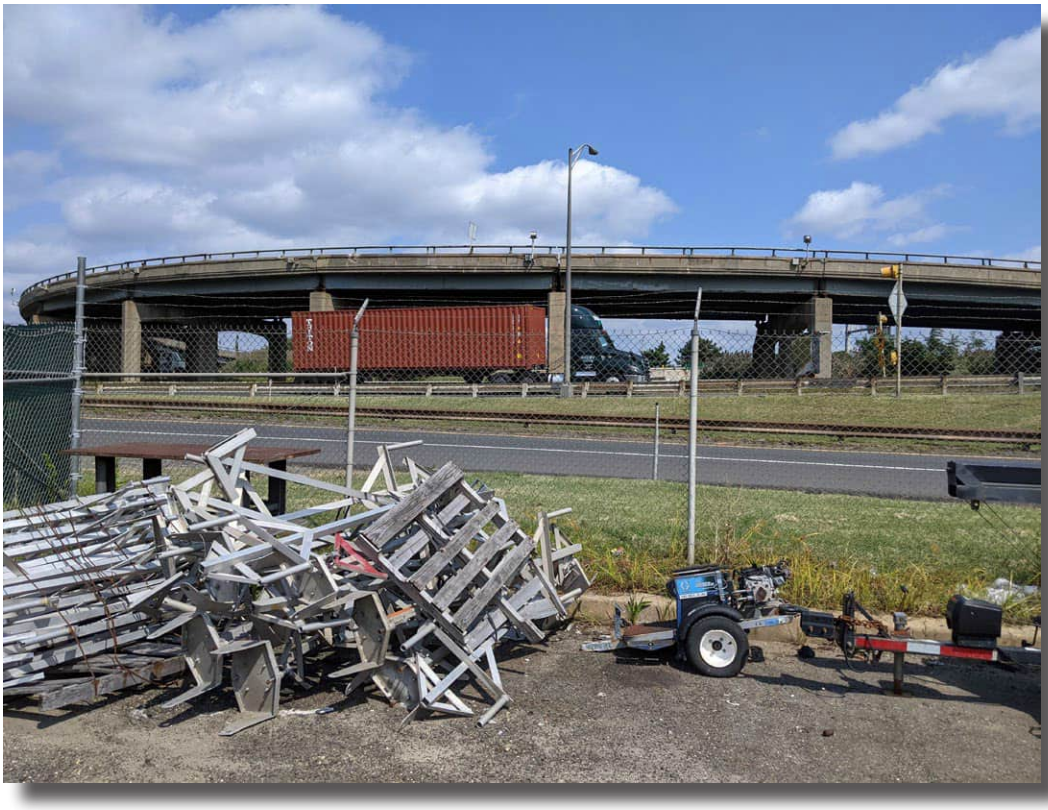

Plate 4.1: Overview of the APE-Archaeology at Interchange 14A-14C in Newark.

Photo view: Northeast

Photographer: Evan Robinson

Date: August 30, 2021

Plate 4.2: Overview of the APE-Archaeology looking toward Interchange 14A-14C in Newark.

Photo view: Southeast

Photographer: Evan Robinson

Date: August 30, 2021

Plate 4.3: Overview of the APE-Archaeology showing and elevated portion of the NB-HCE in Newark.

Photo view: Northeast

Photographer: Evan Robinson

Date: August 30, 2021

Plate 4.4: Overview of the APE-Archaeology from Port Street toward an elevated portion of the NB-HCE in Newark.

Photo view: Northeast

Photographer: Evan Robinson

Date: August 30, 2021

Plate 4.5: Overview of the APE-Archaeology from Doremus Avenue toward an elevated portion of the NB-HCE in Newark.

Photo view: Northwest

Photographer: Evan Robinson

Date: August 30, 2021

Plate 4.6: Overview of the APE-Archaeology from Doremus Avenue looking along an elevated portion of the NB-HCE in Newark.

Photo view: Southeast

Photographer: Evan Robinson

Date: August 30, 2021

Plate 4.7: Overview of the APE-Archaeology from Navy Street looking along an elevated portion of the NB-HCE in Newark.

Photo view: Southeast

Photographer: Evan Robinson

Date: August 30, 2021

Plate 4.8: Overview of the APE-Archaeology toward along an elevated portion of the NB-HCE in Newark.

Photo view: Southeast

Photographer: Evan Robinson

Date: August 30, 2021

Plate 4.9: Overview of the APE-Archaeology crossing the Newark Bay, looking along the underside of the Newark Bay Bridge toward Newark.

Photo view: Northwest

Photographer: Evan Robinson

Date: August 30, 2021

Plate 4.10: Overview of the Newark Bay Bridge crossing the Newark Bay.

Photo view: Northwest

Photographer: Evan Robinson

Date: August 30, 2021

Plate 4.11: Overview of the APE-Archaeology and the approach to the Newark Bay Bridge in Bayonne.

Photo view: Northwest

Photographer: Evan Robinson

Date: August 30, 2021

Plate 4.12: Overview of an elevated portion of the APE-Archaeology within Bayonne.

Photo view: Northeast

Photographer: Evan Robinson

Date: August 30, 2021

Plate 4.13: Overview the APE-Archaeology within Bayonne.

Photo view: Northwest

Photographer: Evan Robinson

Date: August 30, 2021

Plate 4.14: Overview of an elevated portion of the APE-Archaeology within Jersey City.

Photo view: Northwest

Photographer: Evan Robinson

Date: August 30, 2021

Plate 4.15: Overview of fill located northeast of the former Marist High School.

Photo view: Southeast

Photographer: Allison A. Gall

Date: April 8, 2022

Plate 4.16: Overview of fill located north of the former Marist High School and NB-HCE.

Photo view: Southeast

Photographer: Allison A. Gall

Date: April 8, 2022

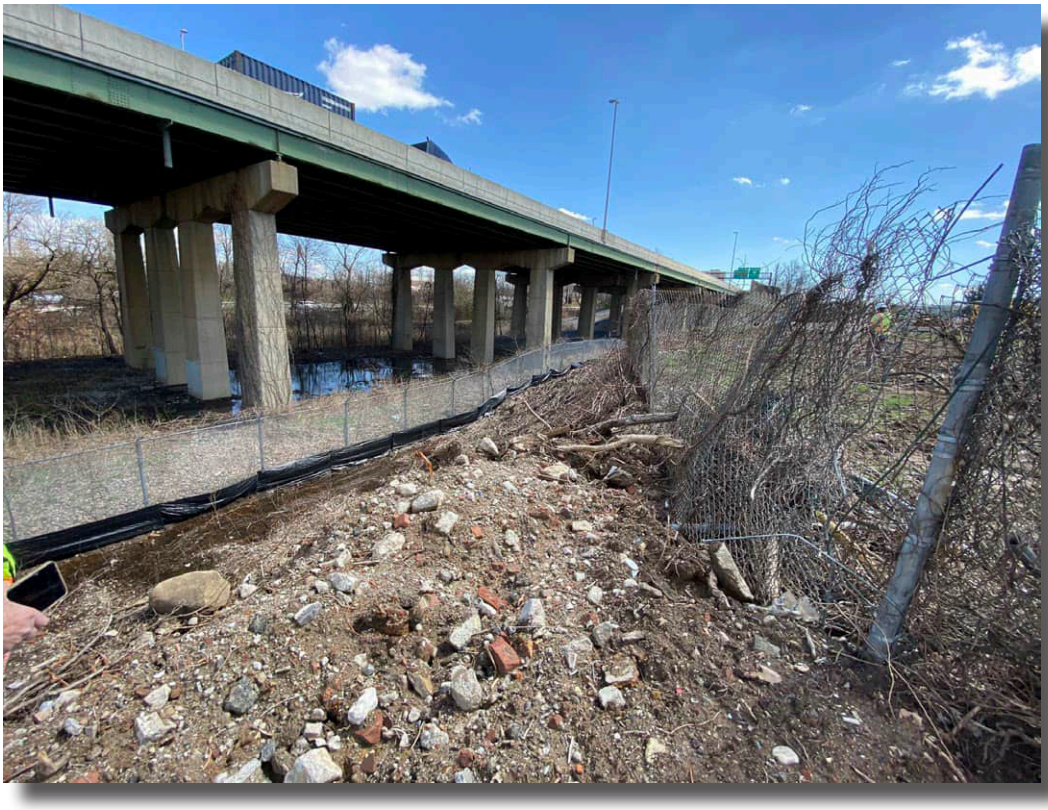

Plate 4.17: Overview of an elevated portion of the APE-Archaeology within Bayonne along the west side of the former Marist High School property.

Photo view: East

Photographer: Allison A. Gall

Date: April 8, 2022

Plate 4.18: Overview of grading and a well located on the south side of the former Marist High School.

Photo view: Southeast

Photographer: Allison A. Gall

Date: April 8, 2022

Plate 4.19: Overview of grassy area on the southeast side of the former the Marist High School. Note the marked gas line.

Photo view: South

Photographer: Allison A. Gall

Date: April 8, 2022

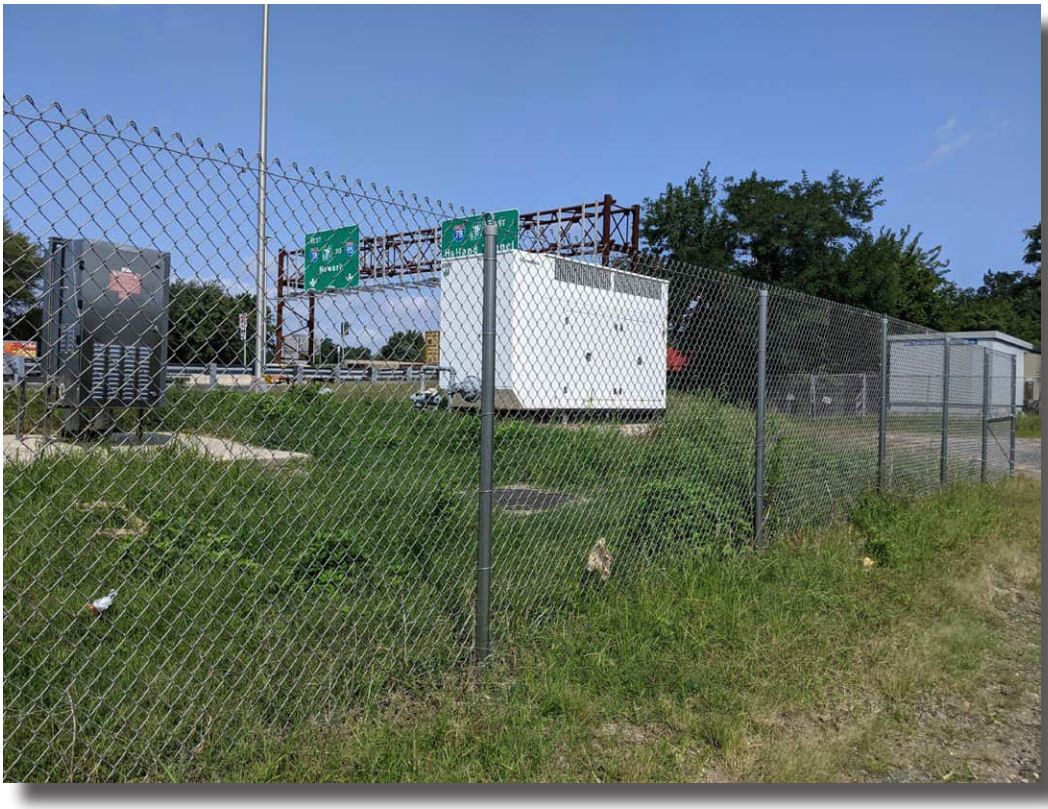

Plate 4.20: Overview of NJ Turnpike Toll Plaza 14A at southwestern terminus of APE-Archaeology.

Photo view: North

Photographer: Evan Robinson

Date: September 13, 2021

Plate 4.21: Overview of NJ Turnpike Toll Plaza 14A toll lanes.

Photo view: Northwest

Photographer: Evan Robinson

Date: September 13, 2021

Plate 4.22: Overview of verge between NJ Turnpike onramps at Toll Plaza 14A and gravel road/railroad tracks.

Photo view: Northeast

Photographer: Evan Robinson

Date: September 13, 2021

Plate 4.23: Overview of NJ Turnpike Toll Plaza 14A toll lanes.

Photo view: Northwest

Photographer: Evan Robinson

Date: September 13, 2021

Plate 4.24: Overview of verge between NJ Turnpike onramps at Toll Plaza 14A and gravel road/railroad tracks.

Photo view: Northeast

Photographer: Evan Robinson

Date: September 13, 2021

constructed (NETR 1931; U.S.G.S. 1905). Additional fill was imported to support the construction of the NB-HCE in the 1950s. Therefore, this part of the APE-Archaeology contains a low sensitivity for historic archaeological resources.

Eight submerged targets have been documented in proximity to APE-Archaeology within the Newark Bay, between the Newark Bay Bridge and the Conrail Line Bridge (see Figure 4.1b). According to the NJHPO, these targets may represent "debris of some kind and/or pilings." In an email dated July 1, 2021, the NJHPO specified that the submerged targets would require survey to confirm if the target represents an archaeological resource. One of these targets is located within the proposed footprint of a temporary construction trestle pier for the new bridge (see Figure 4.1b). The piers will be supported by three-foot diameter, driven pilings spaced 18-foot to 40-foot on center. An examination of historic U.S.G.S. maps indicated that three of the targets are likely historic wooden pilings along the Newark shoreline (see Figures 3.16 and 3.20; U.S.G.S. 1955). The remaining five targets likely represent historic pilings that served as a guide for boats traveling through the Newark Bay and marked the eastern side of the dredged navigable channel below the bridge span (see Figures 3.16 and 3.20; U.S.G.S. 1955b). A visible shipwreck and a submerged wreck are also located within the Newark Bay, near but outside the APE-Archaeology. Due to the nature of the proposed project-related piling installation and spacing and the high likelihood that the identified submerged target in the APE-Archaeology is a historic wooden piling for navigation purposes, it is unlikely that a significant historic archaeological resource is present in the APE-Archaeology in the Newark Bay.

The footprint of the Morris Canal (SHPO Opinion: 4/27/2004; NJR: 11/26/1973; NR: 10/1/1974), a NRHP and NJR-listed resource, crosses the APE-Archaeology at Avenue C in Jersey City and, there, its footprint is located in an asphalt-paved parking lot and in the footprint of the existing NB-HCE (see Figure4.1c). Additionally, the Morris Canal clips the APE-Archaeology at a proposed stormwater management basin location near New Jersey Routes 185 and 440 in Jersey City. It then crosses the APE-Archaeology south of the NB-HCE and then runs along the northwest edge of the APE-Archaeology to Linden Avenue (see Figure 4.1c). Based on aerial photographs from 1955, it is highly likely that the footprint of the canal in the existing NB-HCE footprint and the area north of the NB-HCE has been significantly disturbed; however, the portion of the canal south, southeast, and west of the NB-HCE within the APE-Archaeology in Jersey City has a moderate to high sensitivity for intact buried archaeological elements associated with the canal's tow path and prism (see Figure 4.1c).

During the early twentieth century, several railroad related structures were present within the APE-Archaeology that have likely been destroyed through subsequent construction and stormwater management construction. By 1908, a New York Bay Railroad Co. turntable was constructed within a proposed stormwater management basin (HUC3-C) southeast of the NB-HCE within the APE-Archaeology (see Figure 3.8; see Appendix B, Sheet 205). Remnants of the turntable were still present in aerial photographs from 1979 (NETR 1979). Although some grading is present in this area, portions of the turntable may be remain intact and therefore has a high sensitivity for remains of the early twentieth-century turntable.

Historically, a building was mapped as early as 1781 within the footprint of the APE-Archaeology along the route of the Morris Canal (see Figure 3.3). This building is mapped near the location of the Jersey Eagle Site (28-Hd-45). The historical component of the site contained artifacts related to eighteenth- to twentieth-century domestic refuse below 2.3 to 7.9 feet of modern fill. A stone wall feature was identified by PAL but determined by the firm to unlikely to be associated with a structural foundation (PAL 2013; see Figure 3.20). Instead, the wall was interpreted as a boundary wall. As noted above, the site was determined eligible for listing in the NRHP under Criterion A and Criterion D. Therefore, the portion of the APE-Archaeology containing the Jersey Eagle Site and the area surrounding it has a high sensitivity for historic-period archaeological resources. The proposed stormwater management basin, however, will only extend 5.0 feet below grade near an area of the Jersey Eagle Site that is documented to contain 6.0 to 7.9 feet of imported fill over a buried plowzone. Geotechnical soil boring information from the location of the proposed basin suggest upper portions of the soil profile were graded to hydric wetlands soils and replaced by modern fill (see Appendix J;

AmerCon Corp. 2022). A proposed outfall stormwater pipe that extends from the proposed basin to Linden Avenue will parallel an existing natural gas pipeline and may fall within the disturbed 16-foot wide trench excavation for the associated pipeline (see Appendix B, Sheet 205; see Figures 3.20, 3.21, and 4.1c).

Development within the rest of the Bayonne and Jersey City portions of the APE-Archaeology continued through the nineteenth and twentieth centuries; however, historic aerial photos show that extensive grading and filling was conducted during the construction of the NB-HCE in the 1950s and other construction and utility-related activities (see Figures 3.17-3.18). Therefore, the remainder of the APE-Archaeology has a low sensitivity for intact, significant historic period archaeological resources.

4.3 Subsurface Archaeological Testing Results

A roughly 75-foot wide by 188-foot long grassy area immediately east of the former Marist High School and west of John F. Kennedy Boulevard, located on Block 13, Lot 1 in the City of Bayonne, was determined to possibly remain undisturbed and was assessed with a moderate to high sensitivity for pre-Contact period Native American archaeological resources (Figure 4.2).

4.3.1 Field Methods

In total, 13 STPs were plotted and excavated within the area of moderate to high pre-Contact period sensitivity on Block 13, Lot 1 in Bayonne. This included eight STPs placed at 50-foot intervals and an additional five STPs placed at 25-foot intervals near STPs containing nineteenth-century artifacts (see Figure 4.2). Shovel test pits were placed on a rectilinear grid oriented along north-south grid lines parallel to John F. Kennedy Boulevard and were assigned sequential numerical designations. The locations of excavated STPs were mapped using measuring tapes, compasses, and referenced existing landmarks, and were plotted on maps. A utility mark-out was performed through New Jersey One Call in advance of subsurface testing.

The STPs measured approximately one foot in diameter. Round-nosed shovels and trowels were used for excavation. Each soil stratum was excavated and screened separately using ¼-inch hardware cloth to facilitate artifact recovery. Individual strata in each STP were separately excavated and screened. Shovel test pits were excavated into subsoils wherever possible unless impeded by rocks. Soil augers were utilized for the removal of deeply buried soil horizons. Soil characteristics and stratum designations were recorded on standardized forms, and the information recorded is presented in Appendix G. Munsell charts were used to record the soil color for each stratum. All excavations were backfilled, and the ground was restored to its original elevation upon completion of the testing. Photographs of field activities and general site views were taken.

Modern and non-diagnostic materials, such as modern bottle glass, decayed paper, and slag were noted and not retained. Discarded material is listed as Not Retained (NR) in the STP log (see Appendix G). Artifacts retained from subsurface testing were cataloged and analyzed to enable the production of a detailed inventory and classification. Retained artifacts were placed in re-sealable polyethylene bags along with standardized tags denoting their provenience, including coordinates, level, depth, and stratum. The artifact assemblage, project documents, and all field notes and photographs are temporarily stored at the RGA headquarters in Cranbury, New Jersey and all recovered artifacts will be provided to the current property owner of Block 13, Lot 1 in Bayonne following NJHPO review and approval of this report.

4.3.2 Laboratory Methods

Recovered cultural material was processed and cataloged at RGA's laboratory in Cranbury, New Jersey. Artifact processing consisted of cleaning and handwashing non-friable cultural material. Durable artifacts (i.e., ceramic, glass) were washed to remove residual soil and to facilitate identification. Less durable artifacts (i.e., metal and other organic materials) were carefully dry brushed to remove residues prior to identification. Artifacts were placed in archival, four-mil polyethylene zip lock bags. The artifact

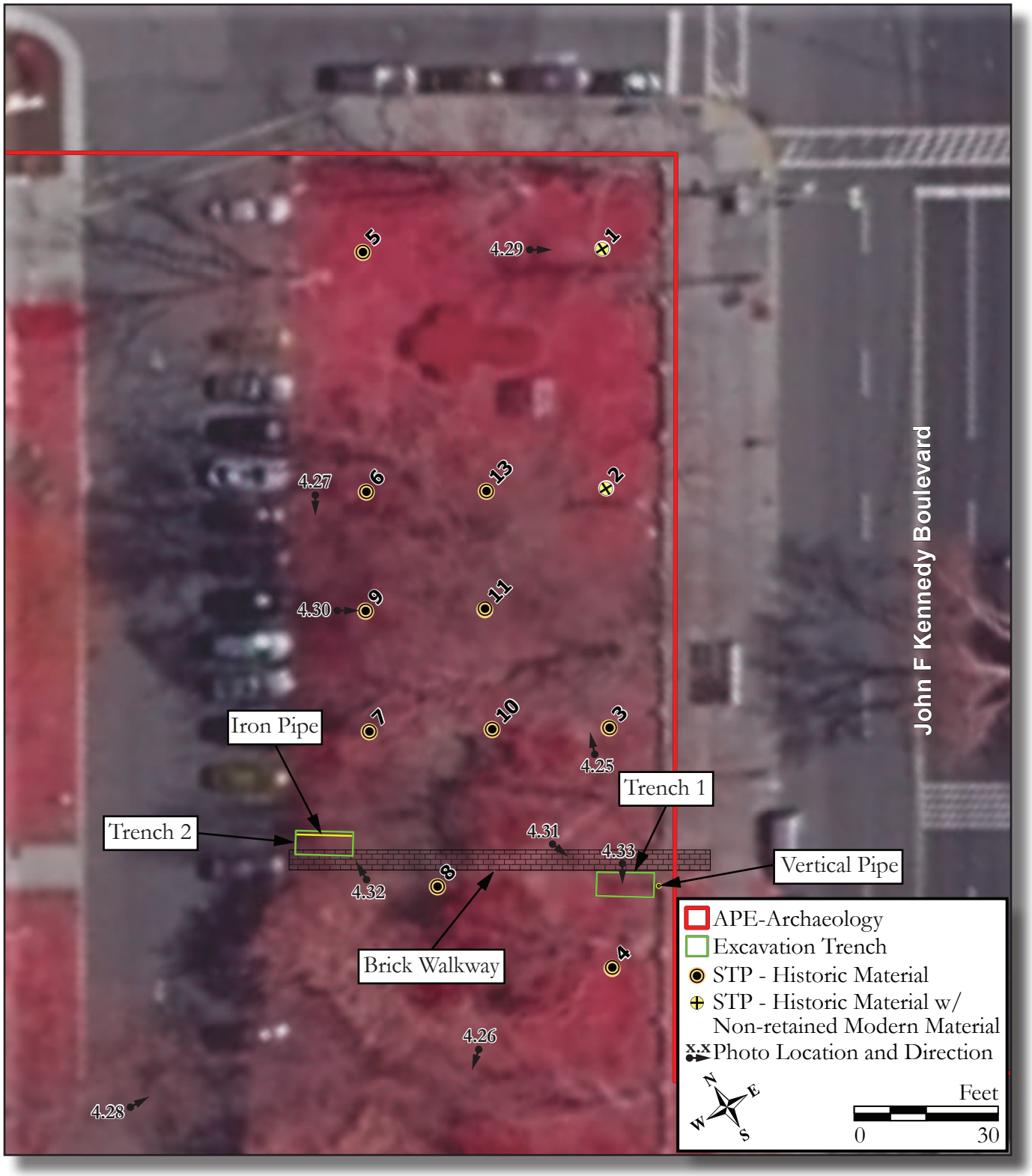

Figure 4.2: Aerial image showing photograph locations, STP locations and results, and existing trench locations (NJGIS Digital Orthographic Imagery (Infrared), 2020).

catalog is included as Appendix H. All historic artifacts were analyzed and cataloged according to provenience, artifact group similar to those defined by South (1977), material, artifact type, decorative or surface treatments(s), and an effort was made to identify and date all temporally and functionally diagnostic artifacts (see Appendix H).

4.3.3 Subsurface Archaeological Testing

Thirteen STPs were excavated on a grid at 25 and 50-foot intervals in the 75-foot wide by 188-foot portion of APE-Archaeology (Block 13, Lot 1) to determine if intact archaeological deposits are present. In addition, the profiles of two trenches (designated as Trenches 1 and 2) excavated by the current property owner were observed (see Figure 4.2).

The subsurface archaeological excavations were conducted on August 17, 2022 by archaeologists: Michael J. Gall, MA, RPA (Principal Senior Archaeologist), Michelle Davenport, MA, RPA (Senior Archaeologist), and Richard Adamczyk, MA, RPA (Archaeologist). Carol Weed, RPA, assisted RGA with the STP excavations and served as a representative of the property owner during subsurface testing.

At the time of the archaeological survey, the portion of the Marist High School property subject to archaeological testing was grass covered with sparse tree cover (see Figure 4.2; Plates 4.25-4.33). The area was bounded by a parking lot to the west and a sidewalk along John F. Kennedy Boulevard to the east (Figure 4.2; Plate 4.25-4.27). A brick walkway transected the southern portion of the testing area. Two trenches (Trenches 1 and 2) associated with ongoing construction of the property had been excavated along the walkway and contained an iron pipe at 4.5 feet below ground surface (bgs), and a vertical pipe was located east of the trench closest to John F. Kennedy Boulevard (see Figure 4.2; Plates 4.31-4.33). The profile for Trench 1, closest to John F. Kennedy Boulevard, consisted of a 1.0-foot thick dark grayish brown (10YR 4/2) sandy loam modern topsoil, over a 1.0-foot thick dark yellowish brown (10YR 4/4) sand fill that capped a 0.6-foot thick layer of asphalt followed by a dark yellowish brown (10YR 4/6) sand truncated subsoil (Plate 4.4.31, 4.33). The profile for Trench 2 was disturbed and consisted of a 1.0-foot thick dark grayish brown (10YR 4/2) sandy loam modern topsoil over 3.0 feet of re-deposited dark yellowish brown (10YR 4/6) sandy loam soil that represents former pipe trench excavation material. Bricks from a partially removed brick walkway were scattered within and near Trench 2 (see Figure 4.2; see Plate 4.32).

Eight (8) STPs were plotted on a 50-foot interval grid within the APE and an additional five STPs were placed at 25-foot intervals to investigate areas that contained nineteenth-century artifacts (see Figure 4.2). The location of STP 8 was shifted roughly 15 feet northeast to avoid a large tree. In total, 338 artifacts were retained from the STPs. A representative sample of the artifacts found is shown in Figure 4.3.

The stratigraphy within the STPs above the subsoil or truncated subsoil varied greatly throughout the area of subsurface archaeological testing. All STPs contained one to four or five, mostly twentieth-century, redeposited and possibly imported fills that extended to depths between 1.2 and 4.5 feet below ground surface (bgs). The majority of these fills were present over truncated subsoils. The fills also varied greatly in soil characteristics, such as color and texture, indicating that soils were not uniform and artifact-rich soils may have been relocated from different locales prior to being placed within the APE-Archaeology on Block 13, Lot 1 (see Appendix G).

Only one STP (STP 3) contained a buried A-horizon (Ab), consisting of a 0.8-foot thick brown (10YR 5/3) sand that was present below a mottled twentieth-century redeposited fill. The artifacts found within the Ab consist of pearlware (n=1; 1803-1830), whiteware (n=11; 1815-1915), and coal (n=1). The material was notably small in size and may have been pushed down from overlying imported fill layers. Examples of early ceramics intermixed with twentieth-century plastic in imported fill layers was present in other STPs (e.g., Fill 1 in STP 13). Shovel Test Pit 13 also contained what may be an Ab or alternatively a fill layer (i.e., Fill 5). Encountered between 2.5 and 4.2 feet below grade, it was difficult to ascertain the exact nature of the soil due to its depth in the STP. This Fill 5/possible Ab

Plate 4.25: Overview of the grassy area between the former Marist High School and John F. Kennedy Boulevard during the Phase IB archaeological survey.

Photo view: North

Photographer: Michael Gall

Date: August 24, 2022

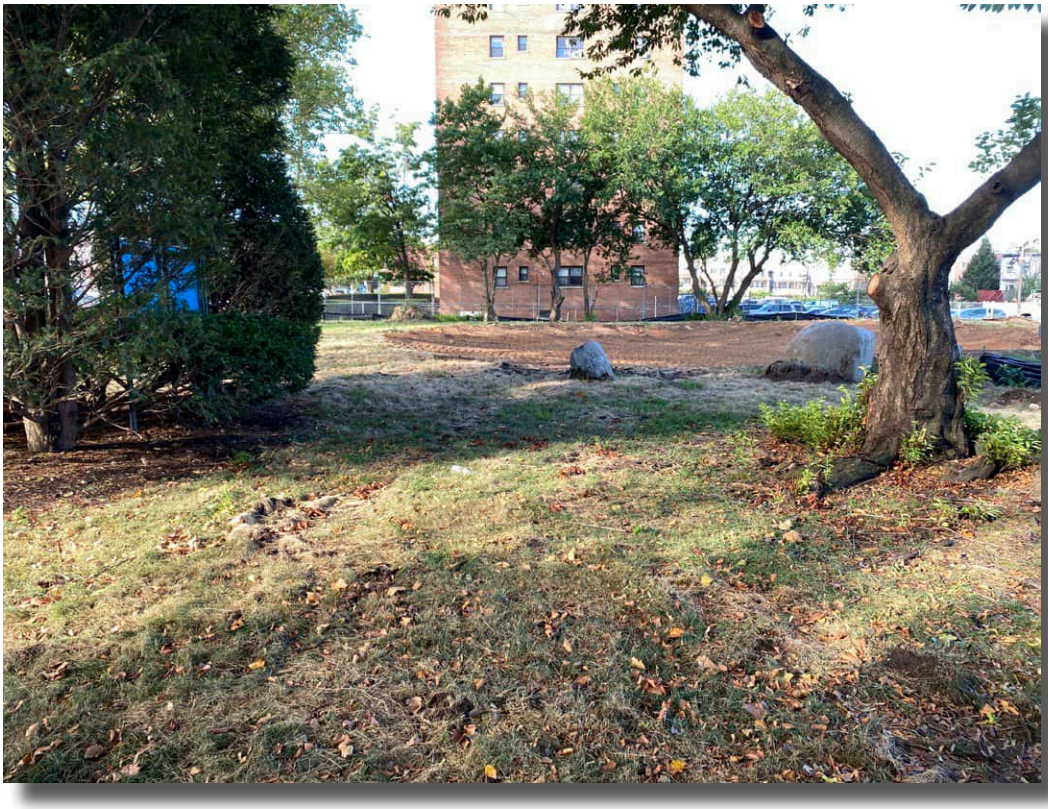

Plate 4.26: Overview of the existing conditions within the grassy area between the former Marist High School and John F. Kennedy Boulevard during the Phase IB archaeological survey.

Photo view: South

Photographer: Michael Gall

Date: August 24, 2022

Plate 4.27: Overview of the exiting conditions during the Phase IB archaeological survey within the grassy area along the parking lot associated with Marist High School.

Photo view: South

Photographer: Michael Gall

Date: August 24, 2022

Plate 4.28: Overview of grading to the south and west of the location of the subsurface archaeological testing.

Photo view: Northeast

Photographer: Michael Gall

Date: August 24, 2022

Plate 4.29: Overview of the excavation of STP 1.

Photo view: West

Photographer: Michael Gall

Date: August 24, 2022

Plate 4.30: Overview of the excavation of STP 9.

Photo view: West

Photographer: Michael Gall

Date: August 24, 2022

Plate 4.31: View of Trench 1 and a vertical pipe along the sidewalk near John F. Kennedy Boulevard.

Photo view: Southeast

Photographer: Michael Gall

Date: August 24, 2022

Plate 4.32: View of Trench 2 and an iron pipe adjacent to the parking lot for the former Marist High School.

Photo view: Northwest

Photographer: Michael Gall

Date: August 24, 2022

Plate 4.33: View of Trench 1 south profile.

Photo view: South

Photographer: Michael Gall

Date: August 24, 2022

contained window glass (n=1), bottle glass (n=1), vessel glass (n=1), and refined earthenware (n=1) (see Appendices G and H). The vessel glass found dates to either the mid- to late nineteenth century or early twentieth century given the presence of bottle glass with embossed lettering. Shovel test pits that that were excavated surrounding these STPs did not encounter an intact Ab.

Shovel Test Pit 5 contained two fill deposits to a depth of 1.4 feet bgs over truncated subsoils. Artifacts in the Fill 1 consist of window glass (n=1), bottle glass fragments (n=4), coal (n=5), coal ash (n=1), metal fragments (n=3), and concrete (n=2). No artifacts were uncovered from the second fill level. However, the underlying B1-horizon contained amber vessel glass (n=2), colorless bottle/jar glass (n=1), and slag (n=1). It is likely that the presence of historic material in subsoil is the result of bioturbation (see Appendices G and H).

In total, 310 artifacts were found within the remaining fill deposits (see Appendix H). The temporally diagnostic artifacts present within the majority of the fills suggest that the fills were re-deposited during the twentieth century, likely during maintenance and improvements to the Marist High School property. Four STPs (STPs 3, 6, 7, and 10) contained natural soil or fill with early to mid-nineteenth-century ceramics (Table 4.1). These STPs were situated in an area measuring 50 feet square and the artifacts that date to the early to mid-nineteenth century were all found in the bottom stratum above an intact or truncated subsoil layer. Among the STPs, STPs 3, 7, and 10 were spaced at 25 feet from one another. A close review of the data as presented in Table 4.1 reveals that the depth to the top of the subsoil was markedly inconsistent and the stratum that capped the subsoil in each of the four STPs was inconsistent in color. The artifacts found were all notably small in size and may have easily migrated through the fine sandy soils from upper stratigraphy via root or rodent turbation. Historic mapping from the early to mid-nineteenth century reveals that this area was wooded and not developed (see Figures 3.5-3.6; Hassler 1846). The Coastal survey data strongly indicates a lack of development, and the irregularity in strata identified throughout the testing area implies extensive modification and import of soils, possibly during the construction of the "Parental School" in the early twentieth century (Hassler 1846; United States Coast Survey 1837; see Figure 3.7). The deposits above the aforementioned contexts generally contained some early nineteenth-century artifacts, indicating artifact-rich soils were modified and imported to Block 13, Lot 1 in the late nineteenth or twentieth century. No historic cultural features, such as foundations or pits, were identified and no pre-Contact period artifacts or cultural features were found.

Table 4.1: Profiles and artifact data for STPs with deposits of early to mid-nineteenth-century material.

STP	Depth (Feet Below Grade)	Stratum	Soil Description	Artifacts
3	1.9-2.7	Ab*	Brown (10YR 5/3) Sand	1 Blue Printed Whiteware, 1 Very Tiny Negative Printed Pearlware
6	3.0-4.5	Fill 3*	Dark Yellowish Brown (10YR 4/4 with bands of 10YR 4/6) Fine Sand	1 Very Tiny Pearlware, 1 Very Tiny Rockingham, 3 Coal
7	1.2-1.8	Fill 2*	Yellowish Brown (10YR 5/4) Fine Sand	1 Redware Spall, 1 Negative Printed Pearlware
10	1.1-1.9	Fill 2*	Dark Yellowish Brown (10YR 4/6) Sand	1 Very Tiny Creamware

STP – Shovel Test Pit
*Capped intact or truncated subsoil.

Key to artifacts:
Top Row, Left to Right: Amber bottle glass (Cat. # 12), whiteware fragment (Cat. # 3), whiteware fragment (Cat. # 3), pearlware fragment (Cat. # 10), creamware fragment (Cat. # 20).

Bottom Row, Left to Right: Bottle/jar glass (Cat. # 23), refined white-bodied earthenware (Cat. # 24), plastic fragment (Cat. # 25), plastic fragments (Cat. #25).

Figure 4.3: Sample of historic artifacts found during the Phase I archaeological survey.

5.0 INTENSIVE-LEVEL HISTORIC ARCHITECTURAL SURVEY

Fieldwork for the Intensive-level historic architectural survey was conducted on March 2, March 18, April 21, April 27, April 29, July 22, August 3, and August 16, 2022, and consisted of the identification of resources listed in the NJR and NRHP or eligible for listing in the NRHP, as well as previously unevaluated resources more than 45 years of age within the APE-Architecture (Figure 5.1a-d; Plates 5.1- 5.58; Table 5.1). The survey identified 41 historic architectural resources over 45 years of age in the APE-Architecture, four of which are historic properties previously listed in the NJR and NRHP or determined eligible for listing in the NRHP. These include the Newark and Elizabeth Branch of the Central Railroad of New Jersey (SHPO Opinion: 8/29/2000), PRRNYBBHD (SHPO Opinion: 12/17/2019), LVRRHD (SHPO Opinion: 3/14/2002), and the Morris Canal historic property (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004). The NJT main stem, completed in 1952, is also located within the APE-Architecture. In review correspondence dated September 14, 2006, the NJHPO determined the roadway to be not eligible for listing in the NRHP (Guzzo 2006). This determination applied only to the main stem and did not include the NB-HCE, which was surveyed at the intensive-level as part of this current survey. As such, RGA did not further evaluate the NJT main stem as part of the current survey.

Of the 36 remaining historic architectural resources identified within the APE-Architecture, three resources were subject to informal comments by the NJHPO regarding their NRHP eligibility: the Newark Bay Bridge (RGA 1), NB-HCE (RGA 2), and the Port Authority Administration Building (Building 260). The bridge and building were considered by the NJHPO to be eligible for listing in the NRHP and the NB-HCE was considered ineligible; however, at the time, their comments were informal and did not constitute project review under any state or federal law (see Appendices C and F). For the purposes of this current survey, RGA considers the Newark Bay Bridge and Port Authority Administration Building (Building 260) to be historic properties eligible for listing in the NRHP.

The PSE&G Building (also known as the PSE&G Greenville Substation) at 41 Garfield in Jersey City, the former Tide Water Oil Company Pumping Station to the east of NB-HCE Interchange 14A, and the Interchange 14A Toll Plaza Building within the APE-Architecture were previously surveyed at the intensive-level by Dewberry-Goodkind, Inc. to evaluate their NRHP eligibility as part of the Technical Environmental Study for the NB-HCE Interchange 14A improvements project (Dewberry-Goodkind, Inc. 2013). The survey considered all three resources to lack sufficient historical and architectural significance and/or integrity to qualify as individually NRHP-eligible under Criteria A, B, or C. The survey forms for the PSE&G Building and Former Tide Water Oil Company Pumping Station were subsequently revised in 2013, presumably at the request of NJHPO for additional information (see Appendix F). Since that time, only changes were made to the PSE&G Building that included alteration of the overall layout, the construction of a modern substation building, and the replacement and relocation of electrical equipment and gantries (see Plate 5.46). Given the recent survey date of the substation and former Tide Water Oil Company Pumping Station and no changes to NRHP-eligibility as a result of any post-2013 physical changes to the properties, neither historic resource was evaluated further as part of this intensive-level survey. The Interchange 14A Toll Plaza Building previously identified by Dewberry-Goodkind, Inc. was resurveyed and evaluated for NRHP-eligibility as part of the larger NB-HCE for the current project.

The 31 remaining historic architectural resources within the APE-Architecture were surveyed at the intensive level. All 31 resources are a mix of commercial, residential, industrial, and institutional buildings primarily dating between the late nineteenth and mid-twentieth centuries. As a result of the survey, none of the 31 evaluated historic resources were recommended eligible for listing in the NRHP. The Intensive-level historic architectural survey, including individual building descriptions, historical development, and assessments of significance, integrity, and NRHP-eligibility has been compiled on NJHPO Survey Forms and are provided in Appendix I. Table 5.1 summarizes the results of the intensive-level survey.

Table 5.1: Summary of the historic properties, surveyed historic architectural resources, and effects assessment inside the APE-Architecture.

RGA #	Resource Name/ Address	Block/ Lot	Current NRHP Status	Assessment of Effects
N/A	Newark and Elizabeth Branch of the Central Railroad of New Jersey	N/A	Eligible (SHPO Opinion: 8/29/2000)	Direct and Indirect Visual Project Impacts; No Adverse Effect
N/A	Pennsylvania Railroad New York Bay Branch Historic District	N/A	Eligible (SHPO Opinion: 12/17/2009)	Direct and Indirect Visual Project Impacts; No Adverse Effect
N/A	Lehigh Valley Railroad Historic District	N/A	Eligible (SHPO Opinion: 3/14/2002)	Direct and Indirect Visual Project Impacts; No Adverse Effect
N/A	Morris Canal	N/A	Listed (NJR: 11/26/1973; NR: 10/1/1974); Eligible (SHPO Opinion: 5/27/2004)	Direct Project Impacts; Adverse Effect
N/A	Port Authority Administration Building (Building 260)/ 260 Kellogg Street, Newark, NJ	6001/1	Previously identified as NRHP-eligible, no formal NJHPO determination of eligibility.	Indirect Visual Project Impacts; No Adverse Effect
N/A	Public Service Electric & Gas Co. Building/ 41 Garfield Avenue, Jersey City, NJ	30203/2	Previously surveyed and recommended ineligible for listing in NHRP; No formal NJHPO determination of eligibility.	N/A
RGA 1	Newark Bay Bridge	N/A	Assumed NRHP-eligible.	Direct Project Impacts; Adverse Effect
RGA 2	Newark Bay-Hudson County Extension	N/A	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 3	238-544 Port Street/ 238-544 Port Street, Newark, NJ	5082/16	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 4	21-93 Firmench Way/ 21-93 Firmench Way, Newark, NJ	5078.03/85	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 5	Sunset Avenue Historic District/ Sunset Avenue between West 54th Avenue and Saint Marcellin Champagnat Way, Bayonne, NJ	23/1 to 23/18 and 24/7 to 24/24	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 6	Bayonne Towers/ 1225 John F. Kennedy Boulevard, Bayonne, NJ	24/1	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 7	1234-1238 John F. Kennedy Boulevard Historic District/ 1234-1238 John F. Kennedy Boulevard, Bayonne, NJ	25/1 to 25/4	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 8	1240 John F. Kennedy Boulevard/ 1240 John F. Kennedy Boulevard, Bayonne, NJ	17/5	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A

Table 5.1; cont.

RGA #	Resource Name/ Address	Block/ Lot	Current NRHP Status	Assessment of Effects
RGA 9	1242 John F. Kennedy Boulevard/ 1242 John F. Kennedy Boulevard, Bayonne, NJ	17/4	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 10	1244 John F. Kennedy Boulevard/ 1244 John F. Kennedy Boulevard, Bayonne, NJ	17/3	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 11	1246 John F. Kennedy Boulevard/ 1246 John F. Kennedy Boulevard, Bayonne, NJ	17/2	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 12	159 West 57th Street/ 159 West 57th Street, Bayonne, NJ	13/4	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 13	161 West 57th Street/ 161 West 57th Street, Bayonne, NJ	13/3	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 14	163 West 57th Street/ 163 West 57th Street, Bayonne, NJ	13/2	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 15	Pamrapo Renaissance Revival Historic District/ West side of John F. Kennedy Boulevard between West 57th and 58th Streets, Bayonne, NJ	13/5 to 13/14	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 16	John F. Kennedy Boulevard Historic District/ East side of John F. Kennedy Boulevard between West 57th and 58th Streets, Bayonne, NJ	15/1 to 15/10	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 17	358-360 Avenue B/358-360 Avenue B, Bayonne, NJ	16/2 and 16/3	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 18	354-356 Avenue B/354-356 Avenue B, Bayonne, NJ	16/4 and 16/5	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 19	West 57th Street Historic District/ Northeast side of West 57th Street between Avenues B and C, Bayonne, NJ	16/6 to 16/28	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 20	Woodrow Wilson School Number 10/ 101 WW 56th Street, Bayonne, NJ	18/1	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 21	62 West 57th Street/62 West 57th Street, Bayonne, NJ	18/11	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A

Table 5.1; cont.

RGA #	Resource Name/ Address	Block/ Lot	Current NRHP Status	Assessment of Effects
RGA 22	61 West 56th Street/ 61 West 56th Street, Bayonne, NJ	18/10	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 23	1137 Avenue C/ 1137 Avenue C, Bayonne, NJ	26/33	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 24	1133 Avenue C/ 1133 Avenue C, Bayonne, NJ	26/32	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 25	1136 Avenue C/ 1136 Avenue C, Bayonne, NJ	28/19	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 26	1134 Avenue C/ 1134 Avenue C, Bayonne, NJ	28/20	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 27	West 56th Street Historic District/ West 56th Street, east of Avenue C, Bayonne, NJ	28/6 to 28/17 and 27/6 to 27/12	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 28	19-31 West 55th Street/ 19-31 West 55th Street, Bayonne, NJ	28/3	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 29	Hudson Lanes/ 1 Garfield Avenue, Jersey City, NJ	30203/4	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 30	Twin City Shopping Center/ 2 Garfield Avenue, Jersey City, NJ	30302/1	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 31	Cenveo/ 25 Linden Avenue East, Jersey City, NJ	30305/23	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 32	Jersey City Department of Public Works/ 15 Linden Avenue East, Jersey City, NJ	30305/24	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A
RGA 33	20 Linden Avenue East, Jersey City, NJ	27401/43	Previously un-surveyed; Recommended ineligible for listing in NRHP.	N/A

NRHP – National Register of Historic Places

5.1 Identification of Historic Properties

Newark and Elizabeth Branch of the Central Railroad of New Jersey Historic District (SHPO Opinion: 8/30/2000)

The Newark and Elizabeth Branch of the Central Railroad of New Jersey Historic District is eligible for the NRHP under Criterion A for its historically significant role in regional transport of freight and passengers (Guzzo 2000; see Plate 5.6). This traffic includes passengers travelling to vacation locations along the northern New Jersey Shore, excursion riders travelling to the New Jersey Shore and numerous points along the Central Railroad of New Jersey Main Line, and employees commuting to Newark. The branch also handled significant freight traffic to and from Newark, Elizabeth, and the Port of Newark. The original survey forms and the subsequent NJHPO opinion did not define a

period of significance for the Newark and Elizabeth Branch of the CRRNJ; however, it would likely extend from 1870, date the railroad was first chartered, to at least 1938, when previously identified contributing resources were built within the corridor (Richard Grubb & Associates, Inc. 2005). The district boundaries consist of the line's historic right-of-way and extend from the CRRNJ main line at Elizabethport, Union County to the Newark and New York Branch of the CRRNJ at Brills Junction in the City of Newark, Essex County. For the proposed project, the NRHP-eligible railroad historic district traverses a portion of the APE-Architecture at Interchange 14.

Pennsylvania Railroad New York Bay Branch Historic District (SHPO Opinion: 12/18/2019)
The PRRNYBBHD is eligible for listing in the NRHP under Criterion A in the area of transportation for its contribution to the state's industrial, commercial, and urban expansion (see Plates 4.21 and 4.22). The district is also eligible under Criterion C in the area of engineering and for the district's significant collection of contributing bridges, culverts, yards, and surviving overhead electrified catenary system (Guzzo 2005; Saunders 2015). The railroad's period of significance extends from 1889, when the two predecessor railroads received their corporate charters, to 1945, when the railroad completed the last transfer bridge (Transfer Bridge No. 9) at the contributing Greenville Yard Piers in Greenville Yard, Jersey City. The boundaries of the historic district are limited to the historic ROW and extend in two branches from Waverly Yard in Newark to just beyond the Point-No-Point Bridge over the Passaic River in Kearny and from Waverly Yard in Newark to Greenville Yard in Jersey City (Guzzo 2005; Saunders 2015; Marcopul 2019). The railroad is currently operated by Conrail for freight service. This historic district intersects with a portion of the APE-Architecture between Newark Bay and Caven Point Road (New Jersey Route 185) in Bayonne and Jersey City.

Lehigh Valley Railroad Historic District (SHPO Opinion 3/15/2002)
The LVRRHD follows a route across the state of New Jersey, spanning seven counties, beginning in Phillipsburg, Warren County and terminating in Jersey City, Hudson County (see Plates 5.21 and 5.47). The LVRRHD is eligible for the NRHP under Criterion A for its statewide significance in transporting coal from the Pennsylvania coal fields to the New York market and for its local significance in leading to the industrial development of South Plainfield and various Middlesex County communities, such as Perth Amboy (Guzzo 2002). Subsequent reviews for other projects clarified and elaborated on the significance, integrity, and character of the historic district. While no period of significance is specified in the NJHPO Opinion of Eligibility, researchers have suggested a period beginning in 1875, when the first shipment was sent to Perth Amboy, through 1951 after which it did not meet the test for "exceptional significance" for resources less than 50 years old (ARCH2, Inc 2001: 21). A portion of the historic district extends along the northern boundary of the APE-Architecture from Newark Bay in Bayonne to the HBLR ROW in Jersey City, just north of the NB-HCE Interchange 14A. From the HBLR ROW, the historic district turns and continues northeastward within the APE-Architecture before terminating at a point just west of the existing NB-HCE between New Jersey Route 440 and Linden Avenue.

Morris Canal (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 4/27/2004)
The Morris Canal, which was completed in 1836 after little more than a decade of construction, was listed on the NJR and NRHP in the early 1970s as a linear historic district under Criteria A, B, C and D. The canal is significant under Criterion A for its association with canal transportation, American technical education, and the demographic and industrial growth in northern New Jersey, New York City, and the Lehigh Valley. Because several inventors, engineers, and important men were associated with the construction and operation of the canal, the canal is significant under Criterion B. The Morris Canal meets Criterion C as a major technological feat of construction and operation, including the inclined plane design. The potential information relating to canal engineering and construction as well as the lifeways of nineteenth-century canal culture that archaeological investigations may yield makes the canal significant under Criterion D (Guzzo 2004). The period of significance established in the Morris Canal Historic District nomination form covered the years 1836 to the turn of the century (Guzzo 2004). In 2004, the NJHPO expanded the period of significance for the Morris Canal to 1930 when the closure of the canal was complete (Guzzo 2004).

Port Authority Administration Building (Building 260)

The Port Authority Administration Building (Building 260) is a multi-story, steel-frame building constructed in 1967 in the northwest corner of Port Newark (see Plate 5.5). The building assumes a T-shaped footprint comprised of a three-story office block and garage/storage area extending from the northeast elevation. The office block exterior contains a distinctive angular façade treatment characterized by the composition of full-height, precast concrete vertical panels and alternating glass and spandrel panels. The remaining building exterior consists primarily of glazed face brick and translucent, insulated fiberglass panels framed by structural steel mullions.

In 2018, RGA completed an intensive-level historic architectural survey for the proposed repairs and reconstruction of the Port Authority Administration Building (Building 260) (RGA, Inc. 2018; see Appendix F). The 2018 report recommended the subject building ineligible for listing in the NRHP, due to insufficient architectural significance and diminished integrity (RGA, Inc. 2018). In correspondence dated April 12, 2018 (HPO-D2018-109), the NJHPO disagreed with RGA's assessment and concluded that the subject building may be eligible under NRHP Criterion C as an intact and representative example of the New Formalism style, a mid-twentieth-century architectural style that characterized many high-profile cultural, institutional, and civic buildings of the period (Marcopul 2018). The boundaries of the historic property encompass the property boundaries, and the period of significance would be limited to its year of construction, 1967. Character-defining features include the building's form, precast concrete vertical panels, glass and spandrel panels, glazed brick veneer, insulated fiberglass panels with structural steel mullions, and aluminum sash windows.

Newark Bay Bridge

The Newark Bay Bridge, also known as the Vincent R. Casciano Memorial Bridge, was built in 1956 as part of the NB-HCE to carry the highway over Newark Bay between the cities of Newark and Bayonne (see Plate 5.8). The main span consists of a three-part, cantilevered through-truss with east and west anchor arms and a central shouldered tied-arch span. A 43-span west approach and 32-span east approach comprised of a combination of steel stringer beam spans and steel riveted girder spans flank the main bridge span. Two types of reinforced concrete piers support the entire bridge superstructure. Since its construction, the structure has undergone various alterations, including the replacement of its deck, median, and parapet walls, along with the addition of new overhead directional signs, lighting, and security fencing.

The Newark Bay Bridge was among the last of the bridge structures erected for extensions to the NJT main stem, a limited-access highway first envisioned in the early 1930s as part of a nationwide network of superhighways. As part of the larger NJT corridor, the bridge and NB-HCE helped reduce travel times and served as a feeder into the NJT system, but as an element of a limited-access expressway serving Hudson County, the Newark Bay Bridge contributed little to appreciable changes in patterns of growth in Bayonne or Jersey City.

Architecturally, the Newark Bay Bridge embodied widespread, mid-twentieth-century design standards adopted by the NJTA and highway builders for major bridges across the country, including along the NJT main stem. These design features included the use of concrete bridge piers, beam and girder spans, parapet walls, and a cantilevered through-truss and shouldered tied-arch span. Though considered technologically insignificant, in correspondence dated February 2, 2022 (HPO-B2022-011), the NJHPO indicated during Technical Assistance for the current project that the Newark Bay Bridge would be eligible under NRHP Criterion C as an example of a mid-twentieth-century cantilevered truss bridge (see Appendix C). The cantilevered through truss structure is no longer a preferred bridge design by engineers and is one of three remaining twentieth-century structures of its type in New Jersey (Marcopul 2022). As indicated in the NJHPO correspondence, the historic property boundaries would encompass the entire bridge and its period of significance would be limited to the year of its construction (1956) (Marcopul 2022).

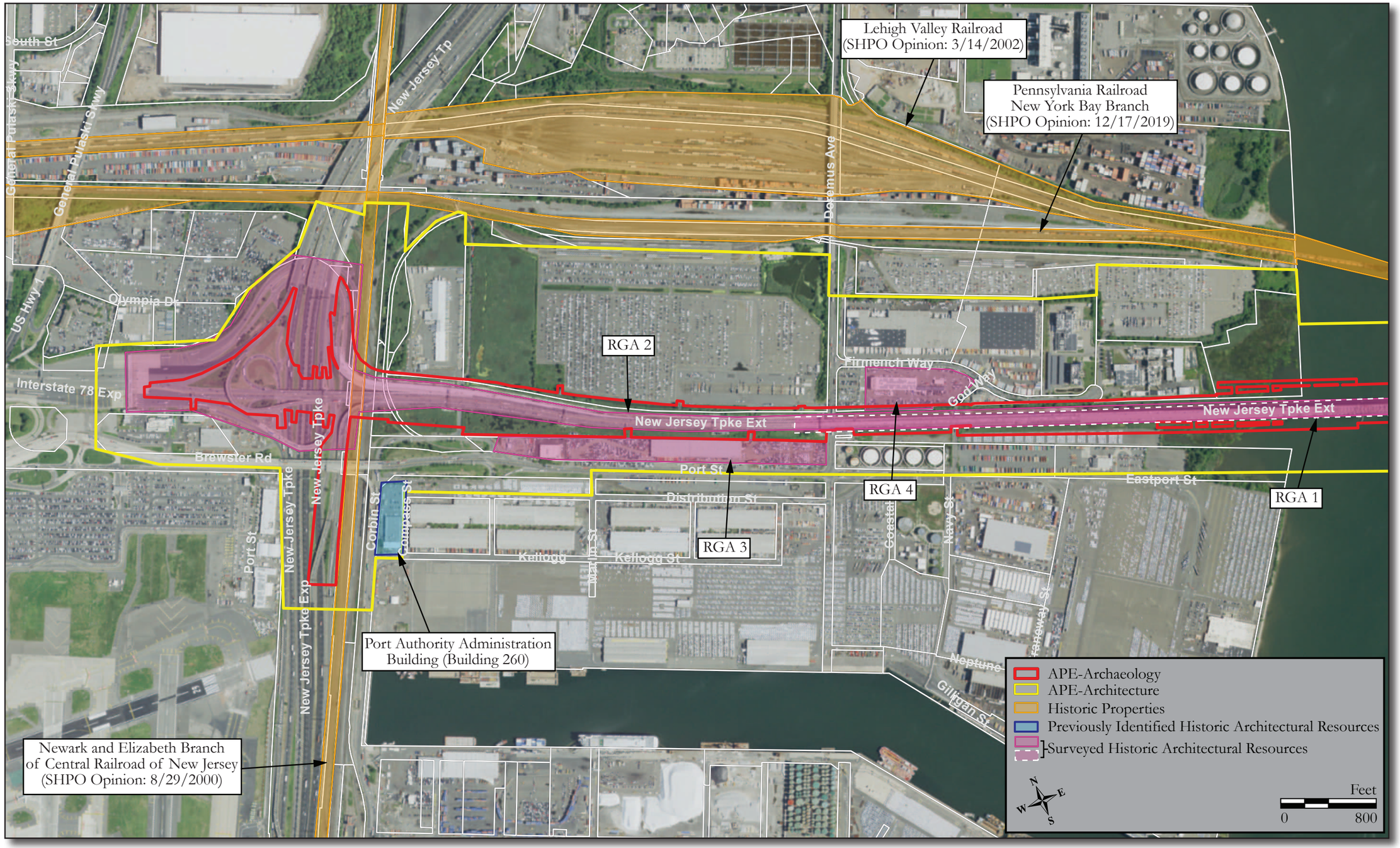

Figure 5.1a: Aerial image showing the locations of historic properties, previously identified historic resources, and surveyed historic architectural resources within the City of Newark portion of APE-Architecture (NJGIS Digital Orthographic Imagery, 2020).

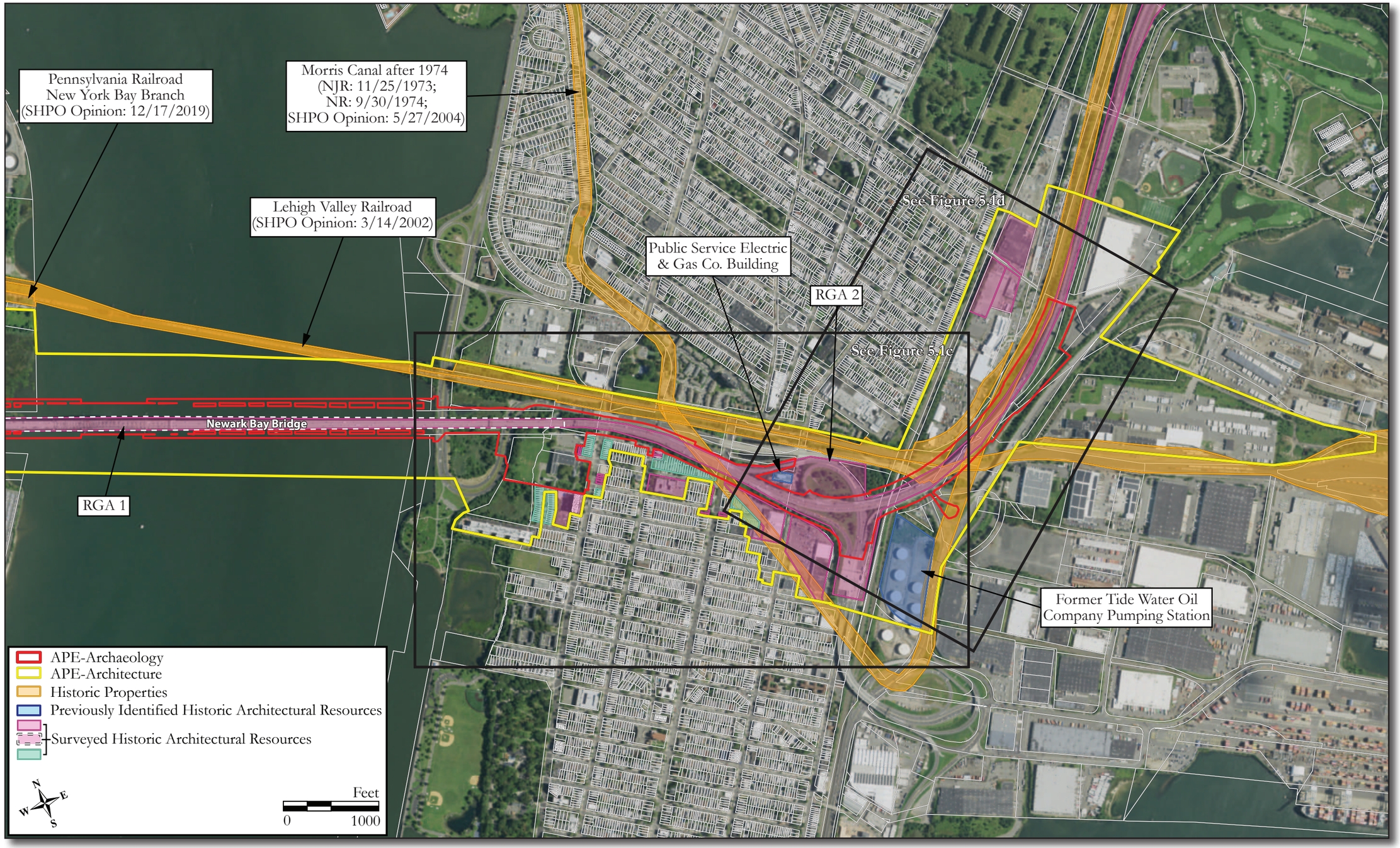

Figure 5.1b: Aerial image showing the locations of historic properties, previously identified historic resources, and surveyed historic architectural resources within the City of Newark, Jersey City, and Bayonne portions of the APE-Architecture (NJGIS Digital Orthographic Imagery, 2020).

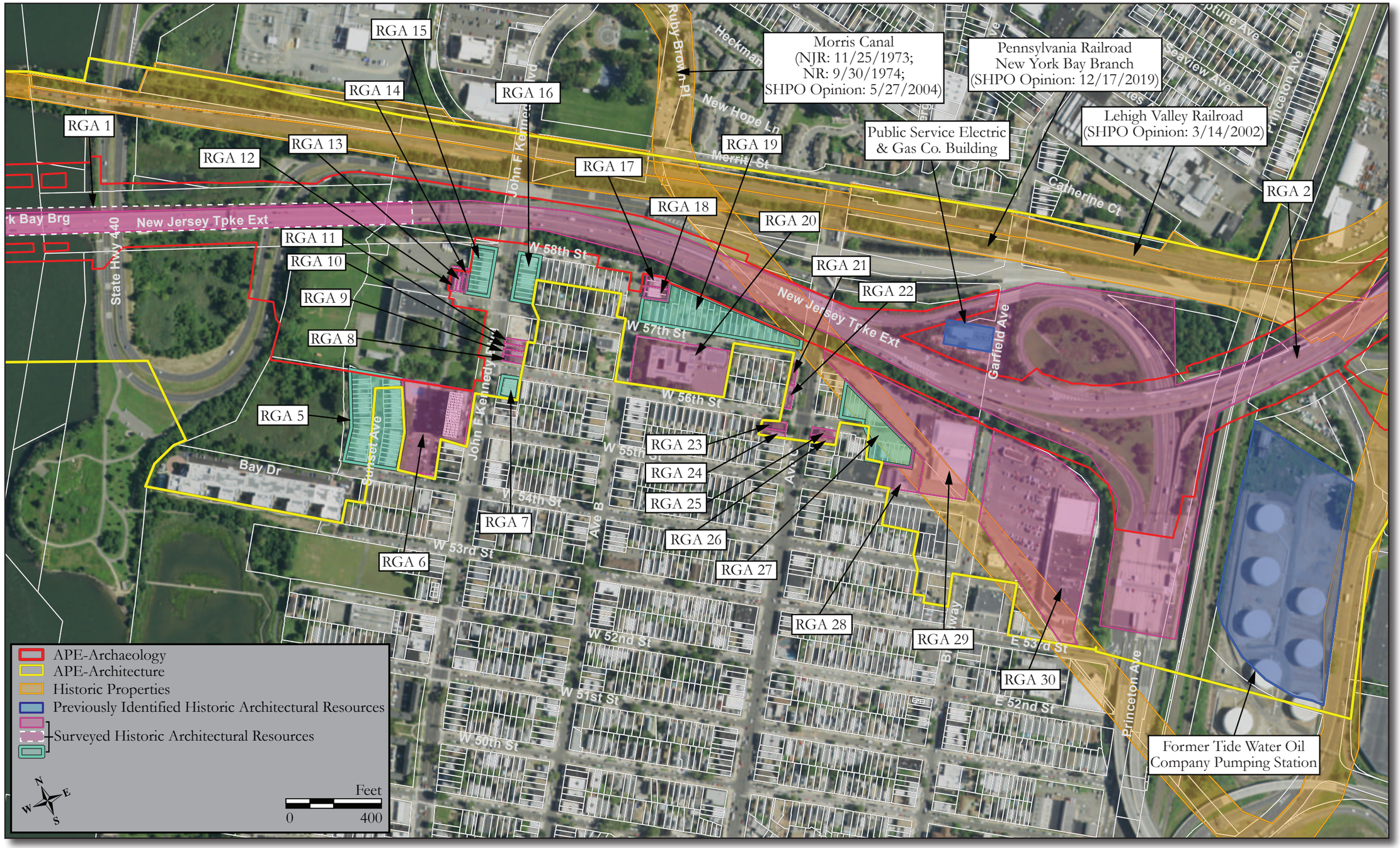

Figure 5.1c: Aerial image inset showing the locations of historic properties, previously identified historic resources, and surveyed historic architectural resources within the Jersey City and Bayonne sections of the APE-Architecture (NJGIS Digital Orthographic Imagery, 2020).

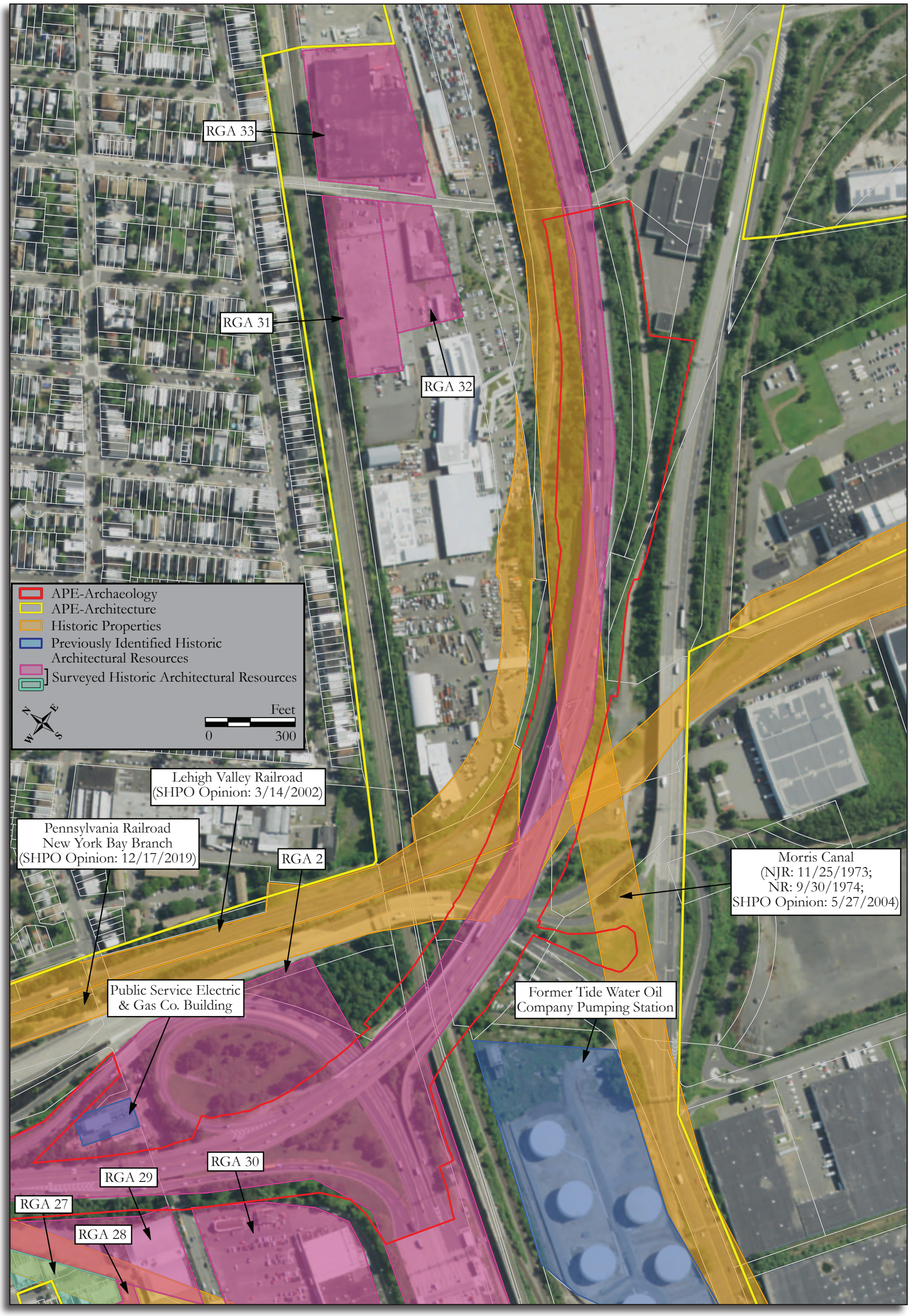

Figure 5.1d: Aerial image inset showing the locations of historic properties, previously identified historic resources, and surveyed historic architectural resources within the Jersey City section of the APE-Architecture (NJGIS Digital Orthographic Imagery, 2020).

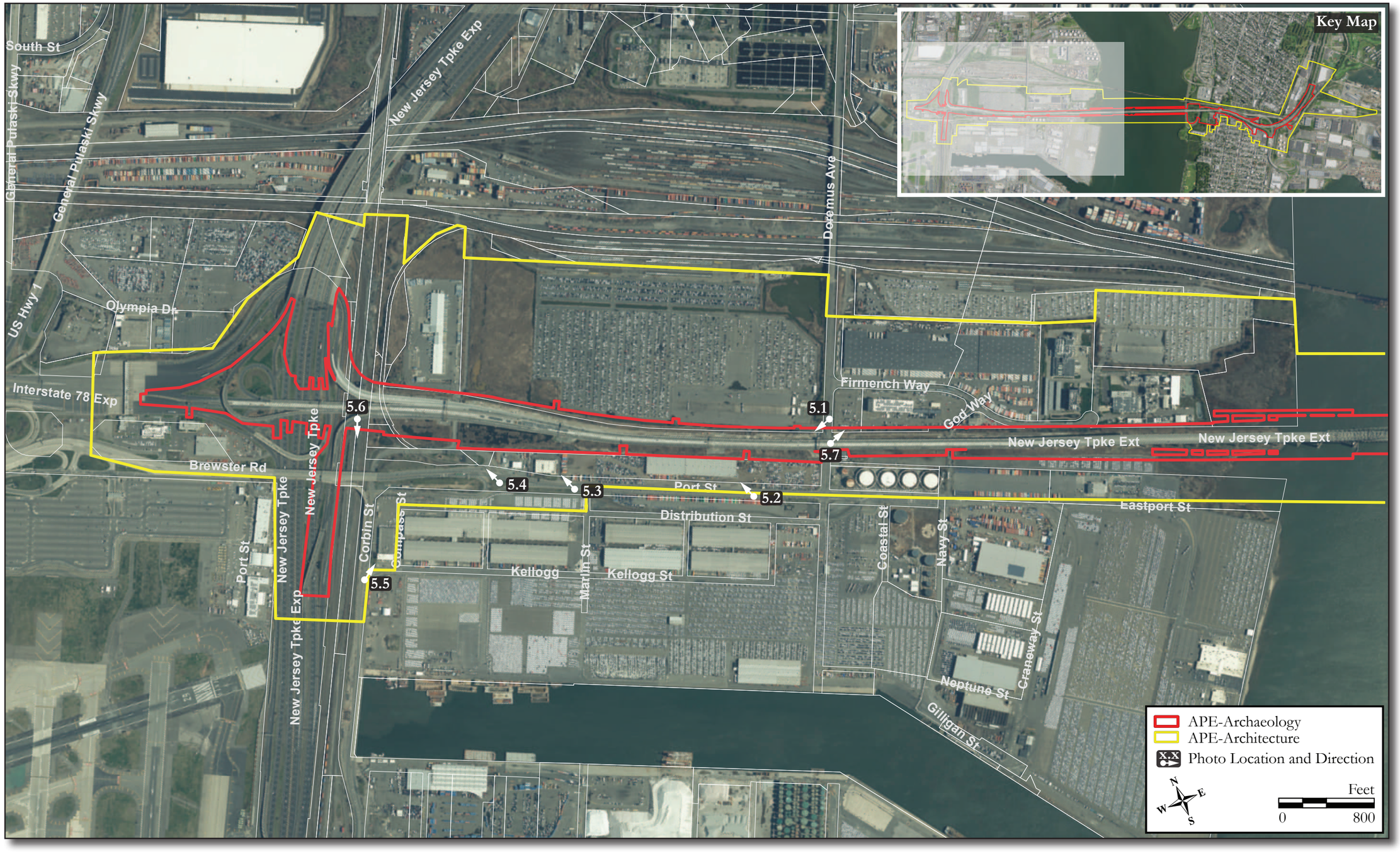

Figure 5.2a: Aerial image showing photograph locations and directions within the City of Newark section of the APE-Architecture (NJGIS Digital Orthographic Imagery, 2020).

Figure 5.2b: Aerial image showing photograph locations and directions within the Bayonne and Jersey City sections of the APE-Architecture (NJGIS Digital Orthographic Imagery, 2020).

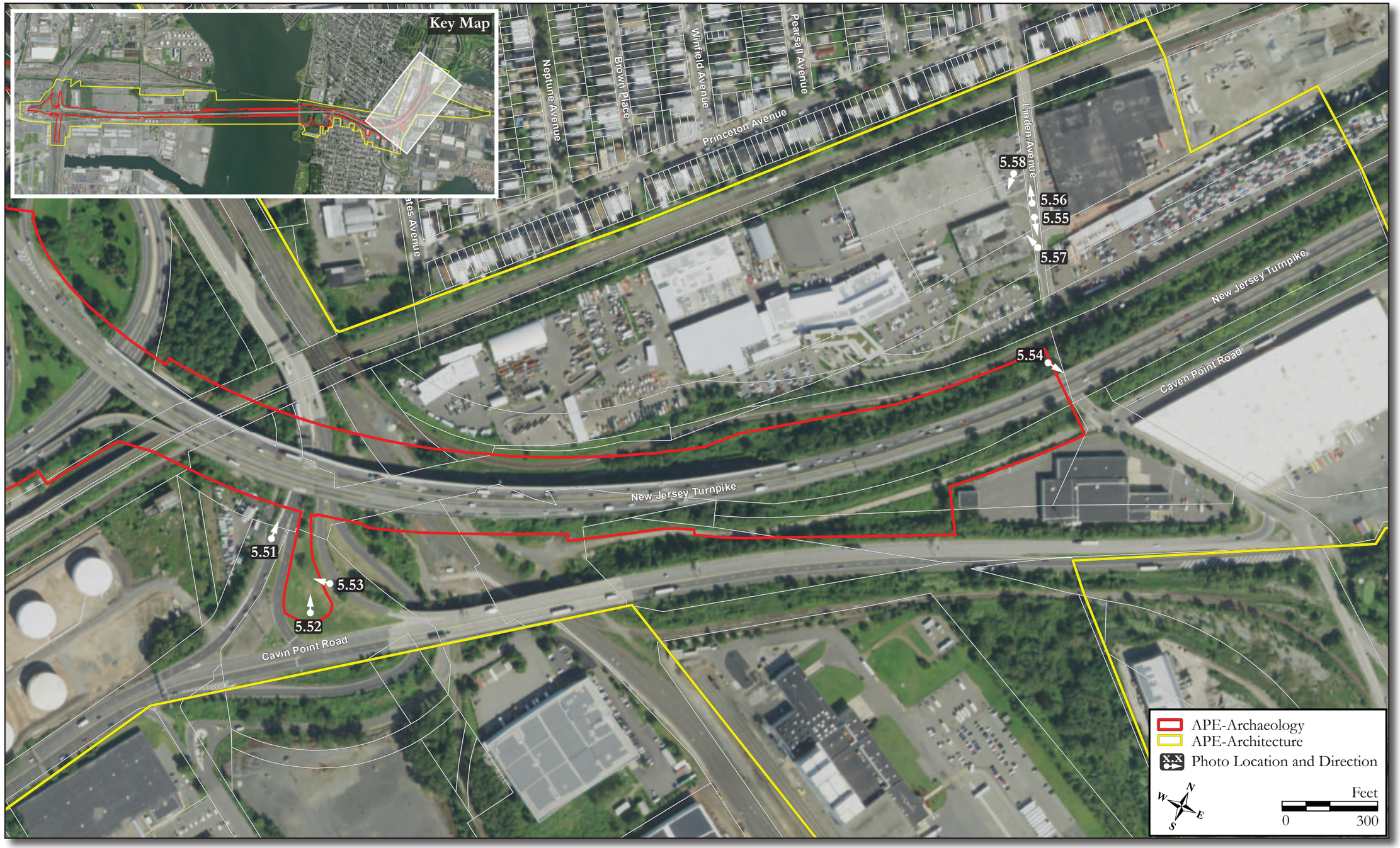

Figure 5.2c: Aerial image showing photograph locations and directions within the Jersey City section of the APE-Architecture (NJGIS Digital Orthographic Imagery, 2020).

Plate 5.1: View showing the NB-HCE (RGA 2) Newark Viaduct.

Photo view: Southwest

Photographer: Marissa Agbunag

Date: April 27, 2022

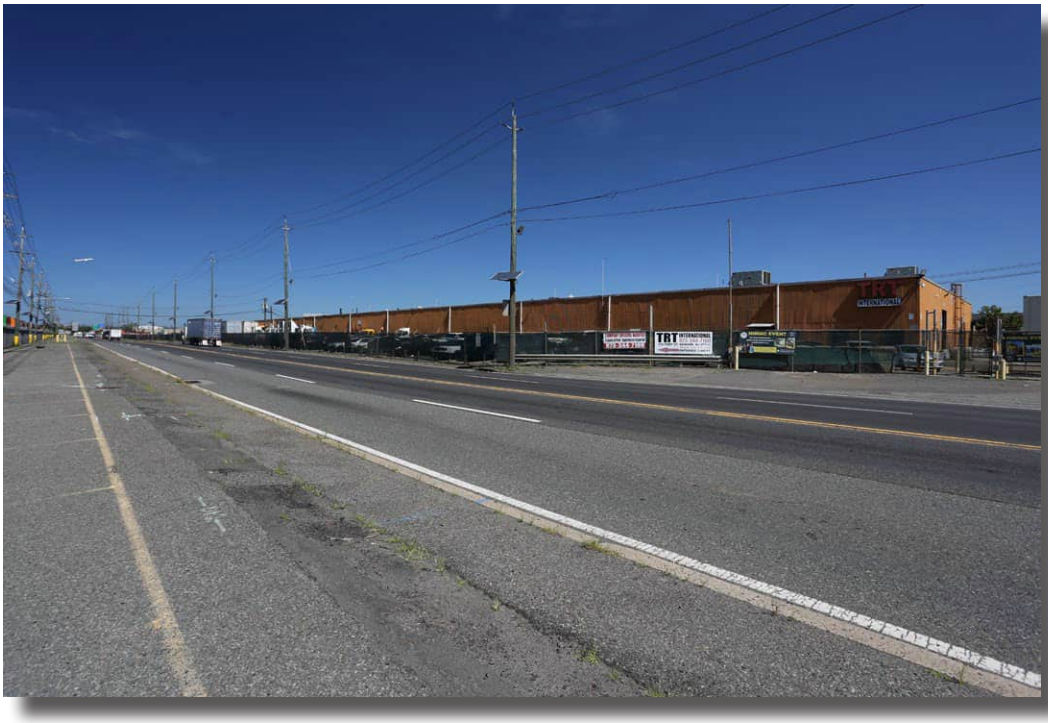

Plate 5.2: View showing one of the warehouse buildings at 233-258 Port Street (RGA 3).

Photo view: Northwest

Photographer: Alison Eberhardt

Date: August 3, 2022

Plate 5.3: View of one of the industrial buildings present at 233-258 Port Street (RGA 3), as seen from the roadway.

Photo view: Northwest

Photographer: Alison Eberhardt

Date: August 3, 2022

Plate 5.4: View of the current NB-HCE (RGA 2) Interchange 14 from Port Street.

Photo view: Northwest

Photographer: Alison Eberhardt

Date: August 3, 2022

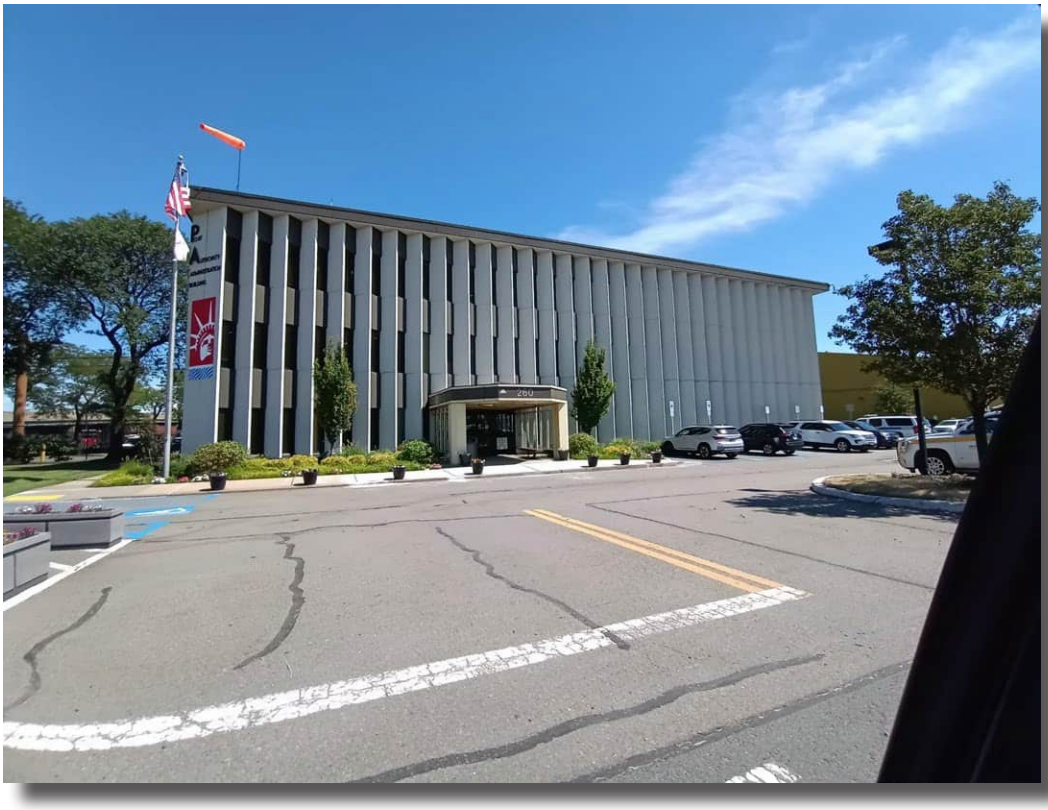

Plate 5.5: View showing the Port Authority Administration Building (Building 260), a previously identified historic architectural resource within the APE-Architecture.

Photo view: Northeast

Photographer: Emma Connolly

Date: August 16, 2022

Plate 5.6: View of the Newark and Elizabeth Branch of the Central Railroad of New Jersey right-of-way from a NB-HCE Interchange 14 eastbound ramp.

Photo view: South

Photographer: Alison Eberhardt

Date: August 3, 2022

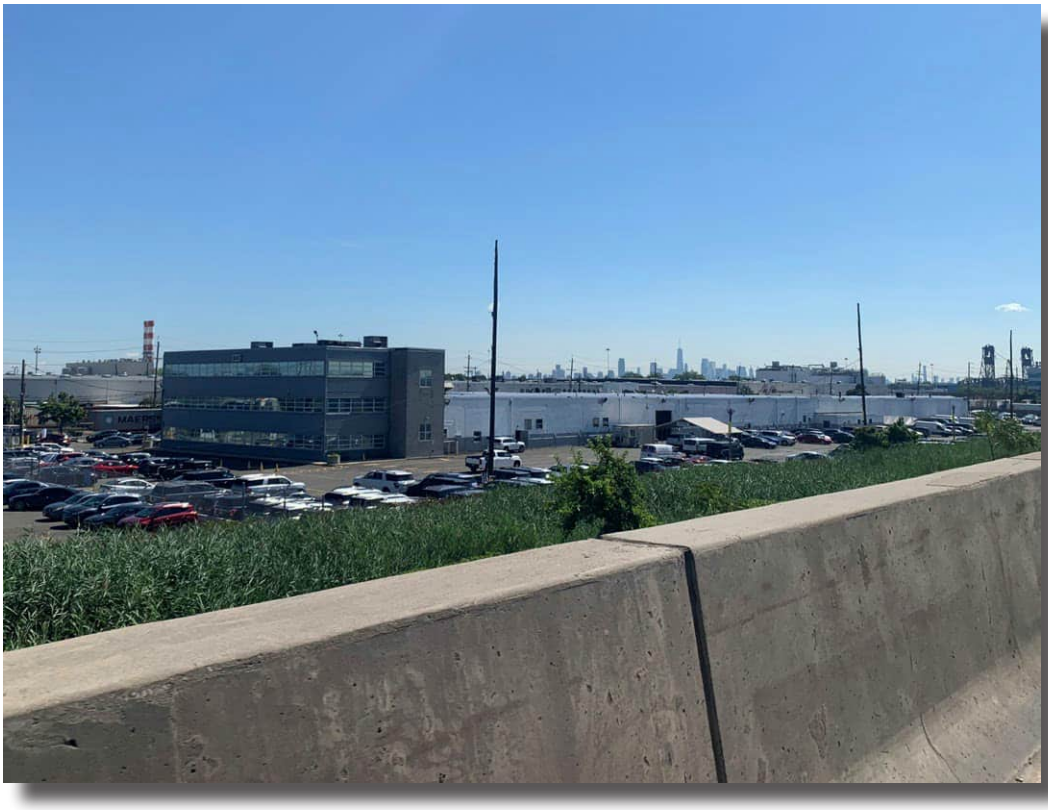

Plate 5.7: View showing the building at 21-93 Firmenich Way (RGA 4), as seen from the NB-HCE (RGA 2) Newark Viaduct.

Photo view: Northeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Plate 5.8: View of the Newark Bay Bridge (RGA 1) from the Bayonne shoreline.

Photo view: Northwest

Photographer: Allee Davis

Date: April 21, 2021

Plate 5.9: View of the residential development on the east side of Sunset Avenue (RGA 5).

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

Plate 5.10: View showing the residential development on the west side of Sunset Avenue (RGA 5).

Photo view: Northwest

Photographer: Spencer Rubino

Date: August 3, 2022

Plate 5.11: View showing the rear of the Kennedy House apartment building located at 1225 John F. Kennedy Boulevard (RGA 6).

Photo view: Northeast

Photographer: Alison Eberhardt

Date: August 3, 2022

Plate 5.12: View of the Kennedy House apartment building located at 1225 John F. Kennedy Boulevard (RGA 6), as seen from the roadway.

Photo view: Southwest

Photographer: Alison Eberhardt

Date: August 3, 2022

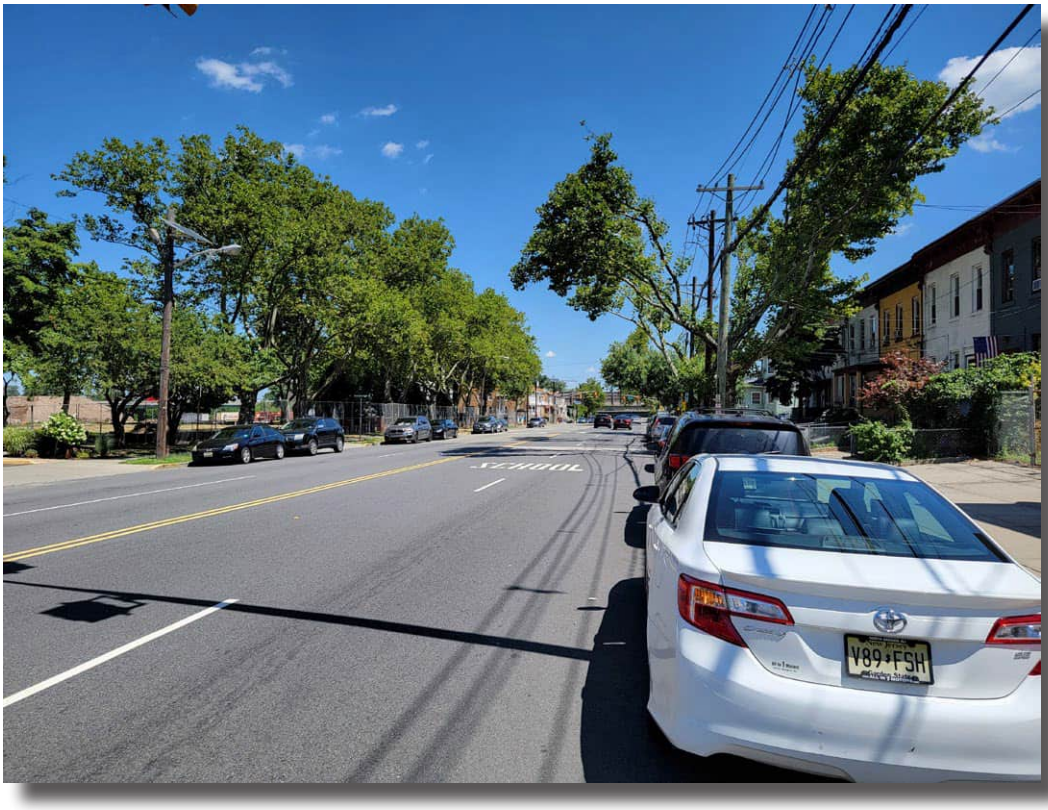

Plate 5.13: View looking towards the NB-HCE (RGA 2) from John F. Kennedy Boulevard near the south end of the APE-Architecture.

Photo view: North

Photographer: Spencer Rubino

Date: August 3, 2022

Plate 5.14: Perspective view showing the residential buildings at 1234, 1234A, 1236 and 1238 from John F. Kennedy Boulevard (RGA 7).

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

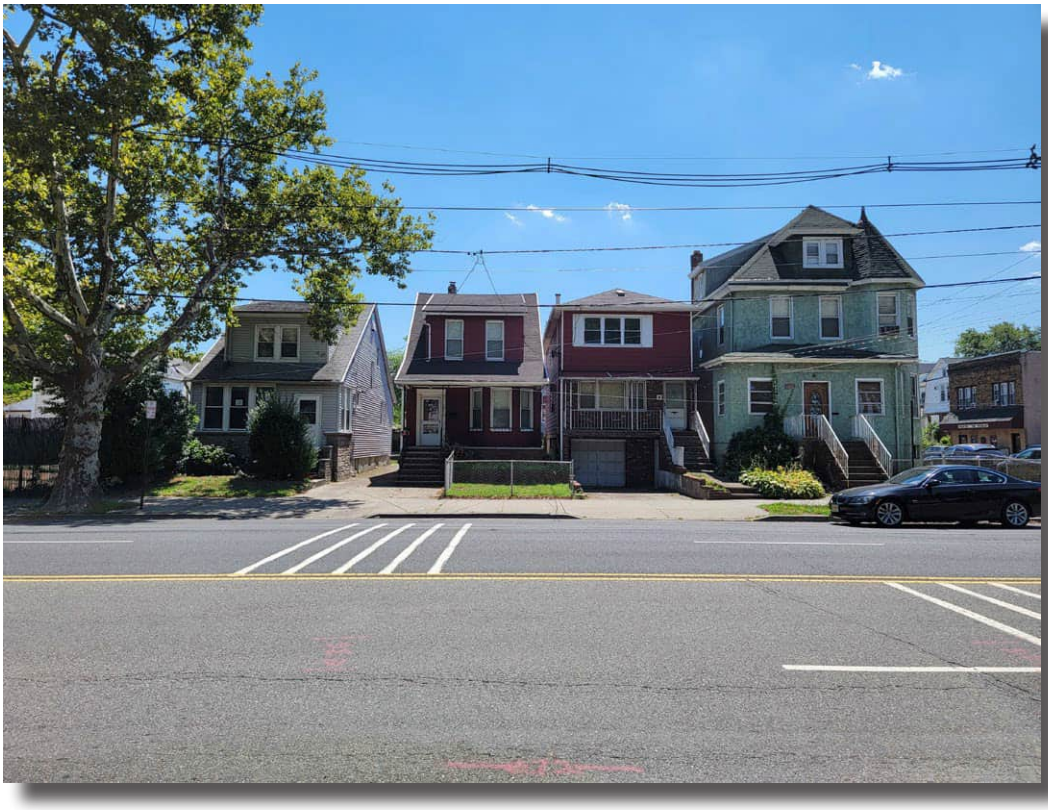

Plate 5.15: View of the residences at 1240, 1242, 1244, and 1246 John F. Kennedy Boulevard (RGA 7-11) from the west side of the roadway.

Photo view: East

Photographer: Spencer Rubino

Date: August 3, 2022

Plate 5.16: View looking west near the intersection of John F. Kennedy Boulevard and W 57th Street showing the Marist High School campus (now demolished).

Photo view: West

Photographer: Spencer Rubino

Date: August 3, 2022

Plate 5.17: Perspective view of the dwellings at 159, 161, and 163 W 57th Street (RGA 12-14).

Photo view: Northwest

Photographer: Spencer Rubino

Date: August 3, 2022

Plate 5.18: Perspective view showing the residential development (RGA 15) along the west side of John F. Kennedy Boulevard between W 57th Street/ Leo Slyvious Road and W 58th Streets.

Photo view: Northwest

Photographer: Spencer Rubino

Date: August 3, 2022

Plate 5.19: Perspective view showing the residential development (RGA 16) on the east side of John F. Kennedy Boulevard between W 57th and W 58th Streets.

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 16, 2022

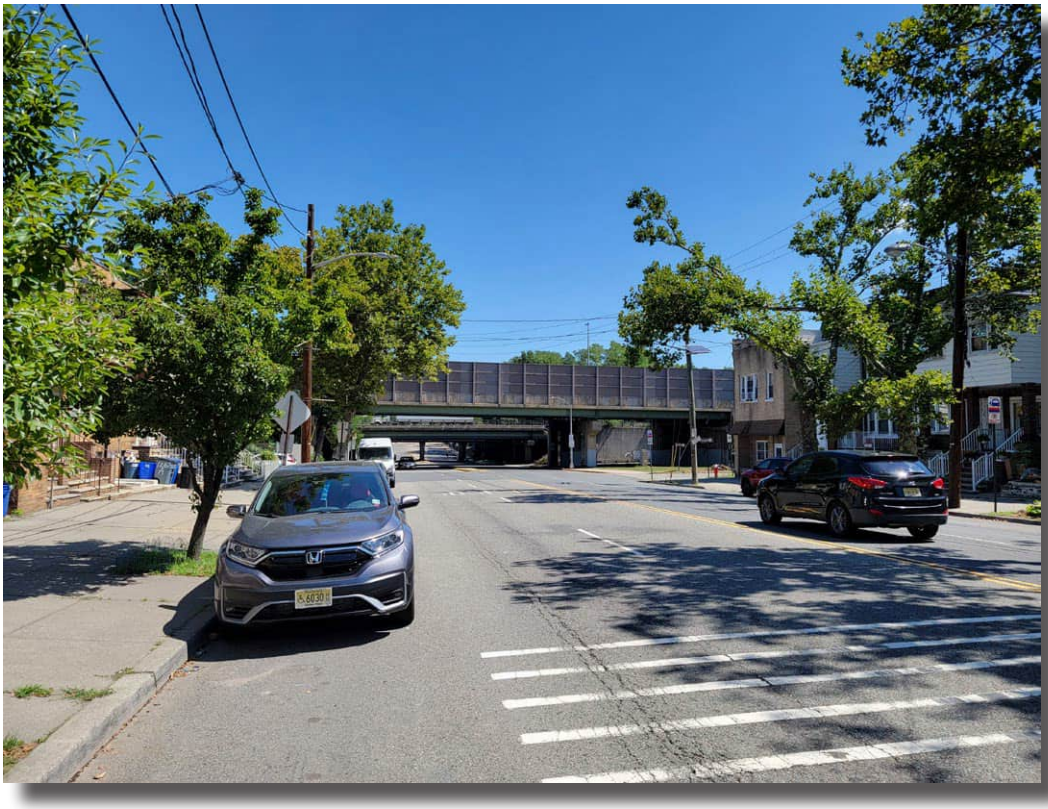

Plate 5.20: View of the NB-HCE (RGA 2) from John F. Kennedy Boulevard near W 57th Street.

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

Plate 5.21: View looking towards the above-grade alignment of the Lehigh Valley Railroad Historic District (SHPO Opinion: 3/14/2002) from John F. Kennedy Boulevard north of the current NB-HCE alignment.

Photo view: South

Photographer: Alison Eberhardt

Date: August 3, 2022

Plate 5.22: Perspective view showing the dwellings at 258 and 260 Avenue B (RGA 17).

Photo view: Southeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Plate 5.23: Perspective view of the dwellings at 354 and 356 Avenue B (RGA 18) looking northeast towards the NB-HCE (RGA 2).

Photo view: Northeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Plate 5.24: View looking towards the NB-HCE (RGA 2) from W 57 Street and Avenue B.

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

Plate 5.25: Perspective view showing the northwest corner of the Woodrow Wilson School (RGA 20).

Photo view: Southeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Plate 5.26: Alternative view of the Woodrow Wilson School (RGA 20) from Avenue B.

Photo view: East

Photographer: Lauren Dunkle

Date: August 3, 2022

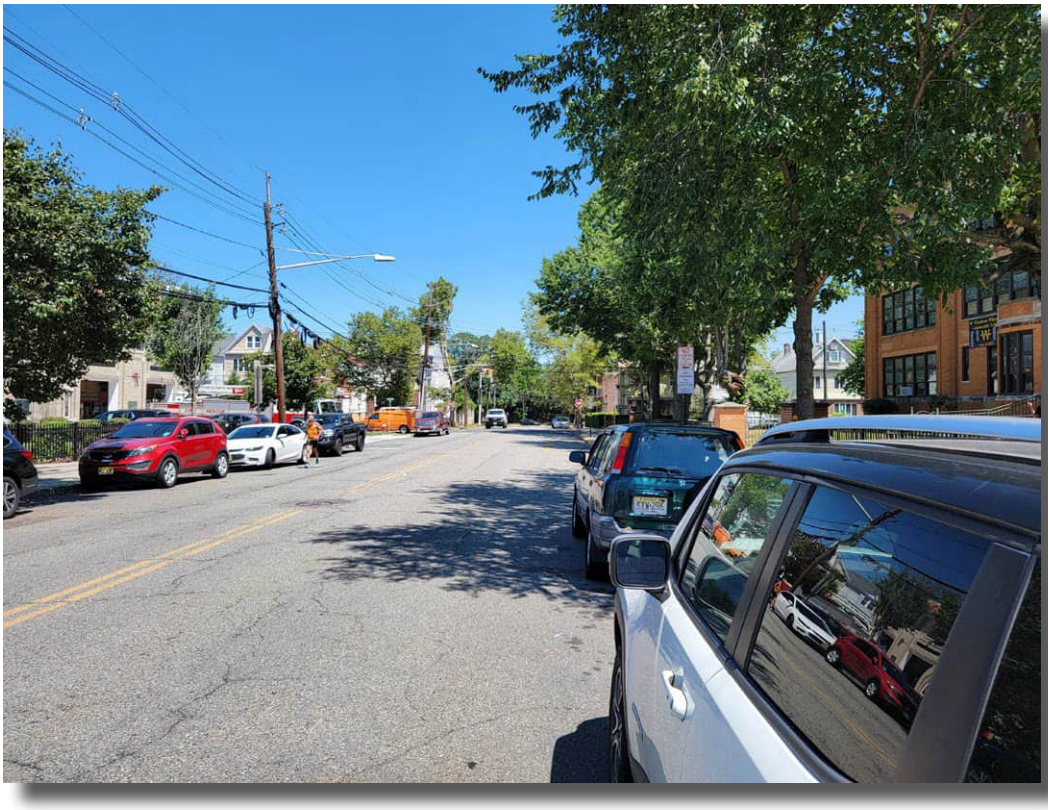

Plate 5.27: View looking towards the NB-HCE (RGA 2) from Avenue B at the Woodrow Wilson School.

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

Plate 5.28: Streetscape view of the residences along the north side of W 57th Street at Avenue B (RGA 19).

Photo view: Northeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Plate 5.29: Streetscape view of the residential development on the north side of W 57th Street between Avenues B and C (RGA 19).

Photo view: Northwest

Photographer: Lauren Dunkle

Date: August 3, 2022

Plate 5.30: View showing the residential streetscape on the north side of W 57th Street between Avenues B and C (RGA 19).

Photo view: Northeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Plate 5.31: View showing the building at 62 W 57th Street (RGA 21).

Photo view: Southwest

Photographer: Alison Eberhardt

Date: August 3, 2022

Plate 5.32: View looking towards the NB-HCE (RGA 2) at Avenue C and W 57th Street.

Photo view: Northeast

Photographer: Alison Eberhardt

Date: August 3, 2022

Plate 5.33: Perspective view of the dwelling at 61 W 57th Street (RGA 22).

Photo view: Northwest

Photographer: Alison Eberhardt

Date: August 3, 2022

Plate 5.34: View of the building at 1137 Avenue C (RGA 23) partially visible within the public right-of-way.

Photo view: Southwest

Photographer: Lauren Dunkle

Date: August 3, 2022

Plate 5.35: View of the building at 1133 Avenue C (RGA 24; center) and 1137 Avenue C (RGA 23; right) from the east side of Avenue C.

Photo view: West

Photographer: Lauren Dunkle

Date: August 3, 2022

Plate 5.36: Perspective view showing the residences at 1134 and 1136 Avenue C (RGA 25 and 26).

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

Plate 5.37: View looking towards the NB-HCE (RGA 2) from Avenue C at the south end of the APE-Architecture.

Photo view: North

Photographer: Lauren Dunkle

Date: August 3, 2022

Plate 5.38: Perspective view showing the late-twentieth century residential development on the south side of W 56th Street east of Avenue C (RGA 27).

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 3, 2022

Plate 5.39: Perspective view showing the late-twentieth century residential development on the north side of W 56th Street east of Avenue C (RGA 27).

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

Plate 5.40: Perspective view showing the commercial development on the north side of W 55th Street from Avenue C.

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

Plate 5.41: Perspective view of the commercial development on the north side of W 55th Street within the APE-Architecture, including the building at 19-33 W 55th Street (RGA 28).

Photo view: Southwest

Photographer: Spencer Rubino

Date: August 3, 2022

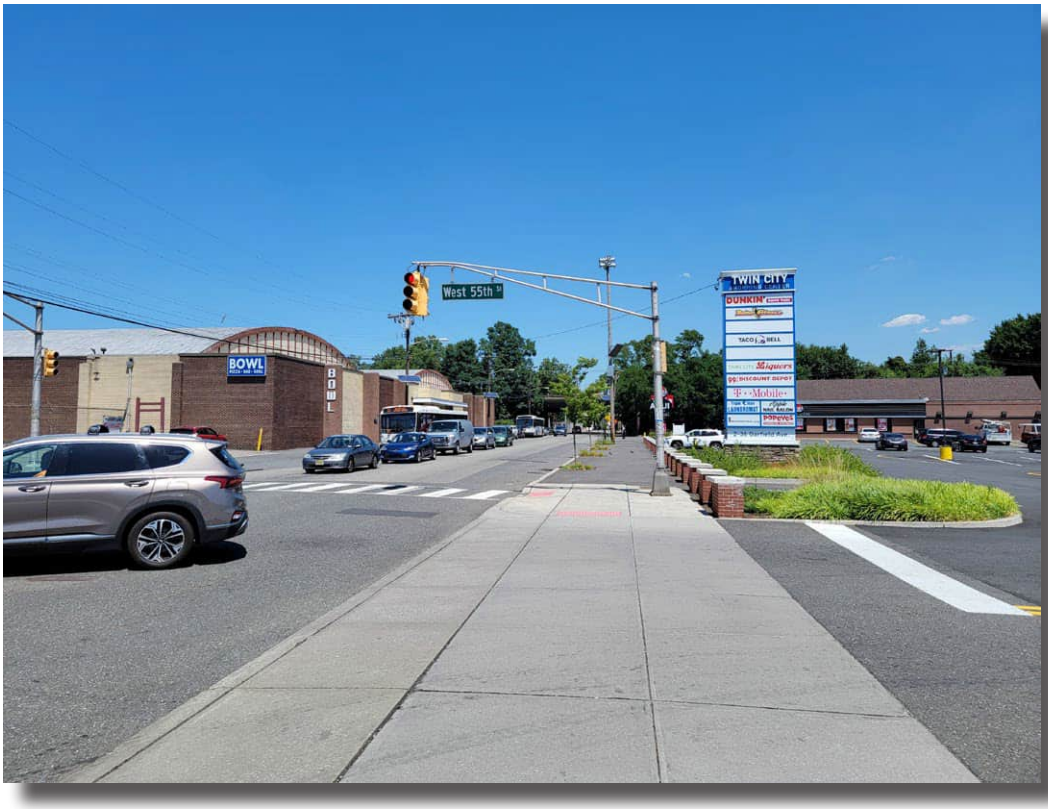

Plate 5.42: View looking towards the NB-HCE (RGA 2) from Garfield Avenue at the Twin City Shopping Center.

Photo view: North

Photographer: Spencer Rubino

Date: August 3, 2022

Plate 5.43: View of the Twin City Shopping Center (RGA 30) from Garfield Avenue.

Photo view: Southeast

Photographer: Spencer Rubino

Date: July 22, 2022

Plate 5.44: Perspective view of Hudson Lanes (RGA 29) located at the northwest corner of Garfield Avenue and W 55th Street.

Photo view: Northwest

Photographer: Spencer Rubino

Date: August 3, 2022

Plate 5.45: View looking towards the NB-HCE (RGA 2) Bridge and Ramp A over Garfield Avenue.

Photo view: Northwest

Photographer: Rye Fitzgerald

Date: March 2, 2022

Plate 5.46: View showing the Public Service & Electric Gas Company Building at 41 Garfield Avenue, previously identified historic architectural resource within the APE-Architecture.

Photo view: Northwest

Photographer: Rye Fitzgerald

Date: March 2, 2022

Plate 5.47: View of the NB-HCE (RGA 2) Ramp C Bridge over Garfield Avenue.

Photo view: Southwest

Photographer: Rye Fitzgerald

Date: March 2, 2022

Plate 5.48: View looking towards the Lehigh Valley Historic District (SHPO Opinion: 3/14/2002) from Garfield Avenue near the north boundary line of the APE-Architecture.

Photo view: Southwest

Photographer: Alison Eberhardt

Date: August 3, 2022

Plate 5.49: View showing a portion of the NB-HCE Bayonne Interchange Plaza (RGA 2)

Photo view: Northeast

Photographer: Marissa Agbunag

Date: April 27, 2022

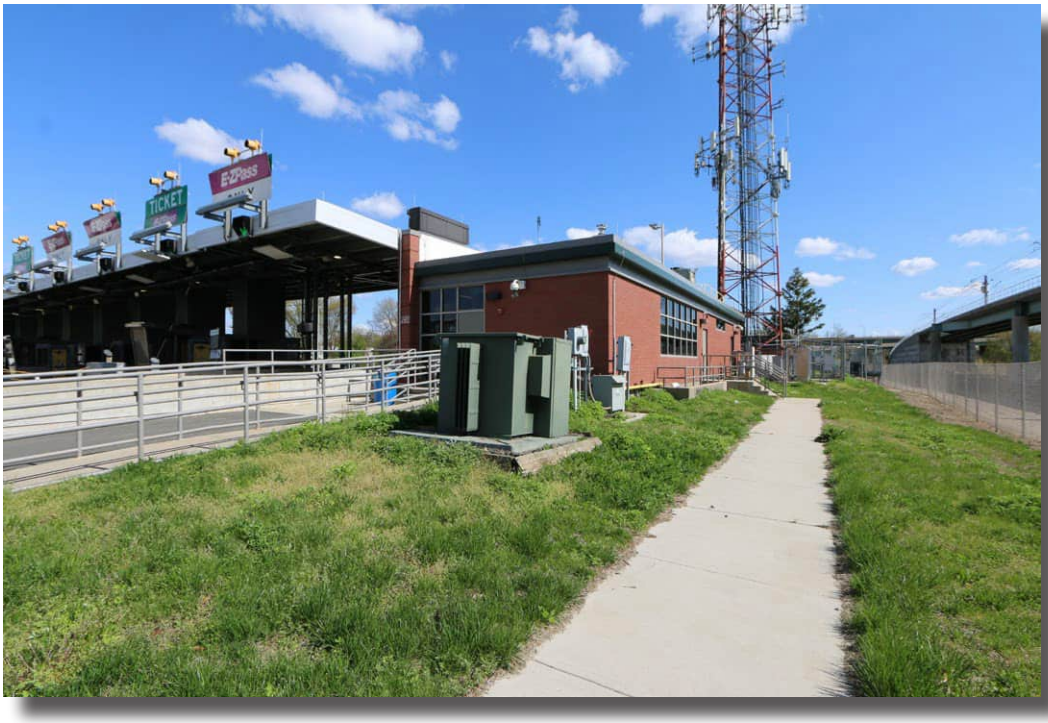

Plate 5.50: View of the NB-HCE (RGA 2) Bayonne Interchange Plaza Administration Building with wireless tower shown in the background.

Photo view: Northeast

Photographer: Marissa Agbunag

Date: April 27, 2022

Plate 5.51: View of the NB-HCE (RGA 2) Southeast Viaduct and Ramp D.

Photo view: Northwest

Photographer: Rye Fitzgerald

Date: March 2, 2022

Plate 5.52: View looking towards the NB-HCE (RGA 2) within the boundaries of the Morris Canal near the Route 185 Interchange (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004).

Photo view: North

Photographer: Rye Fitzgerald

Date: March 2, 2022

Plate 5.53: View looking towards the Former Tide Water Oil Company Pumping Station, a previously surveyed resource within the APE-Architecture not recommended NRHP-eligible.

Photo view: West

Photographer: Rye Fitzgerald

Date: March 2, 2022

Plate 5.54: View of the NB-HCE (RGA 2) Bridge over Linden Avenue.

Photo view: Southeast

Photographer: Rye Fitzgerald

Date: March 2, 2022

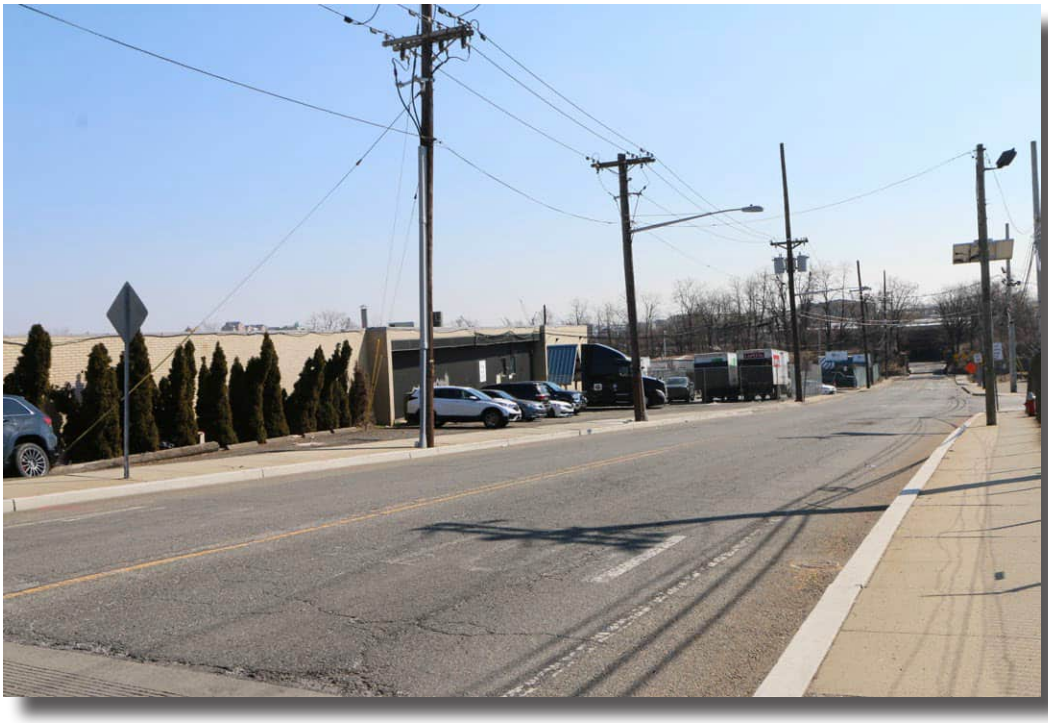

Plate 5.55: View showing a portion of the building at 20 Linden Avenue East (RGA 33).

Photo view: Southeast

Photographer: Rye Fitzgerald

Date: March 2, 2022

Plate 5.56: View showing a portion of the building at 20 Linden Avenue East (RGA 33), looking north towards Princeton Avenue.

Photo view: North

Photograph: Marissa Agbunag

Date: March 2, 2022

Plate 5.57: Perspective view of the Cenveo building at 25 Linden Avenue East (RGA 31).

Photo view: Northwest

Photograph: Marissa Agbunag

Date: March 2, 2022

Plate 5.58: Perspective view of the Jersey City Department of Public Works at 15 Linden Avenue East (RGA 32).

Photo view: South

Photograph: Marissa Agbunag

Date: March 2, 2022

5.2 Assessment of Effects

Newark and Elizabeth Branch of the Central Railroad of New Jersey Historic District (SHPO Opinion: 8/30/2000)
The proposed realigned and widened NB-HCE falls within the boundaries of the NRHP-eligible Newark and Elizabeth Branch of the Central Railroad of New Jersey and will likely require a permanent aerial easement over a portion of the railroad corridor within the APE-Architecture as part of its construction. Current project plans do not call for any direct impacts to railroad-related resources within the historic district boundaries. Any project impacts to the rail corridor associated with the installation of new roadway piers within the ROW will be temporary and not alter the existing alignment or tracks within the historic district boundaries.

The proposed NB-HCE is located within a section of the railroad historic district that has experienced significant alterations to its setting since its assumed period of significance (1870-1938). These changes include the introduction of multiple highway lanes parallel and over the rail corridor. As a new multi-lane highway, the proposed NB-HCE will not introduce a new visual element incompatible with the district's current setting. Above-grade, multi-lane roads such as the current NB-HCE and Port Street overpass already traverse the railroad corridor at this location and include existing piers within its ROW.

The widening of the NB-HCE will be within a small portion of the overall historic district and as currently proposed will not directly or indirectly alter the railroad-related features within the district's setting that contribute to its historical significance and eligibility as an important transportation corridor. The historic district will continue to function according to its historic use as an active railroad corridor. For these reasons, the proposed project will not have an adverse effect on this NRHP-eligible historic district.

Pennsylvania Railroad New York Bay Branch Historic District (SHPO Opinion: 12/18/2019)
An approximate 1.20-mile-long section of the PRRNYBBHD falls within the APE-Architecture north and east of the current NB-HCE alignment and parallel to the LVRRHD through Jersey City. Current project plans do not call for any direct impacts to railroad-related resources within the historic district boundaries; however, the proposed NB-HCE will likely require a permanent aerial easement over a portion of the railroad corridor within the APE-Architecture as part of its construction. Potential visual impacts will be limited to a small portion of the larger district and not indirectly alter any associated railroad related features that may contribute to its historical significance as a transportation corridor. Much of the PRRNYBBHD within the APE-Architecture has experienced significant alterations to its setting since its defined period of significance (1889-1945), including the removal and realignment of tracks and above-grade railroad bridges west of Garfield Avenue and the addition of multiple highway lanes south of and adjacent to the rail corridor. Therefore, the proposed realignment and widening of the NB-HCE will not negatively diminish the district's integrity of setting or introduce a new visual element incompatible within the built environment. Above-grade, multi-lane roads, including the current NB-HCE and New Jersey Route 440, already traverse the railroad corridor at this location. For these reasons, the proposed project will have no adverse effects on the NRHP-eligible PRRNYBBHD.

Lehigh Valley Railroad Historic District (SHPO Opinion 3/15/2002)
The LVRRHD runs north of the existing NB-HCE and Newark Bay Bridge and terminates just northeast of the district's above-grade crossing with the present-day HBLR in Jersey City. An approximate 1.35-mile-long portion of the NRHP-eligible railroad historic district from Newark Bay to its eastern terminus in Jersey City falls within the APE-Architecture. Proposed work within the railroad historic district includes the construction of the proposed NB-HCE as well as a permanent easement over a portion of the railroad line as part of the construction of the new highway. Although a portion of the proposed project falls within the boundaries of the LLVRRHD, current project plans do not include any direct impacts to the district's railroad-related resources. The construction of the widened NB-HCE will not negatively alter the district's historic use or the features within its setting

that convey its historical significance and contribute to its NRHP-eligibility as an important New Jersey railroad line. Similar multi-lane highways, such as the existing NB-HCE and New Jersey Route 440, already run adjacent to the historic district in Jersey City and would therefore not introduce a new visual element incompatible with the district's current setting. As such, the proposed project will not adversely affect the LVRRHD.

Morris Canal (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 4/27/2004)
As the historic property is located entirely below ground within and in the vicinity of the APE-Architecture, the project will not result in any direct or indirect visual effects on above-ground resources associated with the Morris Canal. Below ground, the Morris Canal runs through the project location at two separate locations. The first location is at Avenue C near the municipal boundary of Jersey City and Bayonne within the footprint of the existing NB-HCE and an asphalt paved parking lot. Here, the portion of the Morris Canal south and southeast of the existing NB-HCE contains moderate to high sensitivity for intact buried archaeological elements that may provide potential information about canal engineering and construction as well as the lifeways of nineteenth-century canal culture.

At the second location east of Interchange 14A, the Morris Canal footprint crosses a proposed basin location (HUC3-C) at the New Jersey Route 185 interchange and below the NB-HCE, before running parallel with the current NB-HCE westbound lanes beyond the project limits (see Appendix B, Sheet 205). Though this portion of the canal footprint in the NB-HCE was disturbed during the highway's construction, the part of the canal not within the NB-HCE at the second location also contains moderate to high sensitivity for intact buried archaeological elements associated with the canal's tow path and prism. As such, subsurface excavation may adversely affect the NJR and NRHP-listed Morris Canal.

Port Authority Administration Building (Building 260)
The realigned NB-HCE eastbound lanes and ramps within and south of Interchange 14 will be visible from the historic property. The construction of new highway infrastructure will generally be in keeping with the property's existing setting, which includes the NJT main stem to the west and NB-HCE to the north. The introduction of the realigned NB-HCE into the property's setting will not diminish the overall integrity of the historic property and its significant features that render the building eligible under NRHP Criterion C. The character-defining features identified on the building exterior will remain visible from the public right-of-way and continue to convey its architectural significance as an example of a mid-twentieth-century New Formalism style civic building. For these reasons, the indirect visual project impacts associated with the proposed project will have no adverse effect on the Port Authority Administration Building (Building 260).

Newark Bay Bridge
Project plans call for the complete removal of the Newark Bay Bridge, a historic resource considered by the NJHPO as individually eligible for listing in the NRHP as an intact example of a mid-twentieth-century cantilevered truss structure. The removal of the current Newark Bay Bridge would have an adverse effect on the bridge because it would physically destroy all features of that structure that contribute to its anticipated NRHP eligibility under Criterion C.

5.3 Resolution of Adverse Effects

The proposed undertaking will have an adverse effect on historic properties due to project-related excavations within the footprint of potentially intact, buried sections of the Morris Canal south and west of the NB-HCE. Archaeological monitoring is recommended in the portions of the Morris Canal containing moderate to high archaeological sensitivity to mitigate any anticipated adverse effects to the historic property. Further coordination and consultation with the NJHPO is recommended to consider ways to minimize and/or mitigate adverse effects on the Newark Bay Bridge, an anticipated historic property. At minimum, recordation of the Newark Bay Bridge to the standards of the Historic American Engineering Record (HAER) is recommended as a mitigation measure.

Recommendations for additional mitigation measures include:

- Development of interpretive signage that would interpret the history and significance of the Newark Bay Bridge, including the subject bridge's involvement in the construction of the NB-HCE and its design as a cantilevered truss bridge. The interpretive sign should be installed in a publicly accessible location, such as the Richard A. Rutkowski Park which is situated to the south of the bridge's eastern limits, in Bayonne.

- A historic context study of the firm of Howard Needles Tammen & Bergendoff (now HNTB), consulting engineers of the Newark Bay Bridge, which would detail the history of the firm with special emphasis on its work in New Jersey, including its involvement in the original construction of the NJT and NB-HCE. The document could also include an inventory of all extant bridges in New Jersey attributed to the firm.

- Updating the New Jersey Historic Bridge Survey (A.G Lichtenstein & Associates, 1994) to include bridges built between 1947 (the original survey cut-off date) to 1972, the current 50-year cut-off date at the time of this survey.

6.0 CONCLUSIONS AND RECOMMENDATIONS

A Phase I archaeological survey and Intensive-level historic architectural survey was completed for the NJTA's proposed reconstruction of the NB-HCE. The proposed reconstruction of the NB-HCE will be completed in four discrete projects, which will improve regional mobility and address critical structural needs. The work proposed for the segment of the NB-HCE from Interchange 14 to Interchange 14A, the focus of this current survey, includes the replacement of the Newark Bay Bridge between the City of Newark, Essex County and the City of Bayonne, Hudson County.

The Phase I archaeological survey consisted of background research, a field reconnaissance survey, an archaeological sensitivity assessment, subsurface archaeological testing, and laboratory analysis of the recovered artifacts. The subsurface testing was confined to Block 13, Lot 1 in the City of Bayonne. Historic maps document that the Newark portion of the APE-Archaeology remained undeveloped salt marsh until the mid-twentieth century and is considered to have a low sensitivity for intact, significant pre-Contact and historic-period resources. A single submerged target is present in a proposed temporary construction trestle pier for the new bridge in the Newark Bay and, based on navigation channel mapping data, likely represents a historic piling that marked the edge of the dredged navigation channel. This single submerged target is the southernmost of a line of submerged targets that mark the eastern edge of the navigation channel. No further archaeological survey is recommended for this submerged target.

In the City of Bayonne and in the City of Jersey City, the infilled Morris Canal footprint transects the eastern part of the APE-Archaeology. The portion of the canal's footprint on Block 30203, Lot 3; Block 30204, Lot 4; Block 30306, Lots 2 and 4; and Block 30303 TURN in the City of Jersey City has a high sensitivity for intact buried structural elements associated with the canal's prism and towpath. There, the proposed undertaking will have an adverse effect on the NJR and NRHP-listed Morris Canal and archaeological monitoring within the canal footprint is recommended. Additionally, a circa 1908 New York Bay Railroad Co. turntable was formerly located on Block 30306, Lot 2 in the City of Jersey City within the APE-Archaeology and in the footprint of the Morris Canal. Consequently, archaeological monitoring during construction of a proposed retention basin on Block 30306, Lot 2 is recommended to record Morris Canal-related features and features associated with the turntable, if exposed. Preparation of an archaeological monitoring protocol for review and approval by the NJHPO is recommended.

A small grassy area on the southeast side of Block 13, Lot 1 in Bayonne on the former "Parental School" and Marist High School property has an assessed moderate to high sensitivity for pre-Contact period Native American archaeological resources. There, 13 STPs were excavated. No pre-Contact period archaeological resources were found and 338 historic period artifacts were retained. Based on a close examination of soil profiles and recovered artifacts, the material and stratigraphy appears to have been extensively modified and re-deposited, likely from off-site locations, during the property's development between 1909 and 1919. Due to the lack of integrity, the archaeological deposits are assessed as not significant and no further archaeological survey of Block 13, Lot 1 in Bayonne is recommended.

The multi-component pre-Contact and historic-period Jersey Eagle Site (28-Hd-45 [SHPO Opinion: 5/17/2013]) was previously identified on Block 30306, Lot 7 in and near the northern terminus of the APE-Archaeology for a natural gas pipe installation project. The Jersey Eagle Site was determined eligible for listing in the NRHP under Criterion A for its association with events that made a significant contribution to the broad patterns of history and Criterion D for the potential to yield new, important information in prehistory and history regarding the pre-Contact period occupation and early colonial settlement of Hudson County from 0 to 1850 AD. The nearby pre-Contact period Greenville site (28-Hd-3), mapped immediately north of the APE-Archaeology and identified in the early twentieth century, may represent the same

archaeological deposits as those at the Jersey Eagle Site. The Jersey Eagle Site is considered to have a high potential for deeply buried pre-Contact and historic archaeological resources. Archaeological monitoring of the basin HUC3-F outfall stormwater pipe trench excavation is recommended if the trench will extend below a depth of 2.3 feet below grade (i.e., the northern-most top depth of the deeply buried Jersey Eagle Site closest to Linden Avenue) to mitigate potential Proposed Action-related adverse effects to the archaeological historic property if the proposed outfall pipe will be located outside the former 16-foot wide gas pipeline trench. At the junction of the outfall pipe with basin HUC3-F, project related excavations will not exceed a depth of 5.0 feet below grade. Nearby, the southwestern portion of the Jersey Eagle Site exists is more deeply buried and present at 6.6 feet below grade. No monitoring is recommended where excavated will be above the top depth of the Jersey Eagle Site.

No further archaeological survey is recommended in the remainder of the APE-Archaeology due to existing disturbances from the construction of the NB-HCE, surrounding roads, former and extant rail lines, and the installation of underground utilities.

The Intensive-level historic architectural survey identified 41 historic architectural resources more than 45 years of age within the APE-Architecture. Six of the 41 historic architectural resources are historic properties previously listed in the NJR and NRHP or determined eligible for listing in the NRHP: the Newark and Elizabeth Branch of the Central Railroad of New Jersey Historic District (SHPO Opinion: 8/30/2000); Pennsylvania Railroad New York Bay Branch Historic District (SHPO Opinion: 12/18/2019); Lehigh Valley Railroad Historic District (SHPO Opinion 3/15/2002); and the Morris Canal (SHPO Opinion: 4/27/2004; NJR: 11/26/1973; NR: 10/1/1974). The other two previously identified historic properties are the Newark Bay Bridge (RGA 1) and the Port Authority Administration Building (Building 260), both of which the NJHPO considered to be NRHP-eligible as a result of separate technical assistance requests.

The historic architectural resources identified within the APE-Architecture include the NJT main stem, which the NJHPO previously determined was not eligible for the NRHP and was therefore not evaluated further as part of the current survey (Guzzo 2006). Similarly, the PSE&G Building (also known as the PSE&G Greenville Substation) at 41 Garfield in Jersey City and the Former Tide Water Oil Company Pumping Station east of Interchange 14A were previously surveyed and not recommended NRHP-eligible and were also not evaluated further as part of this current survey. The remaining 32 historic architectural resources within the APE-Architecture were surveyed at the intensive level, and as a result, none of them were recommended eligible for the NRHP.

As currently proposed, the undertaking will have an adverse effect on historic properties. Project-related excavations may direct impact sections of the Morris Canal containing a moderate to high sensitivity for buried and intact archaeological elements. Archaeological monitoring during construction excavations that adhere to a monitoring protocol approved by the NJHPO is recommended in portions of the Morris Canal with an assessed moderate to high archeological sensitivity as a way to mitigate adverse effects to this historic property. Due to the use of State funding and direct impacts to the NJR-listed Morris Canal, completion of an APA under the New Jersey Register of Historic Places Act (N.J.A.C. 7:4-7.1) will be required for the portions of the project within the canal footprint.

The proposed removal and replacement of the Newark Bay Bridge, an anticipated historic property, will also result in an adverse effect. Further coordination and consultation with the NJHPO is recommended to consider ways to minimize and/or mitigate adverse effects on the Newark Bay Bridge. At minimum, documentation of the Newark Bay Bridge to HAER standards is recommended to mitigate the adverse effect. Other possible mitigation measures may include the creation of interpretative signage, the development of a historic context study on subject bridge's engineering firm, Howard, Needles, Tammen & Bergendoff, and their work within New Jersey, and an update to the New Jersey Historic Bridge Survey. Additional mitigation measures should be identified in consultation with the NJHPO and other project consulting parties through the development of a Memorandum of Agreement to resolve adverse effects and conclude the Section 106 process.

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Appendix A-1

Phase I Archaeology Survey and
Intensive-Level Historic Architectural
Survey: Appendices A-H

APPENDIX A: QUALIFICATIONS OF THE PRINCIPAL INVESTIGATORS

MICHAEL J. GALL
PRINCIPAL SENIOR ARCHAEOLOGIST (36 CFR 61)

YEARS OF EXPERIENCE

With this firm: 2001-Present
With other firms: 3

EDUCATION

EDUCATION:
MA 2004
Monmouth University
American History

BA 2001
Monmouth University
History and Anthropology

PROFESSIONAL TRAINING

40-hour Health and Safety Training for Hazardous Waste Operations and Emergency Response (OSHA 29 CFR 1910.120), (October 2004)

8-hour Health and Safety Training for Hazardous Waste Operations and Emergency Response Supervisor (June 2010)

8-hour Health and Safety Training for Hazardous Waste Operations and Emergency Response Annual Refresher (May 2020)

C.R.M. Essentials, Trenton, NJ (2007)

PROFESSIONAL AFFILIATIONS

Register of Professional Archaeologists

Council for Northeast Historical Archaeology (Board Member)

Society for Historical Archaeology

Archaeological Society of New Jersey (Bulletin Editor)

Michael J. Gall has extensive experience in applying Section 106 of the National Historic Preservation Act, as amended, the New Jersey Register of Historic Places Act, and other relevant state and municipal laws. Mr. Gall has served as a Principal Investigator on Phase I-III archaeological investigations and archaeological monitoring, and specializes in historical archaeology. He has experience working on archaeological sites in New Jersey, Pennsylvania, Connecticut, Delaware, Virginia, Maryland, Massachusetts, and New York and completing surveys in Arizona, Vermont, Maine, and North Carolina. He exceeds the qualifications set forth in the Secretary of Interior's Standards for Archaeologists [36 CFR 61].

REPRESENTATIVE PROJECT EXPERIENCE:

Phase I-III Archaeological Investigation, Great Road and Cherry Valley Road Intersection Improvement, Somerset and Mercer County, NJ (Sponsor: Somerset County Engineering) Principal Investigator for a Phase I Archaeological investigation in Montgomery Township, Somerset County and Princeton Township, Mercer County. Mr. Gall directed Phase I-III excavations for an early nineteenth-century cottager site owned by Paul Tulane. An archaeological data recovery report detailing the archaeological results at the P. Tulane site was produced presenting the results of the investigation to NJDEP standards.

Garden State Parkway Bridge Nos. 28.0S and 28.5S over Great Egg Harbor Bay and Drag Channel, City of Somers Point and Township of Egg Harbor, Atlantic County and Township of Upper, Cape May County, NJ (Sponsor: NJ Turnpike Authority) Principal Investigator, Senior Archaeologist for Phase II archaeological survey at GEHB 1 Site, a multi-component prehistoric and historic archaeological resource. The archaeological fieldwork resulted in the identification of 12 historic cultural features, and the recovery of eight prehistoric artifacts and 7,403 historic artifacts. The prehistoric component of the site was not recommended eligible for listing on the National Register of Historic Places based on the absence of intact prehistoric cultural features, and the confinement of prehistoric cultural material in historic deposits. The historic component of the site was determined to be associated with the Goldin family's occupation of the property between the 1690s/1700s and 1820s. As a result of the Phase II archaeological survey, RGA recommended GEHB 1 Site eligible for listing on the National Register of Historic Places under Criterion D for its ability to provide important new information on New Jersey's early settlement, animal husbandry, building practices, foodways, space use, and domestic economy between the 1690s/1700s and 1820s.

Phase I Archaeological Survey, Berlin-Cross Keys Road (County Route 689), Gloucester, Winslow, Pinehill and Berlin, Camden County, NJ (Sponsor: Camden County) Principal Investigator, Senior Archaeologist a Phase I archaeological survey for roadway improvements and retention basin installation to a 4.2-mile section of Berlin-Cross Keys Road (County Route [CR] 689 between New Brooklyn-Erial Road (CR 706) to North Park Drive in Gloucester and Winslow townships and Pine Hill and Berlin boroughs. Project tasks included background research at the NJ Historic Preservation Office (NJHPO), an assessment of archaeological sensitivity, field survey, and associated reporting. Fieldwork included the excavation of 522 shovel test pits and photographic documentation of existing conditions. No archaeological sites were identified. A technical report was prepared that met the reporting and survey standards of the NJHPO.

CHELSEA MANSKY
SENIOR ARCHITECTURAL HISTORIAN (36 CFR 61)

YEARS OF EXPERIENCE
With this firm:
2014-Present
With other firms: 2

EDUCATION
MS 2013
University of Pennsylvania
Historic Preservation

BS 2011
Franklin and Marshall College
Art History

PROFESSIONAL TRAINING
Amtrak Safety Training

NJ Transit Safety Training

Norfolk Southern Contractor Safety Training

First Aid/ AED/ CPR Certified

Chelsea Mansky's experience includes historical research and writing, architectural surveys, and architectural analysis. Ms. Mansky has worked on cultural resources surveys completed in accordance with Section 106 of the National Historic Preservation Act and other municipal and state cultural resource regulations. Ms. Mansky has experience using computer-aided mapping programs including ArcGIS, ArcView, and AutoCAD. She also has extensive experience in archival and non-profit management. Her educational and professional experience meet the qualifications set forth in the Secretary of Interior's Standards for an Architectural Historian [36 CFR 61].

REPRESENTATIVE PROJECT EXPERIENCE:

Point-No-Point Bridge over the Passaic River, City of Newark, Essex County and Town of Kearny, Hudson County, NJ (Sponsor: Conrail) Principal Investigator for an intensive-level historic architectural survey for the proposed replacement of the Point-No-Point Bridge over the Passaic River. The survey identified 15 resources more than 50 years of age within the Area of Potential Effects for Architecture including the National Register-eligible Pennsylvania Railroad New York Bay Branch Historic District (PRRNYBBHD) and Pennsylvania Railroad New York to Philadelphia Historic District (PRRHD). As a result of the survey, the Point-No-Point Bridge was determined individually eligible for listing in the National Register of Historic Places (NRHP) and as a contributing resource to the PRRNYBBHD. Additional resources identified in the survey, including a previously unevaluated railroad bridge, railroad catenary poles, transmission poles and towers, were also determined eligible as contributing resources to the PRRNYBBHD or PRRHD. The NJ Historic Preservation Office concurred with the survey's findings that the proposed project would constitute an adverse effect on historic properties.

U.S. Route 9 Reconstruction Project (Mile Post 95.0 to 101.90), Toms River and Lakewood Townships, Ocean County, NJ (Sponsor: NJDOT) Principal Investigator, Architectural Historian for the U.S. Route 9 Reconstruction Project (Mile Post 95.0 to 101.90), extending along a seven-mile section of the road through Toms River and Lakewood Townships. The project included reconnaissance- and intensive-level historic architectural surveys that identified 180 resources more than 50 years of age within the APE-Architecture including the previously determined National Register-eligible Lakewood Historic District. Based on initial review comments from the New Jersey Historic Preservation Office (NJHPO), the historic integrity of the portion of the Lakewood Historic District located within the APE-Architecture was re-evaluated to assist in the identification and evaluation of potential project effects on the district. As a result of the cultural resources survey the NJHPO concluded that the proposed project would not have an adverse effect on historic properties.

Hoboken Terminal Yard Power Supply System, City of Hoboken, Hudson County, NJ (Sponsor: NJ Transit) As Architectural Historian assisted in the intensive-level architectural survey conducted for an Historical Architectural Resources Background Study for the proposed improvements to the Hoboken Terminal Yard. The project involved field inspection and photographic documentation of twelve urban properties, as well as historical research to aid in the completion of a New Jersey Historic Resource Survey Forms.

APPENDIX B: PRELIMINARY ENGINEERING DESIGN PLANS

NEW JERSEY TURNPIKE AUTHORITY

DIANE GUTIERREZ-SCACCETTI, CHAIR
ULISES E. DIAZ, VICE CHAIR
MICHAEL R. DUPONT, TREASURER
RONALD GRAVINO, COMMISSIONER
JOHN D. MINELLA, COMMISSIONER
RAPHAEL SALERMO, COMMISSIONER

NEW JERSEY TURNPIKE

OPS NO. T3820

PRELIMINARY DESIGN AND ENVIRONMENTAL SERVICES
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

CITY OF NEWARK, COUNTY OF ESSEX,
CITIES OF BAYONNE AND JERSEY CITY, COUNTY OF HUDSON

NJTA STANDARD DRAWINGS

DWG. NO.	DESCRIPTION	ISSUE DATE
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X

NJDOT STANDARD DRAWINGS

DWG. NO.	DESCRIPTION	DATE
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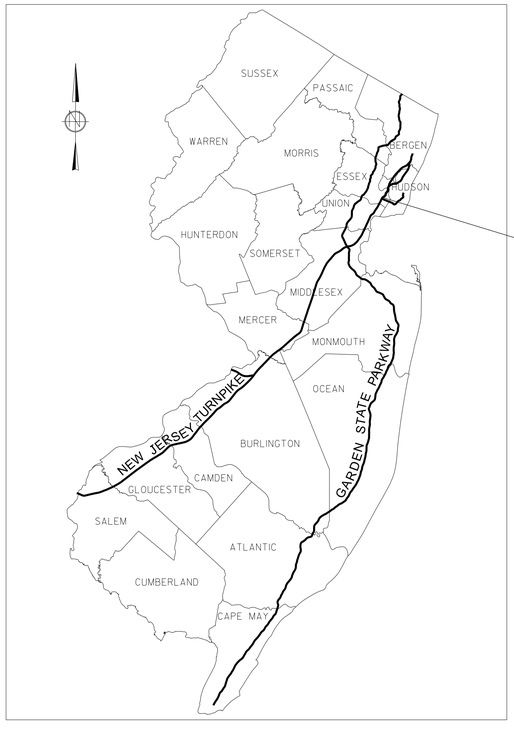
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X



LOCATION PLAN

SCALE: NTS

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201, PISCATAWAY, NJ 08854

INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2 - 3	GENERAL LEGEND
4 - 7	PLAN REFERENCE SHEET
8 - 24	BASELINE SHEETS
25- 139	STAGING PLANS/SEQUENCE
140 - 143	SECTION KEY PLAN
144 - 179	SECTIONS
180 - 196	HIGHWAY PLANS
197 - 213	SWM AND MAJOR DRAINAGE PLANS
214 - 260	PROFILES
261 - 277	PRELIMINARY SIGNING/STRIPING & ITS PLANS
278 - 296	PRELIMINARY LIGHTING PLANS
297 - 313	PRELIMINARY SUBSTRUCTURE LAYOUT PLANS
314 - 375	BRIDGE ELEVATIONS

DRAFT

RECOMMENDED: _____ **DATE:** _____
MICHAEL A. MORGAN N.J. PROFESSIONAL ENGINEER
GANNETT FLEMING, INC. LICENSE NO. 24GE0379000
DESIGN CONSULTANT
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

APPROVED BY: _____ **DATE:** _____
MICHAEL GAROFALO, P.E.
ACTING CHIEF ENGINEER
NEW JERSEY TURNPIKE AUTHORITY

JULY 2022 CONCEPT PLANS

FILE NAME: T3820_PD_Title.dgn

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LEGEND

(CONCEPTUAL ONLY - NOT TO PLAN SCALE)

ROADWAY

ITEM	EXISTING	PROPOSED
PROPERTY LINE		
FENCE		
RIGHT OF WAY		
DENIAL OF ACCESS LINE	EXISTING R.O.W. LINE NO ACCESS	PROPOSED R.O.W. LINE NO ACCESS
EASEMENT LINE		
GUIDE RAIL	OR	OR
EDGE OF ROADWAY PAVEMENT		
EDGE OF SHOULDER PAVEMENT		
GROUND CONTOUR	5 OR 5	5
BORING LOCATION		
CURB		
DEPRESSED CURB		
SIGN	SIGN — OVERHEAD SIGN	GROUND OR SIGN — OH SIGN OR CANTILEVER SIGN
CONCRETE MONUMENT		
IMPACT ATTENUATOR		
CONCRETE BARRIER	B32	B32
CONSTRUCTION BARRIER		
DIRECTION OF TRAFFIC		
BASELINE CURVE DATA REFERENCE	BASELINE CURVE NUMBER — XXX / X	BASELINE CURVE NUMBER — XXX / X
TERRAPIN FENCE		

DRAINAGE

ITEM	EXISTING	PROPOSED
STORM DRAIN	15" RCP	15" RCP
SANITARY SEWER	S — S	N12"S — N12"S — N12"S
UNDERDRAIN	U	NU — NU
HEADWALL		
DROP INLET OR CATCH BASIN	OR	
RESET INLET OR CATCH BASIN		RECONSTRUCT
MANHOLE		
RESET MANHOLE		
LIP CURB INLET		
FLARED END SECTION		
PAVED DITCH OR CHANNEL	PAVED	PAVED
UNPAVED SWALE, DITCH OR CHANNEL		
STREAM		
BLEEDER DRAIN	BD	BD
INLET CONVERTED TO MANHOLE		

UTILITIES (SEE SHEET RL-1 FOR LIGHTING CONDUITS)

ITEM	EXISTING	PROPOSED
TELEPHONE OR COMMUNICATIONS LINE OVERHEAD	To — To	NTo — NTo
TELEPHONE OR COMMUNICATIONS LINE UNDERGROUND	T — T	NT — NT
POWER LINE OVERHEAD	Eo — Eo	NEo — NEo
POWER LINE UNDERGROUND	E — E	NE — NE
WATER MAIN	8"W — 8"W	N8"W — N8"W
WATER MAIN VALVE		
WATER HYDRANT		
MANHOLE		
GAS PIPELINE	6"G — 6"G	N6"G
PETROLEUM PIPELINE	16"P — 16"P	N16"P
NJ TURNPIKE AUTHORITYCOMMUNICATIONS CABLE	CC — CC	NCC
FIBER OPTIC CABLE OVERHEAD	Fo — Fo	NFo
FIBER OPTIC CABLE UNDERGROUND	F/O — F/O	NF
UTILITY POLE		
RAILROAD COMMUNICATION OR SIGNAL LINE OVERHEAD	RRO	NRRO
RAILROAD COMMUNICATION OR SIGNAL LINE UNDERGROUND	RR	NRR
UTILITY CO. MANHOLE, ELECTRIC (TYPE AND SIZE AS NOTED)	E	E
UTILITY CO. MANHOLE, TELEPHONE (TYPE AND SIZE AS NOTED)	T	T
VARIOUS OVERHEAD UTILITIES		

GENERAL

ITEM	EXISTING	PROPOSED
ABANDON	TBA	
REMOVE		
DEMOLITION	TBR	DEMOLITION OF BUILDING — 1 STY FRAME (A); TO BE REMOVED UNDER CLEARING AND GRUBBING

MISCELLANEOUS ITEMS

MILLING & RESURFACING		WETLAND		HIGH POINT	
STONE POCKET		RIPRAP		LOW POINT	

COUNTY OR MUNICIPAL LINE	
RAILROAD	
EXISTING MARSH	
EXISTING TREES AND TREE LINE	CONIFER — DECIDUOUS XX"
EXISTING BUSH AND HEDGE	
EXISTING SHEETING	
CENTERLINE OR BASELINE	℄ OR ℄
TOP OF CUT SLOPE	C — C
TOE OF FILL SLOPE	F — F
SAWCUT	SAWCUT LINE
WETLAND DELINEATION	
TEMPORARY INLET PROTECTION	HAYBALES — INLET FILTER
TEST PIT	
NORTH ARROW	N. J. Plane Coordinate System NAD83
BENCHMARK	BM
HEAVY DUTY SILT FENCE, BLACK	
TEMPORARY PLASTIC FENCE	
SOIL BOUNDARY	
FLOATING TURBIDITY BARRIER	
LIMIT OF DISTURBANCE	LOD — LOD — LOD — LOD
NJTA ROADWAY	
NJTA SHOULDER	
STRUCTURE	
OTHER ROADWAY/RAILROAD	
POTENTIAL SWM BASIN	
TO BE REMOVED	

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

GL-1 / GL-2

	BY	DATE
MADE:	TL	07/2022
TRACED:	RSE	07/2022
CHECKED:	GTK	07/2022
SUPERVISED:	RBM	

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JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

GENERAL LEGEND -1-

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO, 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO, 24GE0379000

SCALE: NONE

DATE: JULY 2022

2 / 375

FILE NAME: T3820_PD_GL01.dgn

GENERAL NOTES

1. SUBSURFACE INFORMATION SHOWN ON THESE PLANS WAS OBTAINED SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED.

2. UNDERGROUND UTILITIES SHOWN ON THE CONTRACT PLANS ARE APPROXIMATE AND BASED ON AVAILABLE RECORD INFORMATION. TYPE AND LOCATION IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERE TO.

3. IN ORDER TO PROVIDE A SUFFICIENT LEVEL OF LEGIBILITY ON THE PLAN SHEETS, NOT ALL SUBSURFACE FEATURES (EXISTING AND / OR PROPOSED) ARE SHOWN ON EVERY PLAN SHEET. THE CONTRACTOR IS DIRECTED TO REVIEW EACH SECTION OF THE PLAN SHEETS (HIGHWAY, DRAINAGE, UTILITY, HIGHWAY LIGHTING, ETC.) IN ORDER TO ACCOUNT FOR ALL SUBSURFACE FEATURES AND TO ENSURE PROPER COORDINATION OF THE WORK ITEMS OF THIS CONTRACT.

ABBREVIATIONS

ACCEL. - ACCELERATION
AH/AHD. - AHEAD
BD - BLEEDER DRAIN
BIT. - BITUMINOUS
BK - BACK
℄ - BASELINE
BGRA - BEAM GUIDE RAIL ANCHORAGE
BRG. - BEARING
BWL - BROKEN WHITE LINE
CL. - CLEAR
℄ - CENTERLINE
CMP - CORRUGATED METAL PIPE
CWL - CHANNELIZING SOLID WHITE LINE
D - AVERAGE STONE SIZE
DC - DROP CURB
DECEL. - DECELERATION
DIP - DUCTILE IRON PIPE
DWL - DOTTED WHITE LINE
E - EAST
EB - EASTBOUND
EL./ELEV. - ELEVATION
EOP - EDGE OF PAVEMENT
EXIST. - EXISTING
EXP. - EXPANSION
FES - FLARED END SECTION
FIX. - FIXED
FO - FIBER OPTIC
FRT - FLARED GUIDE RAIL TERMINAL
FUT. - FUTURE
GRND. - GROUND
GSP - GARDEN STATE PARKWAY
HW - HEADWALL
HORIZ. - HORIZONTAL
INV. - INVERT
L - LENGTH
L/LT. - LEFT
LOC - LIMIT OF CLEARING
LOM - LIMIT OF MILLING
LOP - LIMIT OF PAVING
LN. - LANE
MAX. - MAXIMUM
MIN. - MINIMUM
MPH - MILES PER HOUR
N - NORTH
NB - NORTHBOUND
NO. - NUMBER
N.T.S - NOT TO SCALE
OH - OVERHEAD
OC - ON CENTER
PAVT. - PAVEMENT
PC - POINT OF CURVATURE
PCCB - PRECAST CONCRETE CONSTRUCTION BARRIER
PGL - PROPOSED GRADE LINE
PI - POINT OF INTERSECTION
PKWY. - PARKWAY
POB - POINT OF BEGINNING
POC - POINT ON CURVE
POT - POINT ON TANGENT
PROP. - PROPOSED
PT - POINT OF TANGENCY
PVC - POINT OF VERTICAL CURVATURE/POLYVINYL CHLORIDE PIPE
PVRC - POINT OF REVERSE CURVATURE
PVCC - POINT OF VERTICAL COMPOUND CURVATURE
PVI - POINT OF VERTICAL INTERSECTION
PVT - POINT OF VERTICAL TANGENT
R - RADIUS
RE - RESIDENT ENGINEER
RCCP/RCP - REINFORCED CONCRETE CULVERT PIPE
REINF. - REINFORCED
R.O.W - RIGHT-OF-WAY
RT. - RIGHT
S - SOUTH
SB - SOUTHBOUND
SDWK. - SIDEWALK
SHGW - SEASONAL HIGH GROUND WATER
SH./SHLD. - SHOULDER
STA. - STATION
SURF. - SURFACE
SWL - SOLID WHITE LINE
SYL - SOLID YELLOW LINE
TAN. - TANGENT
TBA - TO BE ABANDONED AND PLUGGED
TBR - TO BE REMOVED
TBWL - TEMPORARY BROKEN WHITE LINE
TG - TOP OF GRATE
TGRT - TANGENT GUIDE RAIL TERMINAL
TH. - THICKNESS
TSD - TEMPORARY SLOPE DRAIN
TSWL - TEMPORARY SOLID WHITE LINE
TSYL - TEMPORARY SOLID YELLOW LINE
TTS - TEMPORARY TRAFFIC STRIPE
TYP. - TYPICAL
UND. - UNDERDRAIN
VAR. - VARIES
VERT. - VERTICAL
W - WEST
WCM - WHITE CHEVRON MARKING
X' - FEET
X" - INCHES

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

GL-2
GL-2

	BY	DATE
MADE:	TL	07/2022
TRACED:	RSE	07/2022
CHECKED:	GTK	07/2022
SUPERVISED:	RBM	

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

GENERAL LEGEND -2-

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: NONE
DATE: JULY 2022

3
375

FILE NAME: T3820_PD_GL02.dgn

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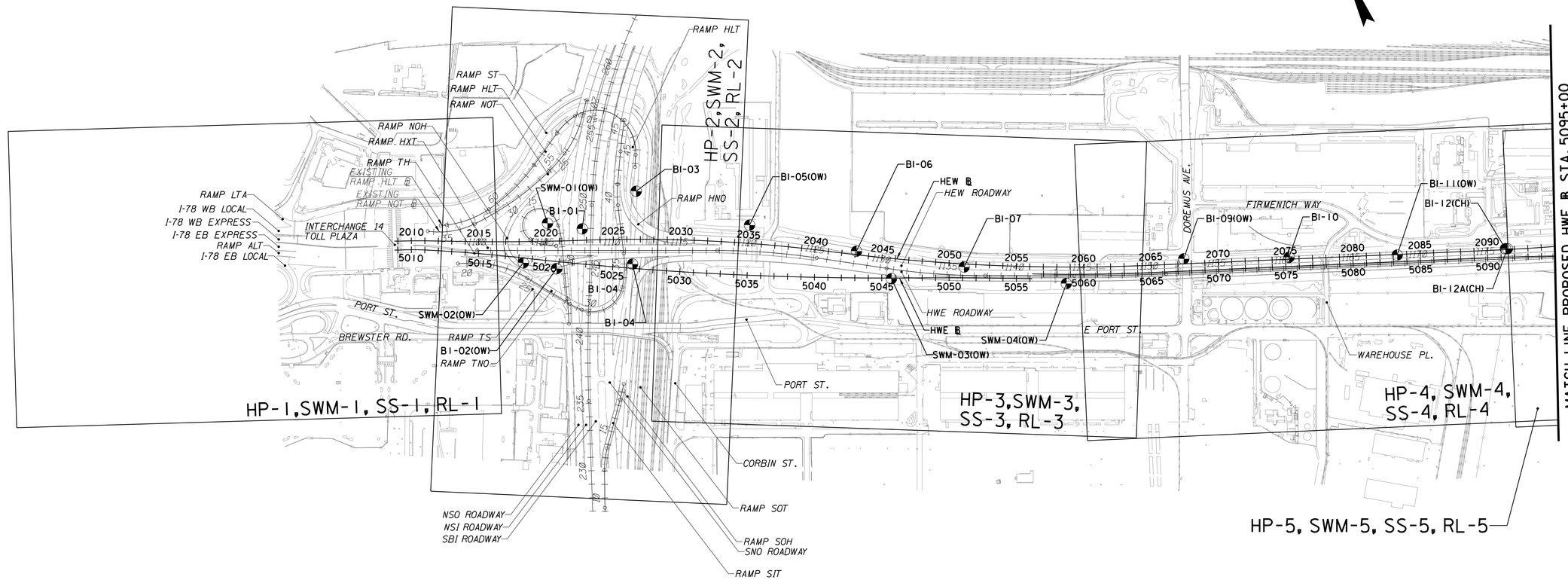
CITY OF NEWARK

COUNTY OF ESSEX



LEGEND:

HP = HIGHWAY PLANS

SWM = SWM AND MAJOR DRAINAGE PLANS

SS = PRELIMINARY SIGNING AND STRIPING PLANS

RL = PRELIMINARY LIGHTING PLANS

◓ = BORING LOCATION

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

PR-1 / PR-4

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

PLAN REFERENCE AND BORING LOCATION SHEET -1-

JULY 2022 CONCEPT PLANS

	BY	DATE
MADE:	TL	07/2022
TRACED:	RSE	07/2022
CHECKED:	GTK	07/2022
SUPERVISED:	RBM	

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=400'

DATE: JULY 2022

4 / 375

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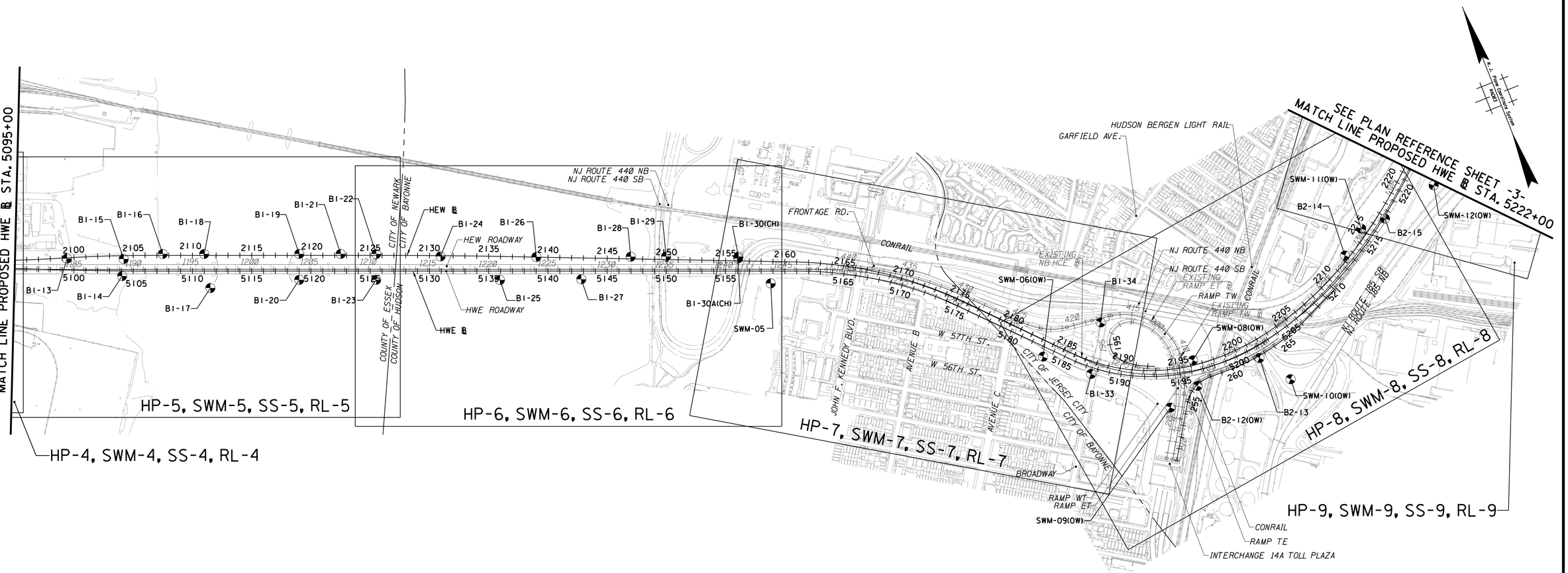
CITY OF NEWARK
CITY OF BAYONNE
CITY OF JERSEY CITY

COUNTY OF ESSEX
COUNTY OF HUDSON



LEGEND:

HP = HIGHWAY PLANS

SWM = SWM AND MAJOR DRAINAGE PLANS

SS = PRELIMINARY SIGNING AND STRIPING PLANS

RL = PRELIMINARY LIGHTING PLANS

⊕ = BORING LOCATION

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

PR-2
PR-4

	BY	DATE
MADE:	TL	07/2022
TRACED:	RSE	07/2022
CHECKED:	GTK	07/2022
SUPERVISED:	RBM	

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

PLAN REFERENCE AND BORING LOCATION SHEET -2-

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=400'

DATE: JULY 2022

5
375

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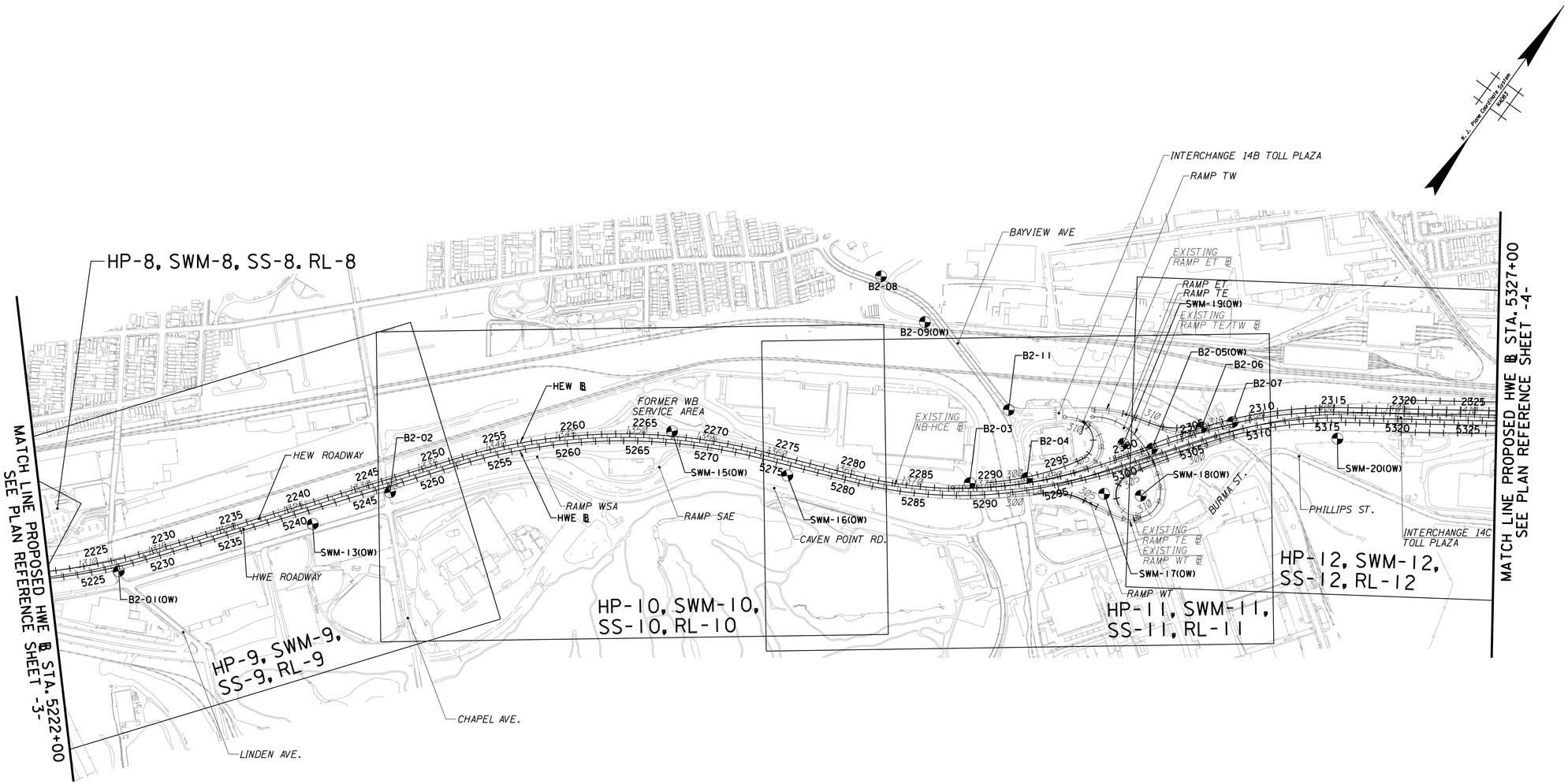
CITY OF JERSEY CITY

COUNTY OF HUDSON



LEGEND:

HP = HIGHWAY PLANS

SWM = SWM AND MAJOR DRAINAGE PLANS

SS = PRELIMINARY SIGNING AND STRIPING PLANS

RL = PRELIMINARY LIGHTING PLANS

◔ = BORING LOCATION

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

PR-3 / PR-4

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

PLAN REFERENCE AND BORING LOCATION SHEET -3-

JULY 2022 CONCEPT PLANS

	BY	DATE
MADE:	TL	07/2022
TRACED:	RSE	07/2022
CHECKED:	GTK	07/2022
SUPERVISED:	RBM	

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=400'

DATE: JULY 2022

6 / 375

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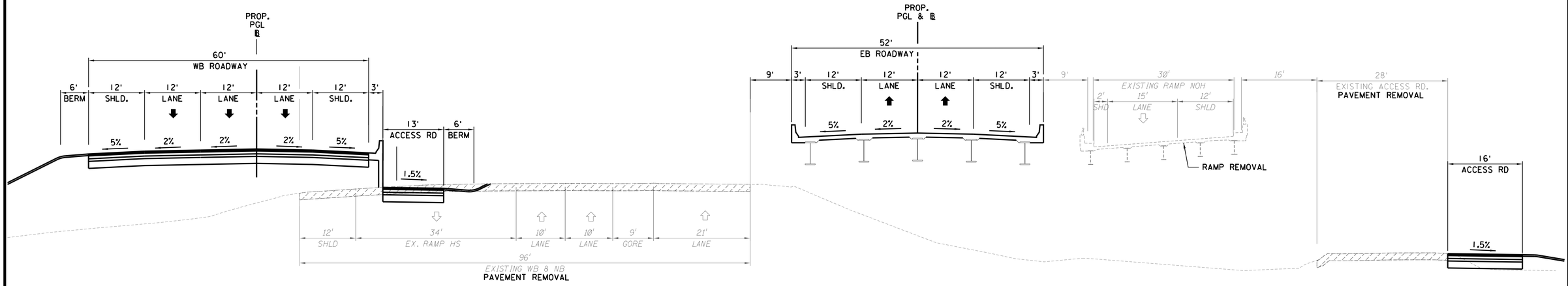

NB-HCE MAINLINE
STA 5020+00 HWE
STA 2020+00 HEW
DESIGN SPEED = 60 MPH
NJTA JURISDICTION

SECTION S-1

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

TYP-1
TYP-36

	BY	DATE
MADE:	MH	07/2022
TRACED:	LP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTION S-1

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'
DATE: JULY 2022

FILE NAME: T3820_PD_TS01.dgn

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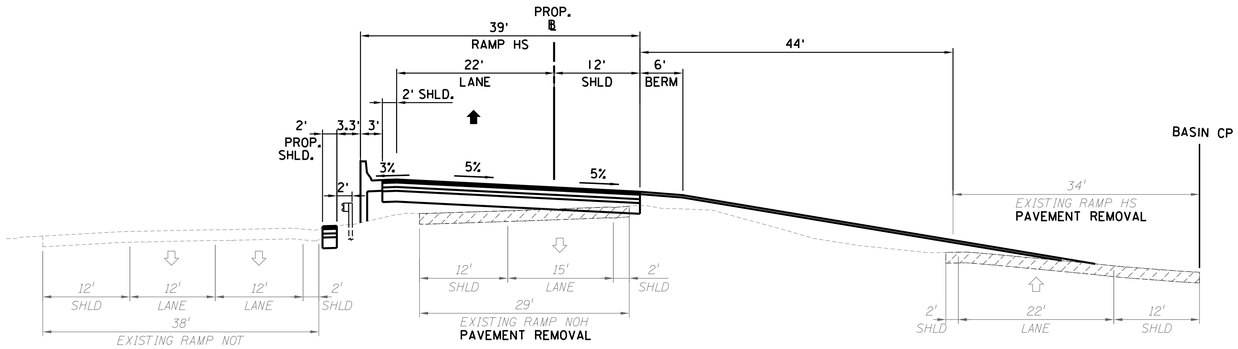

RAMP HS
STA 13+27
DESIGN SPEED 25 MPH
NJTA JURISDICTION

SECTION S-2

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

TYP-2
TYP-36

	BY	DATE
MADE:	MH	07/2022
TRACED:	LP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTION S-2

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'
DATE: JULY 2022

145
375

FILE NAME: T3820_PD_TS02.dgn

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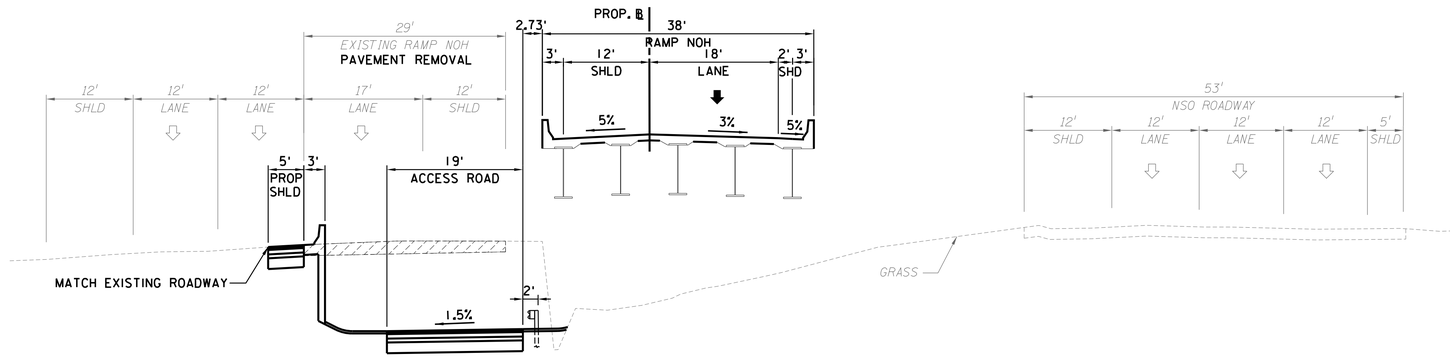

RAMP NOH
STA 53+2
DESIGN SPEED 30 MPH
NJTA JURISDICTION

SECTION S-3

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

TYP-3
TYP-36

	BY	DATE
MADE:	MH	07/2022
TRACED:	LP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTION S-3

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'
DATE: JULY 2022

146
375

FILE NAME: T3820_PD_TS03.dgn

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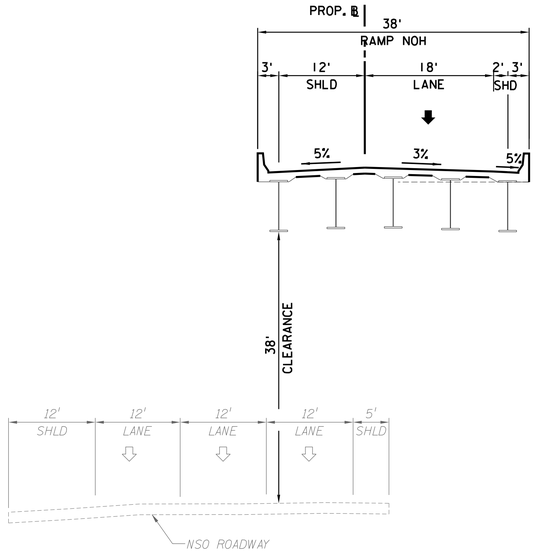

RAMP NOH
STA 57+50
DESIGN SPEED 30 MPH
NJTA JURISDICTION

SECTION S-4

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

TYP-4
TYP-36

	BY	DATE
MADE:	MH	07/2022
TRACED:	LP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTION S-4

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'
DATE: JULY 2022

147
375

FILE NAME: T3820_PD_TS04.dgn

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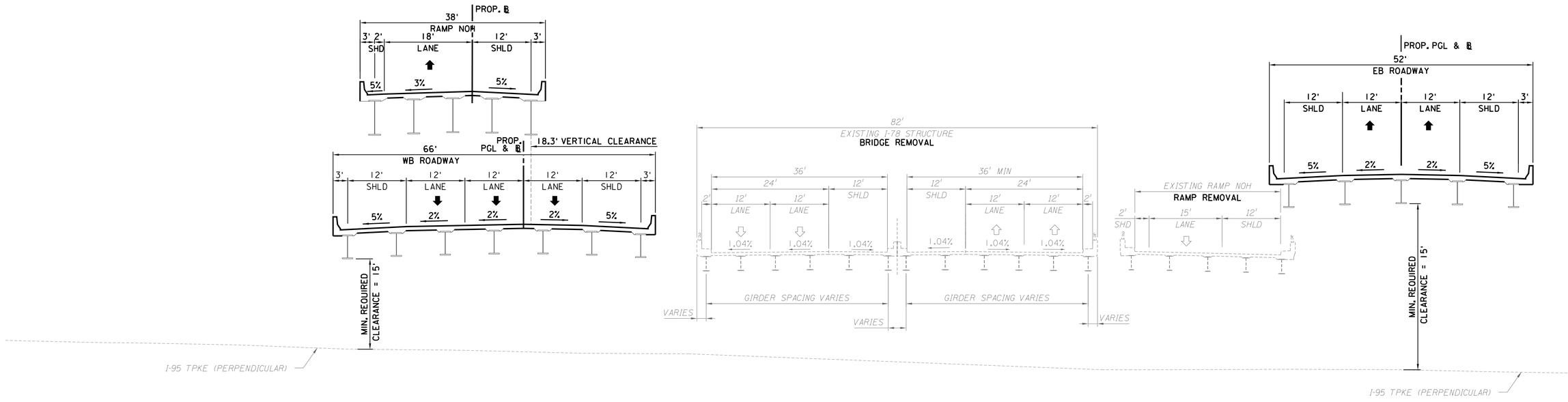

RAMP NOH
STA 59+00
DESIGN SPEED 30 MPH
NJTA JURISDICTION

NB-HCE MAINLINE
STA 2023+00 HEW
DESIGN SPEED 60 MPH
NJTA JURISDICTION

NB-HCE MAINLINE
STA 5023+00 HWE
DESIGN SPEED 60 MPH
NJTA JURISDICTION

SECTION S-5

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

TYP-5
TYP-36

	BY	DATE
MADE:	MH	07/2022
TRACED:	LP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTION S-5

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'
DATE: JULY 2022

148
375

FILE NAME: T3820_PD_TS05.dgn

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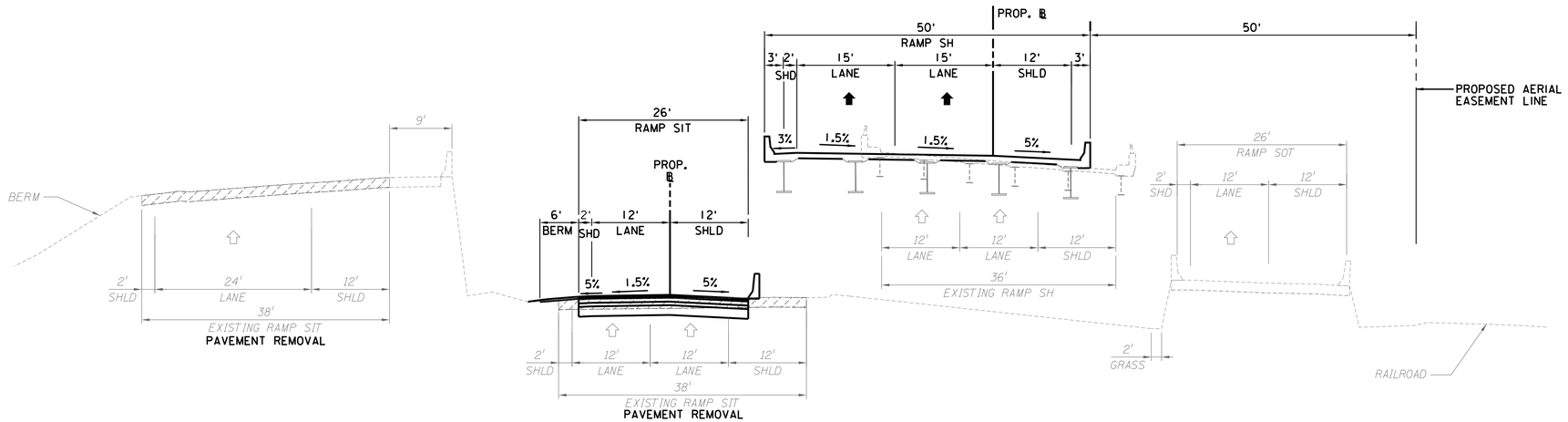

RAMP SH
STA 24+70
DESIGN SPEED 30 MPH
NJTA JURISDICTION

SECTION S-6

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

TYP-6
TYP-36

	BY	DATE
MADE:	MH	07/2022
TRACED:	LP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTION S-6

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'
DATE: JULY 2022

149
375

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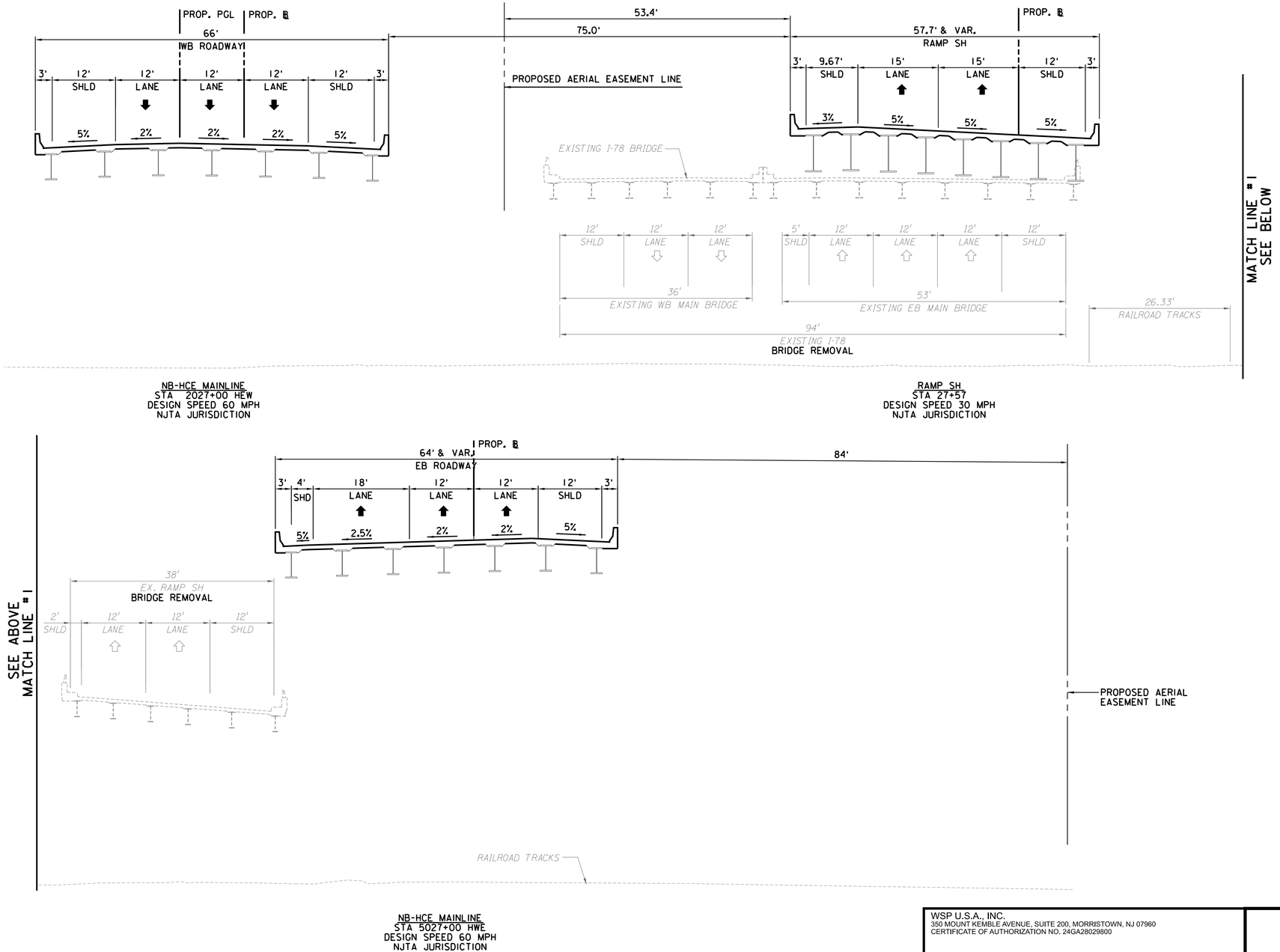

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

TYP-7
TYP-36

SECTION S-7

	BY	DATE
MADE:	MH	07/2022
TRACED:	LP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTION S-7

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'
DATE: JULY 2022

150
375

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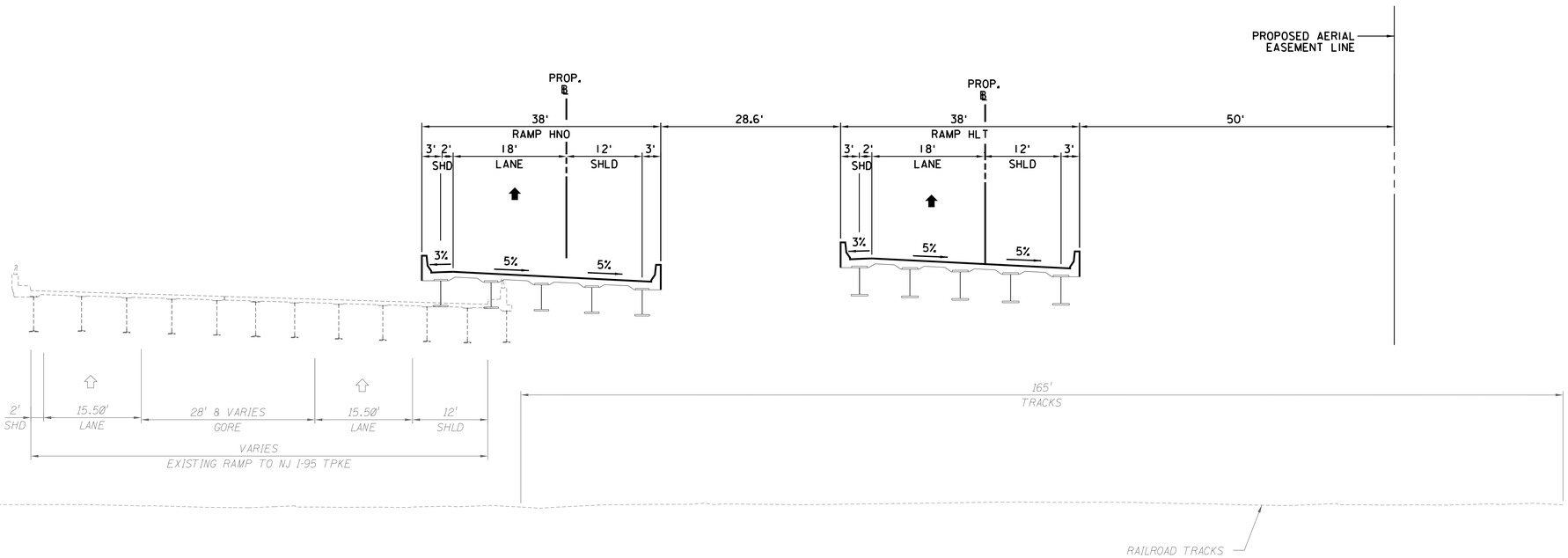

RAMP NHO
STA 87+74
DESIGN SPEED 40 MPH
NJTA JURISDICTION

RAMP HLT
STA 106+39
DESIGN SPEED 40 MPH
NJTA JURISDICTION

SECTION S-8

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

TYP-8
TYP-36

	BY	DATE
MADE:	MH	07/2022
TRACED:	LP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTION S-8

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'
DATE: JULY 2022

151
375

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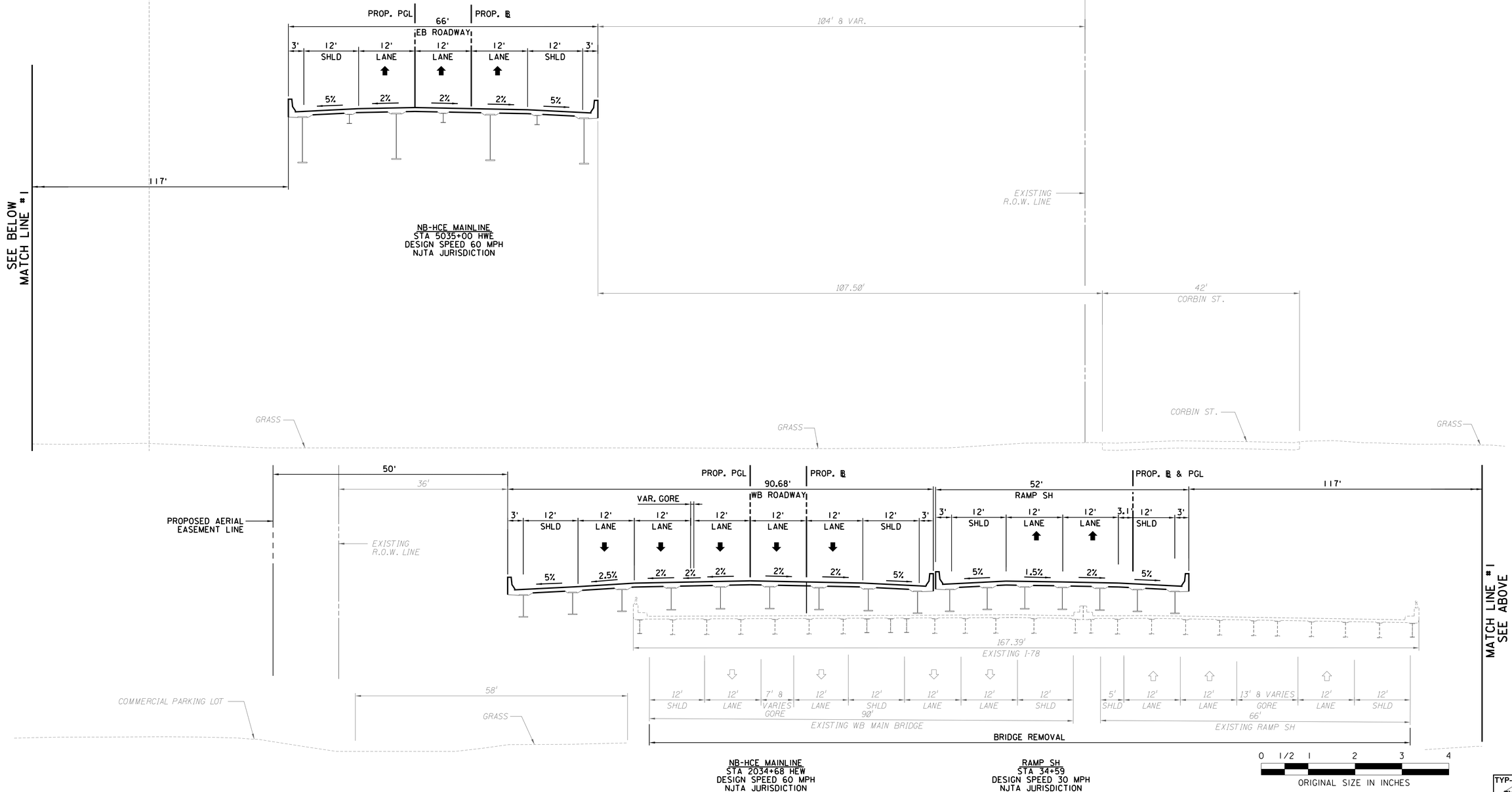

NB-HCE MAINLINE
STA 2034+68 HEW
DESIGN SPEED 60 MPH
NJTA JURISDICTION

RAMP SH
STA 34+59
DESIGN SPEED 30 MPH
NJTA JURISDICTION

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

TYP-9
TYP-36

SECTION S-9

JULY 2022 CONCEPT PLANS

	BY	DATE
MADE:	MH	07/2022
TRACED:	LP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

REV.	DESCRIPTION	DATE	BY	CHK.

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTION S-9

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'

DATE: JULY 2022

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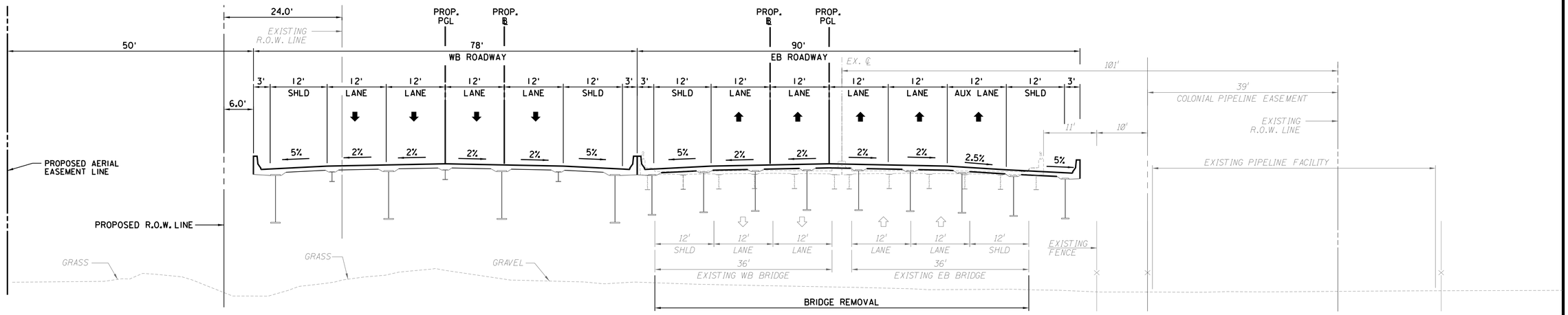

NB-HCE MAINLINE
STA 5069+00 HWE
STA 2069+00 HEW
DESIGN SPEED 60 MPH
NJTA JURISDICTION

SECTION S-10

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

TYP-10
TYP-36

	BY	DATE
MADE:	MH	07/2022
TRACED:	LP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTION S-10

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'
DATE: JULY 2022

153
375

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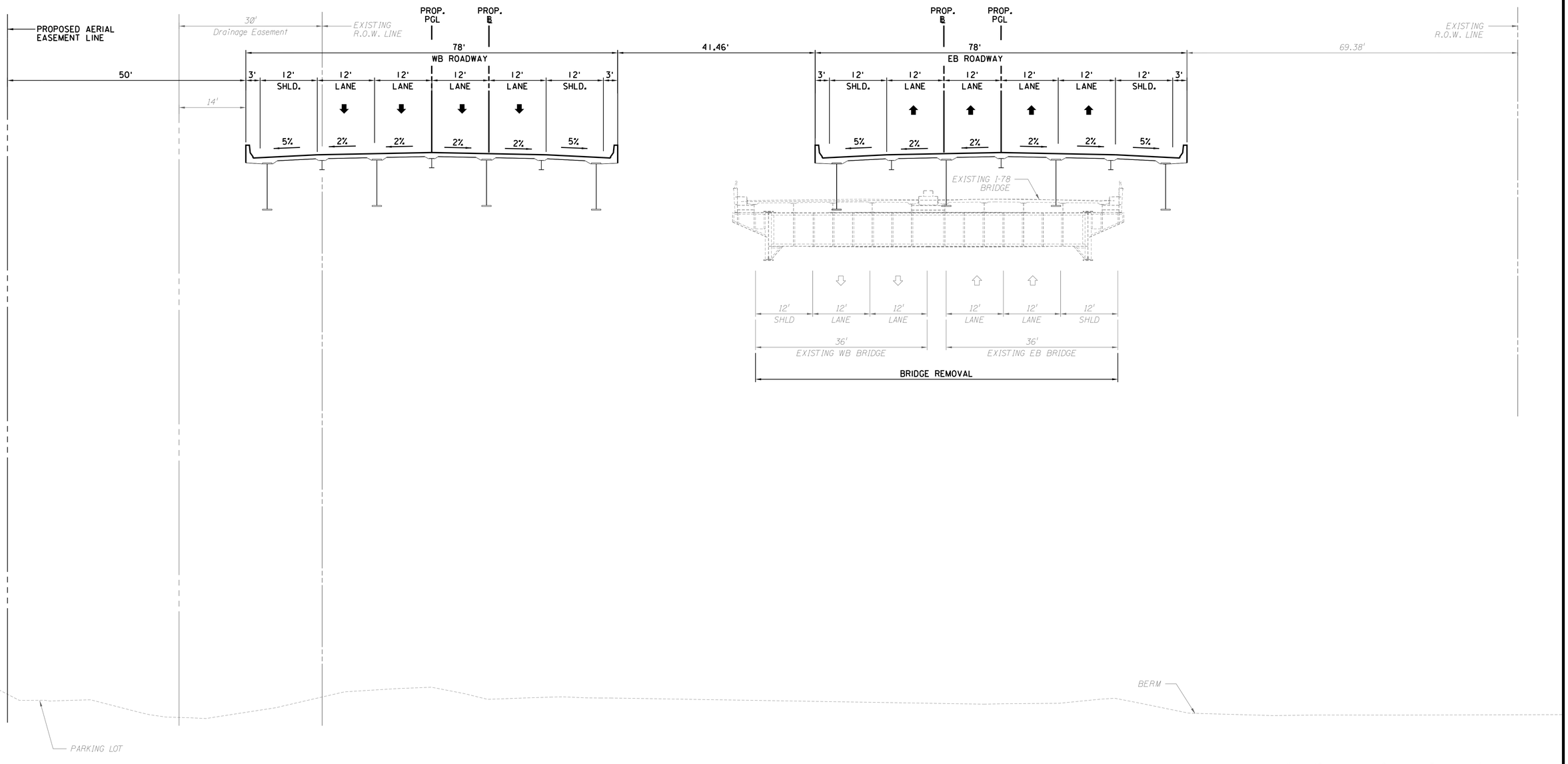

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

TYP-11
TYP-36

NB-HCE MAINLINE
STA 5098+00 HWE
STA 2098+00 HEW
DESIGN SPEED 60 MPH
NJTA JURISDICTION

SECTION S-11

	BY	DATE
MADE:	MH	07/2022
TRACED:	LP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTION S-11

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'

DATE: JULY 2022

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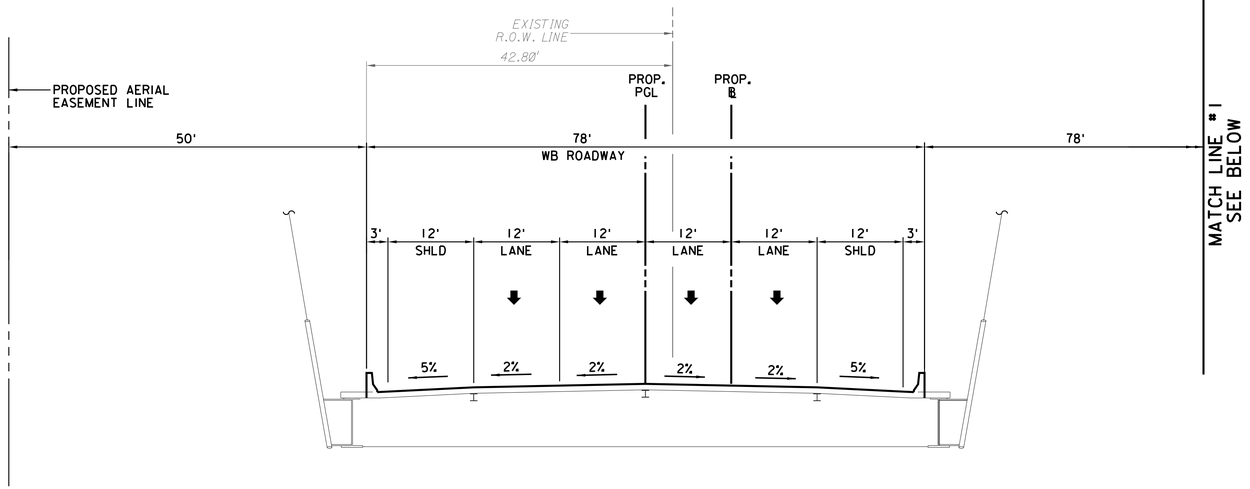

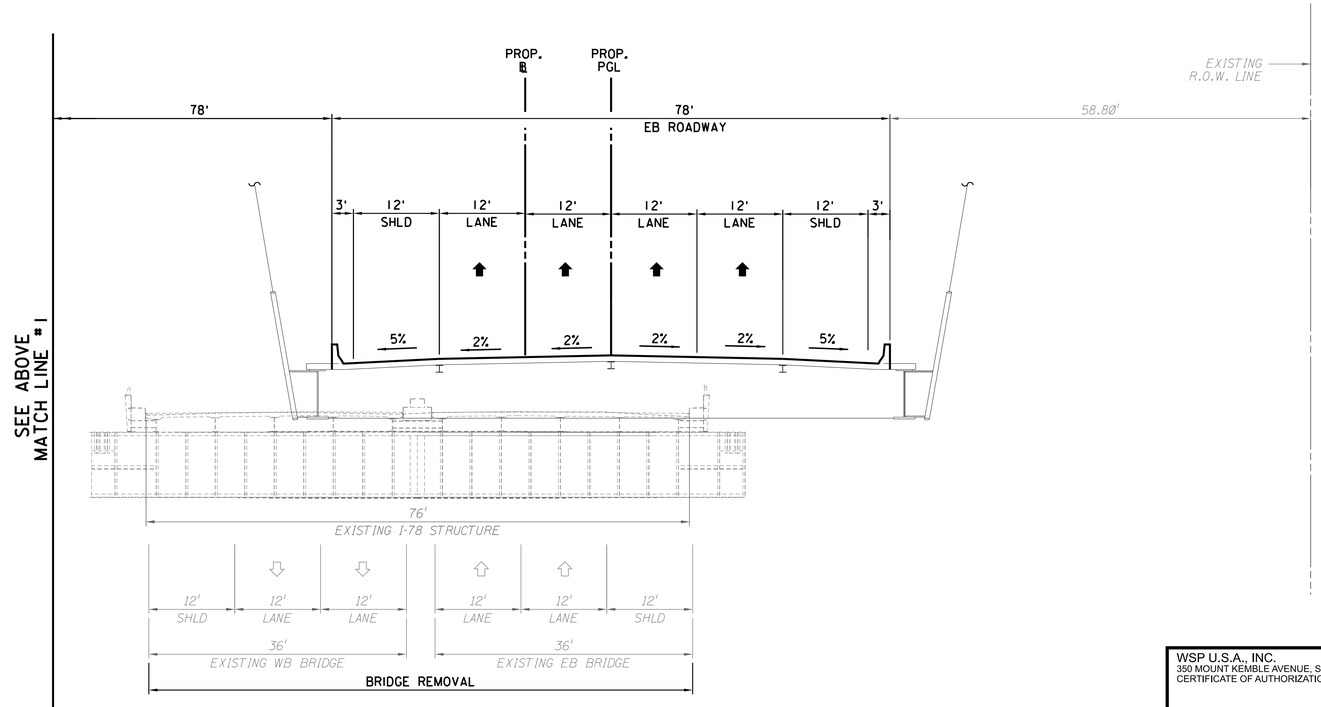

NB-HCE MAINLINE
STA 5115+00 HWE
STA 2115+00 HEW
DESIGN SPEED 60 MPH
NJTA JURISDICTION

SECTION S-12

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

TYP-12
TYP-36

	BY	DATE
MADE:	MH	07/2022
TRACED:	LP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTION S-12

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'
DATE: JULY 2022

155
375

FILE NAME: T3820_PD_TS12.dgn

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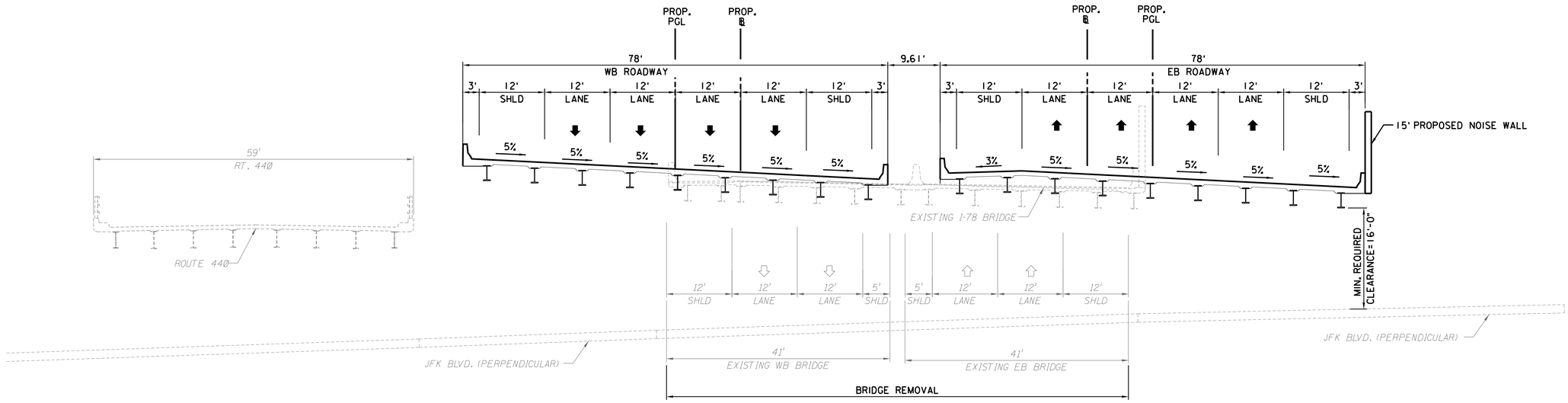

NB-HCE MAINLINE
STA 5166+50 HWE
STA 2166+50 HEW
DESIGN SPEED 60 MPH
NJTA JURISDICTION

SECTION S-14

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

TYP-14
TYP-36

	BY	DATE
MADE:	MH	07/2022
TRACED:	LP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTION S-14

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'
DATE: JULY 2022

157
375

FILE NAME: T3820_PD_TS14.dgn

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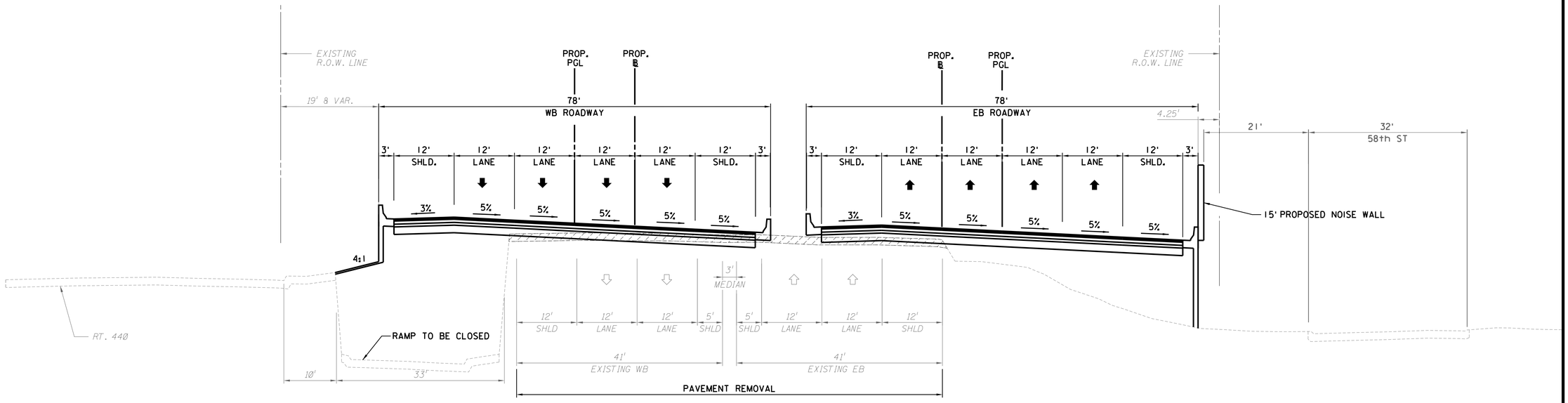

NB-HCE MAINLINE
STA 5168+00 HWE
STA 2168+00 HEW
DESIGN SPEED 60 MPH
NJTA JURISDICTION

SECTION S-15

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

TYP-15
TYP-36

	BY	DATE
MADE:	MH	07/2022
TRACED:	LP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTION S-15

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'
DATE: JULY 2022

158
375

FILE NAME: T3820_PD_TS15.dgn

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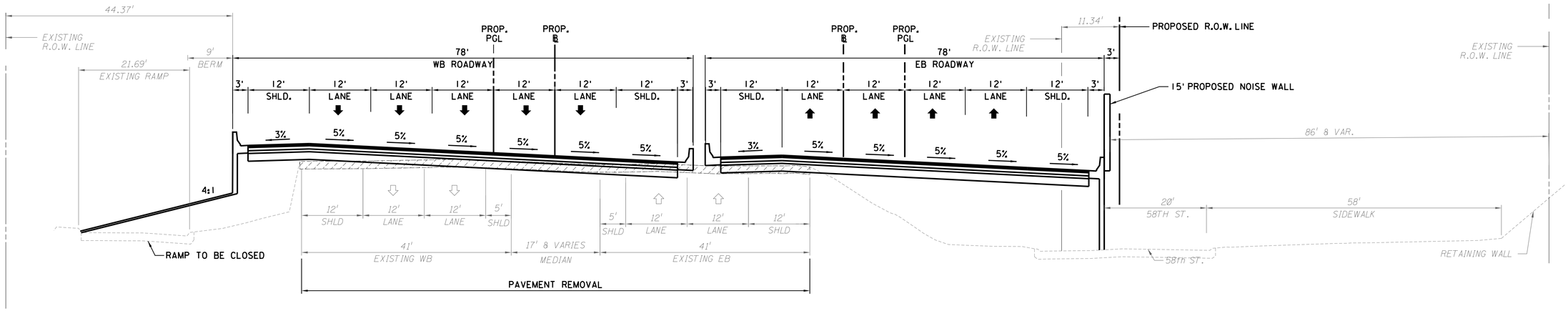

NB-HCE MAINLINE
STA 5172+00 HWE
STA 2172+00 HEW
DESIGN SPEED 60 MPH
NJTA JURISDICTION

SECTION S-16

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

TYP-16
TYP-36

	BY	DATE
MADE:	MH	07/2022
TRACED:	LP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTION S-16

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'
DATE: JULY 2022

159
375

FILE NAME: T3820_PD_TS16.dgn

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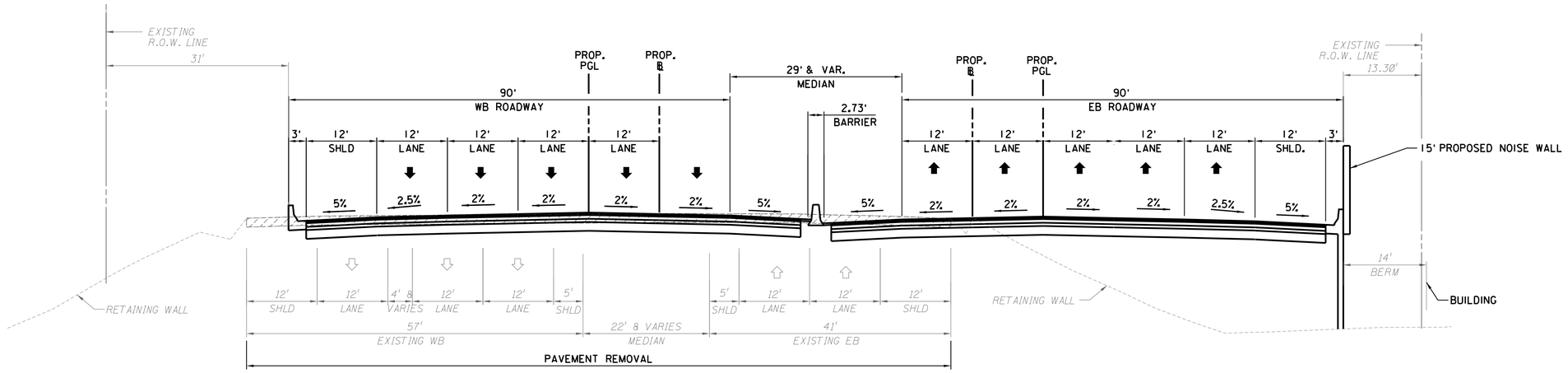

NB-HCE MAINLINE
STA 5179+00 HWE
STA 2179+00 HEW
DESIGN SPEED 60 MPH
NJTA JURISDICTION

SECTION S-17

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

TYP-17
TYP-36

	BY	DATE
MADE:	MH	07/2022
TRACED:	LP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTION S-17

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'
DATE: JULY 2022

160
375

FILE NAME: T3820_PD_TS17.dgn

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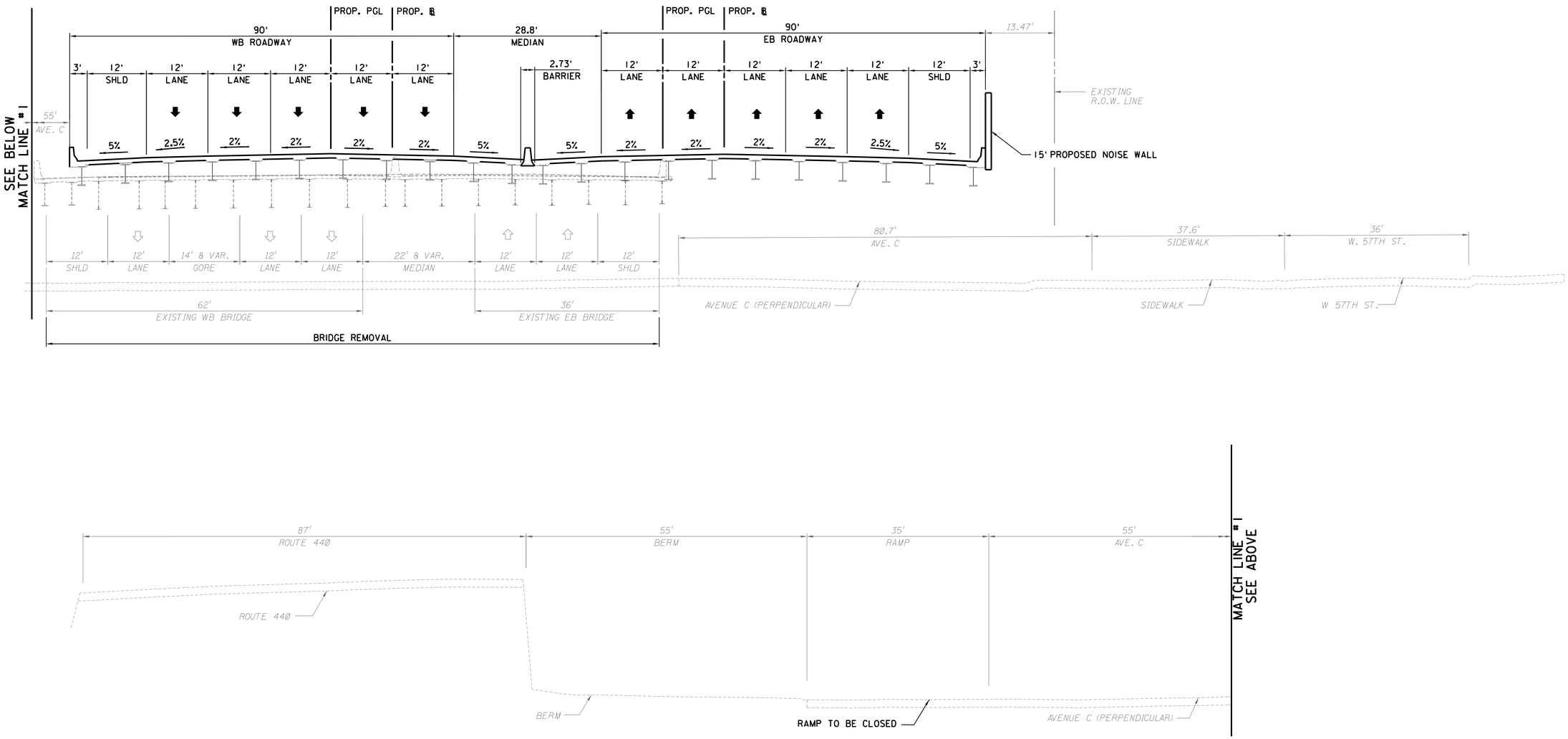

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

TYP-18
TYP-36

NB-HCE MAINLINE
STA 5180+00 HWE
STA 2180+00 HEW
DESIGN SPEED 60 MPH
NJTA JURISDICTION

SECTION S-18

	BY	DATE
MADE:	MH	07/2022
TRACED:	LP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTION S-18

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'
DATE: JULY 2022

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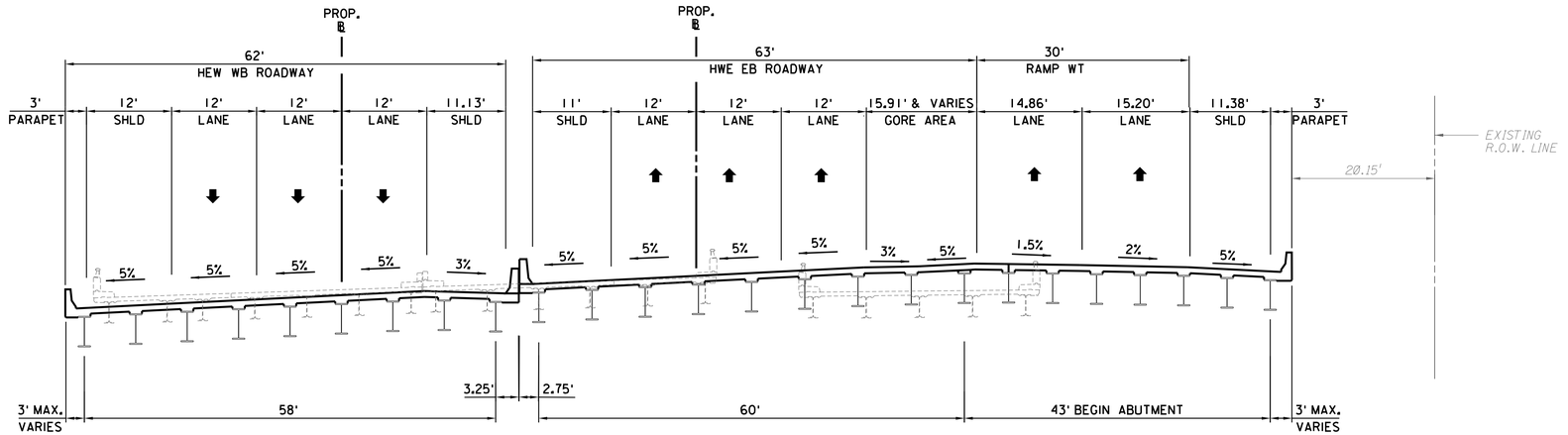

NB-HCE MAINLINE
STA 5187+79 HWE
STA 2188+00 HEW
DESIGN SPEED 60 MPH
NJTA JURISDICTION

RAMP WT
STA 53+2
DESIGN SPEED 30 MPH
NJTA JURISDICTION

SECTION S-19

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

TYP-19
TYP-36

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTION S-19

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'

DATE: JULY 2022

162
375

	BY	DATE
MADE:	MH	07/2022
TRACED:	LP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

FILE NAME: T3820_PD_TS19.dgn

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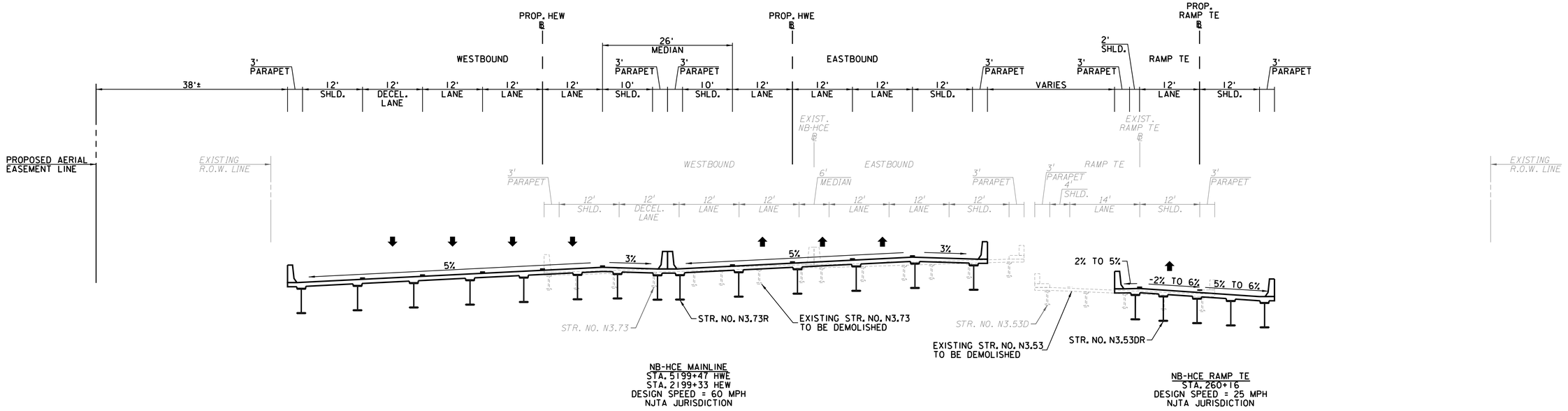
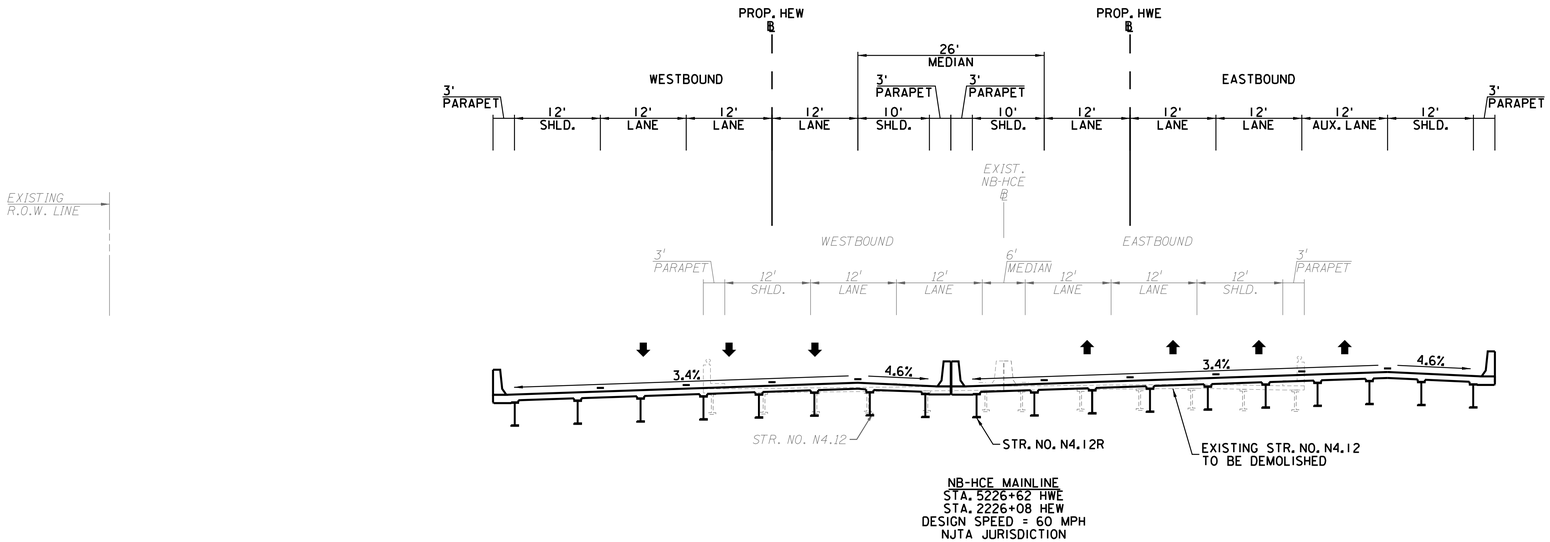


NB-HCE MAINLINE
STA. 5199+47 HWE
STA. 2199+33 HEW
DESIGN SPEED = 60 MPH
NJTA JURISDICTION

NB-HCE RAMP TE
STA. 260+16
DESIGN SPEED = 25 MPH
NJTA JURISDICTION

SECTION S-20



NB-HCE MAINLINE
STA. 5226+62 HWE
STA. 2226+08 HEW
DESIGN SPEED = 60 MPH
NJTA JURISDICTION

SECTION S-21

	BY	DATE
MADE:	TL	07/2022
TRACED:	RSE	07/2022
CHECKED:	GTK	07/2022
SUPERVISED:	RBM	

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

TYP-20
TYP-36

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

SECTIONS S-20 & S-21

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=10'
DATE: JULY 2022

163
375

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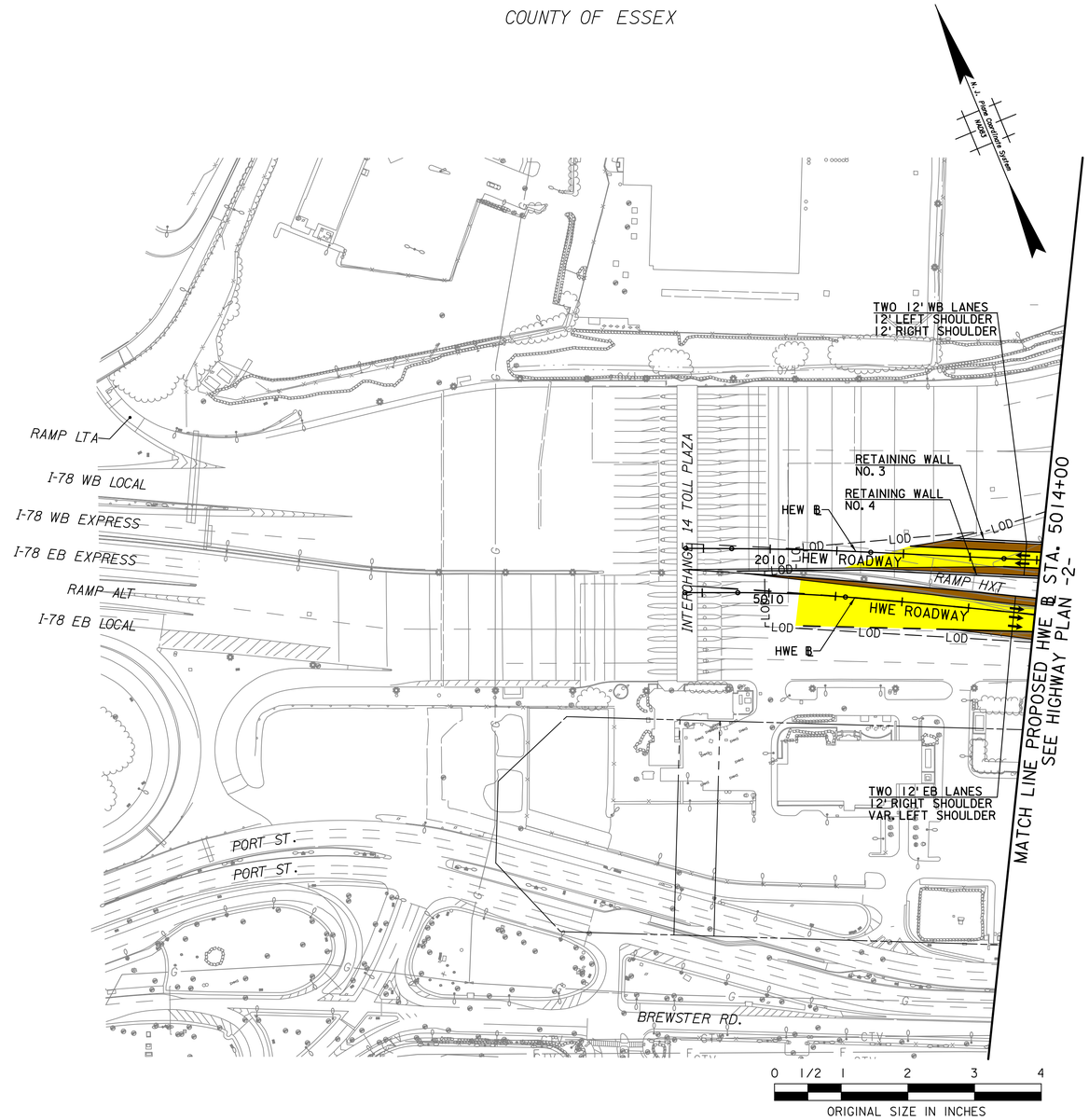
CITY OF NEWARK

COUNTY OF ESSEX



HP-1
HP-17

	BY	DATE
MADE:	TMH	07/2022
TRACED:	TMH	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HIGHWAY PLAN -1-

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'

DATE: JULY 2022

180
375

FILE NAME: T3820_PD_HP01.dgn

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CITY OF NEWARK

COUNTY OF ESSEX

SEE HIGHWAY PLAN -1-
MATCH LINE PROPOSED HWE ℄ STA. 5014+00

ONE 12' EB LANE
ONE VAR. EB LANE
10' LEFT SHOULDER
VAR. RIGHT SHOULDER

SIGN STRUCTURE NO. X

RETAINING WALL NO. 1

RETAINING WALL NO. 2

PORT ST.

RAMP TS

RAMP TWO

RAMP TH

RAMP HXT

RETAINING WALL NO. 3

RETAINING WALL NO. 4

TWO 12' WB THRU LANES
12' LEFT SHOULDER
12' RIGHT SHOULDER

POTENTIAL BASIN LOCATION

STRUCTURE NO. NO.16A

EXISTING RAMP HLT ℄

RAMP NOT

EXISTING RAMP NOT ℄

RAMP HLT

RAMP NOH

RETAINING WALL NO. 11

RETAINING WALL NO. X

PROPOSED GUIDE RAIL

RAMP ST

POTENTIAL BASIN LOCATION

EXISTING RAMP HS ℄

RAMP HS

RAMP HS

SIGN STRUCTURE NO. X

RAMP HS ℄

ONE 22' LANE
12' RIGHT SHOULDER
2' LEFT SHOULDER

ONE 18' LANE
VAR. SHOULDERS

RETAINING WALL NO. 9

SIGN STRUCTURE NO. X

POTENTIAL BASIN LOCATION

PROPOSED PENTA FIBER OPTIC RELOCATION

EXISTING NSI ROADWAY ℄

NSO ROADWAY

NSI ROADWAY

SNI ROADWAY

SNO ROADWAY

NEW ROADWAY

HWE ℄

RAMP NOH ℄

STRUCTURE NO. NO.16AR

RETAINING WALL NO. 10

POTENTIAL BASIN LOCATION

EXISTING NB-HCE ℄

PROPOSED BRIDGE MOUNTED PENTA, CABLEVISION, ZAYO FIBER OPTIC RELOCATION

EXISTING RAMP TNO ℄

STRUCTURE NO. NO.28AR

RAMP TNO

HEW ℄

STRUCTURE NO. NO.28AR

STRUCTURE NO. NO.28A

STRUCTURE NO. NO.28C

RAMP HNO ℄

RETAINING WALL NO. 7

RETAINING WALL NO. 8

ONE 18' LANE
2' LEFT SHOULDER
12' RIGHT SHOULDER

ONE 12' LANE
2' LEFT SHOULDER
12' RIGHT SHOULDER

ONE 18' LANE
2' LEFT SHOULDER
12' RIGHT SHOULDER

THREE 12' LANES
2' LEFT SHOULDER

EXISTING RAMP SIT ℄

RAMP SIH

RAMP SIT

SIGN STRUCTURE NO. X

RETAINING WALL NO. 13

RAMP SIT ℄

RAMP SH

RAMP SH ℄

RETAINING WALL NO. 12

TWO 15' LANES
2' LEFT SHOULDER
12' RIGHT SHOULDER

STRUCTURE NO. NO.28DR

STRUCTURE NO. NO.28D

RAMP SH

PROPOSED AERIAL EASEMENT

ONE 15' EB LANE
ONE VAR. EB LANE
12' LEFT SHOULDER
12' RIGHT SHOULDER

ONE 12' LANE
12' RIGHT SHOULDER

RAMP SOT

CONRAIL

RAMP HNO

RAMP HLT

RAMP SIT

RAMP HLT ℄

RAMP SOT

RETAINING WALL NO. 5

RETAINING WALL NO. 6

STRUCTURE NO. NO.28CR

PROPOSED AERIAL EASEMENT

SIGN STRUCTURE NO. X

STRUCTURE NO. NO.15

STRUCTURE NO. NO.75R

CORBIN ST.

KELLOGG ST.

DISTRIBUTION ST.

PROPOSED COLONIAL GAS PIPELINE RELOCATION

TWO 12' EB LANES
ONE VAR. EB LANE
VAR. LEFT SHOULDER
12' RIGHT SHOULDER

STRUCTURE NO. NO.75R

THREE 12' WB LANES
TWO VAR. LANES
12' LEFT SHOULDERS
12' RIGHT SHOULDERS

MATCH LINE PROPOSED HWE ℄ STA. 5032+00
SEE HIGHWAY PLAN -3-

N.J. Plane Coordinate System NAD83

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

HP-2
HP-17

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HIGHWAY PLAN -2-

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'

DATE: JULY 2022

181
375

	BY	DATE
MADE:	TMH	07/2022
TRACED:	TMH	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

7/20/2022 9:42:06 AM USYL682665
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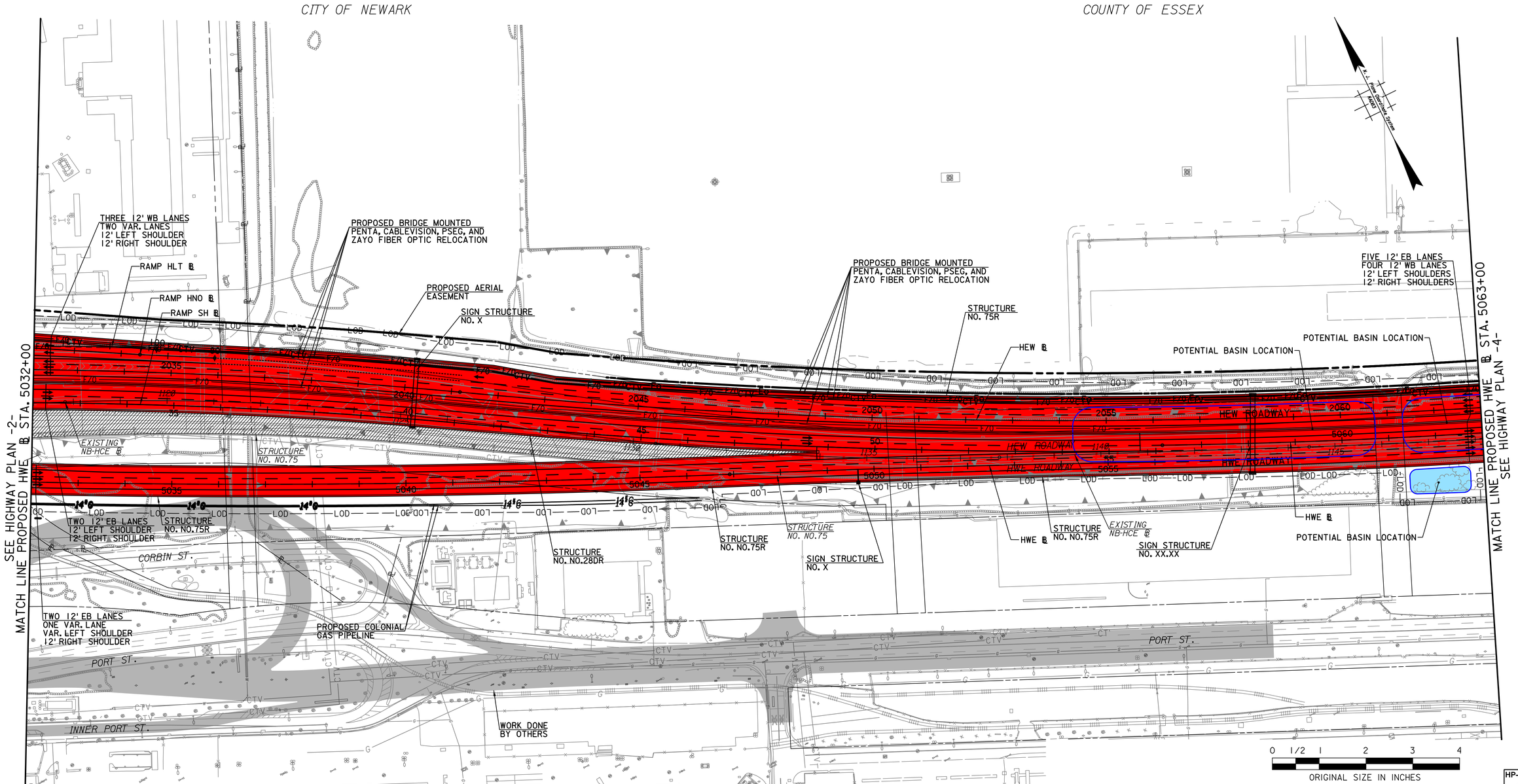

HP-3
HP-17

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HIGHWAY PLAN -3-

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'
DATE: JULY 2022

182
375

	BY	DATE
MADE:	TMH	07/2022
TRACED:	TMH	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

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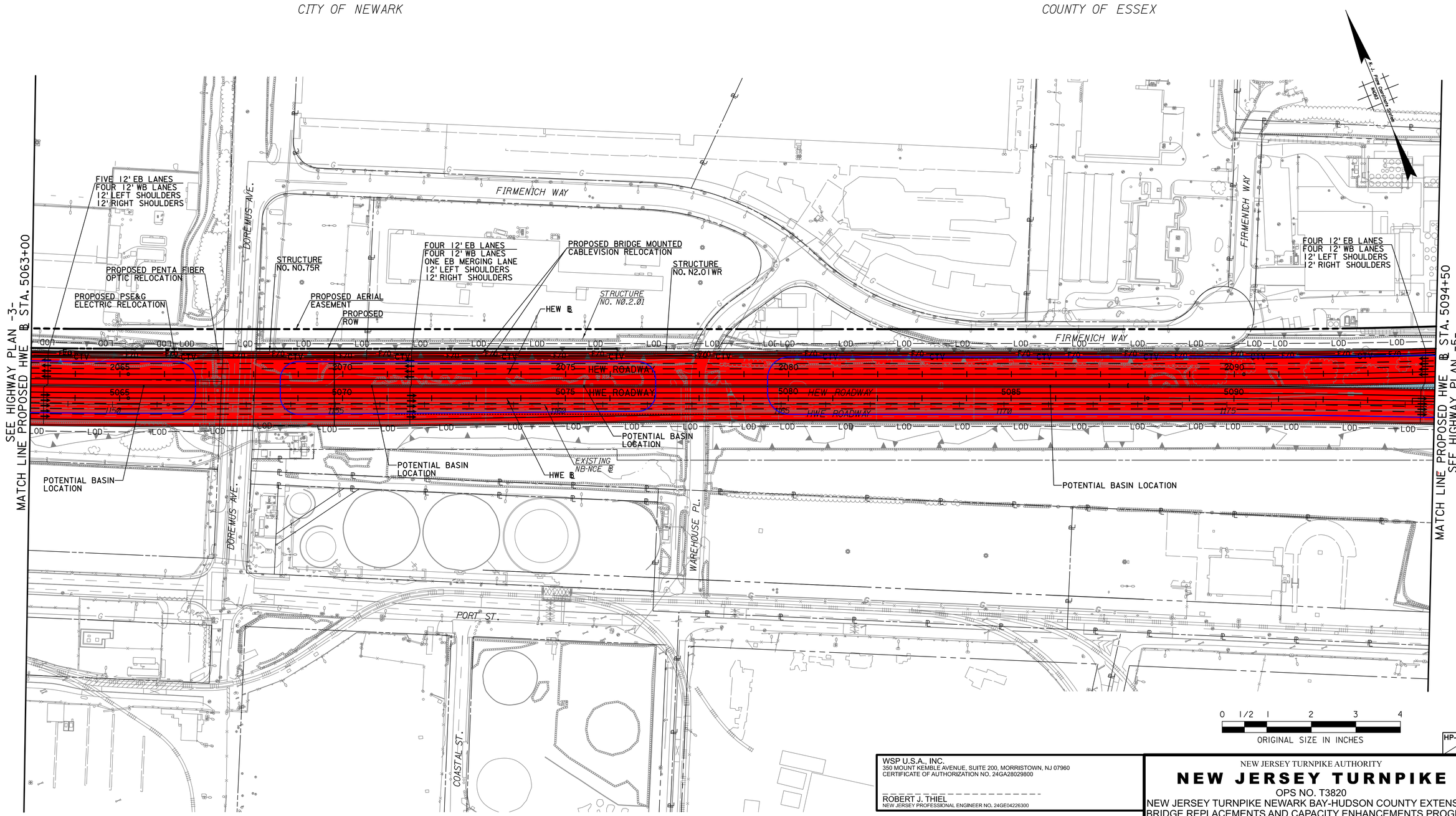

HP-4
HP-17

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HIGHWAY PLAN -4-

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'
DATE: JULY 2022

183
375

	BY	DATE
MADE:	TMH	07/2022
TRACED:	TMH	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

FILE NAME: T3820_PD_HP04.dgn

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CITY OF NEWARK

COUNTY OF ESSEX

SEE HIGHWAY PLAN -4-
MATCH LINE PROPOSED HWE ℄ STA. 5094+50

MATCH LINE PROPOSED HWE ℄ STA. 5126+50
SEE HIGHWAY PLAN -6-

POTENTIAL BASIN LOCATION

FOUR 12' EB LANES
FOUR 12' WB LANES
12' LEFT SHOULDERS
12' RIGHT SHOULDERS

PROPOSED PENTA FIBER OPTIC RELOCATION

PROPOSED AERIAL EASEMENT

STRUCTURE NO. N2.01WR

STRUCTURE NO. N2.01WR

STRUCTURE NO. N2.01R

STRUCTURE NO. N2.01R

STRUCTURE NO. N2.01

STRUCTURE NO. N2.01ER

STRUCTURE NO. N2.01ER

PROPOSED BRIDGE MOUNTED CABLEVISION RELOCATION

FOUR 12' WB LANES
12' LEFT SHOULDER
12' RIGHT SHOULDER

FOUR 12' EB LANES
12' LEFT SHOULDER
12' RIGHT SHOULDER

500'-0" USACE CHANNEL (APPROX.)

550'-0" NAV. OPENING (APPROX.)

N.J. STATE PLANE COORDINATE SYSTEM NAD83

HWE ℄

HWE ROADWAY

HEW ℄

HEW ROADWAY

EXISTING NB-NCE ℄

HWE ROADWAY

SIGN STRUCTURE NO. X

SIGN STRUCTURE NO. X

E PORT ST.

LOD

CTVF70

F70

5095 5100 5105 5110 5115 5120 5125

2100 2105 2110 2115 2120 2125

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

HP-5
HP-17

	BY	DATE
MADE:	TMH	07/2022
TRACED:	TMH	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HIGHWAY PLAN -5-

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'

DATE: JULY 2022

184
375

FILE NAME: T3820_PD_HP05.dgn

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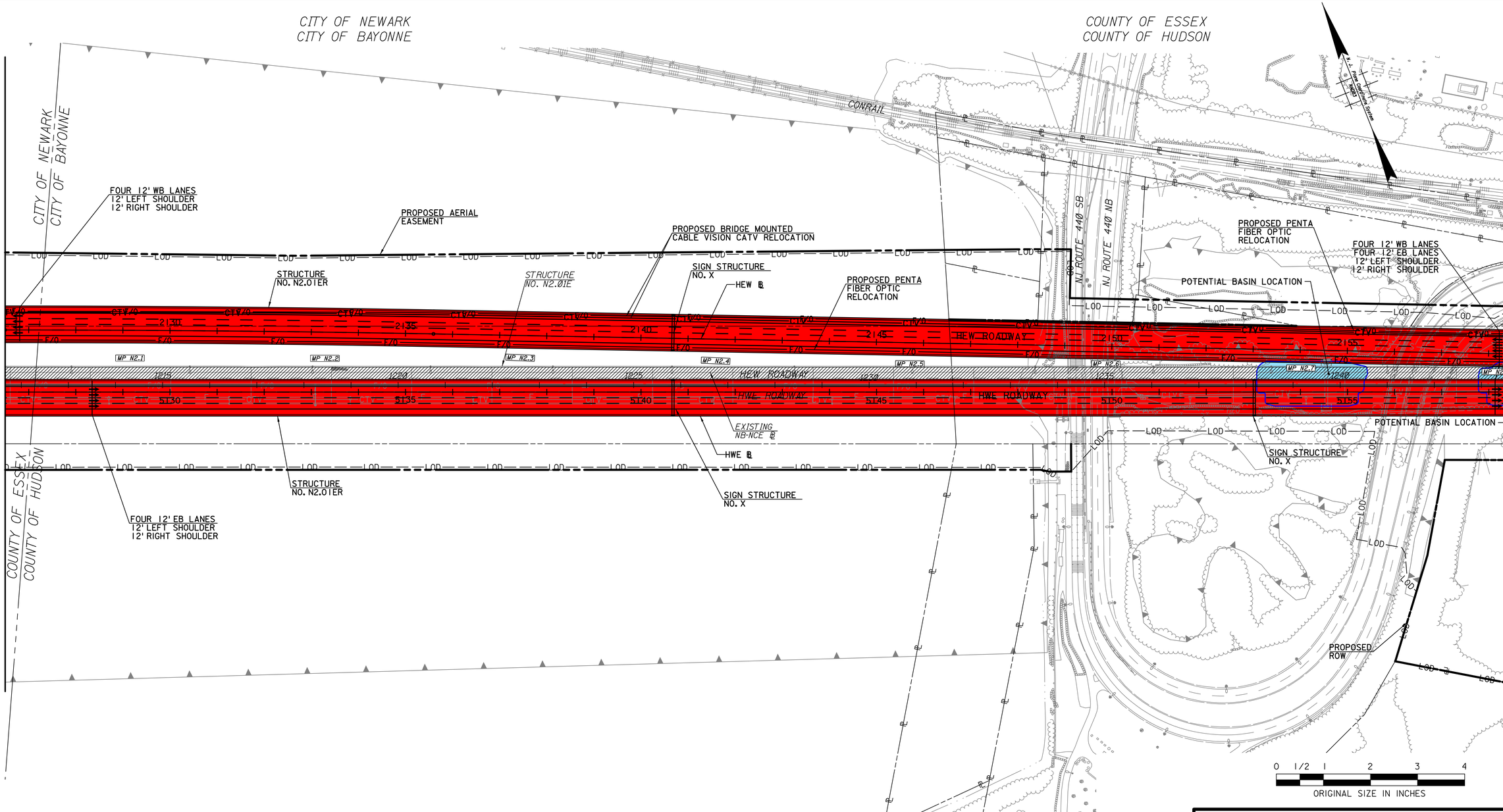

HP-6
HP-17

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HIGHWAY PLAN -6-

JULY 2022 CONCEPT PLANS

	BY	DATE
MADE:	TMH	07/2022
TRACED:	TMH	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'
DATE: JULY 2022

185
375

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CITY OF BAYONNE
CITY OF JERSEY CITY

COUNTY OF HUDSON

JOHN F. KENNEDY BLVD.

RUBY BROWN PL.

PEACE DR

GARDEN TERRACE

LEGIONS LN.

HECKMAN DR.

OLD BERGEN RD.

OCEAN AVE.

MERRIT ST.

GARFIELD AVE.

CONRAIL

CITY OF JERSEY CITY / CITY OF BAYONNE

RETAINING WALL NO. 15

RETAINING WALL NO. 14

FOUR 12' WB LANES
12' LEFT SHOULDER
12' RIGHT SHOULDER

PROPOSED CABLEVISION RELOCATION

STRUCTURE NO. N2.01ER

PROPOSED AERIAL EASEMENT

STRUCTURE NO. N3.00R

STRUCTURE NO. N3.00

EXISTING RAMP TW @

RETAINING WALL NO. 18

RETAINING WALL NO. 19

EXISTING NB-HOE @

NJ ROUTE 440 NB

NJ ROUTE 440 SB

CONNECTOR ROAD

HEW ROADWAY

HWE ROADWAY

STRUCTURE NO. N3.24

STRUCTURE NO. N3.24R

TWO 13' EB LANES
12' RIGHT SHOULDER
2' LEFT SHOULDER

THREE 12' EB LANES
THREE 12' WB LANES
VAR. LEFT SHOULDERS
12' RIGHT SHOULDER

EXISTING RAMP TW @

RAMP TW

RAMP TW B

HEW B

HWE B

RETAINING WALL NO. 22

STRUCTURE NO. N3.39

STRUCTURE NO. N3.53B

TWO VAR. LANES
VAR. LEFT SHOULDER
12' RIGHT SHOULDER

SIGN STRUCTURE NO. XX

RETAINING WALL NO. 16

RETAINING WALL NO. 17

RETAINING WALL NO. 20

RETAINING WALL NO. 21

PROPOSED PENTA, CABLEVISION FIBER OPTIC RELOCATION

PROPOSED PSE&G ELECTRIC RELOCATION

PROPOSED NOISE WALL

RETAINING WALL NO. 23

FOUR 12' EB LANES
12' LEFT SHOULDER
12' RIGHT SHOULDER

POTENTIAL BASIN LOCATION

W 57th ST.

W 56th ST.

W 55th ST.

W 54th ST.

AVENUE B

AVENUE C

SUNSET AVE.

MATCH LINE PROPOSED HWE @ STA. 5158+50
SEE HIGHWAY PLAN -6-

MATCH LINE PROPOSED HWE @ STA. 5187+50
SEE HIGHWAY PLAN -8-

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

HP-7
HP-17

	BY	DATE
MADE:	TMH	07/2022
TRACED:	TMH	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HIGHWAY PLAN -7-

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'
DATE: JULY 2022

186
375

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CITY OF JERSEY CITY

COUNTY OF HUDSON

SEE HIGHWAY PLAN -7-
MATCH LINE PROPOSED HWE ℄ STA. 51+87+50

SEE HIGHWAY PLAN -9-
MATCH LINE PROPOSED HWE ℄ STA. 52+19+00

PROJECT 2
PROJECT 1

N.J. State Coordinate System
NAD83

CONRAIL

NJ ROUTE 440 NB

NJ ROUTE 440 SB

HUDSON-BERGEN LIGHT RAIL

CARFIELD AVE.

STRUCTURE
NO. N3.39

TWO 12' LANES
2' LEFT SHOULDER
12' RIGHT SHOULDER

RAMP WT ℄

RAMP WT

STRUCTURE
NO. N3.53D

RETAINING WALL
NO. X

POTENTIAL BASIN LOCATION

TWO VAR. LANES
VAR. LEFT SHOULDER
VAR. RIGHT SHOULDER

EXISTING REAR LINE

INTERCHANGE 14A TOLL PLAZA

STRUCTURE
NO. N3.39R

THREE 12' EB LANES
THREE 12' WB LANES
10' LEFT SHOULDERS
12' RIGHT SHOULDERS

ONE VAR. LANE
2' LEFT SHOULDER
12' RIGHT SHOULDER

EXISTING
RAMP ET ℄

RAMP ET

RAMP ET ℄

EXISTING
NB-HCE ℄

1,200' DECEL. LANE

EXISTING
RAMP TW ℄

SIGN STRUCTURE
NO. X

THREE 12' EB LANES
THREE 12' WB THRU LANES
ONE 12' WB DECEL. LANE
10' LEFT SHOULDERS
12' RIGHT SHOULDERS

2205 HEW ROADWAY

2200

5200

HWE ROADWAY

5205

ONE 20' LANE
2' LEFT SHOULDER
12' RIGHT SHOULDER

SIGN STRUCTURE
NO. X

ONE 12' LANE
2' LEFT SHOULDER
12' RIGHT SHOULDER

SIGN STRUCTURE
NO. X

ONE 12' LANE
2' LEFT SHOULDER
12' RIGHT SHOULDER

STRUCTURE
NO. N3.53DR

POTENTIAL BASIN LOCATION

THREE 12' EB LANES
ONE 12' EB AUX. LANE
THREE 12' WB THRU LANES
10' LEFT SHOULDERS
12' RIGHT SHOULDERS

SIGN STRUCTURE
NO. X

POTENTIAL BASIN LOCATION

HEW ℄

STRUCTURE
NO. N3.73R

2215

5213

2210

5210

HWE ℄

POTENTIAL BASIN LOCATION

PROPOSED PENTA
FIBER OPTIC RELOCATION

SIGN STRUCTURE
NO. X

RAMP TE ℄
RAMP TE

NJ ROUTE 185 SB

NJ ROUTE 185 NB

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

HP-8
HP-17

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HIGHWAY PLAN -8-

	BY	DATE
MADE:	DMW	07/2022
TRACED:	RSE	07/2022
CHECKED:	GTK	07/2022
SUPERVISED:	RBM	

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'

DATE: MAY 2023

187
375

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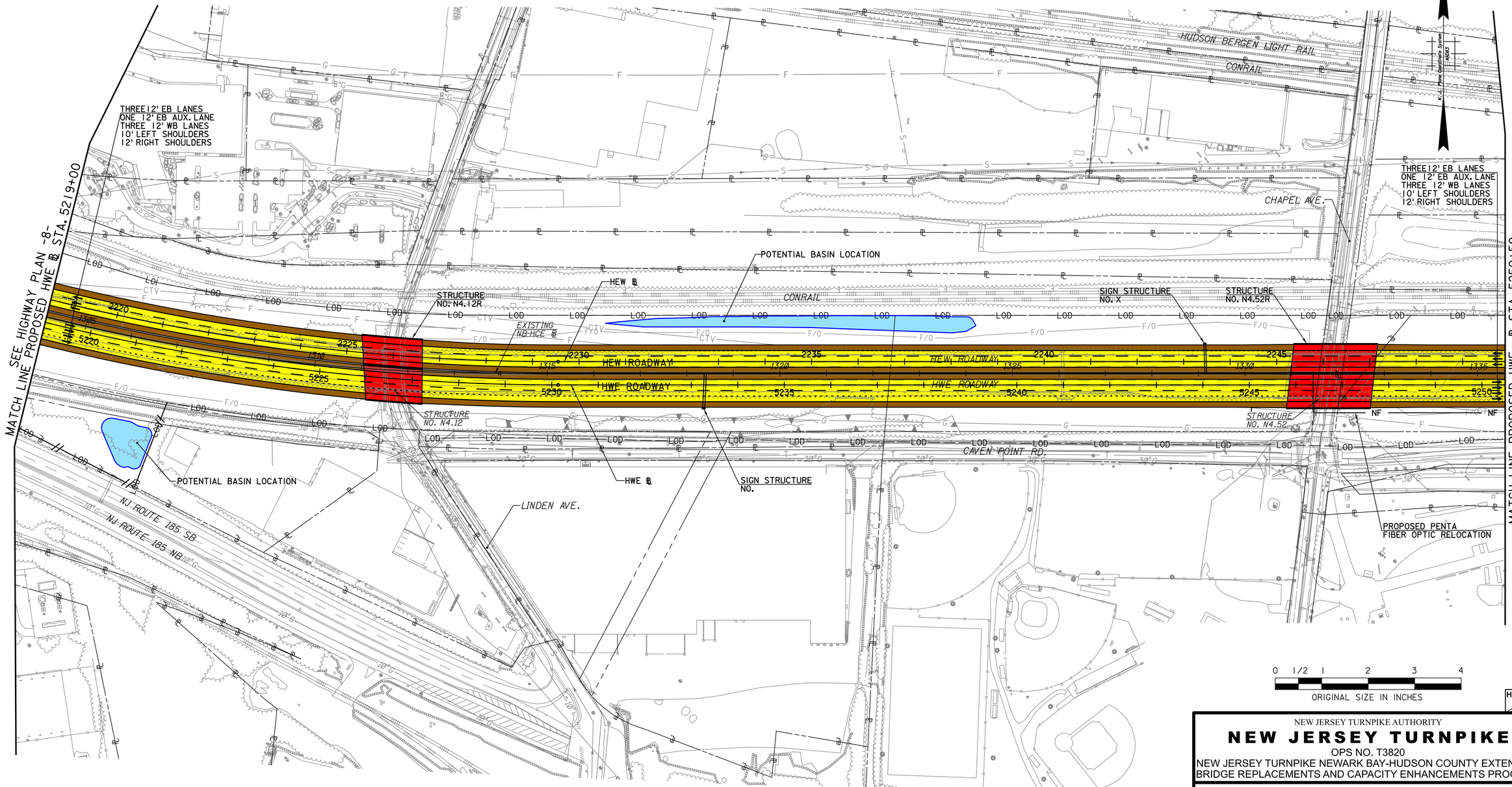
CITY OF JERSEY CITY

COUNTY OF HUDSON



0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

HP-9
HP-17

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HIGHWAY PLAN -9-

	BY	DATE
MADE:	KJM	07/2022
TRACED:	RSE	07/2022
CHECKED:	GTK	07/2022
SUPERVISED:	RBM	

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'

DATE: JULY 2022

188
375

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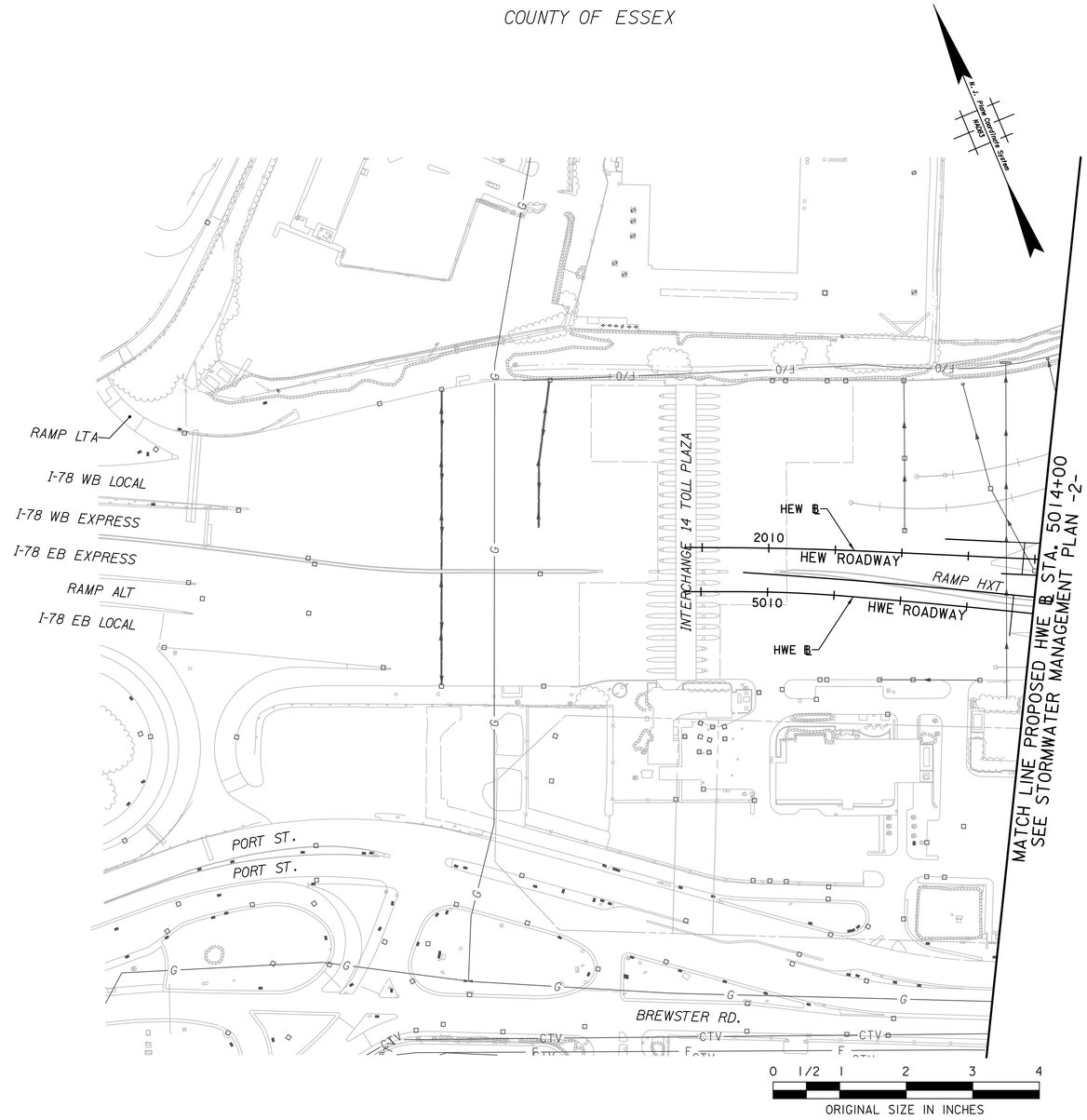
CITY OF NEWARK

COUNTY OF ESSEX



NO STORMWATER MANAGEMENT MEASURES PROPOSED ON THIS SHEET.

	BY	DATE
MADE:	NBA	07/2022
TRACED:	NBA	07/2022
CHECKED:	MPS	07/2022
SUPERVISED:	MPS	

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

SW-1
SW-17

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STORMWATER MANAGEMENT PLAN -1-

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'

DATE: JULY 2022

197
375

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CITY OF NEWARK

SEE STORMWATER MANAGEMENT PLAN -1-
MATCH LINE PROPOSED HWE ℄ STA. 5014+00

COUNTY OF ESSEX

LEGEND:

- BMP LOCATION
- HUC14 BOUNDARY
- EXISTING BMP LOCATION
- WETLAND BOUNDARY

HUC1-D
EXTENDED DETENTION
BASIN
DEPTH: 5 FT

HUC1-F
EXTENDED DETENTION
BASIN
DEPTH: 4 FT

HUC1-A
MTD/EXTENDED DETENTION
BASIN IN SERIES
DEPTH: 13 FT

HUC1-H
EXTENDED DETENTION
BASIN
DEPTH: 3 FT

HUC1-B
EXTENDED DETENTION
BASIN
DEPTH: 5 FT

OUTLET
STRUCTURE (TYP.)

HUC1-E
EXTENDED DETENTION
BASIN
DEPTH: 5 FT

HUC1-G
EXTENDED DETENTION
BASIN
DEPTH: 5 FT

N.J. Plane Coordinate System
NAD83

RAMP NOH
RAMP TWO
RAMP TH
RAMP HXT
RAMP TS
RAMP HS
RAMP NOT
RAMP HLT
RAMP ST
RAMP HS ℄
RAMP HS
RAMP HS ℄
RAMP NOH ℄
RAMP NOH
EXISTING RAMP NOT ℄
EXISTING RAMP HLT ℄
EXISTING RAMP HS ℄
EXISTING NSI ROADWAY ℄
NSO ROADWAY
NSI ROADWAY
SNI ROADWAY
SNO ROADWAY
RAMP SIH
RAMP SIT
EXISTING RAMP SIT ℄
RAMP SIT ℄
RAMP ISIT
RAMP SIH
RAMP SH
RAMP SH ℄
RAMP SOT
CONRAIL
CORBIN ST.
KELLOGG ST.
DISTRIBUTION ST.
PORT ST.
HWE ℄
HEW ROADWAY
HWE ROADWAY
EXISTING RAMP TNO ℄
RAMP TNO
EXISTING NB-HCE ℄
HEW ℄
HUC14-01
HUC14-02
RAMP HNO ℄
RAMP HNO
RAMP ISIT
RAMP SOT
RAMP HLT ℄
CTV
F/O
G
5015
5020
5025
5030
2020
2025
2030

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

MATCH LINE PROPOSED HWE ℄ STA. 5032+00
SEE STORMWATER MANAGEMENT PLAN -3-

JULY 2022 CONCEPT PLANS

	BY	DATE
MADE:	NBA	07/2022
TRACED:	NBA	07/2022
CHECKED:	MPS	07/2022
SUPERVISED:	MPS	

REV.	DESCRIPTION	DATE	BY	CHK.

SW-2
SW-17

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STORMWATER MANAGEMENT PLAN -2-

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'
DATE: JULY 2022

198
375

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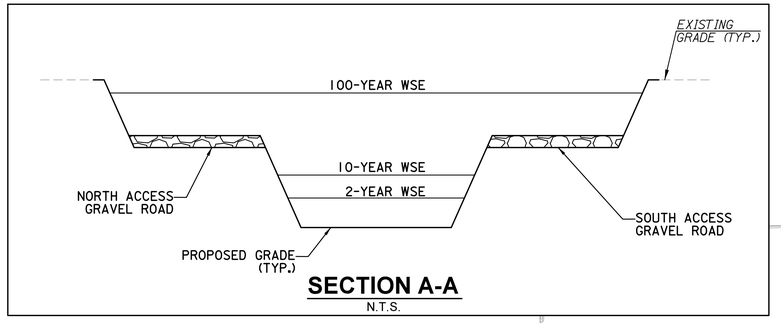
CITY OF NEWARK

COUNTY OF ESSEX

LEGEND:

- BMP LOCATION
- HUC14 BOUNDARY
- EXISTING BMP LOCATION
- WETLAND BOUNDARY



SECTION A-A
N.T.S.

SEE STORMWATER MANAGEMENT PLAN -2-
MATCH LINE PROPOSED HWE ℄ STA. 5032+00

MATCH LINE PROPOSED HWE ℄ STA. 5063+00
SEE STORMWATER MANAGEMENT PLAN -4-

RAMP HLT ℄
RAMP HNO ℄
RAMP SOH ℄
EXISTING NB-HCE ℄
HUC2-A EXTENDED DETENTION BASIN DEPTH: 5 FT
HEW ℄
OUTLET STRUCTURE (TYP.)
HUC2-B1 EXTENDED DETENTION BASIN DEPTH: 5 FT
HEW ROADWAY
HWE ROADWAY
HWE ℄
EXISTING NB-HCE ℄
HUC2-B2 EXTENDED DETENTION BASIN DEPTH 5
CORBIN ST.
PORT ST.
INNER PORT ST.
WORK DONE BY OTHERS

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

SW-3
SW-17

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STORMWATER MANAGEMENT PLAN -3-

	BY	DATE
MADE:	NBA	07/2022
TRACED:	NBA	07/2022
CHECKED:	MPS	07/2022
SUPERVISED:	MPS	

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'
DATE: JULY 2022

199
375

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CITY OF NEWARK

COUNTY OF ESSEX

LEGEND:

- BMP LOCATION
- HUC14 BOUNDARY
- EXISTING BMP LOCATION
- WETLAND BOUNDARY

N.J. STATE COORDINATE SYSTEM NAD83

SEE STORMWATER MANAGEMENT PLAN -3- MATCH LINE PROPOSED HWE ℄ STA. 5063+00

MATCH LINE PROPOSED HWE ℄ STA. 5094+50 SEE STORMWATER MANAGEMENT PLAN -5-

FIRMENICH WAY

FIRMENICH WAY

HEW ℄

HEW ROADWAY

HWE ROADWAY

HEW ROADWAY

HWE ROADWAY

EXISTING NB-NCE ℄

HWE ℄

OUTLET STRUCTURE (TYP.)

HUC2-B I EXTENDED DETENTION BASIN DEPTH: 5 FT SEE NOTE 1

HUC2-C EXTENDED DETENTION BASIN DEPTH: 6 FT SEE NOTE 1

HUC2-D MTD/EXTENDED DETENTION BASIN IN SERIES DEPTH: 5 FT SEE NOTE 1

DOREMUS AVE.

WAREHOUSE PL.

PORT ST.

COASTAL ST.

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

SW-4
SW-17

NOTES:

1. SEE INSET ON STORMWATER PLAN SHEET 3 FOR CROSS SECTION INFORMATION

	BY	DATE
MADE:	NBA	07/2022
TRACED:	NBA	07/2022
CHECKED:	MPS	07/2022
SUPERVISED:	MPS	

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STORMWATER MANAGEMENT PLAN -4-

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'

DATE: JULY 2022

200
375

FILE NAME: T3820_PD_SWM04.dgn

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CITY OF NEWARK

COUNTY OF ESSEX

LEGEND:

- BMP LOCATION
- HUC14 BOUNDARY
- EXISTING BMP LOCATION
- WETLAND BOUNDARY

N.J. State Plane Coordinate System NAD83

SEE STORMWATER MANAGEMENT PLAN -4- MATCH LINE PROPOSED HWE ℄ STA. 5094+50

MATCH LINE PROPOSED HWE ℄ STA. 5126+50 SEE STORMWATER MANAGEMENT PLAN -6-

OUTLET STRUCTURE (TYP.)

HUC2-D MTD/EXTENDED DETENTION BASIN IN SERIES DEPTH: 5 FT SEE NOTE 1

E PORT ST.

HEW ℄

HWE ℄

HEW ROADWAY

HWE ROADWAY

EXISTING NB-NCE ℄

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

SW-5
SW-17

NOTES:

1. SEE INSET ON STORMWATER PLAN SHEET 3 FOR CROSS SECTION INFORMATION

	BY	DATE
MADE:	NBA	07/2022
TRACED:	NBA	07/2022
CHECKED:	MPS	07/2022
SUPERVISED:	MPS	

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STORMWATER MANAGEMENT PLAN -5-

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'

DATE: JULY 2022

201
375

FILE NAME: T3820_PD_SWM05.dgn

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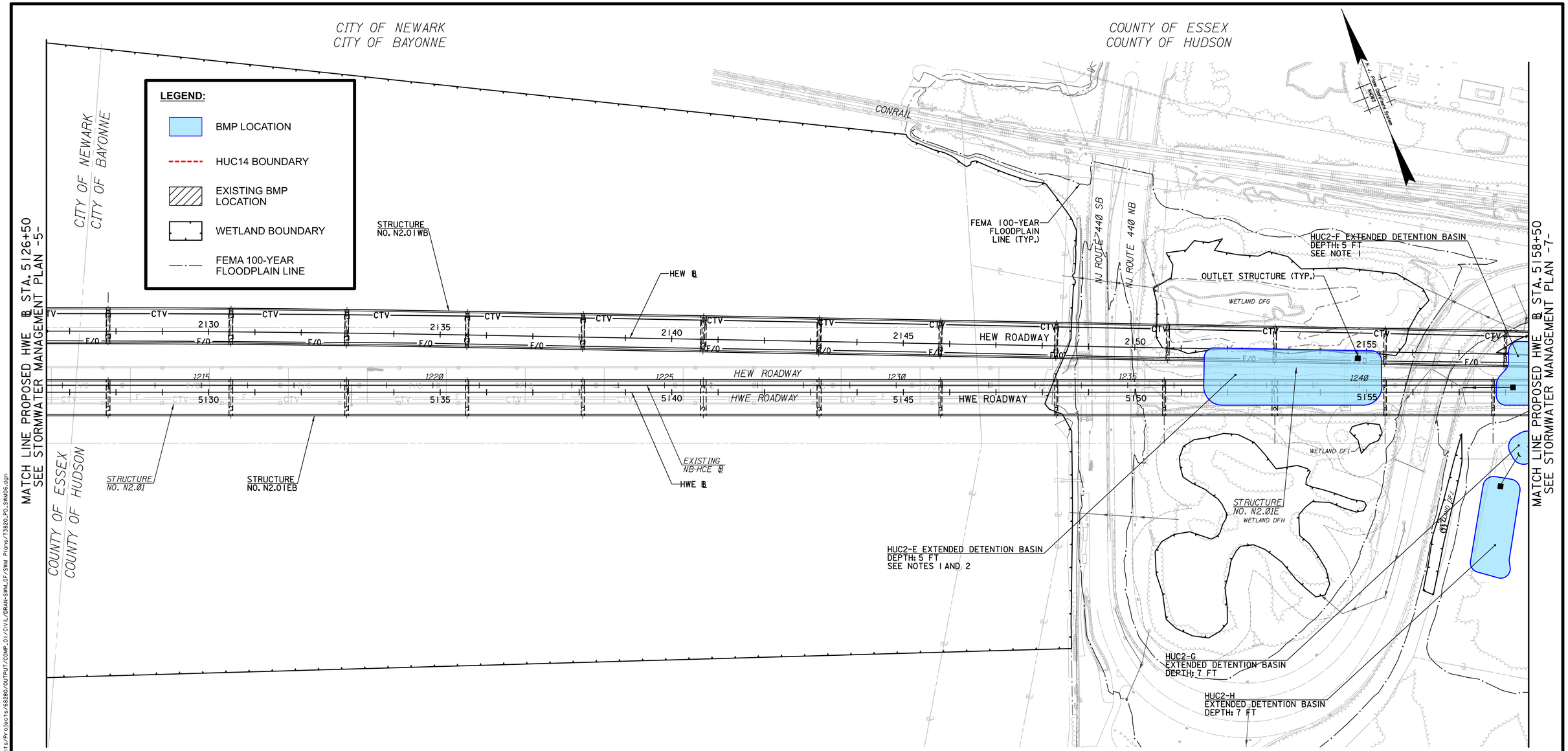

NOTES:

1. SEE INSET ON STORMWATER PLAN SHEET 3 FOR CROSS SECTION INFORMATION
2. BMP DOES NOT EXTEND TO THE NORTH ACCESS ROAD

	BY	DATE
MADE:	NBA	07/2022
TRACED:	NBA	07/2022
CHECKED:	MPS	07/2022
SUPERVISED:	MPS	

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

SW-6
SW-17

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STORMWATER MANAGEMENT PLAN -6-

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'
DATE: JULY 2022

202
375

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CITY OF BAYONNE
CITY OF JERSEY CITY

COUNTY OF HUDSON

JOHN F. KENNEDY BLVD.

RUBY BROWN PL.

PEACE DR.

GARDEN TERRACE

LIGGIONS LN.

HECKMAN DR.

OLD BERGEN RD.

OCEAN AVE.

MERRIT ST.

RUBY BROWN PL.

CONRAIL

GARFIELD AVE.

SEE STORMWATER MANAGEMENT PLAN -6-
MATCH LINE PROPOSED HWE ℄ STA. 5158+50

FEMA 100-YEAR FLOODPLAIN LINE (TYP.)

HUC2-F EXTENDED DETENTION BASIN
DEPTH: 5 FT
SEE NOTE 1

STRUCTURE NO. N2.01WB NJ ROUTE 440 NB

NJ ROUTE 440 SB

STRUCTURE NO. N3.00

EXISTING NB-HCE ℄

CONNECTOR ROAD

HEW ROADWAY

HWE ROADWAY

W 58th ST.

EXISTING RAMP TW ℄

STRUCTURE NO. N3.53C

NJ ROUTE 440 NB

NJ ROUTE 440 SB

STRUCTURE NO. N3.24R

RAMP TW

RAMP TW

RAMP TW ℄

STRUCTURE NO. N3.39R

STRUCTURE NO. N3.39

HEW ℄

HWE ℄

RAMP WT

RAMP WT ℄

OUTLET STRUCTURE (TYP.)

HUC2-G
EXTENDED DETENTION BASIN
DEPTH: 7 FT

HUC2-I
MTD/EXTENDED DETENTION BASIN IN SERIES
DEPTH: 10 FT

W 57th ST.

W 56th ST.

CITY OF JERSEY CITY
CITY OF BAYONNE

AVENUE C

MATCH LINE PROPOSED HWE ℄ STA. 5187+50
SEE STORMWATER MANAGEMENT PLAN -8-

LEGEND:

- BMP LOCATION
- HUC14 BOUNDARY
- EXISTING BMP LOCATION
- WETLAND BOUNDARY
- FEMA 100-YEAR FLOODPLAIN LINE

NOTE:

1. SEE INSET ON STORMWATER PLAN SHEET 3 FOR CROSS SECTION INFORMATION

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

SW-7
SW-17

	BY	DATE
MADE:	NBA	07/2022
TRACED:	NBA	07/2022
CHECKED:	MPS	07/2022
SUPERVISED:	MPS	

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STORMWATER MANAGEMENT PLAN -7-

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'
DATE: MAY 2023

203
375

FILE NAME: T3820_PD_SWM07.dgn

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CITY OF JERSEY CITY

COUNTY OF HUDSON

LEGEND:

- BMP LOCATION
- HUC14 BOUNDARY
- EXISTING BMP LOCATION
- WETLAND BOUNDARY

SEE STORMWATER MANAGEMENT PLAN -7-
MATCH LINE PROPOSED HWE ℄ STA. 5187+50

SEE STORMWATER MANAGEMENT PLAN -9-
MATCH LINE PROPOSED HWE ℄ STA. 5219+00

PROJECT 1
PROJECT 2

GARFIELD AVE.

RAMP TW415

NJ ROUTE 440 NB

NJ ROUTE 440 SB

CONRAIL

GATES AVE.

HUDSON BERGEN LIGHT RAIL

STRUCTURE NO. N3.39

STRUCTURE NO. N3.39R

EXISTING RAMP ET ℄

RAMP ET ℄

RAMP ET

EXISTING NB-HCE ℄

RAMP TW

EXISTING RAMP TW ℄

RAMP WT ℄

RAMP WT 65

NEW ROADWAY

HWE ROADWAY

RAMP TE

STRUCTURE NO. N3.53D RAMP WT

STRUCTURE NO. N3.73R

HEW ℄

HWE ℄

HUC14-02

HUC14-03

HUC3-A
BIORETENTION BASIN
DEPTH: 4 FT

HUC3-C
EXTENDED DETENTION BASIN
DEPTH: 7 FT

HUC3-D
EXTENDED DETENTION BASIN
DEPTH: 6 FT
SEE NOTE 1

HUC3-E
INFILTRATION BASIN
DEPTH: 3 FT

RAMP TE
RAMP TE ℄

STRUCTURE NO. N3.53DR

OUTLET STRUCTURE (TYP.)

INTERCHANGE 14A TOLL PLAZA

NJ ROUTE 185 SB

NJ ROUTE 185 NB

N.J. State Plane Coordinate System NAD83

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

SW-8
SW-17

NOTE:

1. BMP IS LOCATED WITHIN A CHROMATE WASTE SITE (PI G000008649).

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

	BY	DATE
MADE:	NBA	07/2022
TRACED:	NBA	07/2022
CHECKED:	MPS	07/2022
SUPERVISED:	MPS	

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STORMWATER MANAGEMENT PLAN -8-

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'

DATE: MAY 2023

204
375

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CITY OF JERSEY CITY

COUNTY OF HUDSON

LEGEND:

- BMP LOCATION
- HUC14 BOUNDARY
- EXISTING BMP LOCATION
- WETLAND BOUNDARY

SEE STORMWATER MANAGEMENT PLAN -8- MATCH LINE PROPOSED HWE ℄ STA. 5219+00

MATCH LINE PROPOSED HWE ℄ STA. 5250+50 SEE STORMWATER MANAGEMENT PLAN -10

HUDSON BERGEN LIGHT RAIL

CONRAIL

CHAPEL AVE.

HUC3-G INFILTRATION BASIN DEPTH: 3 FT

HEW ℄

CONRAIL

EXISTING NB-HCE ℄

HEW ROADWAY

HWE ROADWAY

STRUCTURE NO. N4.12

OUTLET STRUCTURE (TYP)

HUC3-F EXTENDED DETENTION BASIN DEPTH: 5 FT

HWE ℄

CAVEN POINT RD.

LINDEN AVE.

NJ ROUTE 185 SB

NJ ROUTE 185 NB

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

SW-9
SW-17

	BY	DATE
MADE:	NBA	07/2022
TRACED:	NBA	07/2022
CHECKED:	MPS	07/2022
SUPERVISED:	MPS	

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STORMWATER MANAGEMENT PLAN -9-

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'

DATE: JULY 2022

205
375

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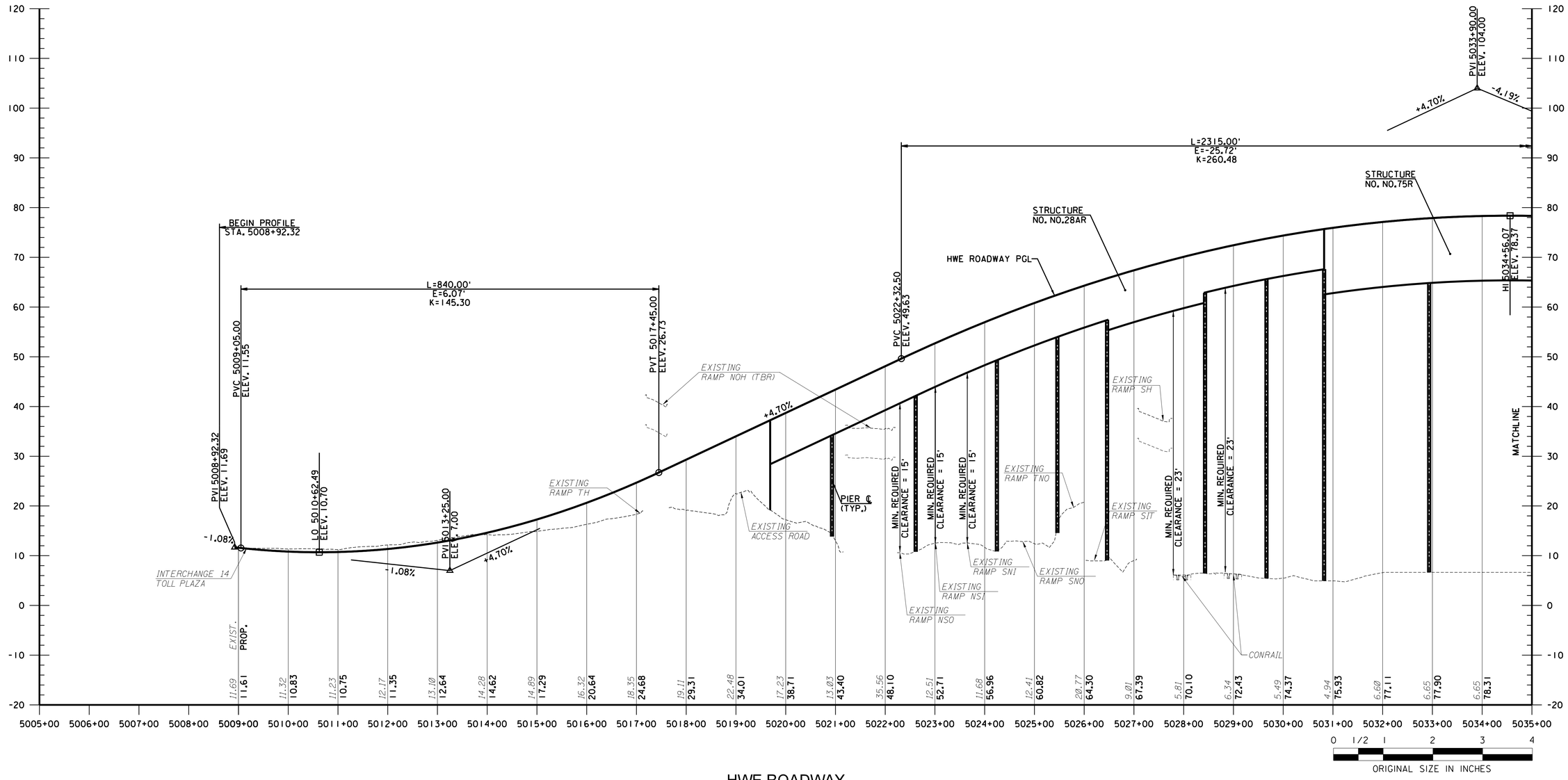

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DESIGN SPEED = 60 MPH

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MADE:	MAE/BB	07/2022
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CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HWE ROADWAY PROFILE
SHEET 1 OF 15

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

P-1
P-47

214
375

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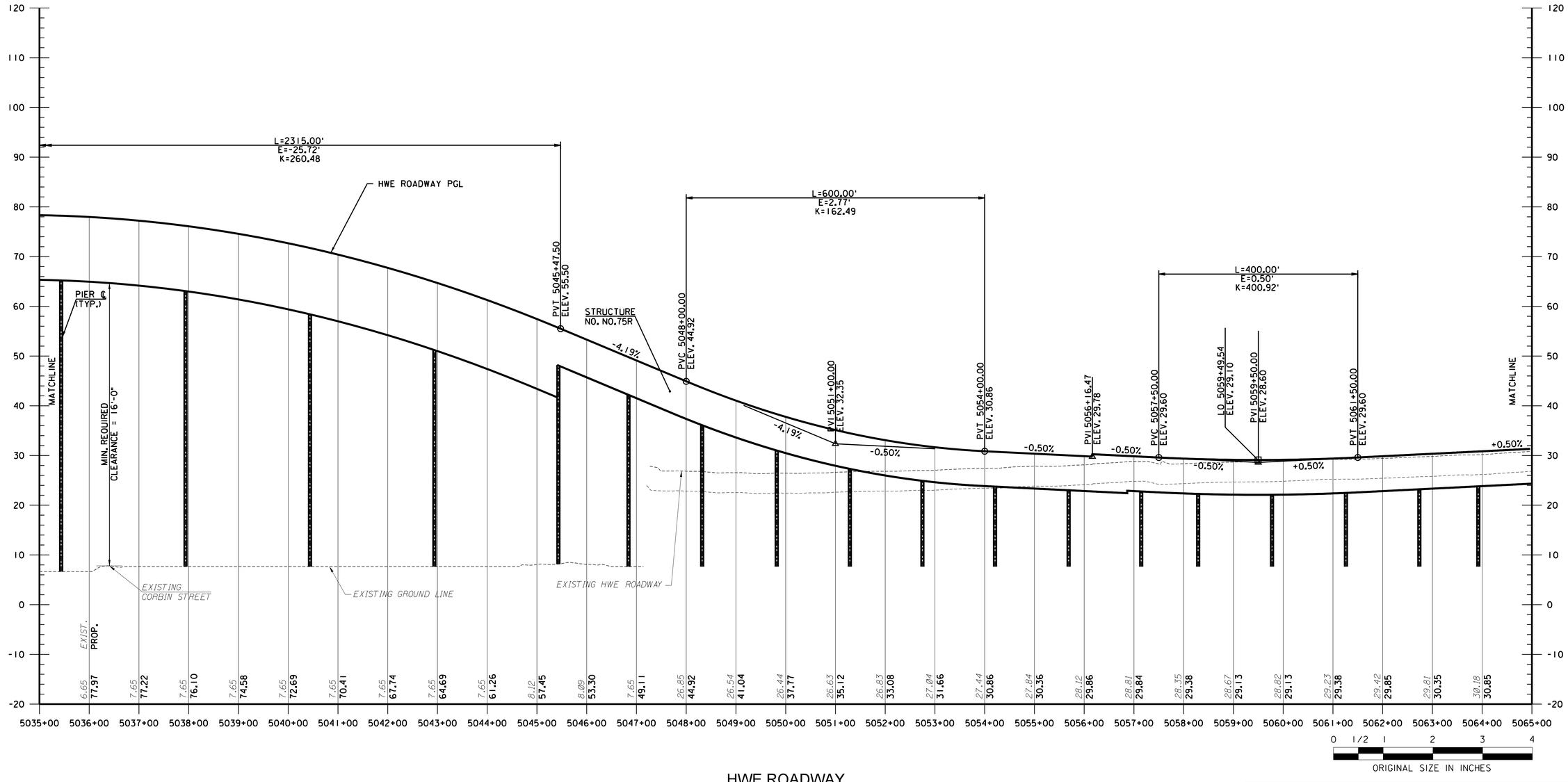

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DESIGN SPEED = 60 MPH

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TRACED:	YLP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HWE ROADWAY PROFILE
SHEET 2 OF 15

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03790000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

P-2 / P-47

215 / 375

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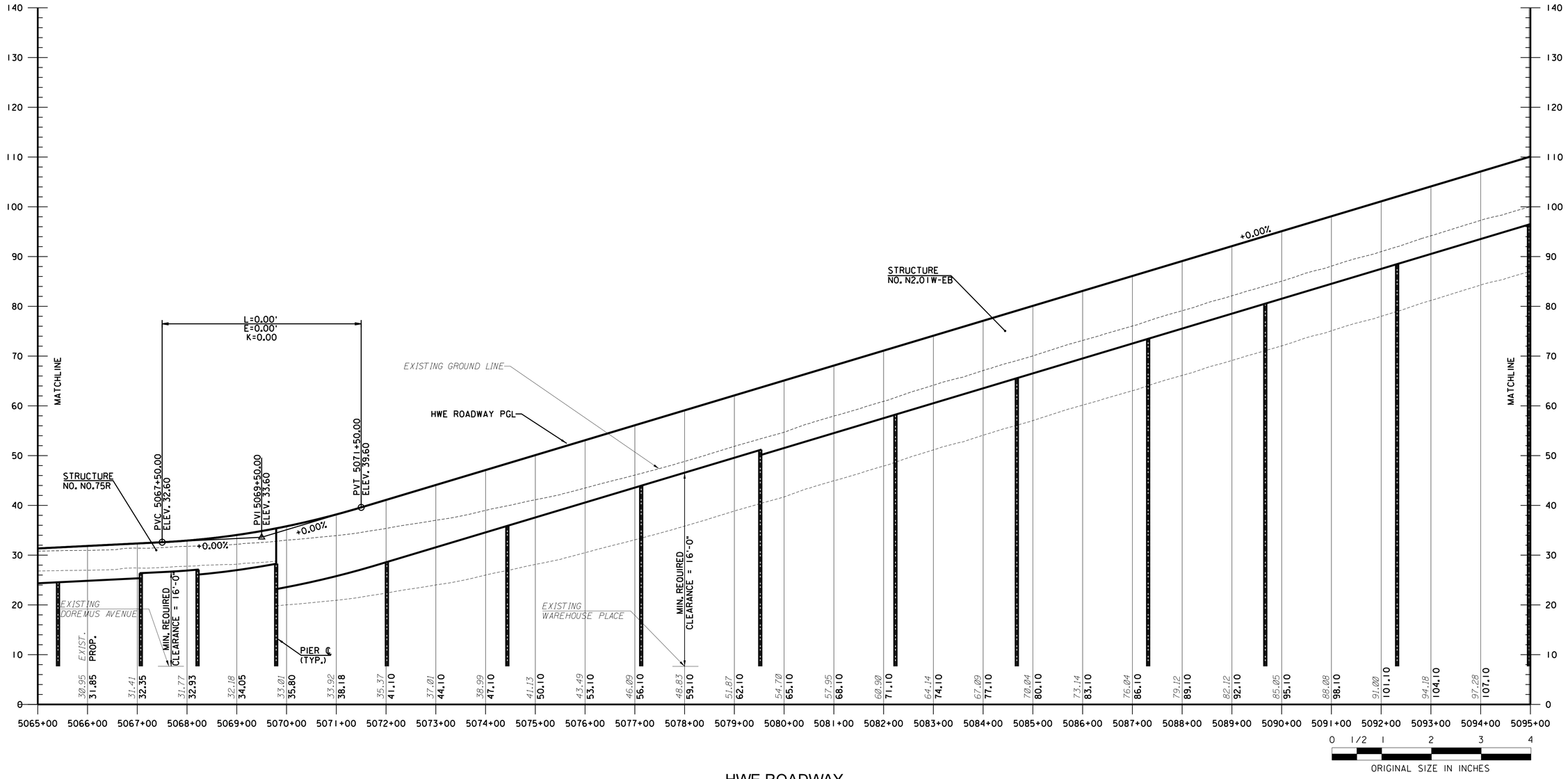

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DESIGN SPEED = 60 MPH

P-3
P-47

	BY	DATE
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TRACED:	YLP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HWE ROADWAY PROFILE
SHEET 3 OF 15

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

216
375

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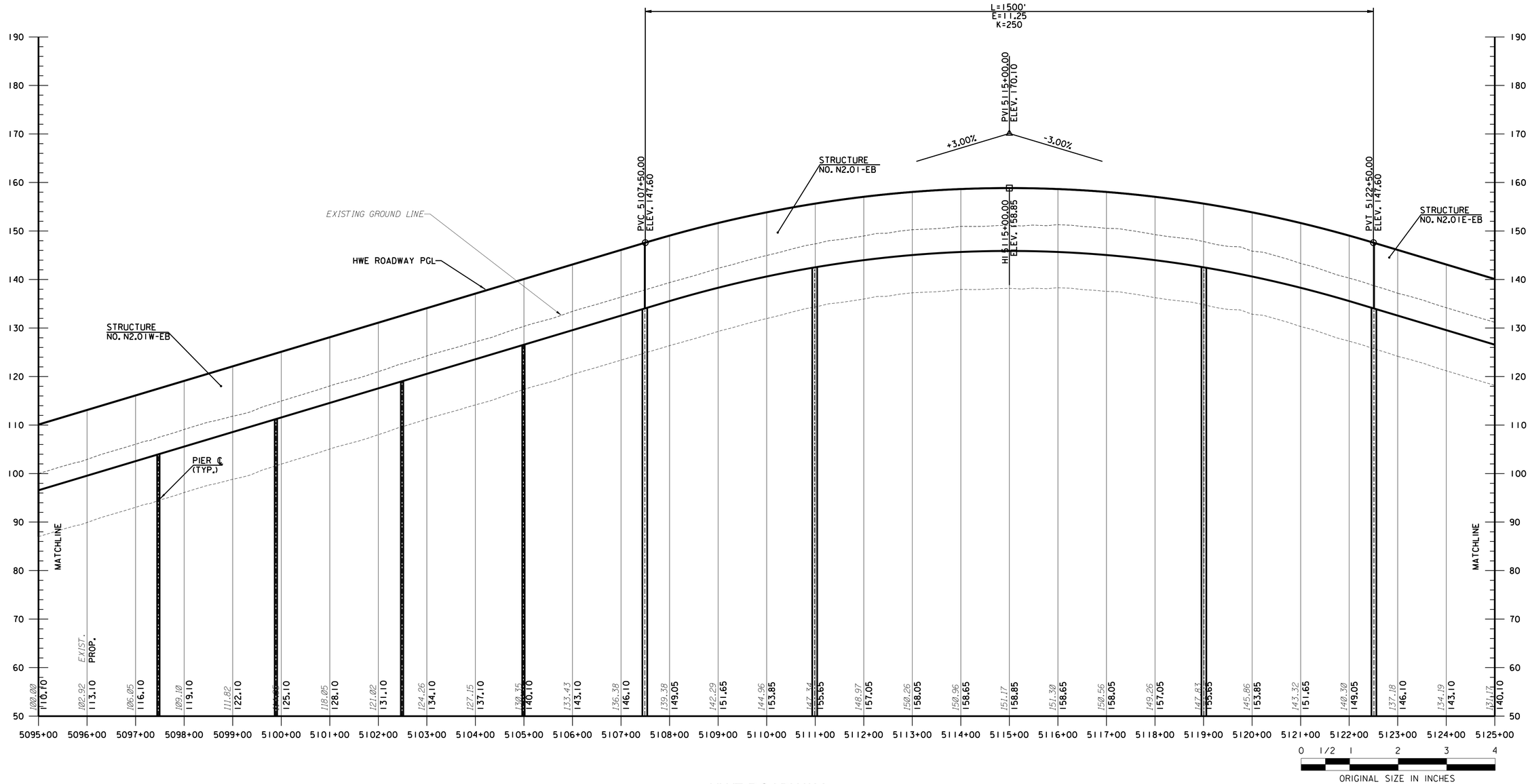

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DESIGN SPEED = 60 MPH

	BY	DATE
MADE:	MAE/BB	07/2022
TRACED:	YLP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HWE ROADWAY PROFILE
SHEET 4 OF 15

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V

DATE: JULY 2022

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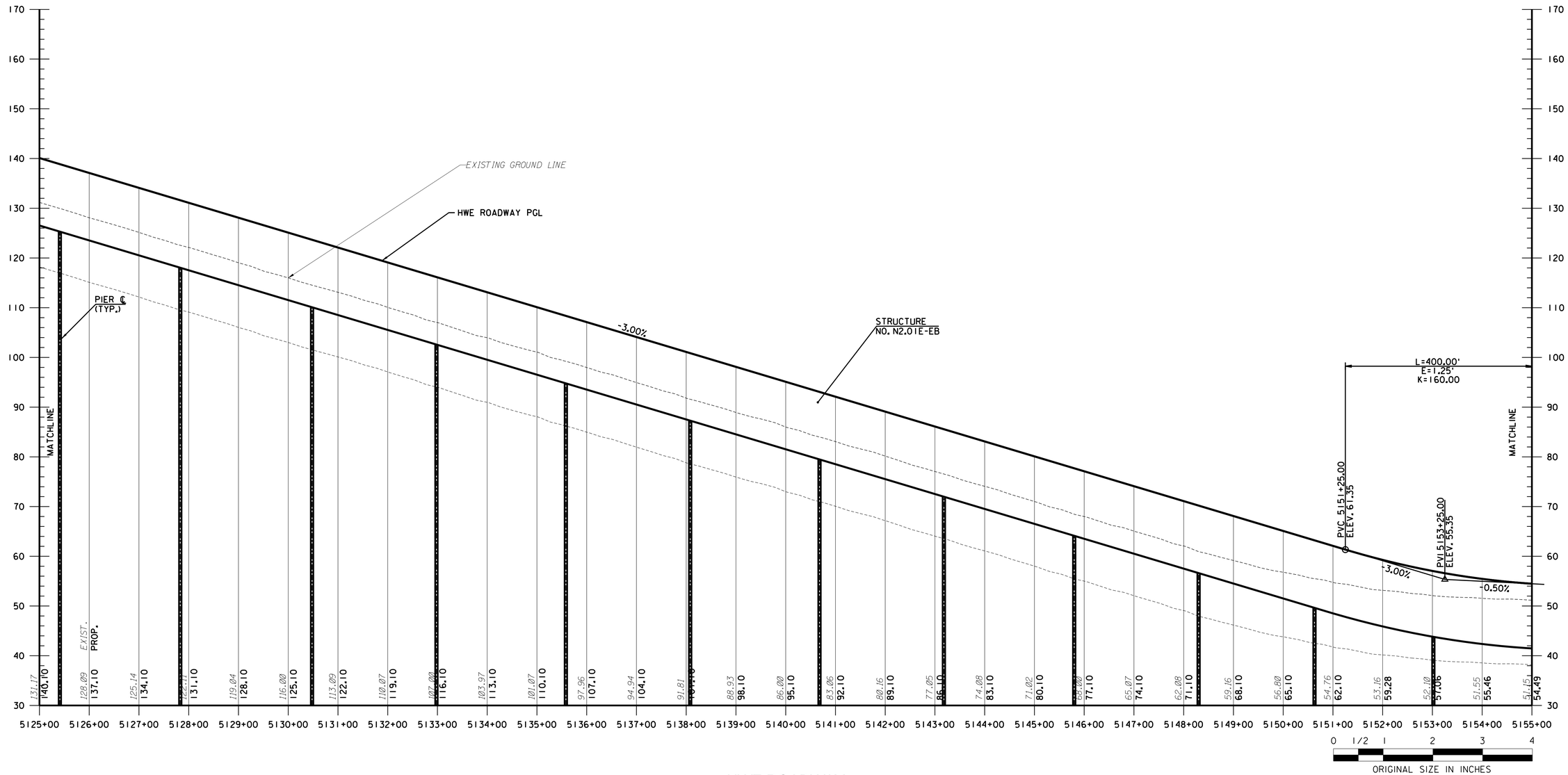

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DESIGN SPEED = 60 MPH

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TRACED:	YLP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HWE ROADWAY PROFILE
SHEET 5 OF 15

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

P-5
P-47

218
375

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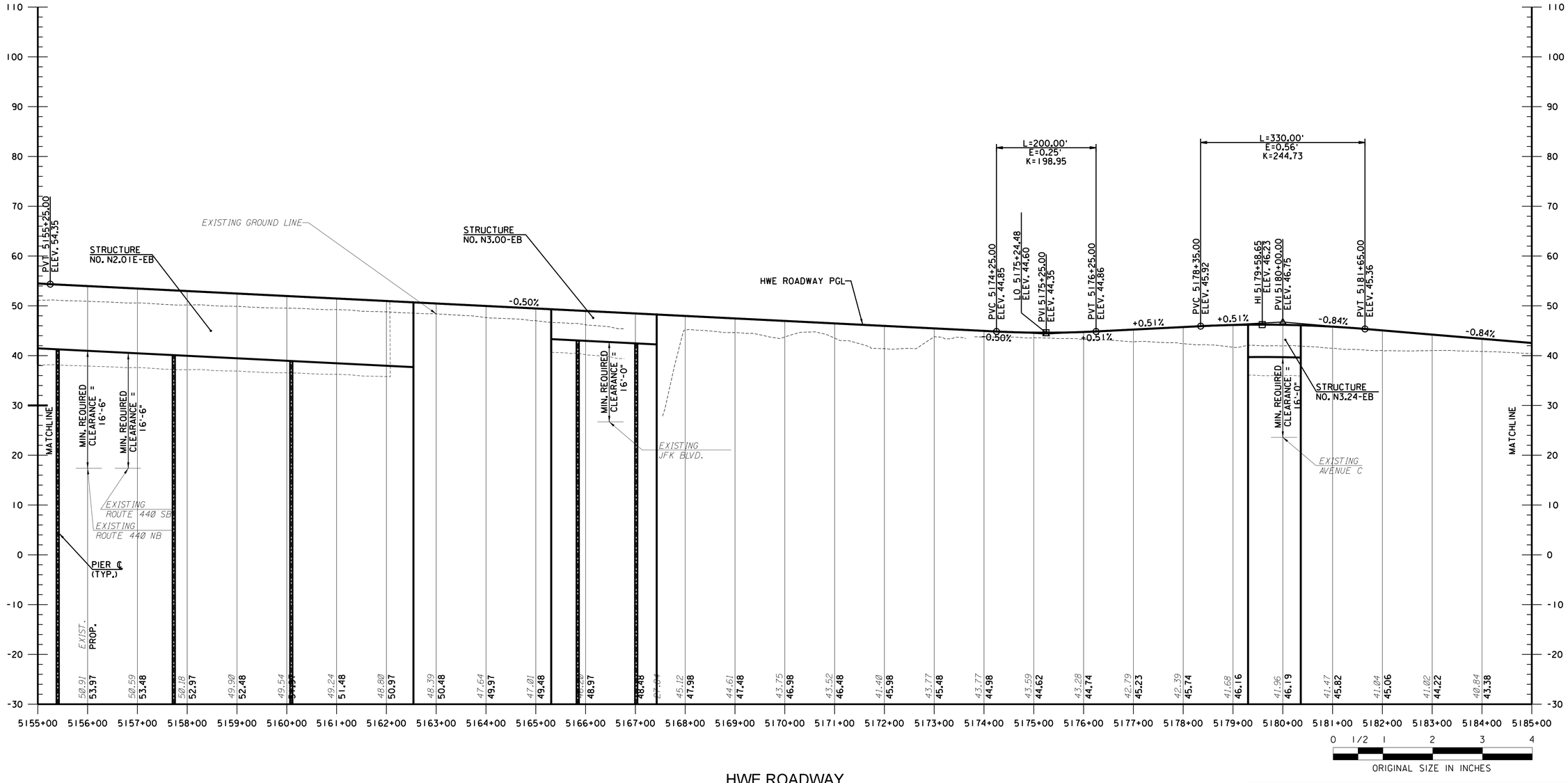

HWE ROADWAY
DESIGN SPEED = 60 MPH

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TRACED:	YLP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HWE ROADWAY PROFILE
SHEET 6 OF 15

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

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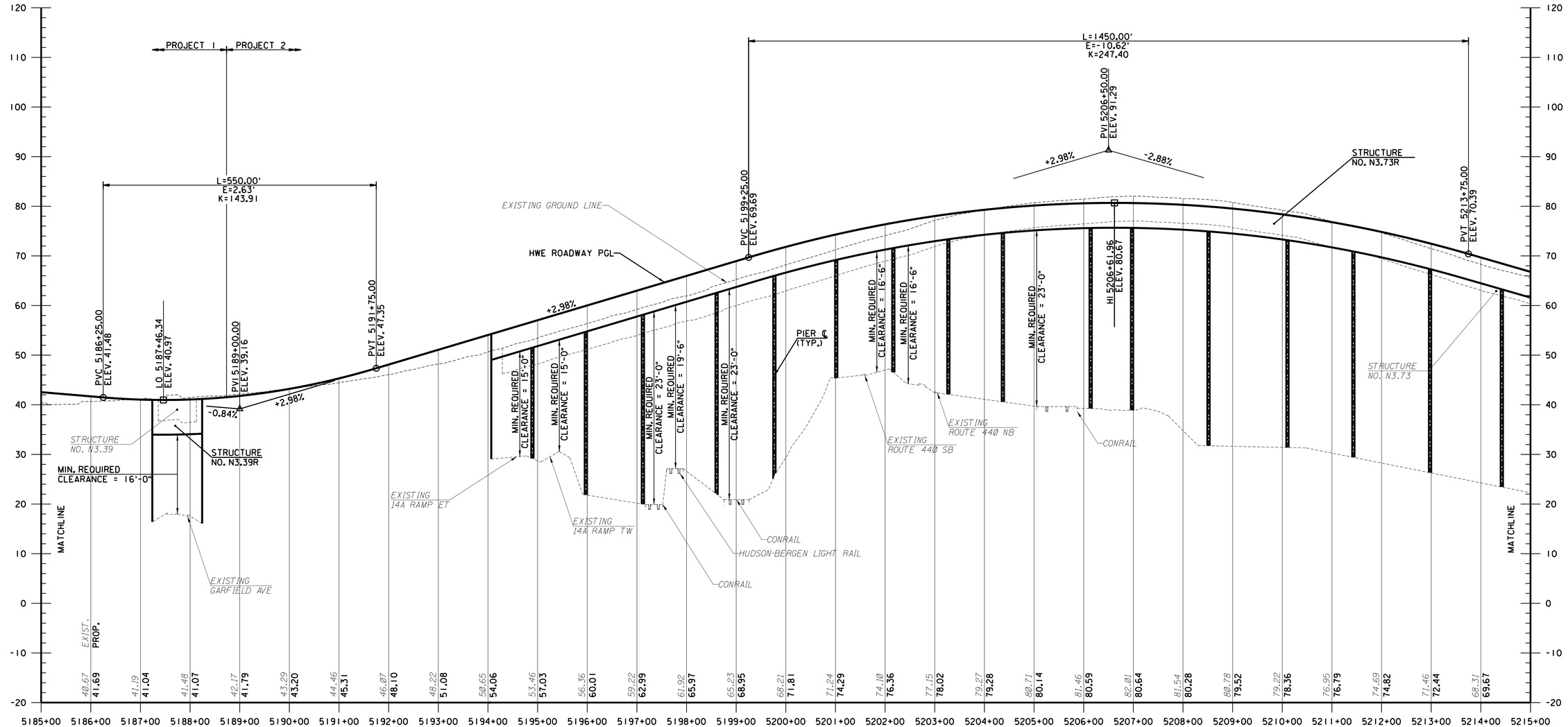

HWE ROADWAY
DESIGN SPEED = 60 MPH

P-7
P-47

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HWE ROADWAY PROFILE
SHEET 7 OF 15

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

220
375

	BY	DATE
MADE:	JMC	07/2022
TRACED:	RSE	07/2022
CHECKED:	GTK	07/2022
SUPERVISED:	RBM	

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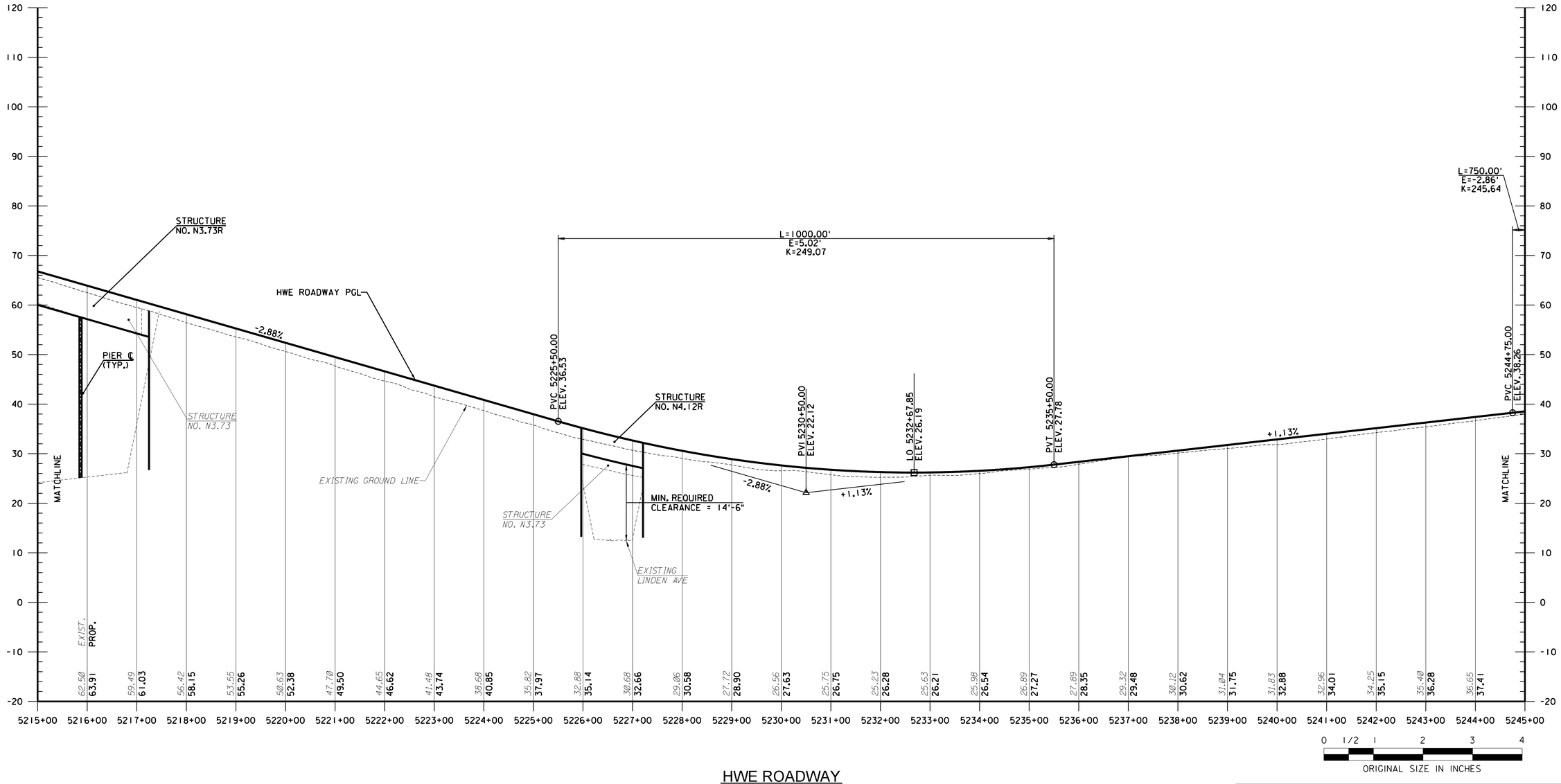

HWE ROADWAY
DESIGN SPEED = 60 MPH

P-8
P-47

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HWE ROADWAY PROFILE
SHEET 8 OF 15

	BY	DATE
MADE:	JMC	07/2022
TRACED:	RSE	07/2022
CHECKED:	GTK	07/2022
SUPERVISED:	RBM	

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V

DATE: JULY 2022

221
375

FILE NAME: T3820_PD_P-08_HWE_Profile_8.dgn

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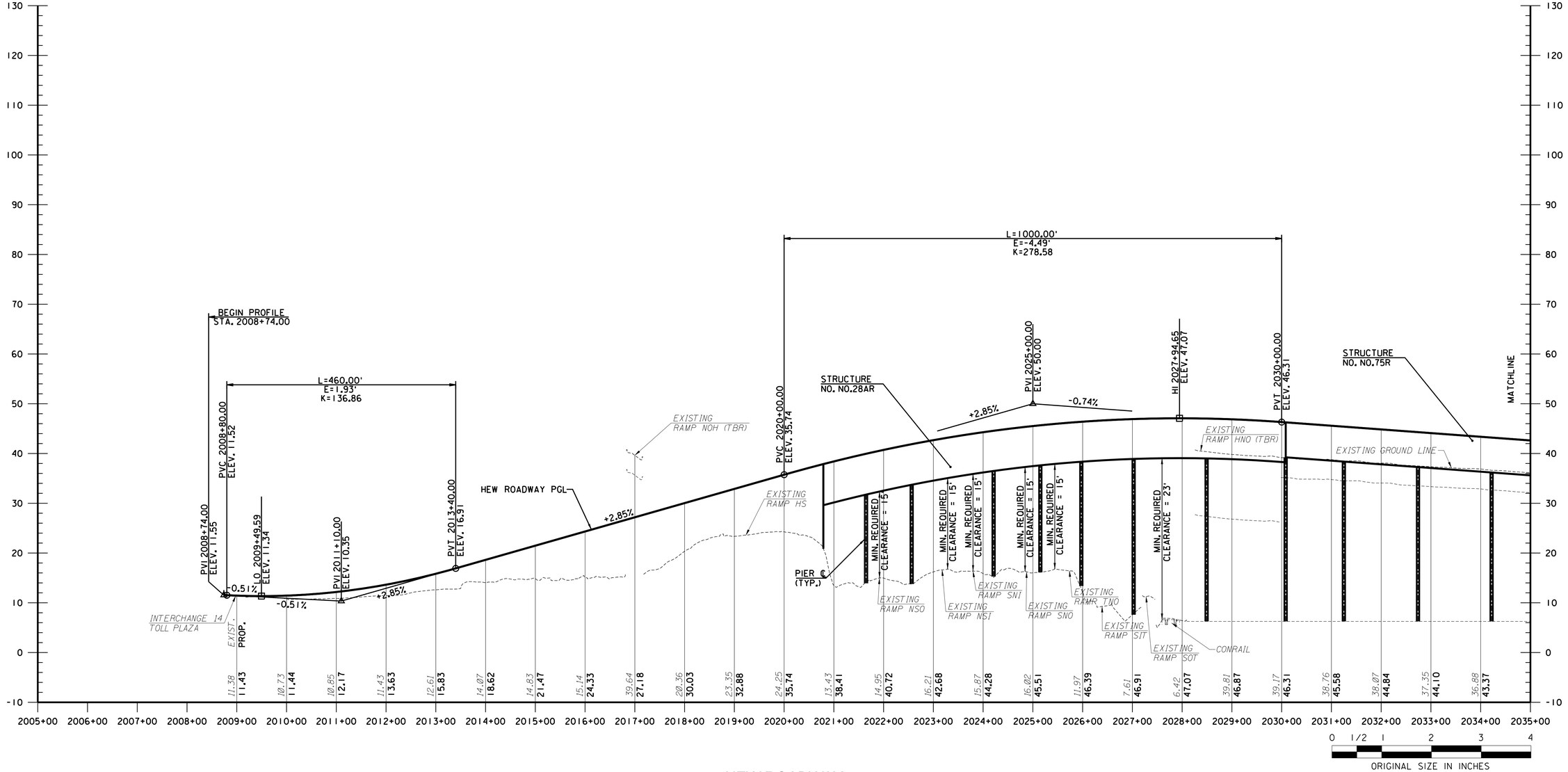

HEW ROADWAY
DESIGN SPEED = 60 MPH

P-16
P-47

	BY	DATE
MADE:	MAE/BB	07/2022
TRACED:	YLP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HEW ROADWAY PROFILE
SHEET 1 OF 15

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

229
375

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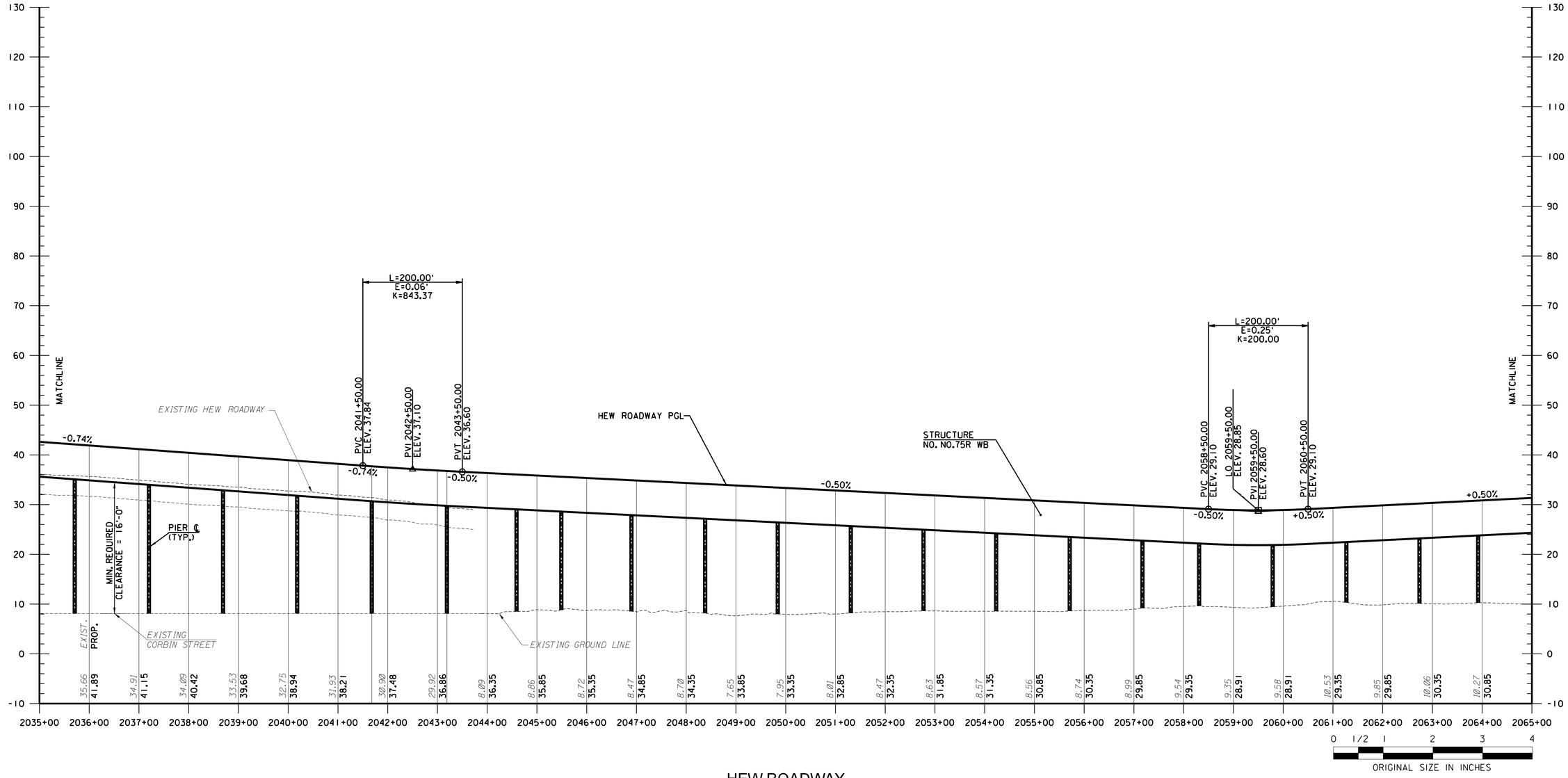

HEW ROADWAY
DESIGN SPEED = 60 MPH

	BY	DATE
MADE:	MAE/BB	07/2022
TRACED:	YLP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HEW ROADWAY PROFILE
SHEET 2 OF 15

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

P-17 / P-47

230
375

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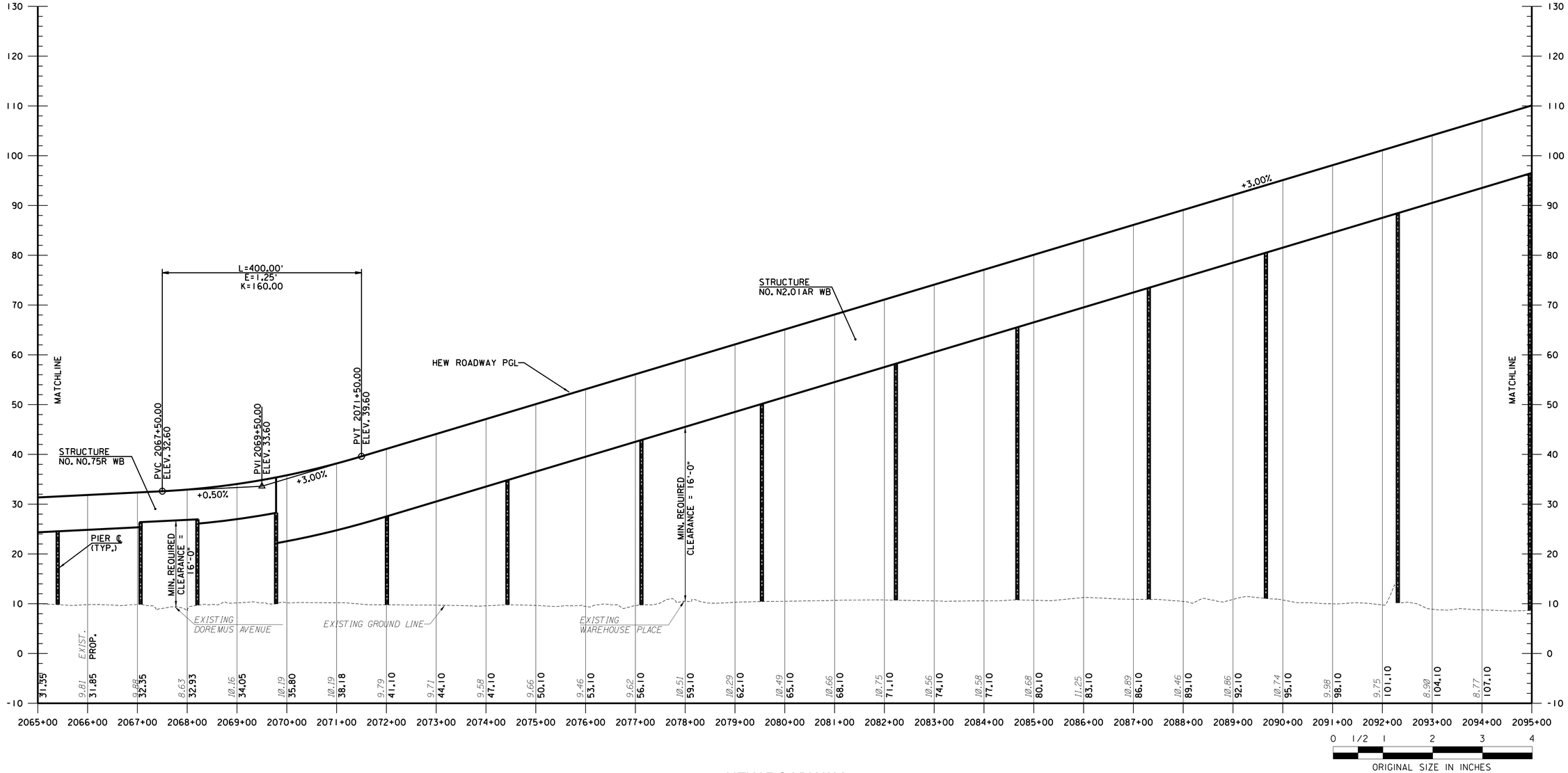

HEW ROADWAY
DESIGN SPEED = 60 MPH

P-18
P-47

	BY	DATE
MADE:	MAE/BB	07/2022
TRACED:	YLP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO, 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HEW ROADWAY PROFILE
SHEET 3 OF 15

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO, 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

231
375

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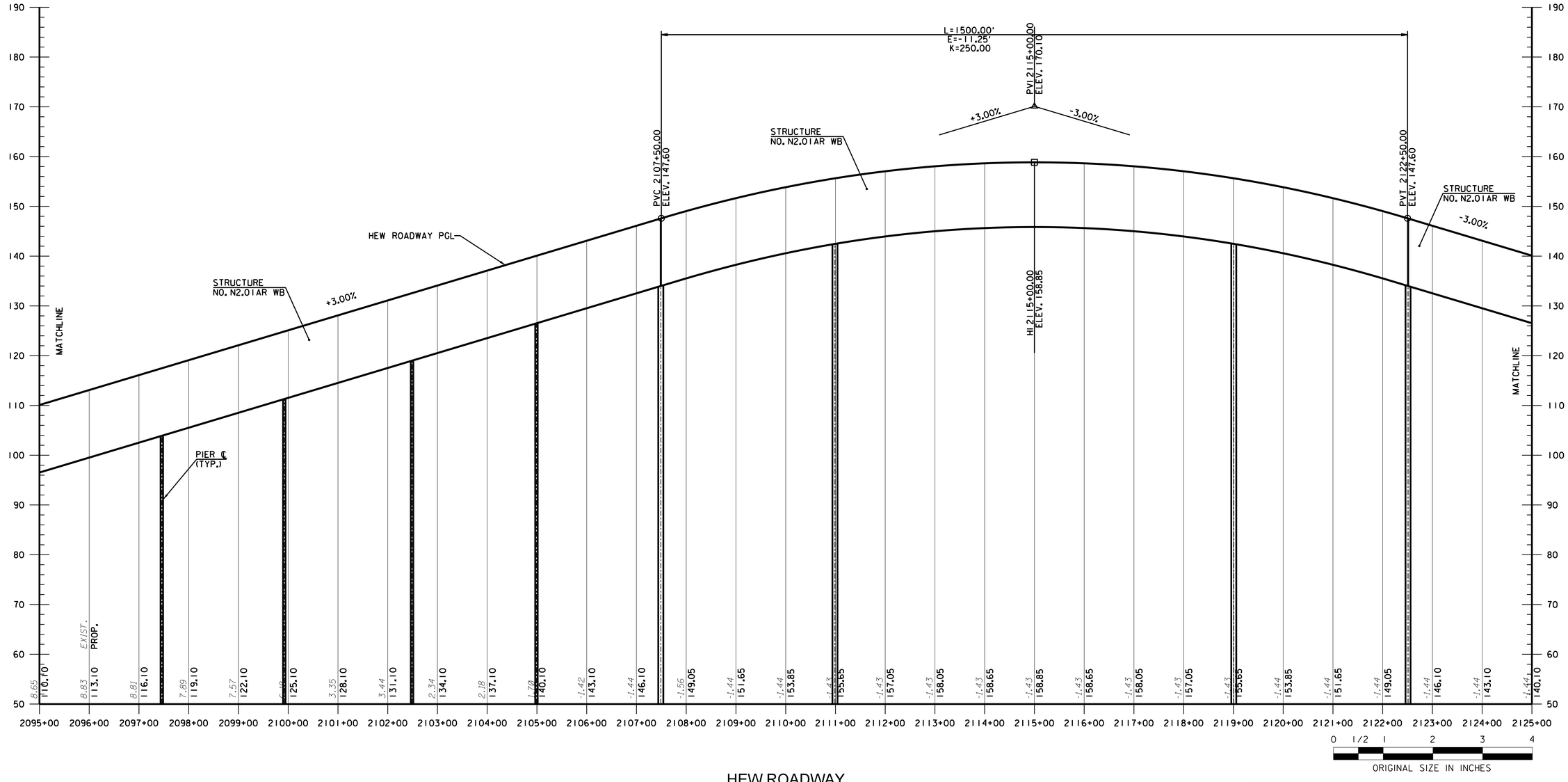

HEW ROADWAY
DESIGN SPEED = 60 MPH

	BY	DATE
MADE:	MAE/BB	07/2022
TRACED:	YLP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HEW ROADWAY PROFILE
SHEET 4 OF 15

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

P-19 / P-47

232 / 375

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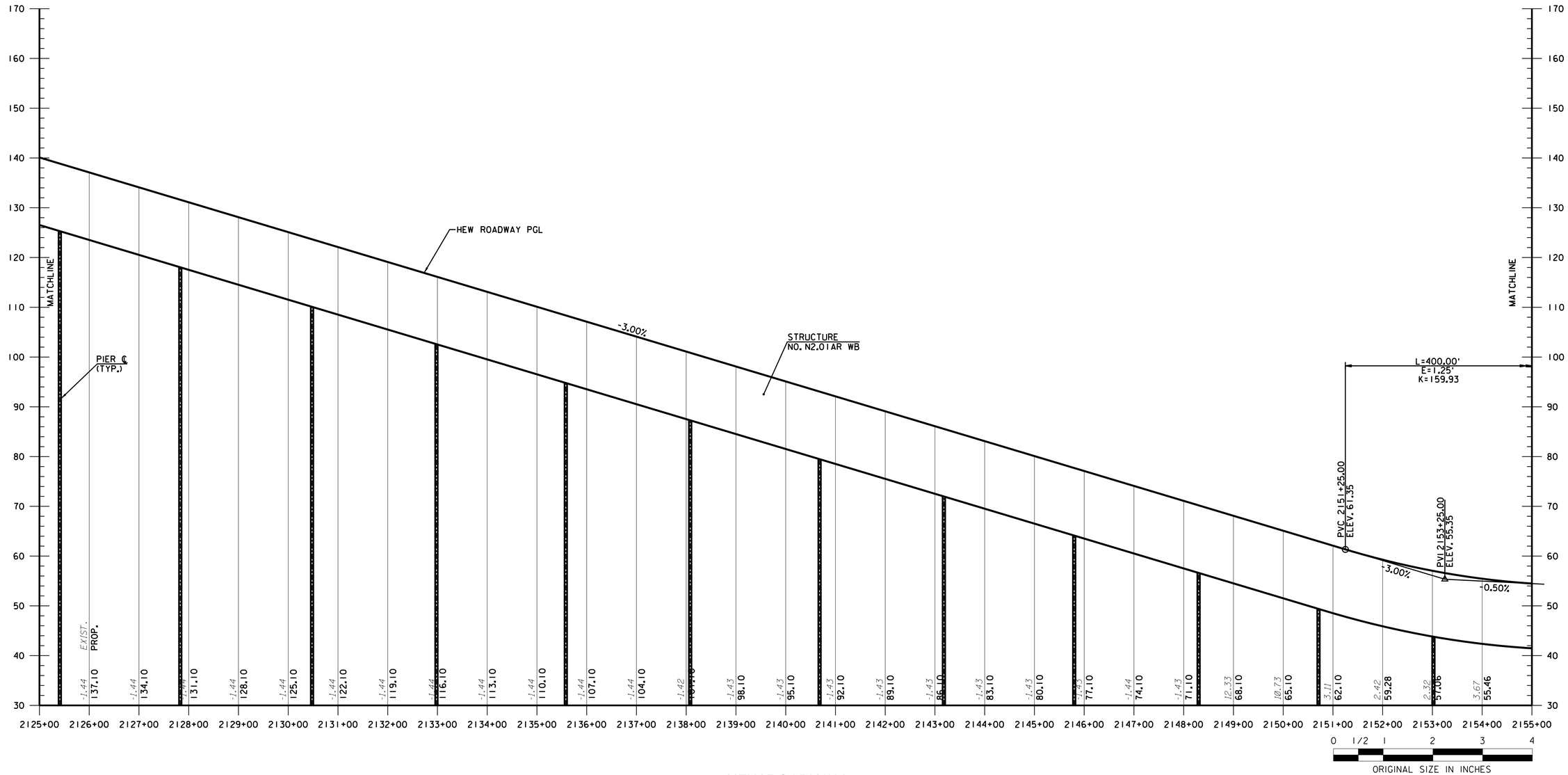

HEW ROADWAY
DESIGN SPEED = 60 MPH

	BY	DATE
MADE:	MAE/BB	07/2022
TRACED:	YLP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HEW ROADWAY PROFILE
SHEET 5 OF 15

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

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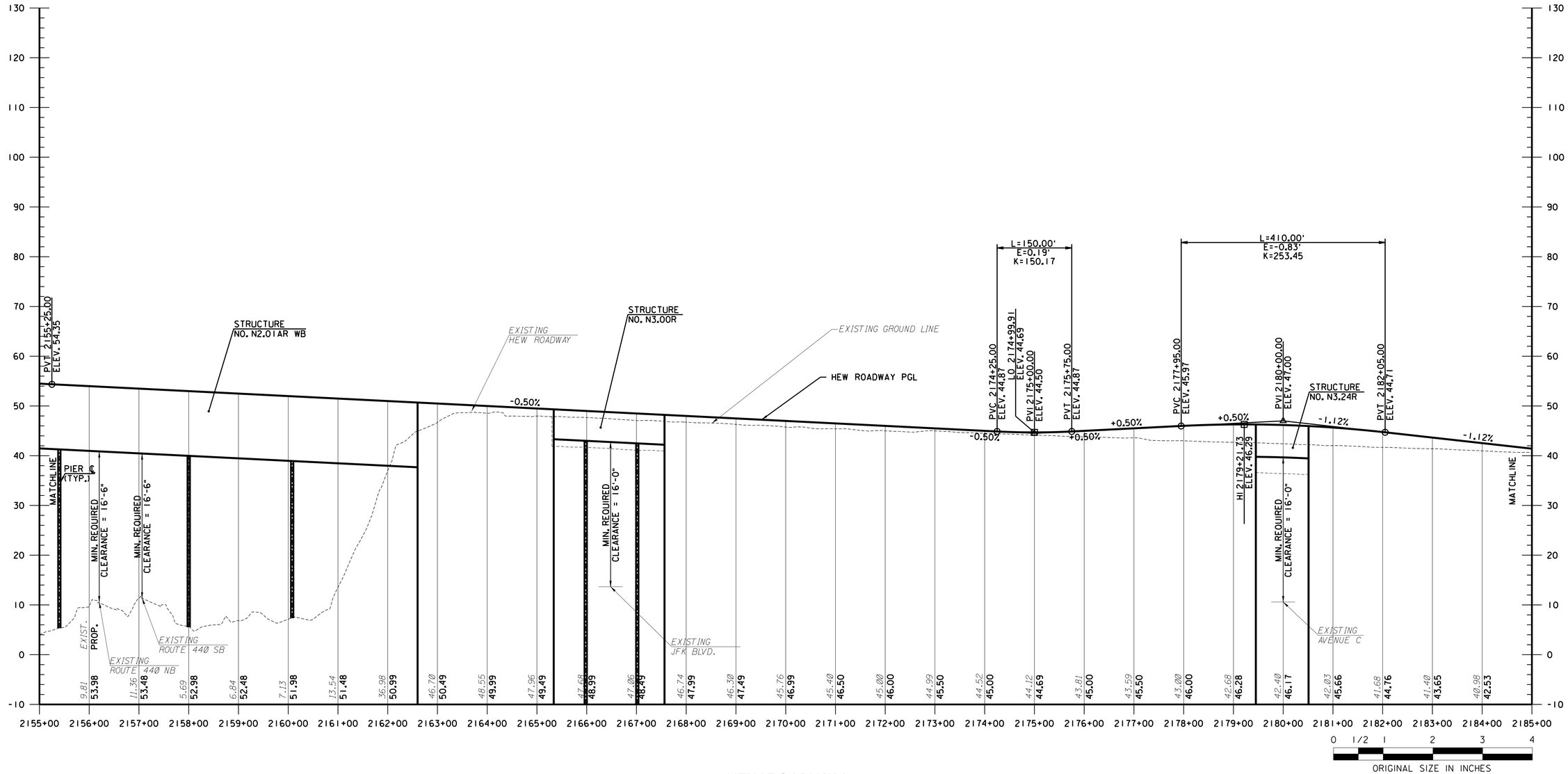

HEW ROADWAY
DESIGN SPEED = 60 MPH

	BY	DATE
MADE:	MAE/BB	07/2022
TRACED:	YLP	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HEW ROADWAY PROFILE
SHEET 6 OF 15

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

P-21
P-47

234
375

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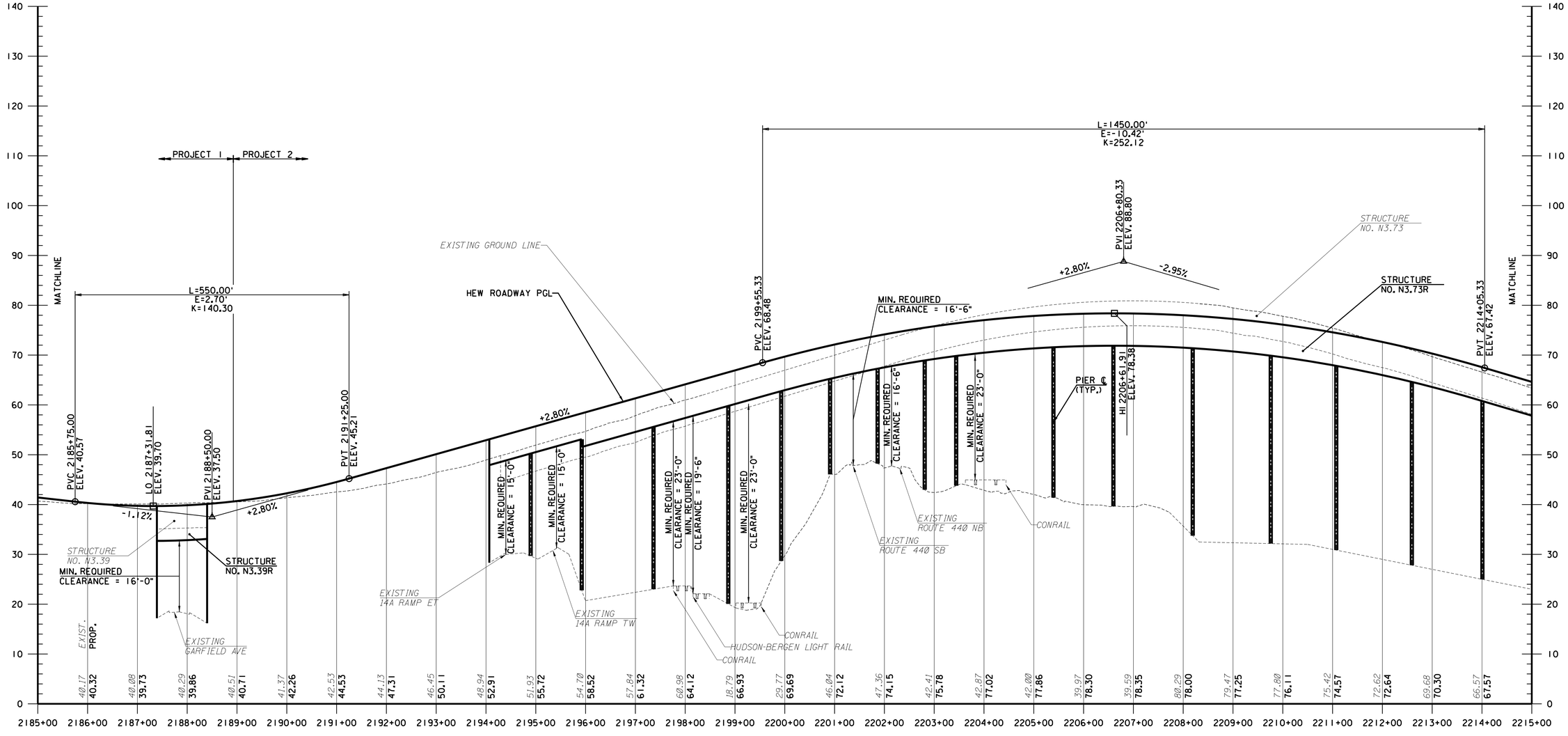

HEW ROADWAY
DESIGN SPEED = 60 MPH

	BY	DATE
MADE:	JMC	07/2022
TRACED:	RSE	07/2022
CHECKED:	GTK	07/2022
SUPERVISED:	RBM	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HEW ROADWAY PROFILE
SHEET 7 OF 15

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

P-22
P-47

235
375

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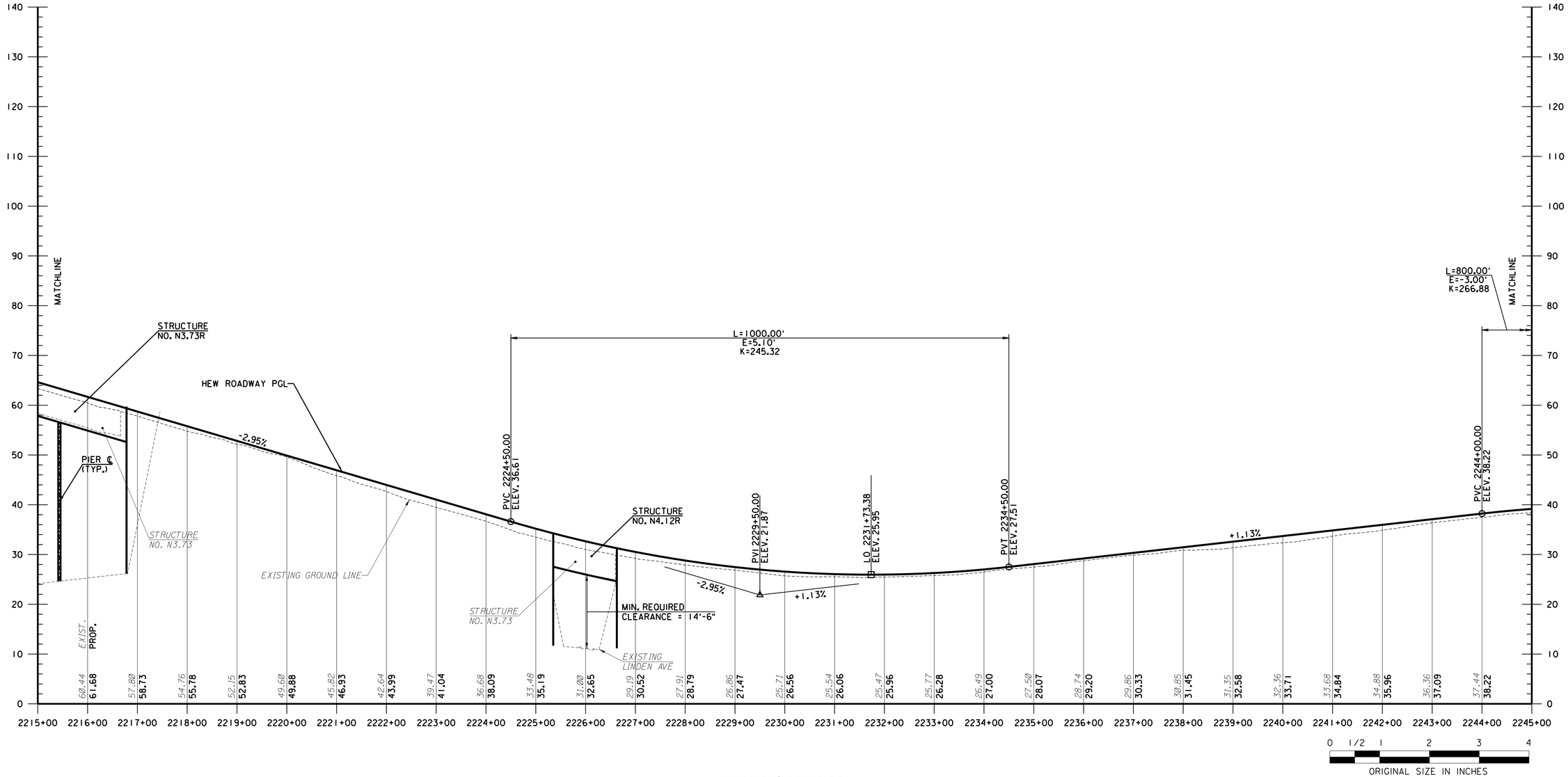

HEW ROADWAY
DESIGN SPEED = 60 MPH

P-23
P-47

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

HEW ROADWAY PROFILE
SHEET 8 OF 15

JULY 2022 CONCEPT PLANS

	BY	DATE
MADE:	JMC	07/2022
TRACED:	RSE	07/2022
CHECKED:	GTK	07/2022
SUPERVISED:	RBM	

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

236
375

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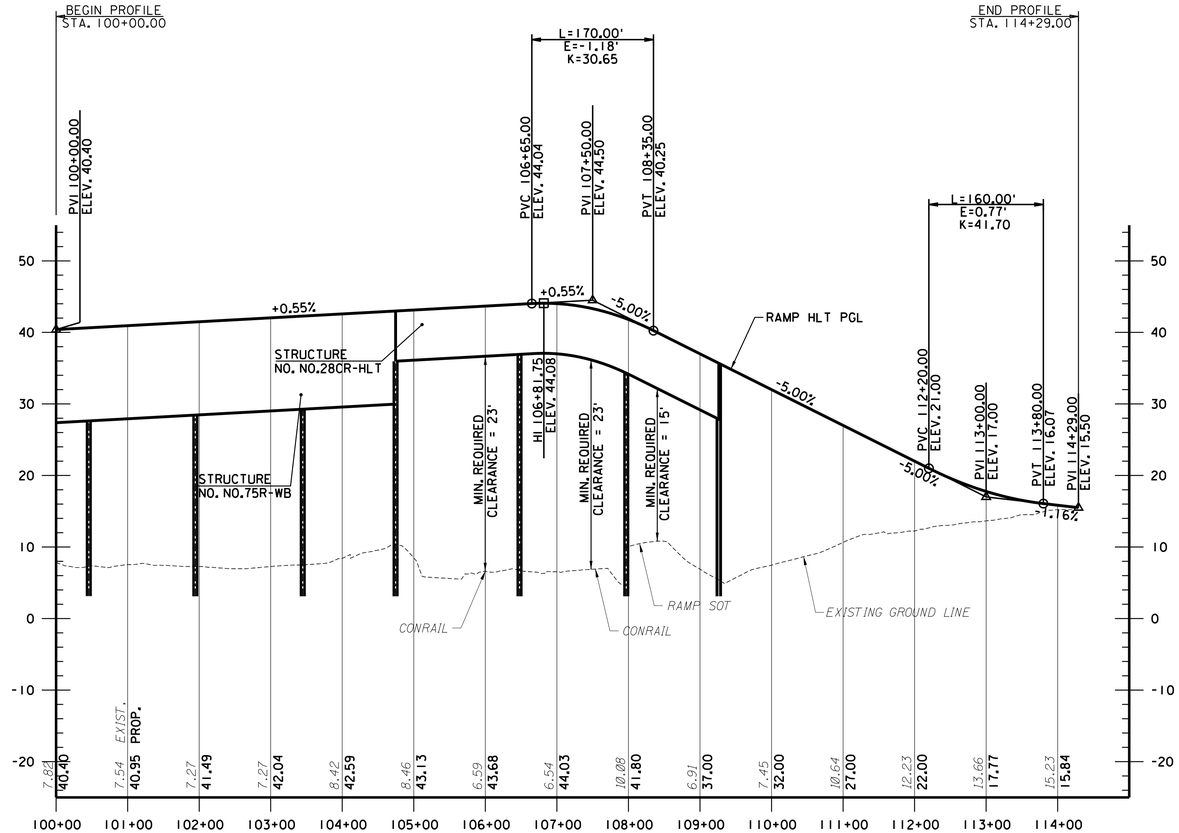

INTERCHANGE 14 RAMP HLT
DESIGN SPEED = 30 MPH

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

P-31
P-47

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

INTERCHANGE 14 RAMP HLT PROFILE

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

	BY	DATE
MADE:	BAB	07/2022
TRACED:	YUM	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V

DATE: JULY 2022

244
375

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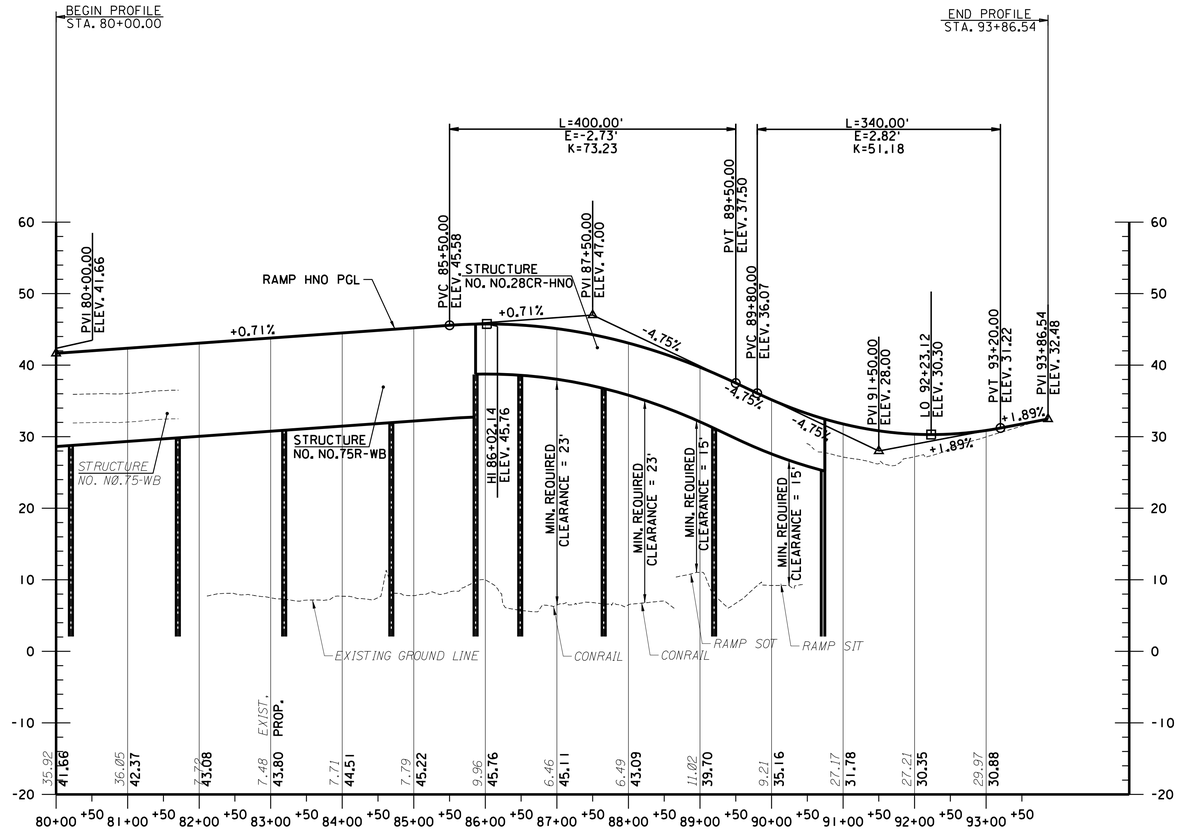

INTERCHANGE 14 RAMP HNO
DESIGN SPEED = 40 MPH

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

P-32
P-47

	BY	DATE
MADE:	BAB	07/2022
TRACED:	YUM	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

INTERCHANGE 14 RAMP HNO PROFILE

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

245
375

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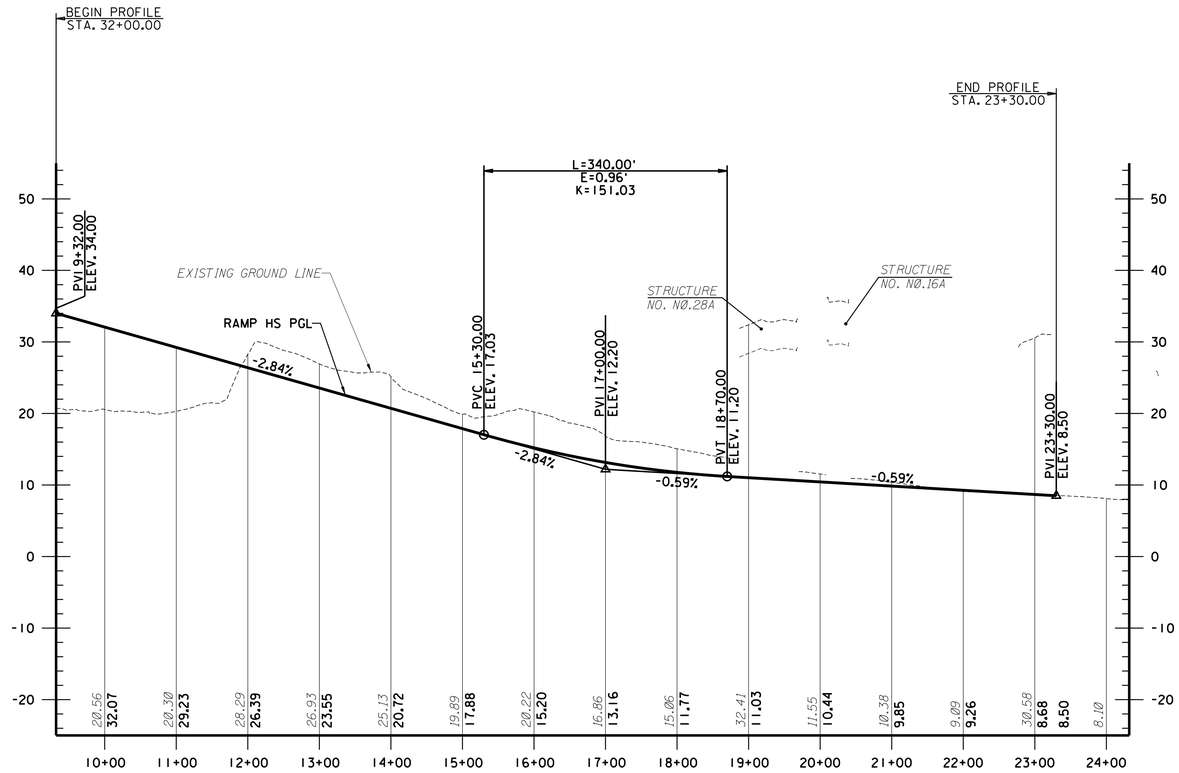

INTERCHANGE 14 RAMP HS

DESIGN SPEED = 25 MPH

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

P-33
P-47

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

INTERCHANGE 14 RAMP HS PROFILE

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

	BY	DATE
MADE:	BAB	07/2022
TRACED:	YUN	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V

DATE: JULY 2022

246
375

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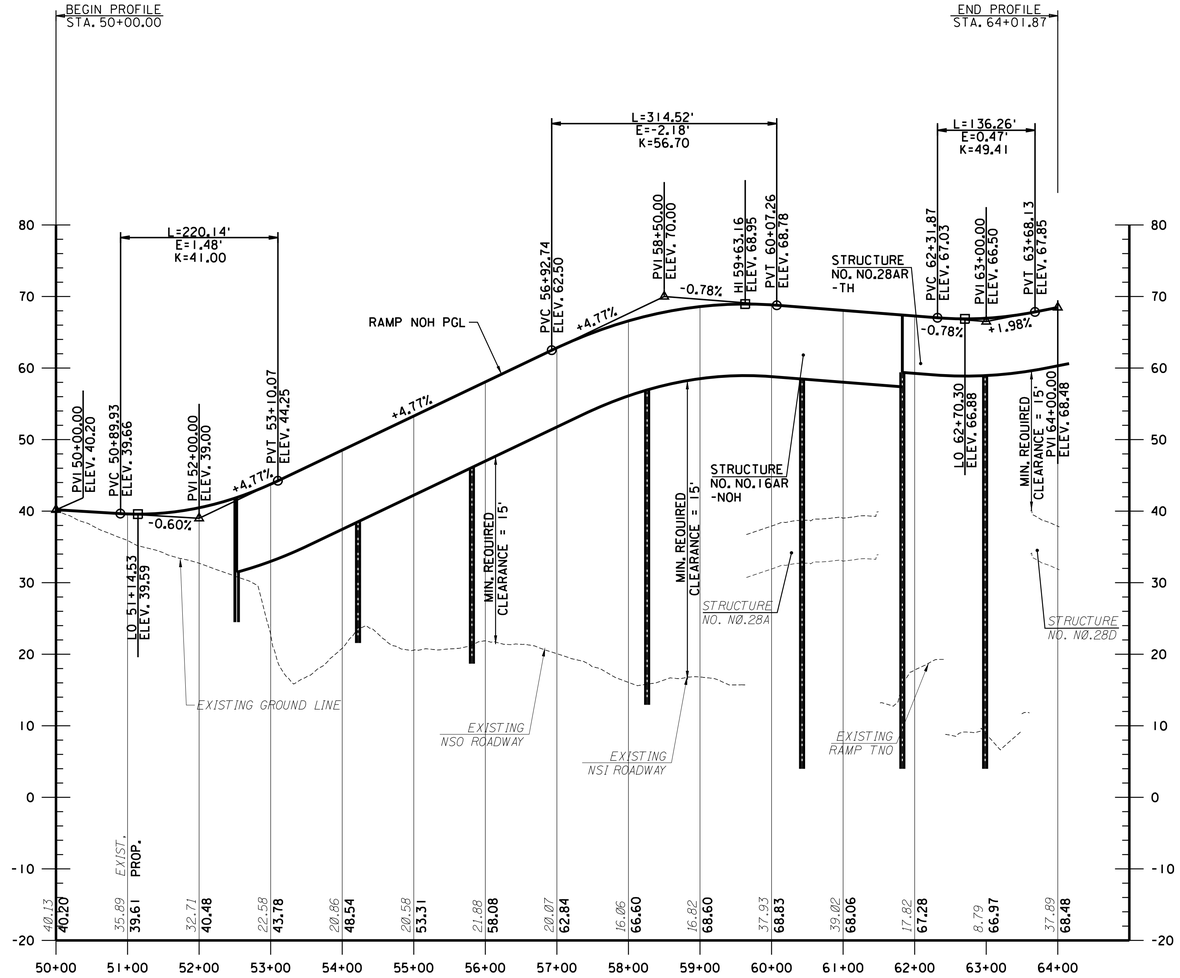

INTERCHANGE 14 RAMP NOH
DESIGN SPEED = 30 MPH

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

P-34
P-47

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

INTERCHANGE 14 RAMP NOH PROFILE

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

	BY	DATE
MADE:	BAB	07/2022
TRACED:	YUN	07/2022
CHECKED:	AHM	07/2022
SUPERVISED:	RJT	

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

247
375

FILE NAME: T3820_PD_P-NOH.dgn

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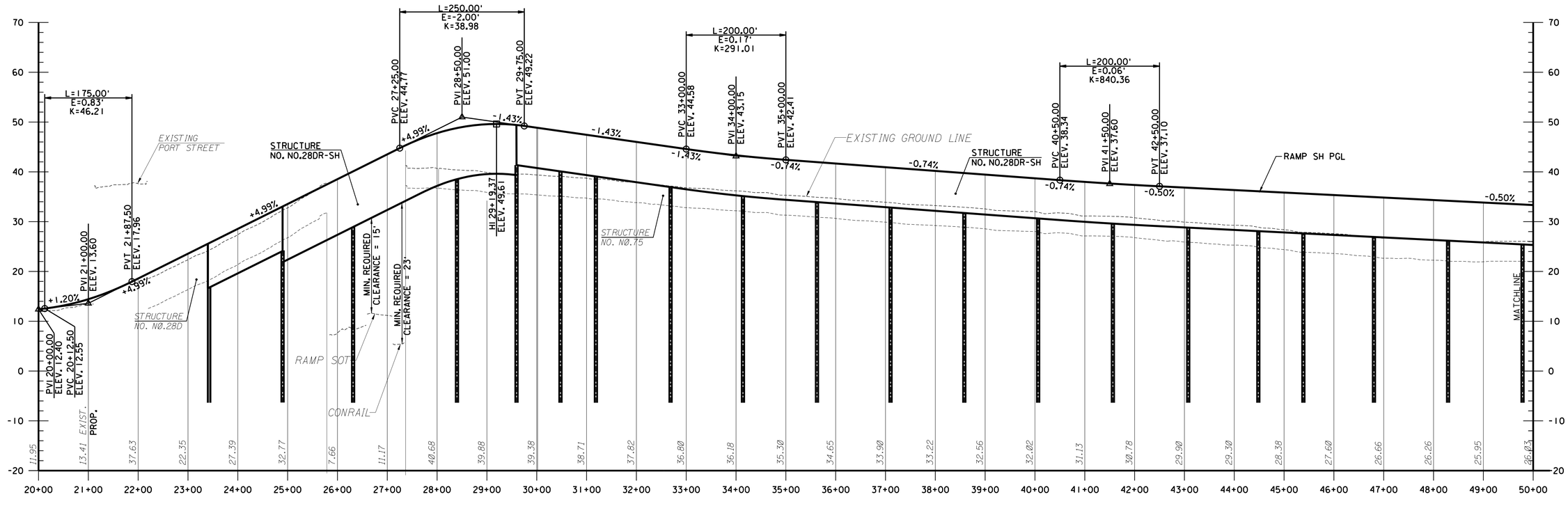

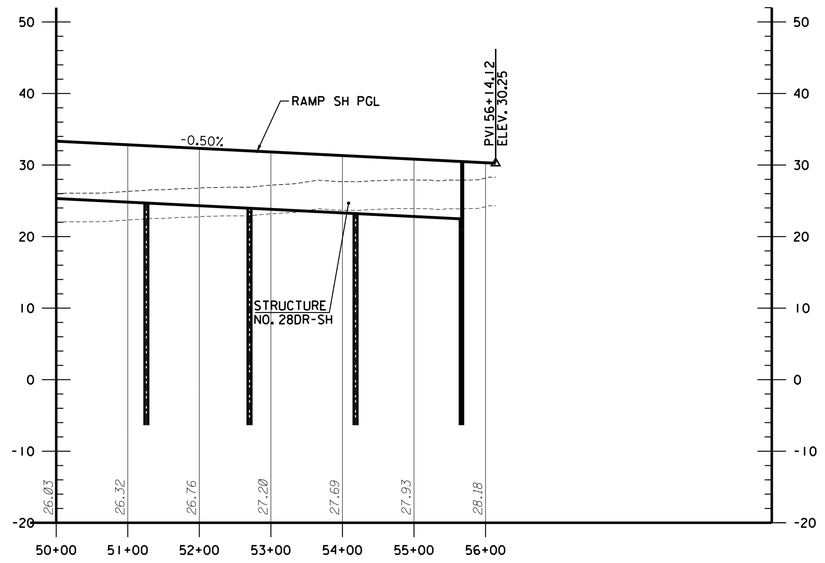

INTERCHANGE 14 RAMP SH
DESIGN SPEED = 35 MPH

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

P-35
P-47

	BY	DATE
MADE:	BAB	07/2022
TRACED:	YUN	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

INTERCHANGE 14 RAMP SH PROFILE

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

248
375

FILE NAME: T3820_PD_P-SH.dgn

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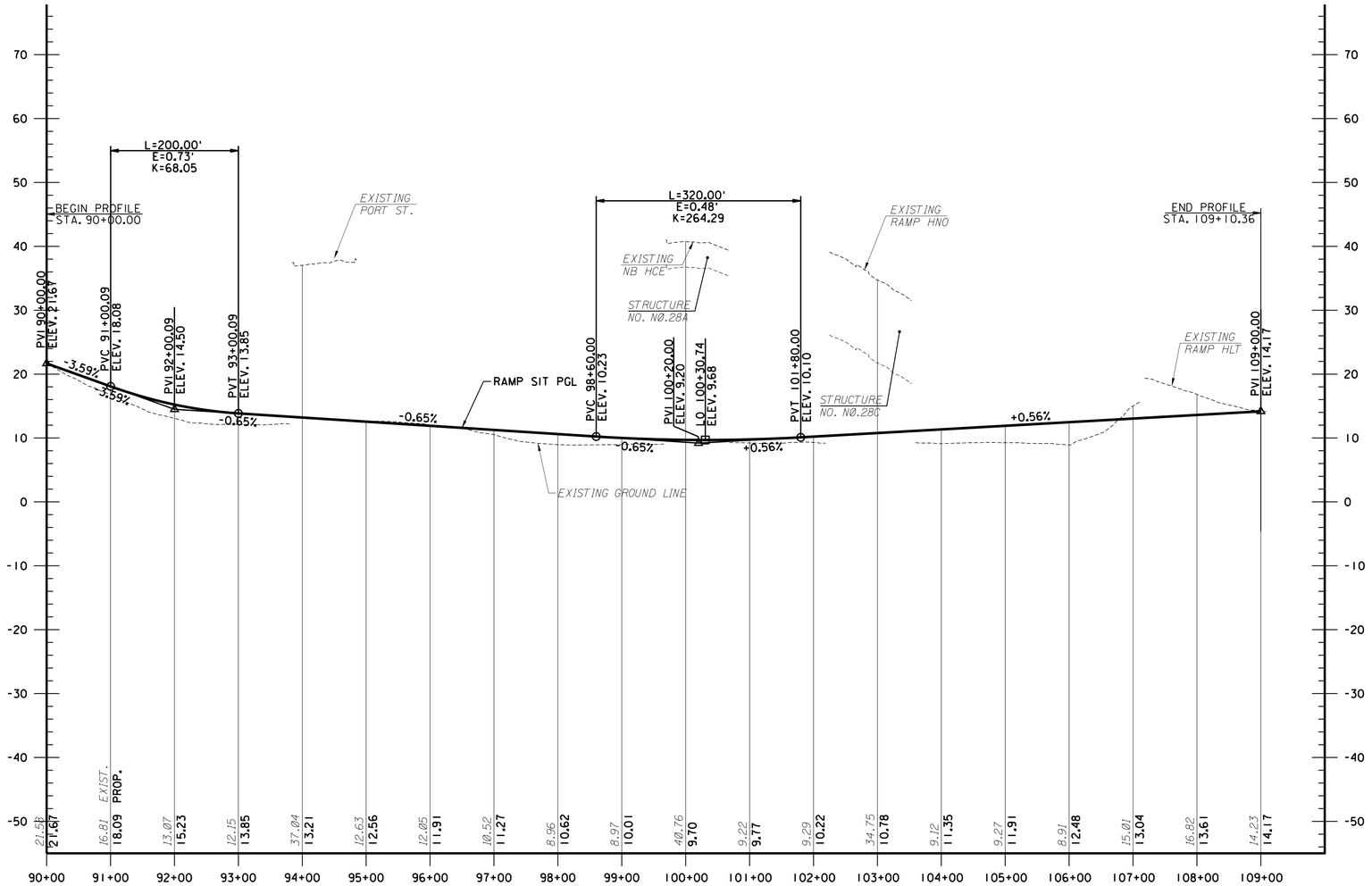

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

INTERCHANGE 14 RAMP SIT

DESIGN SPEED = 40 MPH

P-36
P-47

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

INTERCHANGE 14 RAMP SIT PROFILE

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V

DATE: JULY 2022

249
375

	BY	DATE
MADE:	BAB	07/2022
TRACED:	YUN	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

FILE NAME: T3820_PD_P-SIT.dgn

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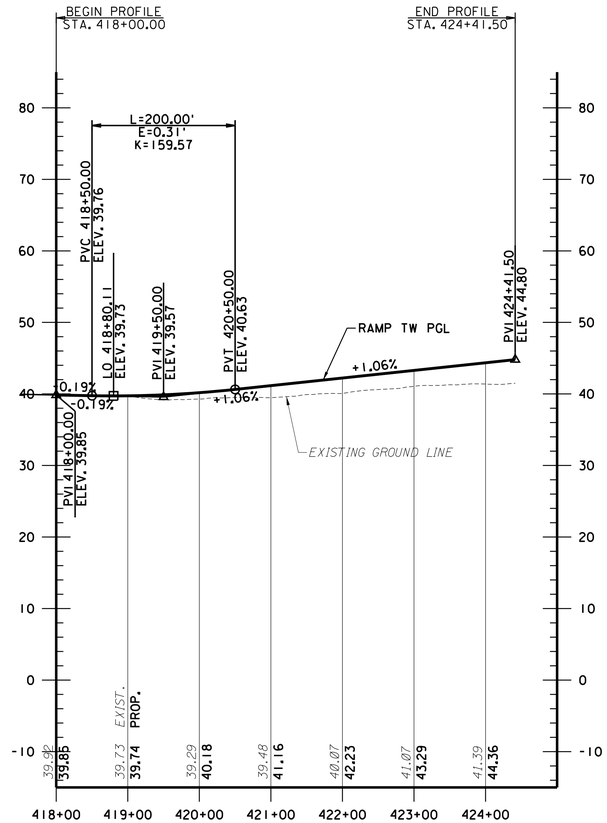

INTERCHANGE 14A RAMP TW

DESIGN SPEED = 40 MPH

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

P-38
P-47

	BY	DATE
MADE:	BAB	07/2022
TRACED:	YUN	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

INTERCHANGE 14A RAMP TW PROFILE

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V

DATE: JULY 2022

251
375

FILE NAME: T3820_PD_P-TW.dgn

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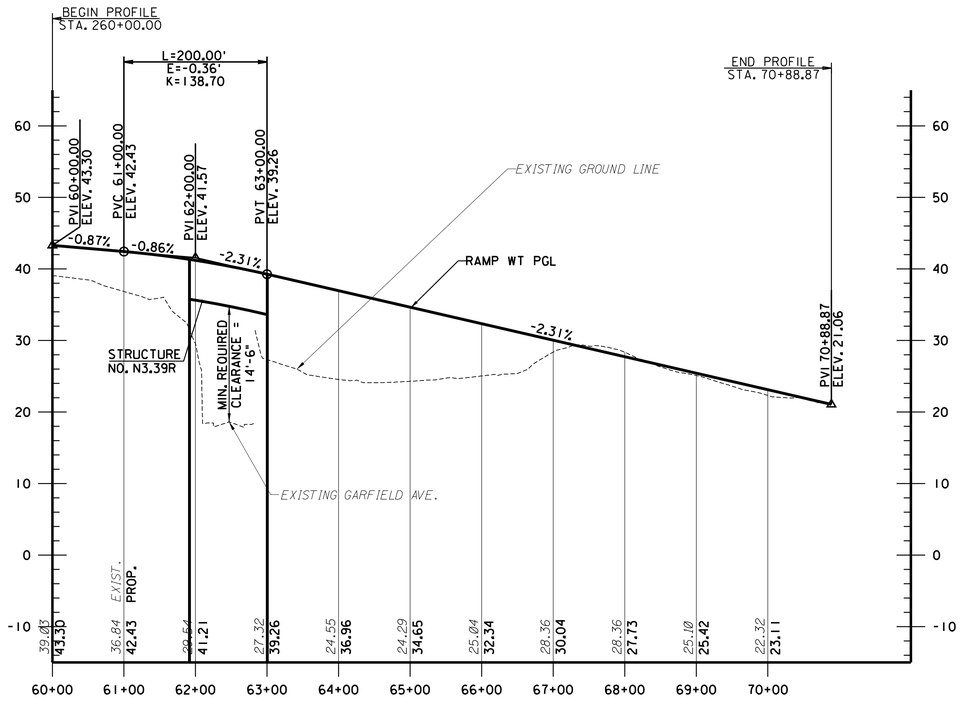

INTERCHANGE 14A RAMP WT

DESIGN SPEED = 30 MPH

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

P-39
P-47

WSP U.S.A., INC.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

ROBERT J. THIEL
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04226300

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

INTERCHANGE 14A RAMP WT PROFILE

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V

DATE: JULY 2022

252
375

	BY	DATE
MADE:	BAB	07/2022
TRACED:	YUN	07/2022
CHECKED:	AKM	07/2022
SUPERVISED:	RJT	

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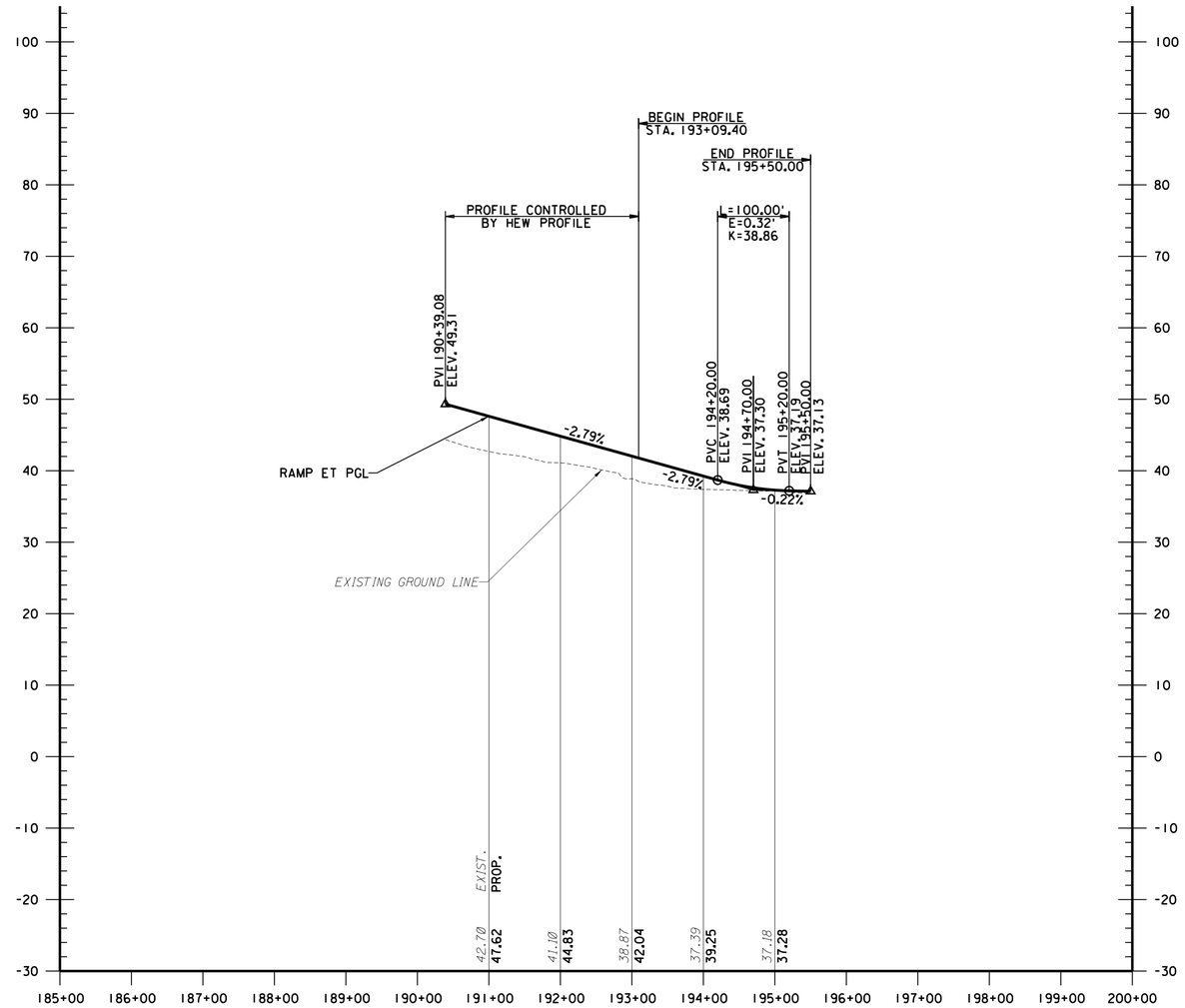

INTERCHANGE 14A RAMP ET
DESIGN SPEED = 25 MPH

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

P-40
P-47

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

INTERCHANGE 14A RAMP ET PROFILE

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

253
375

	BY	DATE
MADE:	JMC	07/2022
TRACED:	RSE	07/2022
CHECKED:	GTK	07/2022
SUPERVISED:	RBM	

FILE NAME: T3820_PD_P-40_14A_Ramp_ET.dgn

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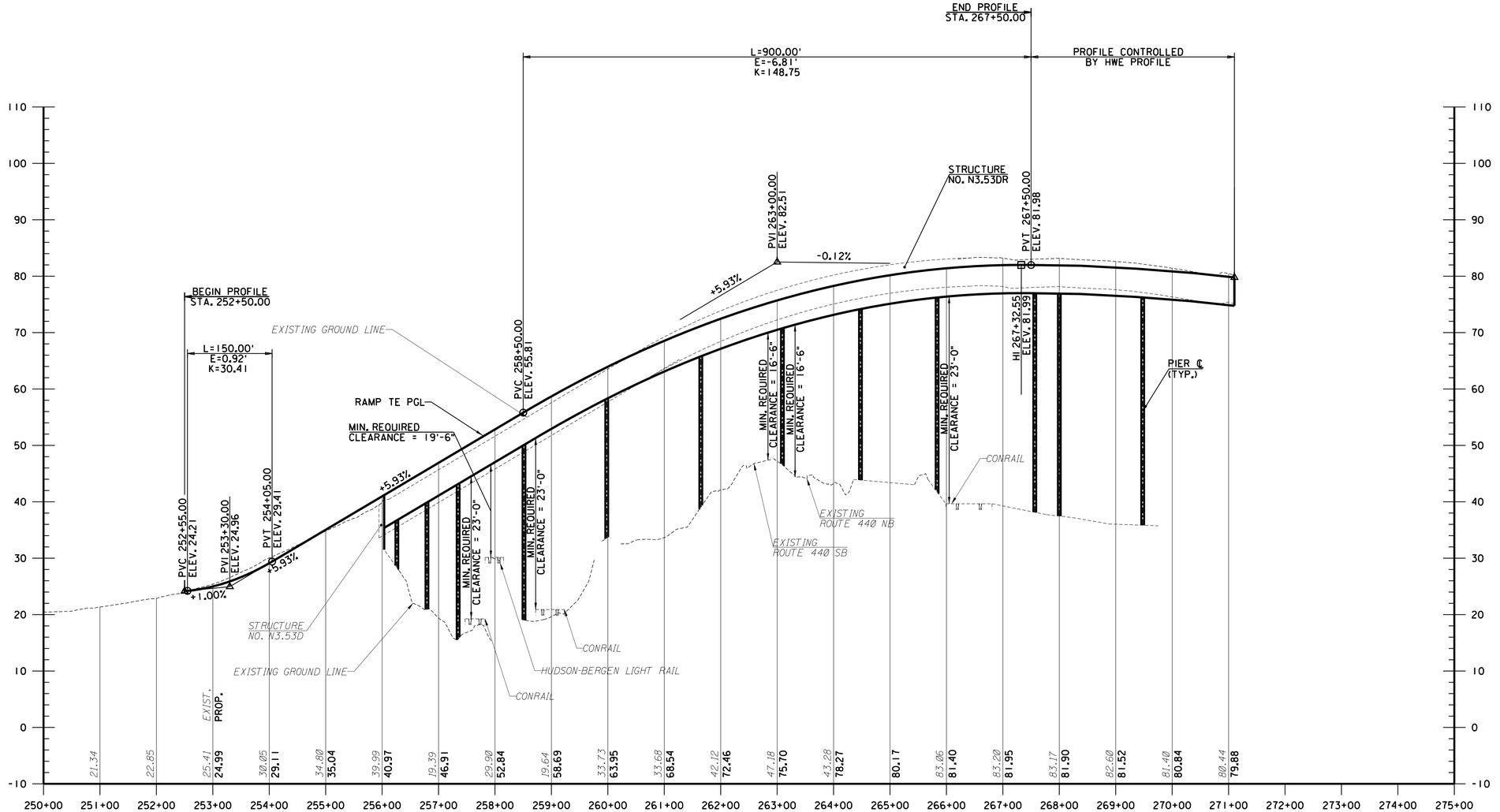

INTERCHANGE 14A RAMP TE

DESIGN SPEED = 25 MPH

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

P-41
P-47

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

INTERCHANGE 14A RAMP TE PROFILE

	BY	DATE
MADE:	JMC	07/2022
TRACED:	RSE	07/2022
CHECKED:	GTK	07/2022
SUPERVISED:	RBM	

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V

DATE: JULY 2022

254
375

FILE NAME: T3820_PD_P-41_14A_Ramp_TE.dgn

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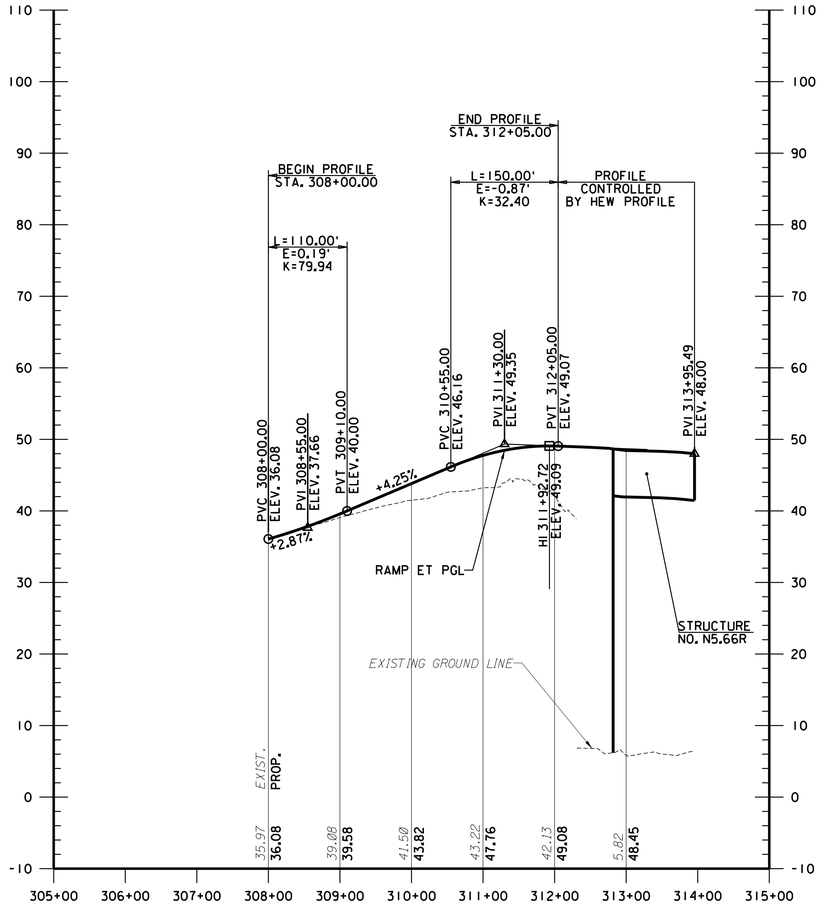
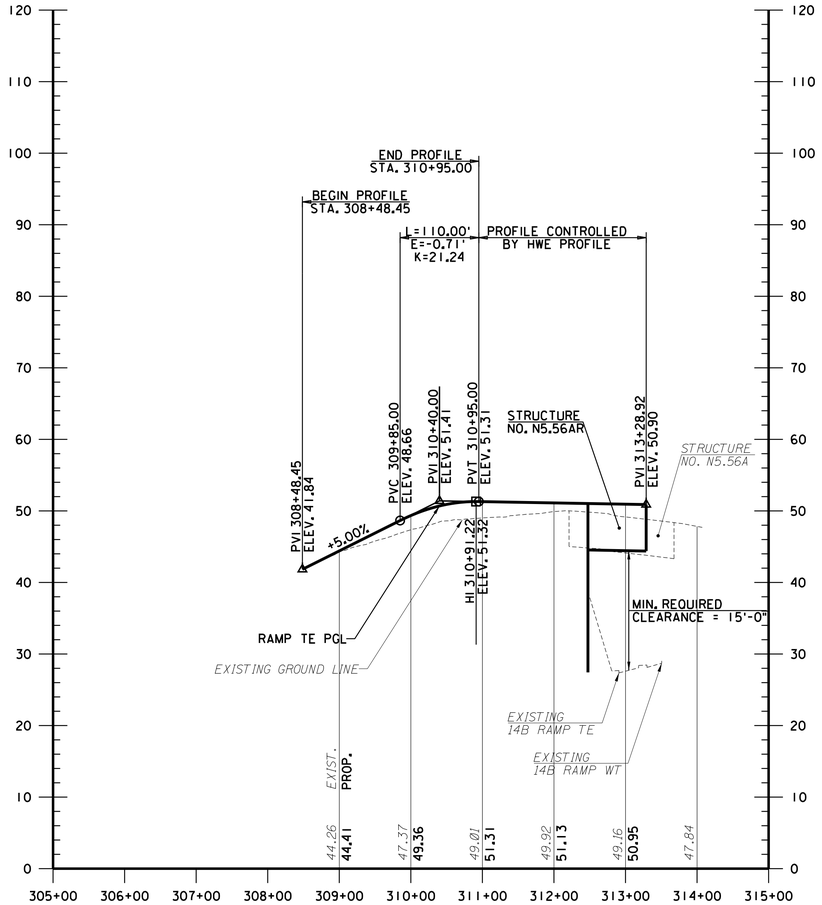


INTERCHANGE 14B RAMP ET
DESIGN SPEED = 25 MPH



INTERCHANGE 14B RAMP TE
DESIGN SPEED = 25 MPH

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

P-42
P-47

	BY	DATE
MADE:	JMC	07/2022
TRACED:	RSE	07/2022
CHECKED:	GTK	07/2022
SUPERVISED:	RBM	

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

INTERCHANGE 14B
RAMP ET and RAMP TE PROFILE

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

255
375

FILE NAME: T3820_PD_P-42_14B_Ramp_ET_TE.dgn

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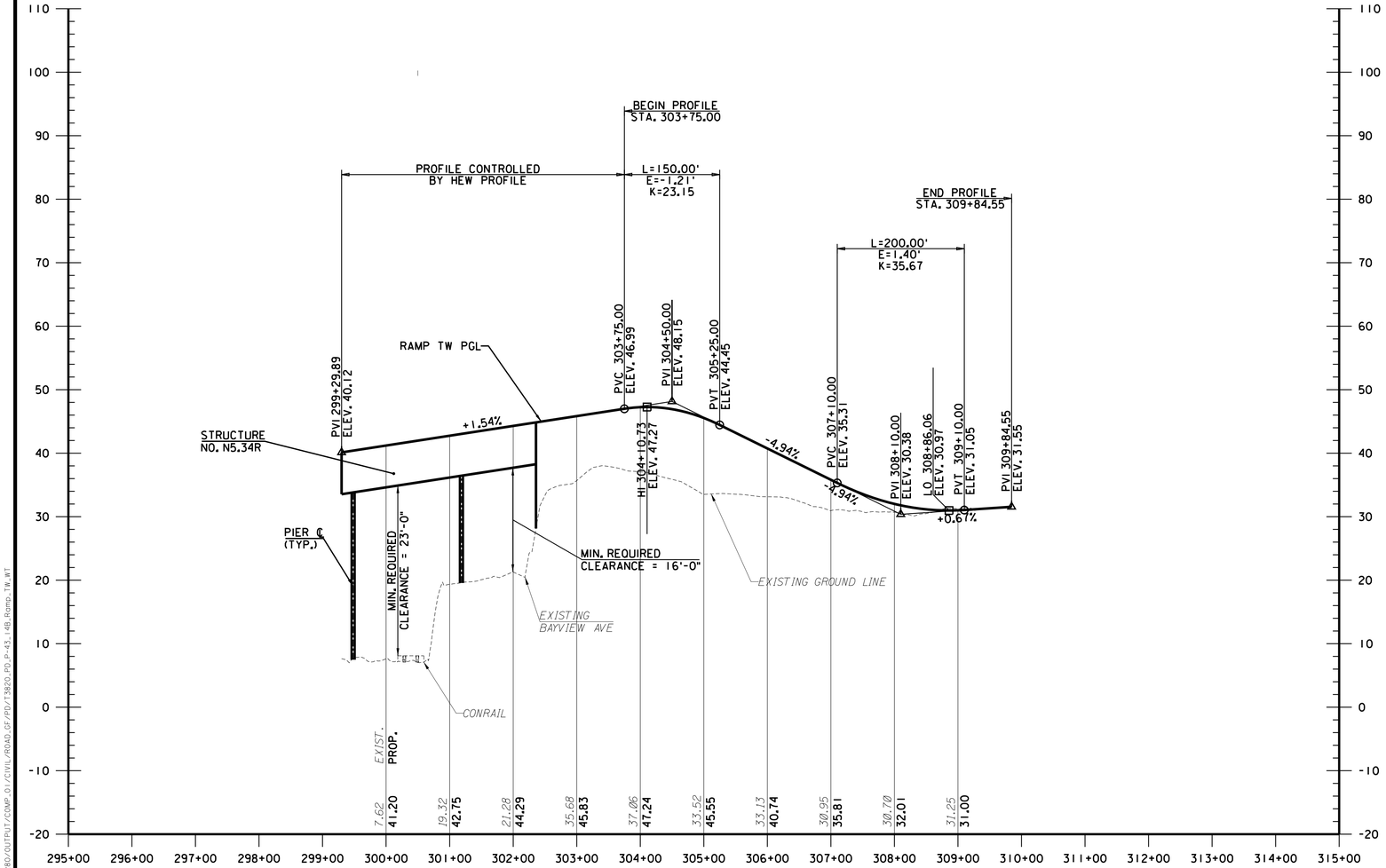
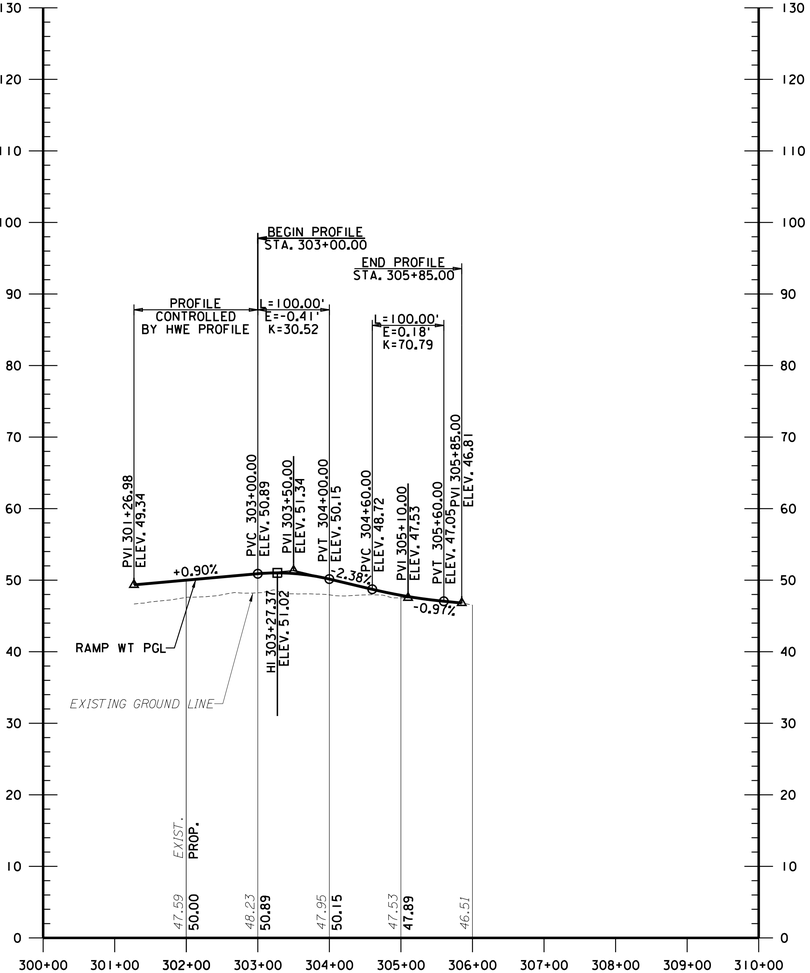


INTERCHANGE 14B RAMP TW
DESIGN SPEED = 25 MPH



INTERCHANGE 14B RAMP WT
DESIGN SPEED = 25 MPH

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

P-43
P-47

	BY	DATE
MADE:	JMC	07/2022
TRACED:	RSE	07/2022
CHECKED:	GTK	07/2022
SUPERVISED:	RBM	

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

INTERCHANGE 14B
RAMP TW AND RAMP WT PROFILES

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

256
375

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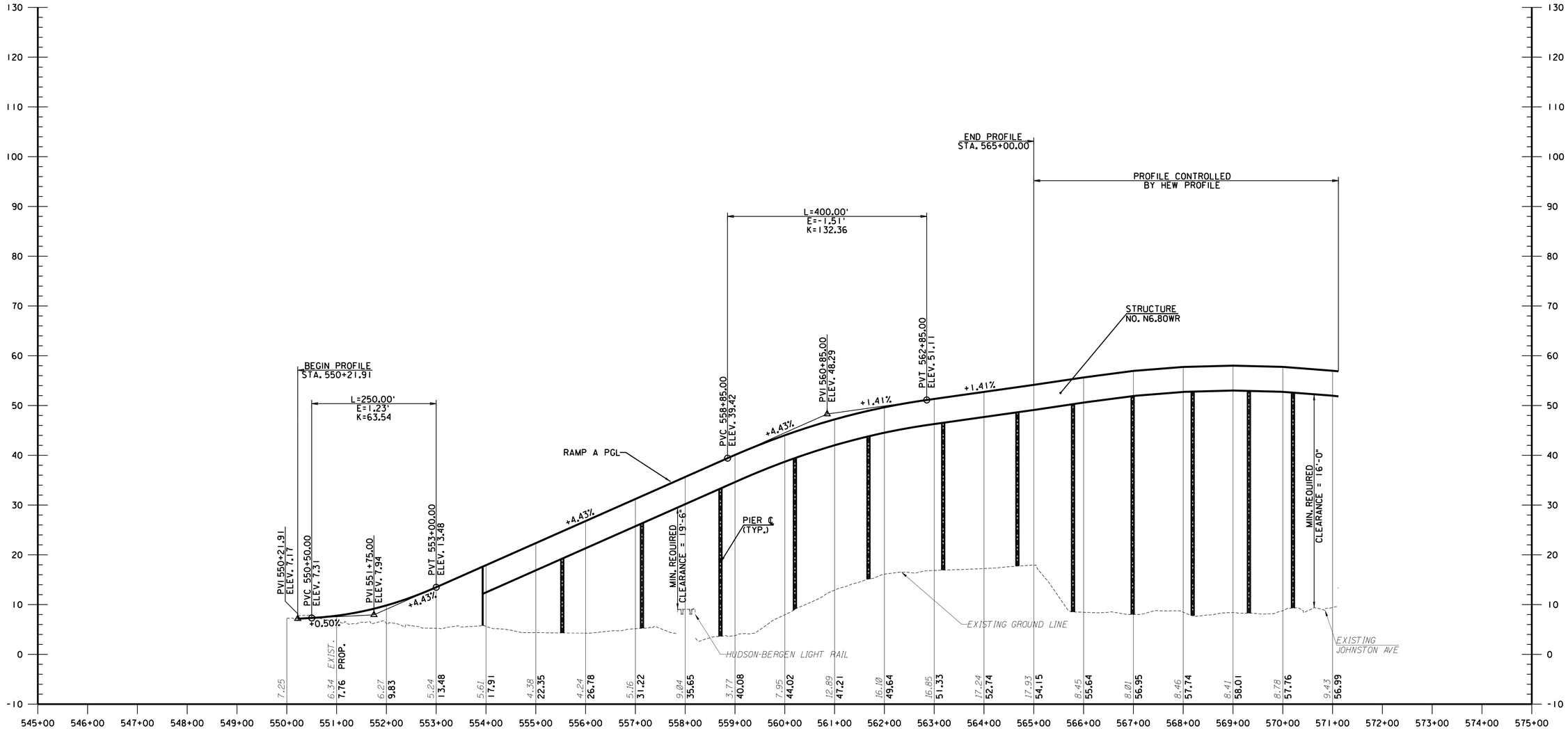

RAMP A
DESIGN SPEED = 45 MPH

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

P-46
P-47

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

RAMP A PROFILE

	BY	DATE
MADE:	JLG	07/2022
TRACED:	JMC	07/2022
CHECKED:	NAD	07/2022
SUPERVISED:	RBM	

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'H 1"=10'V
DATE: JULY 2022

259
375

FILE NAME: T3820_PD_P-46_Ramp_A.dgn

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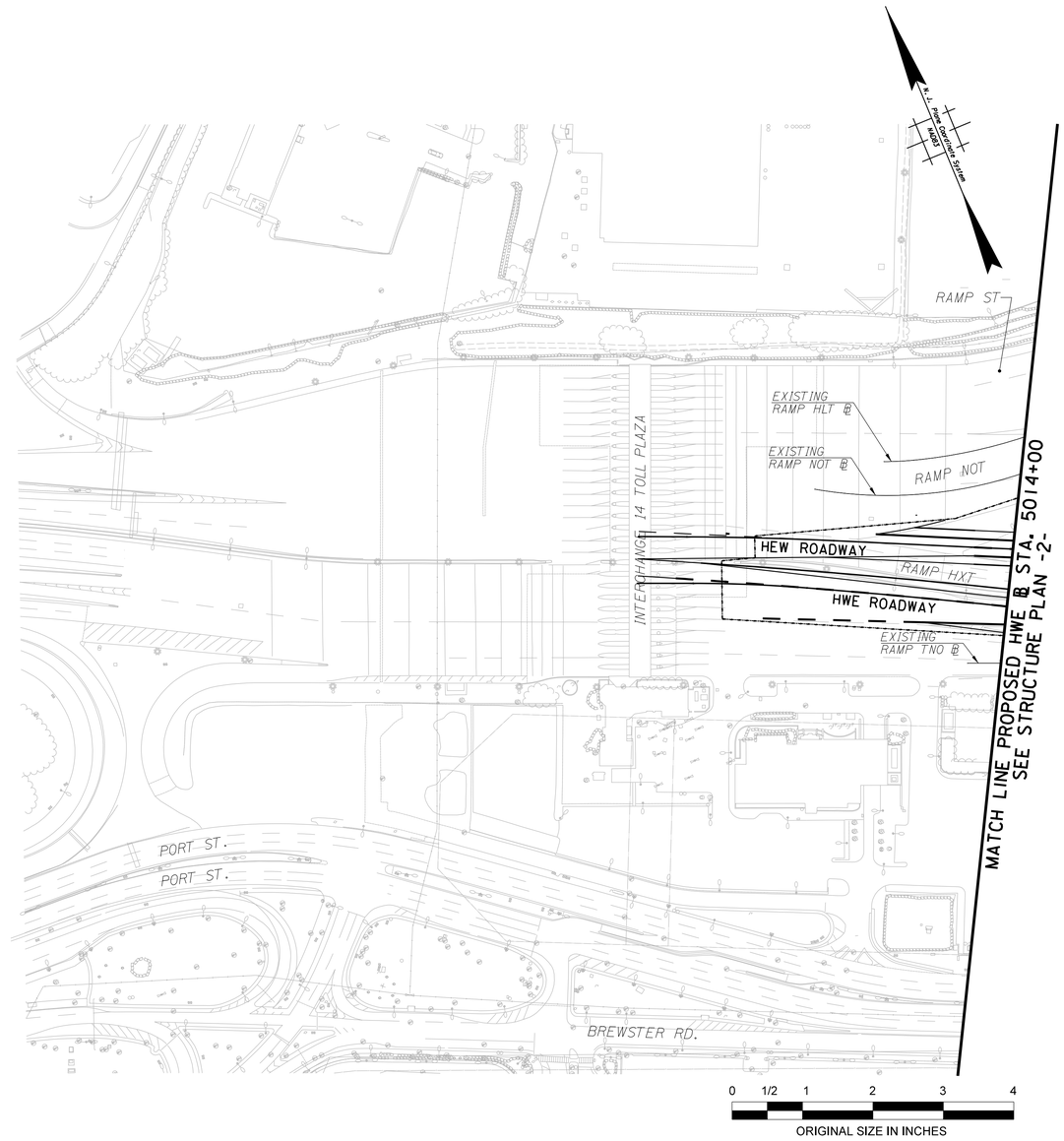
CITY OF NEWARK

COUNTY OF ESSEX



NOTE:

1. NO STRUCTURES ON THIS SHEET.

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GRS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steqvik
PLOT DATE: 22-JUL-2022 11:53
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE PLAN -1-
PRELIMINARY SUBSTRUCTURE LAYOUT

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 100'
DATE: JULY 2022

S-1
S-79

297
375

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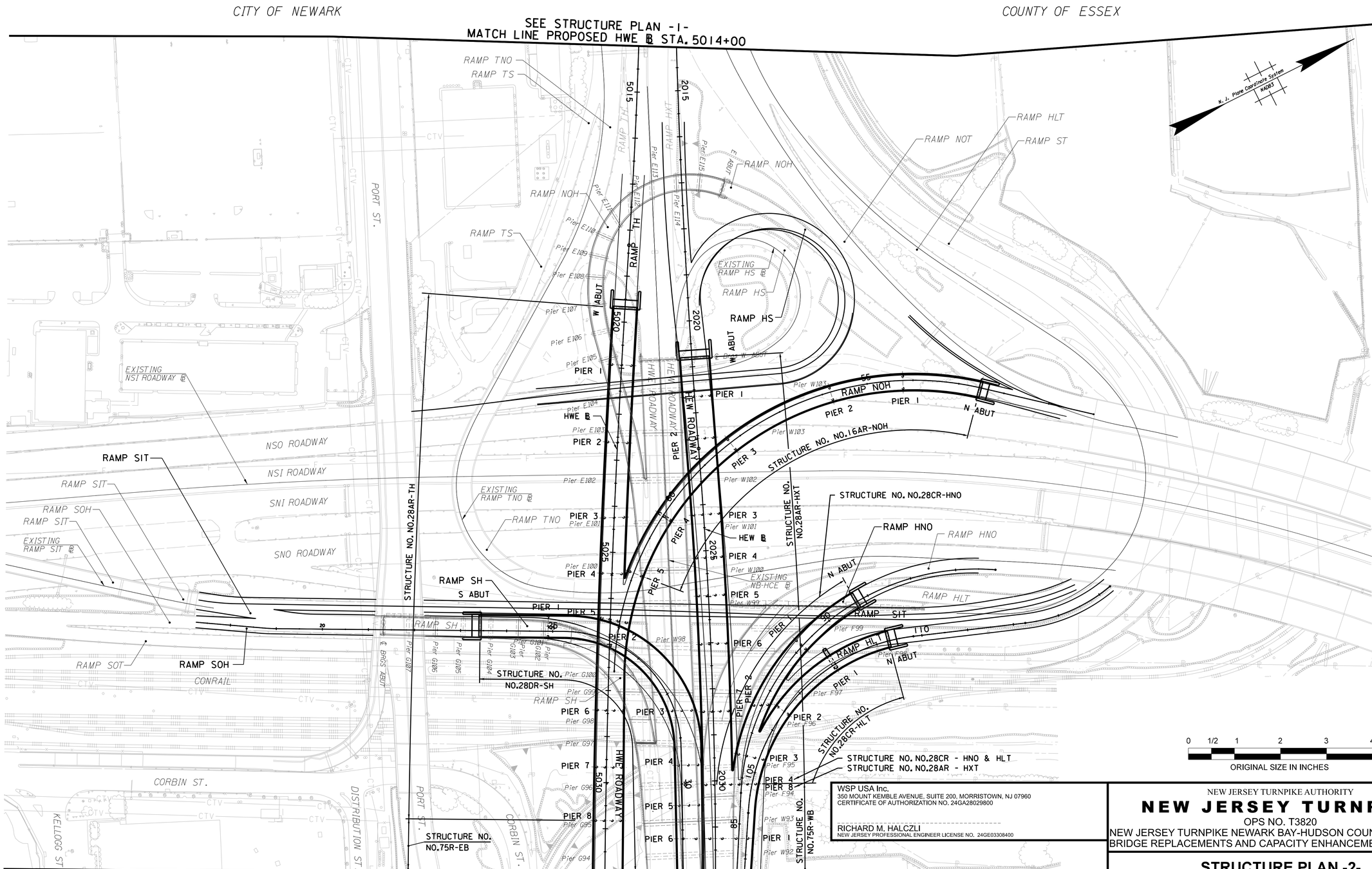

MATCH LINE PROPOSED HWE ℄ STA. 5032+00
SEE STRUCTURE PLAN -3-

S-2
S-79

WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE PLAN -2-
PRELIMINARY SUBSTRUCTURE LAYOUT

LEGEND:

- ABUTMENT
- WALL PIER
- MULTI-COLUMN PIER
- STRADDLE BENT PIER (GIRDER ON TOP)
- HAMMERHEAD PIER
- EXISTING PIER FOUNDATION

NOTE:

1. STRUCTURE LIMITS AND PIER NUMBERING ARE FOR PRELIMINARY DESIGN ONLY AND ARE SUBJECT TO CHANGE.
2. PIER TYPES SHOWN ARE BASED ON PRELIMINARY DESIGN CONSIDERATIONS. THE SYMBOLOGY USED TO REPRESENT THE PIER TYPES ARE GRAPHIC ONLY AND ARE NOT INTENDED TO REPRESENT FINAL PIER PROPORTIONS AND DIMENSIONS.

JULY 2022 CONCEPT PLANS

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GRS	7/22
SUPERVISED	R. HALCZLI	

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 100'
DATE: JULY 2022

298
375

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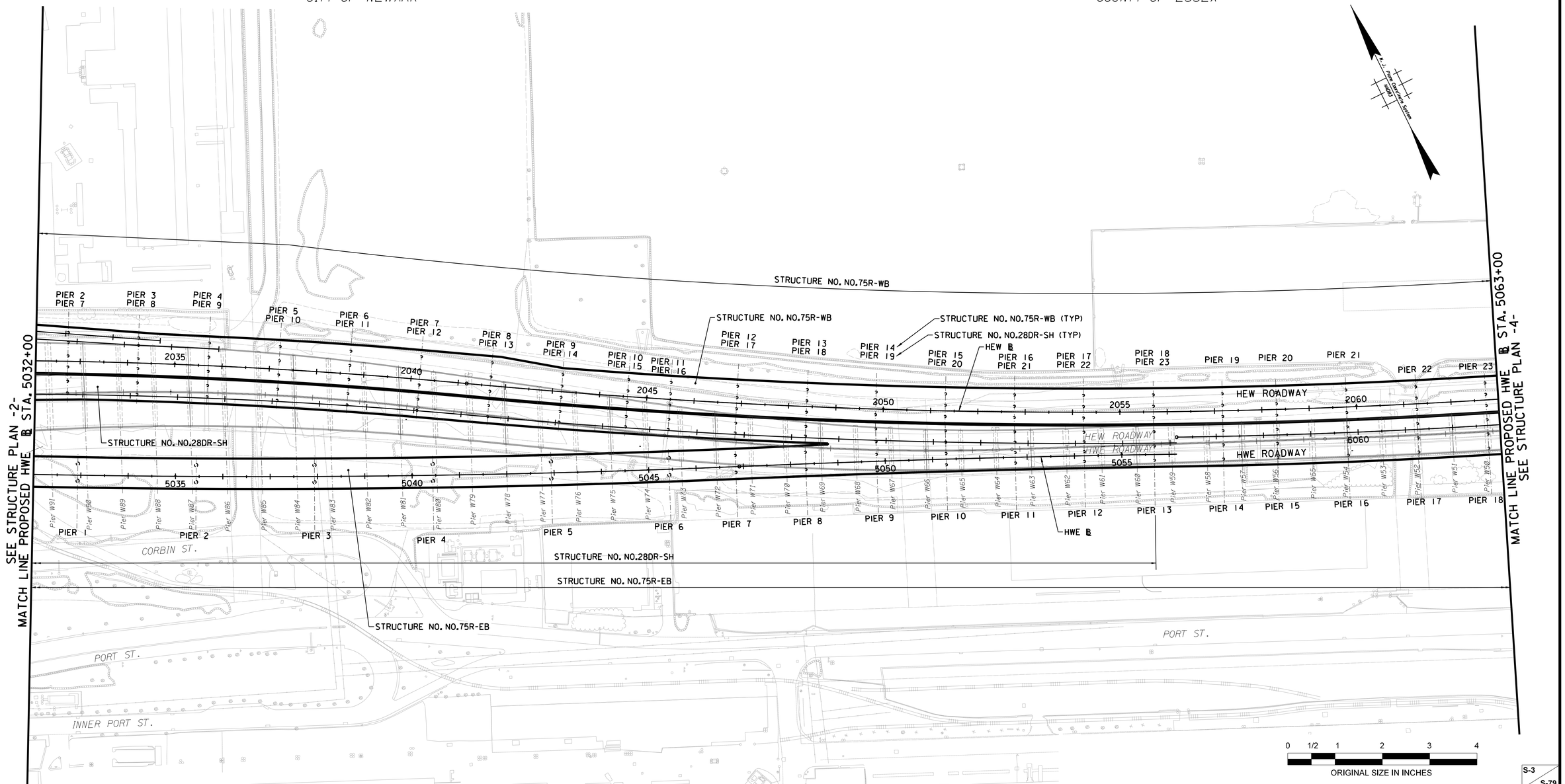

S-3
S-79

WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE PLAN -3-
PRELIMINARY SUBSTRUCTURE LAYOUT

NOTE:

1. STRUCTURE LIMITS AND PIER NUMBERING ARE FOR PRELIMINARY DESIGN ONLY AND ARE SUBJECT TO CHANGE.
2. PIER TYPES SHOWN ARE BASED ON PRELIMINARY DESIGN CONSIDERATIONS. THE SYMBOLOGY USED TO REPRESENT THE PIER TYPES ARE GRAPHIC ONLY AND ARE NOT INTENDED TO REPRESENT FINAL PIER PROPORTIONS AND DIMENSIONS.

LEGEND:

- ABUTMENT
- HAMMERHEAD PIER
- MULTI-COLUMN PIER
- WALL PIER
- STRADDLE BENT PIER (GIRDER ON TOP)
- EXISTING PIER FOUNDATION

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GRS	7/22
SUPERVISED	R. HALCZLI	

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 100'
DATE: JULY 2022

299
375

FILE NAME: T3820_STRC_PLAN_003.dgn

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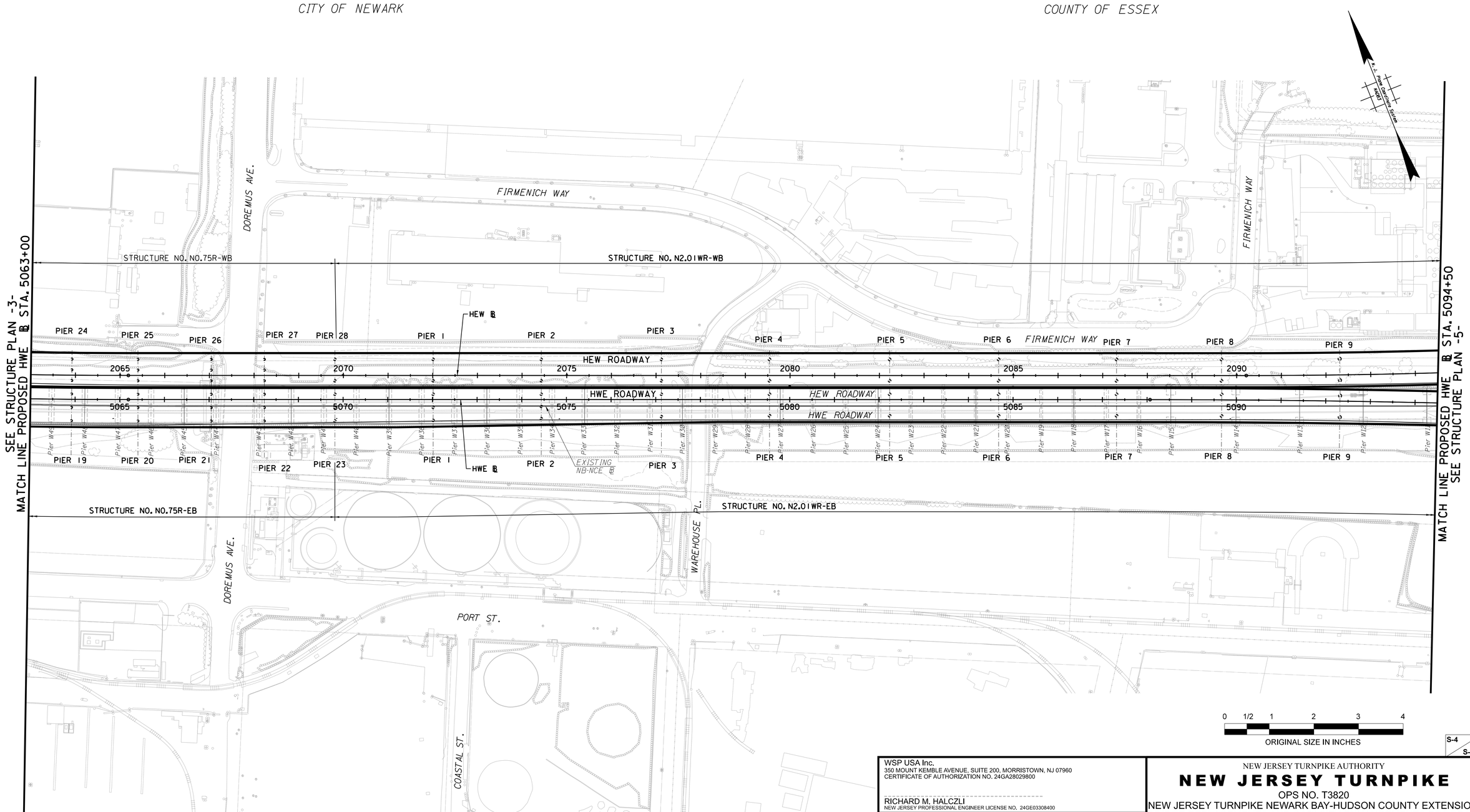

S-4
S-79

NOTE:

1. STRUCTURE LIMITS AND PIER NUMBERING ARE FOR PRELIMINARY DESIGN ONLY AND ARE SUBJECT TO CHANGE.
2. PIER TYPES SHOWN ARE BASED ON PRELIMINARY DESIGN CONSIDERATIONS. THE SYMBOLOGY USED TO REPRESENT THE PIER TYPES ARE GRAPHIC ONLY AND ARE NOT INTENDED TO REPRESENT FINAL PIER PROPORTIONS AND DIMENSIONS.

LEGEND:

- ABUTMENT
- HAMMERHEAD PIER
- MULTI-COLUMN PIER
- WALL PIER
- STRADDLE BENT PIER (GIRDER ON TOP)
- EXISTING PIER FOUNDATION

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GRS	7/22
SUPERVISED	R. HALCZLI	

WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE PLAN -4- PRELIMINARY SUBSTRUCTURE LAYOUT

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 100'

DATE: JULY 2022

300
375

FILE NAME: T3820_STRC_PLAN_004.dgn

PLOT BY: Steeple
PLOT DATE: 22-JUL-2022 11:54
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CITY OF NEWARK

COUNTY OF ESSEX

N.J. State Plane Coordinate System NAD83

SEE STRUCTURE PLAN -4-
MATCH LINE PROPOSED HWE ℄ STA. 5094+50

STRUCTURE NO. N.2.01WR-WB

STRUCTURE NO. N2.01R-WB

STRUCTURE NO. N2.01ER-WB

HEW ℄

MAIN SPAN PYLON (TYP)

PIER 10 PIER 11 PIER 12 PIER 13 PIER 14 PIER 15 PIER 1 PIER 2 PIER 3 PIER 1

HEW ROADWAY

2095 2100 2105 2110 2115 2120 2125

EXISTING NB-NCE ℄

HEW ROADWAY

HWE ROADWAY

5095 5100 5105 5110 5115 5120 5125

HWE ROADWAY

PIER 10 PIER 11 PIER 12 PIER 13 PIER 14 PIER 15 PIER 1 PIER 2 PIER 3 PIER 1

HWE ℄

STRUCTURE NO. N2.01WR-EB

STRUCTURE NO. N2.01R-EB

STRUCTURE NO. N2.01ER-EB

MATCH LINE PROPOSED HWE ℄ STA. 5126+50
SEE STRUCTURE PLAN -6-

E PORT ST.

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

S-5
S-79

NOTE:

1. STRUCTURE LIMITS AND PIER NUMBERING ARE FOR PRELIMINARY DESIGN ONLY AND ARE SUBJECT TO CHANGE.
2. PIER TYPES SHOWN ARE BASED ON PRELIMINARY DESIGN CONSIDERATIONS. THE SYMBOLOGY USED TO REPRESENT THE PIER TYPES ARE GRAPHIC ONLY AND ARE NOT INTENDED TO REPRESENT FINAL PIER PROPORTIONS AND DIMENSIONS.

LEGEND:

ABUTMENT

MULTI-COLUMN PIER

STRADDLE BENT PIER (GIRDER ON TOP)

HAMMERHEAD PIER

WALL PIER

EXISTING PIER FOUNDATION

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GRS	7/22
SUPERVISED	R. HALCZLI	

WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE PLAN -5- PRELIMINARY SUBSTRUCTURE LAYOUT

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03790000

SCALE: 1" = 100'

DATE: JULY 2022

301
375

FILE NAME: T3820_STRC_PLAN_005.dgn

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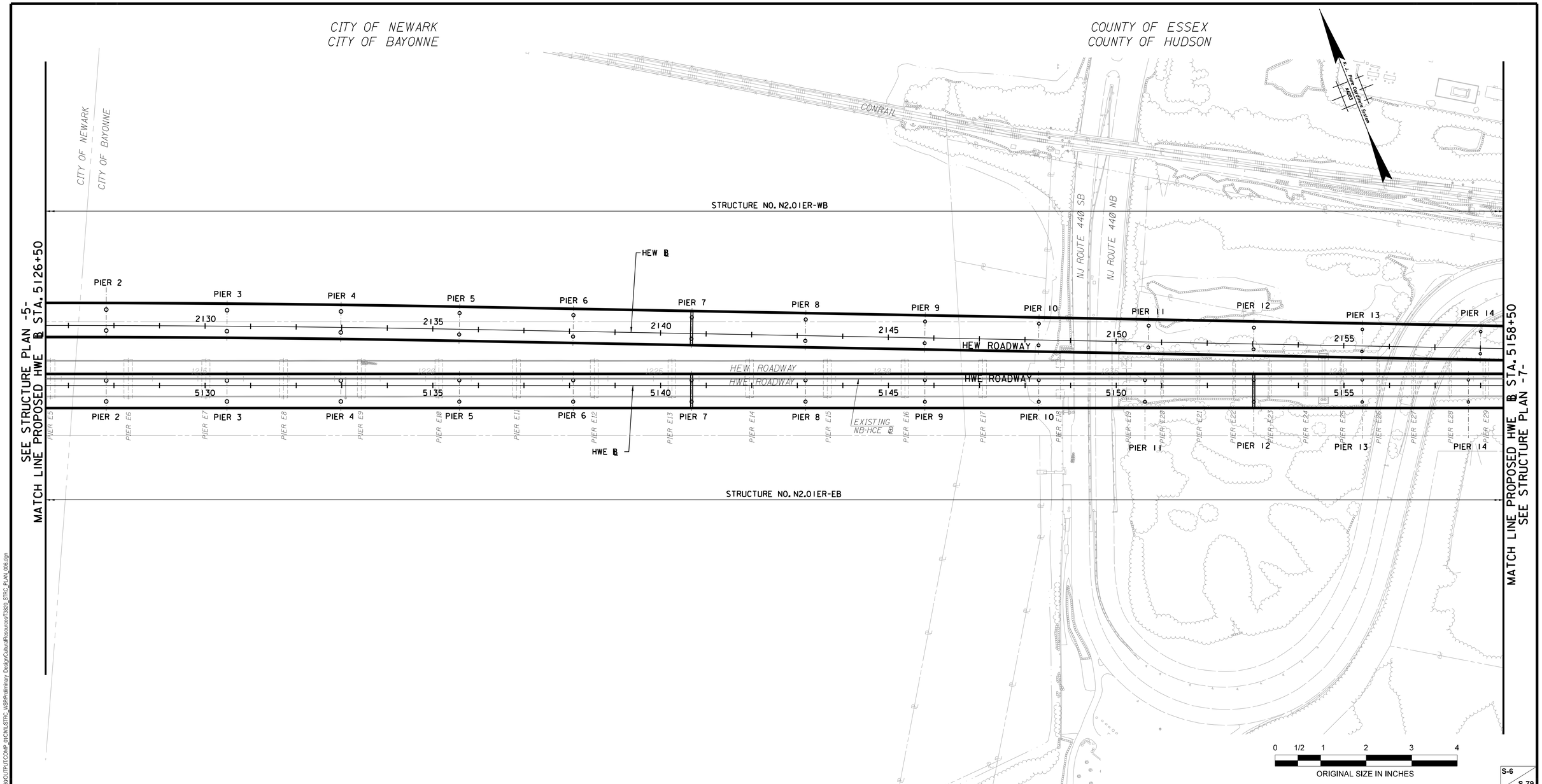

S-6
S-79

NOTES:

1. STRUCTURE LIMITS AND PIER NUMBERING ARE FOR PRELIMINARY DESIGN ONLY AND ARE SUBJECT TO CHANGE.
2. PIER TYPES SHOWN ARE BASED ON PRELIMINARY DESIGN CONSIDERATIONS. THE SYMBOLOGY USED TO REPRESENT THE PIER TYPES ARE GRAPHIC ONLY AND ARE NOT INTENDED TO REPRESENT FINAL PIER PROPORTIONS AND DIMENSIONS.

LEGEND:

- ABUTMENT
- HAMMERHEAD PIER
- MULTI-COLUMN PIER
- WALL PIER
- STRADDLE BENT PIER (GIRDER ON TOP)
- EXIISTING PIER FOUNDATION

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GRS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steeple
PLOT DATE: 17-APR-2023 12:35
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE PLAN -6-
PRELIMINARY SUBSTRUCTURE LAYOUT

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 100'
DATE: JULY 2022

302
375

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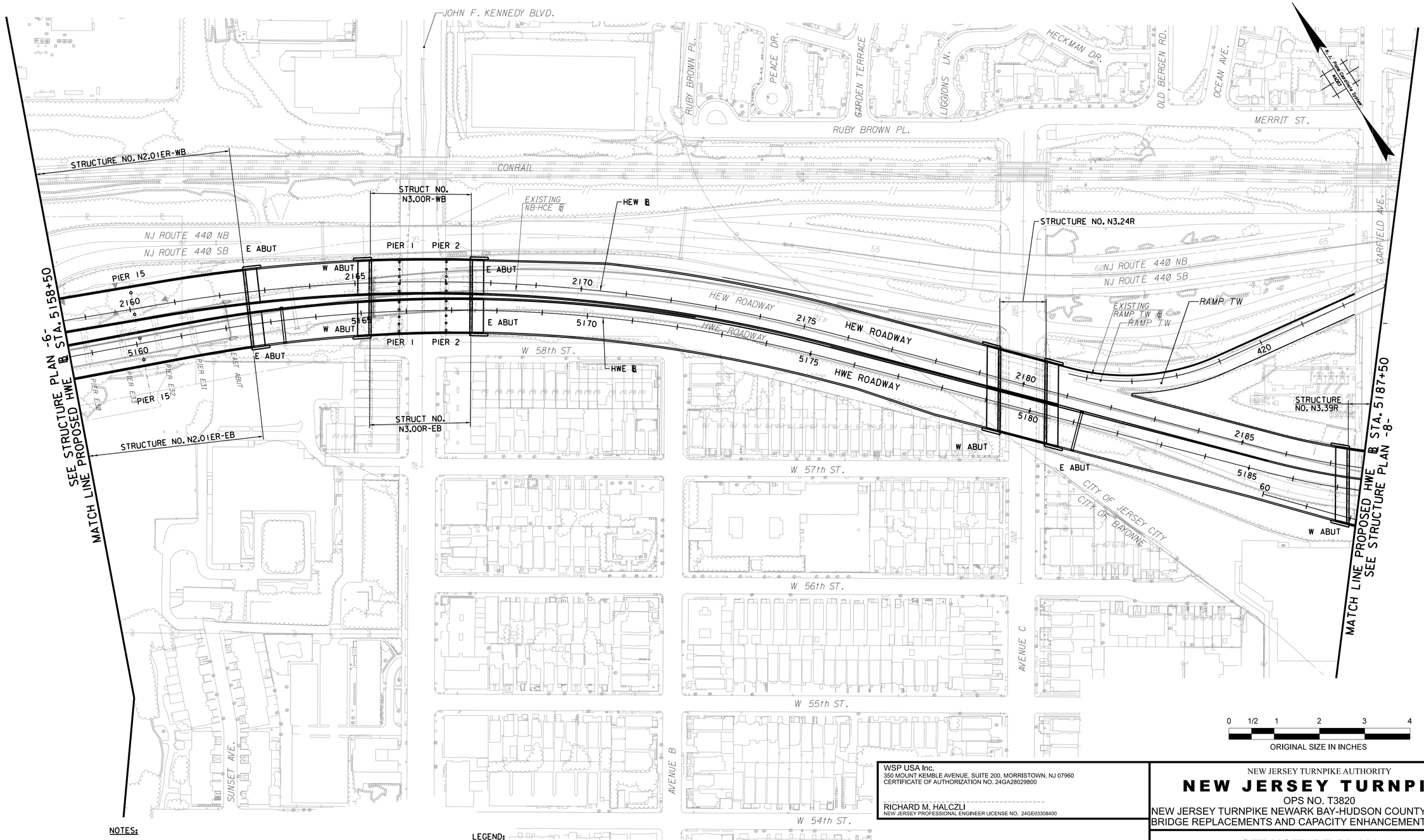

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

S-7
S-79

NOTES:

1. STRUCTURE LIMITS AND PIER NUMBERING ARE FOR PRELIMINARY DESIGN ONLY AND ARE SUBJECT TO CHANGE.
2. PIER TYPES SHOWN ARE BASED ON PRELIMINARY DESIGN CONSIDERATIONS. THE SYMBOLOGY USED TO REPRESENT THE PIER TYPES ARE GRAPHIC ONLY AND ARE NOT INTENDED TO REPRESENT FINAL PIER PROPORTIONS AND DIMENSIONS.

LEGEND:

- ABUTMENT
- HAMMERHEAD PIER
- MULTI-COLUMN PIER
- WALL PIER
- STRADDLE BENT PIER (GIRDER ON TOP)
- EXISTING PIER FOUNDATION

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GRS	7/22
SUPERVISED	R. HALCZLI	

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PLOT DATE: 17-APR-2023 12:35
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE PLAN -7- PRELIMINARY SUBSTRUCTURE LAYOUT

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 100'
DATE: JULY 2022

303
375

FILE NAME: T3820_STRC_PLAN_007.dgn

CITY OF JERSEY CITY

COUNTY OF HUDSON

SEE STRUCTURE PLAN -7-
MATCH LINE PROPOSED HWE ℄ STA. 5187+50

SEE STRUCTURE PLAN -9-
MATCH LINE PROPOSED HWE ℄ STA. 5219+00

GARFIELD AVE.

CATHERINE CT.

GATES AVE.

SEAVIEW AVE.

PRINCETON AVE.

N.J. State Plane Coordinate System NAD83

NJ ROUTE 440 NB

NJ ROUTE 440 SB

RAMP TW

RAMP ET

CONRAIL

HUDSON BERGEN LIGHT RAIL

E. ABUT

STRUCTURE NO. N3.39R

STRUCTURE NO. N3.73R

STRUCTURE NO. N3.53DR

HEW ROADWAY

HWE ROADWAY

W. ABUT

PIER 1 PIER 2 PIER 3 PIER 4 PIER 5 PIER 6 PIER 7 PIER 8 PIER 9 PIER 10 PIER 11 PIER 12 PIER 13 PIER 14 PIER 15 PIER 16 PIER 17 PIER 18 PIER 19 PIER 20 PIER 21 PIER 22 PIER 23 PIER 24 PIER 25 PIER 26 PIER 27

PIER TE-1 PIER TE-2 PIER TE-3 PIER TE-4 PIER TE-5 PIER TE-6 PIER TE-7 PIER TE-8 PIER TE-9

PIER D1 PIER D2 PIER D3 PIER D4 PIER D5 PIER D6

RAMP D ABUT

RAMP TE ℄

HWE ℄

EXISTING NB HCE ℄

EXISTING RAMP TE ℄

INTERCHANGE 14A TOLL PLAZA

NJ ROUTE 185 SB

NJ ROUTE 185 NB

2190 5190 65 10 2195 5195 2200 5200 260 255 250 2205 5205 265 270 2210 5210 2215 5215

0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

S-8
S-79

LEGEND:

- ABUTMENT
- MULTI-COLUMN PIER
- HAMMERHEAD PIER
- WALL PIER
- STRADDLE BENT PIER (GIRDER ON TOP)
- EXISTING PIER FOUNDATION

NOTES:

1. STRUCTURE LIMITS AND PIER NUMBERING ARE FOR PRELIMINARY DESIGN ONLY AND ARE SUBJECT TO CHANGE.
2. PIER TYPES SHOWN ARE BASED ON PRELIMINARY DESIGN CONSIDERATIONS. THE SYMBOLOGY USED TO REPRESENT THE PIER TYPES ARE GRAPHIC ONLY AND ARE NOT INTENDED TO REPRESENT FINAL PIER PROPORTIONS AND DIMENSIONS.

	BY	DATE
MADE:	BK	07/22
TRACED:	ST	07/22
CHECKED:	VT	07/22
SUPERVISED:	JK	

SJH ENGINEERING, P.C.
3700 ROUTE 27, SUITE 201, PRINCETON, NJ 08540

S. JAYAKUMARAN
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04007600

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE PLAN -8-
PRELIMINARY SUBSTRUCTURE LAYOUT

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'

DATE: JULY 2022

304
375

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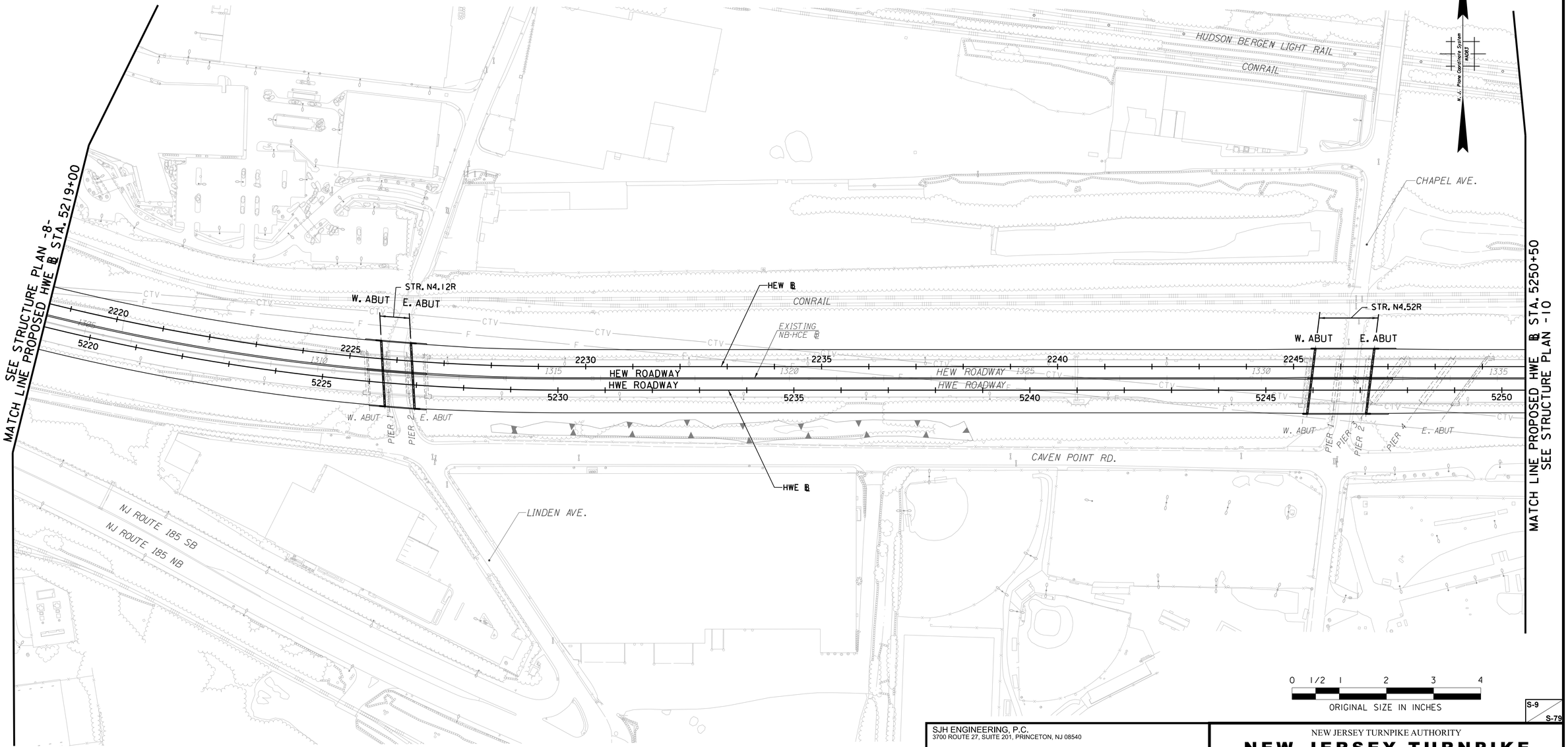
CITY OF JERSEY CITY

COUNTY OF HUDSON



0 1/2 1 2 3 4

ORIGINAL SIZE IN INCHES

S-9
S-79

NOTES:

1. STRUCTURE LIMITS AND PIER NUMBERING ARE FOR PRELIMINARY DESIGN ONLY AND ARE SUBJECT TO CHANGE.
2. PIER TYPES SHOWN ARE BASED ON PRELIMINARY DESIGN CONSIDERATIONS. THE SYMBOLOGY USED TO REPRESENT THE PIER TYPES ARE GRAPHIC ONLY AND ARE NOT INTENDED TO REPRESENT FINAL PIER PROPORTIONS AND DIMENSIONS.

LEGEND:

- ABUTMENT
- MULTI-COLUMN PIER
- HAMMERHEAD PIER
- WALL PIER
- STRADDLE BENT PIER (GIRDER ON TOP)
- EXISTING PIER FOUNDATION

	BY	DATE
MADE:	BK	07/22
TRACED:	ST	07/22
CHECKED:	VT	07/22
SUPERVISED:	JK	

SJH ENGINEERING, P.C.
3700 ROUTE 27, SUITE 201, PRINCETON, NJ 08540

S. JAYAKUMARAN
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04007600

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE PLAN -9- PRELIMINARY SUBSTRUCTURE LAYOUT

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=100'

DATE: JULY 2022

305
375

FILE NAME: T3820_STRC_PLAN_009.dgn

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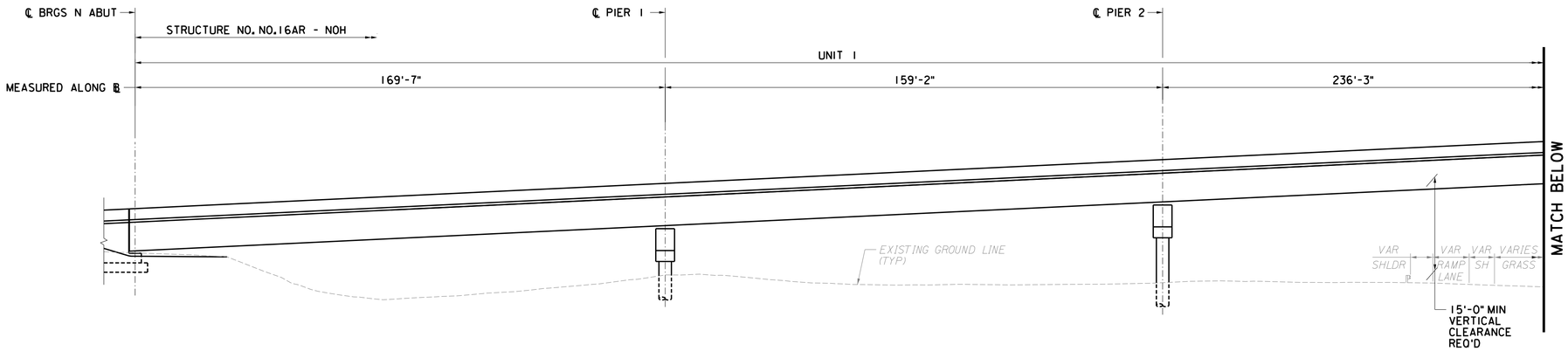

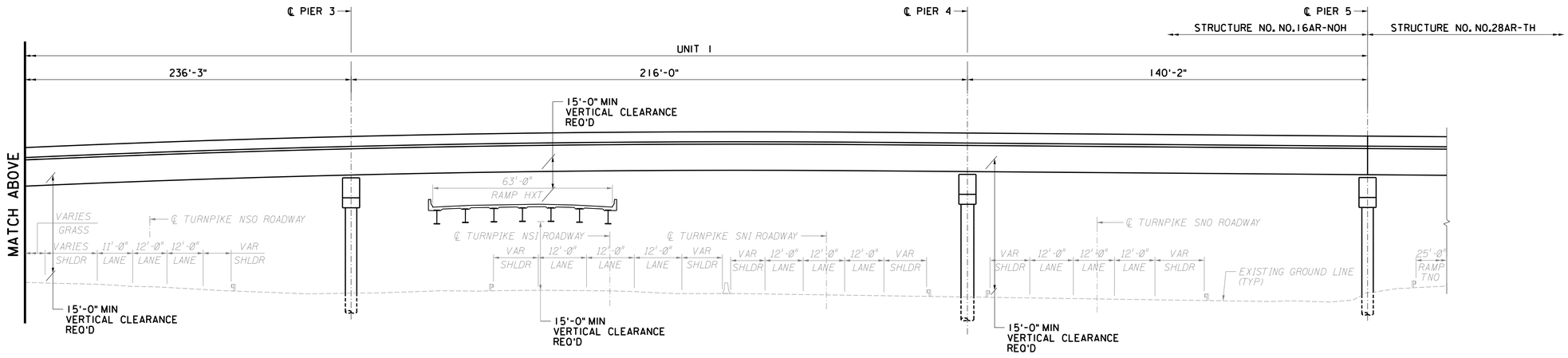

STRUCTURE NO. NO.16AR-NOH ELEVATION
(LOOKING EAST)

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-18
S-79

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steadle
PLOT DATE: 27-JUL-2022 19:37
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N0.16AR-NOH ELEVATION

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

314
375

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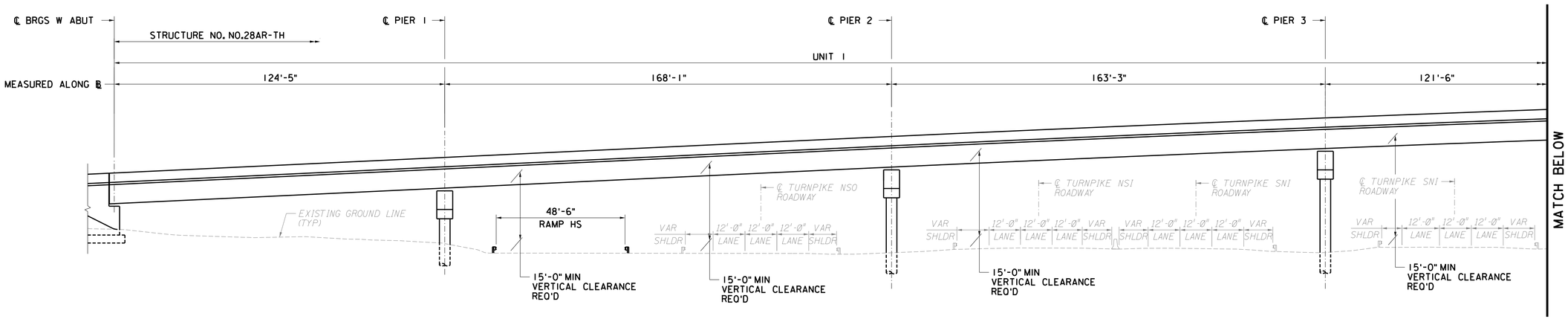

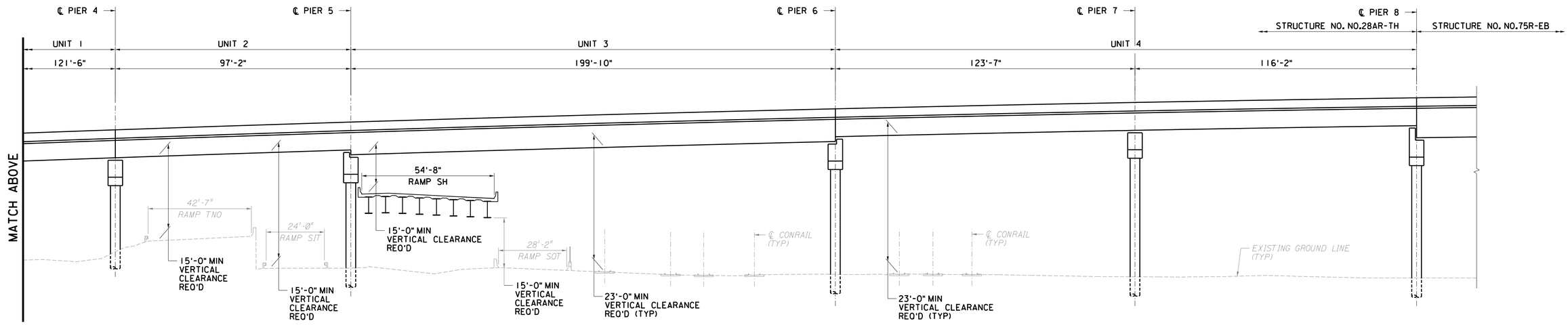

STRUCTURE NO. NO.28AR-TH ELEVATION
(LOOKING NORTH)

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-19
S-79

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steede
PLOT DATE: 27-JUL-2022 19:38
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N0.28AR-TH ELEVATION

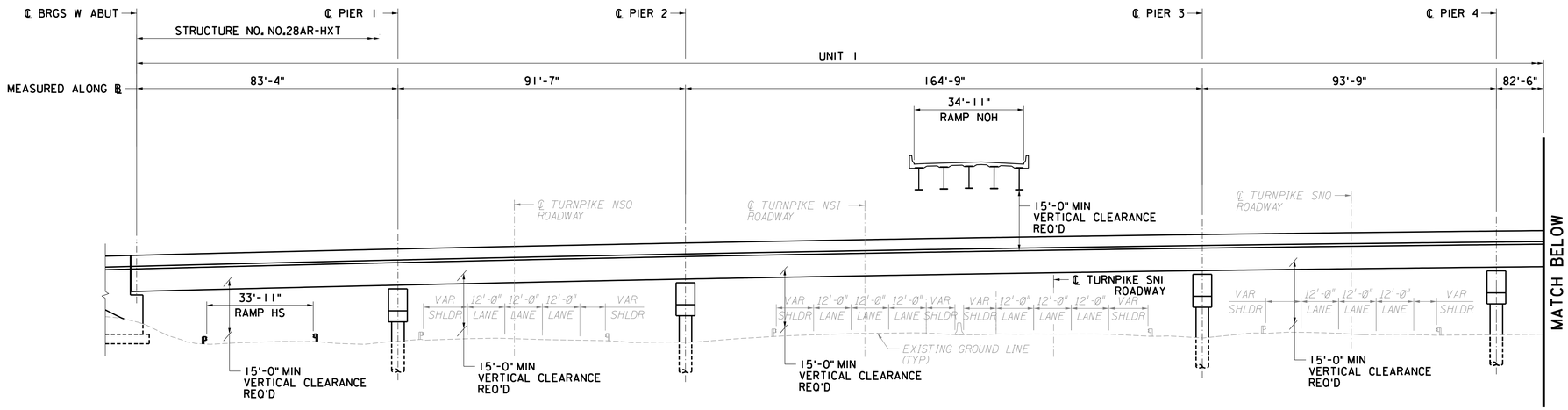
GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

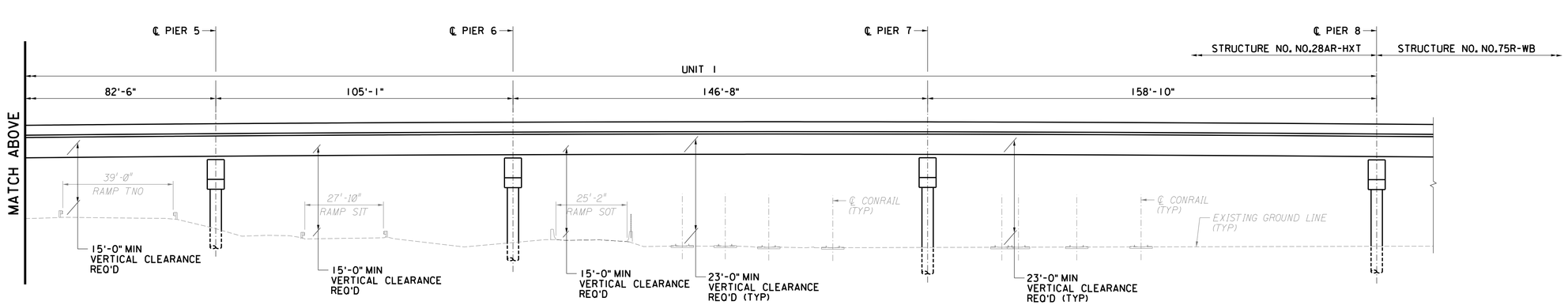
MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

315
375

FILE NAME: T3820_STRC_N0.28AR-TH_ELEV_001.dgn





STRUCTURE NO. NO.28AR-HXT ELEVATION
(LOOKING NORTH)

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-20
S-79

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steade
PLOT DATE: 27-JUL-2022 19:38
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N0.28AR-HXT ELEVATION

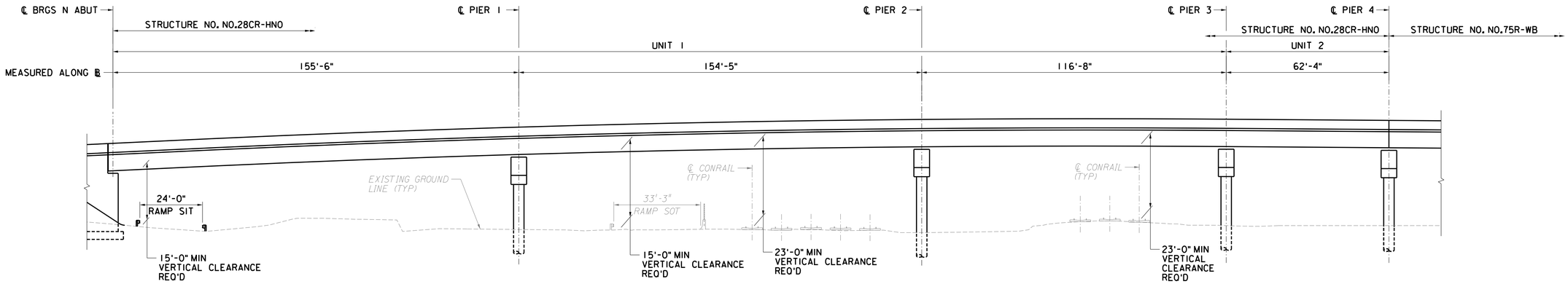
GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

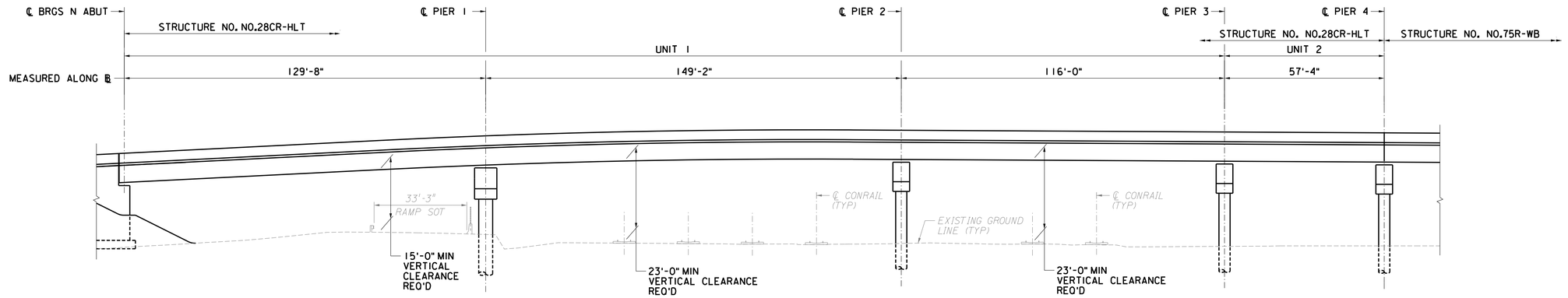
SCALE: 1" = 20'
DATE: JULY 2022

316
375

FILE NAME: T3820_STRC_N0.28AR-HXT_ELEV_001.dgn



STRUCTURE NO. NO.28CR-HNO ELEVATION
(LOOKING EAST)



STRUCTURE NO. NO.28CR-HLT ELEVATION
(LOOKING EAST)

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-21
S-79

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steade
PLOT DATE: 27-JUL-2022 19:38
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NOS. N0.28CR-HNO & HLT ELEVATIONS

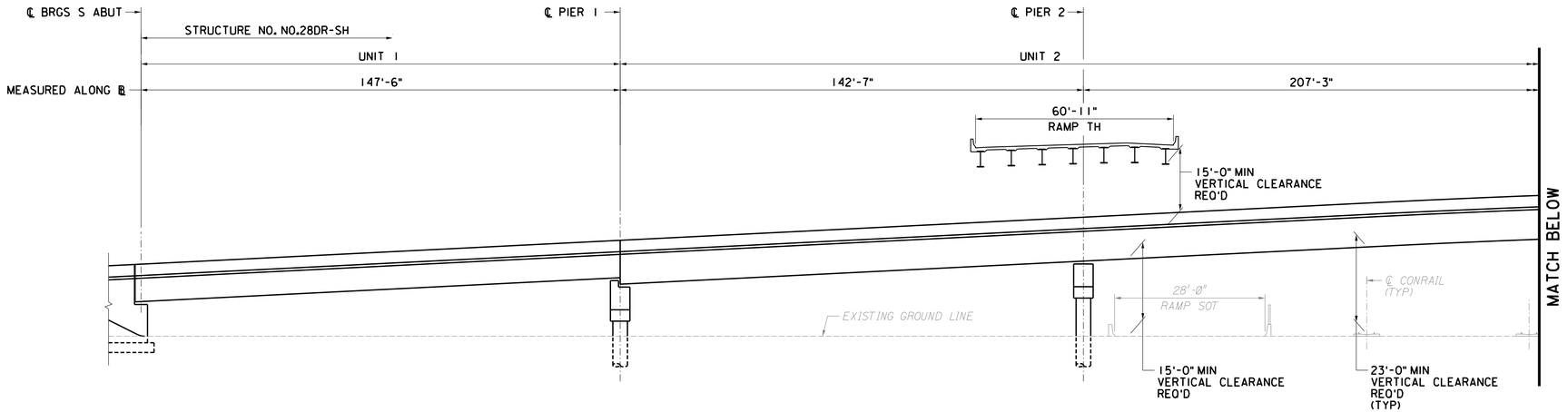
GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

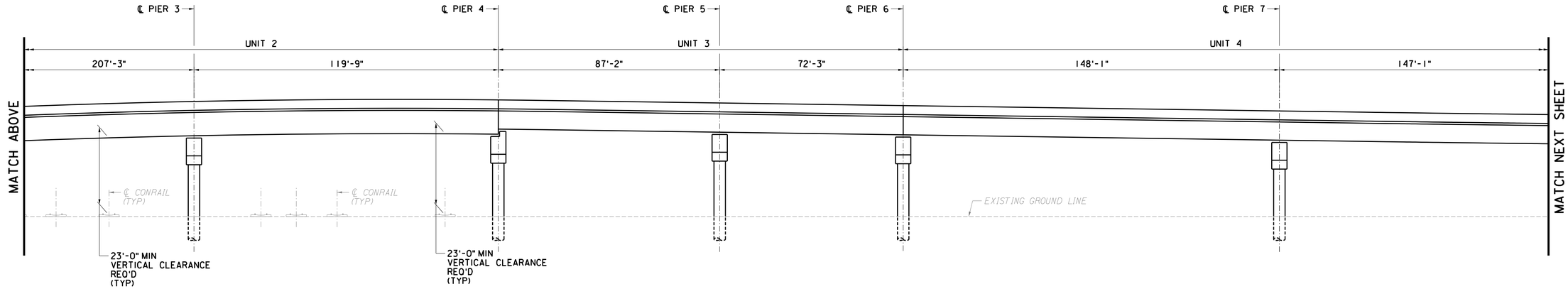
MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03379000

SCALE: 1" = 20'
DATE: JULY 2022

317
375

FILE NAME: T3820_STRC_N0.28CR_HNO_HLT_ELEV_001.dgn





STRUCTURE NO. N0.28DR-SH ELEVATION
(LOOKING NORTH)

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-22
S-79

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steadk
PLOT DATE: 27-JUL-2022 19:38
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N0.28DR-SH
ELEVATION - 1

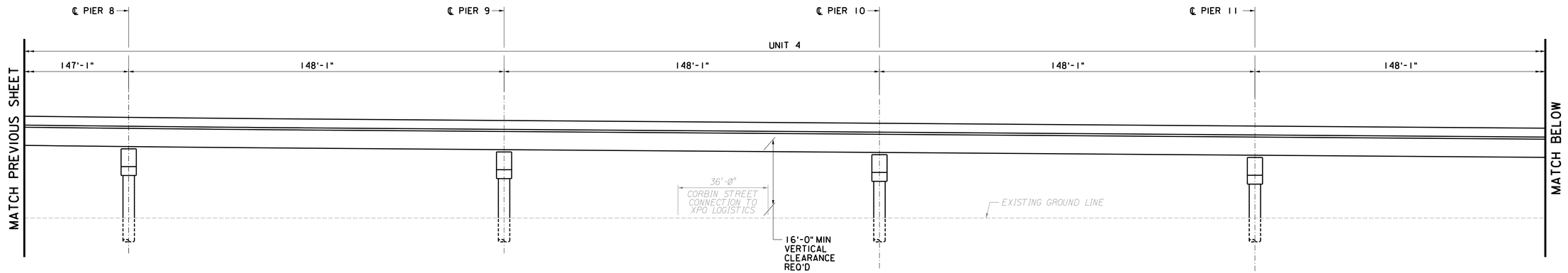
GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

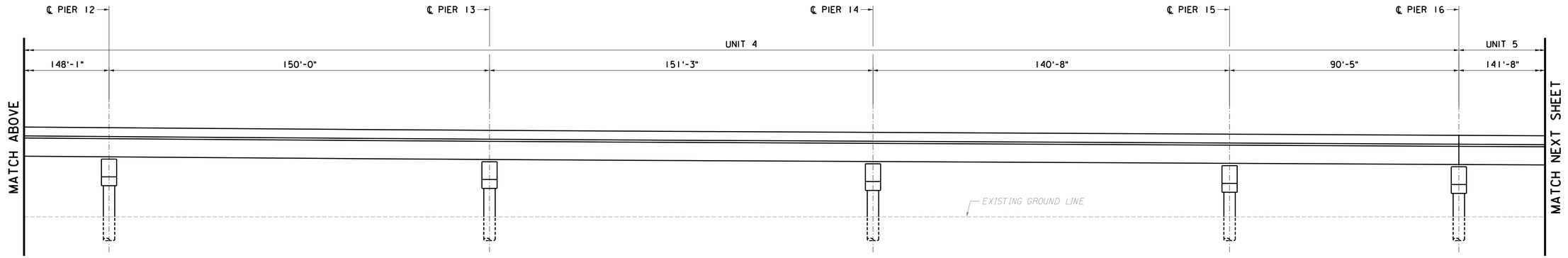
MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

318
375

FILE NAME: T3820_STRC_N0.28DR-SH_ELEV_001.dgn





STRUCTURE NO. N0.28DR-SH ELEVATION
(LOOKING NORTH)

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-23
S-79

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steadk
PLOT DATE: 27-JUL-2022 19:38
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N0.28DR-SH ELEVATION - 2

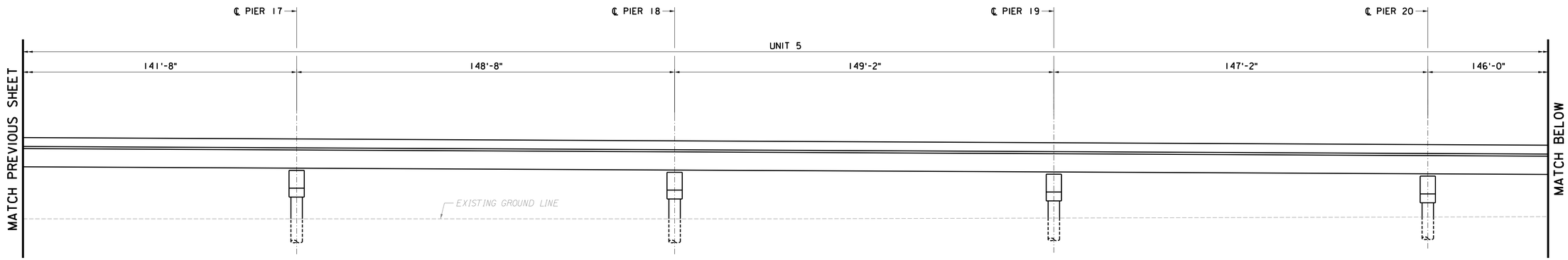
GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

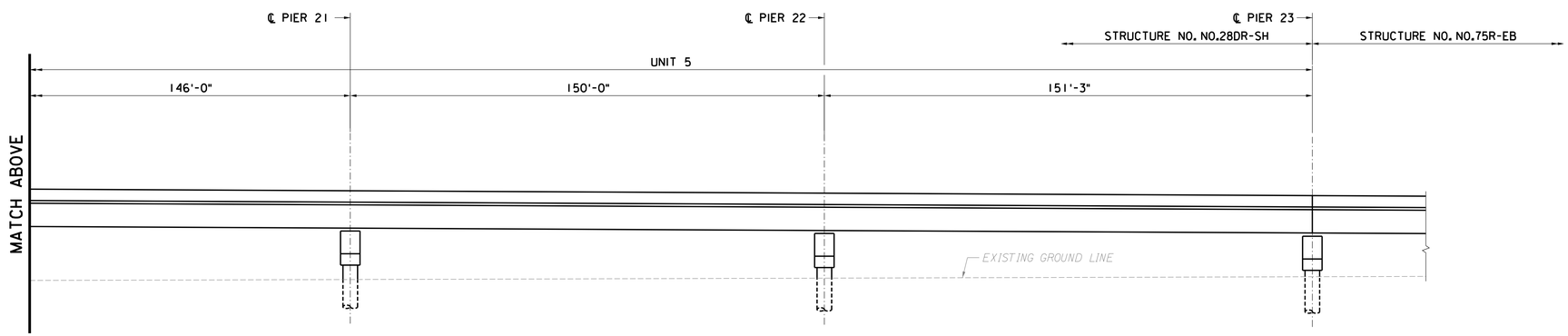
MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

319
375

FILE NAME: T3820_STRC_N0.28DR-SH_ELEV_002.dgn





STRUCTURE NO. NO.28DR-SH ELEVATION
(LOOKING NORTH)

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-24
S-79

WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N0.28DR-SH
ELEVATION - 3

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

320
375

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steadk
PLOT DATE: 27-JUL-2022 19:38
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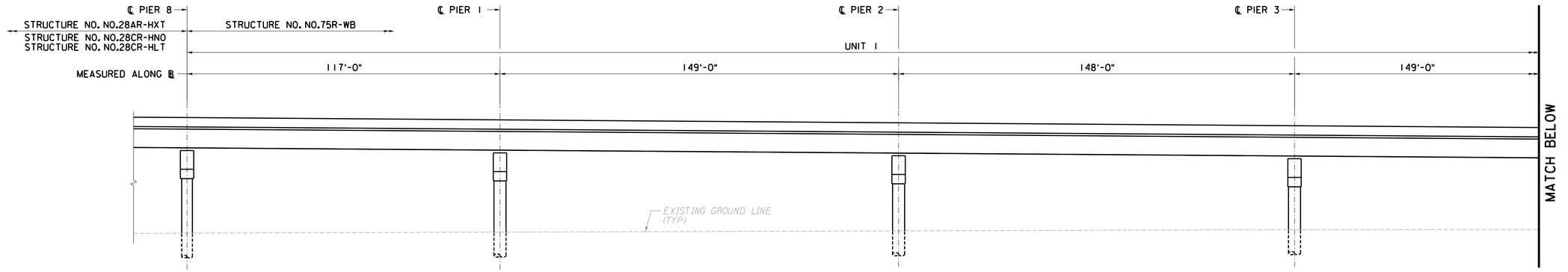

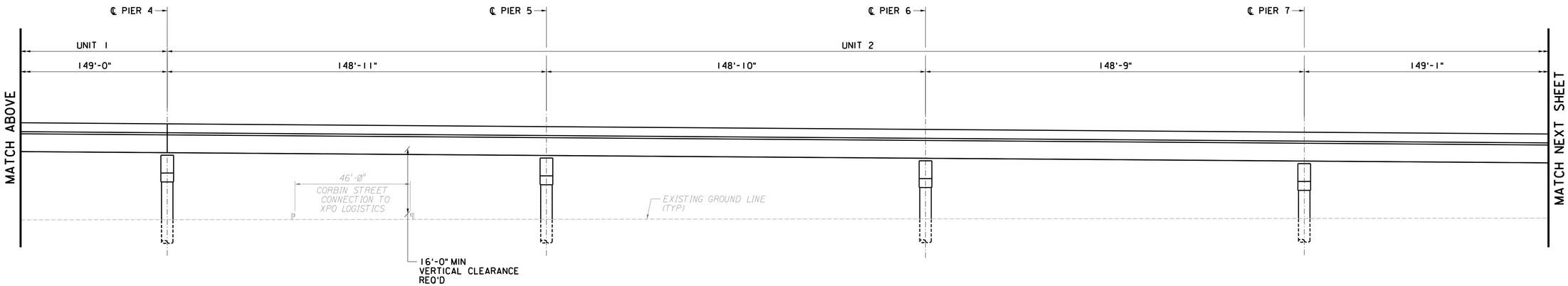

STRUCTURE NO. N0.75R-WB ELEVATION
(LOOKING NORTH)

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-25
S-79

WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N0.75R-WB ELEVATION - 1

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03790000

SCALE: 1" = 20'
DATE: JULY 2022

321
375

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steezle
PLOT DATE: 27-JUL-2022 19:38
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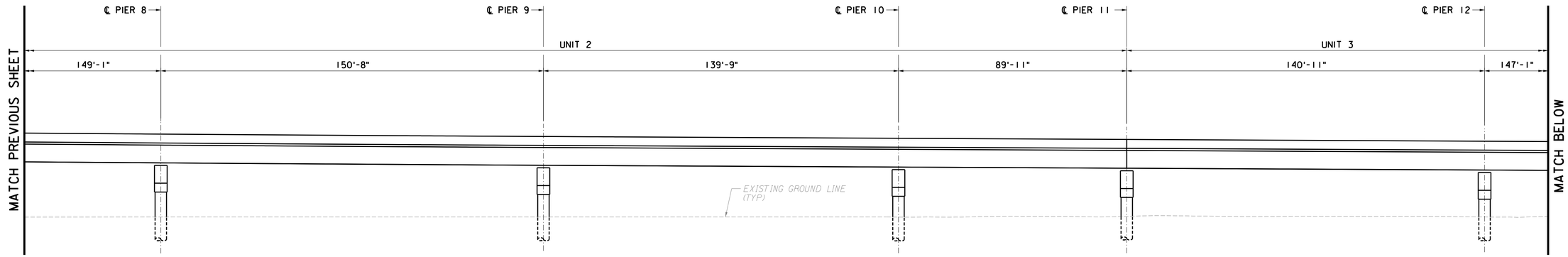

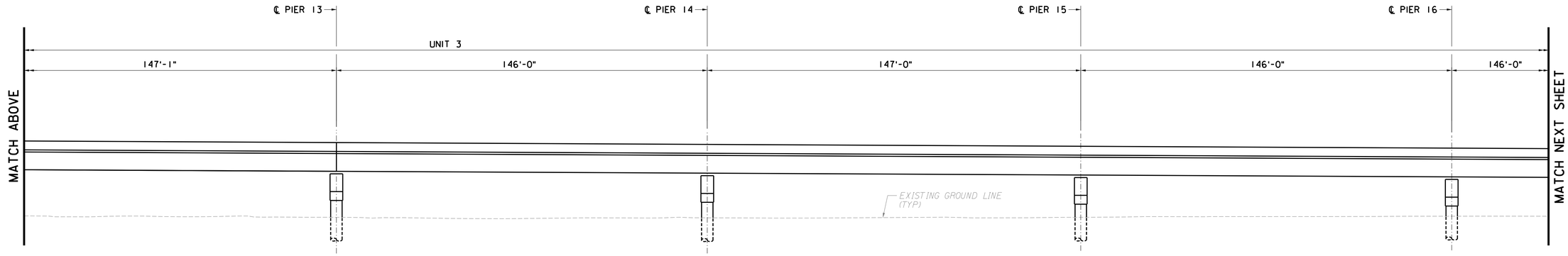

STRUCTURE NO. N0.75R-WB ELEVATION
(LOOKING NORTH)

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-26
S-79

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steqde
PLOT DATE: 27-JUL-2022 19:39
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N0.75R-WB ELEVATION - 2

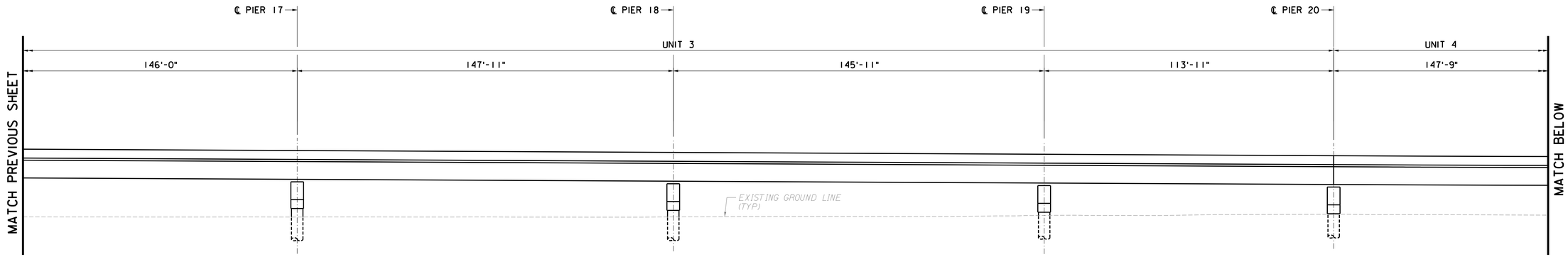
GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

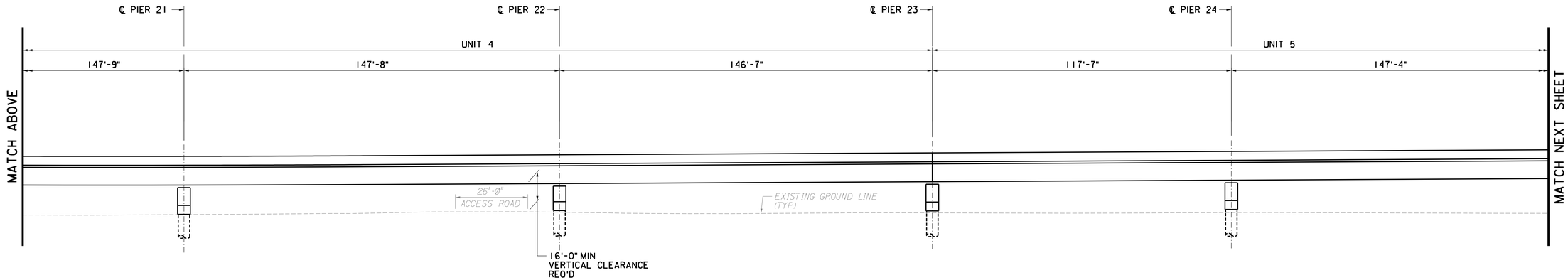
MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

322
375

FILE NAME: T3820_STRC_N0.75R-WB_ELEV_002.dgn





STRUCTURE NO. N0.75R-WB ELEVATION
(LOOKING NORTH)

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-27
S-79

WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N0.75R-WB ELEVATION - 3

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

323
375

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steqvik
PLOT DATE: 27-JUL-2022 19:39
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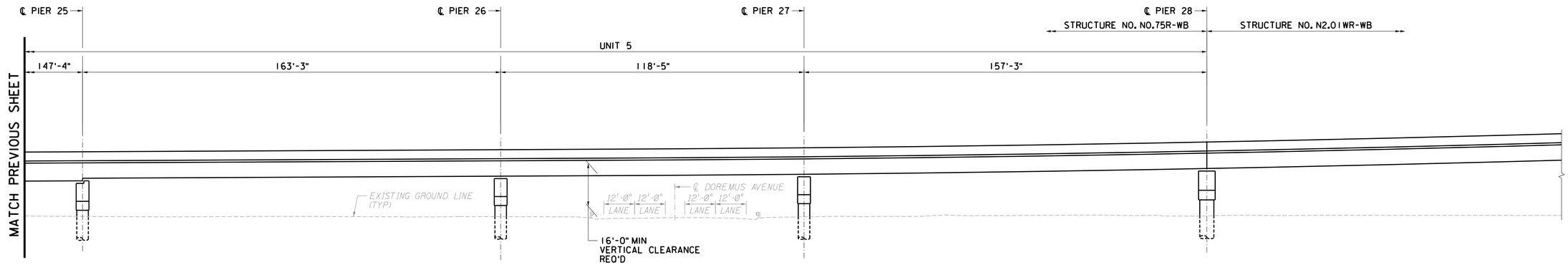

STRUCTURE NO. NO.75R-WB ELEVATION
(LOOKING NORTH)

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-28
S-79

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steadk
PLOT DATE: 27-JUL-2022 19:39
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N0.75R-WB
ELEVATION - 4

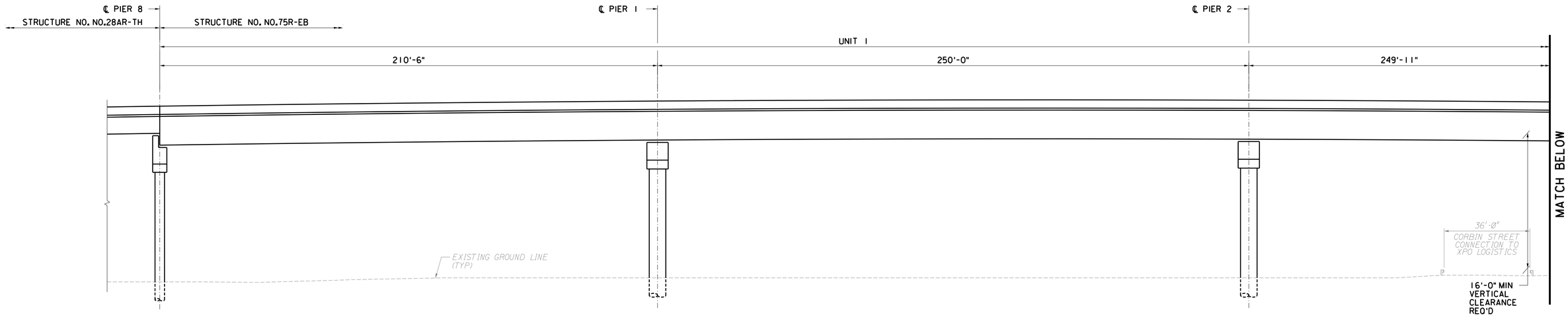
GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

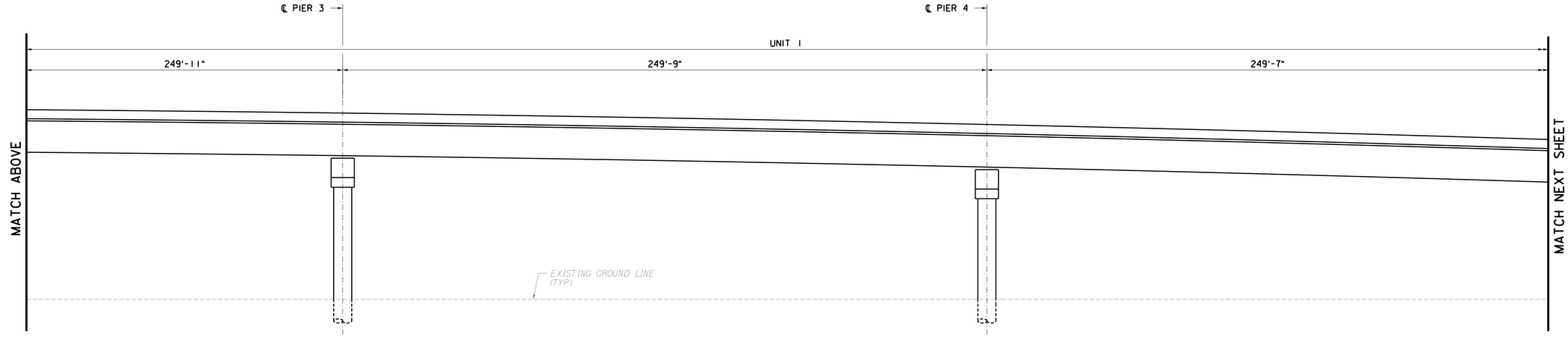
MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" - 20'
DATE: JULY 2022

324
375

FILE NAME: T3820_STRC_N0.75R-WB_ELEV_004.dgn





STRUCTURE NO. N0.75R-EB ELEVATION
(LOOKING NORTH)

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-29
S-79

WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N0.75R-EB ELEVATION - 1

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

325
375

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steadle
PLOT DATE: 27-JUL-2022 19:39
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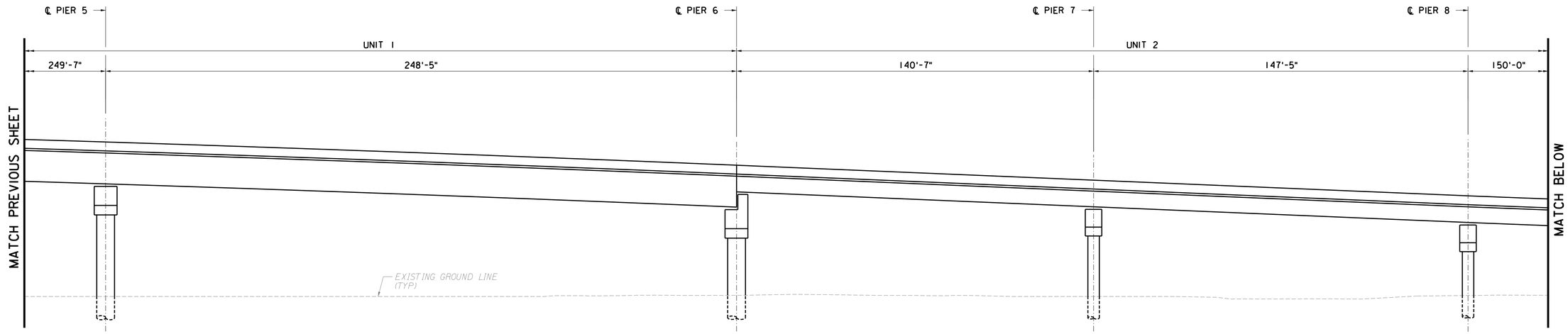

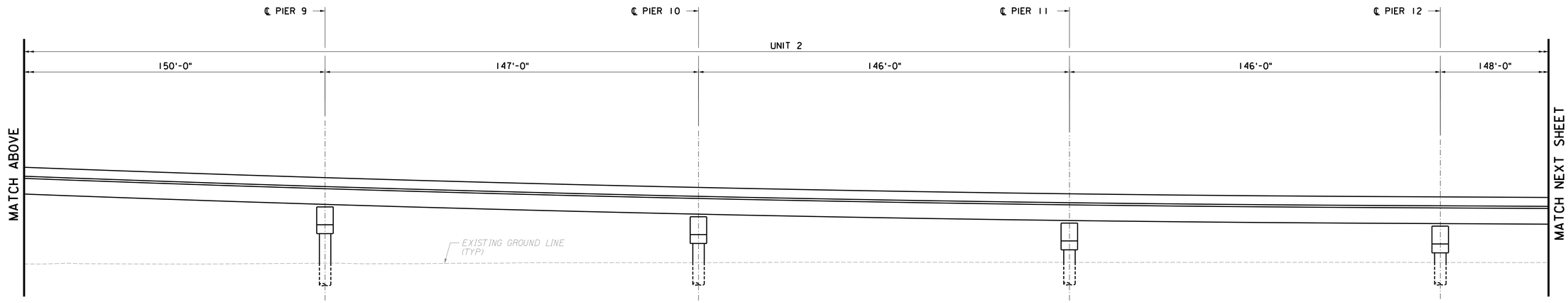

STRUCTURE NO. N0.75R-EB ELEVATION
(LOOKING NORTH)

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-30
S-79

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steade
PLOT DATE: 27-JUL-2022 19:39
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N0.75R-EB ELEVATION - 2

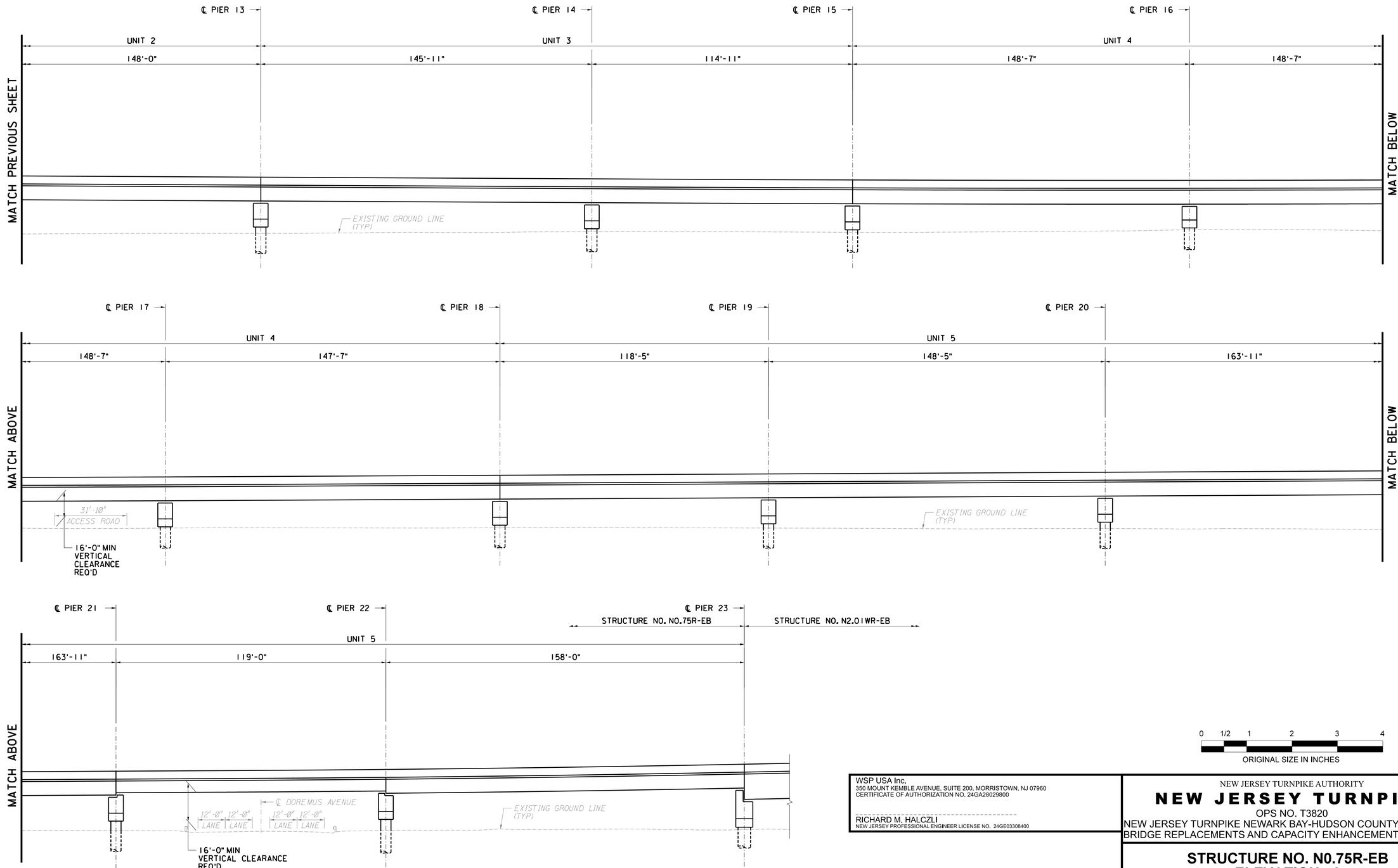
GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

326
375

FILE NAME: T3820_STRC_N0.75R-EB_ELEV_002.dgn



STRUCTURE NO. N0.75R-EB ELEVATION
(LOOKING NORTH)

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-31
S-79

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N0.75R-EB
ELEVATION - 3

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

327
375

FILE NAME: T3820_STRC_N0.75R-EB_ELEV_003.dgn

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PLOT DATE: 27-JUL-2022 19:40
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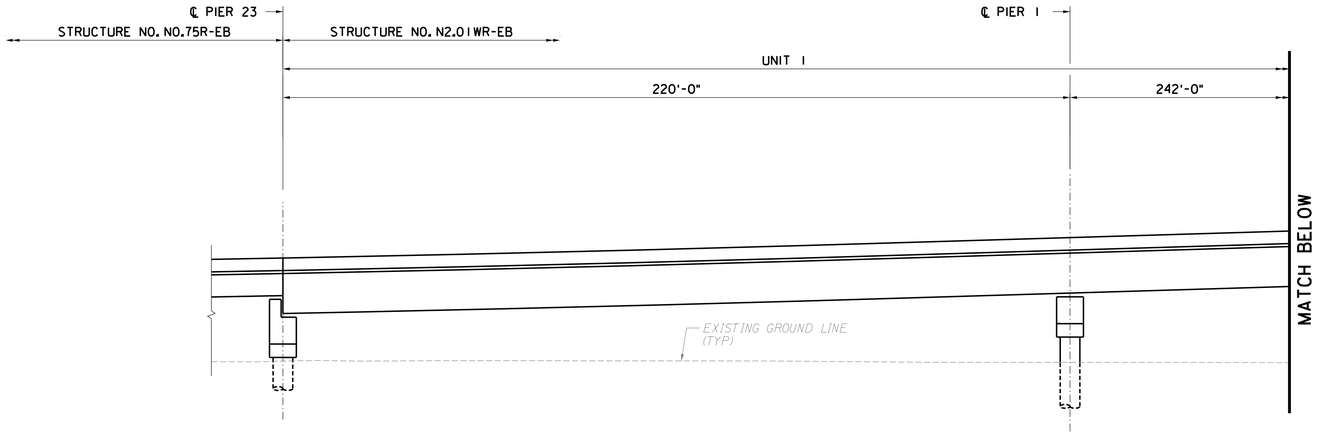

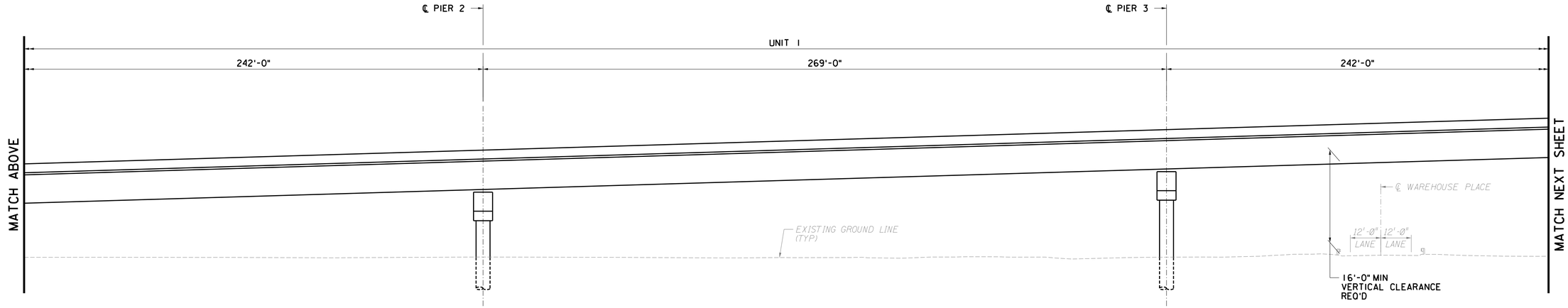

STRUCTURE NO. N2.01WR-EB ELEVATION
(LOOKING NORTH)

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-32
S-79

NOTE:
STRUCTURE NO. N2.01WR-EB ELEVATION SHOWN IS SIMILAR TO STRUCTURE NO. N2.01WR-WB ELEVATION.

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steqyle
PLOT DATE: 27-JUL-2022 19:40
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N2.01WR-EB ELEVATION - 1

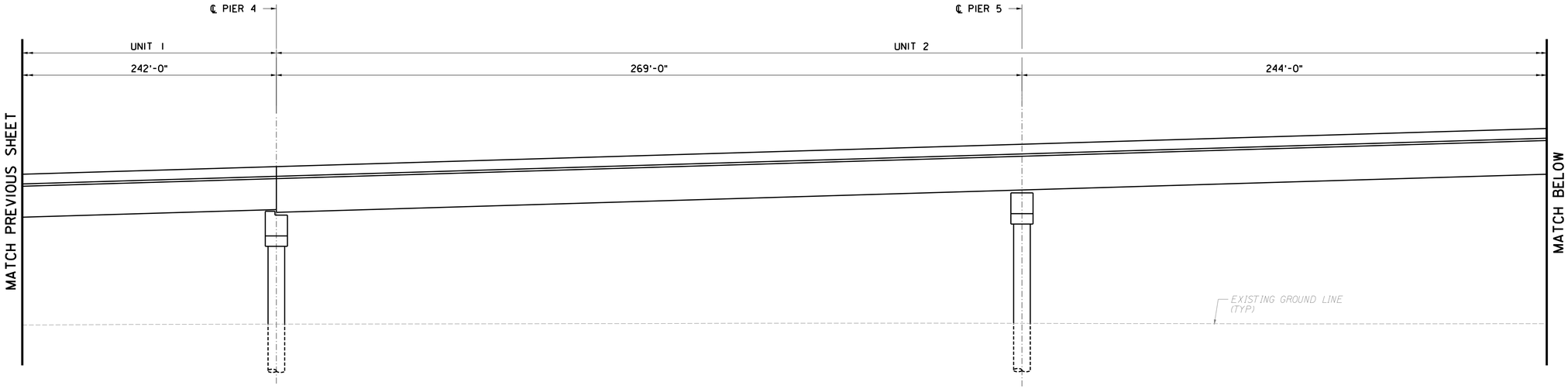
GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

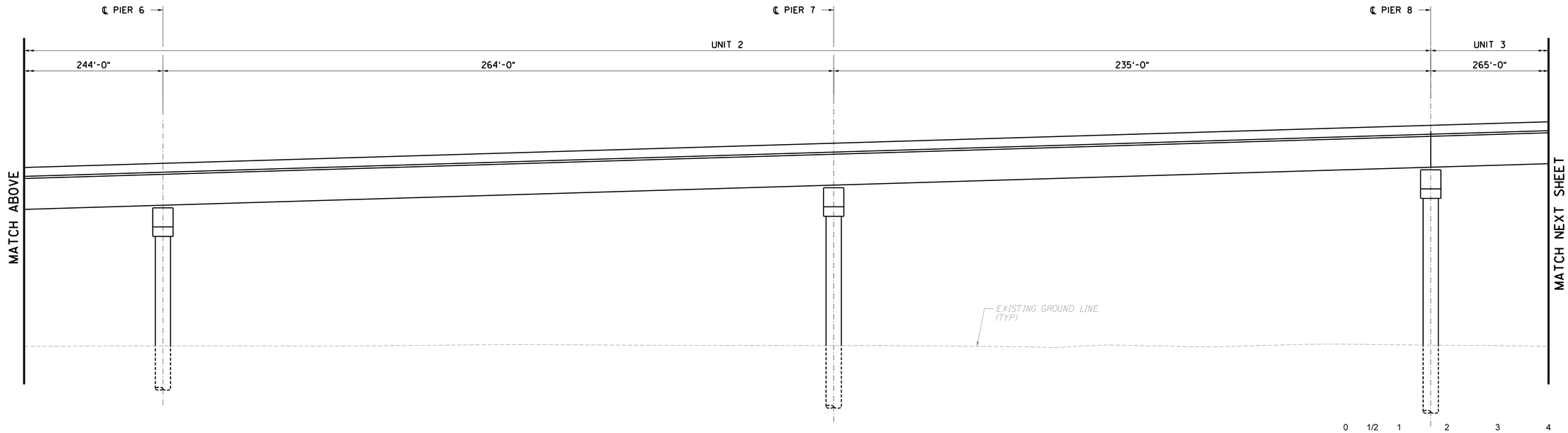
MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

328
375

FILE NAME: T3820_STRC_N0.2.01WR-EB_ELEV_001.dgn





STRUCTURE NO. N2.01WR-EB ELEVATION
(LOOKING NORTH)

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-33
S-79

NOTE:

STRUCTURE NO. N2.01WR-EB ELEVATION SHOWN IS SIMILAR TO STRUCTURE NO. N2.01WR-WB ELEVATION.

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steede
PLOT DATE: 27-JUL-2022 19:40
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N2.01WR-EB ELEVATION - 2

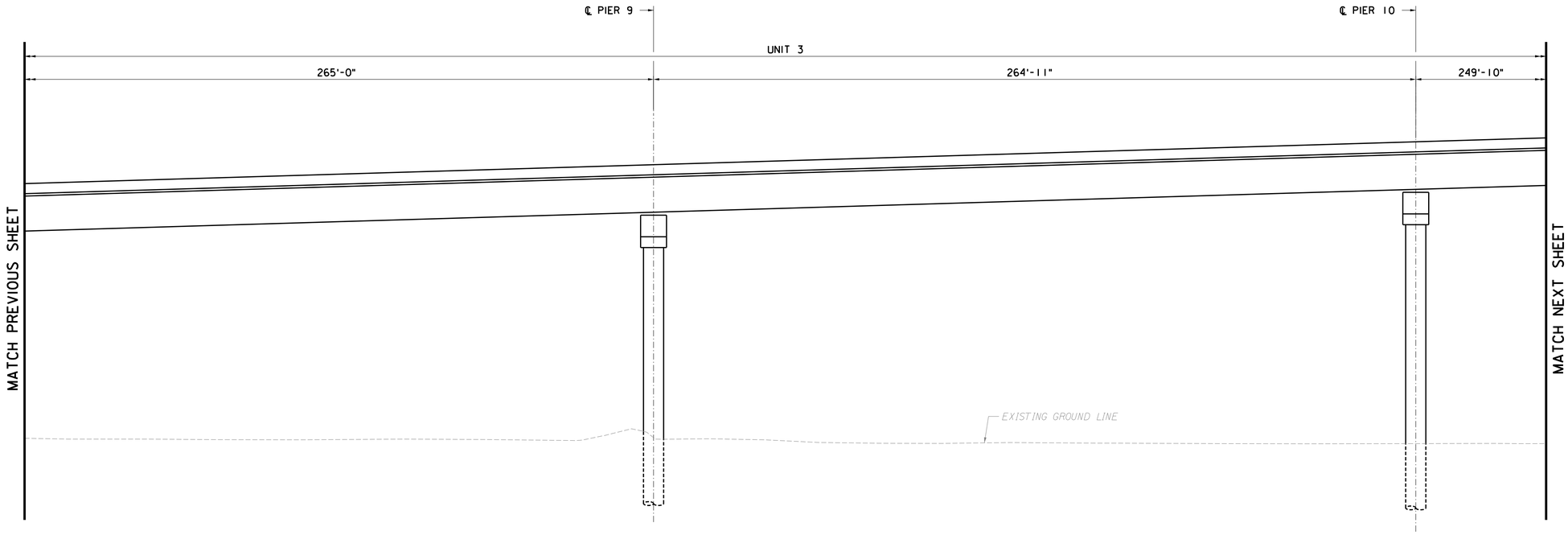
GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

329
375

FILE NAME: T3820_STRC_N0.2.01WR-EB_ELEV_002.dgn



STRUCTURE NO. N2.01WR-EB ELEVATION
(LOOKING NORTH)

NOTE:
STRUCTURE NO. N2.01WR-EB ELEVATION SHOWN IS SIMILAR TO STRUCTURE NO. N2.01WR-WB ELEVATION.

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-34
S-79

WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N2.01WR-EB ELEVATION - 3

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03790000

SCALE: 1" = 20'
DATE: JULY 2022

330
375

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steede
PLOT DATE: 27-JUL-2022 19:40
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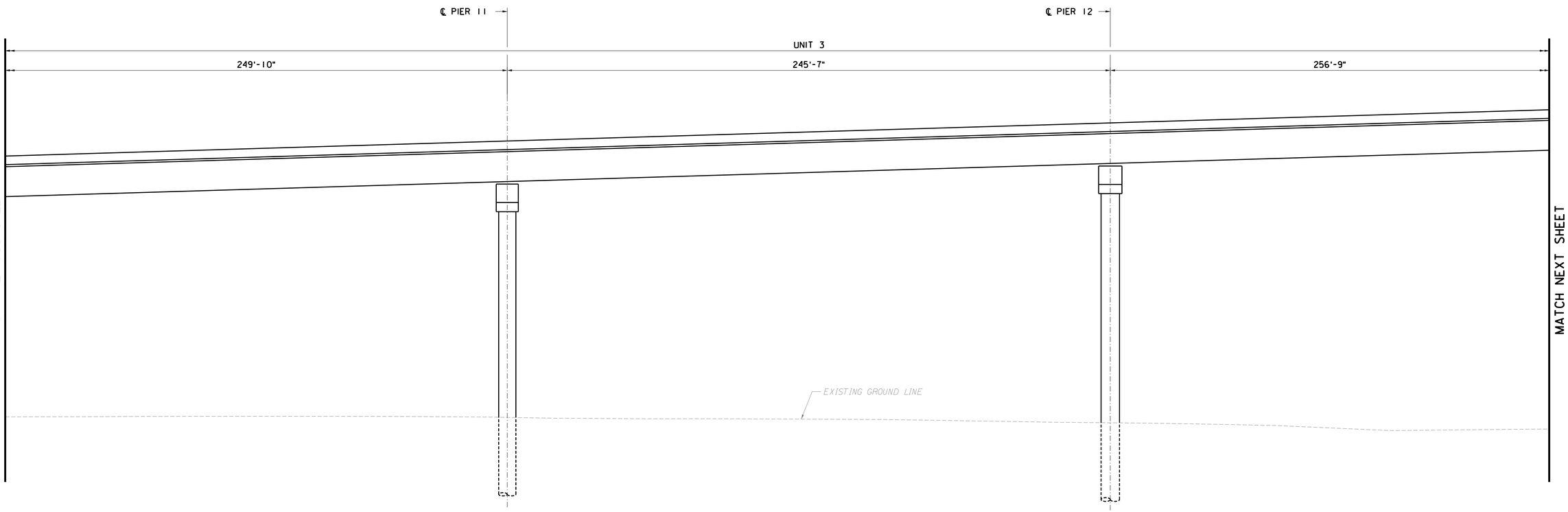

STRUCTURE NO. N2.01WR-EB ELEVATION
(LOOKING NORTH)

NOTE:
STRUCTURE NO. N2.01WR-EB ELEVATION SHOWN IS SIMILAR TO STRUCTURE NO. N2.01WR-WB ELEVATION.

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-35
S-79

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Shoaib
PLOT DATE: 27-JUL-2022 19:40
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N2.01WR-EB ELEVATION - 4

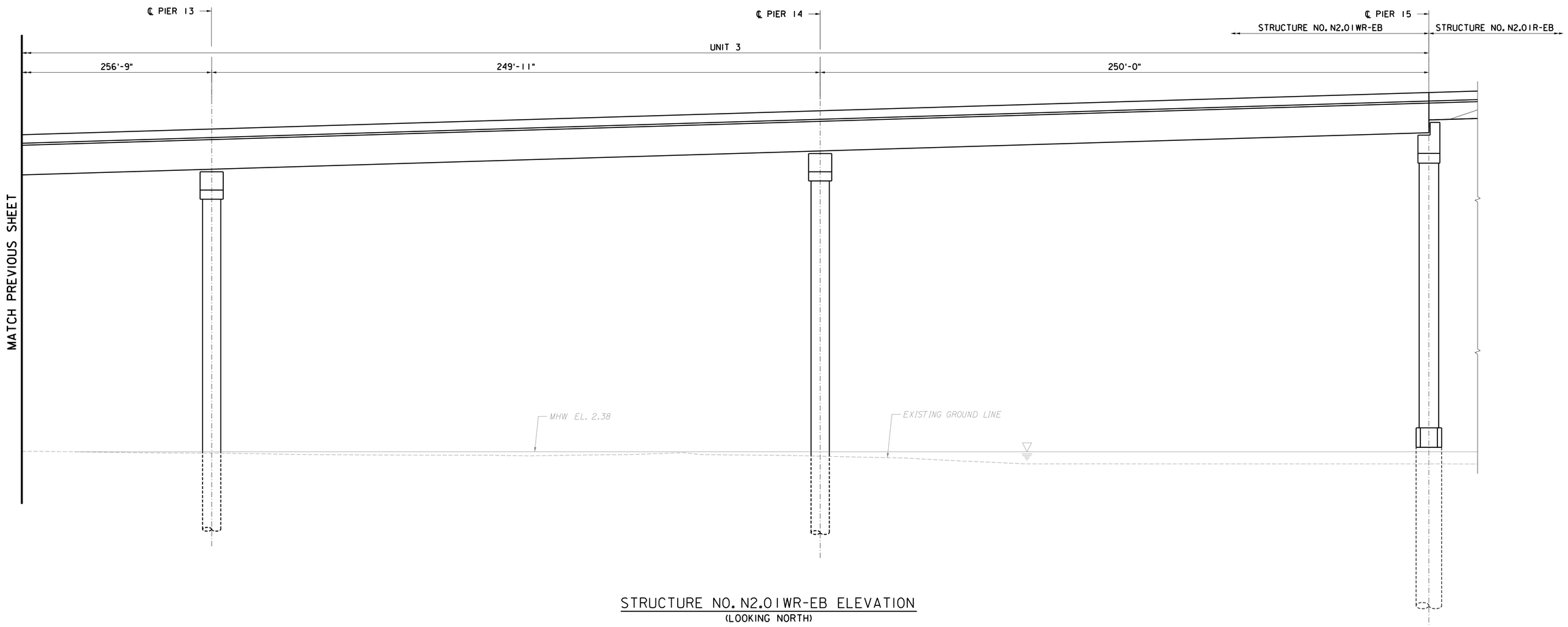
GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

331
375

FILE NAME: T3820_STRC_N0.2.01WR-EB_ELEV_004.dgn



STRUCTURE NO. N2.01WR-EB ELEVATION
(LOOKING NORTH)

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-36
S-79

NOTE:

STRUCTURE NO. N2.01WR-EB ELEVATION SHOWN IS SIMILAR TO STRUCTURE NO. N2.01WR-WB ELEVATION.

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N2.01WR-EB ELEVATION - 5

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

332
375

FILE NAME: T3820_STRC_N0.2.01WR-EB_ELEV_005.dgn

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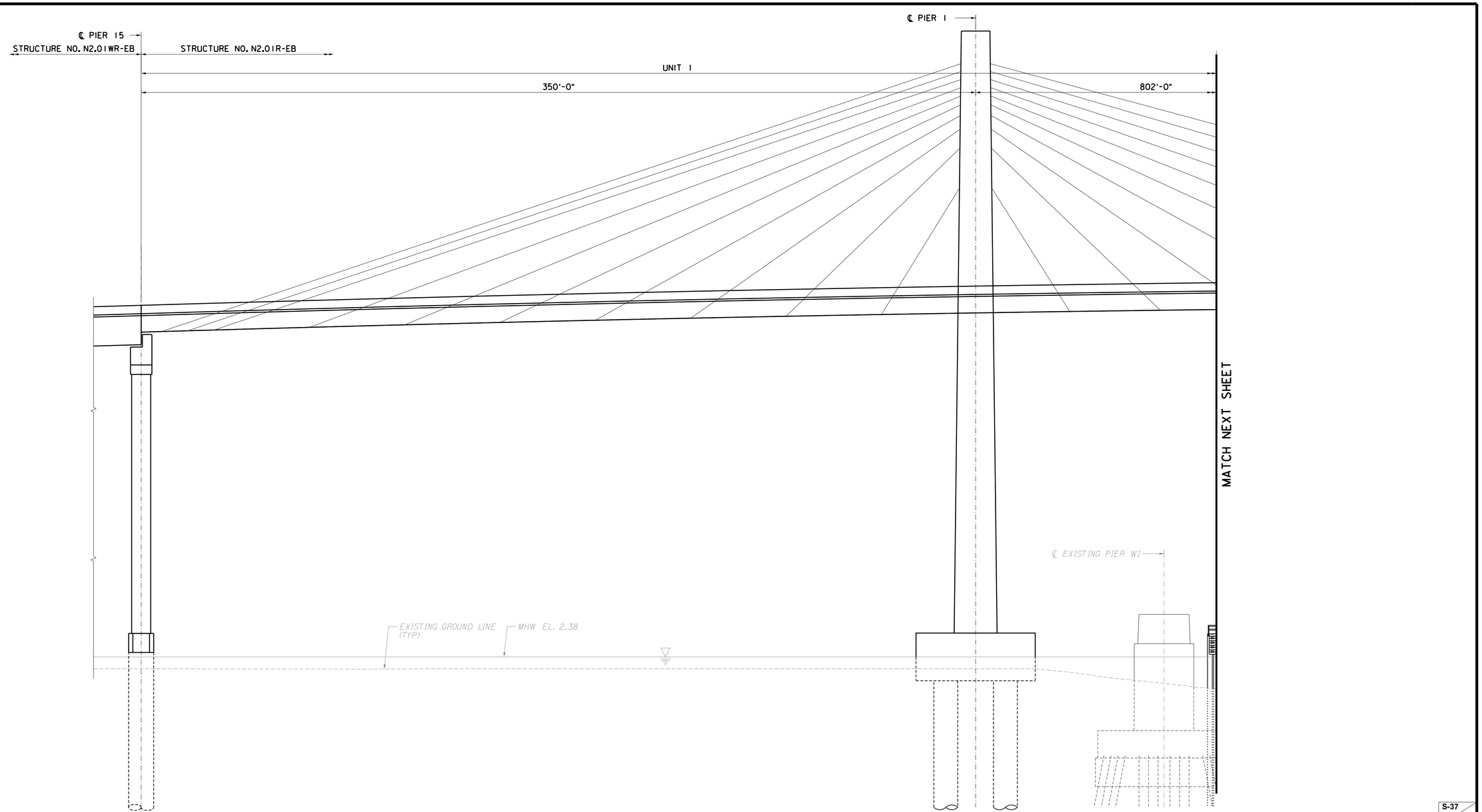

STRUCTURE NO. N2.01R-EB ELEVATION
(LOOKING NORTH)

NOTE:

STRUCTURE NO. N2.01WR-EB ELEVATION SHOWN IS SIMILAR TO STRUCTURE NO. N2.01WR-WB ELEVATION AND STRUCTURE NO. N2.01R-EB ELEVATION SHOWN IS SIMILAR TO STRUCTURE NO. N2.01R-WB ELEVATION.

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steqdk
PLOT DATE: 27-JUL-2022 19:41
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

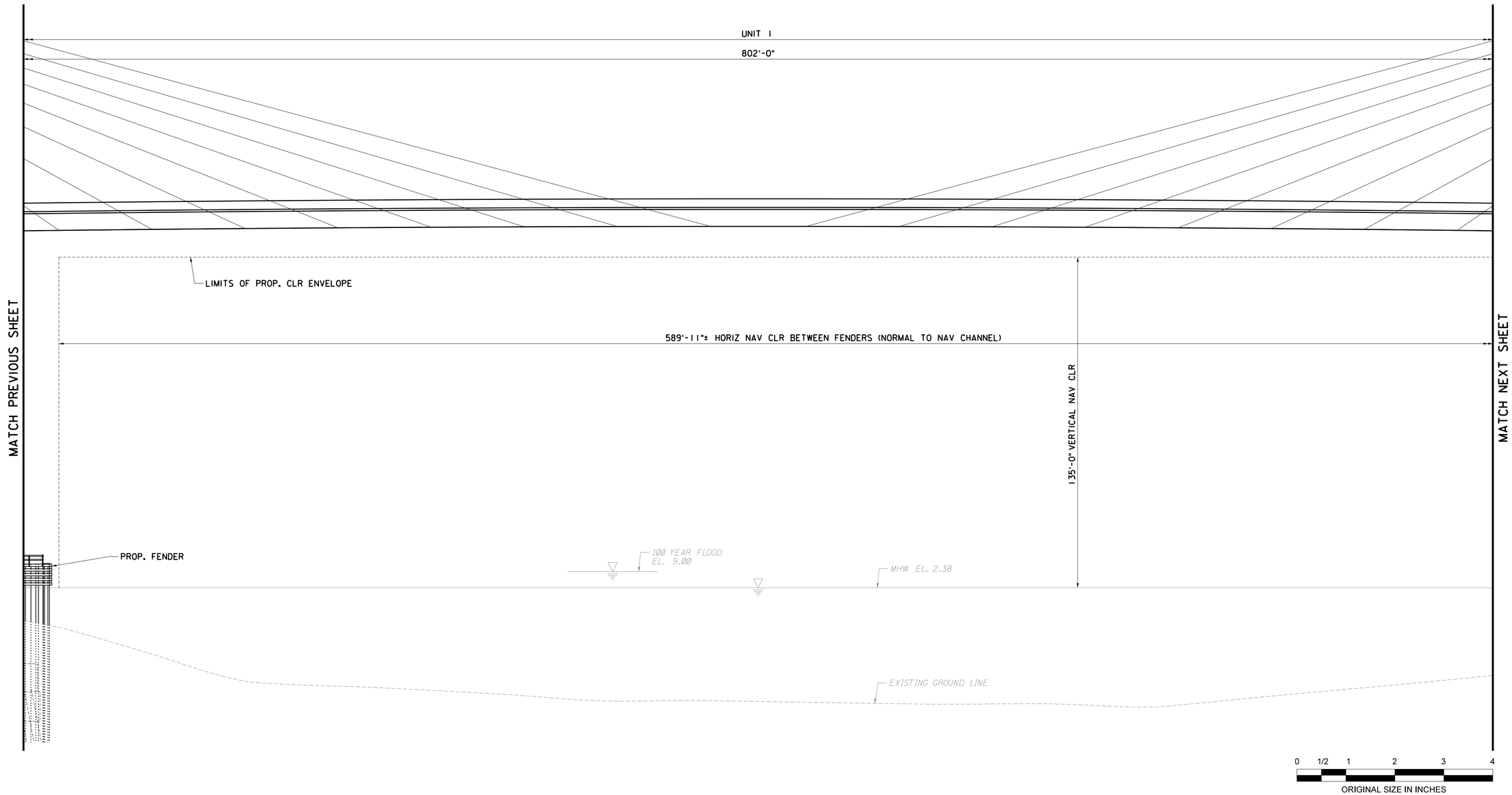
STRUCTURE NO. N2.01R-EB ELEVATION - 1

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=20'
DATE: JULY 2022

FILE NAME: T3820_STRC_N0.2.01ER-EB_ELEV_001.dgn



STRUCTURE NO. N2.01R-EB ELEVATION
(LOOKING NORTH)

NOTE:

STRUCTURE NO. N2.01R-EB ELEVATION SHOWN IS SIMILAR TO STRUCTURE NO. N2.01R-WB ELEVATION.

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steade
PLOT DATE: 27-JUL-2022 19:41
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N2.01R-EB
ELEVATION - 2

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

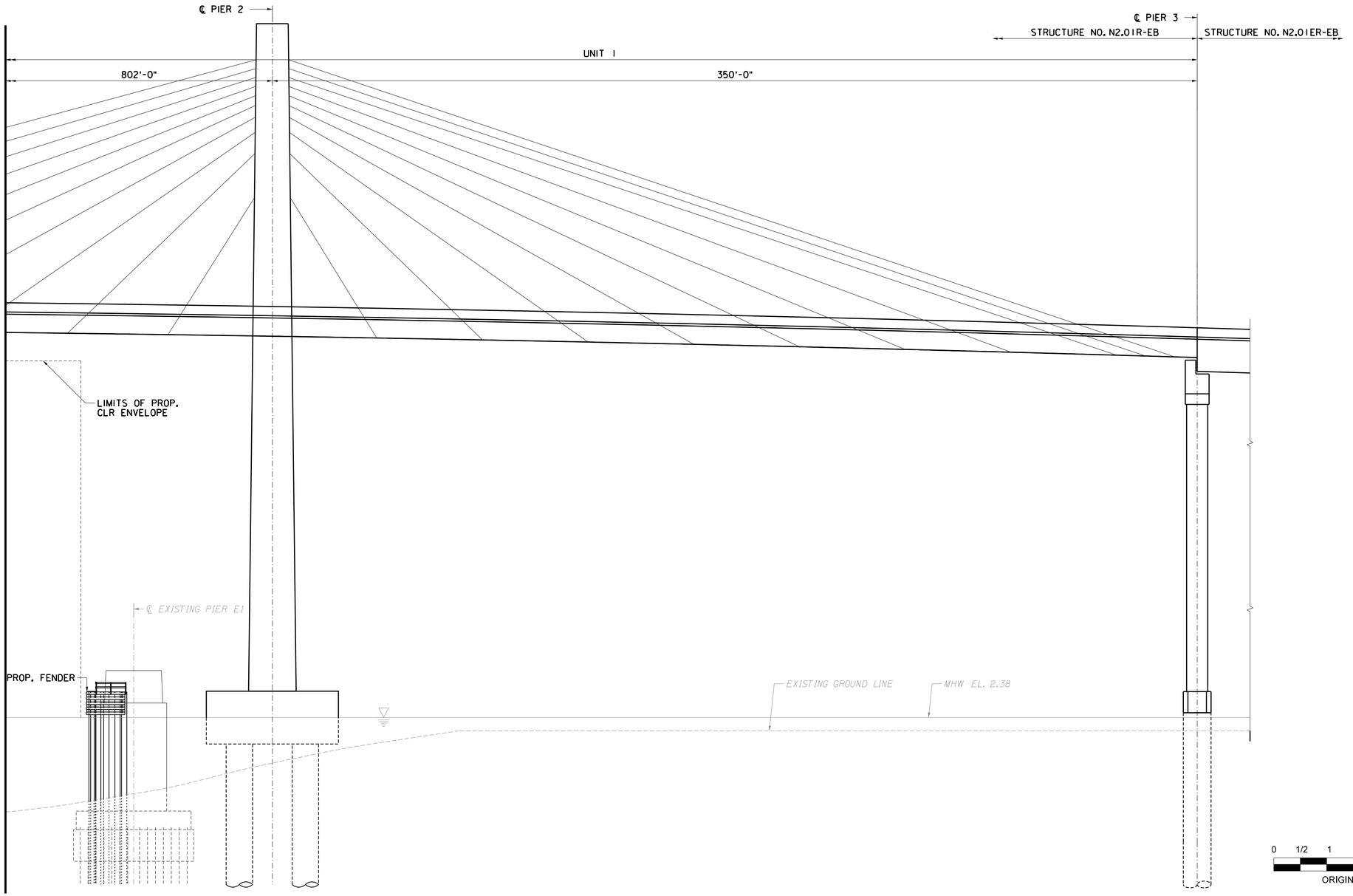
MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

S-38
S-79

334
375

FILE NAME: T3820_STRC_N0.2.01ER-EB_ELEV_002.dgn



STRUCTURE NO. N2.01R-EB ELEVATION
(LOOKING NORTH)

NOTE:

STRUCTURE NO. N2.01R-EB ELEVATION SHOWN IS SIMILAR TO STRUCTURE NO N2.01R-WB ELEVATION AND STRUCTURE NO. N2.01ER-EB ELEVATION SHOWN IS SIMILAR TO STRUCTURE NO. N2.01ER-WB ELEVATION.

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steeple
PLOT DATE: 27-JUL-2022 19:41
CADD FILE: pw:@first-pw.bentley.com:gfnet-pw-01\Documents\Projects\68289\OUTPUT\COMP_01\CIVIL\STRC_WSP\Preliminary Design\T3820_STRC_N0.2.01ER-EB_ELEV_003.dgn

WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

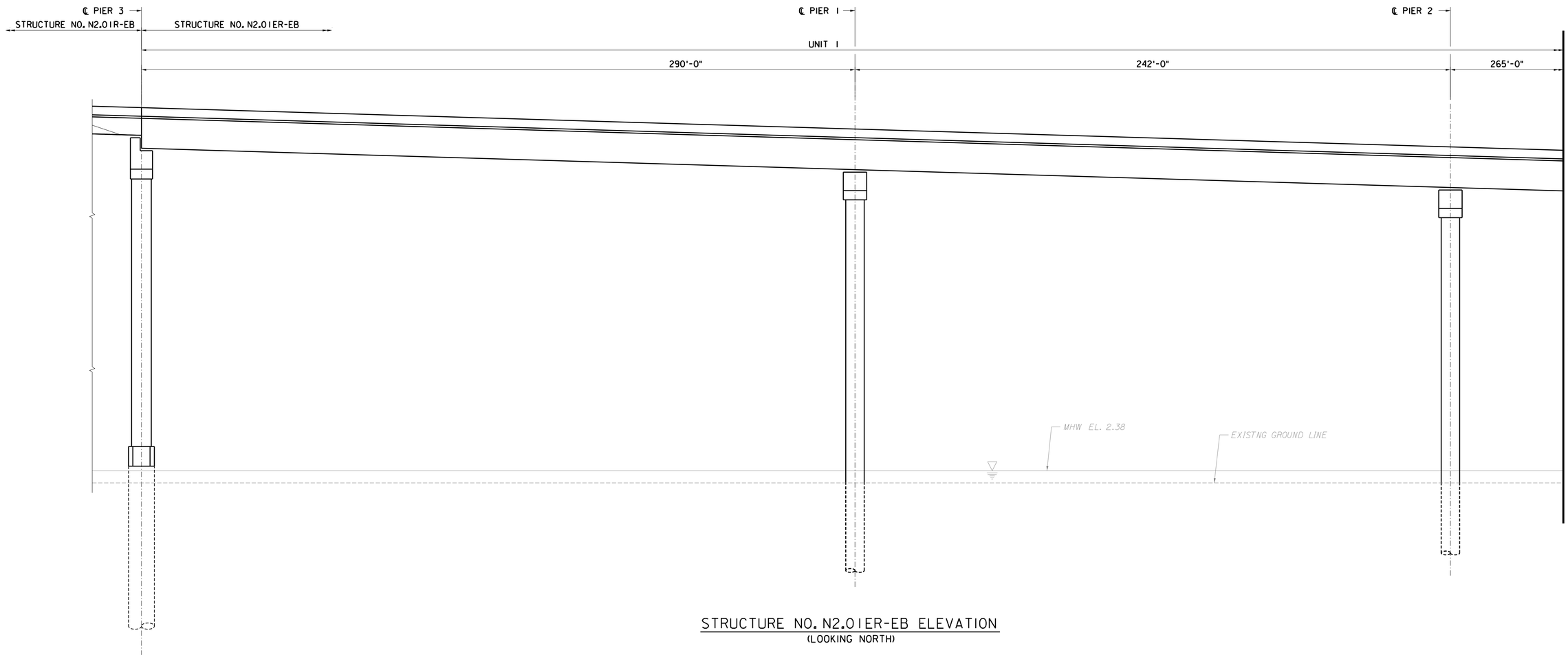
STRUCTURE NO. N2.01R-EB ELEVATION - 3

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

FILE NAME: T3820_STRC_N0.2.01ER-EB_ELEV_003.dgn



STRUCTURE NO. N2.01ER-EB ELEVATION
(LOOKING NORTH)

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-40
S-79

NOTE:

STRUCTURE NO. N2.01ER-EB IS SIMILAR TO STRUCTURE NO. N2.01ER-WB.

	BY	DATE
MADE	SH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N2.01ER-EB
ELEVATION - 1

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

336
375

FILE NAME: T3820_STRC_N0.2.01E-EB_ELEV_001.dgn

PLOT BY: Steede
PLOT DATE: 27-JUL-2022 19:41
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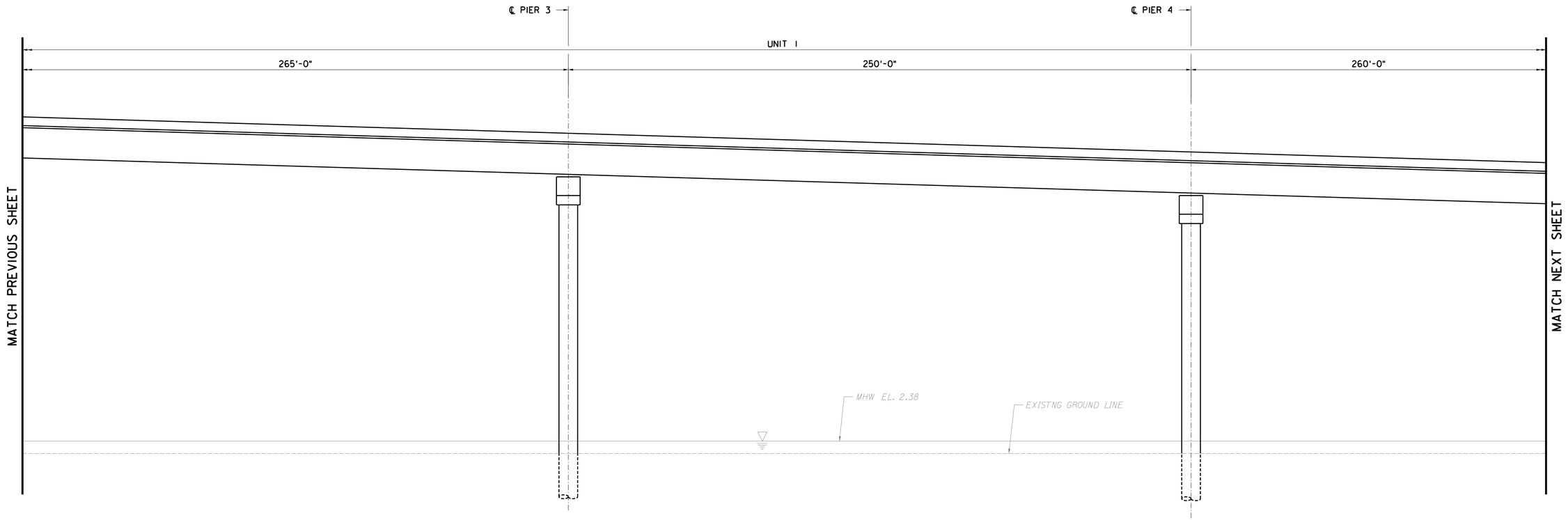

STRUCTURE NO. N2.01ER-EB ELEVATION
(LOOKING NORTH)

NOTE:
STRUCTURE NO. N2.01ER-EB IS SIMILAR TO STRUCTURE NO. N2.01ER-WB.

	BY	DATE
MADE	SH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steqafa
PLOT DATE: 27-JUL-2022 19:41
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-41
S-79

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N2.01ER-EB
ELEVATION - 2

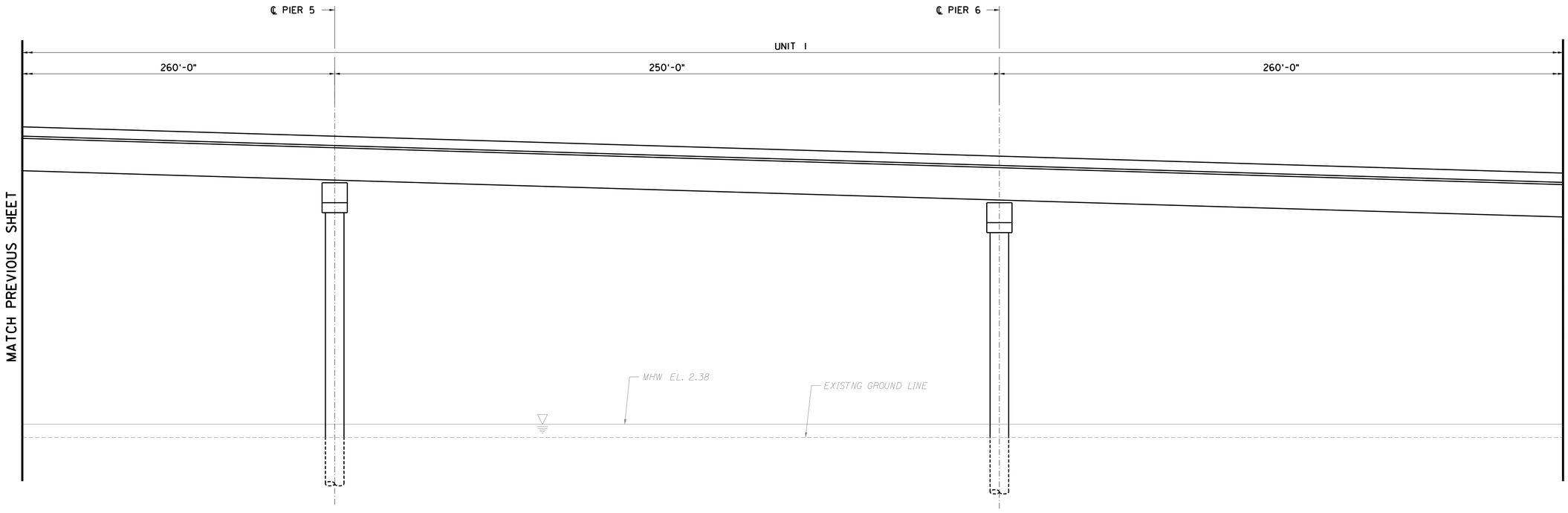
GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

337
375

FILE NAME: T3820_STRC_N0.2.01E-EB_ELEV_002.dgn



STRUCTURE NO. N2.01ER-EB ELEVATION
(LOOKING NORTH)

NOTE:

STRUCTURE NO. N2.01ER-EB IS SIMILAR TO STRUCTURE NO. N2.01ER-WB.

	BY	DATE
MADE	SH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steedle
PLOT DATE: 27-JUL-2022 19:41
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0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-42
S-79

WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N2.01ER-EB
ELEVATION - 3

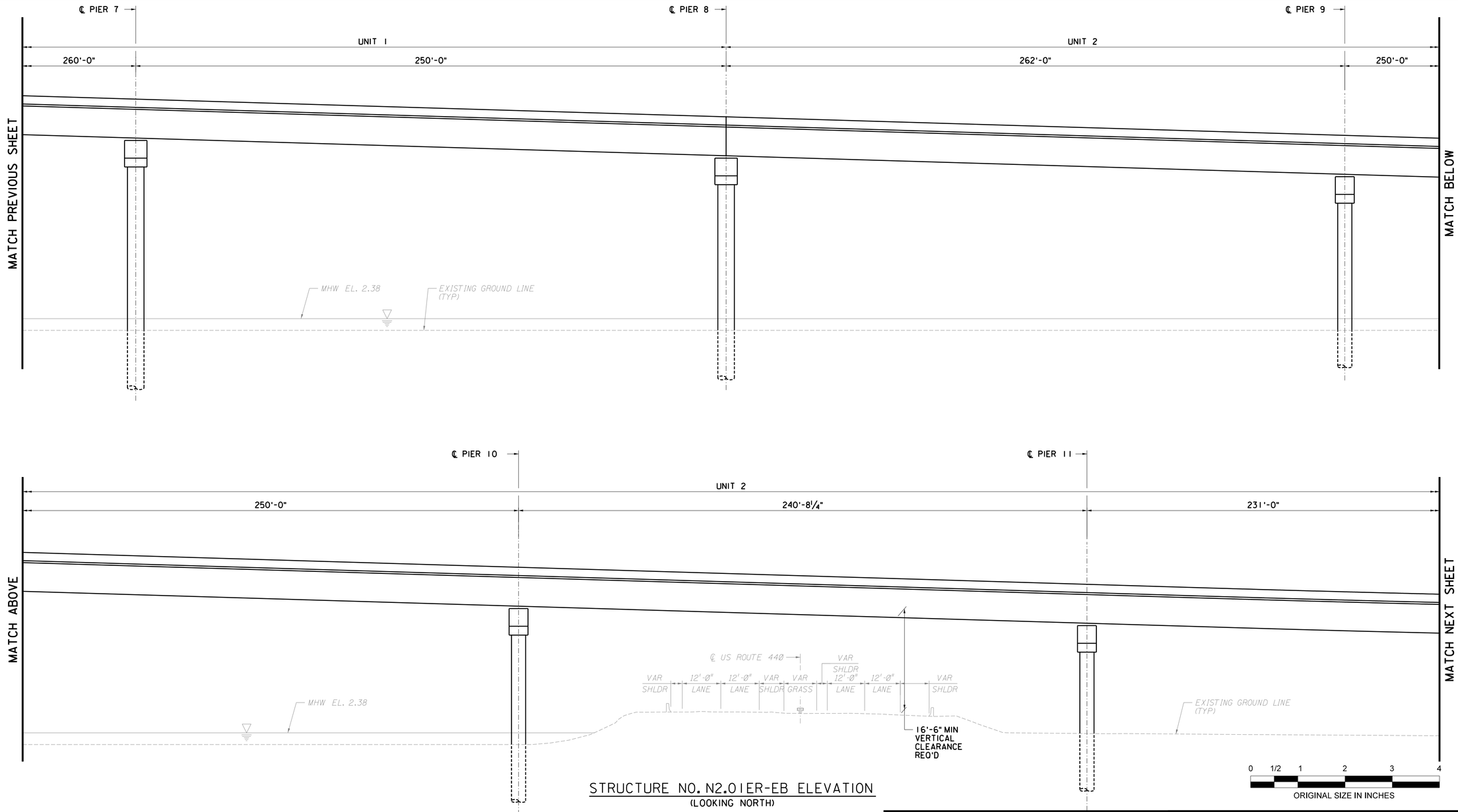
GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03790000

SCALE: 1" =20'
DATE: JULY 2022

338
375

FILE NAME: T3820_STRC_N0.2.01E-EB_ELEV_003.dgn



STRUCTURE NO. N2.01ER-EB ELEVATION
(LOOKING NORTH)

NOTE:
STRUCTURE NO. N2.01ER-EB IS SIMILAR TO STRUCTURE NO. N2.01ER-WB.

	BY	DATE
MADE	SH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steeple
PLOT DATE: 27-JUL-2022 19:41
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WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N2.01ER-EB ELEVATION - 4

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

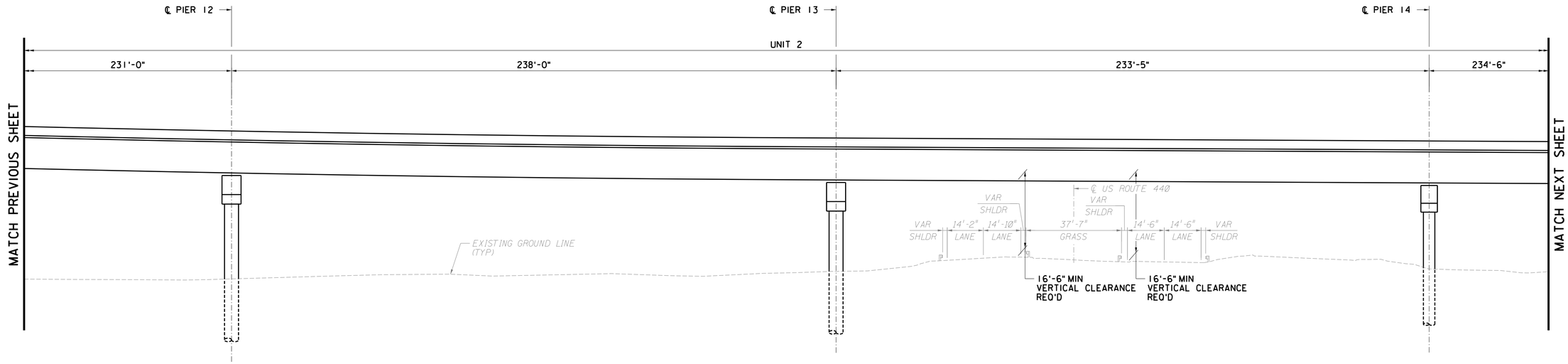
MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

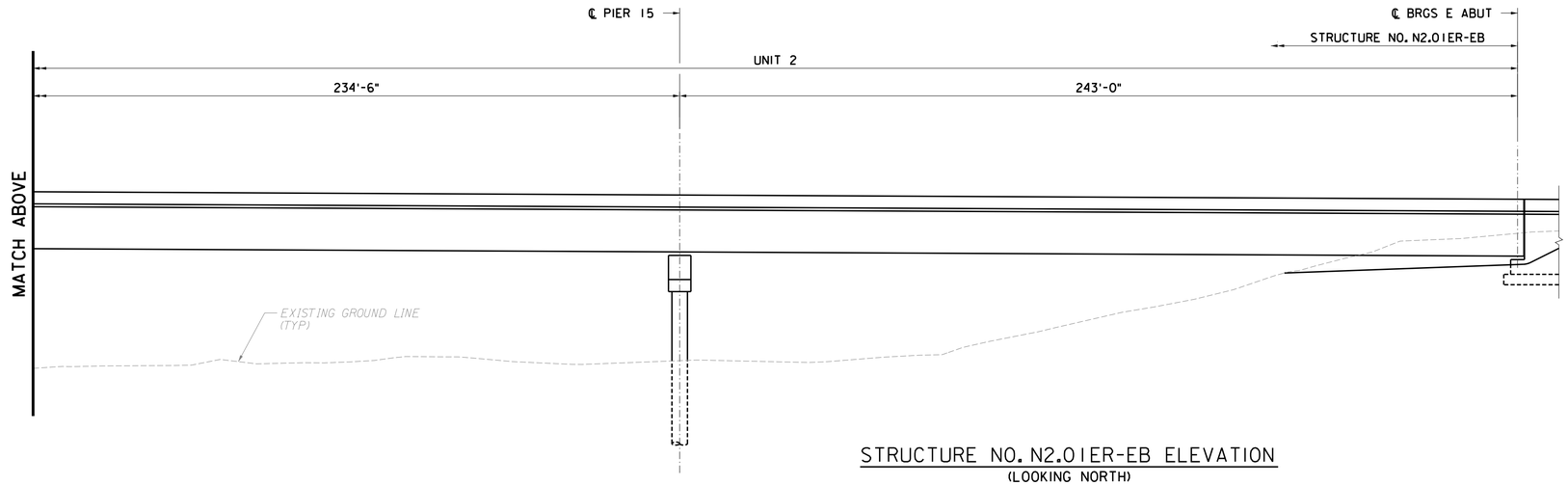
SCALE: 1" - 20'
DATE: JULY 2022

S-43
S-79

339
375

FILE NAME: T3820_STRC_N0.2.01E-EB_ELEV_004.dgn





STRUCTURE NO. N2.01ER-EB ELEVATION
(LOOKING NORTH)

NOTE:
STRUCTURE NO. N2.01ER-EB IS SIMILAR TO STRUCTURE NO. N2.01ER-WB.

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-44
S-79

WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N2.01ER-EB
ELEVATION - 5

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03790000

SCALE: 1" = 20'
DATE: JULY 2022

340
375

	BY	DATE
MADE	SH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steede
PLOT DATE: 27-JUL-2022 19:42
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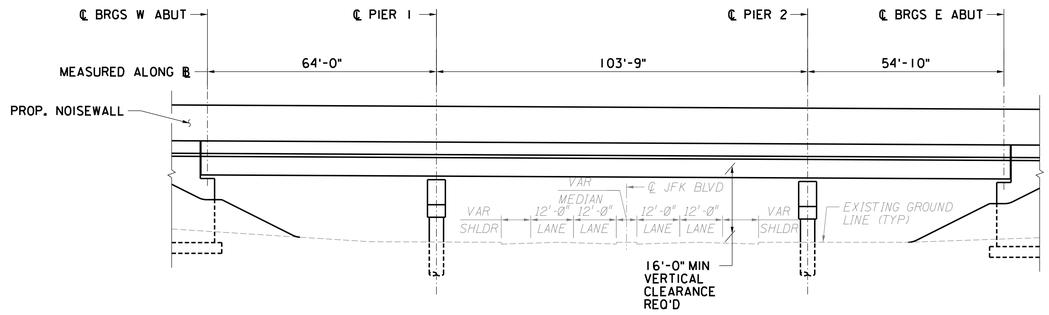
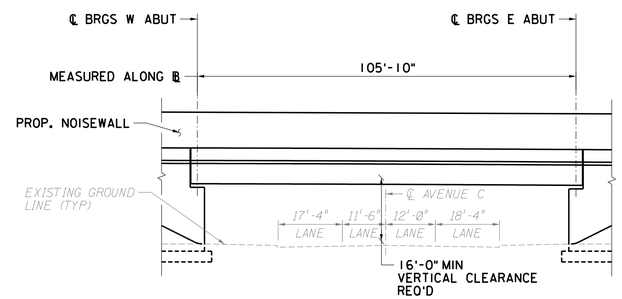


STRUCTURE NO. N3.00R-EB ELEVATION
(LOOKING NORTH)



STRUCTURE NO. N3.24R ELEVATION
(LOOKING NORTH)

NOTE:
STRUCTURE NO. N3.00R-WB IS SIMILAR ELEVATION VIEW AS SHOWN IN STRUCTURE NO. N3.00R-EB.

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

S-45
S-79

WSP USA Inc.
350 MOUNT KEMBLE AVENUE, SUITE 200, MORRISTOWN, NJ 07960
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

RICHARD M. HALCZLI
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03308400

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NOS. N3.00R-EB & N3.24R ELEVATIONS

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'
DATE: JULY 2022

341
375

	BY	DATE
MADE	SGH	6/22
TRACED	JB	6/22
CHECKED	GS	7/22
SUPERVISED	R. HALCZLI	

PLOT BY: Steeple
PLOT DATE: 27-JUL-2022 19:42
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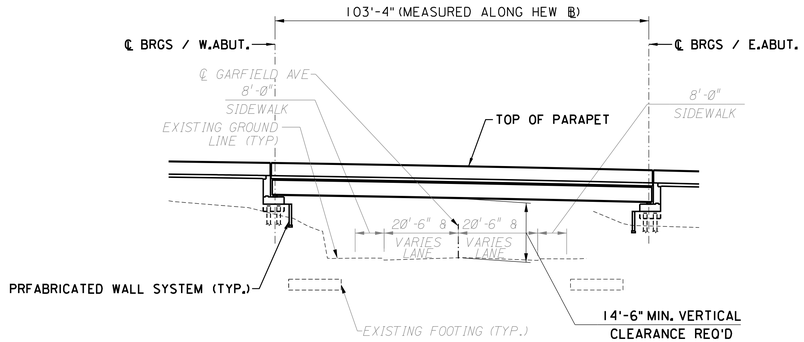

STRUCTURE NO. N3.39R ELEVATION

(LOOKING NORTH)

	BY	DATE
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TRACED:	ST	07/2022
CHECKED:	VT	07/2022
SUPERVISED:	JK	

7/26/2022 1:57:36 AM ltsang
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S-46
S-79

SJH ENGINEERING, P.C.
3700 ROUTE 27, SUITE 201, PRINCETON, NJ 08540

S. JAYAKUMARAN
NEW JERSEY PROFESSIONAL ENGINEER NO, 24GE04007600

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N3.39R ELEVATION

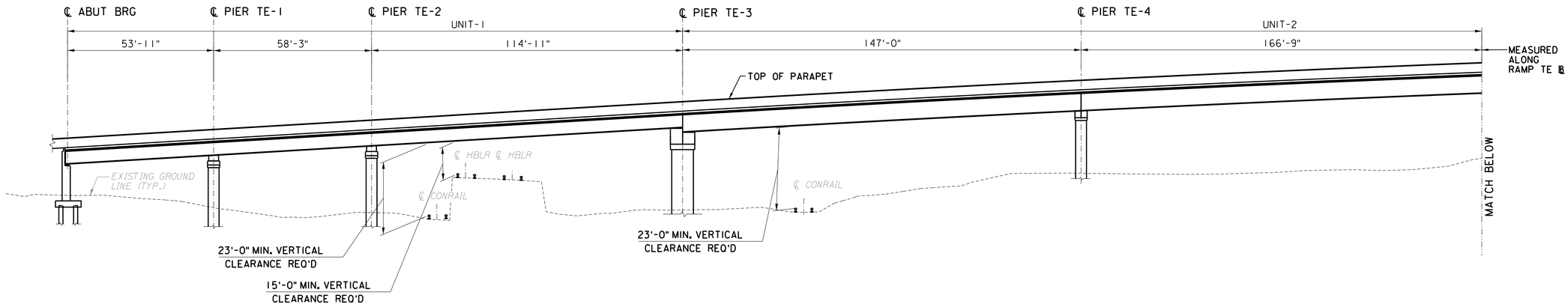
GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

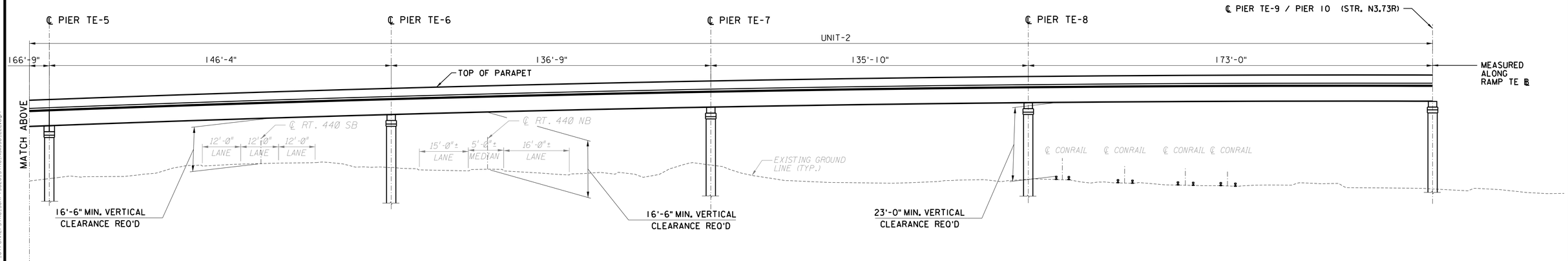
MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'-0"

DATE: JULY 2022

342
375





STRUCTURE NO. N3.53DR ELEVATION

(LOOKING NORTH)

7/26/2022 1:44:11 PM jtsang
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	BY	DATE
MADE:	BK	07/2022
TRACED:	ST	07/2022
CHECKED:	VT	07/2022
SUPERVISED:	JK	

S-47
S-79

SJH ENGINEERING, P.C.
3700 ROUTE 27, SUITE 201, PRINCETON, NJ 08540

S. JAYAKUMARAN
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04007600

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N3.53DR ELEVATION

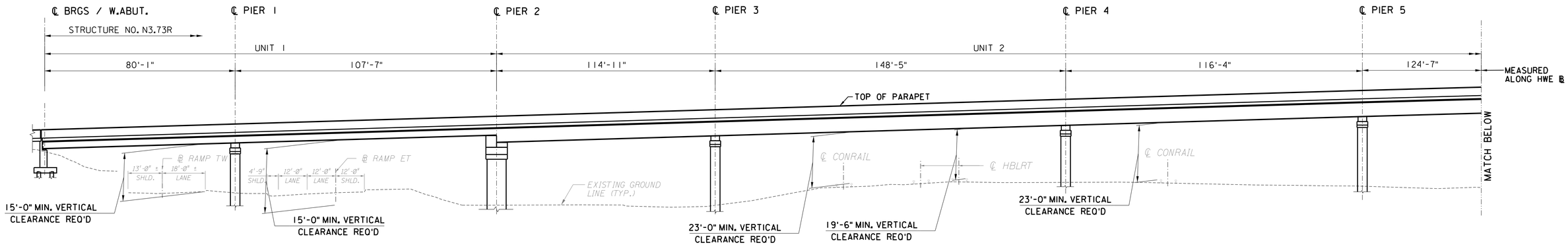
GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

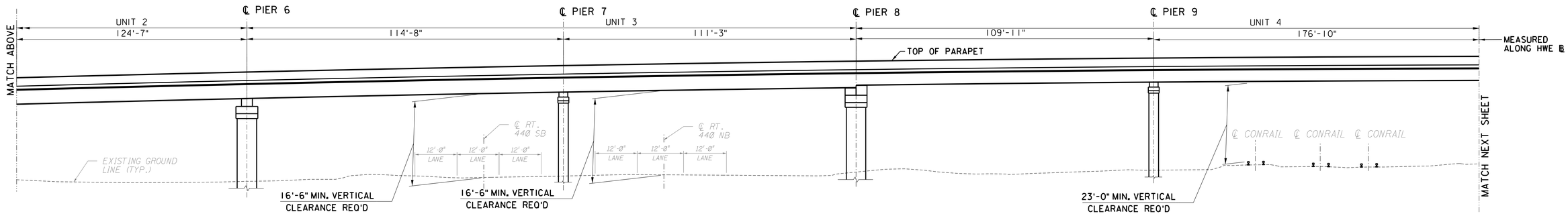
MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=20'-0"

DATE: JULY 2022

343
375





STRUCTURE NO. N3.73R ELEVATION

(LOOKING NORTH)

S-48
S-79

SJH ENGINEERING, P.C.
3700 ROUTE 27, SUITE 201, PRINCETON, NJ 08540

S. JAYAKUMARAN
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04007600

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

	BY	DATE
MADE:	BK	07/2022
TRACED:	ST	07/2022
CHECKED:	VT	07/2022
SUPERVISED:	JK	

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N3.73R ELEVATION - 1

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=20'-0"

DATE: JULY 2022

344
375

7/26/2022 12:11:31 PM jtsang
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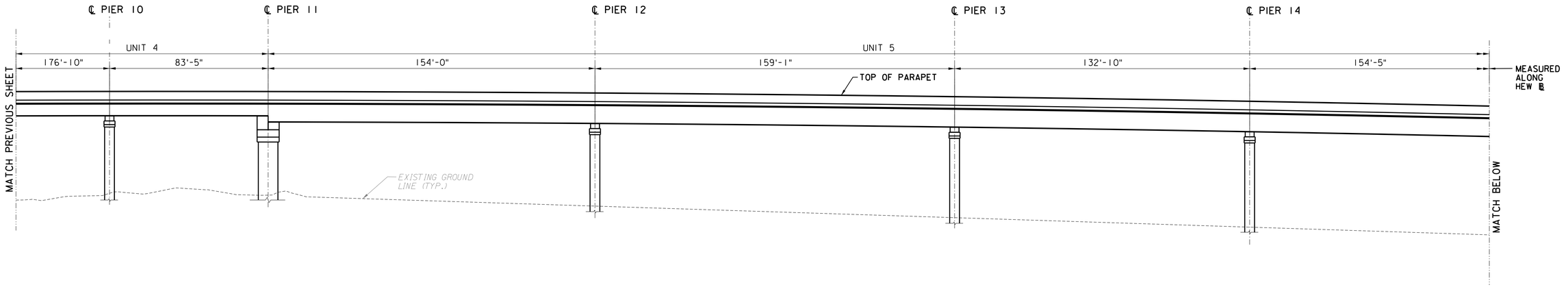

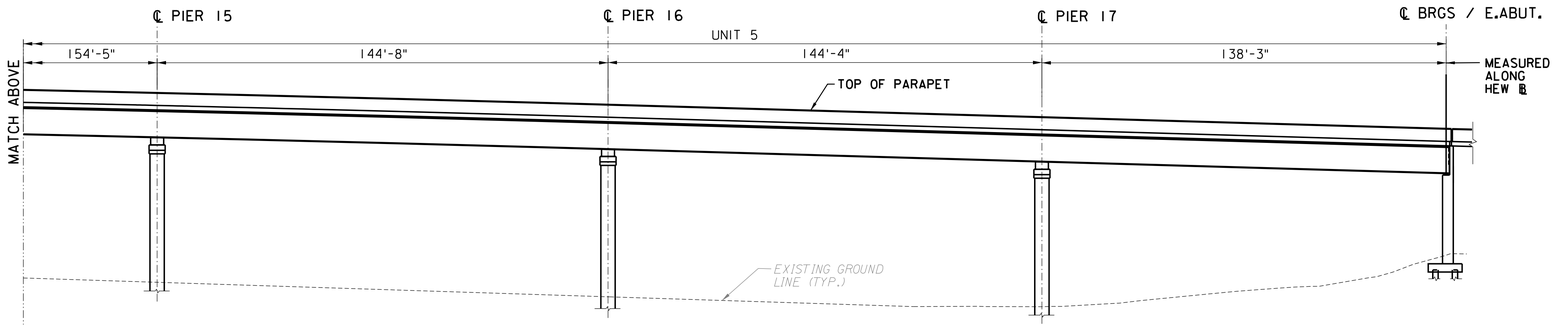

STRUCTURE NO. N3.73R ELEVATION

(LOOKING NORTH)

7/24/2022 12:57:51 PM Venkat
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	BY	DATE
MADE:	BK	07/22
TRACED:	ST	07/22
CHECKED:	VT	07/22
SUPERVISED:	JK	

S-49
S-79

SJH ENGINEERING, P.C.
3700 ROUTE 27, SUITE 201, PRINCETON, NJ 08540

S. JAYAKUMARAN
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04007600

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820
NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION
BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N3.73R
ELEVATION - 2

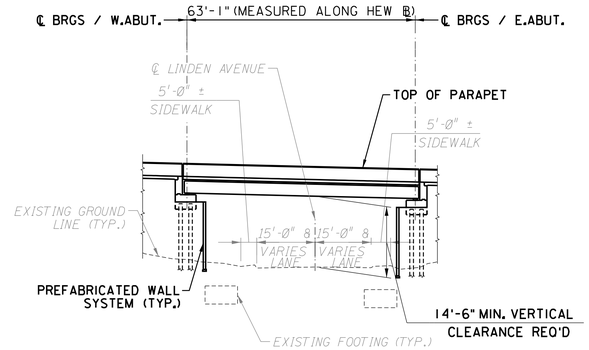
GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1"=20'-0"
DATE: JULY 2022

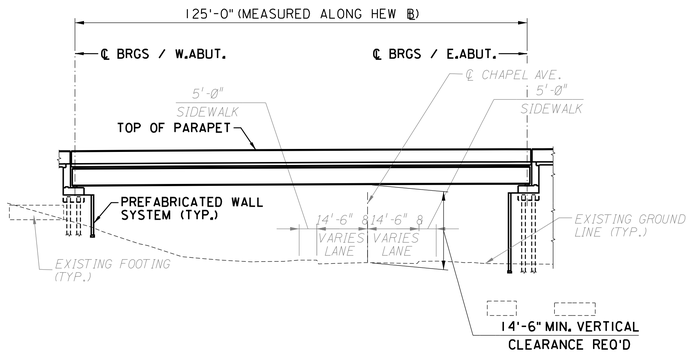
345
375

FILE NAME: T3820_STRC_N3.73_ELE-2.dgn



STRUCTURE NO. N4.12R ELEVATION

(LOOKING NORTH)



STRUCTURE NO. N4.52R ELEVATION

(LOOKING NORTH)

	BY	DATE
MADE:	BK	07/2022
TRACED:	ST	07/2022
CHECKED:	VT	07/2022
SUPERVISED:	JK	

SJH ENGINEERING, P.C.
3700 ROUTE 27, SUITE 201, PRINCETON, NJ 08540

S. JAYAKUMARAN
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04007600

JULY 2022 CONCEPT PLANS

REV.	DESCRIPTION	DATE	BY	CHK.

S-50
S-79

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

OPS NO. T3820

NEW JERSEY TURNPIKE NEWARK BAY-HUDSON COUNTY EXTENSION BRIDGE REPLACEMENTS AND CAPACITY ENHANCEMENTS PROGRAM

STRUCTURE NO. N4.12R / N4.52R ELEVATION

GANNETT FLEMING, INC.
ONE CENTENNIAL AVENUE, SUITE 201
PISCATAWAY, NEW JERSEY 08854
CERTIFICATE OF AUTHORIZATION NO. 24GA28032500

MICHAEL A. MORGAN
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0379000

SCALE: 1" = 20'-0"

DATE: JULY 2022

346
375

7/26/2022 12:31:15 PM ltsang
pw:/gfnet-pw.bentley.comgfnet-pw-01/Documents/Projects/68280/OUTPUT/COMP.01/CIVIL/STRC.SJH/T3820_STRC_N4.12_N4.52.dgn

APPENDIX C: PREVIOUS NJHPO COORDINATION

Allee Davis

From: Leynes, Jennifer [DEP] <Jennifer.Leynes@dep.nj.gov>
Sent: Friday, September 24, 2021 1:52 PM
To: Fischer@njta.com
Cc: Lisa Navarro (Navarro@njta.com); Allee Davis; Philip Hayden; Baratta, Meghan [DEP]
Subject: HPO Project #21-1041-3, NJTA Newark Bay-Hudson County Extension Program

This e-mail serves as the official correspondence of the New Jersey Historic Preservation Office as we switch to a temporary remote work environment in response to the ongoing novel coronavirus (COVID-19) outbreak.

HPO Project #21-1041-3
HPO-I2021-156

Robert Fischer
Chief Engineer
New Jersey Turnpike Authority
via email, Fischer@njta.com

RE: Intensive-Level Architectural Survey, Newark Bay Bridge
Essex County, City of Newark, and Hudson County, City of Bayonne
New Jersey Turnpike, Newark Bay-Hudson County Extension Program
Request for Technical Assistance

Dear Mr. Fischer,

Thank you for submitting the intensive-level historic architectural survey form for the Newark Bay Bridge, received by the Historic Preservation Office (HPO) on September 10, 2021. According to your correspondence, the New Jersey Turnpike Authority (NJTA) is planning to reconstruct the Newark Bay-Hudson County Extension, including replacement of the Newark Bay Bridge. As a result, the NJTA has submitted the referenced intensive-level survey and is requesting a preliminary determination of eligibility for the structure.

HPO staff has reviewed the survey and appreciates the historic context provided regarding the development of the NJ Turnpike extension and construction of the Newark Bay Bridge. While we understand that the Newark Bay Bridge was not the first to connect the New Jersey mainland with the Hudson County peninsula, additional analysis is needed regarding the potential significance of the bridge as a representation of New Jersey's response to the explosion of automobile traffic after World War II, which led to the passage of the Federal Highway Act of 1956 and subsequent development of the interstate highway system. The role of the NJTA in responding to these transportation challenges should be addressed in the analysis. Additionally, while the HPO concurs that the cantilevered truss technology utilized in the bridge design was not novel at the time of construction, we respectfully request additional information regarding comparable highway bridges of the era in New Jersey.

If you or your consultant have any questions, please let me know. Please reference HPO project number **21-1041** in any future calls, emails, or written correspondence to help expedite our review and response. Thank you for your cooperation with this review.

Best,

Jennifer

Jennifer B. Leynes, M.H.P.| **Historic Preservation Specialist 2** |**Historic Preservation Office**
Department of Environmental Protection|Mail Code 501-04B |PO Box 420|Trenton, NJ 08625-0420
P: (609) 984-6016 | jennifer.leynes@dep.nj.gov | HPO Web Page | LUCY Online Map
NEW: Search for reports in the HPO library at https://www13.state.nj.us/DataMiner

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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTE: This E-mail is protected by the Electronic Communications Privacy Act, 18 U.S.C. Sections 2510-2521. This E-Mail and its contents, may be Privileged & Confidential due to the Attorney-Client Privilege, Attorney Work Product, and Deliberative Process or under the New Jersey Open Public Records Act. If you are not the intended recipient of this e-mail, please notify the sender, delete it and do not read, act upon, print, disclose, copy, retain or redistribute it.

Allee Davis

From: Marcopul, Kate [DEP] <Kate.Marcopul@dep.nj.gov>
Sent: Wednesday, February 2, 2022 11:18 AM
To: Fischer@njta.com
Cc: Navarro, Lisa; Allee Davis; Philip Hayden; Baratta, Meghan [DEP]; Leynes, Jennifer [DEP]
Subject: HPO Project #21-1041-4, New Jersey Turnpike, Newark Bay-Hudson County Extension Program

This e-mail serves as the official correspondence of the New Jersey Historic Preservation Office.

HPO Project #21-1041-4
HPO-B2022-011

Robert Fischer
Chief Engineer
New Jersey Turnpike Authority
via email, Fischer@njta.com

RE: Revised Intensive-Level Architectural Survey, Newark Bay Bridge
Essex County, City of Newark, and Hudson County, City of Bayonne
New Jersey Turnpike, Newark Bay-Hudson County Extension Program
Request for Technical Assistance

Dear Mr. Fischer,

Thank you for submitting the revised intensive-level historic architectural survey form for the Newark Bay Bridge, received by the Historic Preservation Office (HPO) on December 9, 2021. According to your correspondence, the New Jersey Turnpike Authority (NJTA) is planning to reconstruct the Newark Bay-Hudson County Extension, including replacement of the Newark Bay Bridge. As a result, the NJTA has submitted the referenced intensive-level survey, which was revised in response to HPO comments dated September 24, 2021 (HPO-I2021-156).

According to the survey, the Newark Bay Bridge was constructed in 1956 as a component of the New Jersey Turnpike Newark Bay-Hudson County Extension (Extension) to carry the Extension over Newark Bay between the cities of Newark and Bayonne. The main span consists of a three-part, cantilevered through-truss with east and west anchor arms and a central, shouldered tied-arch span, with a 43-span west approach and a 32-span east approach. The approaches are comprised of a combination of steel stringer beam spans and steel riveted girder spans, and the substructure includes two kinds of reinforced concrete piers. The bridge was designed by Charles M. Noble, Chief Engineer of the NJTA, with consulting engineers Howard Needles Tammen & Bergendoff.

The survey recommends the Newark Bay Bridge not eligible for listing on the New Jersey and National Registers of Historic Places due to a lack of historical and engineering significance. The HPO respectfully disagrees with this recommendation. *The New Jersey Historic Bridge Survey* (A.G. Lichtenstein & Associates 1994) established multiple criteria for evaluating the significance of a bridge. For a bridge to be eligible under Criterion A, a bridge must be associated with significant transportation routes. Under Criterion C, an eligible bridge must represent a bridge type significant in the development of bridge technology; possess unusual construction details; represent the work of noted engineer(s) and/or fabricator/contractor; and/or represent a particularly good example of a bridge type.

The HPO concurs that the Extension was a response to, rather than a cause of, development on the Hudson County peninsula, and that the design of the Newark Bay Bridge is not technologically significant. However, in our opinion, the Newark Bay Bridge embodies the distinctive characteristics of a type, the cantilevered truss bridge. This type is no longer a favored bridge design among engineers and is an uncommon bridge type in New Jersey. Based on the information provided in the survey and additional research completed by HPO staff, the structure is one of four cantilevered truss bridges constructed in the state during the twentieth century. The other three have all been determined eligible for or listed on the New Jersey and National Registers of Historic Places: Goethals Bridge, built 1928 (SHPO Opinion 2/13/1995); Outerbridge Crossing, built 1928 (SHPO Opinion 2/20/2003); and U.S. Route 1 Extension [Pulaski Skyway], built 1931 (NR 8/11/2005; SR 6/12/2005). Of these, only the Outerbridge Crossing and Pulaski Skyway survive. The Newark Bay Bridge embodies all of the distinctive characteristics of a cantilevered through truss structure, including the cantilevered through truss span and anchor arms. The bridge also embodies the characteristics of other major bridges constructed during the development of the NJ Turnpike, including the concrete substructures, simple rolled steel girders on most spans, and built-up riveted deck plate girders on wider spans. As such, HPO staff believes the Newark Bay Bridge meets Criterion C as an example of a cantilevered truss bridge of the mid-twentieth century. Although the bridge has been modified in the decades since its construction, the changes have not impacted its character-defining features. The boundaries of the historic property include the bridge in its entirety, and the period of significance is limited to its year of construction, 1956.

The Historic Preservation Office reviews projects for their effects on historic resources when federal funding, licensing, or permitting is involved. The HPO also reviews projects requiring Freshwater Wetlands, Waterfront Development, Upland Development, CAFRA and Highland Preservation Area Approval permits issued by the State of New Jersey's Division of Land Resource Protection, as well as environmental assessments under Executive Order 215.

This information is provided as informal notes to you and does not constitute identification-level cultural resources survey under Section 106 of the National Historic Preservation Act or other law or regulation. These notes do not constitute project review under any state or federal law. The absence of previously identified cultural resources does not imply that there are no eligible historic properties in the requested area. Further identification of cultural resources may be required under one or more historic preservation review processes depending on project funding, licensing, or permitting.

If you have any questions, please contact Jennifer Leynes of my staff at jennifer.leynes@dep.nj.gov. Please reference HPO project number **21-1041** in any future calls, emails, or written correspondence to help expedite our review and response. Thank you for your cooperation with this review.

Sincerely,

Katherine J. Marcopul, Ph.D., CPM
Administrator and
Deputy State Historic Preservation Officer
Historic Preservation Office
NJ Department of Environmental Protection
501 East State Street
Trenton, NJ 08625
kate.marcopul@dep.nj.gov
T (609) 984-0176 | F (609) 984-0578

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

KJM/MMB/JBL

Allee Davis

From: Marcopul, Kate [DEP] <Kate.Marcopul@dep.nj.gov>
Sent: Tuesday, April 4, 2023 10:25 AM
To: navarro@njta.com
Cc: Allee Davis; Baratta, Meghan [DEP]; Leynes, Jennifer [DEP]
Subject: HPO Project #21-1041-6, New Jersey Turnpike, Newark Bay-Hudson County Extension Program

This e-mail serves as the official correspondence of the New Jersey Historic Preservation Office.

HPO Project #21-1041-6
HPO- D2023-005

Lisa Navarro
New Jersey Turnpike Authority
via email, navarro@njta.com

RE: Intensive-Level Architectural Survey, New Jersey Turnpike Newark Bay-Hudson County Extension Historic District
Essex County, City of Newark, and Hudson County, City of Bayonne and City of Jersey City
New Jersey Turnpike, Newark Bay-Hudson County Extension Program
Request for Technical Assistance

Dear Ms. Navarro,

Thank you for submitting the following intensive-level survey, received by the Historic Preservation Office (HPO) on March 15, 2023:

Hayden, Philip A.
March 2023 *Intensive Level Survey: New Jersey Turnpike Newark Bay-Hudson County Extension Historic District*. Prepared by Richard Grubb and Associates, Inc., Cranbury, NJ. Prepared for the New Jersey Turnpike Authority, Woodbridge, NJ.

As per your correspondence, the New Jersey Turnpike Authority (NJTA) is planning to reconstruct the Newark Bay-Hudson County Extension (Extension) in order to improve regional mobility and address structural need. The NJTA is seeking technical assistance regarding the eligibility of the Extension for listing on the New Jersey and National Registers of Historic Places.

According to the survey, the Extension was constructed between 1952 and 1956. It extends 8.1 miles from its western terminus at the Newark Airport Interchange in Newark (Interchange 14) to its eastern terminus at the approaches to the Holland Tunnel in Jersey City. Primarily an elevated corridor designed originally to carry the expressway over densely developed industrial sites, access roads, and railroad infrastructure, the resource's main components include the Newark Bay Bridge, four long viaducts, and numerous smaller overgrade and undergrade bridges. The Extension is recommended not eligible for the New Jersey and National Registers due to a lack of significance in the broad patterns of automotive transportation history under National Register Criterion A; a lack of associations with significant persons under Criterion B; and a lack of technological significance or aesthetic distinction under Criterion C. *The HPO concurs with this assessment.*

Additional Comments
As you are aware, it is the opinion of the HPO that the Newark Bay Bridge, which was included in the above-referenced survey as a contributing resource to the Extension, is individually eligible for listing on the New

Jersey and National Registers of Historic Places (HPO-B2022-011). The ineligibility of the Extension does not alter the historic property status of the Newark Bay Bridge.

The Historic Preservation Office reviews projects for their effects on historic resources when federal funding, licensing, or permitting is involved. The HPO also reviews projects requiring Freshwater Wetlands, Waterfront Development, Upland Development, CAFRA and Highland Preservation Area Approval permits issued by the State of New Jersey's Division of Land Resource Protection, as well as environmental assessments under Executive Order 215.

This information is provided as informal notes to you and does not constitute identification-level cultural resources survey under Section 106 of the National Historic Preservation Act or other law or regulation. These notes do not constitute project review under any state or federal law. The absence of previously identified cultural resources does not imply that there are no eligible historic properties in the requested area. Further identification of cultural resources may be required under one or more historic preservation review processes depending on project funding, licensing, or permitting.

If you have any questions, please contact Jennifer Leynes of my staff at jennifer.leynes@dep.nj.gov. Please reference HPO project number **21-1041** in any future calls, emails, or written correspondence to help expedite our review and response. Thank you for your cooperation with this review.

Sincerely,

Katherine J. Marcopul, Ph.D., CPM
Administrator and
Deputy State Historic Preservation Officer
Historic Preservation Office
NJ Department of Environmental Protection
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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

KJM/MMB/JBL/jsl

APPENDIX D: SUMMARY OF NATIONAL REGISTER CRITERIA

1. New Jersey and National Registers of Historic Places Criteria
2. Criteria of Adverse Effect

1. New Jersey and National Registers of Historic Places Criteria

Significant historic properties include districts, structures, objects, or sites that are at least 50 years of age and meet at least one National Register criterion. Criteria used in the evaluation process are specified in the Code of Federal Regulations, Title 36, Part 60, National Register of Historic Places (36 CFR 60.4). To be eligible for inclusion in the National Register of Historic Places, a historic property(s) must possess:

> the quality of significance in American History, architecture, archaeology, engineering, and culture [that] is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

a) that are associated with events that have made a significant contribution to the broad patterns of our history, or

b) that are associated with the lives of persons significant in our past, or

c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components lack individual distinction, or

d) that have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

There are several criteria considerations. Ordinarily, cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register of Historic Places. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

a) a religious property deriving primary significance from architectural or artistic distinction or historical importance, or

b) a building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event, or

c) a birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with his/her productive life, or

d) a cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events, or

e) a reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived, or

f) a property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historic significance, or

g) a property achieving significance within the past 50 years if it is of exceptional importance. (36 CFR 60.4)

When conducting National Register evaluations, the physical characteristics and historic significance of the overall property are examined. While a property in its entirety may be considered eligible based on Criteria A, B, C, and/or D, specific data is also required for individual components therein based on date, function, history, and physical characteristics, and other information. Resources that do not relate in a significant way to the overall property may contribute if they independently meet the National Register criteria.

A contributing building, site, structure, or object adds to the historic architectural qualities, historic associations, or archeological values for which a property is significant because a) it was present during the period of significance, and possesses historic integrity reflecting its character at that time or is capable of yielding important information about the period, or b) it independently meets the National Register criteria. A non-contributing building, site, structure, or object does not add to the historic architectural qualities, historic associations, or archeological values for which a property is significant because a) it was not present during the period of significance, b) due to alterations, disturbances, additions, or other changes, it no longer possesses historic integrity reflecting its character at that time or is incapable of yielding important information about the period, or c) it does not independently meet the National Register criteria.

Archaeological sites are frequently eligible for inclusion on the National Register under Criterion D. The application of Criterion D to archaeological sites is based on a researcher's assessment of a particular site's significance and whether a particular site is likely to yield important information for the reconstruction of past lifeways (Glassow 1977; Talmage and Chesler 1977; Raab and Klinger 1977; Moratto and Kelly 1978; Raab 1981; Tainter and Lucas 1983; Shott 1987).

Raab and Klinger (1977) have argued that significance should be measured in terms of a site's potential to provide information on specific research issues that are carefully formulated based on prior research studies. Glassow (1977) and Tainter and Lucas (1983) have argued that significance should be judged on the theory neutral dimensions of variety, quantity, clarity, integrity, and environmental context. An archaeological site is evaluated as significant when it possesses the potential to address important research issues and the integrity to convey this significance.

The empirical dimensions of a site, including the presence of sufficient data sets to address significant research issues, must be considered to determine integrity. Only sites possessing both the potential to address specific research questions coupled with integrity are considered significant (King 1998:77; Little 1997:179-180; Little et al. 2000; National Park Service 1995:44-46).

2. Criteria of Adverse Effect

Whenever a historic property may be affected by a proposed undertaking, Federal agency officials must assess whether the project constitutes an adverse effect on the historic property by applying the criteria of adverse effect. According to the Advisory Council on Historic Preservation, the criteria of adverse effect (36 CFR 800.5), is as follows:

> (1) An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that would qualify it for inclusion in the National Register, in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those

that may have been identified subsequent to the original evaluation for the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or cumulative.

(2) Adverse effects on historic properties include, but are not limited to (36 CFR 800.5(a)(2)):

i) Physical destruction of or damage to all or part of the property;

ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines;

iii) Removal of the property from its historic location;

iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;

v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;

vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and

vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

A finding of adverse effect or no adverse effect could occur based on the extent of alteration to a historic property, and the proposed treatment measures to mitigate the effects of a proposed undertaking. According to 36 CFR 800.5(3)(b):

> The agency official, in consultation with the SHPO/THPO, may propose a finding of no adverse effect when the undertaking's effects do not meet the criteria of § 800.5(a)(1) or the undertaking is modified or conditions are imposed, such as the subsequent review of plans for rehabilitation by the SHPO/THPO to ensure consistency with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines, to avoid adverse effects.

Sources

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1977 Issues in Evaluating the Significance of Archaeological Resources. American Antiquity 42:413-420.

King, Thomas F.
1998 Cultural Resource Laws and Practice: An Introductory Guide. Altamira Press, Walnut Creek, California.

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1997 Archaeology, History, and Material Culture: Grounding Abstractions and Other Imponderables. International Journal of Historical Archaeology 1(2):179-187.

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2000 Guidelines for Evaluating and Registering Archaeological Properties, National Register Bulletin, U.S. Department of the Interior, National Park Service, National Register, History, and Education, Washington D.C.

Moratto, Michael J. and Roger E. Kelly
1978 Optimizing Strategies for Evaluating Archaeological Significance. In Advances in Archaeological Method and Theory, M. B. Schiffer, ed., Academic Press, New York, New York.

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1995 How to Apply the National Register Criteria for Evaluation. National Register Bulletin 15. National Park Service, Washington, DC.

Raab, Mark L.
1981 Getting First Things First: Taming the Mitigation Monster. Abstracts and CRM Archaeology 2:7-9.

Raab, Mark L. and Timothy Klinger
1977 Critical Appraisal of 'Significance' in Contract Archaeology. American Antiquity 42(4):629-634.

Tainter, Joseph A. and G. John Lucas
1983 Epistemology of the Significance Concept. American Antiquity 48(4):707-719.

Talmage, Valerie and Olga Chesler
1977 The Importance of Small, Surface, and Disturbed Sites as Sources of Significant Archaeological Data. United States Park Service, Department of the Interior, Washington D.C.

APPENDIX E: PUBLIC CONSULTATION

Identified Consulting Parties

United States Army Corps of Engineers
North Atlantic Division
302 General Lee Avenue
Fort Hamilton, NJ 11252-6700

Delaware Nation, Oklahoma
PO Box 825
Anadarko, OK 073005

Shawnee Tribe of Oklahoma
2025 South Gordon Cooper Drive
Shawnee, OK 74801

Shawnee Tribe
PO Box 189
29 South Highway 69A
Miami, OK 74355

Stockbridge Munsee Community
N8705 MohHeConNuck Road
Bowler, WI 54416

Delaware Tribe of Indians
126 University Circle
Stroud Hall Room 437
East Stroudsburg, PA 18301

Mayor Ras Baraka
City of Newark
920 Broad Street
Room 200
Newark, NJ

City of Newark Landmarks and Historic Preservation Commission
PO Box 1066
Newark, NJ 07101

Mayor Jimmy Davis
630 Avenue C
Bayonne, NJ 07002

City of Bayonne Historic Preservation Commission
630 Avenue C
Bayonne, NJ 07002

Mayor Steven M. Fulop
280 Grove Street
Jersey City, NJ 07302

Tanya Marione, Director
City of Jersey City Historic Preservation Commission
1 Jackson Square
2nd floor
Jersey City, NJ 07305

Hudson County Executive Thomas A. DeGise
583 Newark Avenue
Jersey City, NJ 07306

Hudson County Open Space, Recreation and Historic Preservation
Division of Planning
Bergen Square Center
830 Bergen Avenue
Suite 6A
Jersey City, NJ 07306

Essex County Executive Joseph N. DiVincenzo, Jr.
Hall of Records
465 Dr. Martin Luther King, Jr. Boulevard
Room 405
Newark, NJ 07102

The Essex County Department of Parks, Recreation, and Cultural Affairs
115 Clifton Avenue
Newark, NJ 07104

Newark History Society
546 N 7th Street
Newark, NJ 07107

Bayonne Historical Society
PO Box 3034
Bayonne, NJ 07002

Preservation New Jersey
30 South Warren Street
Trenton, NJ 08608

New Jersey Historical Society
52 Park Place
Newark, NJ 07102

Roebling Chapter, Society for Industrial Archaeology
235 West End Avenue

Apartment 14C
New York, NY 10023-3648

Archaeological Society of New Jersey
c/o New Jersey State Museum
Bureau of Archaeology and Ethnography
205 West State Street
PO Box 530
Trenton, NJ 08625-0530

Canal Society of New Jersey
P.O. Box 737
Morristown, NJ 07963-0737

Doreen Bloomer, President
Hudson County Genealogical & Historical Society
512-39th Street
Union City, NJ 07087

Gina Hulings, Director
Office of Cultural & Heritage Affairs/Tourism Development
William J. Brennan Courthouse Building
583 Newark Avenue
Jersey City, NJ 07306

Christopher Perez, President
Jersey City Landmarks Conservancy, Inc.
P.O. Box 3449
Jersey City, NJ 07303-0068

APPENDIX F: PREVIOUS NJHPO SURVEY FORMS

1) Port Authority Administration Building (Building 260)
2) Public Service Electric & Gas Co. Building
3) Former Tide Water Oil Company Pumping Station

BASE SURVEY FORM

Historic Sites #:

Property Name: Port Authority Administration Building (Building 260)

Street Address: *Street #:* 260 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* Kellogg *Suffix:* _____ *Type:* ST

County(s): Essex **Zip Code:** 07101

Municipality(s): City of Newark **Block(s):** 6000

Local Place Name(s): Newark **Lot(s):** 1

Ownership: Private **USGS Quad(s):** Elizabeth

Description:

Built in 1967 by the Port of New York Authority (today, Port Authority of New York and New Jersey), the Port Authority Administration Building (Building 260) is a multi-story, multi-use, steel-framed building that assumes a T-shaped footprint with its primary elevation facing southwest (Plates 1-33). The building sits atop a concrete slab foundation with shallow concrete footings. Rolled asphalt sheathes the two primary flat roof surfaces which overhang slightly and are lined by a structural steel fascia. The crossbar of the T-shaped building constitutes the office area which rises three stories in height and is distinct for its angular façade treatment. Extending from the northeast elevation of the office area and measuring approximately 216 feet in length is the garage and storage area, which rises a little more than 23 feet in height. *See Continuation Sheet*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Historic Architectural Evaluation, Port Authority Administration Building (Building 260)

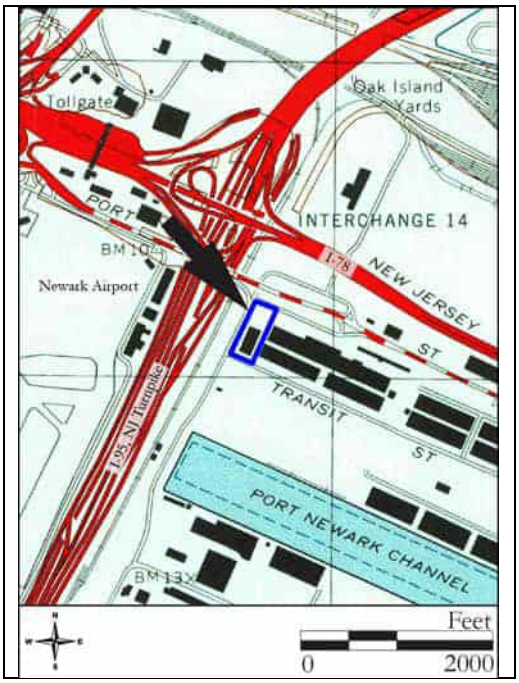
Surveyor: Allee Davis and Kristen Herrick Date: January 2018

Organization: RGA, Inc.

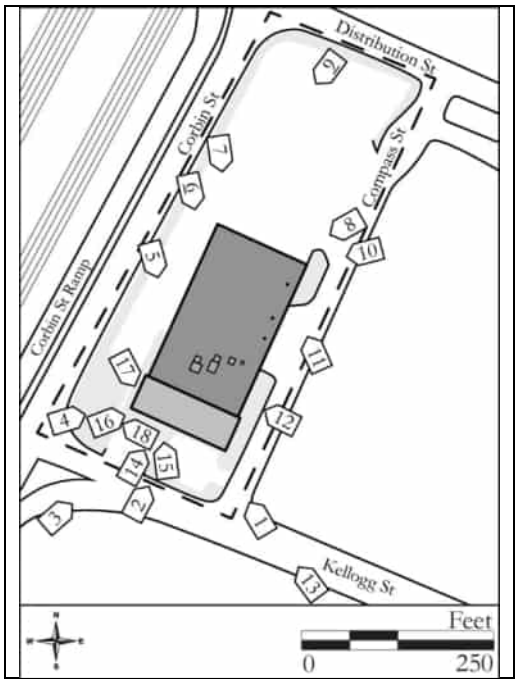
BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:



Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Historic Architectural Evaluation, Port Authority Administration Building (Building 260)
Surveyor: Allee Davis and Kristen Herrick Date: January 2018
Organization: RGA, Inc.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: Port Authority Administration Building (Building 260)
Historic Name: Port Authority Administration Building (Building 260)
Present Use: Commercial Activity, Office Activity, Public, Governmental
Historic Use: Commercial Activity, Office Activity, Public, Governmental
Construction Date: 1967 **Source:** The Port of New York Authority 1967:35
Alteration Date(s): N/A **Source:** N/A
Designer: Port of New York Authority **Physical Condition:** Good
Builder: Port of New York Authority **Remaining Historic Fabric:** Medium
Style: Modernistic
Form: Other **Stories:** 3
Type: N/A **Bays:** N/A
Roof Finish Materials: Rolled Asphalt
Exterior Finish Materials Concrete; Brick, Running Bond; Fiberglass

Exterior Description:
See Continuation Sheet

Interior Description:
The interior of the office area consists of three floors, all of which have been heavily altered over the years. On the first floor, there is a small entrance lobby off of which the other spaces radiate and within which lie the two elevators and stairwell. A center hall provides access to the rear garage and storage area (see Plate 19). To the west are several offices and to the east are a lunchroom, locker room, and general storage spaces (see Plates 20 and 21). A second stairwell is located in the east corner. Both the second and third floors are populated by cubicles, individual offices, and several conference rooms, all of which vary in size and layout (see Plates 28-32). Throughout the majority of the interior, it appears that all original materials have been removed and replaced with contemporary fittings. *See Continuation Sheet.*

Setting:
Situated in the northeast corner of the Port Newark/Elizabeth Marine Terminal, the Port Authority Administration Building (Building 260) is sited on a rectangular parcel (Block 6000, Lot 1) on the northeast side of Kellogg Street in the City of Newark, Essex County, New Jersey. The parcel is bounded to the northeast by Distribution Street, to the southeast by Compass Street, to the southwest by Kellogg Street, and the northwest by Corbin Street. The building is oriented with its primary elevation facing southwest. Paved parking lots surround the building. A small, modest landscaped lawn occupies the southwest corner of the lot which is adorned by a commemorative buoy placed in 2015 (see Plate 18). In the rear of the back parking lot lies Building 259, a one-story storage building built circa 2006. Large industrial and storage buildings and paved surface storage lots dating from the mid-twentieth to the early twenty-first century neighbor the subject building. The subject building is adjacent to the east of the New Jersey Turnpike and Newark Liberty International Airport. The Newark Bay is approximately 1 mile to the east.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
Built in 1967, the Port Authority Administration Building (Building 260) of Port Newark was one of many results of the ongoing efforts by the Port Authority to continuously invest in the expansion and improvement of its marine facilities. Port Newark was established in 1915 by the City of Newark to give it a global presence. During both World Wars, the seaport served as an army base and shipbuilding yard before coming under the stewardship of the Port Authority in 1948. Once under its control, the Port Authority immediately began investing millions of dollars into the seaport in order to transform it into a world-class marine facility for deep-sea shipping vessels importing and exporting a wide variety of cargo including foreign cars, frozen meat, lumber, and wine. By the 1960s, Port Newark was handling 30 percent of all shipping in the New York-New Jersey metropolitan area and the neighboring Elizabeth-Port Authority Marine Terminal to the south became the containerized shipping capital of the world. As a result of the Port Authority's presence and continued investment in Port Newark, Port Elizabeth, and the neighboring Newark International Airport, the bi-state agency had become one of the key regional economic drivers.
See Continuation Sheet

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
See Continuation Sheet

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

Exterior Description (continued):

The exterior of the office area is characterized by the composition of full-height, precast concrete vertical panels and alternating glass and spandrel panels. Joined to form an L-shape and rotated to create the façade's angular appearance, the concrete panels are positioned facing north and the glass and spandrel panels face south, towards the interior of Port Newark and Port Newark Channel, except for on the northwest elevation (see Plates 1-4, 16, and 17). This façade treatment fully composes the exterior envelope of the office area, except for about 21 feet on the southeast elevation that is defined by glazed face brick. Both the west and south corners are canted with the west corner featuring concrete panels and the south featuring glass and spandrel panels. Below the roofline at the west corner are large letters affixed to the concrete panel that read "PORT AUTHORITY ADMINISTRATION BUILDING." Positioned slightly off center to the north on the southwest (primary) elevation, the primary entrance is sheltered by a portico that appears to have replaced the original portico (see Plates 14 and 15). Concrete-encased steel supports the semi-hexagonal, flat roof of the portico. Multi-pane glazing organized by steel mullions line the portico. Access to the interior is gained through automatic sliding doors.

The majority of the exterior of the rear garage and storage area consists of translucent, insulated fiberglass windows anchored by aluminum-framed awning windows organized by structural steel mullions, atop a base of glazed face brick. The southeast elevation is punctured by four garage-sized doors framed by colossal brick pilasters and fitted with modern replacement and rolling doors (see Plates 10 and 11). Several secondary doors are located along this elevation. Although similar in design and appearance, the aluminum-framed awning windows at the southern end of the southeast elevation are replacement windows (see Plate 12). On the northeast elevation, six steel double doors framed by concrete perforate the exterior (see Plate 8). A steel ladder and ladder guard is affixed to the center of the northeast elevation, providing access to the roof. At the east corner, on the northeast elevation, are letters supported by horizontal metal pieces which read "PORT AUTHORITY ADMINISTRATION BUILDING." The northwest elevation is similar in appearance to the southeast elevation but differs in that only two garage-sized doors pierce the elevation (see Plates 5 and 6).

Interior Description (continued):

The rear garage and storage area is generally a large, open space housing equipment and various other materials related to the maintenance and operation of Port Newark. A large temporary, two-story building was erected in the southwest corner of the area (see Plate 22). Lining the southeast and northeast walls is an assortment of rooms used for storage and administration. The former police headquarters for the port was situated in the southeast corner but was severely damaged during Superstorm Sandy in 2012. As a result of the damage, the entire space has been gutted (see Plates 25-27). The translucent, insulated fiberglass panels provide diffused natural light throughout the interior (see Plate 24).

History:

During the early twentieth century, after having connected to New York City via railroad through a subaqueous tunnel in the Hudson River, the City of Newark vied next for a global presence. With the city advantageously positioned on the Newark Bay, the construction of a seaport was the logical solution. After having spent nearly $1 million on land acquisitions in 1911 and obtaining additional funds over the course of 1912, development of Port Newark began on New Year's Day, 1914 (Cunningham 1988:246). Completed by 1916, the newly established Port Newark included a 300-foot wide, 20-foot deep channel dredged from the mud and swampland along Newark Bay (Cunningham 1988:246). The new shipping channel extended for nearly a mile over the meadows and into Newark Bay and boasted a 500-foot wide turning basin (Cunningham 1988:247). Not long after Port Newark's entry onto the global maritime scene, the U.S. Government established an army base at the seaport and adjacent Newark Airport in support of wartime efforts during World War I (Port of New York Publicity Company 1922:6). Beginning in 1917, the Submarine Boat Corporation also leased space at Port Newark for shipbuilding during the war. Still a muddy, swampy swath of land along the southeastern edge of Newark, Port Newark underwent its first major renovation through the

CONTINUATION SHEET

Historic Sites #:

History (continued):

sinking of thousands of piles to support the construction of warehouses and 28 ways for shipbuilding (Cunningham 1988:256). Port Newark had been transformed into its own village with a variety of buildings for some 17,000 employees who were brought to and from the port by a newly built trolley line. Following World War I and throughout the 1920s, both the U.S. Army and the Submarine Boat Corporation maintained a presence at Port Newark and continued using the site as a shipping center, solidifying the City of Newark's role in the global shipping business (Port of New York Publicity Company 1922:10).

In 1936, the U.S. Army relinquished ownership of Port Newark and the city resumed stewardship of the property. By this time, several other shipping companies operated out of Port Newark including Philadelphia-based Atlantic Tidewater Terminals; however, during World War II, Port Newark again focused its operations on shipbuilding and transportation of military equipment overseas. In 1947, with the Second World War over, the U.S. Army resigned control of Port Newark back over to Newark, which had left the seaport facilities dilapidated. Despite the poor conditions of Port Newark, the city's post-war concerns focused primarily on the improvement of its infrastructure, schools, hospitals, and other civic resources. In 1948, the Port of New York Authority (Port Authority) approached Newark with an offer to assume control of both the city's airport and seaport. After several negotiations, city officials and the Port Authority agreed to a 50-year lease agreement and a guaranteed minimum of $6 million in rental payments for Port Newark (Cunningham 1988:302). Between 1948 and 1954, the Port Authority spent approximately $34 million in the development, enhancement, and expansion of the seaport. Old wharves were replaced and channels were dredged to deeper depths to allow the docking of deep-sea vessels (Cudahy 2006:50-51). Port Newark was a desirable addition to the Port Authority's holdings due, in part, to its proximity to Newark Airport and the thousands of acres of undeveloped marshland surrounding the port south along Newark Bay (Cudahy 2006:61). The City of Newark soon benefited financially from the bi-state agency's presence.

Continuing from the 1950s into the 1960s, improvements at Port Newark continued at a steady pace. The Port Authority built three new cargo buildings, three modern lumber storage buildings, a 15-acre public lumber terminal, a new warehouse, and a fumigation building (Cullman 1954:17). One of the largest construction projects since the port's opening in 1917 was a $6 million three-berth marine terminal for the Waterman Steamship Corporation, a prominent operator of commercial vessels. Dedicated on March 25, 1954, it was the Port Authority's hope that this new marine terminal would provide Northern New Jersey with adequate facilities to import and export a variety of commodities, as well as bring additional cargo to the seaport from other parts of the country and overseas (Cullman 1954:18). During the early 1960s, the Elizabeth-Port Authority Marine Terminal to the south began to take shape and quickly complemented the success of Port Newark, as the demand for container handling in the port grew (The Courier-News, 14 January 1966).

By 1966, Port Newark was handling 30 percent of all shipping in the New York-New Jersey metropolitan area and led the nation in importing foreign automobiles and frozen meats, and the Elizabeth-Port Authority Marine Terminal had become known as the container capital of the world (Cunningham 1988:302; The Port of New York Authority 1967:35). This same year, work had begun on a long-range, phased project that would occur over the course of several years. Construction activities included expanding the number of vessel berths from 31 to 37 along nearly 4,000 feet of wharf, improvements to open land to provide additional open storage areas, and the construction of a modern field office and maintenance building that would be completed in 1967 (The Courier-News, 14 January 1966; The Port of New York Authority 1966:31). The Port Authority's ambitious efforts at Port Newark at the time were only a small component of the bi-state agency's larger projects, with the planning and construction of the World Trade Center in Manhattan arguably being the most notable.

CONTINUATION SHEET

Historic Sites #:

History (continued):

By 1967, the Port Authority was operating 24 different facilities including bridges and tunnels, airports, bus terminals, marine terminals, and the Port Authority Trans-Hudson rapid transit system. For its marine facilities, over $300 million had been spent over the previous two decades in development and construction (The Port of New York Authority 1967:5). For Port Newark and the Elizabeth-Port Authority Marine Terminal, $26.7 million was earmarked in the agency's nearly $380 million budget for 1967 to further expand and improve the ports' facilities (The Courier-News, 13 January 1967). In the fall of that year, the Port Authority Administration Building was completed and occupied, marking measurable progress in the Port Authority's ambitious planning and development efforts for Port Newark. The design of the administration building, along with all other construction activities of the Port Authority, fell under the responsibility of John M. Kyle, the agency's Chief Engineer (Kavanagh 1979:165-168). Kyle enjoyed a celebrated 25-year tenure with the Port Authority, following in the footsteps of his distinguished predecessors which included General George Goethals, Othmar Ammann, and John C Evans.

As Chief Engineer, Kyle was tasked with designing facilities that not only met the needs and requirements of its users, but were also built at the lowest feasible cost. For the Port Authority Administration Building, Kyle delivered with a design that was both functional and aesthetically pleasing. Sited in the northwest corner of Port Newark, looking inwards towards the channel, the new administration building housed operations, police, and administrative staff for both Port Newark and the Elizabeth-Port Authority Marine Terminal (The Port of New York Authority 1967:35) (Figure 1). The building was architecturally distinct for its angular exterior adorning the three-story office area, off of which extended a one-story garage and storage area that featured translucent, insulated fiberglass windows framed by structural steel mullions (Figures 2-4). The angular exterior took shape through the full-height, precast concrete vertical panels and alternating glass and spandrel panels. The combination of concrete and glass were thoughtfully positioned to provide views of the inner port area from the office area with the glass and spandrel panels facing south, and privacy from the public with the concrete panels mostly facing north. Interrupted by typical garage openings and doorways, the translucent, insulated fiberglass windows along the one-story garage filtered diffused, natural light into the building's interior.

On October 21, 1967, with the transformation of Port Newark becoming more apparent, the Port Authority held an open house for the public. With no admission fees, visitors were invited to explore the marine facilities through guided boat rides, bus tours, and exhibitions to learn about the port's operations (The Central New Jersey Home News, 19 October 1967). On display were a variety of products handled at both ports such as foreign cars and motorcycles from Germany, Great Britain, and Japan; coffee from South America; condiments from the Far East; and photographic equipment from Western Europe (The Central New Jersey Home News, 19 October 1967). A few months later, in November, Terminal Street, the principal thoroughfare that connected Port Newark and the Elizabeth-Port Authority Marine Terminal, was renamed Corbin Street in honor of the late Horace C. Corbin, the former Commissioner and Vice Chairman of the Port Authority, as well as a prominent New Jersey civic leader (The Port of New York Authority 1967:35). In 1972, the Port Authority was renamed the Port Authority of New York and New Jersey.

During the 1970s and 1980s, with the continued growth of both Port Newark and the Newark Airport, the Port Authority's facilities in Newark had become increasingly insulated from the rest of the city despite the bi-state agency having control of about one-fifth of the city's area. Interstate 78, the New Jersey Turnpike, other intersecting major highways, and the old Pennsylvania Railroad embankment segregated the airport and seaport from Newark, often a point of consternation for city officials (Cunningham 1988:355). By the 1980s, the Port Authority succeeded in making Port Newark one of the most flexible, multi-purpose cargo centers in the United States (Cunningham 1988:356). Combined with the southern Elizabeth seaport, the two ports became commonly known as the Port Newark-Elizabeth Marine Terminal. Today, the Port Newark-Elizabeth Marine Terminal is among the international leaders in containerized shipping and remains equipped to expedite any import or export cargo whether it is automobiles or bananas.

CONTINUATION SHEET

Historic Sites #:

Significance (continued):

The construction of the Port Authority Administration Building occurred during one of the Port Authority's long-range, phased projects to improve and expand Port Newark. With Port Newark and Port Elizabeth having gained prominence as one of the region's key shipping centers, a modern administration building was a logical undertaking. The design and construction of the Port Authority Administration Building fell under the purview of the Port Authority's Chief Engineer, John M. Kyle. Kyle oversaw all construction activities for the Port Authority and was obligated to design facilities that were not only functional but also inexpensive to build. The Port Authority Administration Building is the result of Kyle's deft ability to combine utility and frugality with aesthetics. The building was constructed using common materials arranged to create the building's distinct angular exterior on the office area and visually interesting facades along the one-story garage area. The full-height, precast concrete vertical panels and alternating glass and spandrel panels of the three-story office area provide the building's occupants both privacy from the general public and views into Port Newark, towards the channel. The translucent, insulated fiberglass windows framed by structural steel mullions give the otherwise utilitarian garage area visual texture on the exterior while providing diffused, natural light into a heavily used interior space. Although the police have become temporarily displaced due to damages incurred by Superstorm Sandy in 2012, the building continues to house operations and administrative staff for the Port Newark/Elizabeth Marine Terminal.

Justification of Eligibility/Ineligibility:

The Port Authority Administration Building (Building 260) is recommended ineligible for listing on the National Register of Historic Places (NRHP). Although the subject building is situated in Port Newark, one of New Jersey's busiest, most prominent commercial seaports operated by the Port Authority of New York and New Jersey (Port Authority), it is not associated with any significant events in history or important individuals. Architecturally, the administration building is an unremarkable example of its type and is not the work of a master. Regional architectural trends at the time entailed similar, generic designs for office and public buildings. Of the myriad buildings and structures built by the Port Authority, the subject building pales in comparison in terms of design, materials, and workmanship. Depending on the scale of public presence, the Port Authority employed both world-renowned architects and in-house staff for the design of their buildings. For example, the Port Authority collaborated with Minoru Yamasaki on the design of the World Trade Center (1972-1974), briefly the world's tallest buildings, and with Italian engineer Pier Luigi Nervi on the George Washington Bridge Bus Station (1963). For smaller, less public buildings, the Port Authority was more prone to utilize their in-house staff which still produced architecturally notable designs such as Goethals Bridge Administration Building, the George Washington Bridge Administration Building, and the Port Authority's former headquarters that occupy the entire city block between Eight and Ninth Avenues and 15th and 16th Streets in Manhattan. While all modern in design and built over the entire length of the twentieth century, these smaller buildings do not exhibit consistency in terms of architectural style or detail. The Port Authority Administration Building is among the many common, simple designs created by the Port Authority's staff and built during this time.

Since its construction in 1967, the Port Authority Administration Building has undergone a series of alterations which have denigrated the building's integrity in terms of design, materials, and workmanship. Nearly all of the original materials in the interior of the three-story office area have been removed and replaced with modern materials, likely performed in tandem with the reconfiguration of the original layout. The interior of the one-story garage and storage area has been altered through the construction of a two-story, partitioned office structure. The area in which the police formally occupied has been completely gutted due to the severe flooding experienced during Superstorm Sandy in 2012. The original aluminum-framed awning windows in this section of the building have been replaced with modern aluminum-framed windows. For these reasons, the Port Authority Administration Building is recommended ineligible for listing on the NRHP.

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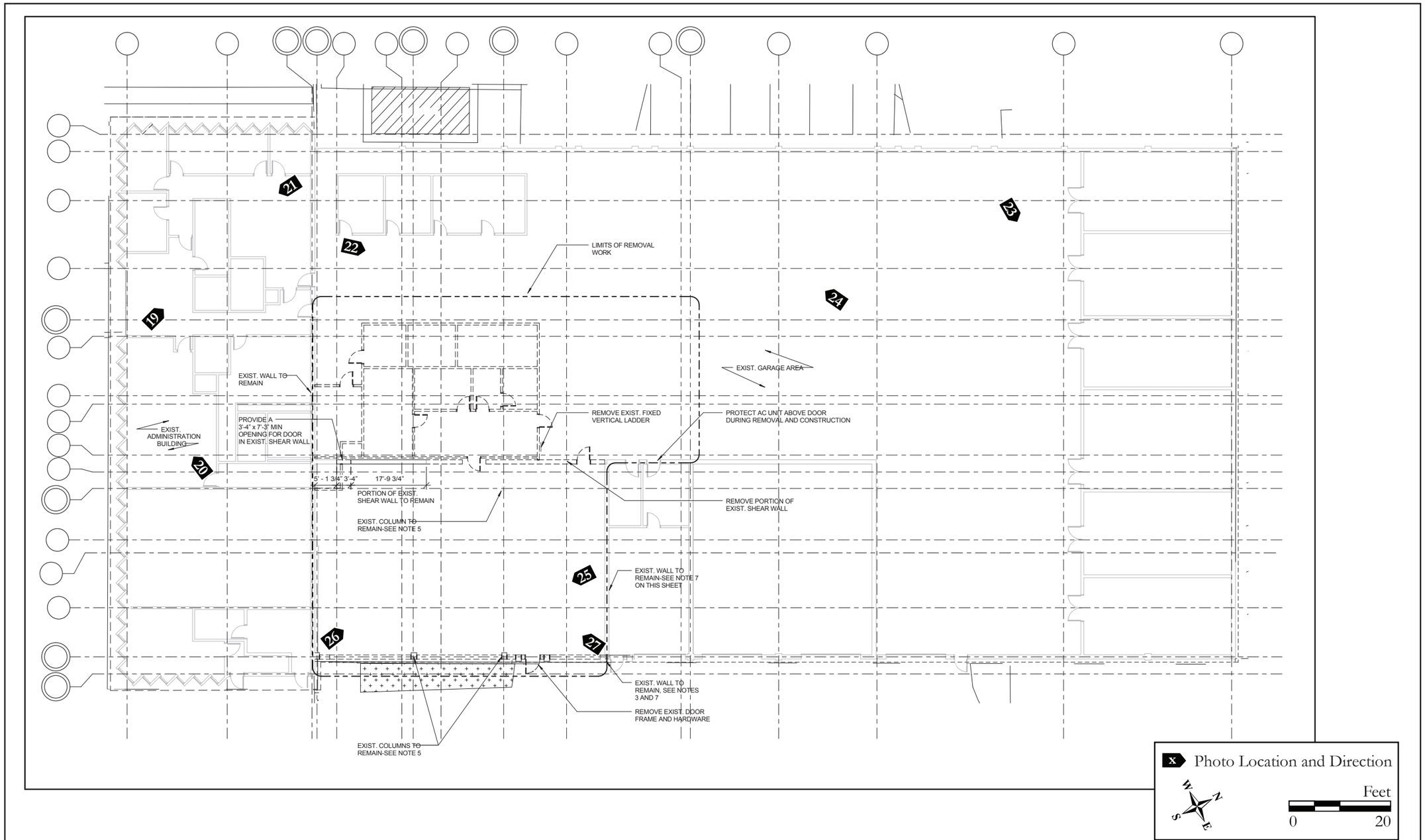

Floor plan, first floor, Port Authority Administration Building (Building 260) showing photograph locations.

Survey Name: Historic Architectural Evaluation, Port Authority Administration Building (Building 260)
Surveyor: Allee Davis and Kristen Herrick
Organization: RGA, Inc.
Date: January 2018

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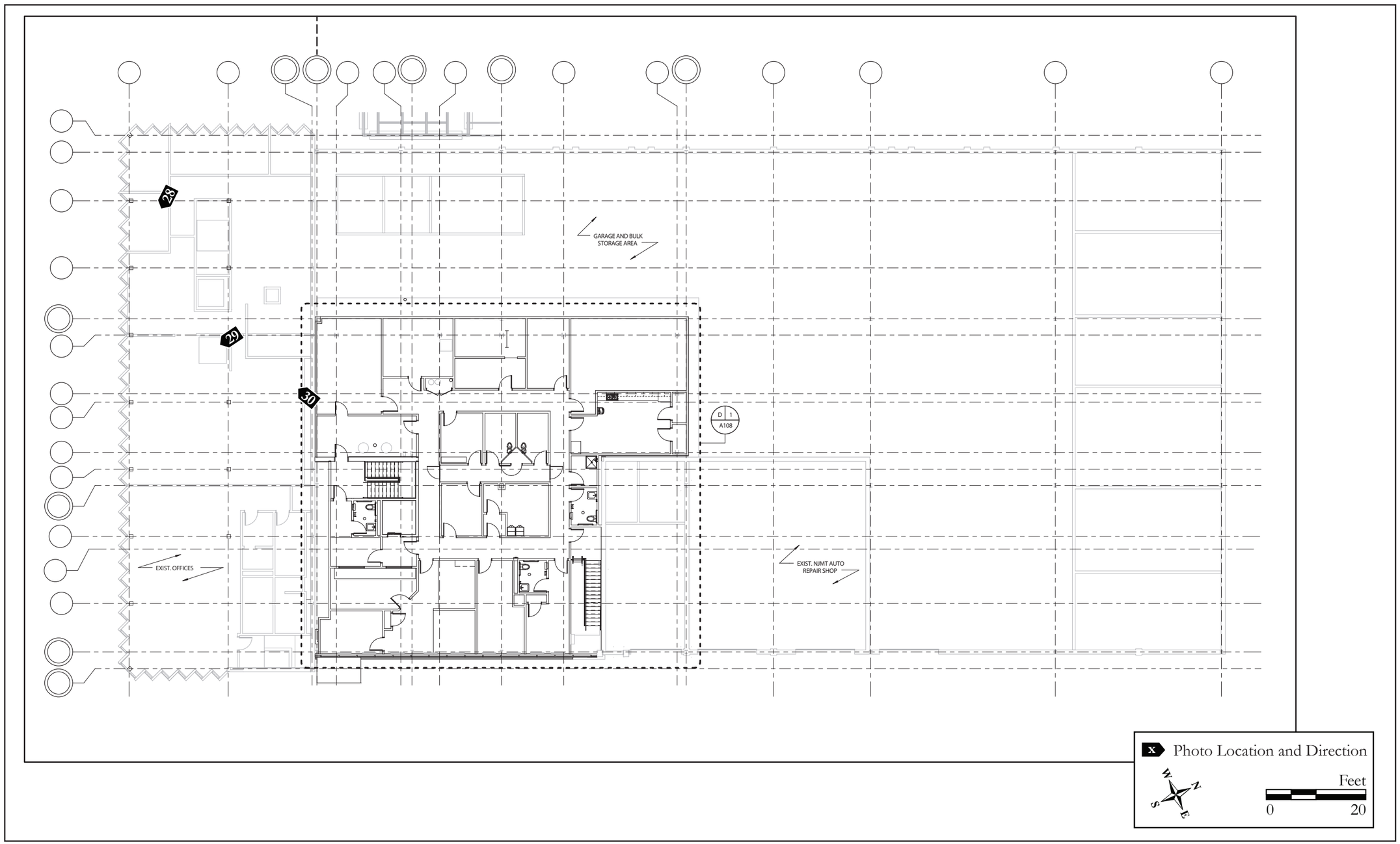

Floor plan, second floor, Port Authority Administration Building (Building 260) showing photograph locations.

Survey Name: Historic Architectural Evaluation, Port Authority Administration Building (Building 260)
Surveyor: Allee Davis and Kristen Herrick
Organization: RGA, Inc.
Date: January 2018

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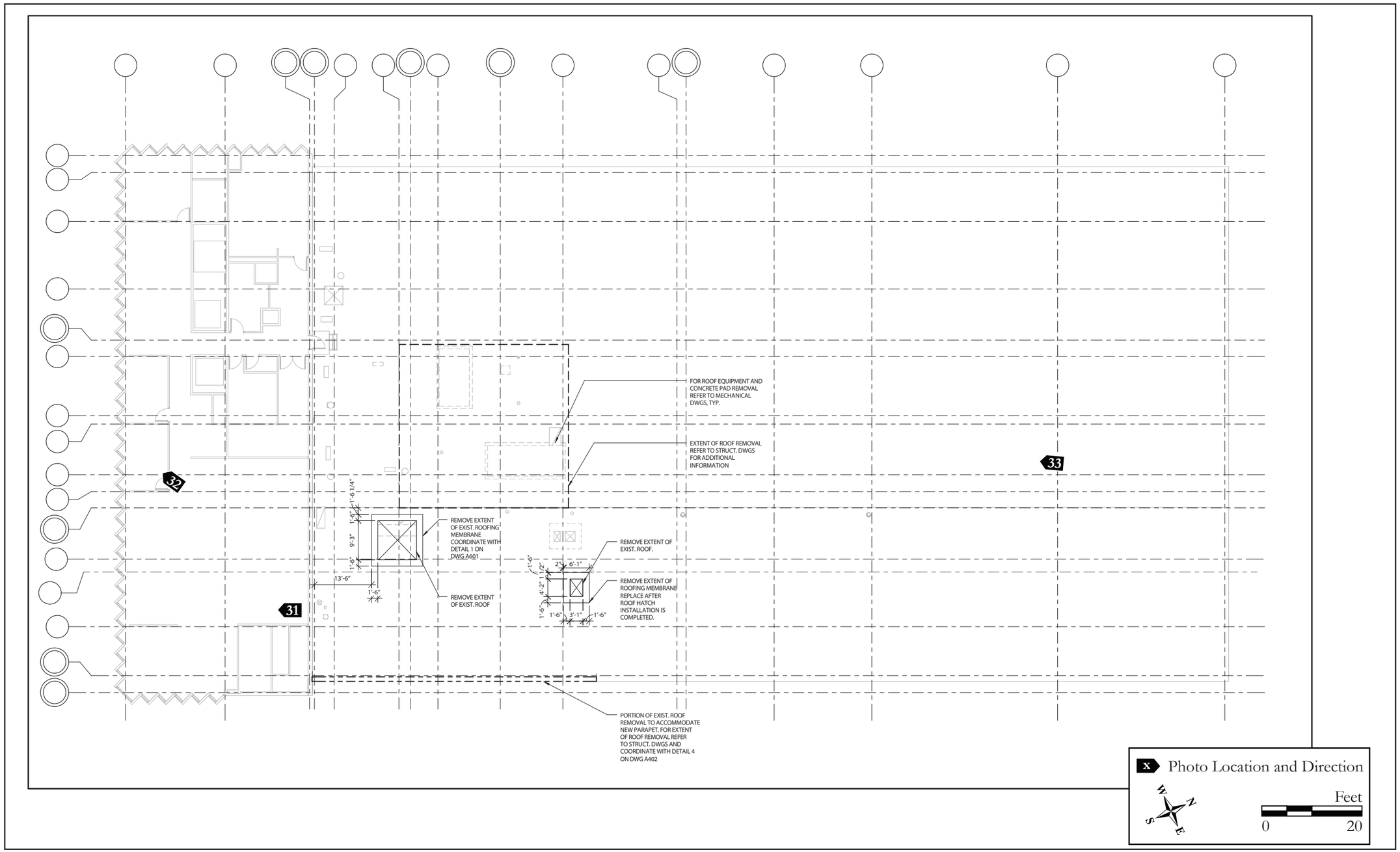

Floor plan, third floor, Port Authority Administration Building (Building 260) showing photograph locations.

Survey Name: Historic Architectural Evaluation, Port Authority Administration Building (Building 260)
Surveyor: Allee Davis and Kristen Herrick
Organization: RGA, Inc.
Date: January 2018

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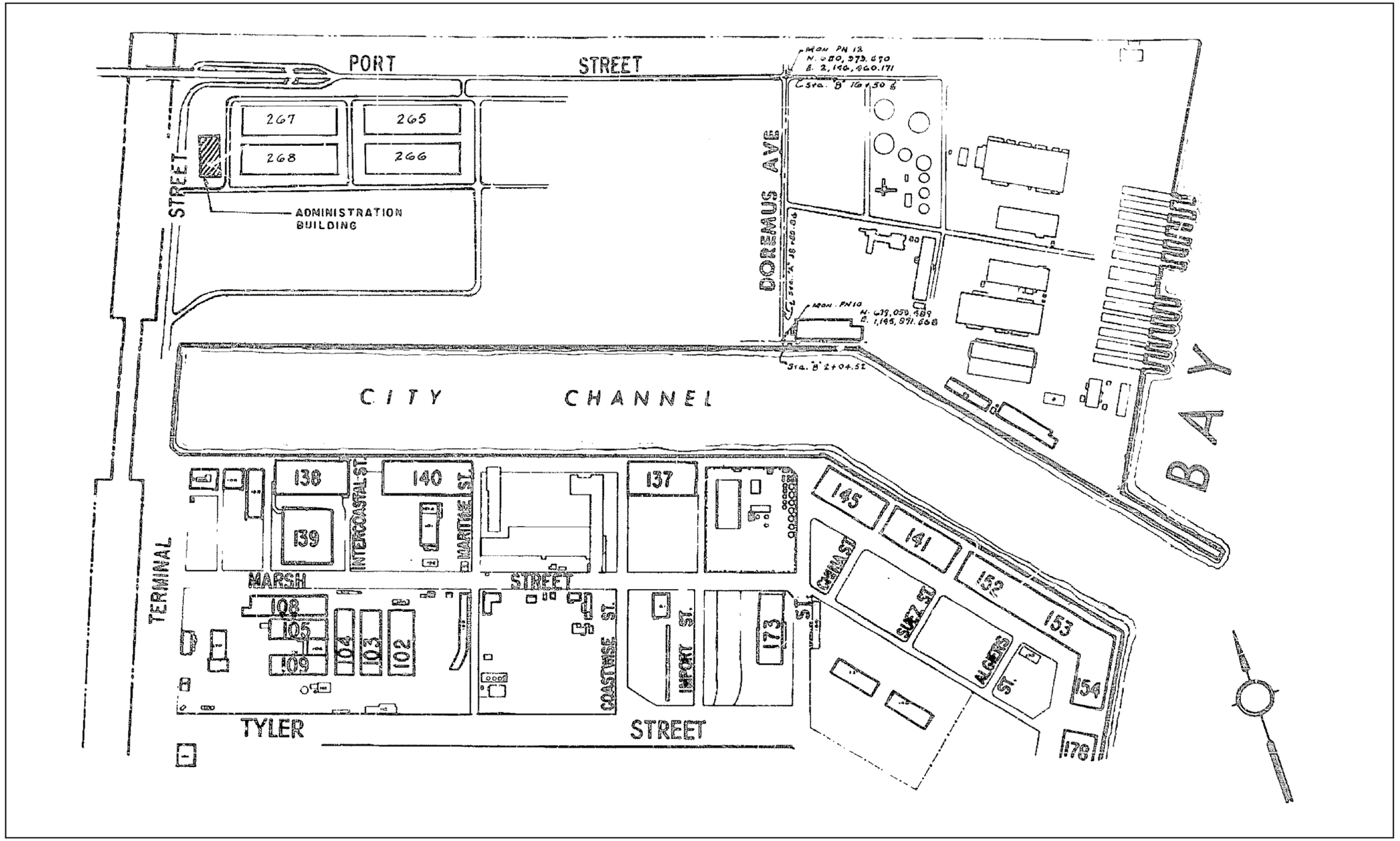

Figure 1: 1966 site plan drawing of Port Newark indicating the proposed location for the Port Authority Administration Building (Building 260) (Source: Port of New York Authority 1966).

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Historic Sites #:

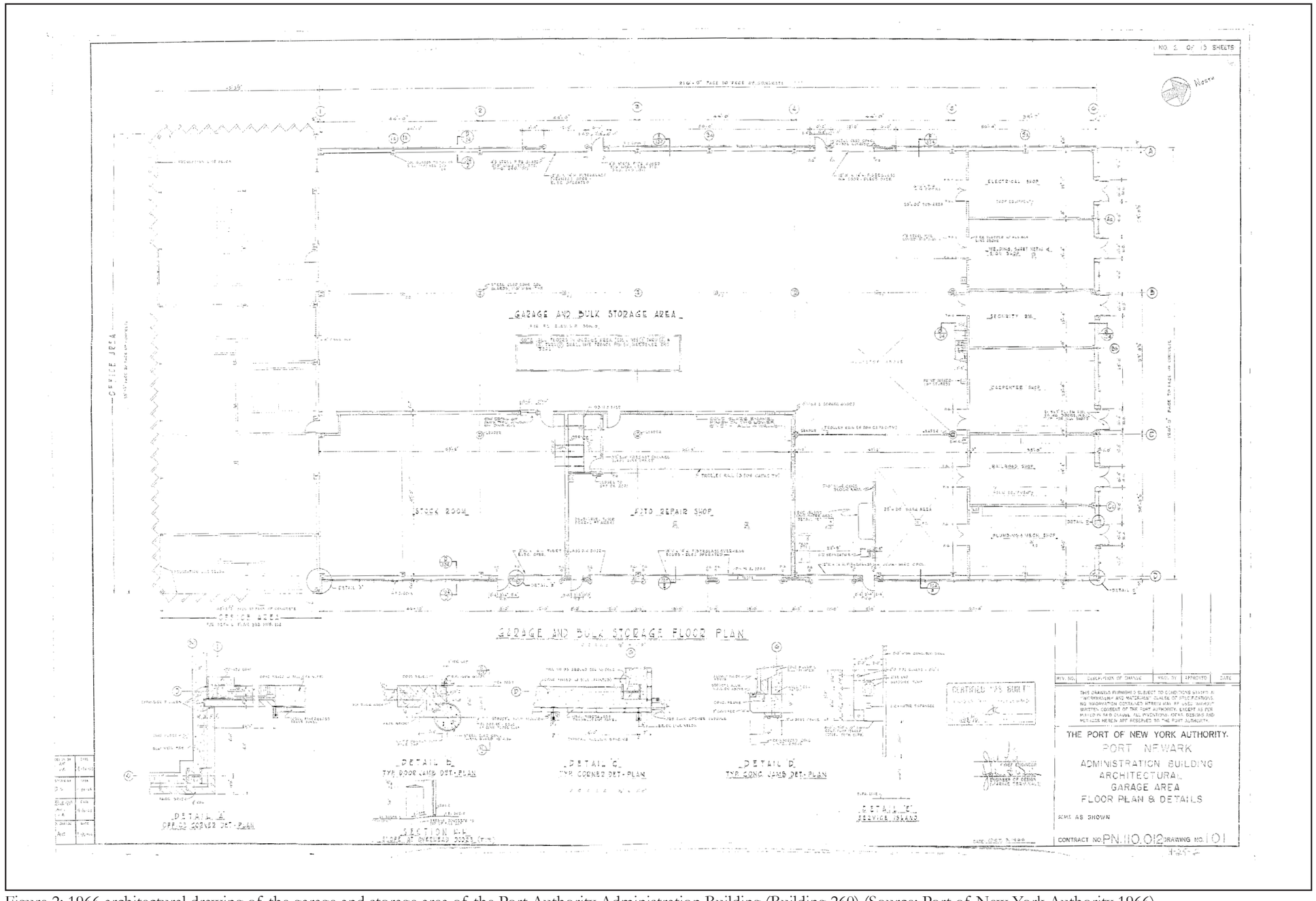

Figure 2: 1966 architectural drawing of the garage and storage area of the Port Authority Administration Building (Building 260) (Source: Port of New York Authority 1966).

CONTINUATION SHEET

Historic Sites #:

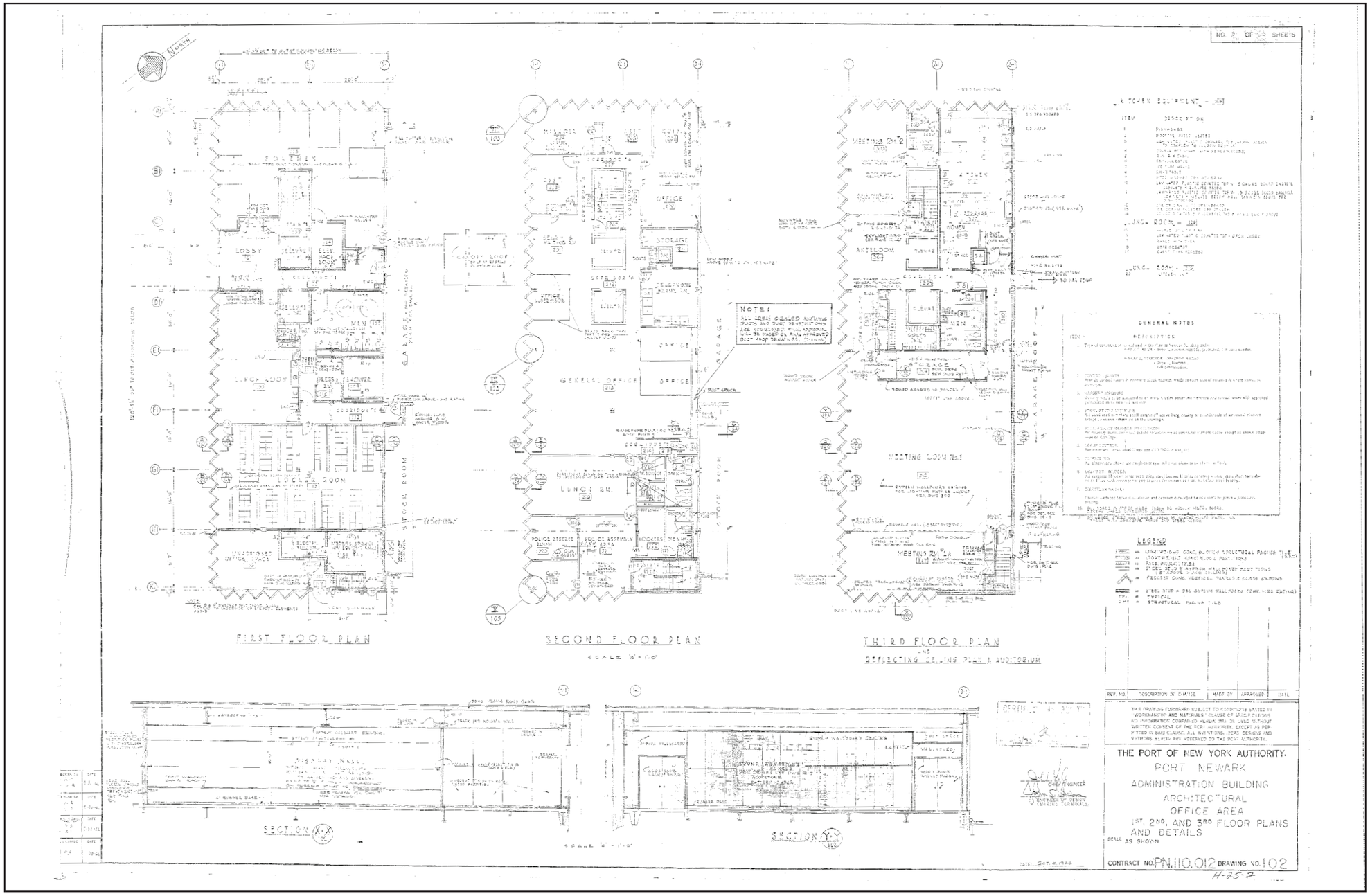

Figure 3: 1966 architectural drawing depicting the three floor plans and two sections of the office area of the Port Authority Administration Building (Building 260) (Source: Port of New York Authority 1966).

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Historic Sites #:

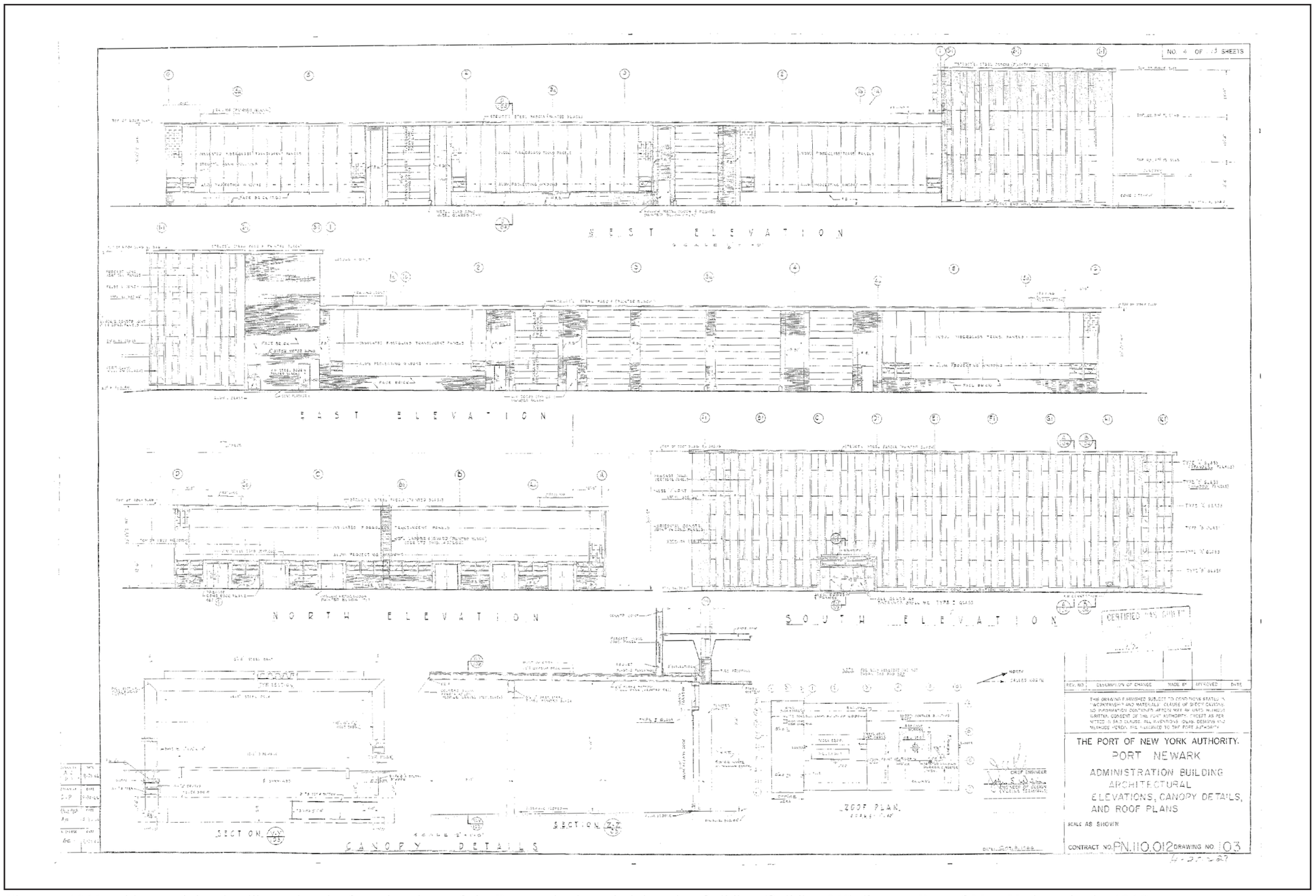

Figure 4: 1966 architectural drawing illustrating the four elevations of the Port Authority Administration Building (Building 260) (Source: Port of New York Authority 1966).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Northwest

Photographer: Allee Davis

Date: December 20, 2017

Perspective view of the Port Authority Administration Building (Building 260) showing the southwest (primary) and southeast elevations.

Plate: 2

Photo view: Northeast

Photographer: Allee Davis

Date: December 20, 2017

View of the southwest (primary) elevation of the Port Authority Administration Building (Building 260).

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Southeast

Photographer: Allee Davis

Date: December 20, 2017

General view of the southwest (primary) elevation of the Port Authority Administration Building (Building 260).

Plate: 4

Photo view: East

Photographer: Allee Davis

Date: December 20, 2017

Perspective view of the Port Authority Administration Building (Building 260) showing the southwest (primary) and northwest elevations.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view: South

Photographer: Allee Davis

Date: December 20, 2017

View of one of several garage door entrances piercing the rear garage and storage area. Note the original insulated fiberglass translucent panels framed by structural steel mullions.

Plate: 6

Photo view: South

Photographer: Allee Davis

Date: December 20, 2017

View along the northwest elevation of the Port Authority Administration Building (Building 260). The insulated fiberglass translucent panels, structural steel mullions, and aluminum sash windows are all original to the building.

CONTINUATION SHEET

Historic Sites #:

Plate: 7

Photo view: South

Photographer: Allee Davis

Date: December 20, 2017

Perspective view of the Port Authority Administration Building (Building 260) showing the northeast and northwest elevations.

Plate: 8

Photo view: Southwest

Photographer: Allee Davis

Date: December 20, 2017

Perspective view of the Port Authority Administration Building (Building 260) showing the northeast and southeast elevations. Not the original signage near the building's northeast corner, below the roofline.

CONTINUATION SHEET

Historic Sites #:

Plate: 9

Photo view: Southwest

Photographer: Allee Davis

Date: December 20, 2017

Overview of the rear of the Port Authority Administration Building (Building 260) with a view of Building 259 of Port Newark/ Elizabeth Marine Terminal.

Plate: 10

Photo view: Southwest

Photographer: Allee Davis

Date: December 20, 2017

Perspective view of the Port Authority Administration Building (Building 260) showing the northeast and southeast elevations.

CONTINUATION SHEET

Historic Sites #:

Plate: 11

Photo view: Southeast

Photographer: Allee Davis

Date: December 20, 2017

View along the southeast elevation of the Port Authority Administration Building (Building 260) showing one of several garage door entrances to the rear garage and storage area.

Plate: 12

Photo view: Northwest

Photographer: Allee Davis

Date: December 20, 2017

View of the southeast elevation of the Port Authority Administration Building (Building 260) showing the configuration of the insulated fiberglass translucent panels, structural steel mullions, and aluminum sash windows, surrounded by glazed face brick.

CONTINUATION SHEET

Historic Sites #:

Plate: 13

Photo view: Northwest

Photographer: Allee Davis

Date: December 20, 2017

General view of the Port Authority Administration Building (Building 260), situated at the intersection of Kellogg and Corbin Streets.

Plate: 14

Photo view: Northeast

Photographer: Allee Davis

Date: December 20, 2017

Detail view of the main entrance on the southwest (primary) elevation of the Port Authority Administration Building (Building 260).

CONTINUATION SHEET

Historic Sites #:

Plate: 15

Photo view: Northwest

Photographer: Allee Davis

Date: December 20, 2017

Detail view of the canopy sheltering the main entrance on the southwest (primary) elevation of the Port Authority Administration Building (Building 260).

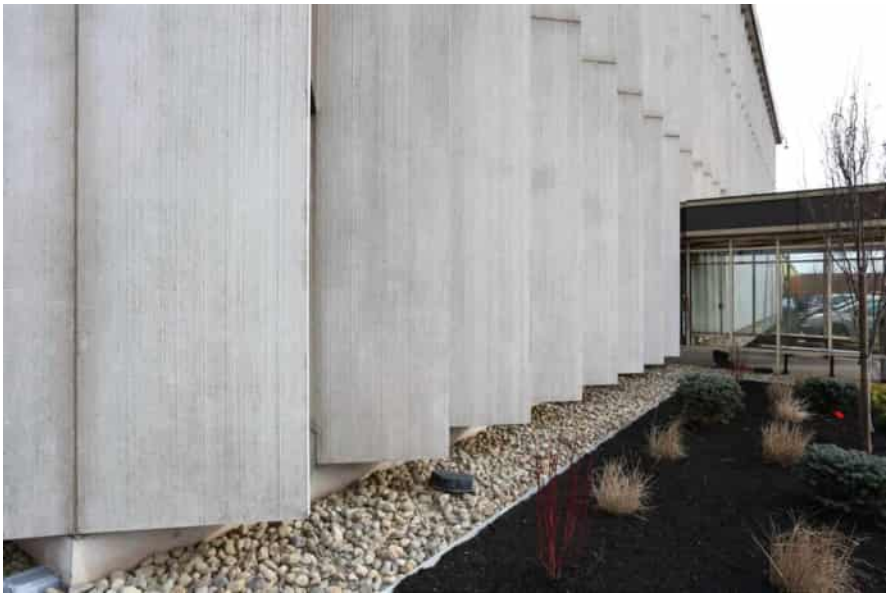

Plate: 16

Photo view: Northeast

Photographer: Allee Davis

Date: December 20, 2017

Detail view of the vertical precast concrete panels along the southwest (primary) elevation that characterize the office area of the Port Authority Administration Building (Building 260).

CONTINUATION SHEET

Historic Sites #:

Plate: 17

Photo view: South

Photographer: Allee Davis

Date: December 20, 2017

Detail view of the glass and spandrel paneling framed by the vertical precast concrete panels on the northwest elevation of the Port Authority Administration Building (Building 260).

Plate: 18

Photo view: Northwest

Photographer: Allee Davis

Date: December 20, 2017

View of the commemorative buoy sited on the lawn of the Port Authority Administration Building (Building 260), which was added within the last several years.

CONTINUATION SHEET

Historic Sites #:

Plate: 19

Photo view: North

Photographer: Allee Davis

Date: December 20, 2017

Interior view, first floor, view of the entrance lobby for the Port Authority Administration Building (Building 260).

Plate: 20

Photo view: West

Photographer: Allee Davis

Date: December 20, 2017

Interior view, first floor, view of the lunchroom of the Port Authority Administration Building (Building 260).

CONTINUATION SHEET

Historic Sites #:

Plate: 21

Photo view: South

Photographer: Allee Davis

Date: December 20, 2017

Interior view, first floor, view of a general office area in the Port Authority Administration Building (Building 260).

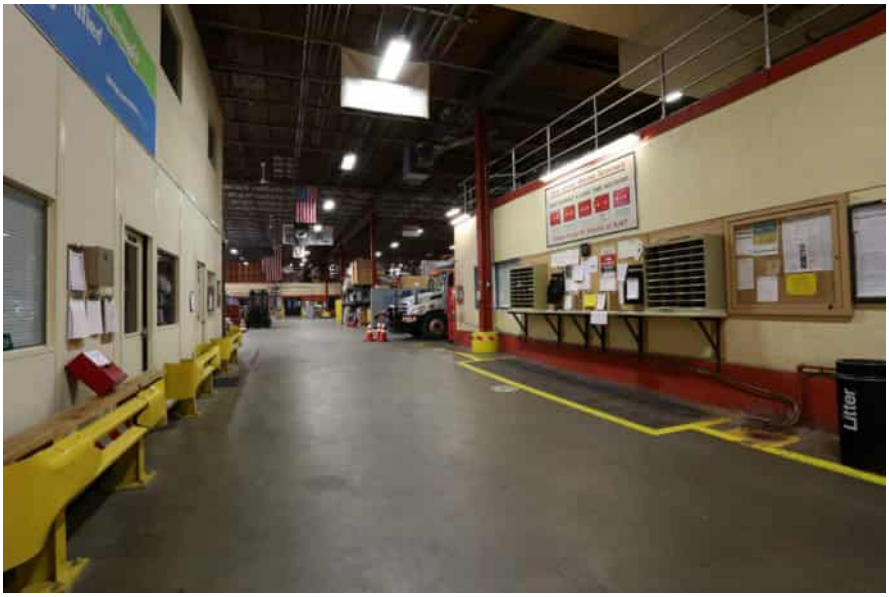

Plate: 22

Photo view: Northeast

Photographer: Allee Davis

Date: December 20, 2017

Interior view, first floor, general view of the rear garage and storage area in the Port Authority Administration Building (Building 260).

CONTINUATION SHEET

Historic Sites #:

Plate: 23

Photo view: East

Photographer: Allee Davis

Date: December 20, 2017

Interior view, first floor, general view of the rear garage and storage area in the Port Authority Administration Building (Building 260).

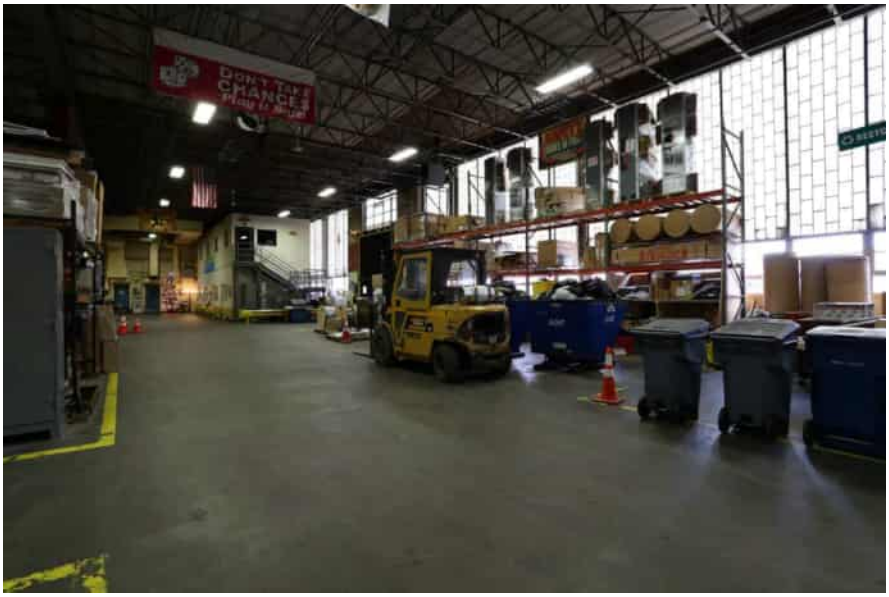

Plate: 24

Photo view: West

Photographer: Allee Davis

Date: December 20, 2017

Interior view, first floor, general view of the rear garage and storage area looking towards the office area of the Port Authority Administration Building (Building 260). Note the diffusing of natural light by the translucent fiberglass panels.

CONTINUATION SHEET

Historic Sites #:

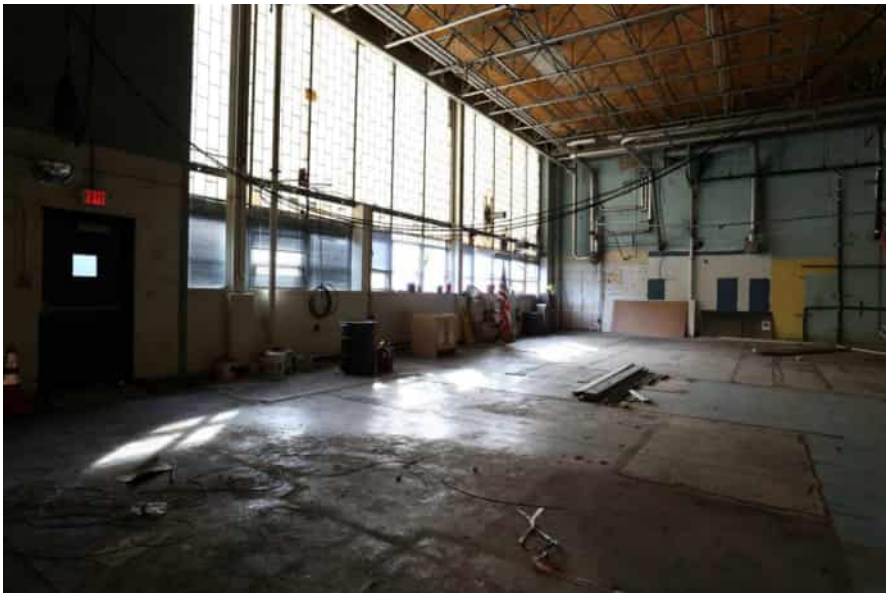

Plate: 25

Photo view: South

Photographer: Allee Davis

Date: December 20, 2017

Interior view, first floor, general view of the area formerly occupied by the police in the Port Authority Administration Building (Building 260).

Plate: 26

Photo view: North

Photographer: Allee Davis

Date: December 20, 2017

Interior view, first floor, general view of the area formerly occupied by the police in the Port Authority Administration Building (Building 260).

CONTINUATION SHEET

Historic Sites #:

Plate: 27

Photo view: Southwest

Photographer: Allee Davis

Date: December 20, 2017

Interior view, first floor, general view of the area formerly occupied by the police in the Port Authority Administration Building (Building 260).

Plate: 28

Photo view: South

Photographer: Allee Davis

Date: December 20, 2017

Interior view, second floor, general conference room in the office area of the Port Authority Administration Building (Building 260).

CONTINUATION SHEET

Historic Sites #:

Plate: 29

Photo view: South

Photographer: Allee Davis

Date: December 20, 2017

Interior view, second floor, view of a typical office room in the office area of the Port Authority Administration Building (Building 260).

Plate: 30

Photo view: West

Photographer: Allee Davis

Date: December 20, 2017

Interior view, second floor, general view of the open office area occupied by cubicles in the Port Authority Administration Building (Building 260)

CONTINUATION SHEET

Historic Sites #:

Plate: 31

Photo view: Southwest

Photographer: Allee Davis

Date: December 20, 2017

Interior view, third floor, view of the general open office area occupied by cubicles and filing cabinets in the Port Authority Administration Building (Building 260).

Plate: 32

Photo view: West

Photographer: Allee Davis

Date: December 20, 2017

Interior view, third floor, view of a typical conference room in the Port Authority Administration Building (Building 260).

CONTINUATION SHEET

Historic Sites #:

Plate: 33

Photo view: Southwest

Photographer: Allee Davis

Date: December 20, 2017

View on top of the flat, asphalt-rolled roof of the rear garage and storage area of the Port Authority Administration Building (Building 260), looking towards the office area.

HPO Project # 17-0816-02
HPO- D2018-109-PROD

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
NATURAL & HISTORIC RESOURCES
HISTORIC PRESERVATION OFFICE
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TRENTON, NJ 08625-0420
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PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

CATHERINE R. McCABE
Acting Commissioner

April 12, 2018

Izyaslav Plaskovsky
Engineering/Architecture Design Division
The Port Authority of New York and New Jersey
Corporate Offices
4 World Trade Center
150 Greenwich Street
New York, NY 10007

Dear Mr. Plaskovsky:

We are in receipt of the following cultural resource report received at the Historic Preservation Office (HPO) on March 13, 2018:

Davis, Allee, and Kristen Herrick
March 2018 *Port Authority Administration Building (Building 260),* 260 Kellogg Street, Port Newark/Elizabeth Marine Terminal, City of Newark, Essex County, New Jersey. Prepared for HDR. Prepared by RGA Inc., Cranbury, New Jersey.

Based upon the information provided in the submitted architectural survey, **it appears that the Port Authority Administration Building (Building 260) may be eligible for inclusion on the New Jersey and National Registers of Historic Places** under Criterion C as a representative example of New Formalism Style. The New Formalism style characterized the architecture of many high-profile cultural, institutional and civic buildings during the 1960s. The Administration Building was constructed in 1967 and retains its form and many original materials, including its precast concrete vertical panels, glass and spandrel panels, glazed face brick, and the translucent, insulated fiberglass windows. The multi-story, multi-use, steel-framed building has a T-shaped footprint. The crossbar of the T-shaped building constitutes the three-story office area and is distinctive for its angular façade treatment. The combination of concrete and glass were thoughtfully positioned to provide views of the inner port area from the office area with the glass and spandrel panels facing south, and privacy from the public with the concrete panels mostly facing north. Extending from the office area's northeast elevation is the one-story garage and storage area, which features translucent insulated fiberglass windows. John M. Kyle, the agency's chief engineer for 25 years, designed the Port Authority Administration Building, and many other Port Authority facilities in New Jersey and New York. The Administration Building was part of the effort by the Port Authority to continuously invest in the expansion and improvement of its marine facilities in the Port of Newark. The interior of the building has been substantially altered, but the exterior retains a high level of integrity of location, design, materials, feeling and association. The period of significance for this property is

1967 (the date of construction). The boundaries of the Port Authority Administration Building include the entire footprint of the building and the rear parking lot and is bounded to the north by Distribution Street, to the east by industrial warehouses used by Port Newark (Compass Street), to the south by Kellogg Street, and to the west by Corbin Street.

Based on the report provided, the purpose of this project is to restore the functional uses and protect functional spaces from future flood events. The proposed project will impact an approximately 3,600-square foot section of the Port Authority Administration Building (Building 260)'s interior and approximately 80 feet of the southeast façade, roughly in the southern corner of the garage and storage area. Several interior walls and a portion of the roof membrane are proposed for removal. New offices and bathrooms are to be rebuilt in this area. On the roof, new material will be installed along with upgraded utility systems. On the southeast elevation, the existing translucent, insulated fiberglass panels will be removed and replaced with insulated, aluminum composite panels and aluminum-framed, fixed glass windows. At the base, new brick veneer will be added but will be designed to match the existing brick veneer extant along the building's exterior. Two new doorways will be built, one of which will feature a glass entrance canopy.

The proposed alterations to the interior of the building will not affect significant historic fabric; however, the proposed alterations to the exterior south elevation of the one-story garage portion of the building will adversely affect character-defining features of the building. These changes include the removal of the original translucent, insulated fiberglass windows with structural steel mullions, aluminum sash windows and a portion of the glazed brick veneer. These materials will be replaced with insulated aluminum composite metal panels and aluminum and glass windows, substantially altering the appearance of this section of the building. This action is not in conformance with the Secretary of the Interior's *Standards for Rehabilitation*.

The report provided did not clarify what agency was allocating the Superstorm Sandy Relief Funding or if in fact 106 consultation comments are needed. Please clarify the source of funding. The HPO looks forward to consultation if a review under Section 106 is needed. If you have any further questions, please do not hesitate to contact Jennifer Leynes of my staff at jennifer.leynes@dep.nj.gov or at 609-984-6016. Please reference HPO Project Number 17-0816 in any future calls, emails, or written correspondence.

Sincerely,

Katherine J. Marcopul

Katherine J. Marcopul
Deputy State Historic
Preservation Officer

KJM/MMB/JBL/sk

cc: Allee Davis, RGA, Inc.
Newark Landmarks and Historic Preservation Commission

BASE FORM

Historic Sites #:

Property Name: Public Service Electric & Gas Co. Building

Street Address: *Street #:* 41 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* Garfield *Suffix:* _____ *Type:* AVE

County(s): Hudson **Zip Code:** 07305

Municipality(s): Jersey City **Block(s):** 1388

Local Place Name(s): _____ **Lot(s):** 31.99

Ownership: Public **USGS Quad(s):** Jersey City

Description: This two-story utility building is located on the west side of Garfield Avenue. Elevated roadways associated with the NJ Turnpike's Hudson County Extension are located north and south of the building. The building has a brick façade and is three bays wide. Windows are set in slightly recessed bays; windows appear to be replacements and have stone sills. The building has a stone watertable and the façade is adorned with decorative stone blocks. The entrance door is steel and has an ornate stone enframement. A blank circular plaque is located above the door. Utilities are adjacent to the building and the property is enclosed by a chain-link fence.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Improvements at New Jersey Turnpike Authority Interchange 14A Date: November 2013

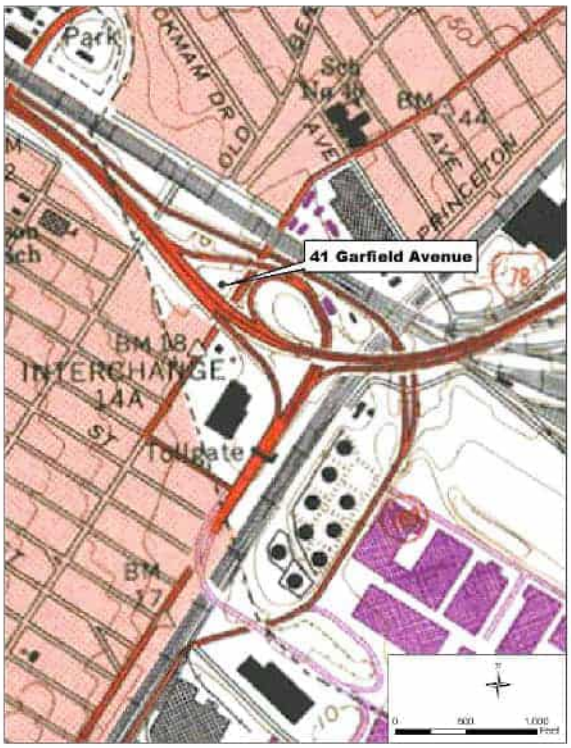
Surveyor: Andrea Burk and Brock Giordano

Organization: Dewberry Engineers Inc.

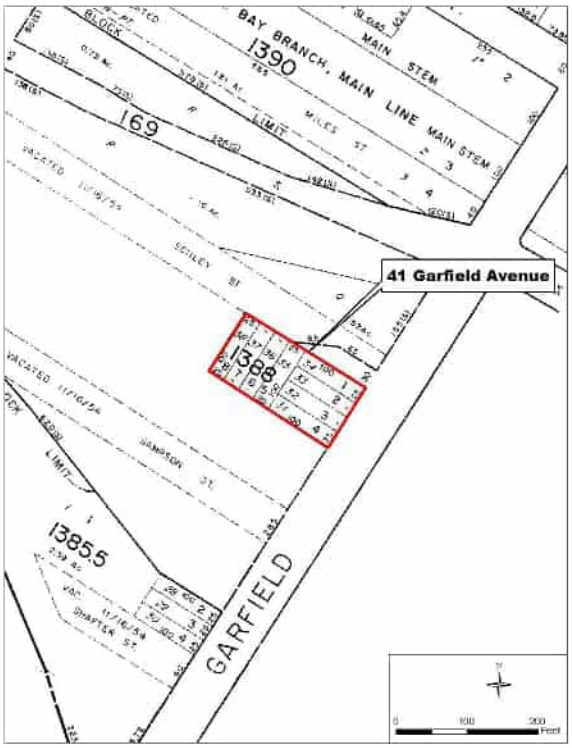
BASE FORM

Historic Sites #:

Location Map:



Site Map:



Bibliography/Sources:

Historic Aerials.com
Aerial Photographs dating from 1931, 1954, 1966, 1979, 1987, 1995, 2002, 2006, and 2008, available online at www.historicaerials.com.

NJTaxMaps.com, available online at http:onlinesystem.njtaxmaps.com.

Sanborn Map Company
1898, 1912, 1950, 1979, 1995 *Insurance Maps of Hudson County, New Jersey.* Sanborn Map Company, New York, New York.

Additional Information:

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: ☒ Building ☐ Structure ☐ Object ☐ Bridge ☐ Landscape ☐ Industry

Within Historic District? ☐ Yes ☒ No

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes
(Known or potential Sites – if yes, please describe briefly)

BUILDING ATTACHMENT

Historic Sites #:

Common Name: Public Service Electric & Gas Co. Building
Historic Name: Public Service Electric & Gas Co. Building
Present Use: Institutional Activities/Public Utility Services
Historic Use: Institutional Activities/Public Utility Services
Construction Date: Between 1912-1950 **Source:** Sanborn maps
Alteration Date(s): **Source:**
Designer: **Physical Condition:** Good
Builder: **Remaining Historic Fabric:** Medium
Style:
Form: Other, Utility **Stories:** 2
Type: **Bays:** 3
Roof Finish Materials: Unknown
Exterior Finish Materials Brick, Flemish Bond

Exterior Description: See Base Form.

Interior Description:

Setting: The area immediately surrounding the property is primarily industrial and commercial. Elevated roadways associated with the Hudson County Extension of the New Jersey Turnpike are located immediately north and south of the building.

ELIGIBILITY WORKSHEET

Historic Sites #:

History: Based on a review of Sanborn maps, the building at 41 Garfield Avenue was constructed between 1912 and 1950 as a public service transformer station. The building appears on Sanborn maps for 1950, 1979 and 1995; during this time period, the building footprint is virtually unchanged.

Significance:

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility: This building does not appear to be individually eligible for listing in the National Register of Historic Places. Based on background research of the area, it was not associated with any significant events or historically significant individuals. As a result, it does not satisfy Criteria A or B. The building is a common example of utility-type buildings constructed during the early-20th century and does not appear to embody the distinctive characteristics of a type, period, or method of construction; does not represent the work of a master; nor does it possess high artistic values. Modern changes, such as the replacement of windows, have diminished this property's integrity of design, materials and workmanship. As a result, it does not satisfy Criterion C. An archaeological investigation was not conducted on this property; therefore its eligibility under Criterion D cannot be fully assessed at this time.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment

Narrative Boundary Description:

Survey Name: Improvements at New Jersey Turnpike Authority Interchange 14A Date: November 2013
Surveyor: Andrea Burk and Brock Giordano
Organization: Dewberry Engineers Inc.

CONTINUATION SHEET

Historic Sites #:

History, continued

The Public Service Corporation was formed in 1903, by amalgamating more than 400 gas, electric and transportation companies in New Jersey. Thomas McCarter was named the corporation's first president and held the position until 1939. During the 1920s, there was a national trend of consolidating and merging smaller utilities into large utility-holding companies. Public Service joined this trend, and by the 1930s had become part of a huge corporation which owned more than 100 utility subsidiaries throughout the Eastern, Central and Southern United States. Internally, Public Service consolidated its gas and electric interests into Public Service Electric and Gas, and its transportation interests into Public Service Coordinated Transport (later Transport of New Jersey). In 1943, Public Service once again became a stand-alone company, and was renamed Public Service Electric and Gas Company (PSE&G) in 1948. The largest plant within the area is the Kearny Plant, located along Fish House Road over one-mile from the APE.

In 1934, Public Service engineers designed the first diesel-electric bus, and in 1937 went on to operate the first diesel-electric bus fleet (of 27 vehicles) in the world. The Company's involvement in transportation ended in 1980, when PSE&G sold its transportation system to the State of New Jersey.

Deed research of the PSE&G substation at 41 Garfield Avenue, did not indicate direct ownership in the early 20th century by PSE&G. Prior to 1950 it appears the lot and surrounding lots were owned by the Lehigh Valley Railroad (September 2, 1923) as part of the right-of-way. The PSE&G building is a sub-station facility which generates/distributes power. Due to the nature of operations supported by this utility sub-station building, it is unlikely that the facility employed large number of workers. As a result, it does not appear that the facility had a significant role in the local community.

BASE FORM

Historic Sites #:

Property Name: Former Tide Water Oil Company Pumping Station

Street Address: *Street #:* _____ (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* Route 440 *Suffix:* _____ *Type:* _____

County(s): Hudson **Zip Code:** 07305

Municipality(s): Jersey City **Block(s):** 1513

Local Place Name(s): _____ **Lot(s):** A.8

Ownership: Private **USGS Quad(s):** Jersey City

Description: This two-story building is located on IMTT property, immediately east of the Conrail and NJ Transit railroad tracks. The main block of the building is four bays wide, with a one-story wing that is two bays wide. The primary façade is dominated by round-arch full-height windows at the second story. The building has a brick façade with a rusticated base. Windows have stone sills and appear to be original, however many glass panes are broken and several windows at the first floor are boarded up. The building is adorned with brick pilasters as well as a pattern of stone blocks and diamonds in the window bays. The building is capped by a brick parapet with stone coping.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Improvements at New Jersey Turnpike Authority Interchange 14A Date: November 2013

Surveyor: Andrea Burk and Brock Giordano

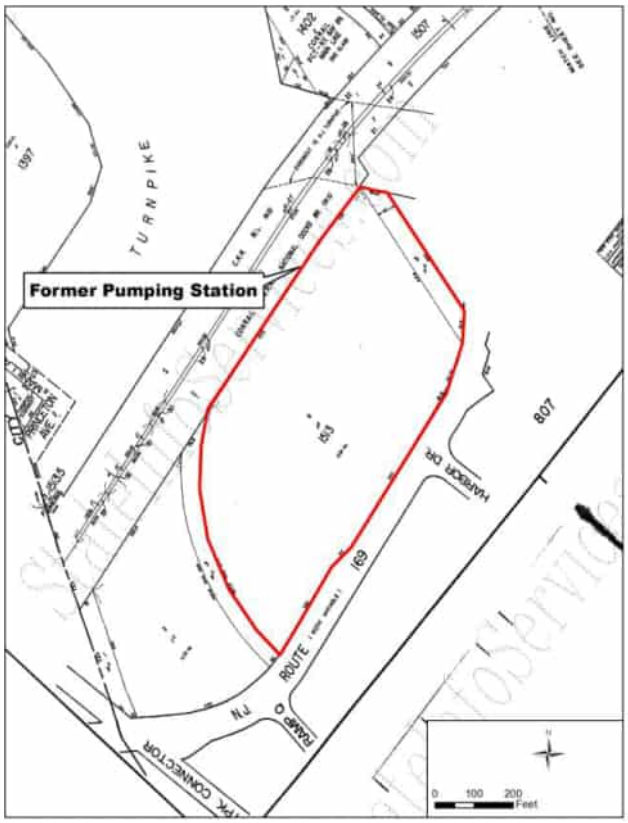
Organization: Dewberry Engineers Inc.

BASE FORM

Historic Sites #:

Location Map:

Site Map:



Bibliography/Sources:

Hartman, Floyd
2009 “Birth of Coryville’s Tidewater Pipe Line: Pump Station in Black Forest Area Played Important Role in Oil Distribution.” Available online at www.smethporthistory.org /Coryville/oilarticle.html.

Historic Aerials.com
Aerial Photographs dating from 1931, 1954, 1966, 1979, 1987, 1995, 2002, 2006, and 2008, available online at www.historicaerials.com.

NJTaxMaps.com, available online at http:onlinesystem.njtaxmaps.com.

Sanborn Map Company
1898, 1912, 1950, 1979, 1995 *Insurance Maps of Hudson County, New Jersey.* Sanborn Map Company, New York, New York.

Sinclair, Gladys Mellor
1940 *Bayonne Old and New: The City of Diversified Industry.* Maranatha Publishers, New York, New York.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: ☒ Building ☐ Structure ☐ Object ☐ Bridge ☐ Landscape ☐ Industry

Within Historic District? ☐ Yes ☒ No

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes
(Known or potential Sites – if yes, please describe briefly)

BUILDING ATTACHMENT

Historic Sites #:

Common Name: Former Tide Water Oil Company Pumping Station
Historic Name: Tide Water Oil Co., Oil Pumping Station
Present Use: Industrial Activity/Light Industrial
Historic Use: Industrial Activity/Light Industrial
Construction Date: 1920 **Source:** Date stone
Alteration Date(s): **Source:**
Designer: **Physical Condition:** Poor
Builder: **Remaining Historic Fabric:** Medium
Style: Italian Renaissance
Form: Other **Stories:** 2
Type: **Bays:** 4
Roof Finish Materials: Unknown
Exterior Finish Materials Brick, Running Bond

Exterior Description: See Base Form.

Interior Description:

Setting: The area immediately surrounding the property is primarily industrial and commercial. Access to the property is restricted as it is located on IMTT property in close proximity to a series of petroleum storage tanks. The building is immediately east of the Conrail and NJ Transit railroad tracks.

ELIGIBILITY WORKSHEET

Historic Sites #:

History: See Continuation Sheet

Significance:

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility: This building does not appear to be individually eligible for listing in the National Register of Historic Places. Based on background research of the area, the building was part of the Tide Water Oil Company but was part of an annex complex of the main facility. As a result, the building did not play a major role in the development and operation of the company. The majority of the original complex that employed members of the community was located along Constable Hook, approximately two-miles southwest of the building. The main facility located along Constable Hook has undergone extensive alterations throughout its historical development, including the addition of above ground storage tanks and the construction of new buildings. Access to the main IMTT property is restricted; based on aerial photography, the complex consists of above ground storage tanks, various utility rail lines, remnants of the steam plants and conduit, industrial buildings, and one former burying ground nestled within the tank farm. Much of the complex has been altered and/or destroyed in order to service the active facility. As a result, the former pump house is not associated with any significant events and does not satisfy Criteria A. Background research did not indicate association with historically significant individual and therefore it does not satisfy Criterion B. The building is a common example of industrial development during the early-20th century and does not appear to embody the distinctive characteristics of a type, period, or method of construction; does not represent the work of a master; nor does it possess high artistic values. As a result, it does not satisfy Criterion C. An archaeological investigation was not conducted on this property; therefore its eligibility under Criterion D cannot be fully assessed at this time.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment

Narrative Boundary Description:

CONTINUATION SHEET

Historic Sites #:

History:

Based on a review of Sanborn maps, the property associated with this building was owned by the Tide Water Oil Co. Based on the 1950 Sanborn map, the building was labeled as the “Tide Water Oil Co., Oil Pumping Station.” The building has a 1920 datestone and was likely constructed by the Tide Water Oil Co. The building appears on Sanborn maps for 1950, 1979 and 1995; during this time period, the building footprint is virtually unchanged. A group of 10 oil tanks are also shown on the Sanborn maps near the building and were labeled as “Tide Water Oil Co. Oil Tanks.” These tanks are now part of IMTT.

The Tide Water Oil Company was originally established in 1878 when three entrepreneurs from Titusville, Pennsylvania were determined to construct a long-distance pipeline across Pennsylvania to serve independent refineries along the east coast. Oil was initially struck in 1859 when Edwin Drake drilled the first commercial oil well in Titusville. Over the next ten years over 5,500 wells had been drilled and nearly 1,200 of them were producing oil (Hartman 2009).

By 1880, more than 80 percent of the nation's oil consumption was supplied by the Pennsylvania oil fields. Before long-distance oil pipes were laid, oil was first was transported from the wells to railroad stations using spent whiskey barrels and horse-drawn wagons. Interestingly, this is the origin of why oil is measured in barrels. Later, the railroad would transport oil to refineries using large tanks mounted on flat cars (Hartman 2009). In 1865, a five-mile wooden oil pipeline was built near Titusville to transport oil to the nearest railroad. Wooden pipes were quickly replaced by wrought iron pipe and, in the 1860s, more durable steel. Midway through 1876, the oil industry was dominated by the Standard Oil Company of Ohio. John D. Rockefeller led the company, which controlled more than 90 percent of the United States' oil business and owned refineries in Cleveland, Ohio, the oil regions of Pennsylvania and New York City (Sinclair 1940).

During this time, entrepreneurs were thinking of constructing a long-distance pipeline across Pennsylvania to independent refineries along the east coast. Three Titusville men, Byron D. Benson, who was a planner, Robert E. Hopkins, an engineer, and David McKelvy, an attorney, were determined to construct the long-distance pipeline. On November 13, 1878, in Titusville, the Tide Water Pipe-Line Company Ltd. was created. The name “Tide Water” was used thinking that the pipeline would terminate at or near the eastern tidewater coastline.

The Tide Water Pipe-Line Company produced the equipment needed to manufacture its own pipe and threaded pipe joints. More than 5,000 tons of six-inch diameter, 18-foot lengths of wrought iron pipe, each weighing 340 pounds, were produced (Sinclair 1940). Standard Oil and various railroads heard rumors of a pipeline being constructed and, fearing a loss of business, made things difficult for the Tide Water Pipe-Line Company. Rights-of-way needed to be purchased from landowners to build the pipeline, and Standard Oil strategically purchased a thin strip of land running north and south across Pennsylvania to stop Tide Water. Also, the railroads would not grant Tide Water a right-of-way across their tracks. Even with all these obstacles, the first 34 sections of pipe were laid on February 22, 1879, beginning at Coryville, Pennsylvania. Tide Water was able to complete the 110-mile pipeline to Williamsport in less than 90 days. The first shipment of oil was delivered by rail on June 23, 1879 to a refinery in Bayonne, New Jersey. By 1880, due to over production, the oil industry began seeing crude prices drop. This created a shortage of barrels, making the wooden barrel actually worth twice as much as the oil inside it. The Reading Railroad experienced troubles of its own, forcing Tide Water to extend its pipeline to Bayonne, New Jersey. As a result of this, feuding began between Tide Water and Standard Oil, forcing Standard to construct its own pipelines with the terminus at the refineries in New Jersey and Philadelphia.

Rockefeller made numerous attempts to stop Tide Water from expanding its geographic territory. To do so, Rockefeller bought out one of the partners. In June 1882, Tide Water agreed to sell a third of its stock to Standard Oil. Tide Water and Standard Oil were prohibited by law to merge, but they came to a market-sharing agreement in October 1883, giving Tide Water 11.5 percent of the oil business. In 1888, the Tide Water Pipe Line Company became known as the Tide Water Oil Company.

The Tide Water Oil Company marketed products under the name of Tydol and Veedol. Tydol was the name of the service station that sold Veedol products in the U.S., Europe and South America. Tide Water eventually branched to the western and southern U.S. A young insurance salesman named J. Paul Getty became impressed by Tide

CONTINUATION SHEET

Historic Sites #:

Water's operation in Oklahoma (Sinclair 1940). During the early 1930s, Getty began acquiring stock and by 1951, he took control of Tide Water.

The Tide Water Oil Company facility in Bayonne occupied over 122 acres of land within Constable Hook and consisted of tanks, stills, filters, steam plants, coal bunkers, laboratories and workshops of the company employed in storing the crude oil and finishing the different products. This facility would end up as part of the Standard Oil Company (now IMTT property). The various parts of the works were connected by industrial railway several miles in length. In the early-20th century the property included more than one and one-half miles of waterfront to accommodate ocean-going steamers from which a large percentage of the finished product was shipped across the world. In 1916, there were 500 steel tanks which could hold 1,500,000 barrels of oil. The location of the plant on New York Harbor has played an important part of its success and has justified the efforts of its founders to reach tidewater by bringing the markets within reach.

The Tide Water Oil Company played a large role in supporting Bayonne's economy. In 1916, in order to support more than 350 different products of oil variations to the public, over 1,800 daily workers were employed. Listed in the 1927 industrial directory of New Jersey, Tide Water Oil Company is characterized as a "petroleum and products" company that employed 2,875 people. These included 2,800 males, 25 females, 40 males under 16 years old and 10 females less than 16 years old. The Tide Water Oil Company was second only to the Standard Oil Company within Bayonne, which employed 5,531 individuals the same year. These were followed by the Babcock & Wilcox Company, a water tube and steam boilers company that employed 1,486 individuals, and the American Radiator Company, a heating and radiator company, that employed 897 individuals. By 1931 Tide Water employed 1,734 individuals. By 1960, Tidewater employed 1,900 individuals. Today, the entire campus is operated by IMTT and continues to operate as an active petroleum plant.

APPENDIX G: SHOVEL TEST PIT LOG

APPENDIX G: SHOVEL TEST PIT LOG

STP	Depth*	Stratum	Munsell	Soil Type	Comments/Artifacts
1	0.0-1.6	Fill 1	10YR 5/2 m/w 10YR 5/3	Silty Sand w/ Roots and 10% Gravels	HM
	1.6-3.4	Fill 2	7.5YR 4/6	Sand w/ 5% Gravels	NR: Slag (n=2)
	3.4-4.6	B1	10YR 5/6	Sand	NCM
	4.6-5.2	B2	10YR 7/3 w/w 10YR 6/8	Sand	NCM
2	0.0-1.4	Fill 1	10YR 4/3 m/w 10YR 5/4	Silty Sand w/ Roots and 10% Rocks	HM
	1.4-3.5	Fill 2	10YR 4/6	Silty Sand w/ Roots and 25% Rocks	NR: Modern Bottle Glass
3	0.0-1.9	Fill 1	10YR 4/3 m/w 10YR 5/6	Sandy Loam w/ Roots and 10% Rocks	HM
	1.9-2.7	Ab	10YR 5/3	Sand w/ Roots	HM
	2.7-4.0	B1	10YR 7/4	Sand w/ Roots	NCM
	4.0-5.0	B2	10YR 6/8	Sand w/ Roots	NCM
4	0.0-1.9	Fill 1	10YR 4/3 m/w 10YR 5/3	Sandy Loam w/ Roots and 10% Rocks	HM
	1.9-3.4	Fill 2	10YR 4/6	Sand	HM
	3.4-5.0	B	10YR 7/4	Sand	NCM
5	0.0-0.9	Fill 1	10YR 5/2	Sandy Loam	HM
	0.9-1.4	Fill 2	10YR 6/3	Sand	NCM
	1.4-4.7	B1	10YR 7/6	Sand	HM
	4.7-4.8	B2	10YR 7/3 m/w 10YR 6/8	Sand	NCM
6	0.-0.9	Fill 1	10YR 5/2	Sandy Loam	HM
	0.9-3.0	Fill 2	10YR 4/4 w/ 10YR 4/6 banding	Fine Sand	HM
	3.0-4.5	Fill 3	10YR 5/3	Fine Sand	HM
7	0.0-1.2	Fill 1	10YR 5/2	Fine Sandy Loam w/ Small Roots	HM
	1.2-1.8	Fill 2	10YR 5/4	Fine Sand	HM
	1.8-3.9	B	7.5YR 5/8	Fine Sand	NCM
8	0.0-1.0	Fill 1	10YR 5/2	Fine Sand w/ Roots	HM
	1.0-1.2	Fill 2		Coal Ash Lens	HM
	1.2-4.5	B	7.5YR 5/8	Fine Sand	NCM
9	0.0-1.2	Fill 1	10YR 5/3	Fine Sand	HM
	1.2-2.5	Fill 2	7.5YR 6/6 m/w 10YR 4/2	Fine Sand	HM
	2.5-3.5	Fill 3	10YR 2/2	Sandy Loam	HM
	3.5-4.3	B	7.5 YR 6/6	Sand	NCM
10	0.0-1.1	Fill 1	10YR 4/3 m/w 10YR 5/3	Sandy Loam w/ Roots and Rocks	HM
	1.1-1.9	Fill 2	10YR 4/6	Sand	HM
	1.9-5.2	B	10YR 6/4	Sand	NCM
11	0.0-0.9	Fill 1	10YR 4/3	Sandy Silt w/ Roots and 10% Rocks	HM
	0.9-1.9	Fill 2	10YR 3/3 m/w 7.5YR 5/6	Sand w/ Roots and 10% Rocks	HM
	1.9-2.6	Fill 3	10YR 5/4	Sand	NCM
	2.6-3.0	Fill 4	10YR 4/3	Sand w/ Coal Ash and Large Roots	CM
12	0.0-0.7	Fill 1	10YR 5/2	Sandy Loam	HM; NR: Decayed Paper
	0.7-1.2	Fill 2	5YR 6/4	Fine Sand	NCM
	1.2-2.4	Fill 3	10YR 5/4 w/ 7.5YR 6/6	Sand	NCM
	2.4-4.5	B	7.5YR 6/6	Sand	NCM

STP	Depth*	Stratum	Munsell	Soil Type	Comments/Artifacts
13	0.0-0.8	Fill 1	10YR 4/2	Sandy Loam	HM
	0.8-1.1	Fill 2	10YR 7/3	Silty Sand Loam	NCM
	1.1-2.4	Fill 3	10YR 5/4	Sandy Loam	HM
	2.4-2.5	Fill 4	10YR 3/3	Sandy Loam	NCM
	2.5-4.2	Fill 5/ Possible Ab	10YR 4/3	Sandy Loam	HM
	4.2-4.8	B1	10YR 5/4	Sandy Loam	NCM
	4.8-5.0	B2	10YR 7/3 m/w 10YR 7/8	Sandy Loam	NCM

Key:

* Depth in feet below ground surface

HM - Historic Cultural Material (see Appendix H)

NCM - No Cultural Material

NR - Not Retained

m/w - mottled with

APPENDIX H: ARTIFACT CATALOG

APPENDIX H: ARTIFACT CATALOG

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Measurements/ Dates	Wt. (g)
1	STP 1	1	0.00-1.60	Fill 1	1	ARCH	Glass	Flat	Window	Aqua, small shard		
1	STP 1	1	0.00-1.60	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, slightly curved, too small to determine manufacture technique		
1	STP 1	1	0.00-1.60	Fill 1	2	DOM	Glass	Vessel	Bottle/Jar	Colorless, body shards, slightly curved, too small to determine manufacture technique, multiple vessels represented		
1	STP 1	1	0.00-1.60	Fill 1	1	DOM	Glass	Vessel	Bottle/Jar	Colorless, body shard, mold blown indeterminate, visible mold seams, slightly curved, small		
1	STP 1	1	0.00-1.60	Fill 1	1	BIO	Faunal	Shell	Bivalve	Unidentified, fragment, weathered		0.5
1	STP 1	1	0.00-1.60	Fill 1	3	FUEL	Coal	Coal	Coal	Fragments		2.9
1	STP 1	1	0.00-1.60	Fill 1	1	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragment		1.9
1	STP 1	1	0.00-1.60	Fill 1	1	FUEL	Slag	Slag	Slag	Fragment		2.1
1	STP 1	1	0.00-1.60	Fill 1	1	ACT	Synthetic	Writing Tool	Mechanical Pen	Complete, dark grey plastic with black finger rest and pocket clip, on main body of pen in white is written, "PROFILE ® 1.4B", on pocket clip is written in white, "PAPERMATE ®", only a little weathered, looks to still have ink, but mechanism will not go down, Modern	2005-present (Paper Mate 2022)	
2	STP 2	1	0.00-1.40	Fill 1	6	ARCH	Glass	Flat	Window	Aqua, various sized small shards		
2	STP 2	1	0.00-1.40	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, slightly curved, too tiny to determine manufacture technique		
2	STP 2	1	0.00-1.40	Fill 1	2	DOM	Glass	Vessel	Bottle	Emerald green, body shards, slightly curved, too small to determine manufacture technique, possibly multiple vessels represented		
2	STP 2	1	0.00-1.40	Fill 1	1	DOM	Glass	Vessel	Bottle	Emerald green, body shard, machine made, horizontal ribs across body, slightly curved, small	Early 20th Century-present (Lindsey 2022b)	
2	STP 2	1	0.00-1.40	Fill 1	1	DOM	Glass	Vessel	Bottle	Emerald green, rim/body shard, machine made, external small mouth continuous thread finish, small	1908-present (Lindsey 2020c)	
2	STP 2	1	0.00-1.40	Fill 1	1	DOM	Glass	Vessel	Bottle/Jar	Colorless, body shard, slightly curved, too tiny to determine manufacture technique		
2	STP 2	1	0.00-1.40	Fill 1	1	DOM	Glass	Vessel	Bottle/Jar	Colorless, body shard, mold blown indeterminate, visible mold seam, slightly curved, tiny		
2	STP 2	1	0.00-1.40	Fill 1	1	DOM	Ceramic	Whiteware	Indeterminate Form	Body sherd, no visible decorations, slightly curved, tiny	1820-present (Miller et al 2000:13)	
2	STP 2	1	0.00-1.40	Fill 1	1	FUEL	Coal	Coal	Coal	Fragment		0.5
2	STP 2	1	0.00-1.40	Fill 1	1	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragment		2.8
2	STP 2	1	0.00-1.40	Fill 1	1	MISC	Synthetic	Miscellaneous Plastic	Indeterminate Plastic Item	White, fragment, straight raised vertical line on the interior, horizontal raised lines on half of the exterior, slightly curved, probably modern	20th century	
2	STP 2	1	0.00-1.40	Fill 1	2	ARCH	Ferreous Metal	Nail	Indeterminate Nail	Head and shaft fragments, heavily corroded over		

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Measurements/ Dates	Wt. (g)
2	STP 2	1	0.00-1.40	Fill 1	1	CUR	White Metal	Coin	Quarter	Complete, Washington bust on one side, eagle on the other, 1995 date, somewhat corroded	1995-1998 (US Mint 2022)	
3	STP 3	1	0.00-1.90	Fill 1	1	ARCH	Glass	Flat	Window	Aqua, tiny shard		
3	STP 3	1	0.00-1.90	Fill 1	2	DOM	Glass	Vessel	Bottle/Jar	Aqua, body shards, slightly curved, too tiny to determine manufacture technique, probably multiple vessels represented		
3	STP 3	1	0.00-1.90	Fill 1	1	DOM	Glass	Vessel	Bottle	Olive, body shard, slightly curved, too small to determine manufacture technique		
3	STP 3	1	0.00-1.90	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, slightly curved, too small to determine manufacture technique		
3	STP 3	1	0.00-1.90	Fill 1	5	DOM	Glass	Vessel	Indeterminate Vessel	Colorless, body shards, slightly curved, too tiny to determine manufacture technique, multiple vessels represented, could be DOM or LIGHT items		
3	STP 3	1	0.00-1.90	Fill 1	3	DOM	Ceramic	Whiteware	Indeterminate Form	Body sherds, one side spalled, the other side no visible decorations, tiny, multiple vessels represented	1820-present (Miller et al 2000:13)	
3	STP 3	1	0.00-1.90	Fill 1	3	DOM	Ceramic	Whiteware	Hollowware	Body sherds, brown transfer printed decoration, nothing discernible of pattern, two are spalled on one side, the other has printed decoration on both, tiny, do not mend but probably go to the same vessel	1818-1915 (MACL 2015b)	
3	STP 3	1	0.00-1.90	Fill 1	15	FUEL	Coal	Coal	Coal	Fragments		28.9
3	STP 3	1	0.00-1.90	Fill 1	2	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragments		1.1
3	STP 3	1	0.00-1.90	Fill 1	6	FUEL	Slag	Slag	Slag	Fragments		9.9
3	STP 3	1	0.00-1.90	Fill 1	2	ARCH	Red Clay	Fired Clay	Brick	Orange, fragments		2.2
3	STP 3	1	0.00-1.90	Fill 1	1	ARCH	Ferreous Metal	Nail	Indeterminate Nail	Shaft fragment, heavily corroded over		
3	STP 3	1	0.00-1.90	Fill 1	1	TOOL	Ferreous Metal	Hand Tool	Cutting Pliers	Large, fragment, plier portion and part of the handle, heavily corroded	20th century	
4	STP 3	2	1.90-2.70	Ab	1	DOM	Ceramic	Pearlware	Indeterminate Form	Body sherd, blue transfer printed decoration on one side, only dark solid color visible, nothing discernible of pattern, possibly negative printed but cannot confirm, tiny	1803-1860 (MACL 2015b; Miller et al 2000:13)	
4	STP 3	2	1.90-2.70	Ab	1	DOM	Ceramic	Whiteware	Indeterminate Form	Body sherd, blue transfer printed decoration on the interior, no visible decorations on the exterior, nothing discernible of pattern, tiny, possibly a flatware	1815-1915 (Azizi et al 1996)	
4	STP 3	2	1.90-2.70	Ab	2	FUEL	Coal	Coal	Coal	Fragments		1.9
4	STP 3	2	1.90-2.70	Ab	0	NAT				Discard, 1 natural lithic		3.0
5	STP 4	1	0.00-1.90	Fill 1	6	ARCH	Glass	Flat	Window	Aqua, various sized small shards		
5	STP 4	1	0.00-1.90	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, slightly curved, too tiny to determine manufacture technique		
5	STP 4	1	0.00-1.90	Fill 1	3	DOM	Glass	Vessel	Indeterminate Vessel	Colorless, body shards, slightly curved, too tiny to determine manufacture technique, multiple vessels represented, could be DOM or LIGHT items		
5	STP 4	1	0.00-1.90	Fill 1	4	FUEL	Coal	Coal	Coal	Fragments		3.4

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Measurements/ Dates	Wt. (g)
5	STP 4	1	0.00-1.90	Fill 1	1	ARCH	Ferreous Metal	Nail	Indeterminate Nail	Shaft fragment, heavily corroded over		
5	STP 4	1	0.00-1.90	Fill 1	1	ARCH	Ferreous Metal	Nail	Indeterminate Nail	Head and shaft fragment, heavily corroded over		
5	STP 4	1	0.00-1.90	Fill 1	1	MISC	Synthetic	Miscellaneous Plastic	Indeterminate Plastic Item	Clear, flat fragment, probably part of a wrapper, Modern		
6	STP 4	2	1.90-3.40	Fill 2	1	DOM	Glass	Vessel	Bottle	Olive, base shard, mold blown indeterminate, part of a kick up, small, probably a wine or liquor bottle		
6	STP 4	2	1.90-3.40	Fill 2	1	FUEL	Coal	Coal	Coal	Fragment		0.7
7	STP 5	1	0.00-0.90	Fill 1	1	ARCH	Glass	Flat	Window	Aqua, tiny shard		
7	STP 5	1	0.00-0.90	Fill 1	2	DOM	Glass	Vessel	Bottle	Amber, body shards, slightly curved, too tiny to determine manufacture technique, possibly multiple vessels represented		
7	STP 5	1	0.00-0.90	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, mold blown indeterminate, visible mold seam, maybe an embossed honeycomb pattern visible, slightly curved, small		
7	STP 5	1	0.00-0.90	Fill 1	1	DOM	Glass	Vessel	Bottle	Emerald green, body shard, slightly curved, too tiny to determine manufacture technique	20th century	
7	STP 5	1	0.00-0.90	Fill 1	5	FUEL	Coal	Coal	Coal	Fragments		3.0
7	STP 5	1	0.00-0.90	Fill 1	1	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragment		0.4
7	STP 5	1	0.00-0.90	Fill 1	2	MISC	Ferreous Metal	Miscellaneous Metal	Indeterminate Metal Item	Heavily corroded over blobs of metal, small		
7	STP 5	1	0.00-0.90	Fill 1	1	MISC	Ferreous Metal	Miscellaneous Metal	Indeterminate Metal Item	Flat, round with a hole in the middle, edges uneven, heavily corroded		
7	STP 5	1	0.00-0.90	Fill 1	2	MISC	Composite	Concrete	Paving or Building Material	Fragment, coarse grit		63.6
8	STP 5	3	1.40-4.70	B1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, slightly curved, too tiny to determine manufacture technique		
8	STP 5	3	1.40-4.70	B1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, mold blown indeterminate, visible mold seam, slightly curved, tiny		
8	STP 5	3	1.40-4.70	B1	1	DOM	Glass	Vessel	Bottle/Jar	Colorless, body shard, slightly curved, too tiny to determine manufacture technique		
8	STP 5	3	1.40-4.70	B1	1	FUEL	Slag	Slag	Slag	Fragment		0.6
9	STP 6	1	0.00-0.90	Fill 1	4	ARCH	Glass	Flat	Window	Aqua, various sized small shards		
9	STP 6	1	0.00-0.90	Fill 1	2	DOM	Glass	Vessel	Bottle	Amber, body shards, slightly curved, too tiny to determine manufacture technique, possibly multiple vessels represented		
9	STP 6	1	0.00-0.90	Fill 1	1	DOM	Glass	Vessel	Indeterminate Vessel	Colorless, body shards, slightly curved, too tiny to determine manufacture technique, could be DOM or LIGHT items		
9	STP 6	1	0.00-0.90	Fill 1	1	DOM	Ceramic	Whiteware	Indeterminate Form	Base sherd, no visible decorations, small	1820-present (Miller et al 2000:13)	
9	STP 6	1	0.00-0.90	Fill 1	1	DOM	Ceramic	Hard Paste Porcelain	Indeterminate Form	Body sherd, no visible decorations, slightly curved, very tiny		

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Measurements/ Dates	Wt. (g)
9	STP 6	1	0.00-0.90	Fill 1	1	TOB	White Clay	Tobacco Pipe	Pipe Stem	Small fragment, broken off on either end	5/64" Bore D.	
9	STP 6	1	0.00-0.90	Fill 1	1	FUEL	Slag	Slag	Slag	Fragment		1.6
9	STP 6	1	0.00-0.90	Fill 1	8	FUEL	Coal	Coal	Coal	Fragments		10.0
9	STP 6	1	0.00-0.90	Fill 1	1	ELEC	Carbon	Battery	Dry-Cell Rod	Broken off on both ends and cut in half	1880-present (Ginsberg 2005)	
9	STP 6	1	0.00-0.90	Fill 1	1	BIO	Faunal	Shell	Bivalve	Unidentified, fragment, weathered		0.6
9	STP 6	1	0.00-0.90	Fill 1	1	MISC	Aluminum	Miscellaneous Metal	Indeterminate Metal Item	Crumpled up foil fragment, small, Modern	20th century	
10	STP 6	2	0.90-3.00	Fill 2	1	DOM	Ceramic	Pearlware	Hollowware	Body sherd, the portion on the handle that attaches to the body, molded fan decoration, interior spalled, small	1775-1830 (Miller et al 2000:12)	
10	STP 6	2	0.90-3.00	Fill 2	8	FUEL	Slag	Slag	Slag	Fragments		9.3
11	STP 6	3	3.00-4.50	Fill 3	1	DOM	Ceramic	Pearlware	Hollowware	Body sherd, the portion on the handle that attaches to the body, molded fan decoration, interior spalled, tiny	1775-1830 (Miller et al 2000:12)	
11	STP 6	3	3.00-4.50	Fill 3	1	DOM	Ceramic	Rockingham	Indeterminate Form	Body sherd, no visible decorations, slightly curved, tiny	1830-1940 (MACL 2015c)	
11	STP 6	3	3.00-4.50	Fill 3	3	FUEL	Coal	Coal	Coal	Fragments		0.5
12	STP 7	1	0.00-1.20	Fill 1	1	ARCH	Glass	Flat	Window	Aqua, tiny shard		
12	STP 7	1	0.00-1.20	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, rim shard, blob finish, small	1840-1925 (Lindsey 2020c)	
12	STP 7	1	0.00-1.20	Fill 1	1	DOM	Glass	Vessel	Indeterminate Vessel	Milk glass, body shard, slightly curved, too small to determine manufacture technique, could be DOM or LIGHT item		
12	STP 7	1	0.00-1.20	Fill 1	3	FUEL	Coal	Coal	Coal	Fragments		5.7
12	STP 7	1	0.00-1.20	Fill 1	3	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragments		1.5
12	STP 7	1	0.00-1.20	Fill 1	1	FUEL	Charcoal	Charcoal	Charcoal	Unidentified fragment		1.2
12	STP 7	1	0.00-1.20	Fill 1	1	ARCH	Lime	Lime	Mortar	Fragment		2.9
13	STP 7	2	1.20-1.80	Fill 2	1	DOM	Ceramic	Redware	Hollowware	Body sherd, remanent trailed slip decoration, all glaze almost completely spalled off the interior, exterior spalled, tiny	Pre-1870 (Denker & Denker 1985)	
13	STP 7	2	1.20-1.80	Fill 2	1	DOM	Ceramic	Pearlware	Flatware	Body sherd, blue transfer printed decoration on one side, nothing discernible of pattern except maybe a flower, possibly negative printed but cannot confirm, small	1803-1860 (MACL 2015b; Miller et al 2000:13)	
13	STP 7	2	1.20-1.80	Fill 2	2	FUEL	Coal	Coal	Coal	Fragments		1.8
13	STP 7	2	1.20-1.80	Fill 2	2	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragments		0.5
13	STP 7	2	1.20-1.80	Fill 2	1	ARCH	Red Clay	Fired Clay	Brick	Red, fragment		0.4
13	STP 7	2	1.20-1.80	Fill 2	0	NAT				Discard, 1 natural lithic		7.0
14	STP 8	1	0.00-1.00	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, base shard, machine made, base has three tight concentric circles and then a small inner circle with embossed, "35", small	Early 20th Century-present (Lindsey 2022b)	
14	STP 8	1	0.00-1.00	Fill 1	3	FUEL	Coal	Coal	Coal	Fragments		9.1
14	STP 8	1	0.00-1.00	Fill 1	1	MISC	Synthetic	Miscellaneous Plastic	Indeterminate Plastic Item	Flat, tiny fragment, blue bands on one side, black writing on the other, "… : INFO…/W…/10-3(in computer type)…", probably some type of label, Modern	20th century	
14	STP 8	1	0.00-1.00	Fill 1	0	NAT				Discard, 2 natural lithic		6.4

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Measurements/ Dates	Wt. (g)
15	STP 8	2	1.00-1.20	Fill 2	1	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragment, Sampled		7.1
16	STP 9	1	0.00-1.20	Fill 1	2	ARCH	Glass	Flat	Window	Aqua, various sized small shards		
16	STP 9	1	0.00-1.20	Fill 1	1	DOM	Glass	Vessel	Indeterminate Vessel	Aqua, body shard, slightly curved, thin, too tiny to determine manufacture technique, possibly a bottle or a vial		
16	STP 9	1	0.00-1.20	Fill 1	6	DOM	Glass	Vessel	Bottle/Jar	Colorless, body shards, slightly curved, too small to determine manufacture technique, multiple vessels represented		
16	STP 9	1	0.00-1.20	Fill 1	1	DOM	Glass	Vessel	Bottle/Jar	Colorless, body shard, mold blown indeterminate, visible mold seam, slightly curved, interior spalled, small		
16	STP 9	1	0.00-1.20	Fill 1	1	LIGHT	Glass	Vessel	Lamp Chimney	Colorless, body shard, slightly curved, too small to determine manufacture technique		
16	STP 9	1	0.00-1.20	Fill 1	5	DOM	Ceramic	Redware	Hollowware	Body sherds, interior spalled, exterior unglazed, slightly curved, small to tiny, possibly multiple vessels represented		
16	STP 9	1	0.00-1.20	Fill 1	7	DOM	Ceramic	Whiteware	Indeterminate Form	Body sherds, one side spalled, the other side no visible decorations, small, multiple vessels represented, a couple look a little charred, possibly due to burning	1820-present (Miller et al 2000:13)	
16	STP 9	1	0.00-1.20	Fill 1	8	FUEL	Coal	Coal	Coal	Fragments		13.0
16	STP 9	1	0.00-1.20	Fill 1	1	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragment		1.1
16	STP 9	1	0.00-1.20	Fill 1	2	BIO	Faunal	Shell	Hard Clam	Fragments		6.8
16	STP 9	1	0.00-1.20	Fill 1	2	ARCH	Red Clay	Fired Clay	Brick	Red, fragments		0.7
16	STP 9	1	0.00-1.20	Fill 1	2	ARCH	Composite	Mortar	Mortar	Fragments		5.9
16	STP 9	1	0.00-1.20	Fill 1	1	ARCH	Lime	Lime	Mortar	Fragment		2.7
16	STP 9	1	0.00-1.20	Fill 1	0	NAT				Discard, 7 natural lithic		53.8
17	STP 9	2	1.20-2.50	Fill 2	1	DOM	Glass	Vessel	Tableware	Colorless, body/rim shard, slightly curved, too small to determine manufacture technique, possibly part of a tumbler		
17	STP 9	2	1.20-2.50	Fill 2	1	DOM	Glass	Vessel	Indeterminate Vessel	Colorless, body shard, molded or pressed, ribs and the start of a diamond visible, possibly a tableware or bottle/jar, slightly curved, too tiny to confirm		
17	STP 9	2	1.20-2.50	Fill 2	1	DOM	Ceramic	Whiteware	Indeterminate Form	Base sherd, one side spalled, the other side no visible decorations, tiny	1820-present (Miller et al 2000:13)	
17	STP 9	2	1.20-2.50	Fill 2	2	FUEL	Coal	Coal	Coal	Fragments		0.6
17	STP 9	2	1.20-2.50	Fill 2	1	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragment		0.1
17	STP 9	2	1.20-2.50	Fill 2	3	BIO	Faunal	Shell	Hard Clam	Fragments, weathered		5.1
17	STP 9	2	1.20-2.50	Fill 2	0	NAT				Discard, 4 natural lithic		86.4
18	STP 9	3	2.50-3.50	Fill 3	1	DOM	Ceramic	Refined White-Bodied Earthenware	Indeterminate Form	Body sherd, one side spalled, the other side has blue transfer printed decoration, completely covered in dark blue background with white dots, possibly negative printed, too tiny to determine full pattern, could be pearlware or whiteware, widest date given	1803-1915(MACL 2015b; Azizi et al 1996)	
19	STP 10	1	0.00-1.10	Fill 1	1	ARCH	Glass	Flat	Window	Aqua, small shard		
19	STP 10	1	0.00-1.10	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, mold blown indeterminate, visible mold seam, slightly curved, tiny		

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Measurements/ Dates	Wt. (g)
19	STP 10	1	0.00-1.10	Fill 1	1	DOM	Glass	Vessel	Bottle	Olive, body shard, curved then flattens, possibly part of a square/rectangular or oval bottle, too small to determine manufacture technique		
19	STP 10	1	0.00-1.10	Fill 1	1	DOM	Glass	Vessel	Bottle	Emerald green, body shard, mold blown indeterminate, embossed, "…PO…", slightly curved, small	19th or 20th century	
19	STP 10	1	0.00-1.10	Fill 1	4	DOM	Glass	Vessel	Bottle	Emerald green, body shards, mended, machine made, start of s stippled area visible, slightly curved, small	Early 20th Century-present (Lindsey 2022b)	
19	STP 10	1	0.00-1.10	Fill 1	4	DOM	Glass	Vessel	Bottle/Jar	Colorless, body shards, slightly curved, too tiny to determine manufacture technique, multiple vessels represented		
19	STP 10	1	0.00-1.10	Fill 1	4	FUEL	Coal	Coal	Coal	Fragments		1.9
19	STP 10	1	0.00-1.10	Fill 1	4	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragments		3.6
19	STP 10	1	0.00-1.10	Fill 1	2	FUEL	Slag	Slag	Slag	Fragments		4.6
19	STP 10	1	0.00-1.10	Fill 1	1	MISC	Synthetic	Miscellaneous Plastic	Indeterminate Plastic Item	Tubular blue plastic with a hollow black tube that comes to a slightly point, maybe part of a pen or pencil but not enough to confirm, Modern	20th Century	
19	STP 10	1	0.00-1.10	Fill 1	2	MISC	Ferreous Metal	Miscellaneous Metal	Indeterminate Metal Item	Blobs of metal, heavily corroded over, tiny		
19	STP 10	1	0.00-1.10	Fill 1	1	ARCH	Red Clay	Fired Clay	Brick	Orange, fragment		0.2
19	STP 10	1	0.00-1.10	Fill 1	3	ARCH	Ferreous Metal	Nail	Indeterminate Nail	Shaft fragments, heavily corroded over		
19	STP 10	1	0.00-1.10	Fill 1	2	ARCH	Ferreous Metal	Nail	Indeterminate Nail	Head and shaft fragments, heavily corroded over		
20	STP 10	2	1.10-1.90	Fill 2	1	DOM	Ceramic	Creamware	Indeterminate Form	Body sherd, one side spalled, the other side no visible decorations, very tiny	1762-1820 (Miller et al 2000: 12)	
21	STP 11	1	0.00-0.90	Fill 1	1	ARCH	Glass	Flat	Window	Aqua, small shard		
21	STP 11	1	0.00-0.90	Fill 1	1	DOM	Ceramic	Whiteware	Indeterminate Form	Body sherd, no visible decorations, slightly curved, tiny	1820-present (Miller et al 2000:13)	
21	STP 11	1	0.00-0.90	Fill 1	1	DOM	Ceramic	Stoneware	Hollowware	Body sherd, buff-bodied, Bristol slip on both sides, slightly curved, small	1880-1960 (Cheek 1996:89)	
21	STP 11	1	0.00-0.90	Fill 1	1	MISC	Synthetic	Miscellaneous Plastic	Indeterminate Plastic Item	White, slightly curved, long skinny triangle shaped fragment, broken on either side	20th Century	
21	STP 11	1	0.00-0.90	Fill 1	1	FUEL	Coal	Coal	Coal	Fragment		0.7
21	STP 11	1	0.00-0.90	Fill 1	13	FUEL	Slag	Slag	Slag	Fragments		59.9
22	STP 11	2	0.90-1.90	Fill 2	2	DOM	Glass	Vessel	Bottle/Jar	Light blue, body shards, slightly curved, too tiny to determine manufacture technique, possibly multiple vessels represented		
22	STP 11	2	0.90-1.90	Fill 2	1	DOM	Ceramic	Whiteware	Indeterminate Form	Body sherds, blue transfer printed decoration on one side, no other visible decorations on the other, nothing discernible of pattern, slight curved, very tiny	1815-1915 (Azizi et al 1996)	
22	STP 11	2	0.90-1.90	Fill 2	1	MISC	Ferreous Metal	Miscellaneous Metal	Indeterminate Metal Item	Blob of metal, heavily corroded over, small		
22	STP 11	2	0.90-1.90	Fill 2	4	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragments		3.1
22	STP 11	2	0.90-1.90	Fill 2	5	BIO	Faunal	Shell	Oyster	Fragments, weathered		9.7

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Measurements/ Dates	Wt. (g)
22	STP 11	2	0.90-1.90	Fill 2	1	BIO	Faunal	Shell	Hard Clam	Hinge fragment, weathered		7.9
23	STP 11	4	2.60-3.00	Fill 4	6	FUEL	Coal Ash	Coal Ash	Coal Ash			43.3
24	STP 12	1	0.00-0.70	Fill 1	1	ARCH	Glass	Flat	Window	Aqua, tiny shard		
24	STP 12	1	0.00-0.70	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, mold blown indeterminate, visible mold seam, slightly curved, small		
24	STP 12	1	0.00-0.70	Fill 1	1	DOM	Glass	Vessel	Bottle/Jar	Aqua, body shard, mold blown indeterminate, embossed, "…S", slightly curved, small	Mid-19th to 20th Century	
24	STP 12	1	0.00-0.70	Fill 1	1	DOM	Glass	Vessel	Bottle/Jar	Colorless, body shard, slightly curved, too small to determine manufacture technique		
24	STP 12	1	0.00-0.70	Fill 1	1	DOM	Ceramic	Pearlware	Indeterminate Form	Body sherd, one side spalled, the other side no visible decorations, small	1775-1830 (Miller et al 2000:12)	
24	STP 12	1	0.00-0.70	Fill 1	2	DOM	Ceramic	Pearlware	Hollowware	Body sherds, mended, dipt, partial band of blue visible on the exterior and a partial band of brown, very slightly curved, tiny	1775-1860 (MACL 2015a)	
24	STP 12	1	0.00-0.70	Fill 1	1	DOM	Ceramic	Refined White-Bodied Earthenware	Indeterminate Form	Base sherd, one side spalled, the other side has blue transfer printed decoration, maybe some bushes visible, too tiny to determine full pattern		
24	STP 12	1	0.00-0.70	Fill 1	1	DOM	Ceramic	Hard Paste Porcelain	Flatware	Body sherd, no visible decorations, slightly curved, small		
24	STP 12	1	0.00-0.70	Fill 1	5	FUEL	Coal	Coal	Coal	Fragments		9.3
24	STP 12	1	0.00-0.70	Fill 1	2	BIO	Faunal	Shell	Hard Clam	Fragments, weathered		2.8
25	STP 13	1	0.00-0.80	Fill 1	3	ARCH	Glass	Flat	Window	Aqua, tiny shards		
25	STP 13	1	0.00-0.80	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, slightly curved, too small to determine manufacture technique		
25	STP 13	1	0.00-0.80	Fill 1	1	DOM	Glass	Vessel	Bottle/Jar	Aqua, body shard, slightly curved, too small to determine manufacture technique		
25	STP 13	1	0.00-0.80	Fill 1	1	DOM	Glass	Vessel	Indeterminate Vessel	Colorless, body shard, slightly curved, too tiny to determine manufacture technique, could be DOM or LIGHT item		
25	STP 13	1	0.00-0.80	Fill 1	1	DOM	Ceramic	Pearlware	Flatware	Body sherd, blue transfer printed decoration on interior, only dark color visible, nothing discernible of pattern, possibly negative printed but cannot confirm, tiny	1803-1830 (MACL 2015b; Miller et al 2000:13)	
25	STP 13	1	0.00-0.80	Fill 1	2	FUEL	Slag	Slag	Slag	Fragments		2.5
25	STP 13	1	0.00-0.80	Fill 1	1	MISC	Synthetic	Miscellaneous Plastic	Indeterminate Plastic Item	White, fragment, slightly curved, small, Modern	20th Century	
25	STP 13	1	0.00-0.80	Fill 1	1	MISC	Synthetic	Miscellaneous Plastic	Indeterminate Plastic Item	Light blue/grey, slightly translucent, flat, thick, rounded end, with ribs or broken off tines on the other, maybe a comb but not enough to confirm, Modern	20th Century	
25	STP 13	1	0.00-0.80	Fill 1	2	MISC	Synthetic	Miscellaneous Plastic	Indeterminate Plastic Item	Orange, mended, vertical ribbed exterior, threads or wide horizontal ribs on the interior, possibly the side of cap, slightly curved, tiny, Modern	20th Century	
26	STP 13	3	1.10-2.40	Fill 3	1	DOM	Glass	Vessel	Bottle	Aqua, rim shard, mold blown indeterminate, blob finish, tiny	1840-1925 (Lindsey 2020c)	

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Measurements/ Dates	Wt. (g)
26	STP 13	3	1.10-2.40	Fill 3	1	DOM	Ceramic	Whiteware	Flatware	Body/rim sherd, blue transfer printed decoration on the interior, nothing discernible of pattern, slightly curved, small	1815-1915 (Azizi et al 1996)	
26	STP 13	3	1.10-2.40	Fill 3	1	BIO	Faunal	Shell	Bivalve	Unidentified, fragment, weathered		1.6
26	STP 13	3	1.10-2.40	Fill 3	5	ARCH	Red Clay	Fired Clay	Brick	Red, fragments		40.3
27	STP 13	5	2.50-4.20	Fill 5/Ab	1	ARCH	Glass	Flat	Window	Aqua, very tiny shard		
27	STP 13	5	2.50-4.20	Fill 5/Ab	1	DOM	Glass	Vessel	Bottle/Jar	Aqua, body shard, mold blown indeterminate, embossed, "…O...", slightly curved, small	Mid-19th to 20th Century	
27	STP 13	5	2.50-4.20	Fill 5/Ab	1	DOM	Glass	Vessel	Indeterminate Vessel	Colorless, body shard, slightly curved, too small to determine manufacture technique, could be a tableware or bottle/jar, small		
27	STP 13	5	2.50-4.20	Fill 5/Ab	1	DOM	Ceramic	Refined White-Bodied Earthenware	Indeterminate Form	Body sherd, blue possibly printed or painted on one side, spalled on the other, a dark blue splotch and a lighter blue background visible, nothing discernible of pattern, too tiny to confirm full decoration or form		
Total Artifacts:					***338***							

Key:

* in decimalized feet below ground surface

ACT = activity
ARCH = architectural
BIO = biological
CUR = currency
DOM = domestic
ELEC = electrical
FUEL = fuel
LIGHT = lighting
MISC = miscellaneous
NAT= natural
TOB = tobacco
TOOL = tool
STP = shovel test pit
g = grams
D = diameter

APPENDIX H: ARTIFACT CATALOG REFERENCES

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Appendix A-1

Phase I Archaeology Survey and
Intensive-Level Historic Architectural
Survey: Appendices I-K

APPENDIX I: NEW JERSEY STATE HISTORIC PRESERVATION OFFICE SURVEY FORMS

Index to Forms:

RGA#	Resource Name/ Address
RGA 1	Newark Bay Bridge
RGA 2	Newark Bay-Hudson County Extension
RGA 3	233-544 Port Street/ 233-544 Port Street, Newark, NJ
RGA 4	21-93 Firmench Way/ 21-93 Firmench Way, Newark, NJ
RGA 5	Sunset Avenue Historic District
RGA 6	Bayonne Towers/ 1225 John F. Kennedy Boulevard, Bayonne, NJ
RGA 7	1234-1238 John F. Kennedy Boulevard Historic District
RGA 8	1240 John F. Kennedy Boulevard/ 1240 John F. Kennedy Boulevard, Bayonne, NJ
RGA 9	1242 John F. Kennedy Boulevard/ 1242 John F. Kennedy Boulevard, Bayonne, NJ
RGA 10	1244 John F. Kennedy Boulevard/ 1244 John F. Kennedy Boulevard, Bayonne, NJ
RGA 11	1246 John F. Kennedy Boulevard/ 1246 John F. Kennedy Boulevard, Bayonne, NJ
RGA 12	159 West 57th Street/ 159 West 57th Street, Bayonne, NJ
RGA 13	161 West 57th Street/ 161 West 57th Street, Bayonne, NJ
RGA 14	163 West 57th Street/ 163 West 57th Street, Bayonne, NJ
RGA 15	Pamrapo Renaissance Revival Historic District
RGA 16	John F. Kennedy Boulevard Historic District
RGA 17	358-360 Avenue B/ 358-360 Avenue B, Bayonne, NJ
RGA 18	354-356 Avenue B/ 354-356 Avenue B, Bayonne, NJ
RGA 19	West 57th Street Historic District
RGA 20	Woodrow Wilson School/ 101 West 56th Street, Bayonne, NJ
RGA 21	62 West 57th Street/ 62 West 57th Street, Bayonne, NJ
RGA 22	61 West 56th Street/ 61 West 56th Street, Bayonne, NJ
RGA 23	1137 Avenue C/ 1137 Avenue C, Bayonne, NJ
RGA 24	1133 Avenue C/ 1133 Avenue C, Bayonne, NJ
RGA 25	1136 Avenue C/ 1136 Avenue C, Bayonne, NJ
RGA 26	1134 Avenue C/ 1134 Avenue C, Bayonnne, NJ
RGA 27	West 56th Street Historic District
RGA 28	19-33 West 55th Street/ 19-33 West 55th Street, Bayonne, NJ
RGA 29	Hudson Lanes / 1 Garfield Avenue, Jersey City, NJ
RGA 30	Twin City Shopping Center/ 2 Garfield Avenue, Jersey City, NJ
RGA 31	Cenveo/ 25 Linden Avenue East, Jersey City, NJ
RGA 32	Jersey City Department of Public Works/ 15 Linden Avenue East, Jersey City, NJ
RGA 33	20 Linden Avenue East/ 20 Linden Avenue East, Jersey City, NJ

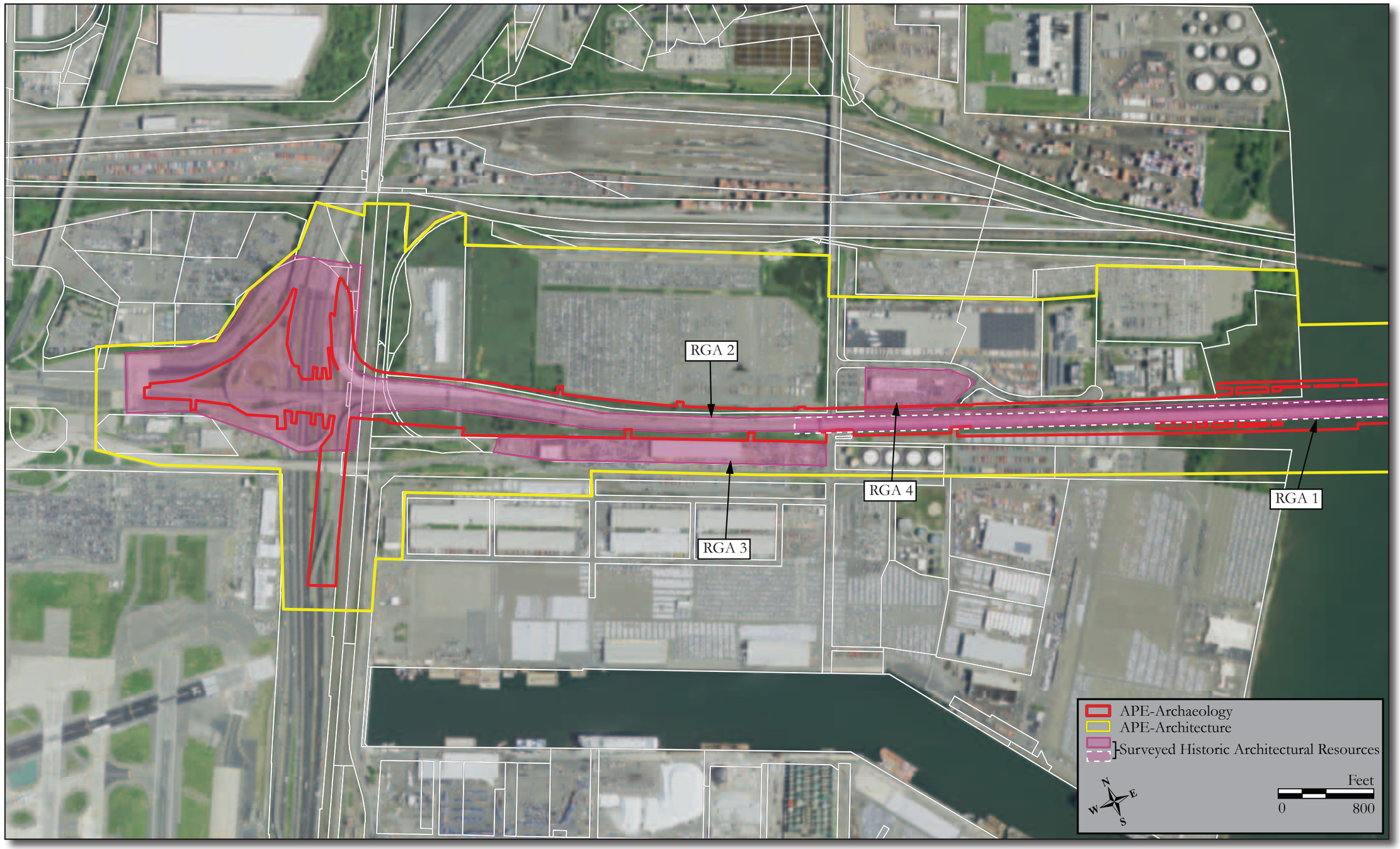

Figure 1a: Aerial image showing the locations of surveyed resources within the APE-Architecture.

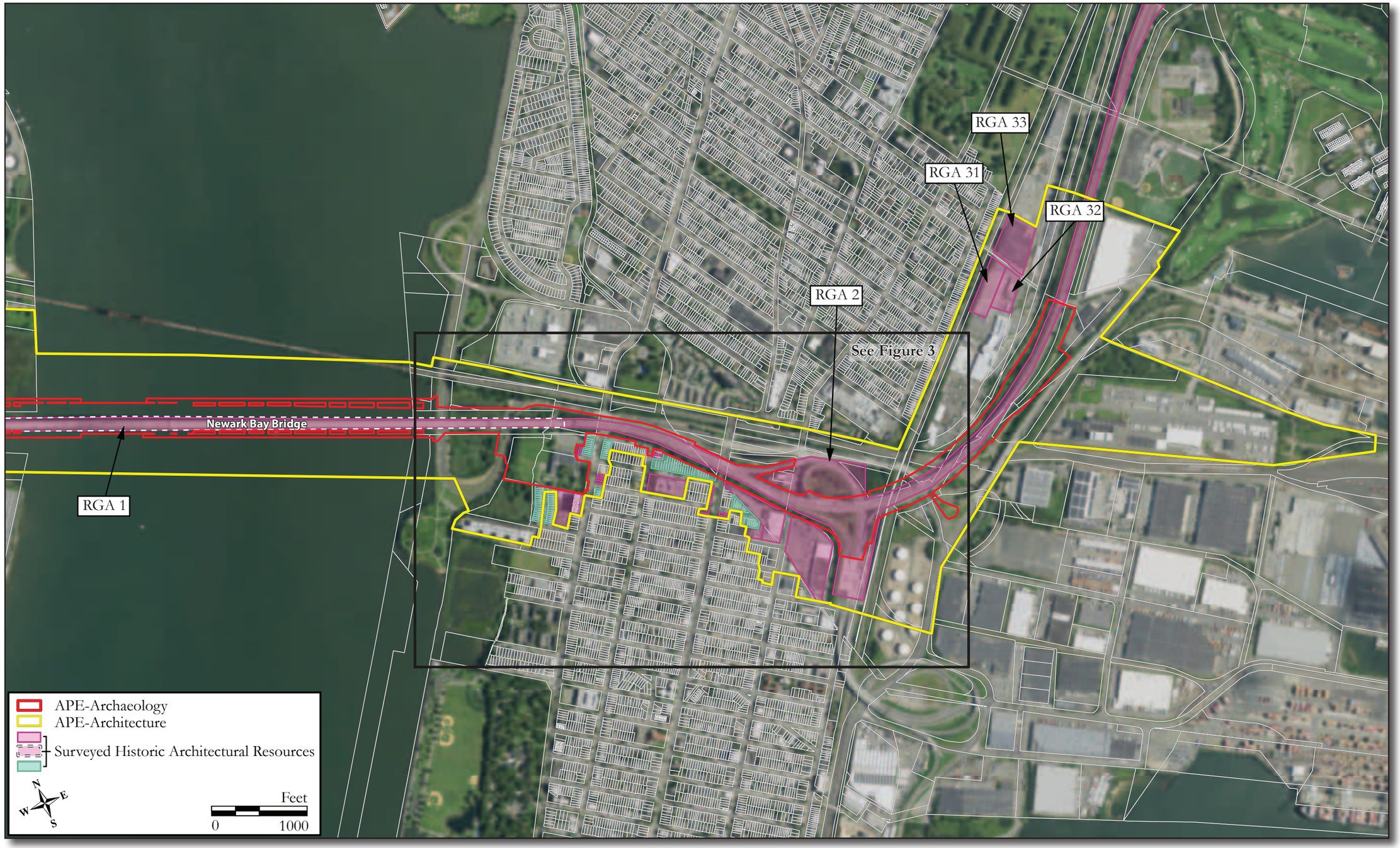

Figure 1b: Aerial image showing the locations of surveyed resources within the APE-Architecture.

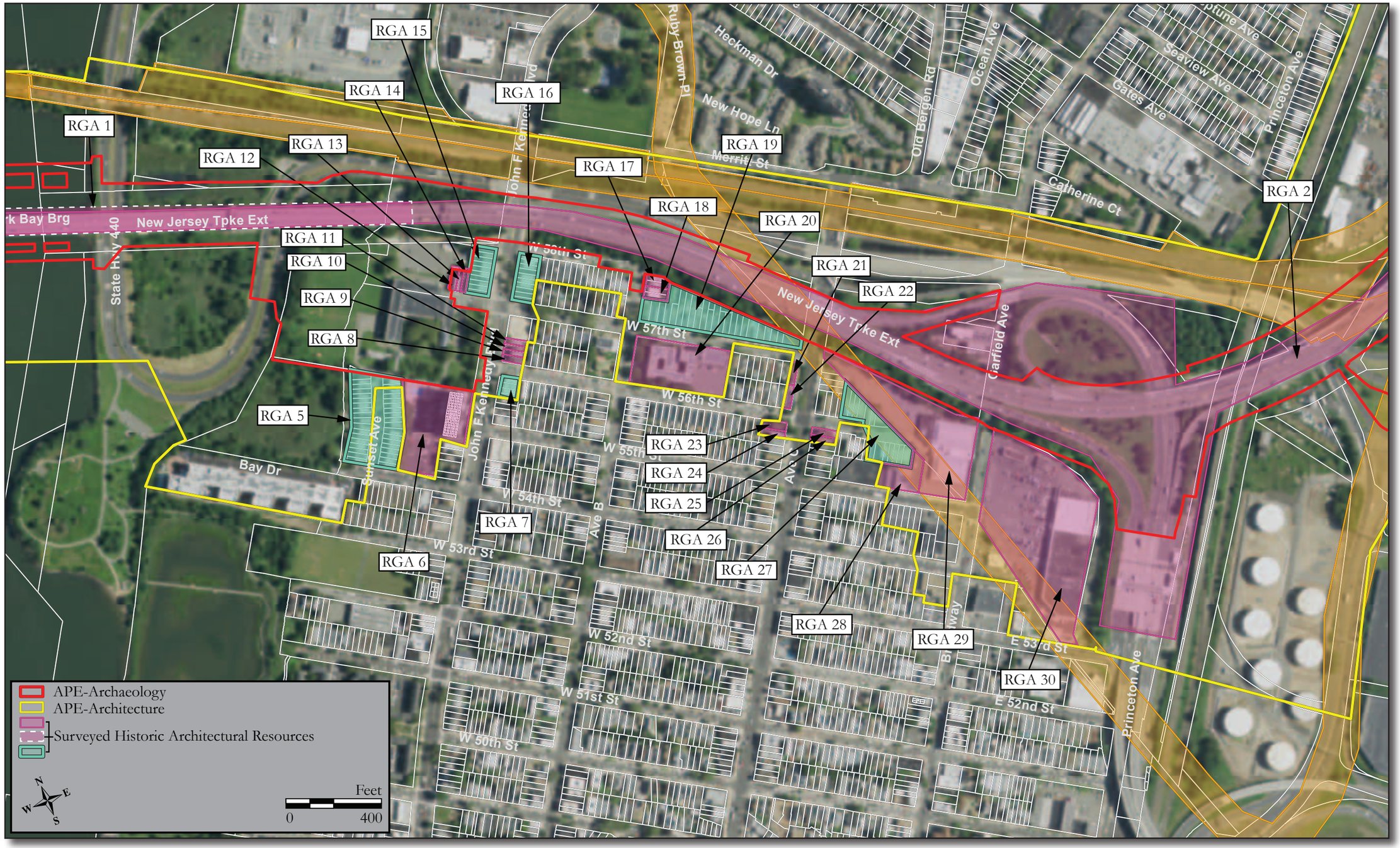

Figure 1c: Aerial image showing the locations of surveyed resources within the APE-Architecture.

BASE SURVEY FORM

Historic Sites #:

Property Name: Newark Bay Bridge

Street Address: *Street #:* _____ (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* New Jersey Turnpike Newark Bay-Hudson County Extension *Suffix:* _____ *Type:* TPKE

County(s): Essex; Hudson **Zip Code:** 07114; 07002

Municipality(s): City of Newark; City of Bayonne **Block(s):** Various

Local Place Name(s): Port Newark **Lot(s):** Various

Ownership: Public **USGS Quad(s):** Elizabeth NJ; Jersey City NJ

Description:

The Newark Bay Bridge, also known as the Vincent R. Casciano Memorial Bridge, is a component of the New Jersey Turnpike Newark Bay-Hudson County Extension (the Extension) and carries that roadway 9,560 feet across Newark Bay between the City of Newark, Essex County, and the City of Bayonne, Hudson County (Plates 1-17). It includes a 43-span west approach, a 32-span east approach, and a 3-span main truss carrying a 78-foot-wide roadway consisting of two 12-foot-wide travel lanes and one 12-foot-wide right shoulder in each direction and a 6-foot-wide median. The out-to-out roadway width measures 86 feet, 8 3/4 inches; the overall truss width totals 89 feet. At its highest, the structure stands 263 feet above Newark Bay and provides a 550-foot-wide navigation channel with a 135-feet minimum clearance above mean high tide. *Continued on Continuation Sheet*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Philip A. Hayden Date: May 2021; Revised October 2021

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:

See Continuation Sheet

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
The Newark Bay Bridge was not surveyed as part of the 1994 *New Jersey Historic Bridge Survey* because the structure post-dated the survey cut-off of 1945 (A. G. Lichtenstein Associates, Inc. 1994). The structure is part of the Newark Bay-Hudson County Extension of the New Jersey Turnpike. The New Jersey State Historic Preservation Officer (SHPO) determined the New Jersey Turnpike's main stem not eligible for listing in the National Register of Historic Places (NRHP) on September 14, 2006 (Guzzo 2006: HP0-12006-69 Log# 05-2242-2). This determination did not include the Extension. In a memorandum dated January 30, 2018, regarding a New Jersey Department of Environmental Protection (NJDEP) Land Use Regulation permit for the Newark Bay Bridge Deck Reconstruction Project, the New Jersey Historic Preservation Office (NJHPO) requested an intensive-level historic architectural survey of the bridge (Marcopul 2018: HPO Project #18-0496-1 HPO-A2018-226). Subsequent consultation waived the survey (Wilson 2018). The current investigation was undertaken in anticipation of future Section 106 and Executive Order 215 regulatory compliance.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
1 Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)
There are no known archaeological resources associated with this resource at this time.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Philip A. Hayden Date: May 2021; Revised October 2021
Organization: Richard Grubb & Associates, Inc.

BRIDGE ATTACHMENT

Historic Sites #:

Common Name: New Jersey Turnpike Newark Bay Bridge

Historic Name: New Jersey Turnpike Newark Bay-Hudson County Extension Newark Bay Bridge

Feature Carried: New Jersey Turnpike Newark Bay-Hudson County Extension

Feature Crossed: Newark Bay **Milepost:** N/A

Owner/Operator: New Jersey Turnpike Authority **SI&A Structure Number:**

Construction Date: 1956 **Source:** New York Times [NYT], 4 April 1956b: 31

Alteration Date(s): 1983-1984; 2010-2013 **Source:** New Jersey Turnpike Authority [NJTA] 1984: 3, 5; URS Corporation 2010; Bier 2018

Engineer: Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers

Physical Condition: Poor

Builder: Bethlehem Steel Company (Truss); Drago Corporation (Bridge Piers); Merritt-Chapman & Scott Corporation (East & West Approach Spans)

Remaining Historic Fabric: Medium

Type: Truss, Through

Spans: 78

Design: Other – Shouldered Tied-Arch

Material: Steel

Length: Approx. 9,560 feet

Width: Approx. 86 feet

Patent Holder: N/A

Patent Date: N/A

Description:

See Base Survey Form and Continuation Sheet

Setting: The surveyed resource crosses Newark Bay, a broad, navigable tidal body of water at the confluence of the Passaic and Hackensack rivers and bordering the Port Newark-Elizabeth Marine Terminal, currently operated by the Port Authority of New York and New Jersey (PANYNJ). The western shore is characterized by extensively filled marshland, now heavily developed with port receiving and shipping terminals, warehouses, railroad facilities, highways, and the Newark Liberty Airport. The eastern shore consists of the less densely developed lower end of Bergen Hill, a rocky uplift separating Newark Bay from New York Harbor and the Hudson River. The eastern shore includes waterfront parks and highways; a scattering of late nineteenth- and early twentieth-century residential and commercial development; and extensive highway interchanges, connector roads, and railroads. The City of Newark rises to the west of the Newark Bay Bridge, while the densely developed centers of Bayonne, Jersey City, and New York City loom in the east.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:

See Continuation Sheet

Significance:

See Continuation Sheet

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:

See Continuation Sheet

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:
N/A

List the completed attachments related to the property's significance:
Bridge Attachment: Newark Bay Bridge

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

Description: *Continued from Base Survey Form*

Substructure - The two long, gradually ascending approaches consist of both closely spaced spans located primarily over firm land and more widely spaced spans located over softer fill or open water. Two kinds of reinforced concrete piers form the underpinnings for each span type. Close span widths are supported by pairs of pier bents, with each bent consisting of two tapered, square columns and a cantilevered cap forming a narrow triangle arch on its underside. The wider spans are supported by a single pier bent composed of two heavy tapered square columns and a single narrower cross-tie cap forming one broad triangle arch on its underside. Those piers, erected in water, rest on solid concrete bases veneered in gray granite. Piers located at transition points between span types employ significantly thicker buttressed columns and narrower cross-tie caps. A timber fender system guards the two piers flanking the main channel. The structure also features one common reinforced concrete abutment embanked in fill at its eastern extreme.

Superstructure – Each closely spaced span is crossed by 12 welded steel stringer beams resting on the pier caps. Widely spaced spans feature two large, riveted steel fascia girders resting directly on each pier column, which are tied together with regularly spaced transverse girders. The east approach includes 15 steel stringer beam spans and 17 steel riveted girder spans. The west approach consists of 30 beam spans and 13 girder spans. The main span consists of a three-part, cantilevered through-truss with east and west anchor arms and a central shouldered tied-arch span. Totaling 1,270 feet in overall length, the truss's two anchor arms measure 300 feet wide apiece and the center arch measures 670 feet wide. The main truss arch span is tied together at its base by a suspended, fixed bottom cord. The suspension system also carries the road deck. The replacement outer parapet walls and median divider consist of modern solid concrete Jersey Barriers. The structure also features modern light poles, fixed overhead directional signage, and new security fencing.

History:

Introduction

The New Jersey Turnpike Authority (NJTA) was established in 1948 to finance, build, and maintain a long-planned major north-south arterial superhighway, which opened in stages under the name of the New Jersey Turnpike until reaching its full extent between Deepwater and the George Washington Bridge in 1952 (NJTA 83-84). When the Newark Bay-Hudson County Extension to the New Jersey Turnpike, including the Newark Bay Bridge, opened in 1956 together with a sister connection across the Delaware River to the Pennsylvania Turnpike, it completed New Jersey's portion of an interstate superhighway first envisioned in the early 1930s. The Extension was also the latest in a long list of transportation links between the New Jersey mainland and the Hudson County peninsula, and it was the fourth to cross the Newark Bay expanse. The prior crossings included both the Central Railroad of New Jersey's (CRRNJ's) Main Line and Newark Branch, as well as the combined Lehigh Valley/Pennsylvania Railroad (LVRR/PRR) bridge to Greenville and Jersey City. Of the earlier highway routes, the Newark Turnpike (NJ Route 7), the Pulaski Skyway (Route 1 & 9), the Newark Plank Road (Communipaw Avenue/US Lincoln Highway), and the Goethals Bridge/Bayonne Bridge route were the most important, with the former three crossing the Meadowlands and Passaic and Hackensack rivers and the latter crossing the Arthur Kill and Kill Van Kull waterways (Modica 2015a). All were developed in response to the need to connect the New Jersey shoreline along New York Harbor with the state's interior and with neighboring states. The railroad corridors dominated these routes into the early twentieth century. With the introduction of the automobile, however, planners faced new challenges.

Background

The concept of a federally-funded interstate highway system was as old as the Republic. It met resistance, however, from the states. As a result, federal aid was limited chiefly to national roads, postal routes, and military corridors according to its authority over interstate commerce and national defense (United States Department of Transportation [hereafter USDOT] 1976: 80, 198-200). The popularity of the automobile, however, created immediate needs for roadway improvements, the costs of which continued to be borne mainly by local governments and the states

History, Continued:

according to the systems in place at the time. This included newly formed state highway commissions created as an outgrowth of the Good Roads Movement of the 1890s. New Jersey established the first state aid program to assist with county road-building in 1891, but this was channeled through the Department of Agriculture. Massachusetts created the first official State Highway Commission in 1894. Others followed. The states also applied pressure on Congress for federal aid, which still came mainly in the form of support for postal routes and rural roads (USDOT 1976: 200). Meanwhile, planners renewed calls for better coordination of interconnected roads at the local, state, and national levels. Building across state lines continued to require significant negotiation and raised perennial constitutional questions regarding jurisdiction. Paying for the infrastructure proved equally controversial. Only the most populous, urbanized states were able to afford an interconnected system of modern, improved roads. Some supported the use of tolls, and studies to finance and construct such a system using tolls had been under consideration (USDOT 1976: 136). Others favored direct grants to the states, while still another group preferred shared responsibility. The Federal Aid Road Act of 1916 established the first cooperative Federal-State funding program for road construction (USDOT 1976: 87, 202).

World War I interrupted most plans under the 1916 Act. But the emergency also offered a rationale for increased federal support for roadways. In December 1917, the American Association of State Highway Officials (AASHO) instructed its member states to designate the roads most essential to their jurisdictions for supporting the collective war effort (USDOT 1976: 96). An improved network of roadways would not only relieve congestion, but it would serve "to facilitate the movement of troops, equipment, munitions, and supplies and to promote the general welfare of the people of the United States" (USDOT 1976: 101). Traffic problems were particularly acute in the Port of New York, the nation's largest commercial center. By war's end, greater federal support for roadway improvements enjoyed broad consensus. The Federal Highway Act of 1921 reaffirmed the existing structure of shared responsibility between the federal and state governments, but it also mandated each state to develop a federally approved system of connecting interstate (primary) roads and intercounty rural (secondary) roads (USDOT: 1976: 108, 202). From this point forward, all of New Jersey's highway, bridge, and tunnel projects were designed to fit into a wider—albeit evolving—plan for a nationwide system of interstate highways.

Coordinated Highway Building in the Port of New York

For New Jersey, building connections with other states meant not only careful coordination but also heavy investments in bridges and tunnels. Establishing a number of interstate vehicular links had been under consideration well before World War I, but the impact of the conflict on the Port of New York made these links imperative. The region contained a large population with more industrial and manufacturing capacity than Chicago, Philadelphia, St. Louis, and Cleveland combined (Modica 2015b: 9). However, matters of jurisdiction, right-of-way acquisition, and federal support for such massive undertakings, remained difficult to overcome. To get around these obstacles, New Jersey entered into pacts with neighboring states. In 1918, it created the New Jersey Interstate Bridge and Tunnel Commission to jointly build with its sister organization in New York the first vehicular tunnel (called the Holland Tunnel) between Manhattan and Jersey City using bonds backed by toll revenues (New Jersey Interstate Bridge and Tunnel Commission 1920: 5). In 1919, the state joined with Pennsylvania to create the Delaware River Bridge Joint Commission to construct the Benjamin Franklin Bridge between Philadelphia and Camden, also with tolls. The Benjamin Franklin Bridge opened in 1926, followed by the Holland Tunnel in 1927 (KSK Architects Planners Historians, Inc. 2011: 85). To connect to the new tunnel, the New Jersey State Highway Commission built the US Route 1 Extension, a limited-access, grade-separated super highway between Elizabeth and Jersey City with its most prominent feature consisting of a steel and concrete viaduct with two bridges across the Passaic and Hackensack Rivers, called the Pulaski Skyway. The US Route 1 Extension, in particular, demonstrated the advantages of applying railroad design principles to highway construction, including gentle grades, limited access, and grade-separated rights-of-way, and it received world-wide attention as a model for future highway construction (McCahon and. Johnston 2003).

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New Jersey and New York, meanwhile, formed the Port of New York Authority (PNYA), the predecessor of the current Port Authority of New York and New Jersey, in April 1921 (Doig 2001). The PNYA, which had been conceived mainly to improve railroad and port facilities, quickly transitioned to highway improvements. It built the Goethals Bridge (1928), the Outerbridge Crossing (1928), the Bayonne Bridge (1931), and the George Washington Bridge (1931) in rapid succession and commenced planning on the Midtown Hudson Tunnel (a.k.a. Lincoln Tunnel). The PNYA then took control of the Holland Tunnel (Figure 1) (Modica 2015b: 31, 38-39). The combined Goethals Bridge/Outerbridge Crossing/Bayonne Bridge route, together with the George Washington Bridge, the Holland Tunnel, and the Pulaski Skyway, constituted the state's first coordinated effort to create vehicular connections between New York and New Jersey. All relied on toll revenues for financing. Together with the US Route 1 Bridge (1929) over the Raritan River and the Benjamin Franklin Bridge over the Delaware River, New Jersey established an important through route for vehicles traveling between New York and Philadelphia (Courier-Post 15 December 1929: 23). These massive structures, utilizing the latest engineering designs and building techniques, were major achievements in their own right and helped set the stage for future highway design (McCahon and. Johnston 2003).

Superhighways and Routes 100 and 300: Prelude to the New Jersey Turnpike

As early as 1933, the highway engineers of eight northeastern states announced their support for creating a single high-speed superhighway between Boston and Washington, DC, using parts of the existing US Route 1 (New York Times [hereafter NYT] 20 August 1933: N1). This basic idea evolved over the next 15 years into a network of toll highways, including the New Jersey Turnpike. At the same time, New Jersey's State Highway Commissioner, E. Donald Sterner, labored to improve growing traffic congestion into and out of New York, using the goal of the larger Boston-Washington superhighway project as a means to gain political and financial support for the improvements. In December 1937, he floated the idea of building a northern segment of the new superhighway to connect the key Hudson River crossings with the state's growing internal road network. Among its features was a proposed highway bridge over the Newark Bay. Describing his vision, Sterner wrote:

> To relieve this congestion on Route 25…we should have a new roadway from the Woodbridge Cloverleaf through the meadows to the east of the present Route 25, across Newark Bay to Route 1 in Bayonne, and serving the Holland Tunnel, the Lincoln Tunnel, and the George Washington Bridge. The right of way should be 300 feet wide, to provide eventually for a multi-lane highway, with a total of 12 lanes, divided by safety islands in series of three lanes each, the center six lanes divided by an island for light through traffic, and the outer three lanes on each side for local truck traffic…" (Morning Post 7 December 1937: 7).

Sterner's new speedway and the Boston-Washington superhighway received support when President Franklin D. Roosevelt instructed the Bureau or Public Roads to study the feasibility of building six national toll roads (three north-south and three east-west) (USDOT 1976: 136, 271). Such a project, Roosevelt reasoned, promised to be not only an important public works project of long-range benefit to the citizenry but also of value to national defense while the country mobilized for possible war. The important features of the proposal included generous rights-of-way, limited access points, and continuous grade separation (USDOT 1976: 136). The subsequent report, titled *Toll Roads and Free Roads* (1939), found that expected traffic volumes were insufficient in most regions to justify funding with tolls. However, it indorsed "the construction of a special, tentatively designed system of direct interregional highways, with all necessary connections through and around cities, designed to meet the requirements of national defense in time of war and the needs of a growing peacetime traffic of longer range" (USDOT 1976: 272).

The only route the report thought marginally viable as a toll road comprised the corridor between Boston and Washington, DC. In December 1939, the eight states making up the region created a study committee chaired by Sterner to press for construction of the Boston-Washington superhighway (USDOT 1976: 136). He latched onto the highway's military benefits to advocate for federal support and designated his proposed section of the speedway in northern New

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Jersey as Route 100 (Figure 2). Subsequent plans called for extending Route 100 southward to either Trenton, Scudder's Falls, or Camden. As a cost-savings measure, the Boston-Washington superhighway team decided to utilize existing bridges and tunnels, including the George Washington Bridge, the Lincoln Tunnel, the Holland Tunnel, and the Benjamin Franklin Bridge (Morning Post 28 February 1940: 1-2). This squared with Sterner's basic plan for Route 100. But political differences of opinion and more urgent war planning stalled further work (Allentown Messenger 28 December 1939: 6; Sterner 1941: 9; Central New Jersey Home News 17 June 1941: 3; The News 23 April 1942: 7).

By 1944, the New Jersey State Highway Department's planning for post-war projects was rethinking the idea of blasting Route 100 through Jersey City and Bayonne. Austin J. Tobin, Executor Director of the PNYA noted:

> The route [for Route 100] contemplated by the present statutory designation includes a difficult bridge crossing over Newark bay and the carrying of traffic north through Bayonne and Jersey City in the vicinity of such congested points as Tonnelle circle. I understand that a more direct and desirable routing across the meadows north of the Pulaski skyway is being currently studied by the New Jersey highway department (Asbury Park Press 18 February 1944: 3).

The new routing plan took the proposed highway as far south as New Brunswick (Lanning 1945: 3). Simultaneous plans for constructing the Garden State Parkway to Cape May were designed to link with Route 100 (Figure 3) (The Record 29 January 1946: 3). At the same time, the State of Delaware's long-planned bridge across the Delaware River at Deepwater, received construction approval using tolls (Morning News 10 May 1940: 1; News-Journal 13 July 1946:1,4). When Governor Alfred E. Driscoll took office in 1947, he made better coordination and development of highway, rail, air, and water transportation a priority for his administration (NYT 25 October 1950: 41). In June 1947, Driscoll authorized construction of a new expressway called Route 300 to connect the new Delaware bridge with Route 100 near New Brunswick (Courier-Post 16 June 1947: 3; Needles 1952: 31). Together, Route 100 and Route 300 made up New Jersey's segment of the Boston-Washington superhighway. Under the state highway department, planning for both routes continued, and by August 1948, construction of roughly 10 miles of Route 100 and the Basilone Memorial Bridge across the Raritan River were already well underway (Figure 4) (Holran 1948: 15).

Meanwhile, the phenomenal success of the Pennsylvania Turnpike after its opening in 1940, along with successful toll parkways in New York and Connecticut demonstrated that many Americans were willing to pay a premium for fast, safe travel (USDOT 1976: 150, 166). During 1941, legislatures in Florida, Illinois, Maine, Maryland, and New York passed laws to create independent authorities to build toll roads. Similar measures proposed in Missouri, New Jersey, Oklahoma, and Wisconsin failed by only small margins (USDOT 1976: 151). After the war, Pennsylvania authorized extensions of its turnpike east to Philadelphia and west to the Ohio State Line. Maine opened its own successful turnpike between the New Hampshire line and Portland in 1947, the same year the New York Legislature granted permission to Westchester County to install tolls on the Hutchinson River and Sawmill River Parkways (USDOT 1976: 167). Most of these new toll roads followed the earlier routes proposed for a national interstate highway system (USDOT 1976: 168).

Faced with diminished state resources and huge highway construction needs, and citing the success of the Pennsylvania Turnpike, New Jersey officials finally agreed to build Route 300 as a toll road (Keyport Enterprise 6 May 1948: 1; NYT 14 June 1948a: 22; The Record 10 July 1948: 1). On October 27, 1948, the governor signed legislation creating the New Jersey Turnpike Authority with its first priority to construct the Route 300 alignment (NYT 28 October 1948b: 58). Plans to fold the partially built Route 100 into the turnpike scheme stumbled because federal aid had been used to construct it and could not be used toward toll roads. Confident the obstacle could be overcome, Governor Driscoll signed bills on April 14, 1949, transferring authority to build both Route 100 and Route 300 to the NJTA (Figure 5) (Herald-News 15 April 1949: 2). In announcing its plans, the NJTA described how the new highway would connect to its neighboring states:

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> Feeder roads will connect the six-lane 130-mile thoroughfare with the Holland Tunnel, Lincoln Tunnel, and George Washington Bridge as part of a general effort to divert travel from the already overburdened Pulaski Skyway. The terminal of the highway will tap the Dupont [sic] Bridge now being built over the Delaware River at Deepwater thereby leading into the Washington route that by-passes Philadelphia and Wilmington….
>
> Eventually the turnpike is expected to have an access road connecting with the extension of the Pennsylvania Turnpike, now being constructed between Harrisburg, the present eastern terminus, and Philadelphia. This will provide the first major link in what ultimately may become a transcontinental toll road, as plans are now under way to extend the Pennsylvania Turnpike from its western terminus at Pittsburgh to the Ohio border. Currently the Ohio Legislature has before it a bill authorizing the building of a new toll road across that state. Thus, in the foreseeable future motorists will drive from New York City to the Indiana-Ohio border over super-highways (NYT 29 April 1949: 25.)

With the completion of the New Jersey Turnpike's main stem in 1952, New Jersey finished its piece of the northeast superhighway first envisioned together with her sister states in the 1930s (Figure 6).

Newark Bay-Hudson County Extension

From the earliest days of the proposed Boston-Washington superhighway project, the idea of building a new highway bridge from the Hudson River crossings over the middle of Newark Bay factored prominently into the state's planning (NJTA 1954: 77). But by the time plans for the New Jersey Turnpike were announced, the Newark Bay bridge route had turned into a feeder branch for the main stem. The practical utility and projected cost of constructing the link to the Holland Tunnel, even with tolls, left the structure's fate in doubt. Yet managing heavy commercial truck traffic into and out of Manhattan was growing increasingly difficult. While most goods moving through the Port of New York continued to travel by rail and car float, by the end of World War II, door-to-door truck delivery claimed an increasing share of the Port's roadways. Helping to combat the problem, the PANYNJ opened the second tube of the Lincoln Tunnel in 1945 and constructed new centralized truck transfer stations at Delancy Street, Newark, and Manhattan. New Jersey also recognized truck movements as vital to its own commercial interests. In 1949, planners of the new road continued to entertain the idea of a bridge across Newark Bay when they described how the project might serve the Greater Metropolitan Region:

> The Port Street-Newark interchange [of the New Jersey Turnpike] will serve as a most important collecting and distributing point for traffic to and from Route No. 29 toward western New Jersey and Pennsylvania, the Newark Airport, the Port of New York Authority truck terminal now under construction, and a large portion of the city of Newark. It is most probable that the highest density of travel over the Turnpike will develop adjacent to this interchange. A major factor should be the heavy movement of passenger vehicles to and from Pulaski Skyway and the Holland Tunnel by way of the Route 25 viaduct north of Newark Airport, also to this interchange would be connected the proposed Newark Bay Bridge to Jersey City and Bayonne, which has been very seriously proposed (NJTA 1949: 4).

The contemplated Newark Bay Bridge and a separate link originally known as the Jersey City Expressway would connect the planned turnpike at its interchange adjacent to Newark Airport with the Holland Tunnel. The immediate effect would be to relieve the heavy automobile traffic then choking the Pulaski Highway, as well as the truck traffic on the US Route 1 & 9 Lincoln Highway Hackensack River Bridge. It also promised to speed connections between Manhattan and the Newark Airport. Concurrent plans to expand the tunnel with additional bores were among the discussed improvements within the PANYNJ and by Robert Moses, head of the New York City Planning Commission, whose contemplated Lower Manhattan Expressway would link with the tunnel. A second scheme to continue the New Jersey

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Turnpike's new extension into Hoboken to connect to a new state highway link with the Lincoln Tunnel also remained on the books for many years. At the same time, Bayonne and Jersey City looked at ways to make their shorelines more productive, and this included an idea in 1950 to construct a ring road along the banks of Newark Bay and New York Harbor to improve truck traffic and open millions of dollars' worth of waterfront property to industrial development (NYT 25 October 1950: 41). Traffic collected from all these points would then speed across Newark Bay and funnel into the New Jersey Turnpike.

Early Planning and Design

Early studies demonstrated that completing a bridge without the corresponding expressway or similar feeder artery to Manhattan was not economically feasible as a toll road. The NJTA continued to study the viability of the bridge with the full expressway in mind while waiting to assess the impacts of new traffic patterns resulting from the opening of the New Jersey Turnpike's main stem (NJTA 1952: 88). But at the direction of the governor, the New Jersey State Highway Department proceeded with engineering studies and working drawings for a highway bridge across Newark Bay in order to avoid delays. "If this project later proves feasible on a revenue bond basis," noted the NJTA, "the construction will be undertaken by the Turnpike Authority" (NJTA 1952: 88).

The State Highway Department proceeded with test borings in 1952 to help set the location and design for the new bridge, and it submitted its plans to the Army Corps of Engineers for approval of the water crossing (Courier Post 22 August 1952: 2). At a hearing held on April 14, all participants voiced approval of the project. The PANYNJ expressed one concern regarding the height of the proposed structure only two miles from the east-west runway at the Newark Airport, while Harvey D. Leuin, executive vice president for the Bayonne Chamber of Commerce, urged that "construction commence at the earliest possible date" (NYT 15 April 1952: 55). Meanwhile by the end of 1952, the NJTA's traffic engineering firm, Coverdale & Colpitts, determined that tolls on the proposed expressway would pay for the initial investment within 23 years, and the project was then made a top priority for the NJTA (Courier Post 22 August 1952: 2; NJTA 1953: 67). The state legislature passed new legislation in June 1952 granting authority to the NJTA to build the Newark Bay Bridge and expressway, and the project was formally named the Newark Bay-Hudson County Extension (NJTA 1954). The NJTA optimistically reported in August 1952 that construction might begin on the bridge before the end of the year if new financing could be worked out (Courier Post 22 August 1952: 2).

The bridge became the controlling factor in the entire 8.1-mile-long extension project (NJTA 1954: 17). First, the enormous width of the Newark Bay, coupled with the prescribed clearances for shipping, meant that the structure required exceptionally long approaches. Second, the existing dredged channel, together with the LVRR/PRR bridge to the north and the CRRNJ bridge to the south, dictated the location and angle of the proposed new main span near the west shoreline. A third factor involved the alignment of the east-west runway at Newark Airport. Although two miles away, the flight path brought planes dangerously close to the planned structure. Finally, the location of the bridge set the alignment for the rest of the Extension. The firm of Howard Needles Tammen & Bergendoff (now HNTB) of New York and Kansas City, consulting engineers for the original New Jersey Turnpike project, completed the design for the bridge and the entire Extension (Figures 7–12). Enoch R. Needles (1888-1972) served as the lead engineer from HNTB, along with the firm's bridge engineer, Ellis E. Paul (1901-1984) (NYT 5 July 1984: D8). NJTA's Chief Engineer, Charles M. Noble, formerly of the State Highway Department, served as overall head of the project. Needles gave special attention to major bridge and highway projects after World War II, working not only on the New Jersey Turnpike project and the Newark Bay Bridge, but also on the Delaware Memorial Bridge and on contemporary turnpike projects in Maine, Massachusetts, and West Virginia (NYT 7 January1972: 35).

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The general design for the Newark Bay Bridge was based on those already adopted and used on the New Jersey Turnpike's main stem. The Passaic and Hackensack River Bridges, the system's largest, served as the chief prototypes because they crossed a similar gauntlet of highways, railroads, utility lines, navigable waterways and marshland requiring high bridges and long viaduct approaches (Figures 13 and 14) The architectural firm of Felleimer and Wagner established the overall appearance of the New Jersey Turnpike's standard bridge designs to ensure both economy and a pleasing line and form:

> The architects and engineers agreed that aesthetic requirements would be best attained by simplicity in form and structural arrangement, by a clear expression of function, and by a certain uniformity throughout all the structures. In keeping with these aims unnecessary architectural embellishments were avoided, as well as all forms of trusses and conspicuous bracing. Likewise it was considered desirable to keep the carrying structure below the floor to permit an unobstructed view from vehicles passing over the Turnpike (Ammann 1952: 60-61).

Substructures for the Passaic and Hackensack River Bridges were built of plain concrete, except on river piers where stone facing was used at water level. Simple rolled steel girders made up most spans. Wider openings were closed using built-up riveted deck plate girders. For the Passaic River Bridge, problems with clearances forced engineers to consider using a tied-arch span across the main channel, but concern for aesthetics and the desire to harmonize the structure with the Hackensack River Bridge persuaded the builders to retain a girder design (Ammann 1952: 62). After overcoming fabrication problems for the exceptionally long steel members, the New Jersey Turnpike's designers applied the same deck girder design to preliminary designs for the Newark Bay Bridge (Ammann 1952: 63).

Ultimately, the width of the bay's navigable channel prohibited the use of deck girders, and the engineers were forced to consider alternate bridge types for the Newark Bay Bridge's main span. Conditions prevented buttressing the bridge against firm embankments or anchoring it into massive and costly masonry abutments. The solution was the often-used cantilevered through-truss arch design with a suspended bottom tie cord and road deck utilizing the structural principles of a shouldered tied-arch span. The cantilevered design created a counterweight against each half of the main arch, effectively balancing the structure on one pier as builders gradually extended each end of the arch above the open channel to their meeting point at the crown. This design avoided cluttering the navigation channel with costly and obstructive falsework to support the arch during construction. The main truss arch span was then tied together at its base by a suspended fixed bottom cord, which linked the two ends of the arch and resisted the outward thrust exerted by the weight of the arch pressing down on its outer ends. The result was a self-anchoring structure able to rest securely on tall, thin piers. Such structures were also recognized for their ability to adjust to subsidence of piers in soft soil conditions (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005: 3-142-3-145). Cantilevered through-truss bridges had been in widespread use for big bridges for more than 70 years before the construction of the Newark Bay Bridge. Practical and buildable, the structure type found widespread applications in both railroad and highway construction, and it was neither innovative nor remarkable when it was adopted for the Newark Bay Bridge project. Reliable in most respects, the greatest drawback to such a design was its lack of redundancy, a fact that would eventually contribute to calls for the structure's replacement.

As designed, the Newark Bay Bridge measured 9,560 feet in length and consisted of two long, gradually ascending, viaduct-like approach spans, similar to the Passaic and Hackensack River Bridges, and a three-part cantilevered steel truss main span. Measuring a total of 1,270 feet, the truss included two 300-foot-wide outer anchor arm spans and one 670-foot-wide arched center span—the longest in the New Jersey Turnpike's system—across the navigable channel (HNTB 1952a; The Record 6 January 1955: 39; NYT 15 February 1955a: 29). The upper cord on the main arch truss reached 265 feet above the water and gave an under-road clearance of 135 feet proscribed by the Army Corps of Engineers. The long approach spans used a combination of riveted deck girders, where wider distances between fewer

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piers was desirable, and welded steel stringer beams for shorter spans. The design featured two 36-foot-wide roadways, each with three, 12-foot-wide travel lanes and a 4-foot-wide median (The News 26 July1954: 22). The final out-to-out roadway width measured 81 feet, 8 3/4 inches while the overall truss width measured 86 feet. Overall, the bridge design conformed to the 1949 standard American Association of State Highway Officials specifications for highway bridges, except as modified to suit specific conditions. HNTB completed the final design drawings in October 1953. Initial estimates set the price tag at $40 million.

With designs complete, the NJTA commissioners submitted their plans to Hudson County officials on August 18, 1953 (NJTA 1954: 77). The NJTA wished to avoid a mistake made during construction of the main stem, where a lack of consultation angered local officials, community leaders, and constituents who found their neighborhoods taken, demolished, and severed by the initial New Jersey Turnpike project. This time, the NJTA was careful to engage directly with leaders of the affected communities (Courier Post 22 August 1952: 2). The county stood to experience significant impacts from the construction of the Extension, and the commissioners stressed the benefits it would bring to the county. "There has been a great need for many years," read the justification in the NJTA's annual report, "to relieve the congestion on streets and highways in Jersey City and Bayonne, and, incidentally, to pave the way for the future development of the adjacent water front [sic] and industrial property which forms a vital part of the Greater New York Metropolitan area" (NJTA 1954: 77). Traffic studies noted that an estimated 73 percent of the traffic expected to use the Extension would originate on, or be destined for, the Hudson County peninsula, with the remainder heading to and from the Holland Tunnel. Threading the route for the Extension through the densely developed area, however, proved difficult. Ultimately, engineers were forced to carry 68 percent of the expressway on a viaduct over railroad yards, city streets, major public utilities, and other rights-of-way, contributing to the entire Extension's staggering cost (The News 26 July 1954: 22; NJTA 1956: 32). In order to serve the local community, the limited access highway included four interchanges in Hudson County: Avenue E in Bayonne, and Bayview Avenue, Montgomery Street, and the Holland Tunnel in Jersey City.

Before work could begin, the NJTA had to raise additional bond money to support the project. As the designs advanced, the NJTA finally secured the additional funding using bonds backed by anticipated tolls revenues. On October 14, 1953, it sold $150 million in new long-term bonds to a syndicate of brokerage houses who quickly unloaded them on eager investors (NYT 15 October 1953a: 51).

Construction

The task was divided into multiple contracts, Contracts N-1A and N-1B covered the river piers, girder spans, and truss spans between the two riverbanks (HNTB 1952a). The eastern approach was divided between Contracts N-3A and N-3B. The piers on the western shore to the abutment fell within Contract N-4. The superstructure was divided into five contracts based on the approaches and the type of steelwork required. Contract N-2A covered the main truss spans. Contracts N-2B and N-2C included the heavy east and west approach girder spans, while Contracts N-2D and N-2E took care of the lighter east and west approach beam spans located at the structure's outer limits (HNTB 1952g).

Contracts for building the Newark Bay Bridge were awarded on December 9, 1953, to the lowest bidders. Drago Corporation of Pittsburgh, Pennsylvania, won the job to erect the main bridge piers ($3,934,250). Merritt-Chapman & Scott Corporation of New York City received two contracts to build the piers for both the east approach ($879,540) and the west approach ($1,876,600) (NYT 10 December1953b: 59). Bethlehem Steel Company won the $11,347,002 worth of contracts to fabricate and erect the bridge's steel superstructure under the supervision of the company's resident engineer, John L. McGonigle (NYT 15 February1955a: 29; 11 August 1955b: 53).

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Construction of the two approaches involved filling the right-of-way from the highwater mark as far as the established pier lines with two 250-foot-wide construction embankments (see Figure 7) (HNTB 1952a). These required 200,000 cubic yards of material taken from various pits around New Jersey (The Record 6 January 1955: 39). Work was well underway by July 1954, when the NJTA began to characterize the entire Extension project as "the costliest road in the world, mile for mile" (NYT 25 July 1954a: 61). Piers for the bridge started to rise on the approach spans and in the bay in September (Figures 15-16) (NYT 16 September 1954b: 31). The bridge consumed approximately 300,000 linear feet of steel piling driven to bedrock, 70,000 cubic yards of concrete, 4 million pounds of steel reinforcement, and more than 50 million pounds of structural steel (The Record 6 January 1955: 39). Most pier columns stood on individual footings. For those located in open water, the pier columns rested on a monolithic base veneered in rusticated granite blocks (see Figure 8) (HNTB 1952b).

Construction advanced rapidly through 1955, despite significant shortages of critical raw materials, especially steel (NJTA 1956). Progressing from west to east with the help of a deck-mounted traveling crane and a 138-foot-tall floating tower derrick, a third of the bridge superstructure was completed when the last two girders of the western approach were lifted into place in February 1955 (Figure 17). Measuring 170 feet in length, each girder weighed 108 tons and were, at the time, the largest such elements ever constructed at Bethlehem Steel's Pottstown, Pennsylvania, manufacturing plant (NYT 15 February 1955a: 29). On August 10, 1955, under the watchful eye of the contractor's resident engineer, John L. McGonigle, the travelling cranes hoisted the final 75-foot-long, 21-ton length of the steel arch's top cord into place, closing the span (NYT 11 August 1955b: 23). The retreating cranes then worked their way back to opposite ends of the arch while installing the cables, floor beams, transverse beams, and stringers forming the bottom cord and road deck. The reinforced concrete pavement was sufficiently complete by late November 1955, to expedite contractor access back and forth across the bay (NJTA 1956: 33). As originally designed, the bridge featured combined metal parapets and sidewalks. Each sidewalk/railing assembly included a 2-foot-wide raised walkway and a large tubular steel railing of standard New Jersey Turnpike design, while the median consisted of a similar sheet metal dividing buffer bolted to steel girders beneath (HNTB 1954: Contract N-2, Sh 9).

Work on the Newark Airport interchange, the connecting viaduct, and the Avenue E exit advanced rapidly into 1956, although problems with steel deliveries continued to hamper work on the remainder of the Extension (Figures 18-22). Plans called for opening the bridge first. The initial toll for a one-way trip between the airport and Bayonne was set at 25 cents. When opened to the Holland Tunnel, the entire trip to the Holland Tunnel would cost 35 cents per automobile. Buses would pay 70 cents, and commercial trucks $1 (NYT 9 January 1956a: 27; 4 April 1956b: 31; Ingraham 1956: X21). With former Governor Alfred E. Driscoll in attendance, New Jersey Governor Robert B. Meyner and NJTA Chairman Paul M. Troast cut the dedication ribbon at the center of the arch on April 4, 1956 (Figure 23) (NYT 4 April 1956b: 31). In their speeches, both Meyner and Troast repeated promises for speedier travel times between Newark and Downtown New York, as well as a spur to further growth and development for the region (NYT 5 April 1956c: 20).

Five months later, on September 15, 1956, the governor and Troast reprised their performance when they dedicated the Bayonne-to-Jersey City segment of the Extension at a ceremony held at the Holland Tunnel toll plaza, thus opening the new expressway to traffic (NYT 15 September 1956e: 14). Fellow dignitaries included James F. Murray, Jr., the state senator from Hudson County, and Mayor Bernard Berry of Jersey City (NYT 16 September 1956f: 61). Governor Meyner recited the enormous costs involved in completing the Extension to emphasize the need for federal aid for highway construction then under consideration in Congress (NYT 16 September 1956f: 61; USDOT 1976: 171-172).

The full length of the Newark Bay-Hudson County Extension stretched 8.1 miles with nearly two-thirds of it elevated on a concrete and steel viaduct of standard NJTA design (Figures 24-26). Excluding the bridge, the Extension consumed 92,000 tons of structural steel and 314,000 cubic yards of concrete. Including the bridge, the entire project cost $120 million, or almost $14.6 million per mile (NYT 9 January 1956a: 27; 16 September 1956f: 61). Newspapers dubbed

History, Continued:

it the costliest roadway per mile in the world (NYT 20 May 1956d: 145). The new expressway created the third direct link between the New Jersey Turnpike and Manhattan. The others included the Lincoln Tunnel and the George Washington Bridge. In addition to toll plazas and miscellaneous on and off ramps, the Extension also featured a maintenance facility and two service areas for eastbound and westbound traffic in the vicinity of Craven Point. The latter were completed in 1957 and named after John Stevens (eastbound) and Peter Stuyvesant (westbound) (NJTA 1957: 33).

The completion of the Newark Bay-Hudson County Extension, along with a similar connection and through truss structure constructed across the Delaware River to the Pennsylvania Turnpike, marked the end of the NJTA's initial build-out (Figure 27). A contemplated continuation of the Extension into Hoboken to meet with a proposed link to the Lincoln Tunnel never materialized, while major plans to extend the main New Jersey Turnpike route from its northern terminus to the New York state line and to construct an east-west route to the Delaware Water Gap stalled as debate continued in Washington over a larger federal role in highway construction. By this time, national support for toll roads was shifting. Their financial success had created large surpluses that state legislatures began to tap for other purposes. At the same time, the various turnpike authorities were appropriating the routes long envisioned for a free federal highway system (USDOT 169-170, 290). Critics feared the day when free interstate travel would fall victim to revenue-hungry states. After years of debate, Congress finally passed, and President Eisenhower signed, the Federal-Aid Highway Act and the Highway Revenue Act on June 29, 1956 (Ingraham 1956: X21; NJTA 1957; USDOT 1976: 173-174). The acts finally created the framework through which the federal government would assume primary responsibility for the system of free interstate highways envisioned by President Roosevelt and planned for during the ensuing19 years (USDOT 1976: 293).

Newark Bay Bridge in Context

The Newark Bay Bridge (1956) and the Pennsylvania Turnpike Extension Bridge (1956) over the Delaware River joined the Passaic and Hackensack Bridges (1951) and the Basilone Memorial Bridge (1951) over the Raritan River as the largest structures on the New Jersey Turnpike system. Essentially the same in design, each relied on a set of standard principles established by the NJTA, which were then adjusted to suit specific engineering requirements. Other major bridges built by other entities but feeding into the New Jersey Turnpike system included the George Washington Bridge (1931) and the Delaware Memorial Bridge (1951). Collectively, these bridges made up part of the grand superhighway across New Jersey first proposed in the 1930s, which was, in turn, part of a larger and even older plan for a coordinated national system of integrated roadways designed in response to the automobile age.

The earliest and most consequential structures built during that initial phase of state-sponsored highway building were the Benjamin Franklin Bridge (1926), the Goethals Bridge (1928), the Outerbridge Crossing (1928), the Route 1 Bridge (1929) over the Raritan River, the Bayonne Bridge (1931), and the US Route 1 Extension/Pulaski Skyway (1931). These structures were important engineering achievements and established the basic standards for future highway construction. Still more structures, such as the Tacony-Palmyra Bridge (1929), the Burlington-Bristol Bridge (1931), the Edison Bridge (1940), the Stickel Bridge (1949), the Trenton Route 1 Bridge (1952), the Walt Whitman Bridge (begun in 1953), and the Garden State Parkway's Driscoll Bridge (1954) over the Raritan River augmented the system with additional capacity and represented similar state, local, and private responses to the need for greater highway connectivity in New Jersey.

Thus, by the time the Federal-Aid Highway Act passed in 1956, New Jersey had already completed its share of the essential parts of an interstate system largely on its own and had laid the foundations for additional superhighways that could now move forward as part of the federal interstate system. Among these was a new expressway called Interstate 78 to replace Route 22 between Newark and Phillipsburg with connections to Harrisburg. The alignment, announced

CONTINUATION SHEET

Historic Sites #:

History, Continued:

in April 1957, would link to the Newark Bay-Hudson County Extension at the Newark Airport (Figure 28) (Courier-News 25 April 1957: 20). By incorporating the Extension, the designers of Interstate 78 were able to link three states together, an important criterion in prioritizing construction. Later spans built for or incorporated into the alignments for other interstate highway projects included the Interstate 287 Bridge (1960) over the Raritan River, the Scudders Falls Bridge (1961), the New Hope-Lambertville High Bridge (1971), the Commodore Barry Bridge (1974), and the Betsy Ross Bridge (1976), all over the Delaware River (Courier-News 21 September 1960: 29). The Interstate 78 Bridge (1989), the last link in the Interstate 78 alignment of which the Newark Bay Bridge was a part, was only recently completed by the Delaware River Joint Toll Bridge Commission. The Newark Bay Bridge was just one of many monumental structures built in support of New Jersey's growing highway system both prior to and following passage of the Federal-Aid Highway Act of 1956.

Post-construction Changes

Annual reports of the NJTA together with historic aerial photographs, construction drawings, and newspaper accounts, record a host of maintenance activities and major construction projects involving both the bridge and the entire Extension. By 1960, the interchange at Newark Airport already proved inadequate for the volume, and the NJTA launched plans to replace the entire facility (NJTA 1961). General repairs to the Newark Bay-Hudson County Extension were reported in 1961 (NJTA 1962: 17). During 1963, the NJTA discovered significant spalling to the concrete road deck along the entire Newark Bay-Hudson County Extension and launched a patching program followed by a full resurfacing of the deck with asphalt to protect the concrete underlayment (NJTA 1964: 18; 1966). The bridge underwent its first repainting in 1966. At the same time, the timber fender system flanking the navigation channel was revamped (NJTA 1967: 22).

The NJTA initiated a major five-year deck repair program to the bridge beginning in 1974 (NJTA 1978: 4). Other changes included 12 new overhead directional signs along the Newark Bay-Hudson County Extension to replace older ground-mounted ones (NJTA 1978: 4). Meanwhile, the original northbound and southbound service areas at Craven Point were closed in the late 1970s and eventually demolished (National Environmental Title Research 1979, 1985, 1987, 1995).

In 1983, after a long study in conjunction with the Federal Highway Administration on the best design for a new median divider capable of containing large tractor trailer trucks, the NJTA installed a test section of the high-strength concrete structure along a two-mile section of the Newark Bay-Hudson County Extension (NJTA 1984: 3). This was followed by a complete reconstruction of the center median on the Newark Bay Bridge during 1984 (Figure 29) (NJTA 1984: 3, 5). In 1995, the NJTA named the Newark Bay Bridge in honor of Bayonne State Assemblyman Vincent R. Casciano.

The NJTA widened the eastbound deceleration lane and Grand Street exit on the expressway during the early 2000s and started a major multi-year deck reconstruction project on the Newark Bay Bridge and other miscellaneous changes along the entire Newark Bay-Hudson County Extension in 2010. This included replacement of the original outer parapet walls and metal pipe rail with a concrete Jersey barrier-shaped parapet wall topped by security fencing. Additional improvements included new lighting and modern overhead directional signs (URS Corporation 2010). The first phase of the project was finished in 2013. Later phases were delayed. Then on December 27, 2017, a portion of the Expressway decking collapsed, requiring an emergency closure of lanes for two days (Bier 2018). Plans are now underway to replace the entire Newark Bay Bridge.

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Historic Sites #:

Significance

The Newark Bay Bridge was evaluated for possible NRHP significance according to the findings of the historic context in the areas of Transportation and Engineering. As a contributor to broad patterns in the history of transportation (Criterion A), the Newark Bay Bridge was among the last of the bridge structures erected for extensions to the original New Jersey Turnpike, a limited-access highway first envisioned in the early 1930s as part of a nationwide network of superhighways. The bridge functioned as part of a feeder road into the completed New Jersey Turnpike rather than as part of its main stem, which was based on similar turnpikes first conceived and built by other states. The Newark Bay Bridge was, therefore, neither innovative nor unique in its contribution to the emerging national highway system generally, or to the toll road movement specifically.

The evaluation also considered significance with respect to the Federal-Aid Highway Act of 1956 and the subsequent development of the interstate highway system. The Newark Bay Bridge, along with all major bridges and highways built after 1921 around the country, was designed with an integrated national highway system in mind. When it was actually incorporated into the proposed alignment for the newly designated Interstate 78 in 1957, it merely joined other bridges and roadways in fulfilling a role long in the planning. In terms of local impacts, the Newark Bay Bridge was the last in a line of previous highway routes developed between the New Jersey mainland and the Hudson County peninsula in the preceding 200 years, most notably the Goethals Bridge/Bayonne Bridge route and the Pulaski Skyway. These two highway corridors were built at the beginnings of the automobile age and represented the earliest efforts by New Jersey and the PNYA to adapt the Port of New York to individual passenger vehicles and heavy commercial truck traffic. The Newark Bay Bridge was also the fourth major transportation corridor to span Newark Bay or its marshy headwaters at the mouths of the Passaic and Hackensack rivers. The earlier spans served railroad companies, which provided the chief means for moving goods and people into and out of the port for 100 years. By the time the Newark Bay-Hudson County Extension was finished, the railroads as a mode of transport were already in significant decline as a result of the rise of the automobile. Completion of the Extension merely punctuated the nationwide post-World War II transition to automotive transport and its impact on the port region. As part of the larger New Jersey Turnpike corridor, the bridge and the Extension helped reduce travel times and served as a feeder into the New Jersey Turnpike system, but as an element of a limited-access expressway serving Hudson County, the Newark Bay Bridge contributed little to appreciable changes in patterns of growth in Bayonne or Jersey City.

A review of individuals involved with the planning, engineering, construction, and operations of the Newark Bay Bridge failed to identify associations with the lives of persons significant in the past (Criterion B).

In the area of engineering, the design of the Newark Bay Bridge followed the railroads, which had long before conquered the technical problems of crossing such a wide body of water. The Newark Bay Bridge used national standards adopted by the NJTA and highway builders across the country for its bridge piers, beam and girder spans, and parapet walls erected elsewhere along the New Jersey Turnpike's main line, most notably on the Passaic and Hackensack River Bridges. As for the cantilevered through-truss and shouldered tied-arch span, the design already found widespread use for big bridges across the country. For example, the NJTA adopted the same general type of span to cross the Delaware River for its Pennsylvania Turnpike connection. The Newark Bay Bridge embodied the characteristics of other through truss structures, but by the time it was built, the type had become a standard part of the American bridge-building lexicon. Similar large structures such as the Edison Bridge, the Stickel Bridge, the Delaware Memorial Bridge, the Walt Whitman Bridge, the Trenton Route 1 Bridge, and the Garden State Parkway's Driscoll Bridge over the Raritan River were comparable undertakings for their day. Later structures, including the Interstate 287 Bridge over the Raritan River, the original Scudders Falls Bridge, the New Hope-Lambertville High Bridge, the Commodore Barry Bridge, the Betsy Ross Bridge, and the Interstate 78 Toll Bridge at Phillipsburg represent a continuum of major bridge construction using both girder and truss designs under the federal highway program.

CONTINUATION SHEET

Historic Sites #:

Significance, Continued:

The Newark Bay Bridge, as an example of a limited-access highway in New Jersey, long post-dated the opening of the far more groundbreaking US Route 1 Extension/Pulaski Skyway, which represented the first application of high-speed railroad engineering practices to roadways, including moderated grades, gentle curves, and grade separation. Thus, by the time the Newark Bay Bridge was finished, it reflected an ordinary form and employed common technologies, design principles, engineering techniques, methods of construction, and operations (Criterion C). Strictly utilitarian in its original finish, and the subject of recent changes to its median and parapet walls, the bridge does not possess high artistic value. In addition, the engineers, contractors, and builders associated with the structure contributed widely to bridge construction projects elsewhere in the nation. While prolific, these individuals were not known for design innovation or engineering daring and are therefore not considered masters of bridge design for the purposes of this evaluation.

The Newark Bay Bridge is exceptionally well documented in as-built drawings, photographs, and news accounts and has, therefore, little significant research potential. It has not yielded, nor is it likely to yield, information important to history that cannot be gleaned from the printed record (Criterion D).

Finally, for additional guidance, this evaluation considered prior consultation regarding the NRHP eligibility of the New Jersey Turnpike's main stem, upon which the designs for the Newark Bay Bridge derived. Those consultations determined the New Jersey Turnpike not eligible for listing in the NRHP on September 14, 2006 (see Additional Information section). Similarly, the Advisory Council on Historic Preservation's *Program Comment Issued for Streamlining Section 106 Review For Actions Affecting Post-1945 Concrete and Steel Bridges* (November 2, 2012) acknowledged the lack of general significance in the type of concrete substructures and girder superstructures comprising the Newark Bay Bridge's long approach spans. These approaches make up the vast majority of the structure. Accounting for these findings and the preceding analysis, RGA recommends that the Newark Bay Bridge lacks significance under NRHP Criteria.

The Newark Bay Bridge is part of a larger linear resource extending beyond the limits of the present survey. A full evaluation of the entire Newark Bay-Hudson County Extension, including identification of all potential contributing and non-contributing resources, is beyond the scope of the current survey.

Justification of Eligibility/Ineligibility:

The Newark Bay Bridge lacks overall significance under Criteria A, B, C, and D. Moreover, the structure has undergone various alterations over time, including replacement of its deck, median, and parapet walls, along with the addition of new overhead directional signs, lighting, and security fencing. These changes impact the structure's integrity of design, materials, and workmanship. Because the Newark Bay Bridge lacks overall significance and has experienced losses to its integrity, RGA recommends the resource not eligible individually for listing in the NRHP under Criteria A, B, C, and D.

A separate survey to determine the structure's contributing status to a larger possible linear historic district is currently underway.

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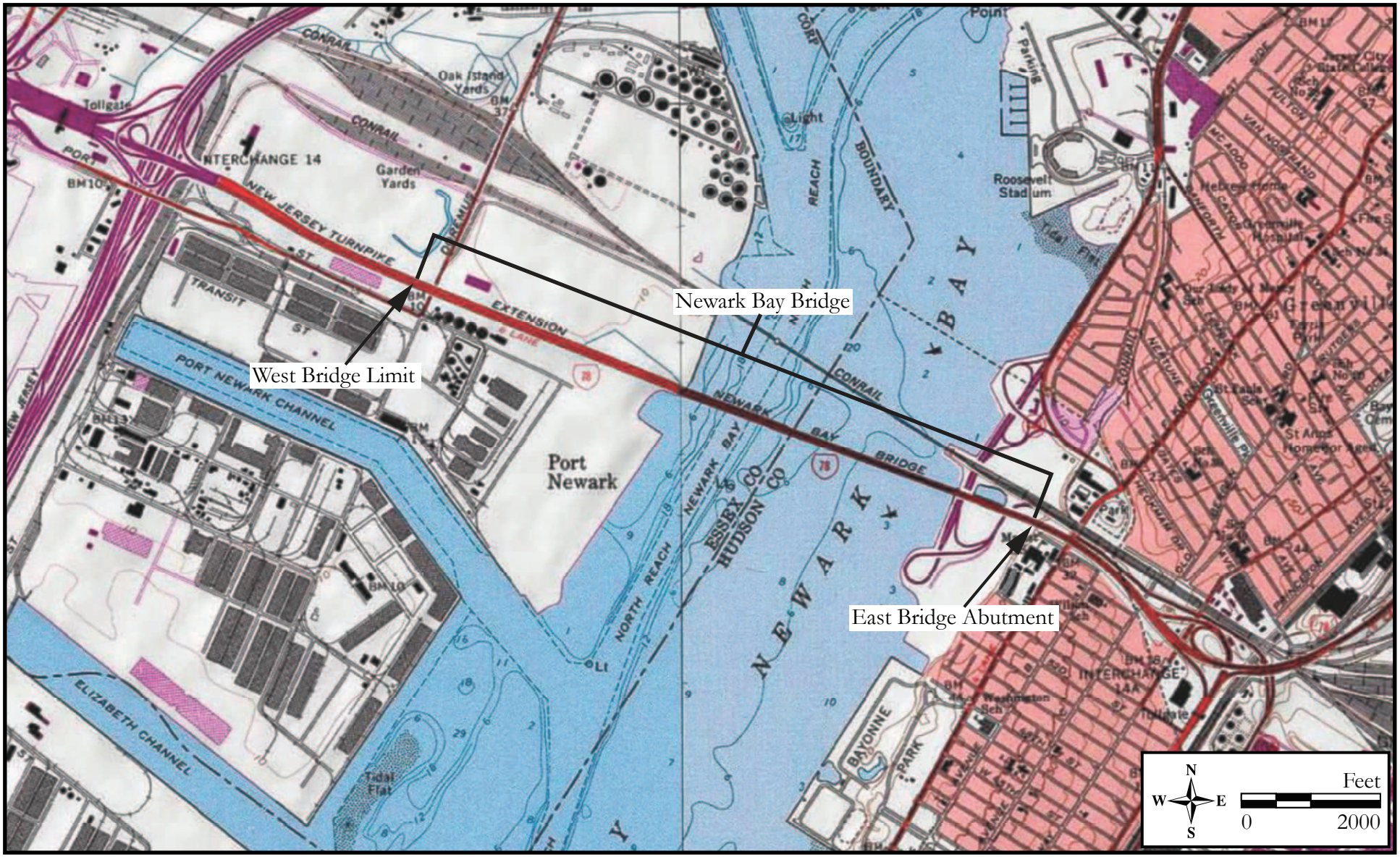

Location Map (1995 U.S.G.S. 7.5' Quadrangles: Elizabeth, NJ-NY and Jersey City, NJ-NY).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Philip A. Hayden

Organization: Richard Grubb & Associates, Inc.

Date: May 2021; Revised October 2021

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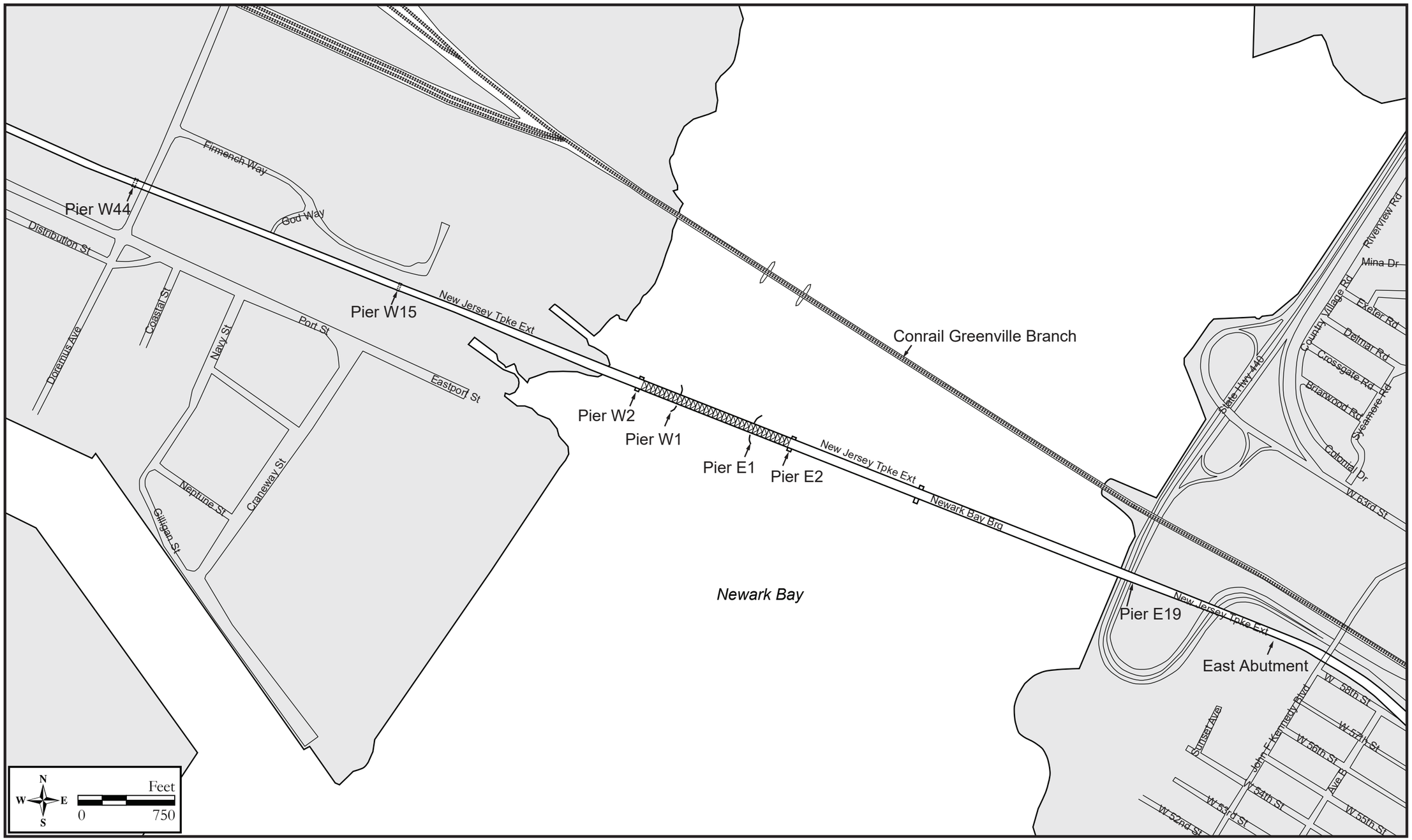

Site Map.

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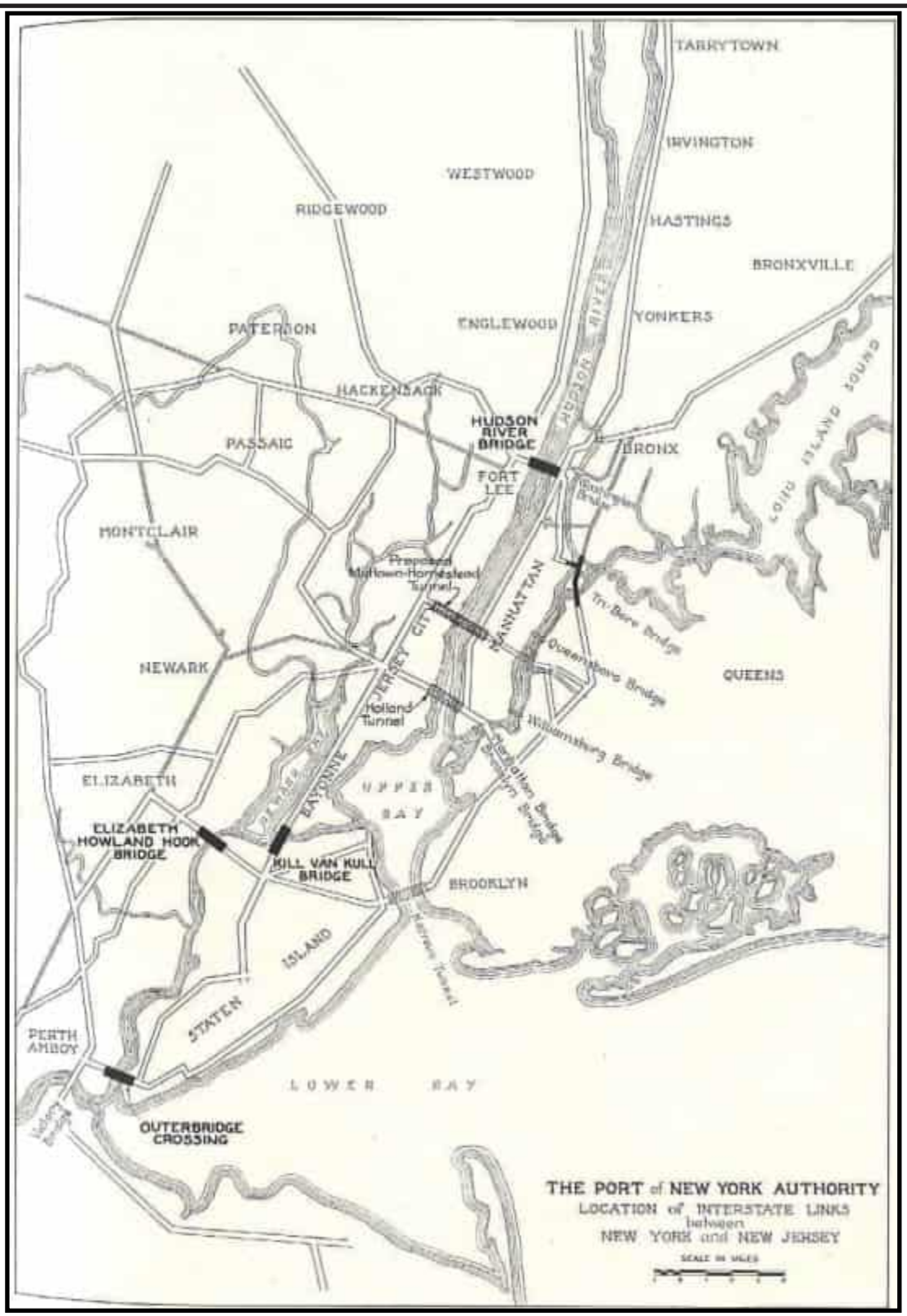

Figure 1:1927 Port of New York Authority, map depicting the various interstate links between New Jersey and New York (PNYA 1927).

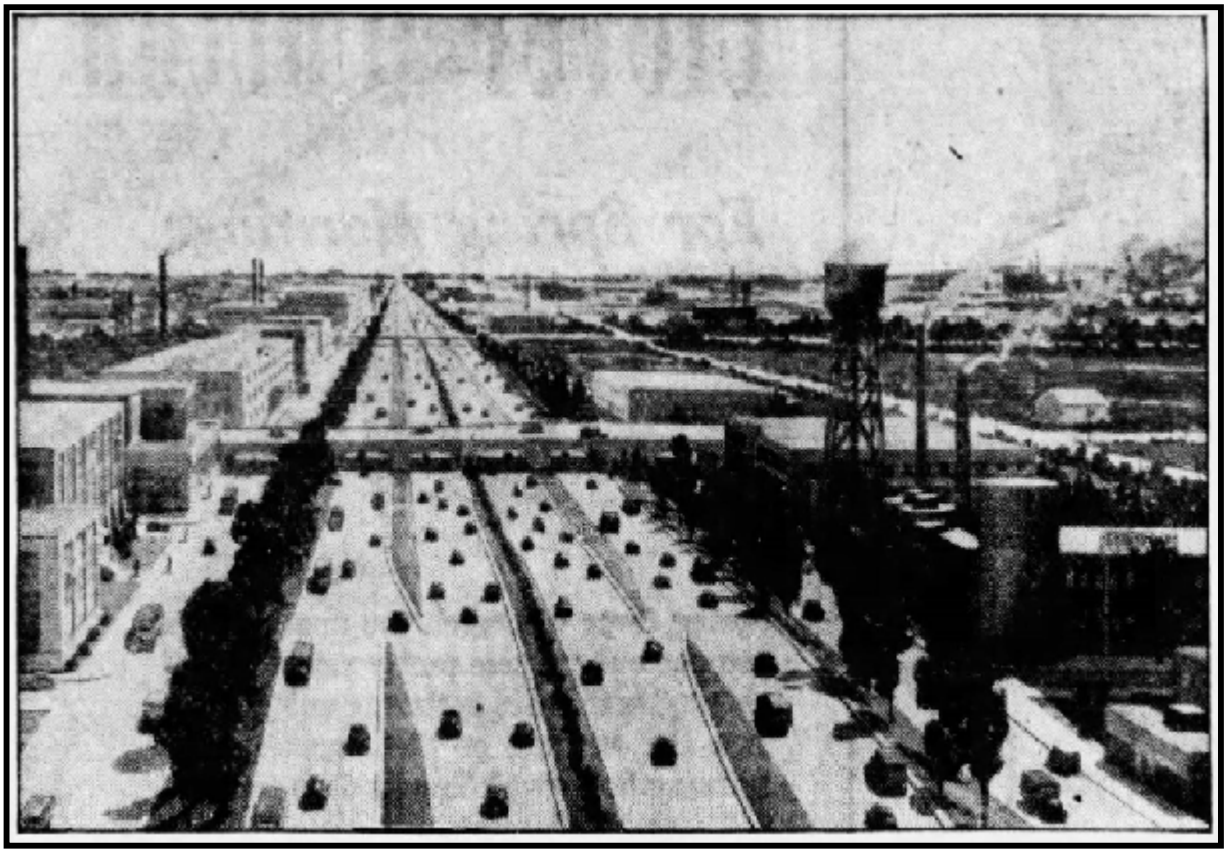

Figure 2: 1941 newspaper rendering of the New Jersey section of the proposed Boston-Washington superhighway (Asbury Park Press, 17 March 1941: 10).

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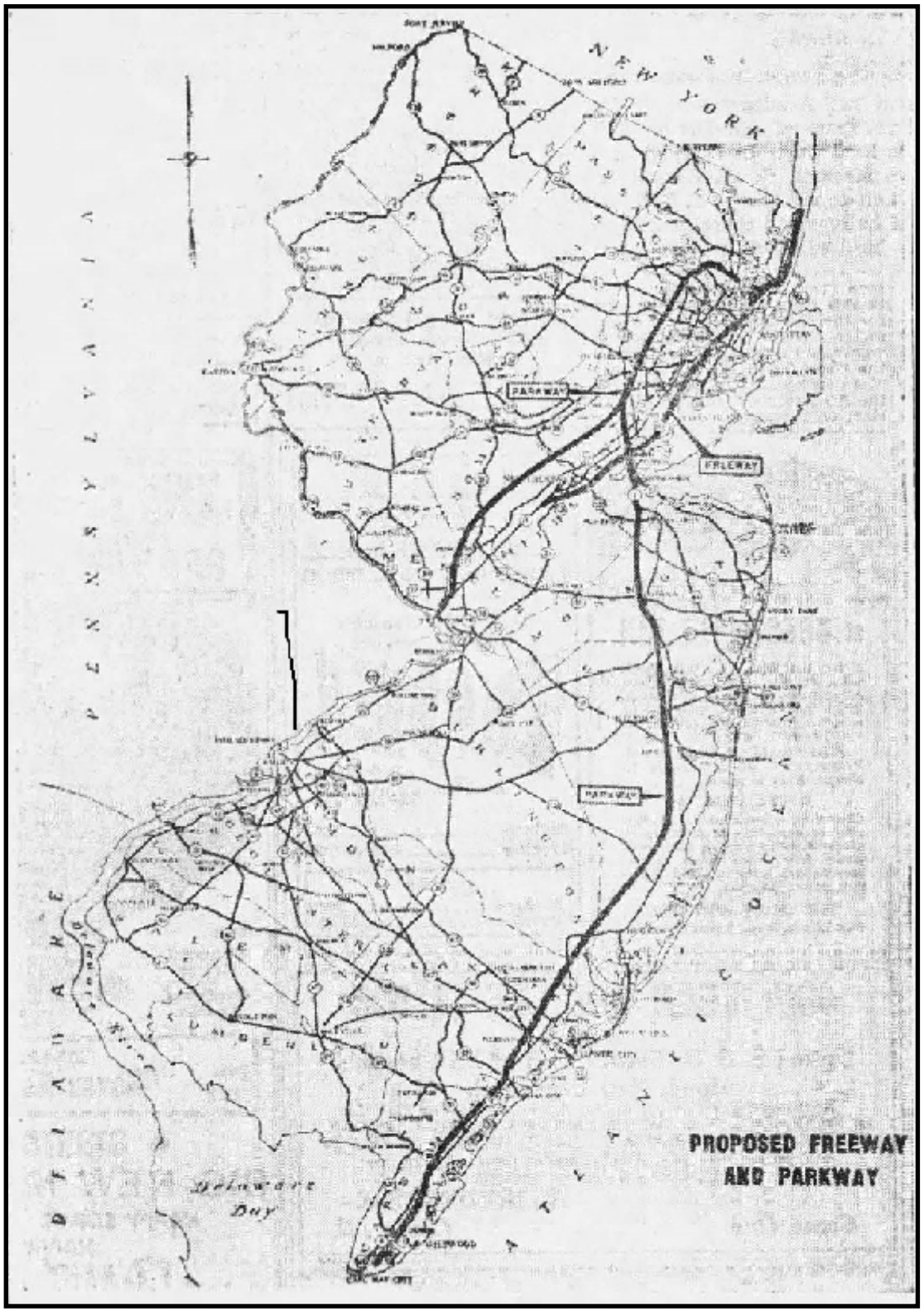

Figure 3: 1947 map depicting the proposal alignment of Route 100 in relation to the proposed Garden State Parkway (Central New Jersey Home News 27 July 1947: 7).

CONTINUATION SHEET

Historic Sites #:

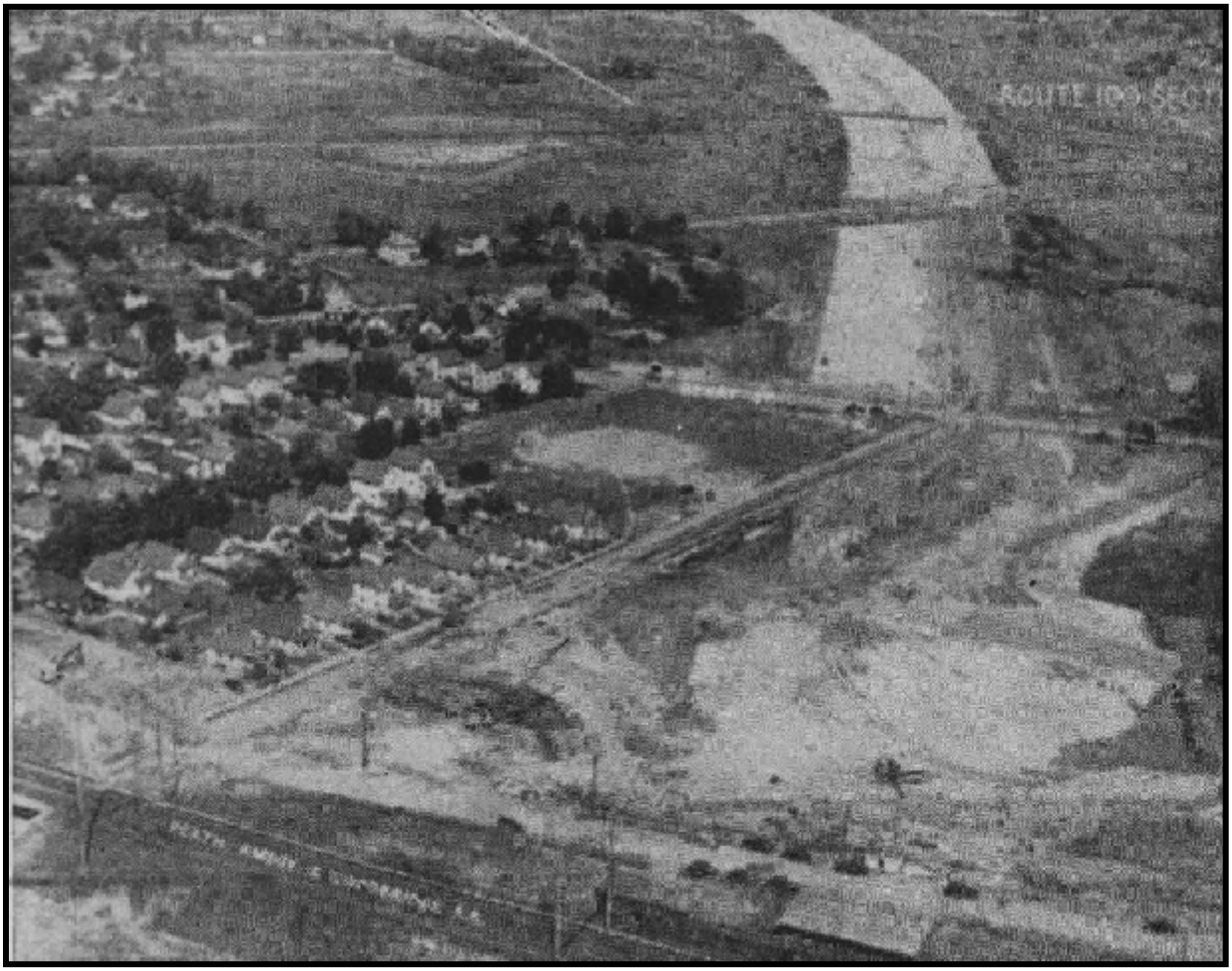

Figure 4: 1948 newspaper aerial photograph depicting construction of Route 100 through Woodbury, New Jersey. The alignment was absorbed into the New Jersey Turnpike (Central New Jersey Home News 19 September 1948: 1).

CONTINUATION SHEET

Historic Sites #:

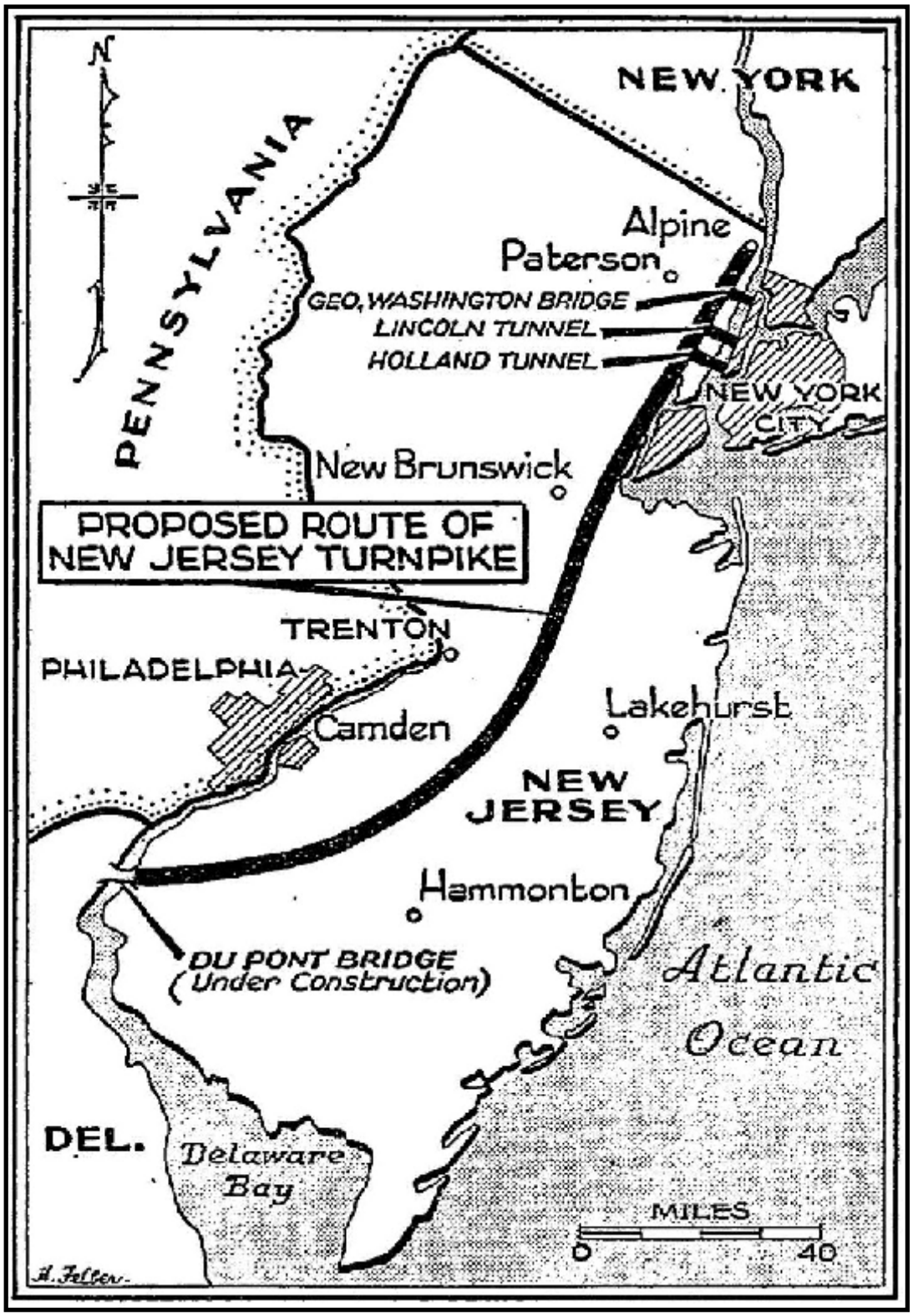

Figure 5: 1949 map depicting the united alignments of Route 100 and Route 300 into the proposed New Jersey Turnpike (NYT 29 April 1949: 25).

CONTINUATION SHEET

Historic Sites #:

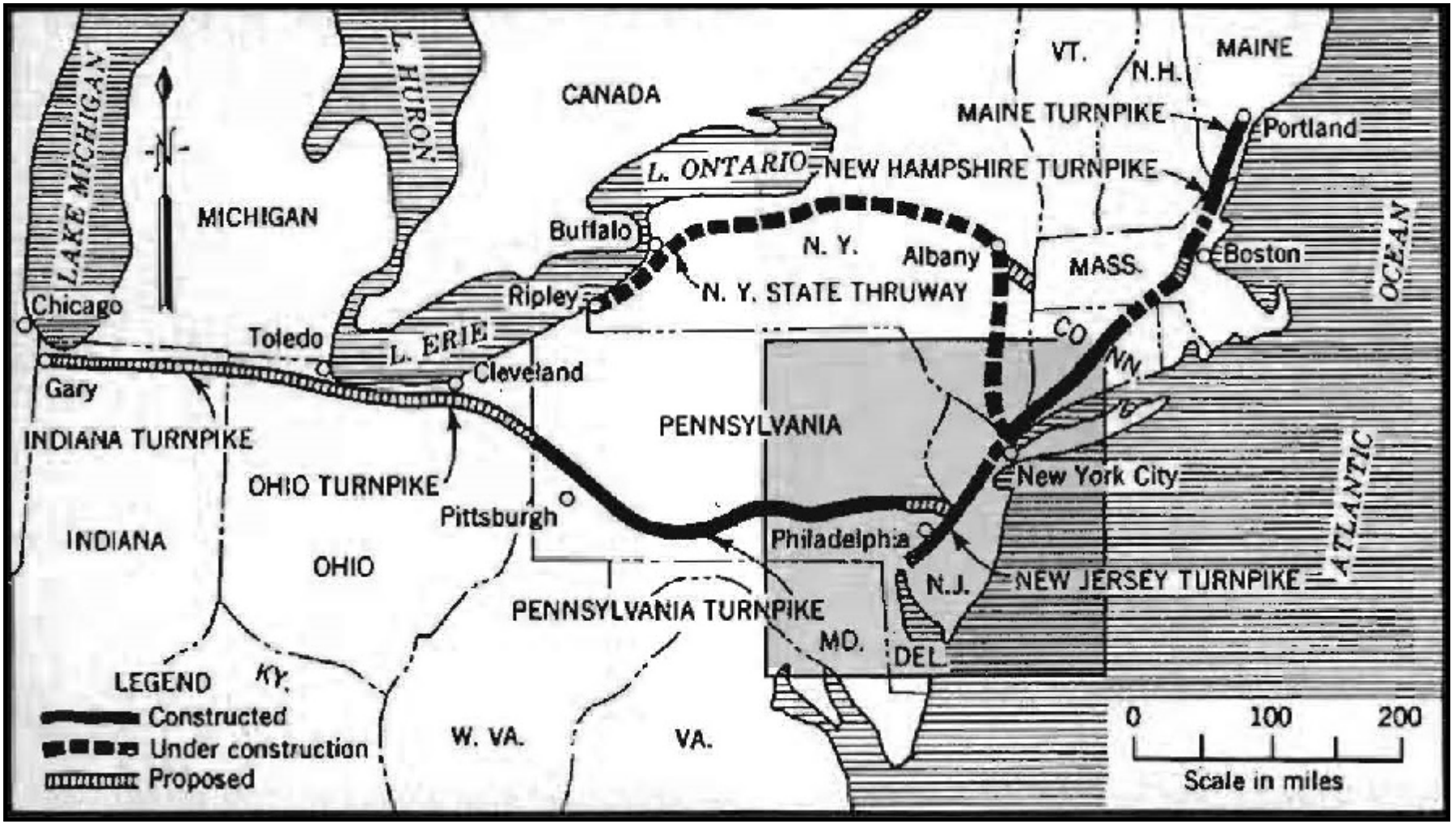

Figure 6: 1952 map depicting the completed New Jersey Turnpike in relation to other completed and proposed turnpikes in other states (Troast 1952: 26).

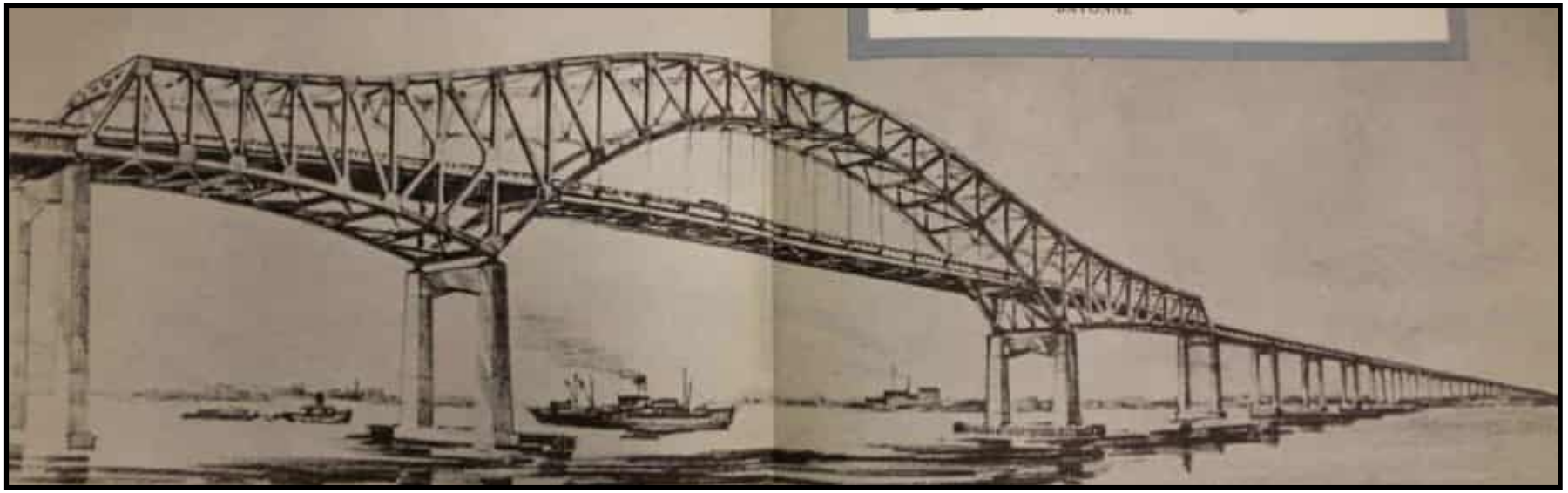

Figure 7: 1953 artist's depiction of the proposed Newark Bay Bridge (NJTA 1954: 58-59).

CONTINUATION SHEET

Historic Sites #:

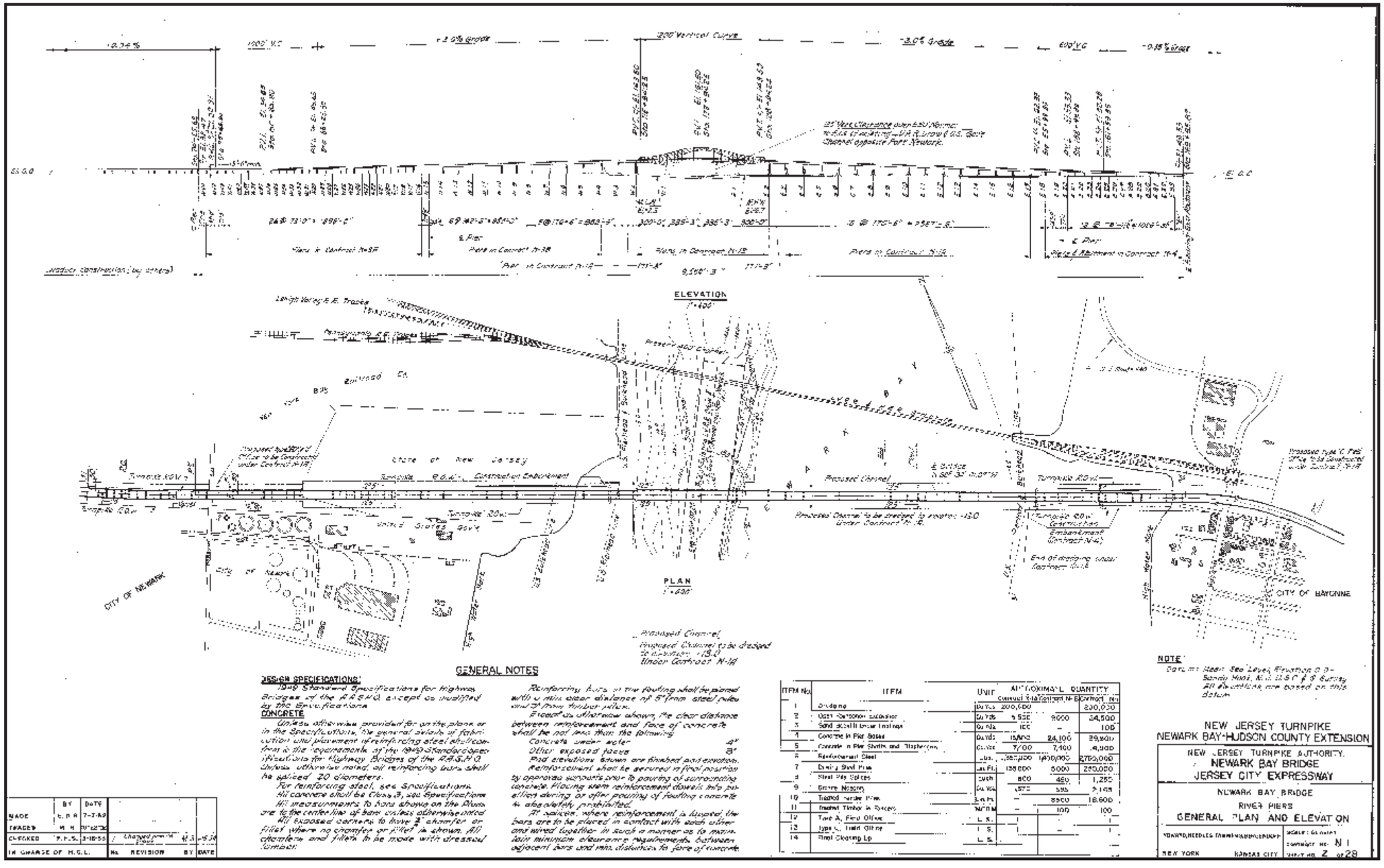

Figure 8: 1952 drawing of the Newark Bay Bridge depicting a general plan and elevation. The bridge limits extend from Pier W44 (west limit) to the east abutment (east limit) (HNTB 1952a).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Philip A. Hayden
Organization: Richard Grubb & Associates, Inc.
Date: May 2021; Revised October 2021

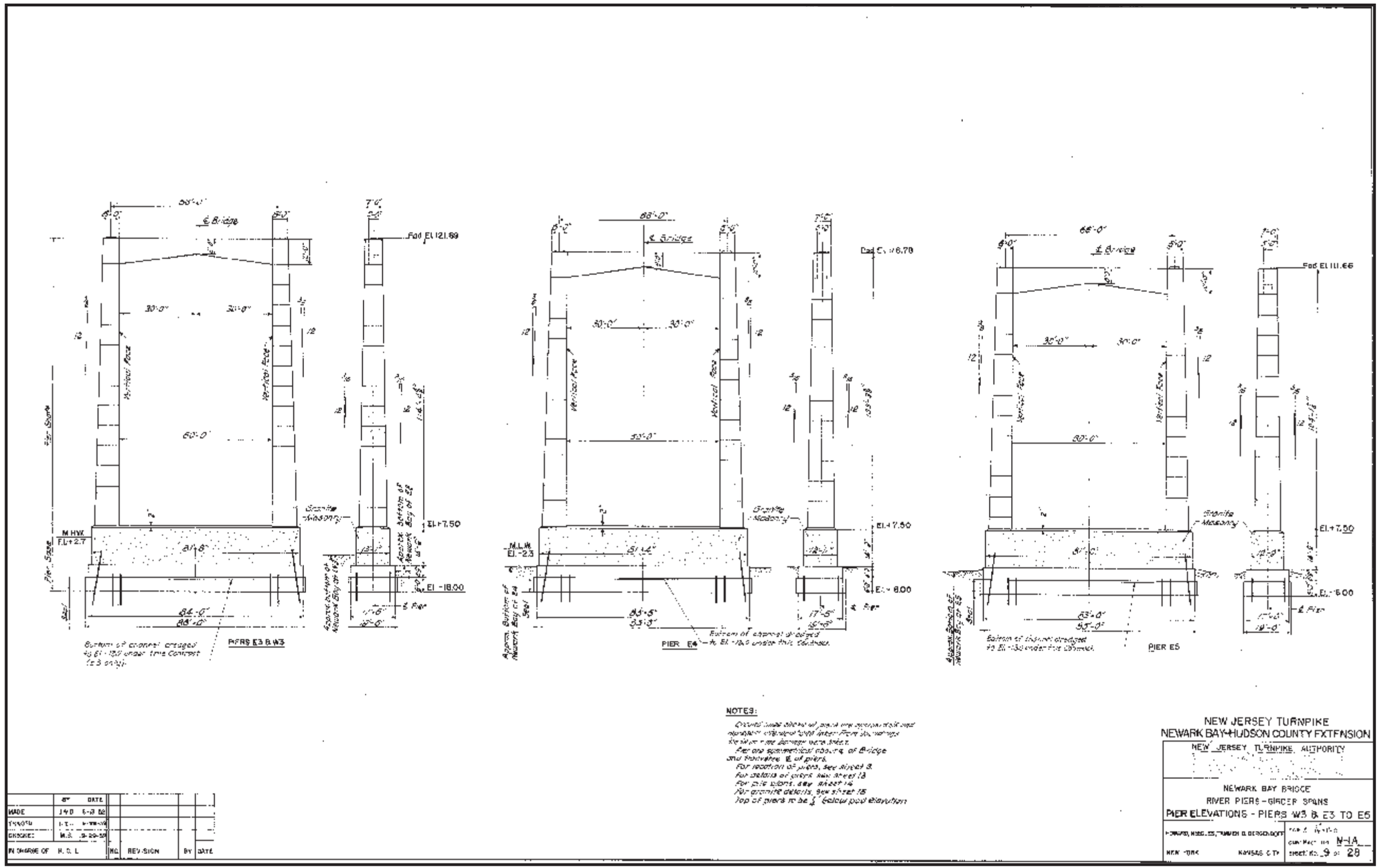

Figure 9: 1952 drawing of the Newark Bay Bridge depicting typical river piers supporting girder spans (HNTB 1952b).

CONTINUATION SHEET

Historic Sites #:

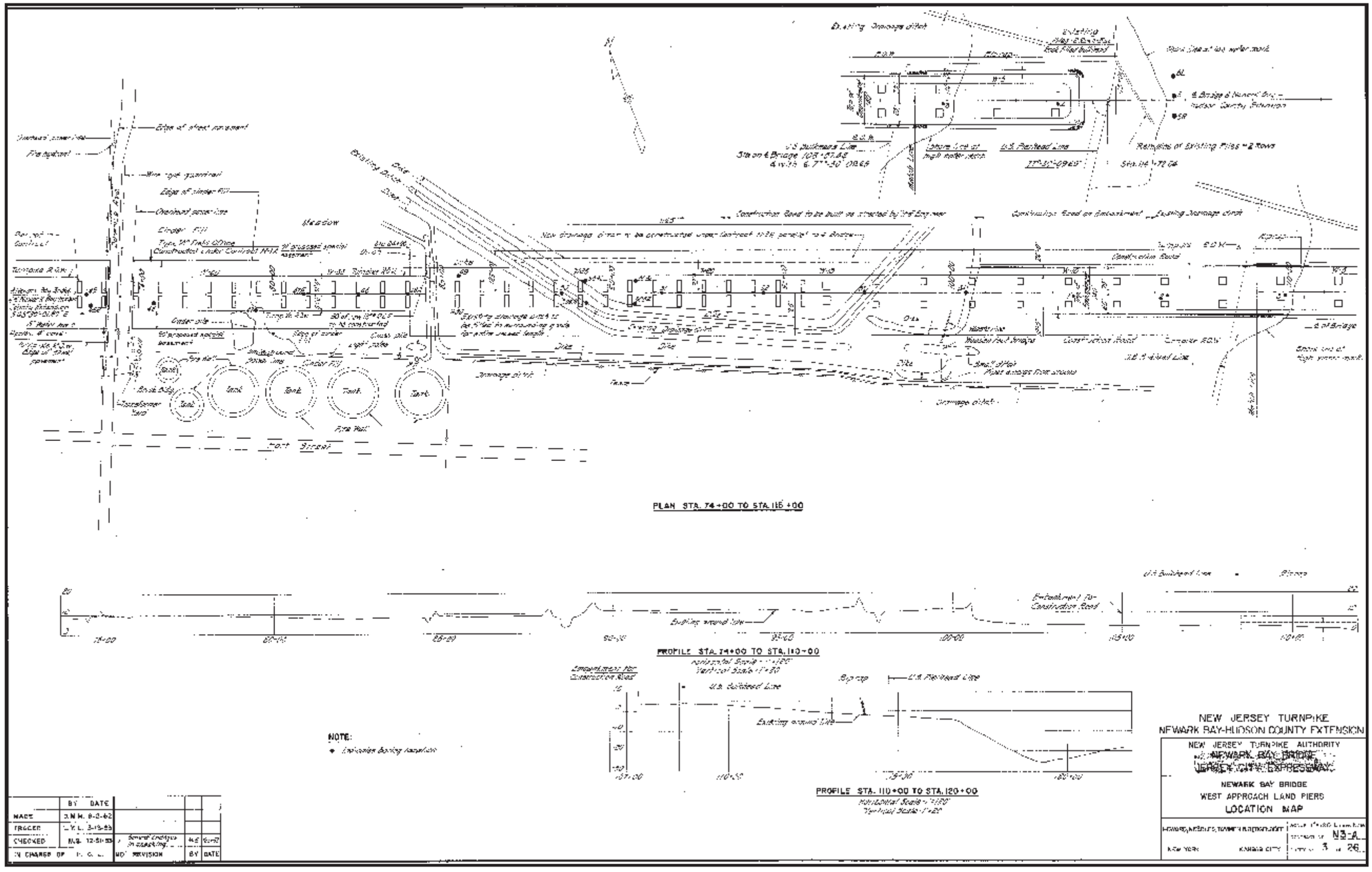

Figure 10: 1952 drawing of the Newark Bay Bridge depicting a plan of a portion of the west approach (HNTB 1952c).

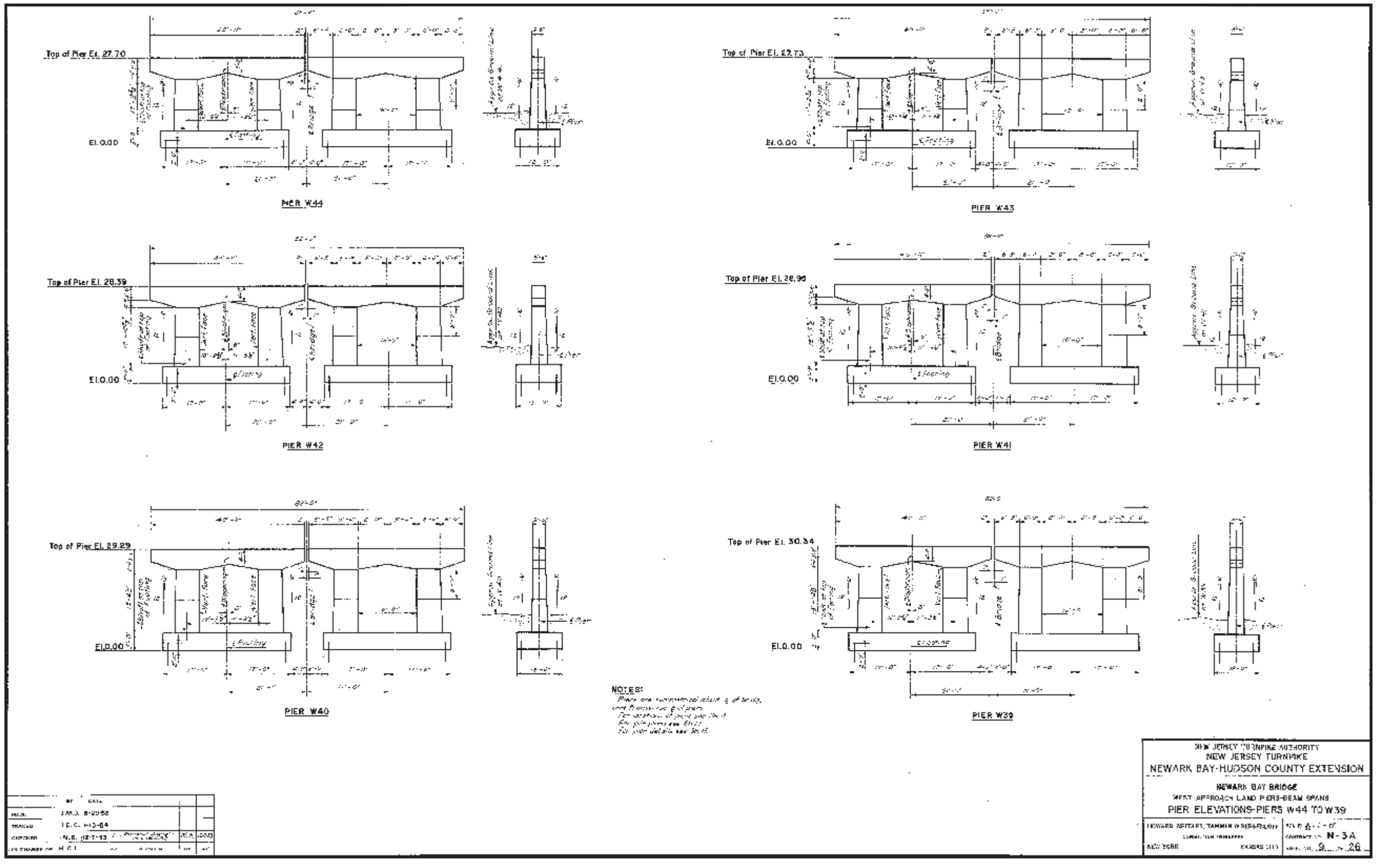

Figure 11: 1952 drawing of the Newark Bay Bridge depicting typical land piers supporting beam spans on the west approach (HNTB 1952d).

CONTINUATION SHEET

Historic Sites #:

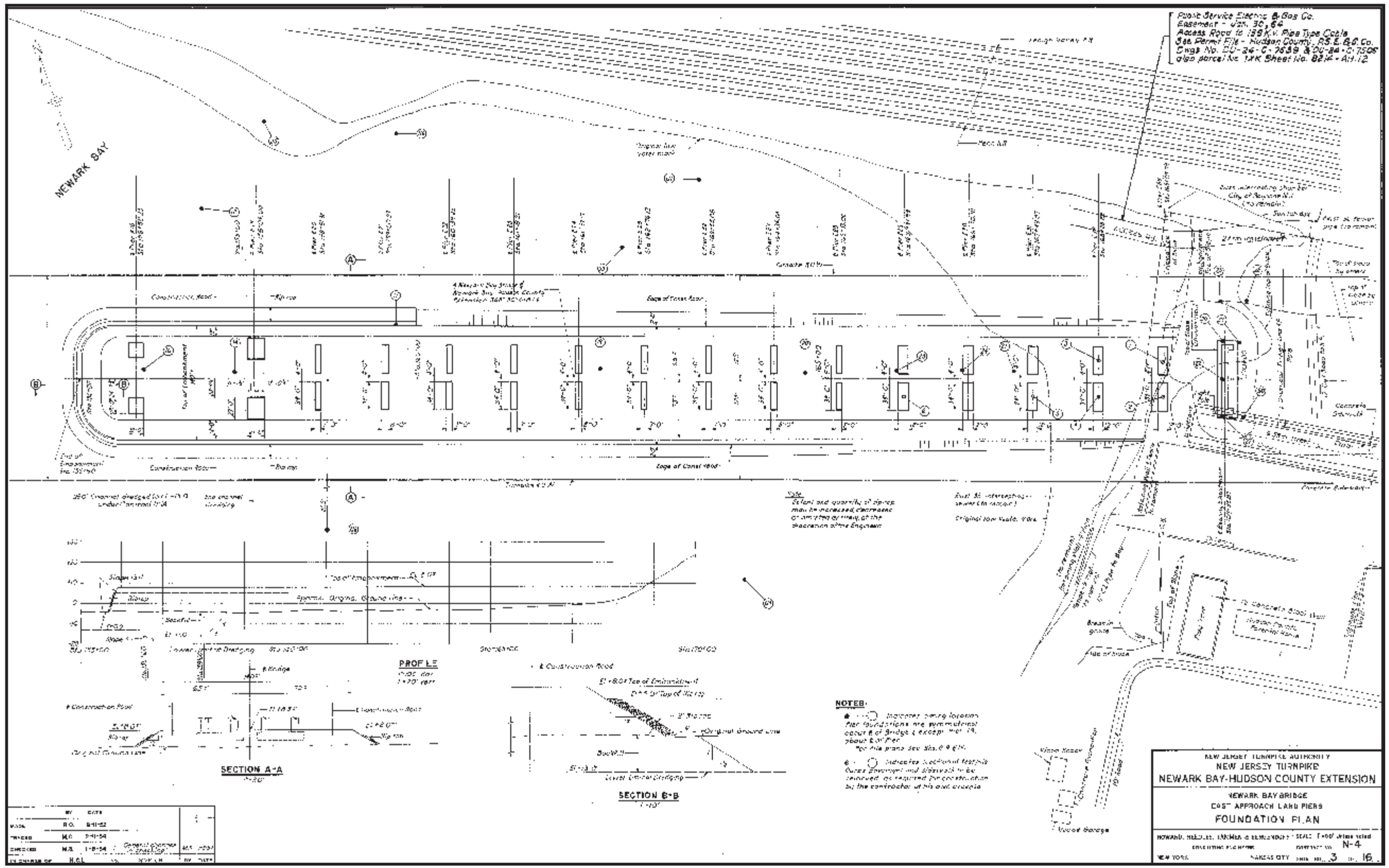

Figure 12: 1952 drawing of the Newark Bay Bridge depicting a plan of the east approach. (HNTB 1952e).

CONTINUATION SHEET

Historic Sites #:

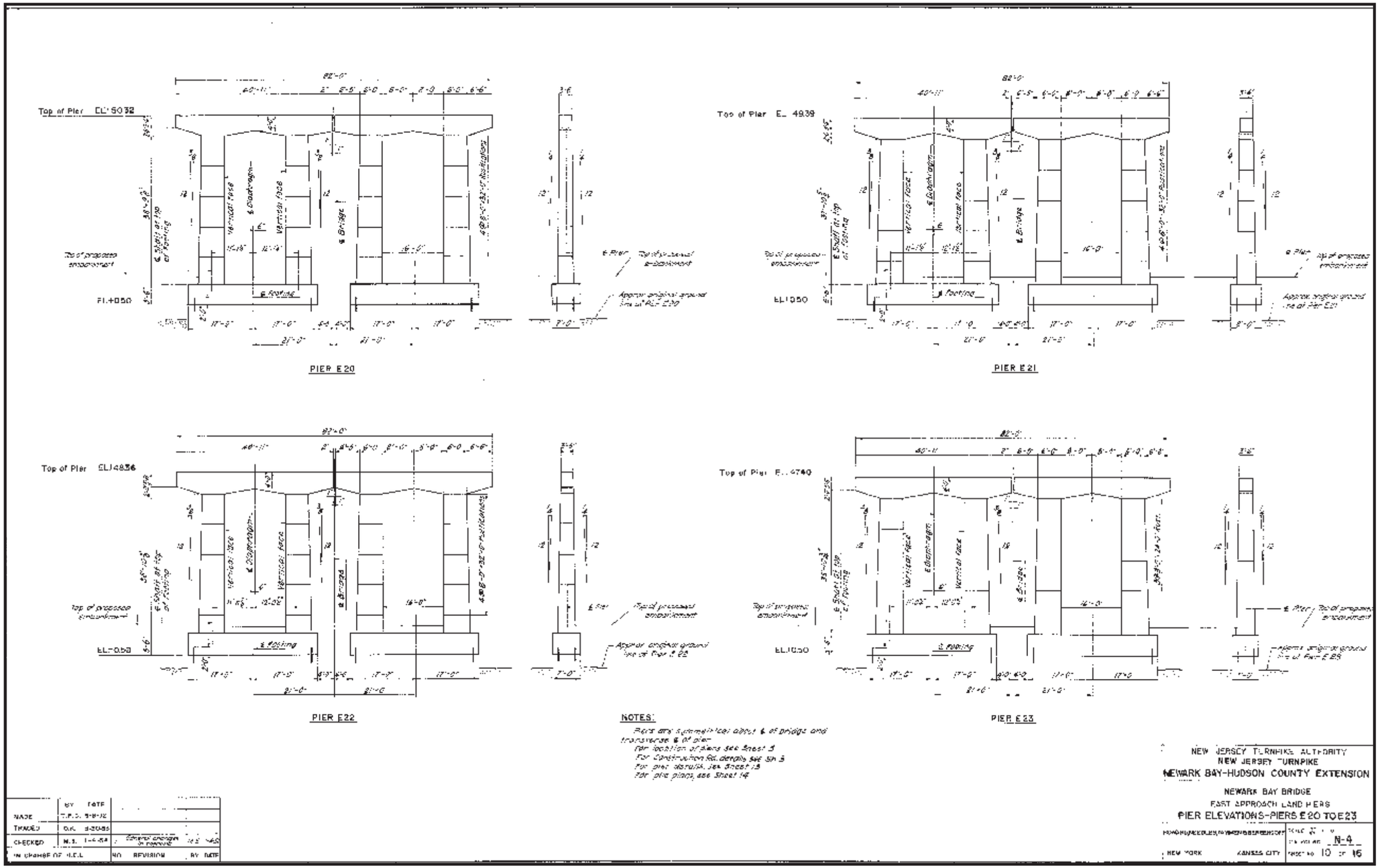

Figure 13: 1952 drawing of the Newark Bay Bridge depicting typical land piers supporting beam spans on the east approach (HNTB 1952f).

CONTINUATION SHEET

Historic Sites #:

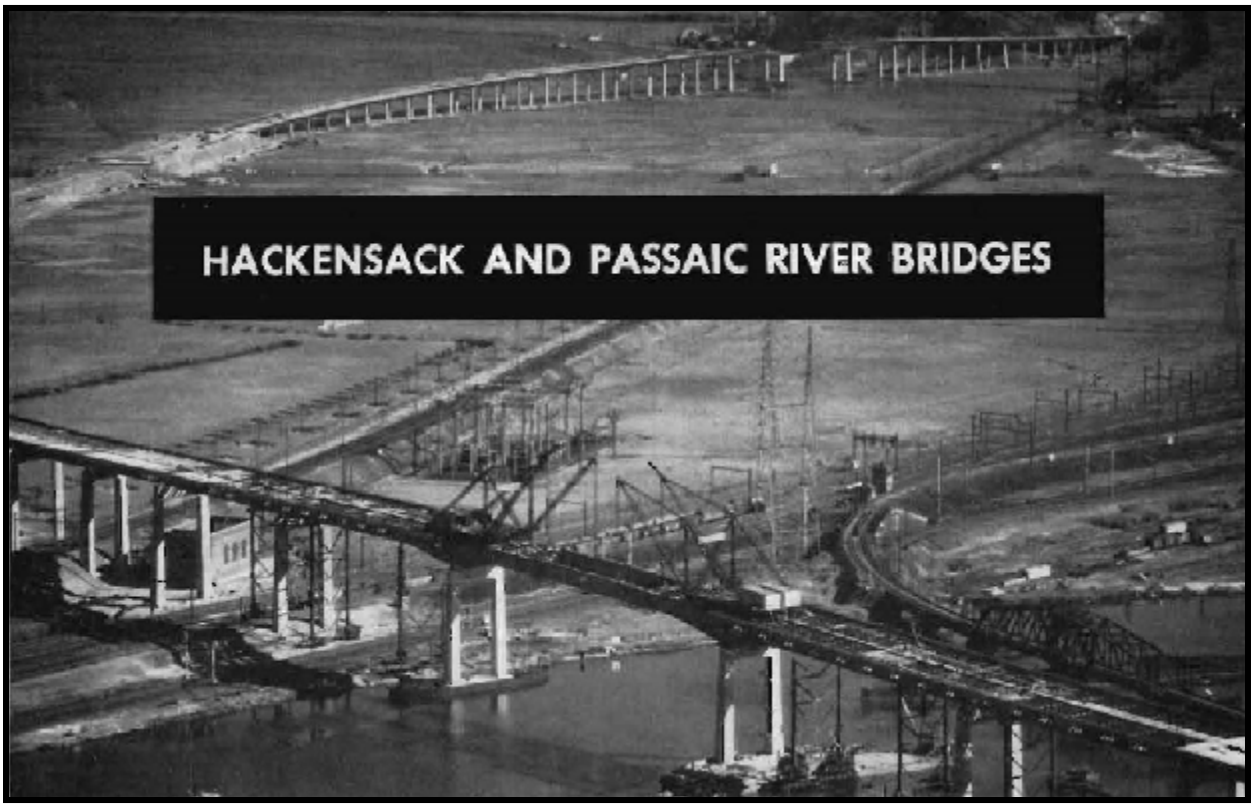

Figure 14: 1952 aerial photograph depicting the New Jersey Turnpike's Passaic River and Hackensack River Bridges under construction (Ammann 1952: 60).

CONTINUATION SHEET

Historic Sites #:

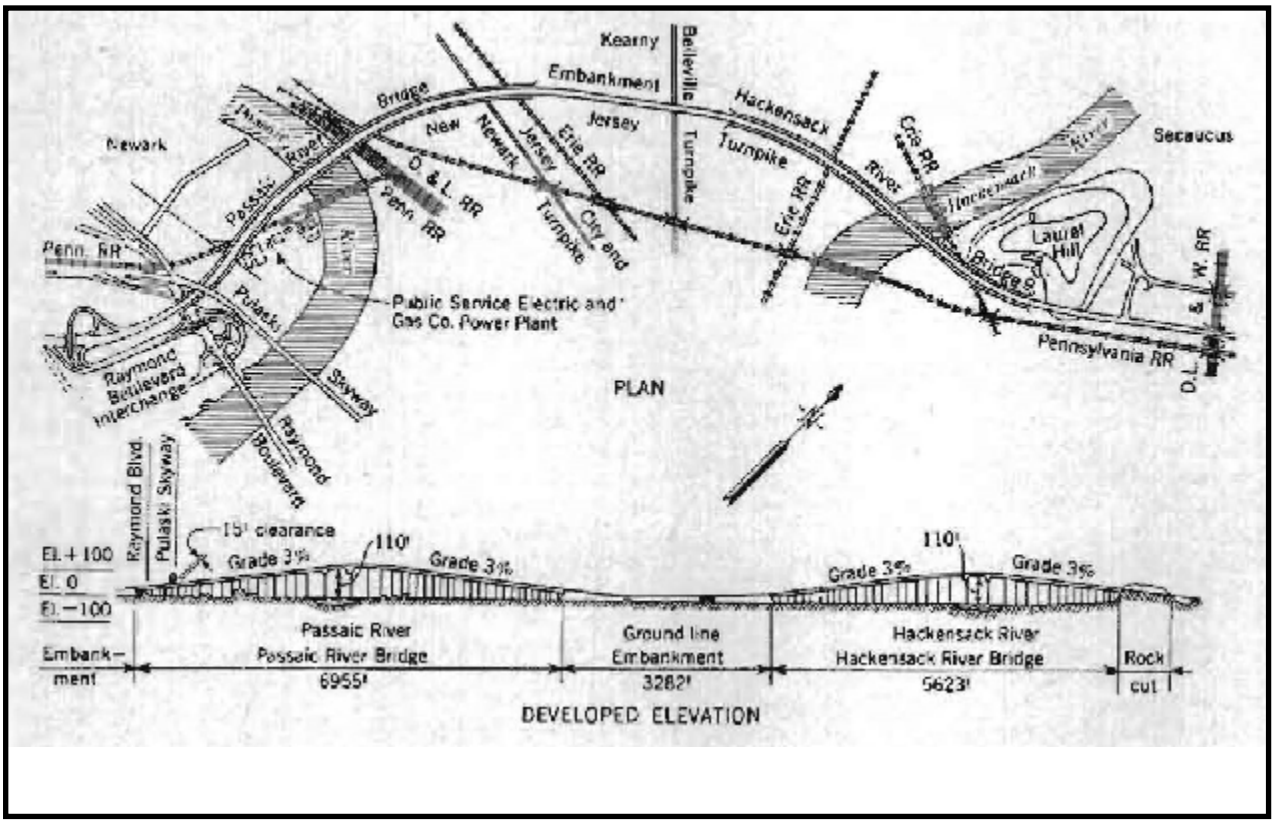

Figure 15: 1952 plan and elevation of Passaic River and Hackensack River Bridges indicating the comparative complexities with the Newark Bay Bridge alignment (Ammann 1952: 61).

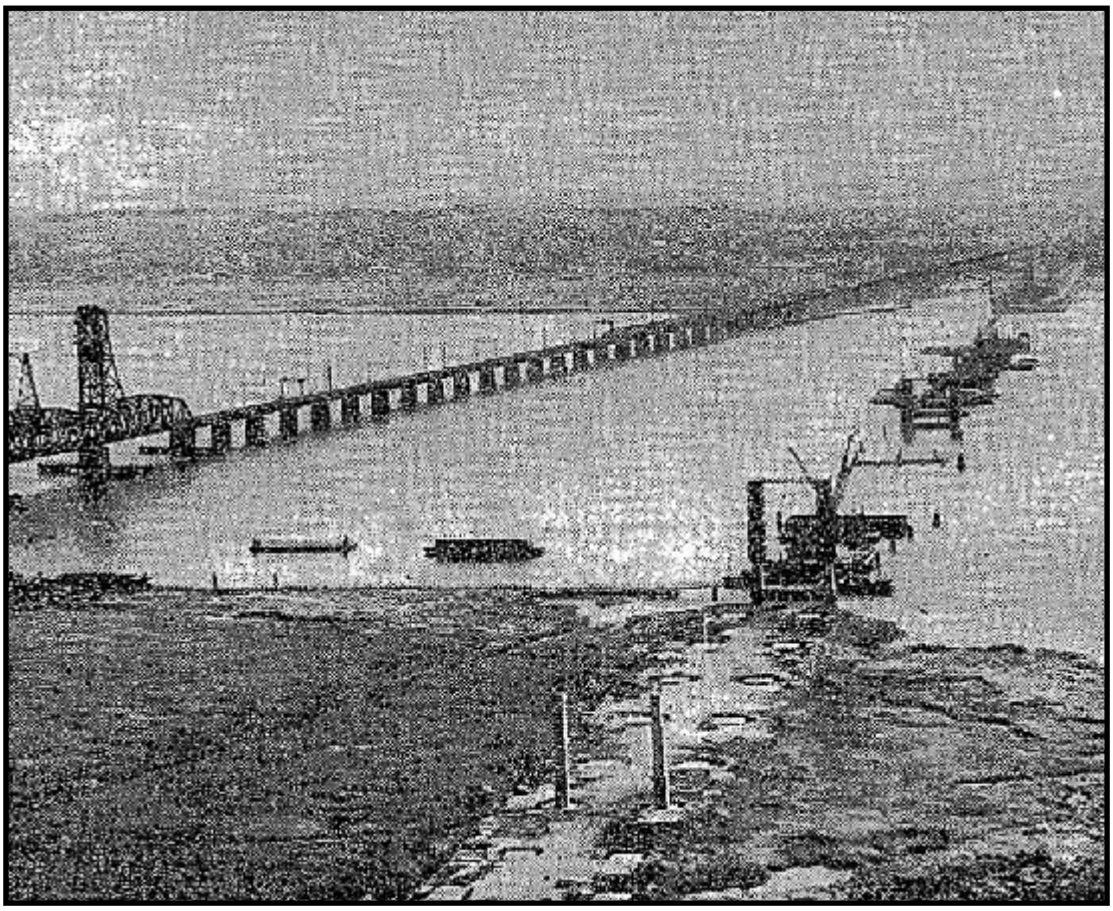

Figure 16: 1954 newspaper aerial photograph depicting the west approach fill, pier foundations, and pier construction, looking east (NYT 16 September 1954b: 31).

CONTINUATION SHEET

Historic Sites #:

Figure 17: 1954 NJTA Annual Report photograph depicting construction of the west approach at the junction between the beam spans (foreground) and the girder spans (background) (NJTA 1955: 34).

CONTINUATION SHEET

Historic Sites #:

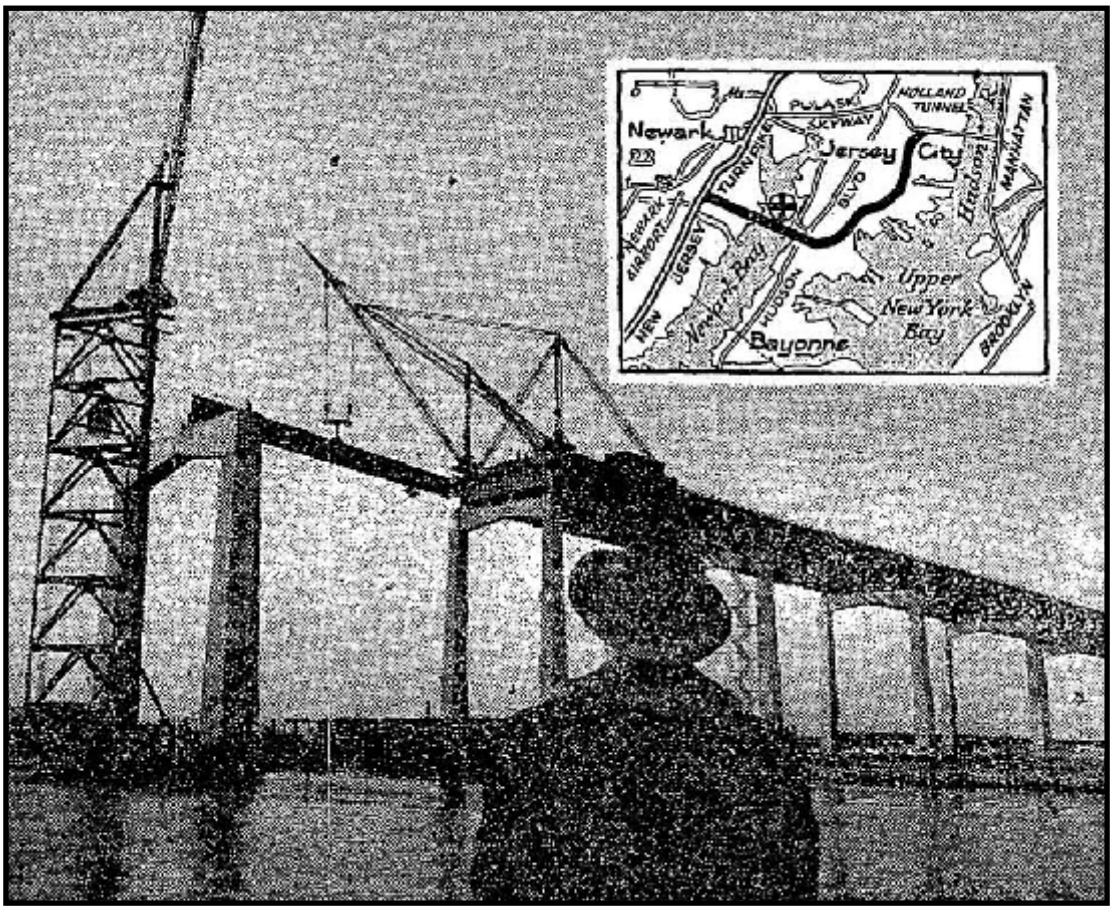

Figure 18: 1955 newspaper photograph depicting the positioning of the last two girder spans on the west approach. Construction utilized both a traveling crane and a floating tower crane (NYT February 15 1955a: 29).

CONTINUATION SHEET

Historic Sites #:

Figure 19: 1955 aerial photograph depicting early construction of the Avenue E interchange in Bayonne. The bridge's completed east and west anchor arm truss spans appear in the background, upper left (Fairchild Aerial Surveys, Inc. 1955).

CONTINUATION SHEET

Historic Sites #:

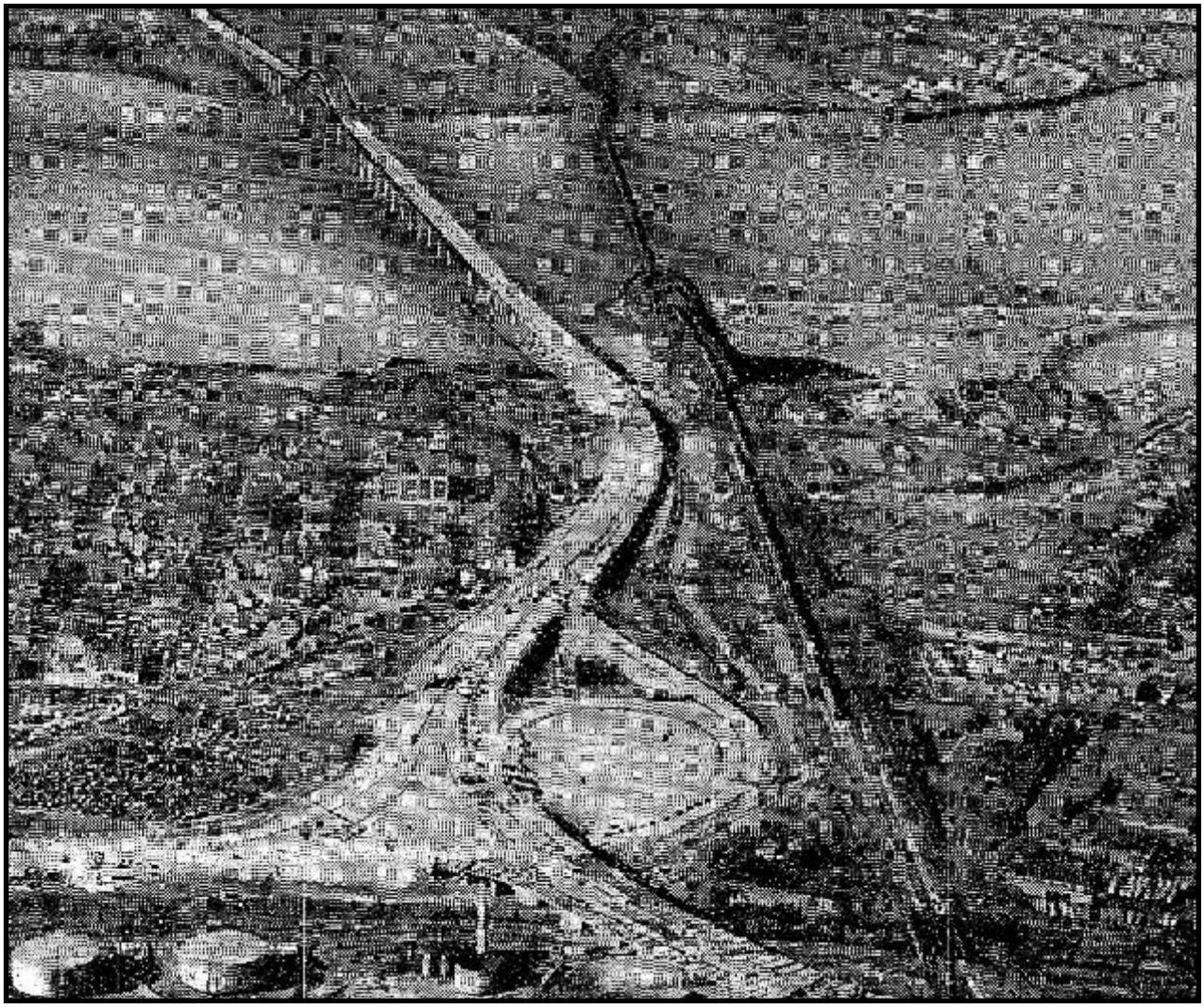

Figure 20: 1956 newspaper aerial photograph depicting the nearly finished bridge span (background, upper left) and the Avenue E interchange (foreground). Construction on the remainder of the expressway advances at the lower, center (NYT 9 January: 1956a: 27).

Figure 21: 1956 NJTA Annual Report aerial photograph depicting the Newark Airport interchange nearing completion at the western terminus of the Newark Bay-Hudson County Extension. The Newark Bay Bridge appears in the background, upper right (NJTA 1956).

Figure 22: 1956 NJTA Annual Report aerial photograph depicting ongoing construction of the rest of the Newark Bay-Hudson County Extension near the intersection of Pacific Avenue and Grand Street in Jersey City (NJTA 1956).

CONTINUATION SHEET

Historic Sites #:

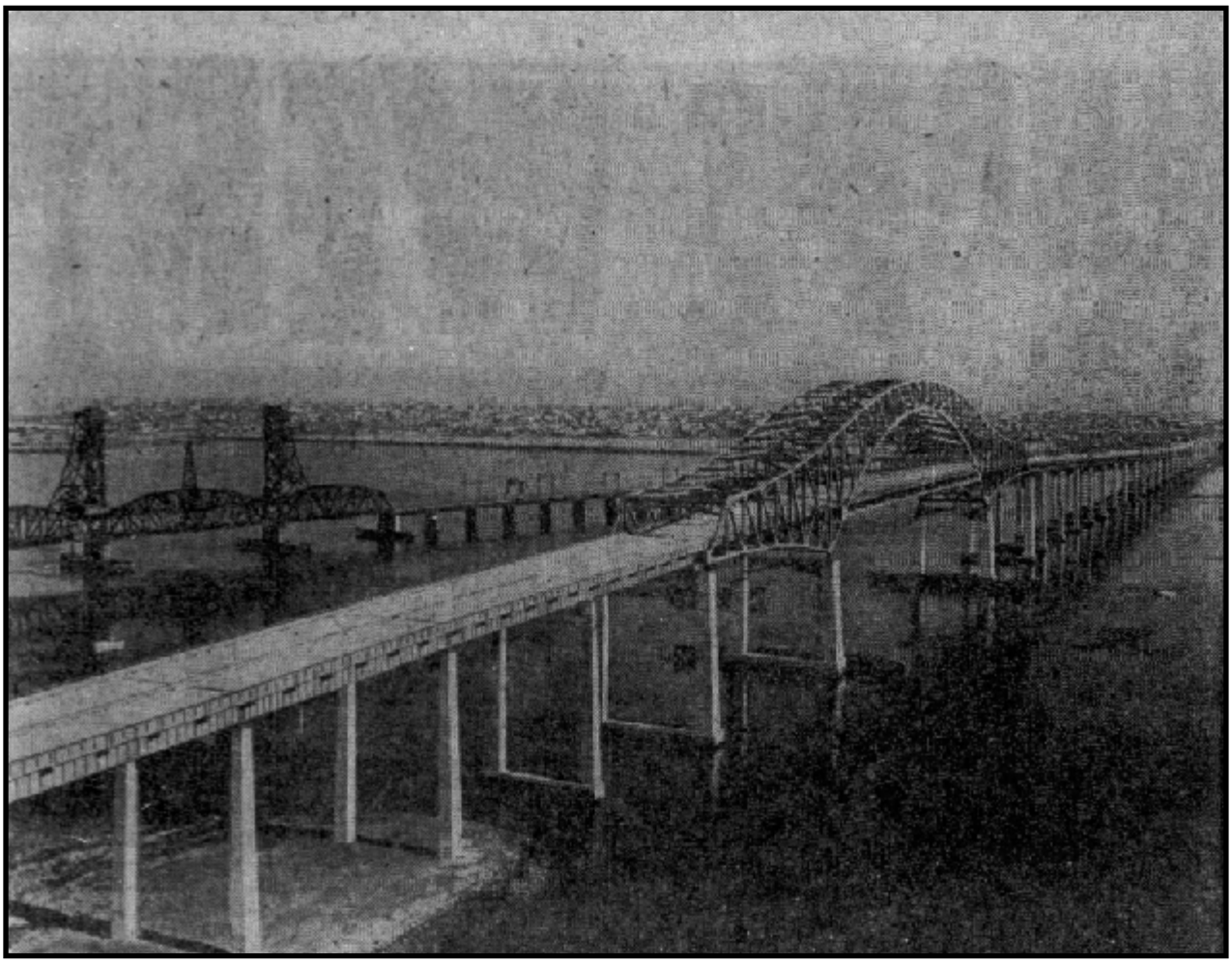

Figure 23: 1956 newspaper aerial photograph of opening day of the first segment of the Newark Bay-Hudson County Extension between the Newark Airport interchange and Avenue E, Bayonne, including the Newark Bay Bridge (Courier News 5 April 1956: 12).

Figure 24: 1956 ribbon cutting ceremony for the Newark Bay Bridge on April 4, 1956, featuring New Jersey Governor Robert B. Meyner (right) and NJTA Chairman Paul M. Troast (left) wielding scissors (Lapolla & Suska 2005: 91).

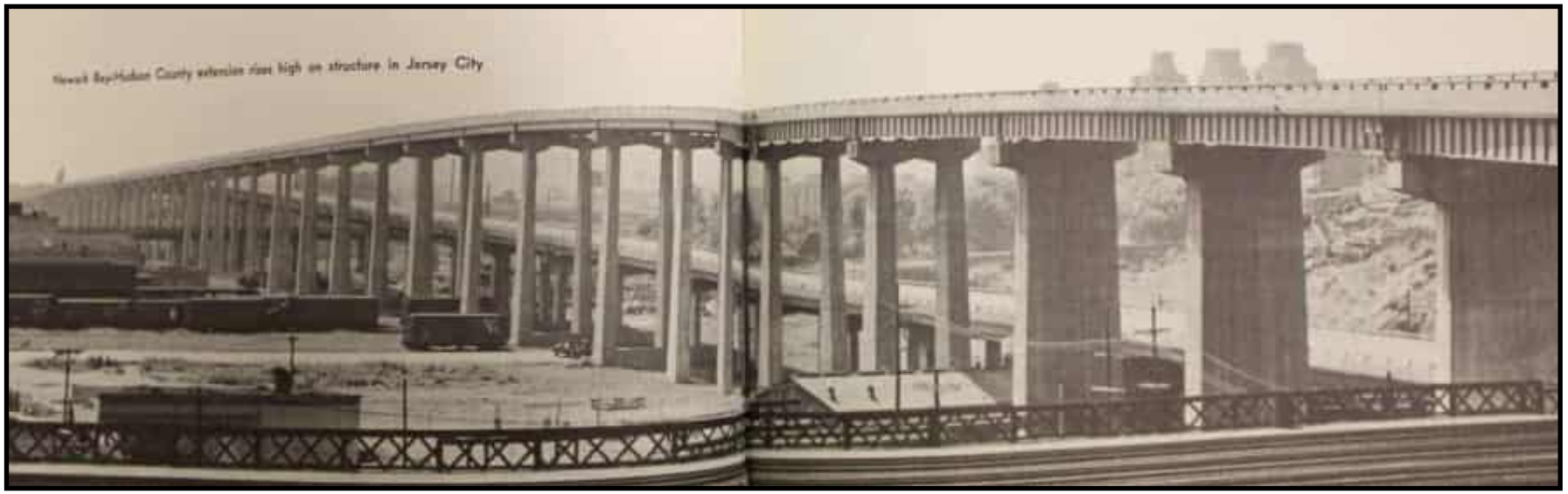

Figure 25: 1956 NJTA Annual Report photograph from the vicinity of the former Erie Railroad viaduct (foreground) depicting the completed Newark Bay-Hudson County Extension's extensive use of elevated viaducts, which contributed to the project's large expense. Clearances between piers dictated the use of girder spans or beam spans (NJTA 1957).

CONTINUATION SHEET

Historic Sites #:

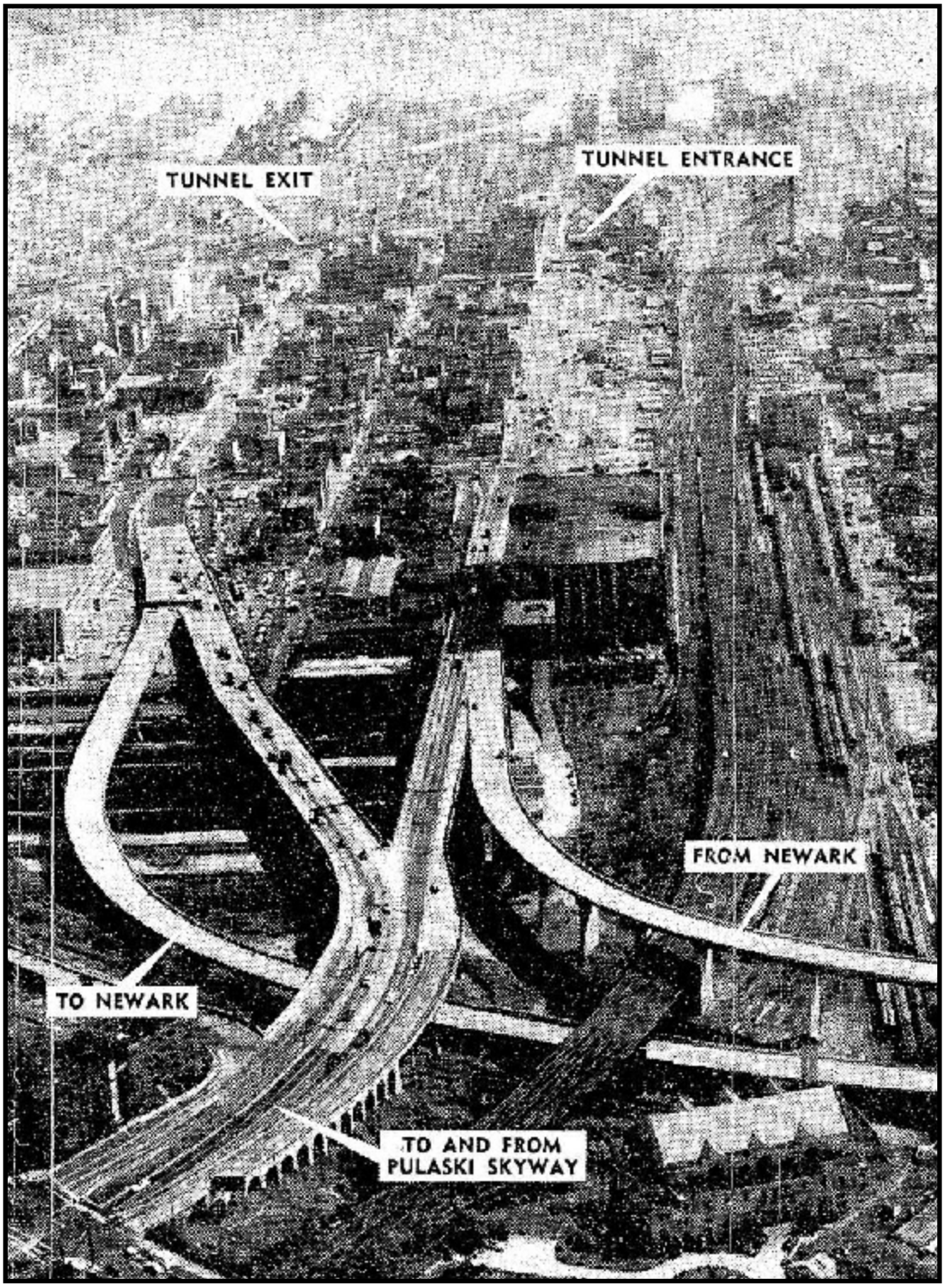

Figure 26: 1956 newspaper aerial photograph depicting the Holland Tunnel terminus of the Newark Bay-Hudson County Extension on opening day, September 15, 1956 (NYT 15 September 1956e: 14).

CONTINUATION SHEET

Historic Sites #:

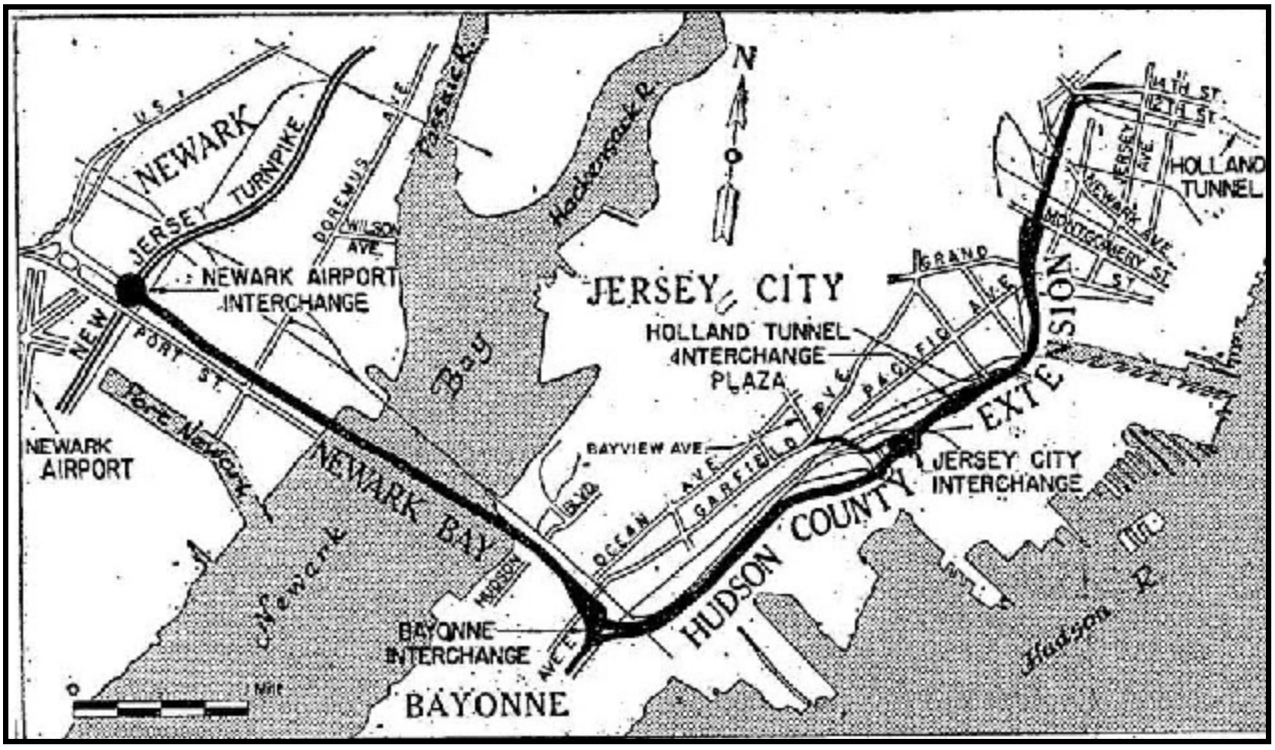

Figure 27: 1956 map of completed Newark Bay-Hudson County Extension (NYT 9 January 1956a: 27).

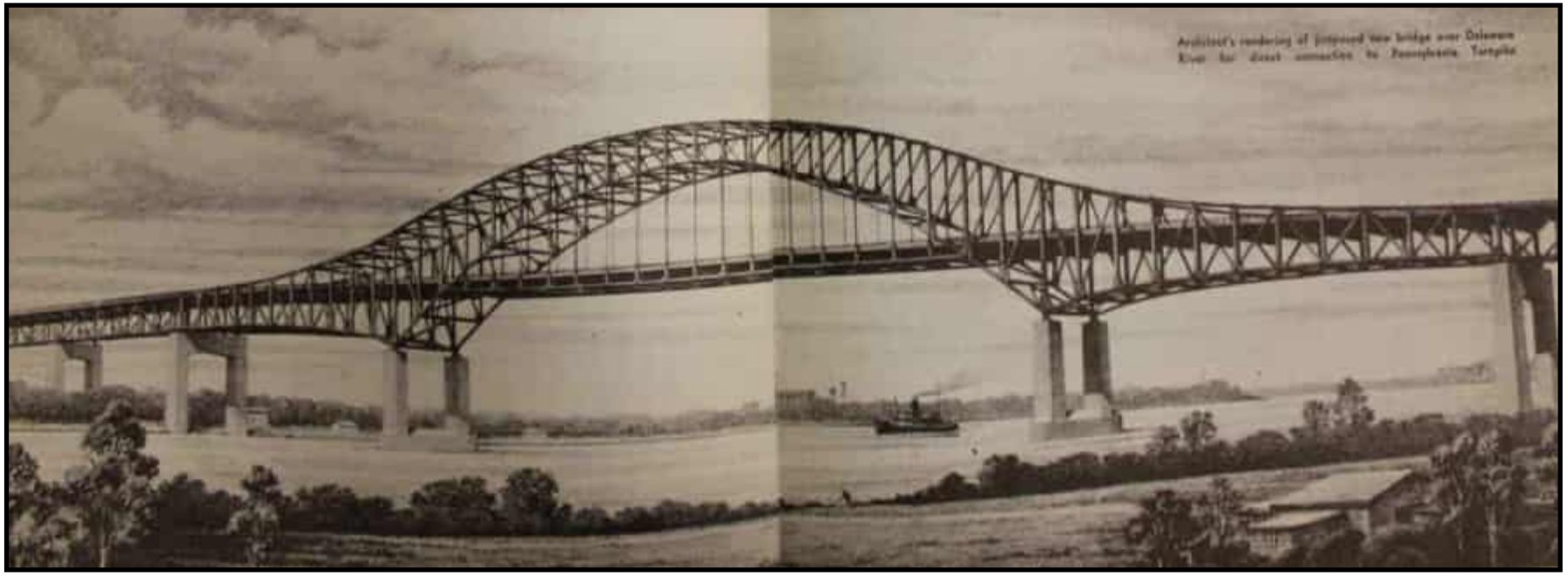

Figure 28: 1953 artist's depiction of the proposed Pennsylvania Turnpike Extension Bridge over the Delaware River (NJTA 1954: 78-79).

CONTINUATION SHEET

Historic Sites #:

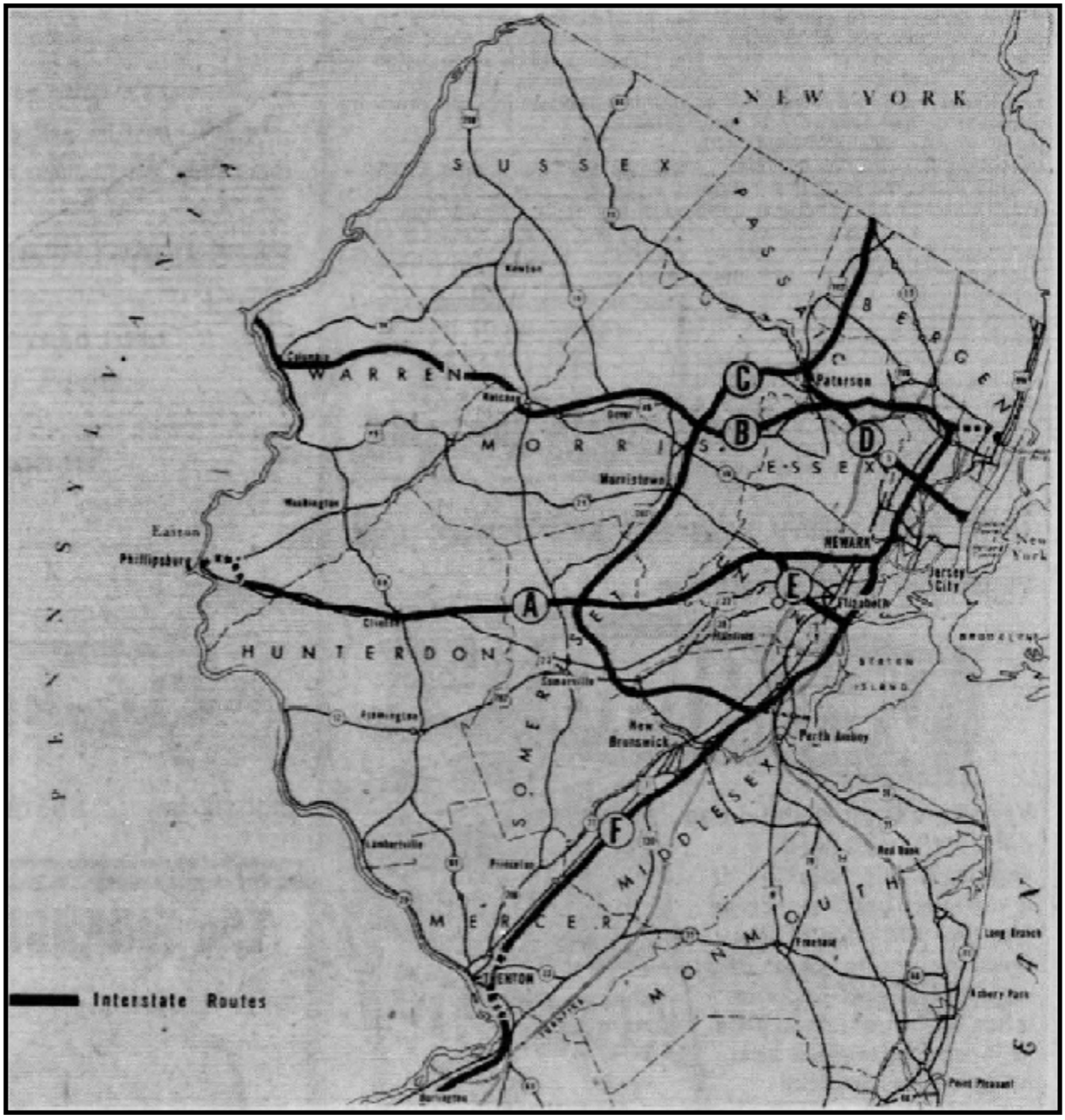

Figure 29: 1957 map depicting the approved interstate highways in northern New Jersey under the new Federal-Aid Highway Act. Corridor "A" depicts the proposed replacement for Route 22, which became Interstate 78 (Courier-News 25 April 1957: 1).

CONTINUATION SHEET

Historic Sites #:

Figure 30: 1984 NJTA Annual report photograph of the demolition and replacement of the original center barrier on the Newark Bay Bridge (NJTA 1985: 5).

CONTINUATION SHEET

Historic Sites #:

Photo Location Map (NJGIS Digital Orthographic Imagery 2019).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Philip A. Hayden

Organization: Richard Grubb & Associates, Inc.

Date: May 2021; Revised October 2021

CONTINUATION SHEET

Historic Sites #:

Plate: 1
Photo view:
Northwest
Photographer:
Allee Davis
Date:
April 29, 2021

Newark Bay Bridge, overview of the south elevation and east approach depicting typical water piers and girder spans.

Plate: 2
Photo view:
Southwest
Photographer:
Allee Davis
Date:
April 29, 2021

Newark Bay Bridge, overview of the north elevation with Conrail bridge in foreground.

CONTINUATION SHEET

Historic Sites #:

Plate: 3
Photo view:
West
Photographer:
Allee Davis
Date:
April 29, 2021

Newark Bay Bridge, east anchor arm truss span portal. Center roadway divider and outer parapets are recent replacements.

Plate: 4
Photo view:
West
Photographer:
Allee Davis
Date:
April 29, 2021

Newark Bay Bridge, east anchor arm truss span approaching the cantilevered arch truss span.

CONTINUATION SHEET

Historic Sites #:

Plate: 5
Photo view:
West
Photographer:
Allee Davis
Date:
April 29, 2021

Newark Bay Bridge, central cantilevered arch truss span with suspended road deck.

Plate: 6
Photo view:
West
Photographer:
Allee Davis
Date:
April 29, 2021

Newark Bay Bridge, west anchor arm truss span and west portal.

CONTINUATION SHEET

Historic Sites #:

Plate: 7
Photo view:
East
Photographer:
Allee Davis
Date:
April 29, 2021

Newark Bay Bridge, general overview depicting a typical view of the superstructure's girder spans with transverse beams.

Plate: 8
Photo view:
West
Photographer:
Allee Davis
Date:
April 29, 2021

Newark Bay Bridge, east approach depicting typical graduated substructure piers with granite veneer bases supporting typical girder spans over water.

CONTINUATION SHEET

Historic Sites #:

Plate: 9
Photo view:
Northwest
Photographer:
Allee Davis
Date:
April 29, 2021

Newark Bay Bridge, depicting Pier E19 at the junction between the beam spans (steel stringers) and the girder spans on the east approach.

Plate: 10
Photo view:
Northeast
Photographer:
Allee Davis
Date:
April 29, 2021

Newark Bay Bridge, depicting Pier E22 and a typical overview of the beam spans on the east approach. Note paired configuration of piers supporting eastbound and westbound lanes.

CONTINUATION SHEET

Historic Sites #:

Plate: 11
Photo view:
Southwest
Photographer:
Allee Davis
Date:
April 29, 2021

Newark Bay Bridge, depicting Pier W44 at the structure's western extreme at Doremus Avenue. Piers west of this location carry a viaduct to the interchange with the New Jersey Turnpike's main corridor. Piers east of this location gradually increase in height and make up the west approach.

Plate: 12
Photo view:
Southeast
Photographer:
Allee Davis
Date:
April 29, 2021

Newark Bay Bridge, depicting Pier W35 and a typical overview of the graduated piers on the west approach.

CONTINUATION SHEET

Historic Sites #:

Plate: 13
Photo view:
Southeast
Photographer:
Allee Davis
Date:
April 29, 2021

Newark Bay Bridge, depicting Pier W25 and a typical overview of the graduated piers on the west approach.

Plate: 14
Photo view:
Southeast
Photographer:
Allee Davis
Date:
April 29, 2021

Newark Bay Bridge, depicting Pier W16 (foreground) and Pier W15 (background) on the west approach at the junction between the beam spans and the girder spans. Note the transition from paired piers to a single pier.

CONTINUATION SHEET

Historic Sites #:

Plate: 15
Photo view:
East
Photographer:
Allee Davis
Date:
April 29, 2021

Newark Bay Bridge, depicting Pier W15 at the junction between the beam spans and girder spans of the west approach.

Plate: 16
Photo view:
East
Photographer:
Allee Davis
Date:
April 29, 2021

Newark Bay Bridge, depicting Pier W14 and a general overview of the single-pier substructures supporting the girder spans of the west approach.

CONTINUATION SHEET

Historic Sites #:

Plate: 17

Photo view:

East

Photographer:

Allee Davis

Date:

April 29, 2021

Newark Bay Bridge, depicting Pier W2 at the junction between the girder span and the west anchor arm truss span on the west approach.

BASE SURVEY FORM

Historic Sites #:

Property Name: New Jersey Turnpike Newark Bay-Hudson County Extension

Street Address: *Street #:* _____ (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* New Jersey Turnpike Newark Bay-Hudson County Extension *Suffix:* _____ *Type:* TPKE

County(s): Essex; Hudson **Zip Code:** 07114; 07002

Municipality(s): City of Newark; City of Bayonne; City of Jersey City **Block(s):** Various

Local Place Name(s): Port Newark **Lot(s):** Various

Ownership: Public **USGS Quad(s):** Elizabeth NJ; Jersey City NJ

Description:

See Historic District Overlay Form

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacement and Capacity Enhancements Program

Surveyor: Philip A. Hayden Date: March 2023

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:

See Continuation Sheet (Page 34)

Site Map:

See Continuation Sheet (Page 35)

Bibliography/Sources:
See Continuation Sheet

Additional Information:
Individual bridges making up the Newark Bay-Hudson County Extension were not surveyed as part of the 1994 *New Jersey Historic Bridge Survey* because the structures post-dated the survey cut-off of 1945 (A.G. Lichtenstein Associates, Inc. 1994). A portion of the corridor overlaps the New Jersey Turnpike's main stem at Interchange 14. The New Jersey State Historic Preservation Officer (SHPO) determined the New Jersey's Turnpike's main stem (presumably including all of Interchange 14) not eligible for listing in the National Register of Historic Places (NRHP) on September 14, 2006 (Guzzo 2006: HP0-12006-69 Log# 05-2242-2). This determination did not include the remainder of the Extension, which has not been fully evaluated to date. The Bayonne Interchange (Interchange 14A) toll plaza building was surveyed in 2011 and recommended not eligible (Dewberry-Goodkind, Inc. 2011: 18). The current investigation was undertaken in anticipation of future Section 106 and Executive Order 215 regulatory compliance.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 3 Building ____ Landscape ____ Farm
15 Bridge ____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** ____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)
There are no known archaeological resources associated with this resource at this time.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacement and Capacity Enhancements Program
Surveyor: Philip A. Hayden Date: March 2023
Organization: Richard Grubb & Associates, Inc.

HISTORIC DISTRICT OVERLAY

Historic Sites #:

District Name: New Jersey Turnpike Newark Bay-Hudson County Extension

County(s): Essex; Hudson

District Type: Transportation

Municipality(s): City of Newark; City of Bayonne; City of Jersey City

USGS Quad(s): Elizabeth NJ; Jersey City NJ

Local Place Name(s): Port Newark; Greenville; Caven Point; Jersey City

Development Period: 1952 **To:** 1956 **Source:** New Jersey Turnpike Authority [NJTA] 1952: 88; New York Times [NYT], 15 September 1956e: 14

Physical Condition: Medium

Remaining Historic Fabric: Medium

Registration and Status Dates:

National Historic Landmark:

National Register:

New Jersey Register:

Determination of Eligibility:

SHPO Opinion:

Local Designation:

Other Designation:

Other Designation Date:

Description:

The New Jersey Turnpike Newark Bay-Hudson County Extension (Extension) currently stretches 8.1 miles from its western terminus at the Newark Airport Interchange (Interchange 14), City of Newark, Essex County, to its eastern terminus at the approaches to the Holland Tunnel, City of Jersey City, Hudson County (Plates 1-25). Primarily an elevated corridor designed originally to carry the expressway over densely developed industrial sites, access roads, and railroad infrastructure, the resource's main components include the Newark Bay Bridge, four long viaducts, and numerous smaller overgrade and undergrade bridges. Each structure utilizes standardized designs adopted for the New Jersey Turnpike's original main stem and consist of common reinforced concrete abutments and piers, rolled steel stringer and riveted steel deck girder superstructures, poured concrete decks, and concrete and pipe-rail parapet walls similar to typical post-1945 highway bridges. The Newark Bay Bridge is the sole exception, requiring a truss structure to achieve the spans required. Other Extension features include earthen embankments, interchanges and plazas, maintenance facilities, toll booths, and landscaped areas. Two original service areas have since been closed, their buildings demolished, and the land used for construction staging and maintenance (see Plates 12 and 13). More recent alterations and additions include replaced road decking, a poured concrete median barrier and numerous replaced parapet walls using a Jersey Barrier design, as well as newly added lanes, sign bridges, and lighting fixtures.

Setting:

The Extension extends through a heavily developed portion of Northern New Jersey characterized by major port infrastructure. The Extension's western end consists of extensively filled marshland, now heavily developed with port receiving and shipping terminals, warehouses, railroad facilities, highways, access roads, and the Newark Liberty Airport. The City of Newark rises to the west. Crossing Newark Bay to the eastern shore, the expressway passes through a less densely developed lower end of Bergen Hill with waterfront parks and highways, a scattering of late nineteenth- and early twentieth-century residential and commercial development, and extensive highway interchanges, connector roads, and railroads. Continuing northward, the highway skirts the eastern base of Bergen Hill with densely developed Jersey City neighborhoods to the west and former railroad yards, modern warehouses, and newly developed parkland to the east. The Hudson River, New York Harbor, and New York City are visible to the east.

BRIDGE ATTACHMENT

Historic Sites #:

Common Name: Newark Viaduct
Historic Name: New Jersey Turnpike Newark Bay-Hudson County Extension, Newark Viaduct
Feature Carried: New Jersey Turnpike Newark Bay-Hudson County Extension
Feature Crossed: Vacant Land **Milepost:** N 0.75

Owner/Operator: New Jersey Turnpike Authority **SI&A Structure Number:**

Construction Date: 1956 **Source:** NYT, 4 April 1956b: 31
Alteration Date(s): **Source:**

Engineer: Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers
Builder: Unknown
Type: Stringer
Design: N/A
Material: Steel

Physical Condition: Fair
Remaining Historic Fabric: Medium
Spans: 49
Length: Approx. 3.563 feet
Width: Approx. 84 feet

Patent Holder: N/A
Patent Date: N/A

Description:
An integral component of the Extension, the Newark Viaduct extends from Pier W94 at the Newark Airport Interchange (Interchange 14) to Pier W45 at the west approach of the Newark Bay Bridge at Doremus Avenue and includes portions of Ramps F and G associated with Interchange 14 (see Plate 1). The viaduct substructure matches similar structures erected along the length of the Extension and consists of pairs of regularly spaced, reinforced concrete pier bents, with each bent consisting of two tapered square columns and a cantilevered cap forming a narrow triangle arch on the underside. Where the roadway widens, piers are formed of multiple columns and integral caps. Each superstructure span consists of 12 welded steel stringer beams resting on the pier caps, expanding to 26 stringer beams where the Extension widens at the Newark Airport Interchange. The viaduct carries two 36-foot-wide roadways, each consisting of two 12-foot-wide travel lanes and one 4-foot-wide shoulder. The original timber-form, cast-in-place reinforced concrete deck, has been replaced using a fixed corrugated steel form underlayment. The south parapet wall retains its original low concrete curb with pipe railing. The north parapet wall has been replaced with a concrete Jersey Barrier. The structure also features a replaced concrete median, modern light poles, and sign bridges.

Setting:
The structure crosses marshy meadowlands bordering the Port Newark-Elizabeth Marine Terminal, currently operated by the Port Authority of New York and New Jersey (PANYNJ). The area is characterized by extensively filled marshland, now heavily developed with port receiving and shipping terminals, warehouses, railroad facilities, highways, access roads, and the Newark Liberty Airport. The City of Newark rises to the west. Newark Bay lies to the east.

BRIDGE ATTACHMENT

Historic Sites #:

Common Name: Newark Bay Bridge

Historic Name: New Jersey Turnpike Newark Bay-Hudson County Extension, Newark Bay Bridge

Feature Carried: New Jersey Turnpike Newark Bay-Hudson County Extension

Feature Crossed: Newark Bay **Milepost:** N 2.01, N 2.01E, N 2.01W

Owner/Operator: New Jersey Turnpike Authority **SI&A Structure Number:**

Construction Date: 1956 **Source:** NYT, 4 April 1956b: 31

Alteration Date(s): 1983-1984; 2010-2013 **Source:** New Jersey Turnpike Authority [NJTA] 1984: 3, 5; URS Corporation 2010; Bier 2018

Engineer: Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers

Physical Condition: Poor

Builder: Bethlehem Steel Company (Truss); Drago Corporation (Bridge Piers); Merritt-Chapman & Scott Corporation (East & West Approach Spans)

Remaining Historic Fabric: Medium

Type: Truss, Through

Spans: 78

Design: Other – Shouldered Tied Arch

Length: Approx. 9,560 feet

Material: Steel

Width: Approx. 86 feet

Patent Holder: N/A

Patent Date: N/A

Description:

Also known as the Vincent R. Casciano Memorial Bridge, the Newark Bay Bridge carries the Extension 9,560 feet across Newark Bay between Pier W45 in the City of Newark, Essex County, and its eastern abutment in the City of Bayonne, Hudson County (see Plate 2). It includes a 43-span west approach, a 32-span east approach, and a 3-span main truss carrying a 78-foot-wide roadway consisting of two 12-foot-wide travel lanes and one 12-foot-wide right shoulder in each direction and a 6-foot-wide median. The out-to-out roadway width measures 86 feet, 8 3/4 inches; the overall truss width totals 89 feet. At its highest, the structure stands 263 feet above Newark Bay and provides a 550-foot-wide navigation channel with a 135-feet minimum clearance above mean high tide (*See Continuation Sheet Page 23*).

Setting:

The structure crosses Newark Bay. The western shore is characterized by filled marshland, now developed with port receiving and shipping terminals, warehouses, railroad facilities, highways, access roads, and the Newark Liberty Airport. The eastern shore consists of the less densely developed lower end of Bergen Hill characterized by waterfront parks and highways, a scattering of late nineteenth- and early twentieth-century residential and commercial development, and extensive highway interchanges, connector roads, and railroads. The City of Newark rises to the west, while the densely developed centers of the City of Bayonne, City of Jersey City, and New York City are visible to the east.

BRIDGE ATTACHMENT

Historic Sites #:

Common Name: Bridge over JFK Boulevard
Historic Name: New Jersey Turnpike Newark Bay-Hudson County Extension, Hudson Boulevard Overpass
Feature Carried: New Jersey Turnpike Newark Bay-Hudson County Extension
Feature Crossed: JFK Boulevard **Milepost:** N 3.00

Owner/Operator: New Jersey Turnpike Authority **SI&A Structure Number:**

Construction Date: 1956 **Source:** NYT, 4 April 1956b: 31
Alteration Date(s): 1963; 1983 **Source:** NJTA 1964: 18; 1966; 1984: 3

Engineer: Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers
Builder: Unknown
Type: Stringer
Design: N/A
Material: Steel

Physical Condition: Fair
Remaining Historic Fabric: Medium
Spans: 3
Length: Approx. 214 feet
Width: 84 feet

Patent Holder: N/A
Patent Date: N/A

Description:
An integral component of the Extension, the slightly curved, three-span, steel stringer bridge matches similar structures erected along the Extension's length (see Plate 3). The substructure consists of two reinforced concrete abutments with elevated earthen approaches and two pairs of reinforced concrete pier bents, with each bent consisting of two tapered square columns and a cantilevered cap forming a narrow triangle arch on the underside. Each superstructure span consists of 12 rolled steel stringer beams resting on the abutments and pier caps and carries two 36-foot-wide roadways (two 12-foot-wide travel lanes and one 4-foot-wide shoulder) over JFK Boulevard (a.k.a. Hudson Boulevard). The original timber-form, cast-in-place reinforced concrete deck has been replaced using a fixed corrugated steel form underlayment. The north and south parapet walls have been replaced with a concrete Jersey Barrier. The south side of the bridge and approaches includes a high noise barrier. The structure also features a replaced concrete median and modern light poles.

Setting:
The surrounding setting includes late nineteenth- and early twentieth-century residential and commercial development, and extensive highway interchanges, connector roads, railroads, and port facilities. Newark Bay borders on the west. Densely developed areas of the City of Bayonne and the City of Jersey City extend to the south and north, respectively.

BRIDGE ATTACHMENT

Historic Sites #:

Common Name: Bridge over Avenue C

Historic Name: New Jersey Turnpike Newark Bay-Hudson County Extension, Avenue C Overpass

Feature Carried: New Jersey Turnpike Newark Bay-Hudson County Extension and Ramp C

Feature Crossed: Avenue C **Milepost:** N 3.24

Owner/Operator: New Jersey Turnpike Authority **SI&A Structure Number:**

Construction Date: 1956 **Source:** NYT, 4 April 1956b: 31

Alteration Date(s): Late-Twentieth Century **Source:** Stylistic Evidence

Engineer: Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers

Builder: Unknown

Type: Girder, Deck

Design: N/A

Material: Steel

Physical Condition: Fair

Remaining Historic Fabric: Medium

Spans: 1

Length: Approx. 106 feet

Width: 124 feet

Patent Holder: N/A

Patent Date: N/A

Description:

An integral component of the Extension, the skewed, single-span, steel deck girder bridge matches similar structures erected along the Extension's length (see Plate 4). The substructure consists of two reinforced concrete abutments with sloping wingwalls and integral retaining walls. Each smooth face includes widely spaced, vertical scoring. The superstructure span consists of 17 built-up, riveted steel deck girders and two later rolled steel girders resting on the abutments. The deck carries two 36-foot-wide roadways (two 12-foot-wide travel lanes and one 4-foot-wide shoulder) over Avenue C, plus a portion of westbound Ramp C. The original timber-form, cast-in-place reinforced concrete deck has been replaced using a fixed corrugated steel form underlayment. The north and south parapet walls have been replaced with a concrete Jersey Barrier. The structure also features a replaced concrete median and modern light poles.

Setting:

The surrounding setting includes late nineteenth- and early twentieth- century residential and commercial development, and extensive highway interchanges, connector roads, railroads, and port facilities. Newark Bay borders on the west. Densely developed areas of the City of Bayonne and the City of Jersey City extend to the south and north, respectively

BRIDGE ATTACHMENT

Historic Sites #:

Common Name: Bridge over Garfield Avenue

Historic Name: New Jersey Turnpike Newark Bay-Hudson County Extension, Garfield Avenue Overpass

Feature Carried: New Jersey Turnpike Newark Bay-Hudson County Extension and Ramp A

Feature Crossed: Garfield Avenue **Milepost:** N 3.39, N 3.53B

Owner/Operator: New Jersey Turnpike Authority **SI&A Structure Number:**

Construction Date: 1956 **Source:** NYT, 15 September 1956e: 14

Alteration Date(s): Late-Twentieth Century **Source:** Stylistic Evidence

Engineer: Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers

Builder: Unknown

Type: Stringer

Design: N/A

Material: Steel

Physical Condition: Fair/Good

Remaining Historic Fabric: Medium

Spans: 1

Length: Approx. 73 feet

Width: Approx. 140 feet

Patent Holder: N/A

Patent Date: N/A

Description:

An integral component of the Extension, the single-span, steel stringer beam bridge matches similar structures erected along the Extension's length (see Plate 5). Resembling two bridges with common abutments, the substructure consists of two reinforced concrete abutments with sloping wingwalls and integral drain pipes. Each smooth face includes widely spaced, vertical scoring. The superstructure span carrying the main roadway consists of 13 rolled steel stringer beams. The span carrying Ramp A includes five stringers. The deck carries two 36-foot-wide roadways (two 12-foot-wide travel lanes and one 4-foot-wide shoulder) plus a portion of Ramp A over Garfield Avenue. The original timber-form, cast-in-place reinforced concrete deck has been replaced using a fixed corrugated steel form underlayment. The north and south parapet walls retain their original concrete and pipe railings. The structure also features a replaced concrete median and modern light poles.

Setting:

The surrounding setting includes late nineteenth- and early twentieth- century residential and commercial development, and extensive highway interchanges, connector roads, railroads, and port facilities. An electrical substation occupies the northwest quadrant of the crossing. Newark Bay borders on the west. Densely developed areas of the City of Bayonne and the City of Jersey City extend to the south and north, respectively.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☐ **BUILDING** ☒ **STRUCTURE** ☐ **OBJECT**

Common Name:	Bayonne Interchange (Interchange 14A)		
Historic Name:	New Jersey Turnpike Newark Bay-Hudson County Extension, Avenue E Interchange		
Present Use:	Transportation and Movement Activity		
Historic Use:	Transportation and Movement Activity		
Construction Date:	1956 **Source:** NYT, 4 April 1956b: 31		
Alteration Date(s):	Circa 1966-1979; 2000; 2016 **Source:** NETR 1966, 1979, 1995, 2002, 2015, 2017		
Designer:	Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers	**Physical Condition:**	Good
Builder:	Herbert J. Elkins, Inc. (toll plaza)	**Remaining Historic Fabric:**	Low
Style:	Modernistic		
Form:	N/A	**Stories:**	N/A
Type:	N/A	**Bays:**	N/A
Roof Finish Materials:	N/A		
Exterior Finish Materials	N/A		

Exterior Description:

The Bayonne Interchange (Interchange 14A) serves as the southern terminus of the Extension in the City of Bayonne and provides connections to the eastbound and westbound lanes of the Extension from Avenue E and New Jersey Route 440 by means of Port Jersey Boulevard (see Plates 6 and 7). Composed of ramps, roadways, embankments, lawns, toll booths, and an administration building, the Bayonne Interchange is an assemblage of structures and landscape features forming a cohesive whole. Much of the infrastructure has been extensively altered, including the addition of toll booths, reconfiguration of ramps south of the toll booths, and the construction of a wireless tower and associated utility building.

Interior Description:

The interior of the Administration Building consists of a basement and first floor. The building's interior underwent a renovation in 2014, which result in the reconfiguration of the entire first floor and portion of the basement level. The basement is accessed from a set of stairs situated along west wall of the vestibule. The stairs connect to the basement's stair hall, as well as a tunnel that facilitates access to the toll booths from the underground. Stemming from the stair hall is a boiler room and mechanical room. The first floor of the renovated Administration building contains several operational spaces including a room for the toll sergeant, a money counting room, break room and men's and women's lockers. A transformer room and electrical room facing positioned at the north end of the building have separate entrances.

Setting:

The surrounding setting includes late nineteenth- and early twentieth- century residential and commercial development, and extensive highway interchanges, connector roads, railroads, and port facilities. Densely developed areas of the City of Bayonne and the City of Jersey City extend to the south and north, respectively. New York Harbor stretches eastward.

BRIDGE ATTACHMENT

Historic Sites #:

Common Name: Ramp C Bridge over Garfield Avenue
Historic Name: New Jersey Turnpike Newark Bay-Hudson County Extension, Ramp C, Avenue C Overpass
Feature Carried: New Jersey Turnpike Newark Bay-Hudson County Extension, Ramp C
Feature Crossed: Garfield Avenue **Milepost:** N 3.53C

Owner/Operator: New Jersey Turnpike Authority **SI&A Structure Number:**

Construction Date: 1956 **Source:** NYT, 4 April 1956b: 31
Alteration Date(s): Late-Twentieth Century **Source:** Stylistic Evidence

Engineer: Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers
Builder: Unknown
Type: Stringer
Design: N/A
Material: Steel

Physical Condition: Good
Remaining Historic Fabric: Medium
Spans: 1
Length: Approx. 79 feet
Width: 34 feet

Patent Holder: N/A
Patent Date: N/A

Description:
An integral component of the Extension, the skewed, single-span, steel stringer beam bridge matches similar structures erected along the Extension's length (see Plate 8). The substructure consists of two reinforced concrete abutments with sloping wingwalls and integral retaining walls and drain pipes. Each smooth face includes widely spaced, vertical scoring. The superstructure span consists of seven rolled steel stringer beams resting on the abutments. The deck carries Ramp C. The original timber-form, cast-in-place reinforced concrete deck has been replaced using a fixed corrugated steel form underlayment. The north and south parapet walls have been replaced with a concrete Jersey Barrier. The structure also features a replaced concrete median and modern light poles.

Setting:
The surrounding setting includes late nineteenth- and early twentieth- century residential and commercial development, extensive highway interchanges, connector roads, railroads, and port facilities. An electrical substation occupies the southwest quadrant of the crossing. Newark Bay borders on the west. Densely developed areas of the City of Bayonne and the City of Jersey City extend to the south and north, respectively.

BRIDGE ATTACHMENT

Historic Sites #:

Common Name: Southeast Viaduct and Ramp D
Historic Name: New Jersey Turnpike Newark Bay-Hudson County Extension, Southeast Viaduct
Feature Carried: New Jersey Turnpike Newark Bay-Hudson County Extension; Ramp D
Feature Crossed: Ramps B and C; Avenue E Interchange; CRRNJ; PRR; LVRR; and Brown Place
Milepost: N 3.73

Owner/Operator: New Jersey Turnpike Authority
SI&A Structure Number:

Construction Date: 1956
Source: NYT, 15 September 1956e: 14
Alteration Date(s): Late-Twentieth Century
Source: Stylistic Evidence

Engineer: Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers
Builder: Unknown
Type: Stringer
Design: N/A
Material: Steel

Physical Condition: Fair
Remaining Historic Fabric: Medium
Spans: 28
Length: Approx. 2,274 feet
Width: Approx. 103 feet

Patent Holder: N/A
Patent Date: N/A

Description:
An integral component of the Extension and the Bayonne Interchange (Interchange 14A), the Southeast Viaduct includes Ramp D of the Bayonne Interchange (see Plate 9). The viaduct substructure matches similar structures erected along the length of the Extension and consists of two reinforced concrete abutments with sloping wingwalls and pairs of regularly spaced reinforced concrete pier bents, with each bent consisting typically of two tapered square columns and a cantilevered cap forming a narrow triangle arch on the underside. Where the roadway widens, piers are formed of multiple columns and integral caps. Pier size and placement varies, depending on the location of existing railroad tracks and other utilities. The main superstructure includes 23 steel stringer beam spans and five riveted deck girder spans; Ramp D features nine steel stringer beam spans and three riveted deck girder spans. Generally, the superstructure span consists of 12 beams resting on the pier caps, expanding to 18 beams where the Extension widens to join Ramp D. The viaduct carries two 36-foot-wide roadways, each consisting of two 12-foot-wide travel lanes and one 4-foot-wide shoulder. The original timber-form, cast-in-place reinforced concrete deck has been replaced using a fixed corrugated steel form underlayment. The south parapet wall retains its original low concrete curb with pipe railing. The north parapet wall has been replaced with a concrete Jersey Barrier. The structure also features a replaced concrete median, modern light poles, and sign bridges.

Setting:
The surrounding setting consists chiefly of extensive highway interchanges, connector roads, and railroads (active and abandoned). Densely developed areas of the City of Jersey City extend to the west. The east includes port terminal facilities, parkland, and New York Harbor.

BRIDGE ATTACHMENT

Historic Sites #:

Common Name: Bridge over Linden Avenue
Historic Name: New Jersey Turnpike Newark Bay-Hudson County Extension, Linden Avenue Overpass
Feature Carried: New Jersey Turnpike Newark Bay-Hudson County Extension
Feature Crossed: Linden Avenue **Milepost:** N 4.12

Owner/Operator: New Jersey Turnpike Authority **SI&A Structure Number:**

Construction Date: 1956 **Source:** NYT, 15 September 1956e: 14
Alteration Date(s): Late-Twentieth Century **Source:** Stylistic Evidence

Engineer: Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers
Builder: US Steel Corporation American Bridge Division (superstructure)
Type: Stringer
Design: N/A
Material: Steel

Physical Condition: Good
Remaining Historic Fabric: Medium
Spans: 3
Length: Approx. 121 feet
Width: 78 feet

Patent Holder: N/A
Patent Date: N/A

Description:
An integral component of the Extension, the skewed, three-span, steel stringer bridge matches similar structures erected along the Extension's length (see Plate 10). The substructure consists of two reinforced concrete abutments, with elevated earthen approaches and sloped faces, and two pairs of reinforced concrete pier bents, with each bent consisting of two tapered square columns and a cantilevered cap forming a narrow triangle arch on the underside. Each superstructure span consists of 12 rolled steel stringer beams resting on the abutments and pier caps and carries two 36-foot-wide roadways (two 12-foot-wide travel lanes and one 4-foot-wide shoulder) over Linden Avenue. The original timber-form, cast-in-place reinforced concrete deck has been replaced using a fixed corrugated steel form underlayment. The north and south parapet walls have been replaced with a concrete Jersey Barrier. The south side of the bridge and approaches includes a high noise barrier. The structure also features a replaced concrete median and modern light poles.

Setting:
The surrounding setting consists chiefly of highways, connector roads, and railroads (active and abandoned). Densely developed areas of the City of Jersey City extend to the west. The east includes large warehouses, port terminal facilities, parkland, and New York Harbor.

BRIDGE ATTACHMENT

Historic Sites #:

Common Name: Bridge over Chapel Avenue & LVRR National Docks Branch Siding

Historic Name: New Jersey Turnpike Newark Bay-Hudson County Extension, New York Port of Embarkation (N.Y.P.E) Overpass

Feature Carried: New Jersey Turnpike Newark Bay-Hudson County Extension and Eastbound Service Area Ramp

Feature Crossed: Chapel Avenue & LVRR National Docks Branch Siding **Milepost:** N 4.52

Owner/Operator: New Jersey Turnpike Authority **SI&A Structure Number:**

Construction Date: 1956 **Source:** NYT, 15 September 1956e: 14

Alteration Date(s): Late-Twentieth Century **Source:** Stylistic Evidence

Engineer: Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers

Builder: US Steel Corporation American Bridge Division (superstructure)

Type: Stringer

Design: N/A

Material: Steel

Physical Condition: Fair

Remaining Historic Fabric: Medium

Spans: 5

Length: Approx. 374 feet

Width: 90 feet

Patent Holder: N/A

Patent Date: N/A

Description:
An integral component of the Extension, the trapezoidal and skewed, five-span, steel stringer bridge matches similar structures erected along the Extension's length (see Plate 11). The substructure consists of two reinforced concrete abutments, with elevated earthen approaches and sloped faces, two monolithic reinforced concrete piers with cantilevered caps that double as railroad crash walls, and four pier bents, with each bent consisting of two tapered square columns and a cantilevered cap forming a narrow triangle arch on the underside. The superstructure span consists of 14 rolled steel stringer beams resting on the abutments and pier caps, and carries two 36-foot-wide roadways (two 12-foot-wide travel lanes and one 4-foot-wide shoulder) over Chapel Avenue and former LVRR National Docks Branch siding. The original timber-form, cast-in-place reinforced concrete deck has been replaced using a fixed corrugated steel form underlayment. The north and south parapet walls retain their original concrete and pipe railing. The structure also features a replaced concrete median and modern light poles.

Setting:
The surrounding setting consists chiefly of highways, connector roads, and railroads (active and abandoned). Densely developed areas of the City of Jersey City extend to the west. The east includes large warehouses, parkland, and New York Harbor.

BRIDGE ATTACHMENT

Historic Sites #:

Common Name: Bridge over Bayview Avenue and Conrail
Historic Name: New Jersey Turnpike Newark Bay-Hudson County Extension, LVRR Overpass
Feature Carried: New Jersey Turnpike Newark Bay-Hudson County Extension and Ramps B and D
Feature Crossed: Bayview Avenue and Conrail **Milepost:** N 5.34

Owner/Operator: New Jersey Turnpike Authority **SI&A Structure Number:**

Construction Date: 1956 **Source:** NYT, 15 September 1956e: 14
Alteration Date(s): Late-Twentieth Century **Source:** Stylistic Evidence

Engineer: Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers
Builder: US Steel Corporation American Bridge Division (superstructure)
Type: Stringer
Design: N/A
Material: Steel

Physical Condition: Fair
Remaining Historic Fabric: Medium
Spans: 6
Length: Approx. 1,969 feet
Width: Approx. 100 feet

Patent Holder: N/A
Patent Date: N/A

Description:
An integral component of the Extension and the Jersey City Interchange (Interchange 14B), the trapezoidal, skewed, and curved, six-span steel stringer bridge matches similar structures erected along the Extension's length (see Plate 14). The substructure consists of two reinforced concrete abutments, with elevated earthen approaches and sloped faces, and monolithic reinforced concrete piers with cantilevered caps that double as railroad crash walls. The superstructure span consists of 15 rolled steel stringer beams resting on the south abutment and pier caps, expanding to spans at the north abutment and carries two 36-foot-wide roadways (two 12-foot-wide travel lanes and one 4-foot-wide shoulder), as well as Ramps B and C over Bayview Avenue. The original timber-form, cast-in-place reinforced concrete deck has been largely replaced using a fixed corrugated steel form underlayment, although some original sections remain. The north and south parapet walls retain their original concrete and pipe railing. The structure also features a replaced concrete median and modern light poles.

Setting:
The surrounding setting consists chiefly of highway interchanges, connector roads, and railroads (active and abandoned). Densely developed areas of the City of Jersey City extend to the west. The east includes turnpike maintenance and service facilities, warehouses, parkland, and New York Harbor.

BRIDGE ATTACHMENT

Historic Sites #:

Common Name: Bayview Viaduct

Historic Name: New Jersey Turnpike Newark Bay-Hudson County Extension, Bayview Viaduct

Feature Carried: New Jersey Turnpike Newark Bay-Hudson County Extension, Bayview Avenue

Feature Crossed: LVRR: CRRNJ **Milepost:** N 5.56B

Owner/Operator: New Jersey Turnpike Authority **SI&A Structure Number:**

Construction Date: 1956 **Source:** NYT, 15 September 1956e: 14

Alteration Date(s): Late-Twentieth Century **Source:** Stylistic Evidence

Engineer: Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers

Builder: Klevens Corporation

Type: Stringer

Design: N/A

Material: Steel

Physical Condition: Fair

Remaining Historic Fabric: Medium

Spans: 20

Length: Approx. 1,569 feet

Width: Approx. 63 feet

Patent Holder: N/A

Patent Date: N/A

Description:

An integral component of the Extension, the Bayview Viaduct connects the Jersey City Interchange (Interchange 14B) with Bayview Avenue (see Plate 15). The viaduct substructure matches similar structures erected along the length of the Extension and generally consists of two reinforced concrete abutments with sloping wingwalls and pairs of regularly spaced reinforced concrete pier bents, with each bent consisting typically of two tapered square columns and a cantilevered cap forming a narrow triangle arch on the underside. Taller piers consist of two columns and a single cap. Piers flanking railroad corridors are monolithic reinforced concrete with cantilevered caps, which double as railroad crash walls. Pier size and placement varies, depending on the location of existing railroad tracks and other utilities. The superstructure includes 17 steel stringer beam spans and three riveted deck girder spans. Generally, the superstructure span consists of eight beams resting on the pier caps. The viaduct carries two 27-foot-wide roadways, each consisting of two 12-foot-wide travel lanes and one 3-foot-wide shoulder. The original timber-form, cast-in-place reinforced concrete deck, has been replaced using a fixed corrugated steel form underlayment. The north and south parapet walls retain their original concrete and pipe railing. The structure also features a replaced concrete median and modern light poles.

Setting:

The surrounding setting consists chiefly of highway interchanges, connector roads, and railroads (active and abandoned). Densely developed areas of the City of Jersey City extend to the west. The east includes turnpike maintenance and service facilities, warehouses, parkland, and New York Harbor.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☐ **BUILDING** ☒ **STRUCTURE** ☐ **OBJECT**

Common Name: Jersey City Interchange (Interchange 14B)

Historic Name: New Jersey Turnpike Newark Bay-Hudson County Extension, Caven Point Road Interchange

Present Use: Transportation and Movement Activity

Historic Use: Transportation and Movement Activity

Construction Date: 1956 **Source:** NYT, 15 September 1956e: 14

Alteration Date(s): Circa 2016 **Source:** NETR 2015, 2017

Designer: Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers

Physical Condition: Good

Builder: Herbert J. Elkins, Inc. (toll plaza)

Remaining Historic Fabric: Low

Style: Modernistic

Form: N/A

Stories: N/A

Type: N/A

Bays: N/A

Roof Finish Materials: N/A

Exterior Finish Materials N/A

Exterior Description:

The Jersey City Interchange (Interchange 14B) provides direct connections to and from Bayview Avenue (a portion of which consists of the Bayview Viaduct) and the Extension (see Plates 16 and 17). The interchange is an assemblage of buildings, structures, and landscape that form a cohesive whole. Features include ramps, roadways, embankments, lawns, and a toll plaza consisting of four toll booths topped by a flat roof canopy and a mid-twentieth-century, brick administration building. Situated between the interchange's westbound on-ramp and toll plaza is a modern, single-story maintenance garage built circa 2016. A second maintenance garage, dating to the mid-twentieth century, is located east of the interchange ramps along Bayview Avenue (see Plate 17).

Interior Description:

The interior of the Administration Building consists of a basement and first floor. The basement is accessed from a set of stairs situated on the south side of the first-floor corridor. The stairs led to the basement's stair hall, as well as the tunnel that facilitates access to the toll booths from underground. Stemming from the stair hall is a boiler room, unfinished basement area and toll computer room. The first floor of the Administration building contains several operational spaces, including a men's and women's locker rooms, office space, a money counting room and various closet and storage spaces, all of which are accessed from a central corridor to the north of the lobby. Three additional rooms located on the west elevation containing the transformer, generator and maintenance spaces have separate entrances.

The interior of the maintenance garages was not accessed as part of this survey.

Setting:

The surrounding setting consists chiefly of highway interchanges, connector roads, and railroads (active and abandoned). The Interchange connects directly to the Bayview Viaduct, also part of the Extension. Densely developed areas of the City of Jersey City extend to the west. The east includes turnpike maintenance and service facilities, warehouses, parkland, and New York Harbor.

BRIDGE ATTACHMENT

Historic Sites #:

Common Name: Bridge over Ramps B and C

Historic Name: New Jersey Turnpike Newark Bay-Hudson County Extension, Ramps B and C Overpass

Feature Carried: New Jersey Turnpike Newark Bay-Hudson County Extension

Feature Crossed: New Jersey Turnpike Newark Bay-Hudson County Extension, Ramps B and C

Milepost: N 5.56A

Owner/Operator: New Jersey Turnpike Authority

SI&A Structure Number:

Construction Date: 1956 **Source:** NYT, 15 September 1956e: 14

Alteration Date(s): Late-Twentieth Century **Source:** Stylistic Evidence

Engineer: Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers

Builder: US Steel Corporation American Bridge Division (superstructure)

Type: Stringer

Design: N/A

Material: Steel

Physical Condition: Fair

Remaining Historic Fabric: Medium

Spans: 3

Length: 146 feet

Width: 86 feet

Patent Holder: N/A

Patent Date: N/A

Description:

An integral component of both the main Extension and the Jersey City Interchange (Interchange 14B), the skewed, three-span, steel stringer bridge, matches similar structures erected along the Extension's length (see Plate 18). The principal substructure consists of two reinforced concrete abutments, with elevated earthen approaches and sloped faces, and two pairs of reinforced concrete pier bents, with each bent consisting of two tapered square columns and a cantilevered cap forming a narrow triangle arch on the underside. An additional pair of piers with a single column and cantilevered cap underpins Ramp C. Each superstructure span on the main roadway consists of 12 rolled steel stringer beams resting on the abutments and pier caps and carries two 36-foot-wide roadways (two 12-foot-wide travel lanes and one 4-foot-wide shoulder) over Ramps B and C. The Ramp C span includes four rolled steel stringer beams. The original timber-form, cast-in-place reinforced concrete deck, has been replaced using a fixed corrugated steel form underlayment. The north and south parapet walls retain their original concrete and pipe railing. The structure also features a replaced concrete median and modern light poles.

Setting:

The surrounding setting comprises the Jersey City Interchange of the Extension and consists chiefly of mowed lawns, highways, connector roads, and railroads (active and abandoned). The Bayview Viaduct and densely developed areas of the City of Jersey City extend to the west. The east includes large warehouses, port terminal facilities, parkland, and New York Harbor.

BRIDGE ATTACHMENT

Historic Sites #:

Common Name: Bridge over CRRNJ
Historic Name: New Jersey Turnpike Newark Bay-Hudson County Extension, CRRNJ Overpass
Feature Carried: New Jersey Turnpike Newark Bay-Hudson County Extension and Ramps A and C
Feature Crossed: CRRNJ **Milepost:** N 5.66

Owner/Operator: New Jersey Turnpike Authority **SI&A Structure Number:**

Construction Date: 1956 **Source:** NYT, 15 September 1956e: 14
Alteration Date(s): Late-Twentieth Century **Source:** Stylistic Evidence

Engineer: Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers
Builder: US Steel Corporation American Bridge Division (superstructure)
Type: Girder, Deck
Design: N/A
Material: Steel

Physical Condition: Fair
Remaining Historic Fabric: Medium
Spans: 3
Length: Approx. 433 feet
Width: Approx. 110 feet

Patent Holder: N/A
Patent Date: N/A

Description:
An integral component of both the main Extension, the Jersey City Interchange (Interchange 14B), and the Holland Tunnel Interchange Plaza (Interchange 14C), the trapezoidal and skewed, three-span, steel deck girder bridge matches similar structures erected along the Extension's length (see Plate 19). The substructure consists of two reinforced concrete abutments, with elevated earthen approaches and sloped faces, and two monolithic reinforced concrete piers with cantilevered caps, which double as railroad crash walls. Each superstructure span consists of 16 riveted deck girders resting on the abutments and pier caps, expanding to 20 deck girders at the structure's widest, and carries two 36-foot-wide roadways (two 12-foot-wide travel lanes and one 4-foot-wide shoulder) and Ramps A and C over the former CRRNJ main line. The original timber-form, cast-in-place reinforced concrete deck, has been replaced using a fixed corrugated steel form underlayment. The north and south parapet walls retain their original concrete and pipe railing. The structure also features a replaced concrete median and modern light poles.

Setting:
The surrounding setting straddles the area between the Jersey City Interchange (Interchange 14B) (southward) and the Holland Tunnel Interchange Plaza (Interchange 14C) (northward) of the Extension and consists chiefly of highways, connector roads, and railroads (active and abandoned). Densely developed areas of the City of Jersey City extend to the west. The east includes large warehouses, parkland, and New York Harbor.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☐ **BUILDING** ☒ **STRUCTURE** ☐ **OBJECT**

Common Name: Holland Tunnel Interchange Plaza (Interchange 14C)

Historic Name: New Jersey Turnpike Newark Bay-Hudson County Extension, Holland Tunnel Interchange Plaza

Present Use: Transportation and Movement Activity

Historic Use: Transportation and Movement Activity

Construction Date: 1956 **Source:** NYT, 15 September 1956e: 14

Alteration Date(s): **Source:**

Designer: Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers

Physical Condition: Good

Builder: Herbert J. Elkins, Inc.

Remaining Historic Fabric: Low

Style: Modernistic

Form: N/A

Stories: N/A

Type: N/A

Bays: N/A

Roof Finish Materials: N/A

Exterior Finish Materials N/A

Exterior Description:
The Holland Tunnel Interchange Plaza (Interchange 14C) is a complex of structures and landscape features forming a cohesive whole (see Plate 20). The toll plaza consists of 11 toll booths covered by a continuous flat roof canopy overhang and a one-story, mid-twentieth-century, brick administration building situated along the Extension eastbound lanes. The number of travel lanes through the toll plaza increased during the late-twentieth century to accommodate more traffic. As a result, much of the infrastructure within this section of the Extension, including the number of toll lanes, has been altered since its original 1956 construction.

Interior Description:
The interior of the Administration Building consists of a basement and first floor. The basement is accessed from a set of stairs located in the first-floor lobby, which connects to the basement's stair hall, as well as the tunnel that facilitates access to the toll booths from underground. Stemming from the stair hall are storage and mechanical spaces. The first floor of the Administration Building contains several key operational spaces, including the men's and women's locker rooms, a money counting room, toll equipment room, toll sergeant office, and various closet spaces, all of which are accessed from a central corridor.

Setting:
The surrounding setting consists chiefly of highways, connector roads, and railroads (active and abandoned). Densely residential developed areas of the City of Jersey City are located to the west within this section of the extension. To the east of the Holland Tunnel Interchange Plaza, there are pockets of commercial development separated from New York Harbor by dense, undeveloped land.

BRIDGE ATTACHMENT

Historic Sites #:

Common Name: East/West Viaduct and Ramps A and B

Historic Name: New Jersey Turnpike Newark Bay-Hudson County Extension, East Viaduct, West Viaduct, and Ramps A and B

Feature Carried: New Jersey Turnpike Newark Bay-Hudson County Extension and Ramps A and B

Feature Crossed: Multiple **Milepost:** N 6.49, N 6.80E, N 6.80W, N 7.13

Owner/Operator: New Jersey Turnpike Authority **SI&A Structure Number:**

Construction Date: 1956 **Source:** NYT, 15 September 1956e: 14

Alteration Date(s): 2006 **Source:** Greenman-Pedersen, Inc. 2006

Engineer: Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers

Builder: Baldwin-Lima Hamilton Corporation (steelwork)

Type: Stringer

Design: N/A

Material: Steel

Physical Condition: Fair

Remaining Historic Fabric: Medium

Spans: Multiple

Length: 7,961 feet (viaduct and ramps)

Width: Various

Patent Holder: N/A

Patent Date: N/A

Description:

An integral component of the Extension, the East/West Viaduct and Ramps A and B connect the Extension at Communipaw Avenue (present-day Jersey City Boulevard) with the North Terminal Ramps leading to the approaches to the Holland Tunnel (see Plates 21-23). While divided into east and west sections for the purposes of contracting, the elevated, serpentine structure is a single unit matching similar high structures erected along the length of the Extension. It includes one reinforced concrete abutment with a sloped face and regularly spaced reinforced concrete pier bents of varying types. The majority consist of two tapered square columns supporting a common cantilevered cap. Piers flanking former railroad corridors are monolithic reinforced concrete with cantilevered caps, which double as railroad crash walls. Pier size and placement varies widely, depending on eastbound and westbound lanes and the location of existing railroad tracks and other utilities. Pier heights also vary to accommodate the superelevation of the highway. Rolled steel stringers make up most spans; wider distances feature riveted steel deck girders. Areas involving tight pier clearances utilize riveted steel brackets to carry the full roadway width. The superstructure width also varies, but generally consists of two 27-foot-wide roadways, each consisting of two 12-foot-wide travel lanes and one 3-foot-wide shoulder. The original timber-form, cast-in-place reinforced concrete deck, has been largely replaced using a fixed corrugated steel form underlayment. The north and south parapet walls have been replaced with a concrete Jersey Barrier. The structure also features a replaced concrete median and modern light poles. The eastbound lanes were widened in 2006 to accommodate a new deceleration lane.

Setting:

The surrounding setting consists chiefly of highways, connector roads, and railroads (active and abandoned). Densely developed areas of the City of Jersey City surround the corridor with the foot of Bergen Hill rising immediately to the west and New York Harbor adjoining to the east.

BRIDGE ATTACHMENT

Historic Sites #:

Common Name: North Terminal Ramps

Historic Name: New Jersey Turnpike Newark Bay-Hudson County Extension, Eastbound and Westbound Terminal Ramps

Feature Carried: New Jersey Turnpike Newark Bay-Hudson County Extension and Terminal Ramps

Feature Crossed: Multiple **Milepost:** N 7.52, N 7.90E, N 7.93W

Owner/Operator: New Jersey Turnpike Authority **SI&A Structure Number:**

Construction Date: 1956 **Source:** NYT, 15 September 1956e: 14

Alteration Date(s): Late-Twentieth Century **Source:** Stylistic Evidence

Engineer: Charles M. Noble, Chief Engineer, NJTA; Howard Needles Tammen & Bergendoff, Consulting Engineers

Builder: Unknown

Type: Stringer

Design: N/A

Material: Steel

Physical Condition: Fair

Remaining Historic Fabric: Medium

Spans: Multiple

Length: 6,432 feet

Width: Various

Patent Holder: N/A

Patent Date: N/A

Description:

An integral component of the Extension, the North Terminal Ramps connect the inbound and outbound approaches of the US Route 1 Extension (Pulaski Skyway) to the Holland Tunnel with the eastbound and westbound lanes of the Extension's East/West Viaduct (see Plates 24 and 25). While treated separately for the purposes of construction contracting, the two arcing elevated ramps match similar high structures erected along the length of the Extension. This includes regularly spaced reinforced concrete pier bents of varying types. The majority consist of two tapered square columns supporting a common cantilevered cap. Piers flanking former railroad corridors are monolithic reinforced concrete with cantilevered caps, which double as railroad crash walls. Pier size and placement varies, depending on the location of existing railroad tracks and other utilities. Pier heights also vary to accommodate superelevation of each ramp. Rolled steel stringers make up most spans; many wider distances feature riveted steel deck girders, while the westbound spans over the former Erie Railroad main line utilize riveted through girders to achieve the required under-clearance. The superstructure width of each ramp generally consists of a 27-foot-wide roadway with two 12-foot-wide travel lanes and one 3-foot-wide shoulder. The original timber-form, cast-in-place reinforced concrete deck has been largely replaced using a fixed corrugated steel form underlayment. With small exceptions along both ramps, the parapet walls have been replaced with a concrete Jersey Barrier. The structure also features a replaced concrete median and modern light poles. One original sign bridge straddles the entrance to the westbound ramp.

Setting:

The surrounding setting straddles the area between the Holland Tunnel Interchange Plaza (southward) and the North Terminal Ramps leading to the tunnel bores and consists chiefly of highways, connector roads, and railroads (active and abandoned). Densely developed areas of the City of Jersey City surround the corridor with the foot of Bergen Hill rising immediately to the west and New York Harbor adjoining to the east.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
See Continuation Sheet

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:

See Continuation Sheet

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:
N/A

List the completed attachments related to the property's significance:

Historic District Overlay: Newark Bay-Hudson County Extension
Bridge Attachment: Newark Viaduct
Bridge Attachment:: Newark Bay Bridge
Bridge Attachment: Bridge over JFK Boulevard
Bridge Attachment: Bridge over Avenue C
Bridge Attachment: Bridge over Garfield Avenue
Building/Element Attachment: Bayonne Interchange Plaza (Interchange 14A)
Bridge Attachment: Ramp C Bridge over Garfield Avenue
Bridge Attachment: Southeast Viaduct and Ramp D
Bridge Attachment: Bridge over Linden Avenue
Bridge Attachment: Bridge over Chapel Avenue & LVRR National Docks Branch Siding
Bridge Attachment: Bridge over Bayview Avenue and Conrail
Bridge Attachment: Bayview Viaduct
Building/Element Attachment: Jersey City Interchange (Interchange 14B)
Bridge Attachment: Bridge over Ramps B and C
Bridge Attachment: Bridge over CRRNJ
Building/Element Attachment: Holland Tunnel Interchange Plaza (Interchange 14C)
Bridge Attachment: East/West Viaduct and Ramps A and B
Bridge Attachment: North Terminal Ramps

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

Description: *Continued from Bridge Attachment: Newark Bay Bridge*

Substructure - The two long, gradually ascending approaches consist of both closely spaced spans located primarily over firm land and more widely spaced spans located over softer fill or open water. Two kinds of reinforced concrete piers form the underpinnings for each span type. Close span widths are supported by pairs of pier bents, with each bent consisting of two tapered, square columns and a cantilevered cap forming a narrow triangle arch on its underside. The wider spans are supported by a single pier bent composed of two heavy tapered square columns and a single narrower cross-tie cap forming one broad triangle arch on its underside. Those piers, erected in water, rest on solid concrete bases veneered in gray granite. Piers located at transition points between span types employ significantly thicker buttressed columns and narrower cross-tie caps. A timber fender system guards the two piers flanking the main channel. The structure also features one common reinforced concrete abutment embanked in fill at its eastern extreme.

Superstructure – Each closely spaced span is crossed by 12 welded steel stringer beams resting on the pier caps. Widely spaced spans feature two large, riveted steel fascia girders resting directly on each pier column, which are tied together with regularly spaced transverse girders. The east approach includes 15 steel stringer beam spans and 17 steel riveted girder spans. The west approach consists of 30 beam spans and 13 girder spans. The main span consists of a three-part, cantilevered through-truss with east and west anchor arms and a central shouldered tied-arch span. Totaling 1,270 feet in overall length, the truss's two anchor arms measure 300 feet wide apiece and the center arch measures 670 feet wide. The main truss arch span is tied together at its base by a suspended, fixed bottom cord. The suspension system also carries the road deck. The replacement outer parapet walls and median divider consist of modern solid concrete Jersey Barriers. The structure also features modern light poles, fixed overhead directional signage, and new security fencing.

History:

Introduction

The New Jersey Turnpike Authority (NJTA) was established in 1948 to regulate and maintain the New Jersey Turnpike, a major north-south arterial superhighway, which opened in stages until 1952, when it reached its full extent between Deepwater and the George Washington Bridge. (NJTA 83-84). When completed in 1956, the Newark Bay-Hudson County Extension to the Turnpike was the latest in a long list of transportation links between the New Jersey mainland and the Hudson County peninsula. Of the various earlier highway routes, the Newark Turnpike (NJ Route 7), the Pulaski Skyway (Route 1 & 9), the Newark Plank Road (Communipaw Avenue/US Lincoln Highway), and the Goethals Bridge/Bayonne Bridge route, built by the precursor to the modern Port Authority of New York and New Jersey (PANYNJ), were the most important, with the former three crossing the Meadowlands and Hackensack rivers and the latter crossing the Arthur Kill and Kill Van Kull waterways (Modica 2015). All were developed in response to the need to connect the New Jersey shoreline along New York Harbor with the state's interior. Early railroad corridors dominated these routes into the early twentieth century. However, with the introduction of the automobile, planners faced new challenges. The combined Goethals Bridge/Bayonne Bridge route (1928-1931) and the Pulaski Skyway (1932) marked the first major attempts to connect the Hudson County peninsula and greater port region with modern automotive expressways; they were each major engineering achievements for their age.

Newark Bay-Hudson County Extension

From the beginning, the idea of building a separate highway bridge across the middle of Newark Bay factored into the early planning for the New Jersey Turnpike (NJTA 1954: 77). While most heavy commercial goods moving to and from the Port of New York continued to travel by rail, by the end of World War II an explosion of truck traffic claimed a significant share of the commerce. The PANYNJ opened the Lincoln Tunnel and constructed new centralized truck transfer stations at Delancy Street, Newark, and Manhattan. New Jersey also recognized the importance of encouraging its own commercial interests around Newark Bay. New Jersey Governor Alfred E. Driscoll made better coordination and development of highway, rail, air, and water transportation a priority for his administration when he took office in 1947 (NYT, 25 October 1950: 41). The proposed New Jersey Turnpike would serve as a key conduit for speeding people

History, continued:

and goods around the region. In 1949, planners of the new Turnpike described the importance of the turnpike to the Greater Metropolitan Region:

> The Port Street-Newark interchange [of the Turnpike] will serve as a most important collecting and distributing point for traffic to and from Route No. 29 toward western New Jersey and Pennsylvania, the Newark Airport, The Port of New York Authority truck terminal now under construction, and a large portion of the city of Newark. It is most probable that the highest density of travel over the Turnpike will develop adjacent to this interchange. A major factor should be the heavy movement of passenger vehicles to and from Pulaski Skyway and the Holland Tunnel by way of the Route 25 viaduct north of Newark Airport, also to this interchange would be connected the proposed Newark Bay Bridge to Jersey City and Bayonne, which has been very seriously proposed (NJTA 1949: 4).

The contemplated link across Newark Bay, originally known as the Jersey City Expressway, would connect the new turnpike at its interchange adjacent to Newark Airport with the Holland Tunnel. The immediate effect would be to relieve the heavy vehicular traffic then choking the Pulaski Highway. It also promised to speed up connections between Manhattan and the Newark Airport. Concurrent plans to expand the tunnel with additional bores were among the discussed improvements within the PANYNJ and by Robert Moses, head of the New York City Planning Commission, whose contemplated Lower Manhattan Expressway would link with the tunnel. A second scheme, to continue the turnpike's new extension into Hoboken to connect to a new state highway link with the Lincoln Tunnel, also remained on the books for many years. At the same time, Bayonne and Jersey City looked at ways to make their shorelines more productive, and this included an idea in 1950 to construct a ring road along the banks of Newark Bay and New York Harbor to improve truck traffic and open millions of dollars' worth of waterfront property to industrial development (NYT, 25 October 1950: 41). Traffic collected from all these points would then speed across Newark Bay and funnel into the New Jersey Turnpike.

Early Planning and Design

Early studies demonstrated that completing just the Newark Bay Bridge without the corresponding expressway or similar feeder artery to Manhattan was not economically feasible as a toll road. The NJTA continued to study the viability of the full expressway while waiting to assess the impacts of new traffic patterns resulting from the opening of the main turnpike (NJTA 1952: 88). At the direction of the governor, the New Jersey State Highway Department proceeded with engineering studies and working drawings for a highway bridge across Newark Bay in order to avoid delays. "If this project later proves feasible on a revenue bond basis," noted the NJTA, "the construction will be undertaken by the Turnpike Authority" (NJTA 1952: 88).

By the end of 1952, the traffic engineering firm of Coverdale & Colpitts determined that tolls on the proposed expressway would pay for the initial investment within 23 years, and the project was then made a top priority for the NJTA (Courier Post, 22 August 1952: 2; NJTA 1953: 67). The state legislature passed new legislation in June 1952, granting authority to the NJTA to build the expressway, and the project was formally named the Newark Bay-Hudson County Extension (NJTA 1954). In August 1952, the NJTA optimistically reported that construction might begin on the bridge across the bay before the end of the year if new financing could be worked out (Courier Post, 22 August 1952: 2).

The bridge became the controlling factor in the entire 8.1-mile-long Extension project (NJTA 1954: 17). Once its position was fixed, construction could commence while designs were advanced on the rest of the Extension. The firm of Howard Needles Tammen & Bergendoff (now HNTB) of New York and Kansas City, consulting engineers for the original turnpike project, completed the design for the entire Extension (Figures 1-22). Enoch R. Needles (1888-1972) served as the lead engineer from HNTB, along with the firm's bridge engineer, Ellis E. Paul (1901-1984) (NYT, 5 July 1984: D8). NJTA's Chief Engineer, Charles M. Noble, formerly of the State Highway Department, served as overall

History, continued:

head of the project. Needles gave special attention to major bridge and highway projects after World War II, working not only on the New Jersey Turnpike project, the twin Delaware Memorial Bridges, and the Newark Bay Bridge, but also on turnpikes in Maine, Massachusetts, and West Virginia (NYT, 7 January1972: 35).

With basic designs complete, the NJTA commissioners submitted their plans to Hudson County officials on August 18, 1953 (NJTA 1954: 77). The NJTA wished to avoid a mistake made during construction of the main turnpike, where a lack of consultation angered local officials, community leaders, and constituents who found their neighborhoods taken, demolished, and severed by the initial Turnpike project. This time, the NJTA was careful to engage directly with leaders of the affected communities (Courier Post, 22 August 1952: 2). The county stood to experience significant impacts from the construction of the Extension, and the commissioners stressed the benefits it would bring to the county. "There has been a great need for many years," read the justification in the NJTA's annual report, "to relieve the congestion on streets and highways in Jersey City and Bayonne, and, incidentally, to pave the way for the future development of the adjacent water front [sic] and industrial property which forms a vital part of the Greater New York Metropolitan area" (NJTA 1954: 77). Traffic studies noted that an estimated 73 percent of the traffic expected to use the Extension would originate on, or be destined for, the Hudson County peninsula, with the remainder heading to and from the Holland Tunnel. Threading the route for the Extension through the densely developed area, however, proved difficult. Ultimately, engineers were forced to carry 68 percent of the expressway on a viaduct over railroad yards, city streets, major public utilities, and other rights-of-way, contributing to the entire Extension's staggering cost (The News, 26 July 1954: 22; NJTA 1956: 32). In order to serve the local community, the limited access highway included four interchanges in Hudson County: Avenue E in Bayonne, and Bayview Avenue, Montgomery Street, and the Holland Tunnel in Jersey City.

The designs for the Extension relied on standardized plans developed for the Turnpike's main stem which, in turn, resembled most post-1945 highway structures. Smaller bridges formed with small, rolled steel stringers featured plain reinforced concrete abutments with wingwalls, sheer faces, or sloping earthen toes, depending on circumstances. Intermediate supports were typically provided by pairs of reinforced concrete pier bents. Each bent underpinned one direction of roadway and consisted of two tapered square columns supporting a single cantilevered cap. The number and frequency of bends increased or decreased, depending on the number of lanes carried. For wider spans formed by riveted steel deck girders, the piers consisted of a single bent composed of two tapered, reinforced concrete columns and a single concrete cap with each column positioned directly under each fascia girder. Long viaducts utilized different types of substructures, depending on pier spacing, the type of superstructure involved, and elevation. Pier heights varied depending on features crossed, with some pier bents achieving exceptional heights at the Newark Bay Bridge approaches and along the East/West Viaduct. Because some piers stood in busy railroad corridors and were susceptible to failure if struck by a derailed train, the designers substituted monolithic piers of solid concrete in such instances. These were designed to withstand heavy impacts and doubled as railroad crash walls to help contain wreckage. All superstructures utilized deck construction with two exceptions: the Newark Bay Bridge needed a truss superstructure to span the navigation channel, and the westbound North Terminal Ramp required a through girder span to achieve the right clearances over the former Erie Railroad main line. In just a few instances with tight clearances, the Extension planners used brackets to achieve the necessary roadway width. The road deck throughout the extension consisted of a reinforced concrete slab poured over temporary wooden forms (Figure 23).

Before work could begin, the NJTA had to raise additional bond money to support the project. As the designs advanced, the authority finally secured the additional funding using bonds backed by anticipated toll revenues. On October 14, 1953, it sold $150 million in new long-term bonds to a syndicate of brokerage houses that quickly unloaded them on eager investors (NYT, 15 October 1953a: 51).

History, continued:

Construction

The task of construction was divided into multiple contracts beginning with the Newark Bay Bridge. These were awarded on December 9, 1953 to the lowest bidders. Drago Corporation of Pittsburgh, Pennsylvania won the job to erect the main bridge piers. Merritt-Chapman & Scott Corporation of New York City received two contracts to build the piers for both the east and west approaches (NYT, 10 December1953b: 59). Bethlehem Steel Company won the key contracts to fabricate and erect the bridge's steel superstructure under the supervision of the company's resident engineer, John L. McGonigle (NYT, 15 February1955a: 29; 11 August 1955b: 53).

Construction of the Extension required major filling through the Newark Meadows and out to the established pier lines on both sides of Newark Bay, as well as building clearing in Bayonne and Jersey City (HNTB 1952). These required 200,000 cubic yards of material taken from various pits around New Jersey (The Record, 6 January 1955: 39). Work on the Newark Bay Bridge was well underway by July 1954, when the NJTA began to characterize the entire Extension project as "the costliest road in the world, mile for mile" (NYT, 25 July 1954a: 61). In August, the NJTA issued contracts to the Villa Constructing Company of Westfield for grading and substructure work at the Newark Airport Interchange and to Charles F. Vachris, Inc. for building the Newark Viaduct substructure (Morning Call, 28 August 1954: 11).

Piers for the bridge started to rise on the approach spans and in the bay in September (NYT, 16 September 1954b: 31). On October 31, 1954, the NJTA awarded a third round of major contracts to complete other parts of the Extension in both Newark and Bayonne (Central New Jersey Home News, 1 November 1954: 3). Reid Contracting Company of Woodbridge received the job of grading, paving, and drainage around the new Bayonne Interchange. Harris Structural Steel Company of New York was selected to fabricate the Newark Viaduct superstructure. Bethlehem Steel Company of New York won contracts for superstructures at the Newark Airport and Bayonne Interchanges, and Poirier and McLane Corporation of New York were charged with erecting superstructures for four bridges near the Newark Bay Bridge (probably JFK Boulevard, Avenue C, Garfield Avenue, and Ramp C over Garfield Avenue). These contracts allowed the NJTA to push forward the first part of the Extension between Newark and Bayonne with the goal of opening the bridge to traffic before completing the rest of the project.

By December 1, 1954, the NJTA had awarded the job of building the superstructures for five bridges between Linden Avenue and Phillip Street to the American Bridge Division of the US Steel Corporation (The News, 1 December 1954: 60). Bids for other key elements were opened and read on December 29 (Central New Jersey Home News, 29 December 1954: 2). These included low bids from the Baldwin-Lima Hamilton Corporation of Eddystone, PA for the steelwork for the eastern part of the East/West Viaduct and the Horn Construction Company of New York for the Southwest Viaduct substructure. Bids covering the substructures for the five bridges between Linden Avenue and Phillip Street were opened and read on December 30, although the contract winner is not recorded (The News, 1 December 1954: 60).

The NJTA issued additional unspecified contracts totaling more than $6 Million on March 30, 1955 (Central New Jersey Home News, 31 March 1955: 7. These may have included contracts to Klevens Corporation of Yonkers, New York to build the Bayview Viaduct and to Brookfield Construction Company, Inc. of New York for the timber forms and poured-in-place concrete decking. By late June of 1955, grading work at the Bayonne Interchange, and the substructure construction on the Southeast Viaduct were well underway (Figure 24). In July, Herbert J. Elkins, Inc. won the contract for building miscellaneous buildings and the toll plazas, and Taller & Cooper, Inc., of Brooklyn, NY obtained the job for toll booths on both the Extension and its sister connection to the Pennsylvania Turnpike (The Record, 22 July 1955: 32; Sunday News, 4 September 1955: 20).

Construction advanced rapidly through 1955, despite significant shortages of critical raw materials, especially steel (NJTA 1956). On August 10, 1955, under the watchful eye of the contractor's resident engineer, John L. McGonigle, the travelling cranes hoisted the final 75-foot-long, 21-ton length of the bridge's steel arch's top cord into place, closing

History, continued:

the span (NYT, 11 August 1955b: 23). The retreating cranes then worked their way back to opposite ends of the arch while installing the cables, floor beams, transverse beams, and stringers forming the bottom cord and road deck. The reinforced concrete pavement was sufficiently complete by late November 1955, to expedite contractor access back and forth across the bay (NJTA 1956: 33). The work was not without accident. In late November, a workman with Brookfield Construction Company, Inc., who was engaged in removing the temporary timber forms beneath the recently poured concrete road deck, lost his life when scaffolding toppled on him (The Herald, 25 November 1955: 1).

Work on the Newark Airport interchange, connecting viaduct, and the Bayonne Interchange at Avenue E neared completion in early 1956 (Figures 25-27). The initial toll for a one-way trip between the airport and Bayonne was set at 25 cents. When opened to the Holland Tunnel, the entire trip to the Holland Tunnel would cost 35 cents per automobile. Buses would pay 70 cents, and commercial trucks $1 (NYT, 9 January 1956a: 27; 4 April 1956b: 31; Ingraham 1956: X21). With former Governor Alfred E. Driscoll in attendance, New Jersey Governor Robert B. Meyner and NJTA Chairman Paul M. Troast cut the dedication ribbon at the center of the arch on April 4, 1956 (NYT, 4 April 1956b: 31). In their speeches, both Meyner and Troast repeated promises for speedier travel times between Newark and Downtown New York, as well as a spur to further growth and development for the region (NYT, 5 April 1956c: 20).

Five months later, on September 15, 1956, the governor and Troast reprised their performance when they dedicated the Bayonne-to-Jersey City segment of the Extension at a ceremony held at the Holland Tunnel toll plaza, thus opening the new expressway to traffic (NYT, 15 September 1956e: 14). Fellow dignitaries included James F. Murray, Jr., the state senator from Hudson County, and Mayor Bernard Berry of Jersey City (NYT, 16 September 1956f: 61). The full length of the Newark Bay-Hudson County Extension stretched 8.1 miles with nearly two-thirds of it elevated on a concrete and steel viaduct of standard NJTA design (Figures 28-30). Excluding the bridge, the Extension consumed 92,000 tons of structural steel and 314,000 cubic yards of concrete. Including the bridge, the entire project cost $120,000,000, or almost $14.6 million per mile (NYT, 9 January1956a: 27; 16 September 1956f: 61). Newspapers dubbed it the costliest roadway per mile in the world (NYT, 20 May 1956d: 145). The new expressway created the third direct link between the New Jersey Turnpike and Manhattan. The others included the Lincoln Tunnel and the George Washington Bridge. In addition to toll plazas and miscellaneous on and off ramps, the Extension also featured a maintenance facility and two service areas for eastbound and westbound traffic in the vicinity of Caven Point. The latter were completed in 1957 and named after John Stevens (eastbound) and Peter Stuyvesant (westbound) (NJTA 1957: 33).

The completion of the Newark Bay-Hudson County Extension, along with a similar connection constructed across the Delaware River to the Pennsylvania Turnpike, marked the end of the NJTA's initial build-out. A contemplated continuation of the Extension into Hoboken to meet with a proposed link to the Lincoln Tunnel never materialized, while major plans to extend the main Turnpike from its northern terminus to the New York state line and to construct an east-west route to the Delaware Water Gap gave way to non-NJTA highway projects funded under the newly enacted National Highway Act of 1956 (Ingraham 1956: X21; NJTA 1957).

Post-construction Changes

Annual reports of the NJTA, as well as historic aerial photographs, construction drawings, and newspaper accounts, record a host of maintenance activities and major construction projects involving both the bridge and the entire Extension. By 1960, the interchange at Newark Airport already proved inadequate for the volume, and the NJTA launched plans to replace the entire facility (NJTA 1961). General repairs to the Newark Bay-Hudson County Extension were reported in 1961 (NJTA 1962: 17). During 1963, the NJTA discovered significant spalling to the concrete road deck along the entire Newark Bay-Hudson County Extension and launched a patching program followed by a full resurfacing of the deck with asphalt to protect the concrete underlayment (NJTA 1964: 18; 1966). The Newark Bay Bridge underwent its first repainting in 1966 (NJTA 1967: 22).

CONTINUATION SHEET

Historic Sites #:

History, continued:

The same year, the NJTA issued new bonds to cover a major widening and expansion plan, creating a 12-lane car and truck lane configuration along a 30-mile span in the northern portion of the Turnpike (Herald-News, 22 September 1966: 1). The Newark Airport Interchange underwent extensive changes at that time, mainly involving reconfigured entrance and exit ramps. The principal bridges, however, including that across the Turnpike's main stem, remained unchanged (NETR 1966, 1970).

Beginning in 1974, the NJTA initiated a major five-year deck repair program to the bridge (NJTA 1978: 4). Other changes included 12 new overhead directional signs along the Newark Bay-Hudson County Extension to replace older ground-mounted ones (NJTA 1978: 4). Meanwhile, the original northbound and southbound service areas at Caven Point were closed in the late 1970s and eventually demolished (National Environmental Title Research [NETR] 1979, 1985, 1987, 1995). Completing Interstate 78 in the late 1970s forced an expansion to the Newark Interchange toll booths (NETR 1970, 1979). Increased traffic on the Extension inevitably followed.

In 1983, after a long study in conjunction with the Federal Highway Administration regarding the best design for a new median divider capable of containing large tractor trailer trucks, the NJTA installed a test section of the high-strength concrete structure along a two-mile section of the Newark Bay-Hudson County Extension (NJTA 1984: 3). This was followed by a complete reconstruction of the center median on the Newark Bay Bridge during 1984 (NJTA 1984: 3, 5). The Newark Interchange toll plaza was again enlarged and reconfigured circa 1990 (NETR 1987, 1995). In 1995, the NJTA named the Newark Bay Bridge in honor of Bayonne State Assemblyman Vincent R. Casciano.

During the early 2000s, the NJTA widened the eastbound deceleration lane and Grand Street exit on the expressway, followed in 2010 by the start of a major multi-year deck reconstruction project on the Newark Bay Bridge and other miscellaneous changes along the entire Newark Bay-Hudson County Extension. Among these was a reworking of the Bayonne Interchange (Interchange 14a) (Dewberry-Goodkind, Inc. 2011). The original outer parapet walls and metal pipe rail along many stretches of the Extension were replaced with a concrete Jersey barrier-shaped parapet wall. Across the Newark Bay Bridge, this change included a top of high fencing. Additional improvements included new lighting and modern overhead directional signs (URS Corporation 2010). The first phase of the project was finished in 2013. Later planned improvements were delayed. Then on December 27, 2017, a portion of the Expressway decking collapsed, requiring an emergency closure of lanes for two days (Bier 2018). Plans are now underway to replace the entire Newark Bay Bridge and rebuild many elements of the extension.

Significance:

Based on the findings of the historic context, the Newark Bay-Hudson County Extension was evaluated for possible NRHP significance in the areas of Transportation and Engineering. The corridor contributed little to broad patterns in the history of transportation (Criterion A). It was the last of a number of previous highway routes developed between the New Jersey mainland and the Hudson County peninsula in the preceding 200 years, most notably the Goethals Bridge/Bayonne Bridge route and the Pulaski Skyway. These two corridors were built at the beginning of the automobile age and represented the earliest efforts by New Jersey and the Port of New York Authority, predecessor to today's PANYNJ, to adapt the Port of New York to individual passenger and commercial truck traffic. The route was also the fourth major transportation corridor to cross Newark Bay or its marshy headwaters at the mouths of the Passaic and Hackensack rivers. The earlier structures served railroad companies, which provided the chief means for moving goods and people into and out of the port for 100 years. By the time the Newark Bay-Hudson County Extension was finished, these railroads were already in significant decline as a result of the rise of the automobile; completion of the Extension merely punctuated the nationwide post-World War II dependency on automotive transport and its impact on the port region. As part of the larger New Jersey Turnpike corridor, the Extension helped reduce travel times and served as a feeder into the Turnpike system, but as part of a limited-access expressway, the Extension contributed little to appreciable changes in patterns of growth in Bayonne or Jersey City.

CONTINUATION SHEET

Historic Sites #:

Significance, continued:

A review of individuals involved with the planning, engineering, construction, and operations of the Newark Bay-Hudson County Extension failed to identify associations with the lives of persons significant in the past (Criterion B).

In the area of engineering, the Extension relied on both standard designs adopted by the NJTA for its bridge piers, beam and girder spans, and parapet walls erected elsewhere along the Turnpike's main line, as well as a type of cantilevered through-truss and shouldered tied arch design that had already found widespread use for big bridges across the country. Case in point: the NJTA adopted the same general type of span to cross the Delaware River for its Pennsylvania Turnpike connection. Thus, by the time the Extension was finished, it utilized ordinary forms employing common technologies, designs, engineering approaches, methods of construction, and operations (Criterion C) and does not have the potential to yield important historical information (Criterion D). Strictly utilitarian in its original finishes, and the subject of many recent changes to its median, parapet walls, bridge decking, and sign bridges, the Extension does not possess high artistic value. The engineers, contractors, and builders associated with its construction contributed widely to highway construction projects elsewhere in the nation. While prolific, these individuals were not known for design innovation or engineering daring and are therefore not considered masters of bridge design for the purposes of this evaluation. RGA concludes that the Newark Bay-Hudson County Extension lacks overall significance as a historic district under NRHP Criteria.

The Newark Bay Bridge, as a major bridge structure within the corridor, also has been evaluated separately for possible individual eligibility under NRHP Criteria (see HPO Log # B2022-011).

Justification of Eligibility/Ineligibility:

The Newark Bay-Hudson County Extension lacks overall significance under Criteria A, B, and C. Moreover, many of the component parts have been altered, including replacement of original decks, median, and parapet walls, along with the addition of new overhead directional signs, lighting, and security fencing. Other changes to original fabric include the demolition of the eastbound and westbound service areas, the addition of a new deceleration lane, and numerous alterations to the Newark Airport, Bayonne, and Jersey City Interchanges, as well as the Holland Tunnel Interchange Plaza. These changes impact the corridor's integrity of design, materials, and workmanship. Because the Extension lacks overall significance and has experienced significant losses to its integrity, RGA recommends the resource not eligible for listing in the NRHP under Criteria A, B, C, or D as a potential historic district.

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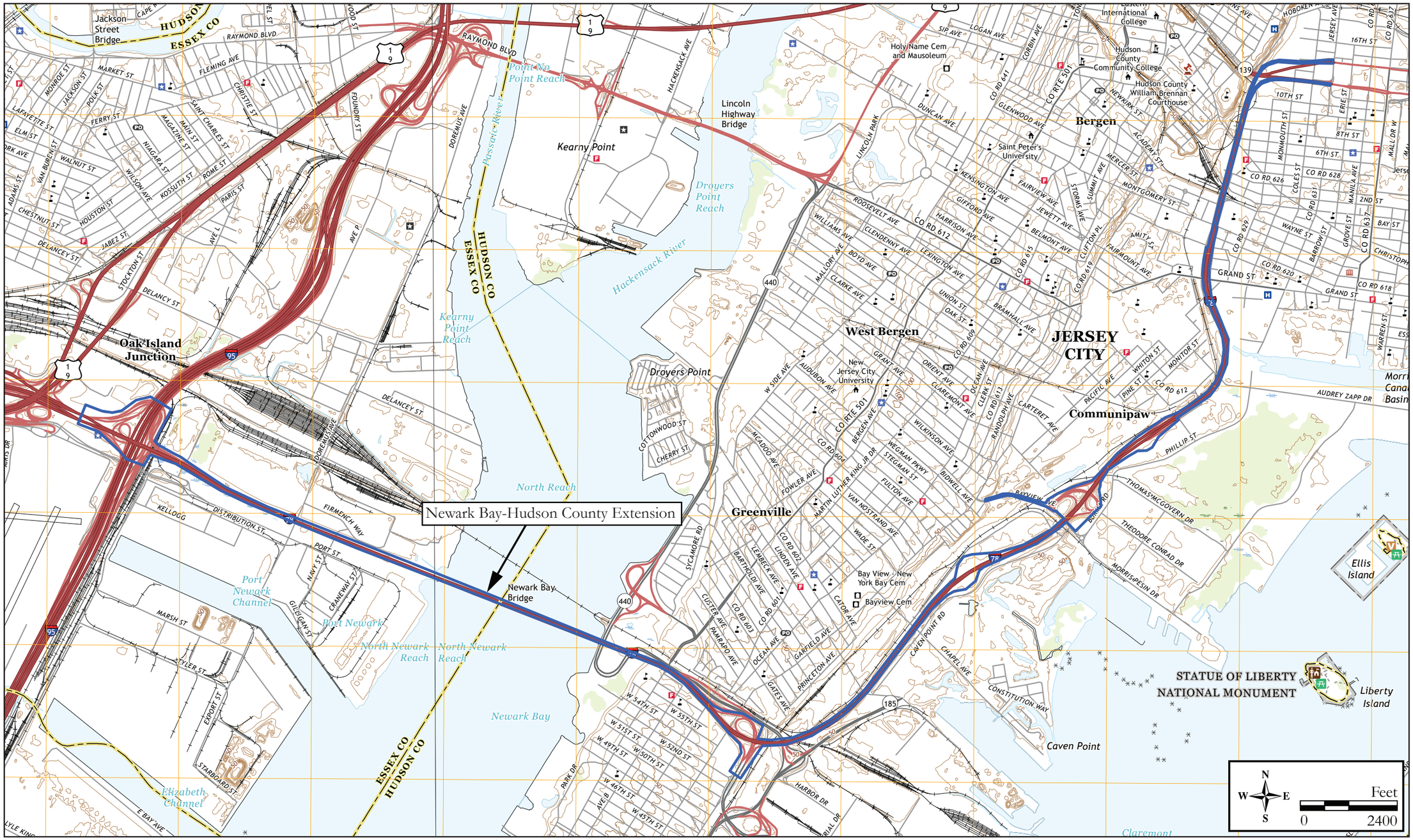

Location Map (2019 U.S.G.S. 7.5' Quadrangles: Elizabeth, NJ-NY and Jersey City, NJ-NY).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacement and Capacity Enhancements Program

Date: March 2023

Surveyor: Philip A. Hayden

Organization: Richard Grubb & Associates, Inc.

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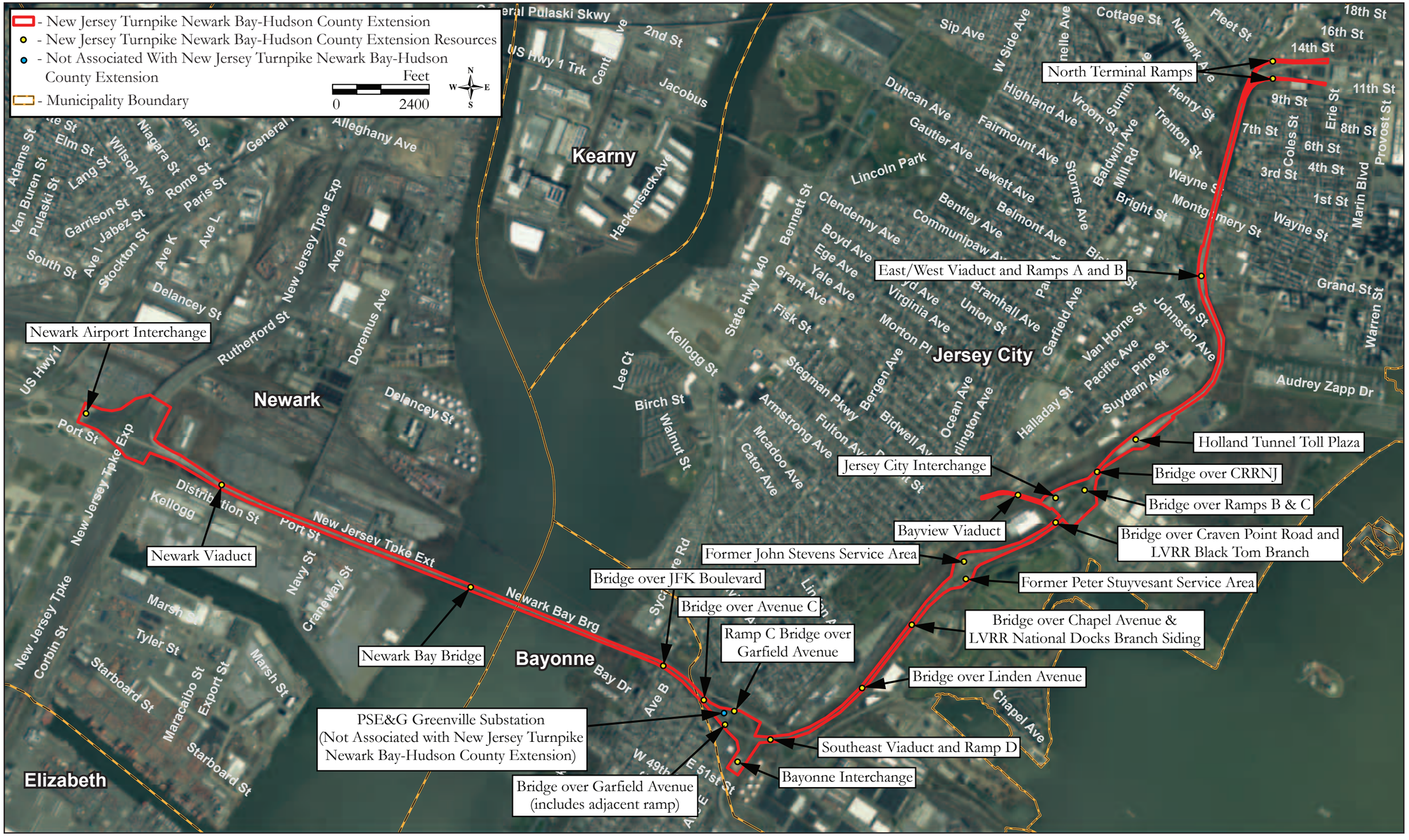

Site Map showing the location of features within the Newark Bay-Hudson County Extension (NJGIS Digital Orthographic Imagery 2020).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacement and Capacity Enhancements Program
Surveyor: Philip A. Hayden
Organization: Richard Grubb & Associates, Inc.
Date: March 2023

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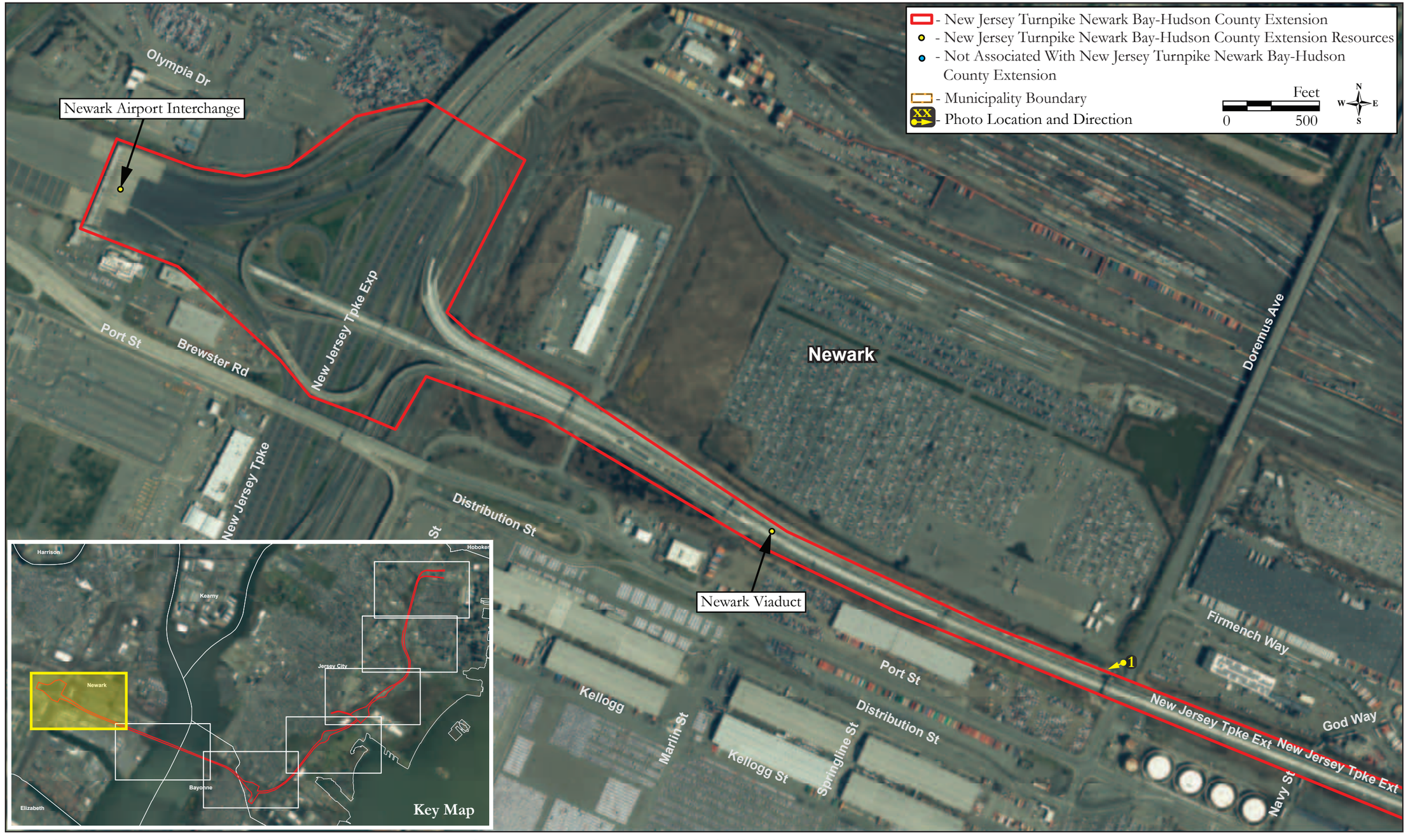

Aerial photograph 1 showing the Newark Bay- Hudson County Extension features and photo locations (NJGIS Digital Orthographic Imagery 2020).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacement and Capacity Enhancements Program

Date: March 2023

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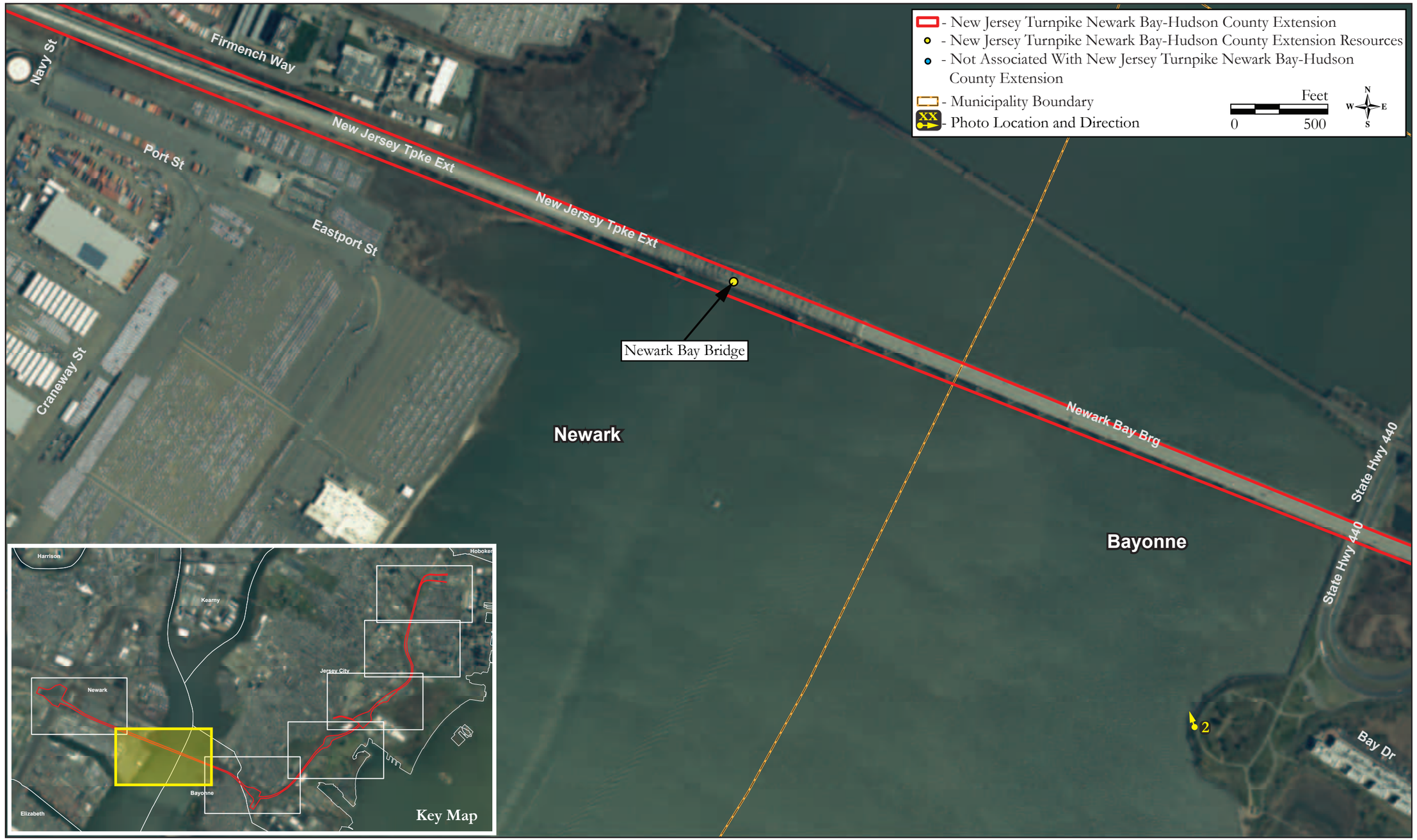
Historic Sites #:



Aerial photograph 2 showing the Newark Bay- Hudson County Extension features and photo locations (NJGIS Digital Orthographic Imagery 2020).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacement and Capacity Enhancements Program
Surveyor: Philip A. Hayden
Organization: Richard Grubb & Associates, Inc.
Date: March 2023

CONTINUATION SHEET

Historic Sites #:

Aerial photograph 3 showing the Newark Bay- Hudson County Extension features and photo locations (NJGIS Digital Orthographic Imagery 2020).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacement and Capacity Enhancements Program
Surveyor: Philip A. Hayden
Organization: Richard Grubb & Associates, Inc.
Date: March 2023

CONTINUATION SHEET

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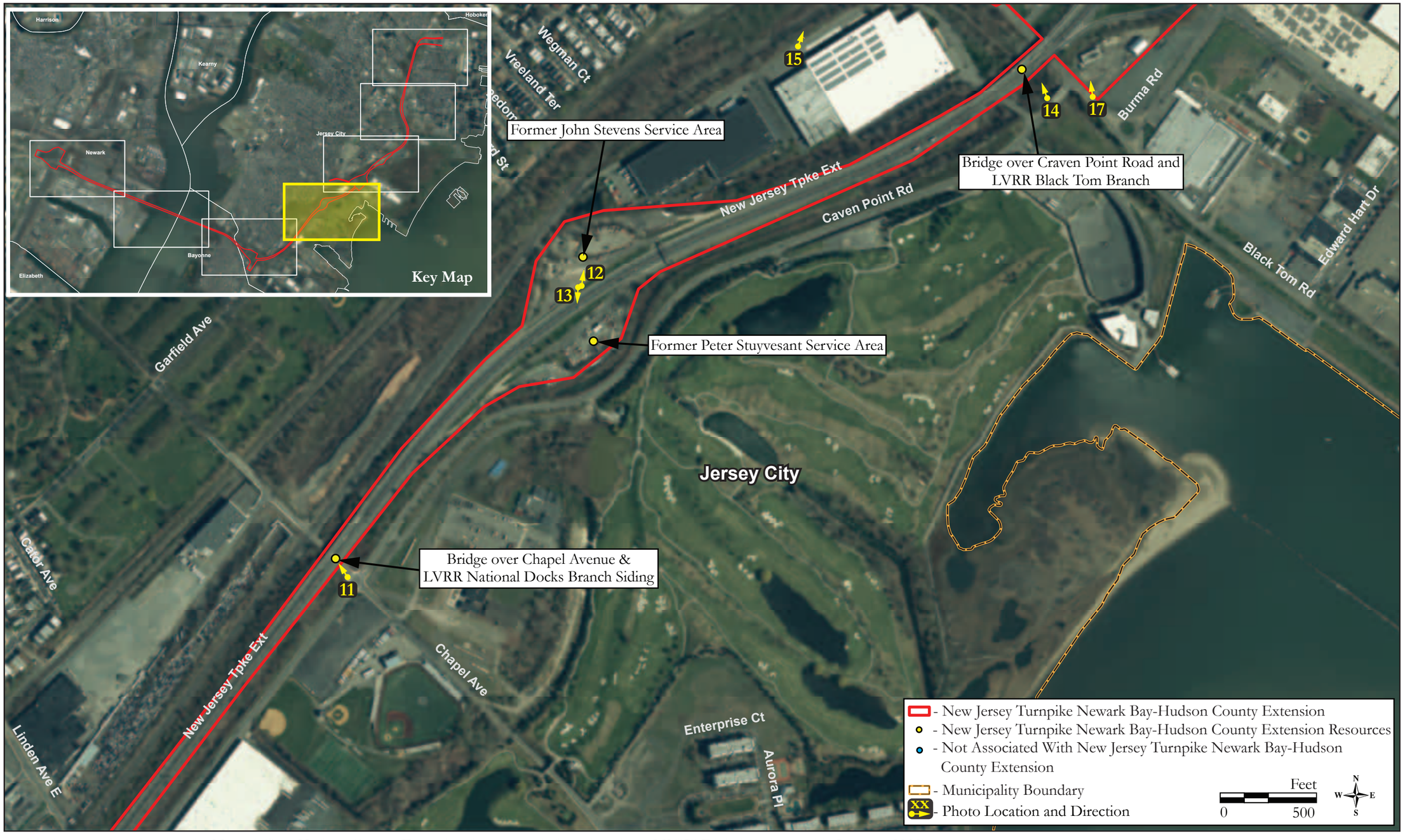

Aerial photograph 4 showing the Newark Bay- Hudson County Extension features and photo locations (NJGIS Digital Orthographic Imagery 2020).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacement and Capacity Enhancements Program

Date: March 2023

Surveyor: Philip A. Hayden

Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Aerial photograph 5 showing the Newark Bay- Hudson County Extension features and photo locations (NJGIS Digital Orthographic Imagery 2020).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacement and Capacity Enhancements Program
Surveyor: Philip A. Hayden
Organization: Richard Grubb & Associates, Inc.
Date: March 2023

CONTINUATION SHEET

Historic Sites #:

Aerial photograph 6 showing the Newark Bay- Hudson County Extension features and photo locations (NJGIS Digital Orthographic Imagery 2020).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacement and Capacity Enhancements Program

Date: March 2023

Surveyor: Philip A. Hayden

Organization: Richard Grubb & Associates, Inc.

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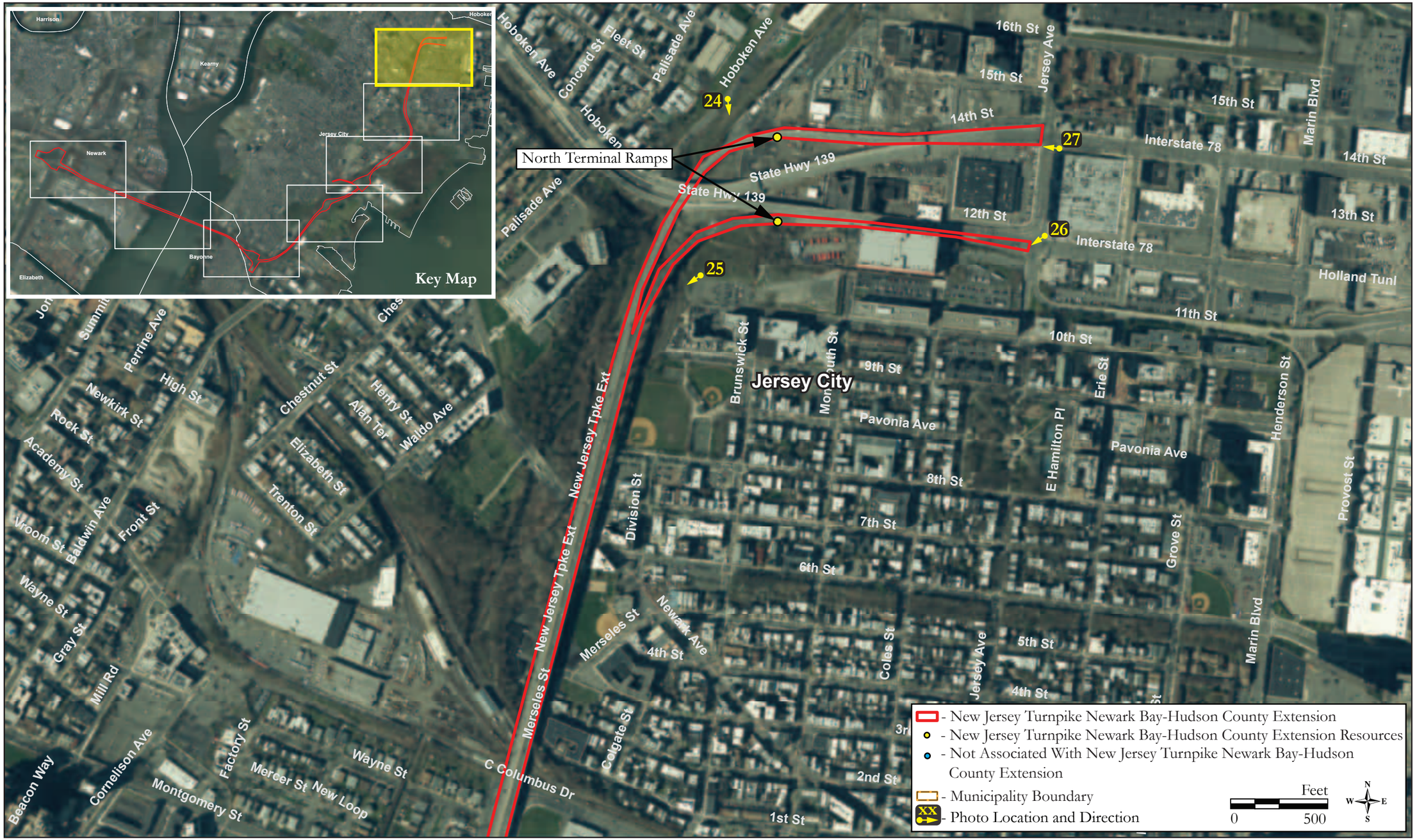


Aerial photograph 7 showing the Newark Bay- Hudson County Extension features and photo locations (NJGIS Digital Orthographic Imagery 2020).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacement and Capacity Enhancements Program

Date: March 2023

Surveyor: Philip A. Hayden

Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

GENERAL NOTES

DATUM

Mean sea level; Elevation 2.50 Sandy Hook, NJ, U.S.C.&G. Survey. All elevations are based on this datum.

DESIGN SPECIFICATIONS

1949 Standard Specifications for Highway Bridges of the AASHO except as modified by the Design Specifications for the project.

CONCRETE

Unless otherwise provided for on the plans or in the specifications, the general details of fabrication and placement of reinforcing steel shall conform to the requirements of the 1949 Standard Specifications for Highway Bridges of the AASHO. Unless otherwise noted, all reinforcing bars shall be deformed bars.

For reinforcing steel see specifications.

All concrete shall be Class B, see specifications.

All measurements to bars shown on the plans are to the center line of bars unless otherwise noted.

All exposed corners to have ¾" chamfer or fillet where no chamfer or fillet is shown. All chamfers and fillets to be made with dressed lumber.

Reinforcing bars in the footing shall be placed with a minimum clearance of 3" from timber piles, and 2" min clearance from steel piles.

Except as otherwise shown, the clear distance between reinforcement and face of concrete shall be not less than the following:

Footings	4"
Outside faces of abutments & wingwalls	3"
Rear faces of abutments & wingwalls	3"
Other exposed faces	2"

Final elevations shown are finished road elevations.

Reinforcement shall be secured in final position by approved supports prior to pouring of surrounding concrete. Placing shall reinforcement steel in position during or after pouring of footing concrete is absolutely prohibited. All splices where reinforcement is lapped, the bars are to be placed in contact with each other and tied together in such a manner as to maintain minimum clearance requirements between adjacent bars and minimum distance to face of concrete.

BAR SIZES	
Number	Inches
3	⅜
4	½
5	⅝
6	¾
7	⅞
8	1
9	1⅛
10	1¼
11	1⅜

Note: (E) - Circle encompassing letter denotes change of ramp identification.

ITEM NO	ITEM	UNIT	APPROXIMATE QUANTITY
1	Maintenance and Protection of Highway Traffic	L.S.	
2	Prevention of Railroad Traffic	L.S.	
3	Open Foundation Excavation	Cu Yds	19,500
4	Sand Backfill Under Footings	Cu Yds	3,100
5	Concrete in Footings	Cu Yds	7,750
6	Concrete in Piers, Abutments and Walls Above Footings	Cu Yds	6,500
7	Reinforcement Steel	Lbs	1,210,000
8	Untreated Timber Piles	Lin Ft	57,000
9	Treated Timber Piles	Lin. Ft	41,000
10	Untreated Timber Test Piles	Each	6
11	Treated Timber Test Piles	Each	6
12	Pile Shoes	Each	3,210
13	Furnishing Steel Piles	Lbs	1,050,000
14	Pile Coating	Lin. Ft	900
15	Driving Steel Piles	Lin. Ft	13,200
16	Steel Pile Splices	Each	70
17	Erecting Metal Railing	Lin Ft	195
18	Drainage Ditch	Lin Ft	975
19	Reinforced Concrete Pipe, 30" Diameter	Lin. Ft	140
20	Final Clearing Up	L.S.	

Mile Post	Name
104.72	Port Street
104.73A	Int. No.14 Ramp "E"
No.18A	Int. No.14 Ramp "S" (Main Stem N.F. 104.82)
No.28A	Int. No.14 Ramps "T & V" (Main Stem N.F. 104.83)
108.18	Oak Island Viaduct
No.28B	Int. No.14 Ramps "A" & "B"
No.28C	Int. No.14 Ramps "F" & "H"
No.28D	Int. No.14 Ramp "J"

Note: Detour sheets are suggested locations in Contract U-5. Contractor for Contract U-5 may change detour locations.

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
NEWARK AIRPORT INTERCHANGE
SUBSTRUCTURE
LOCATION PLAN

HOWARD, NEEDLES, TAMMEN & BERGENDOFF — CONSULTING ENGINEERS — KANSAS CITY

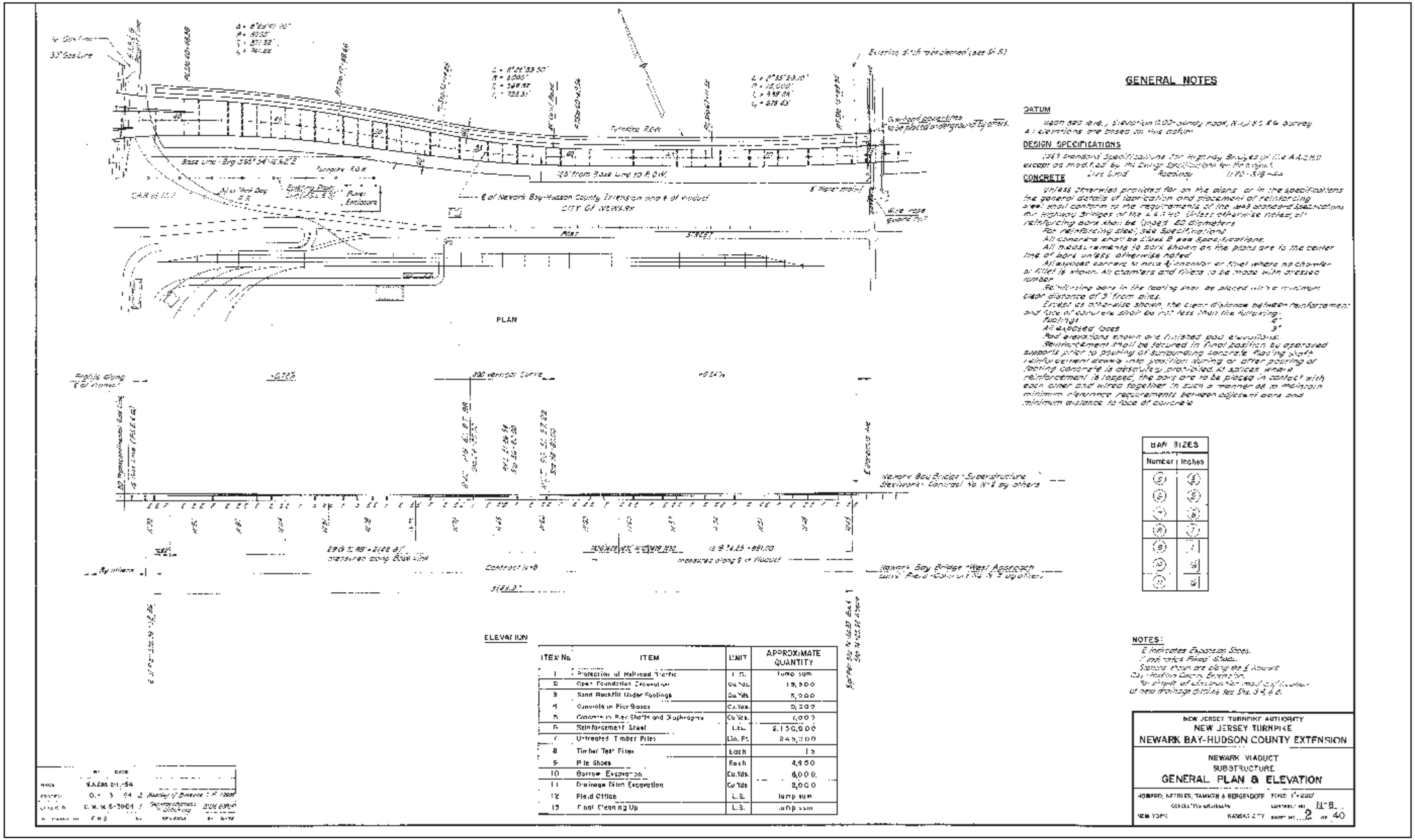
SCALE 1" = 100' — CONTRACT NO. N-6 — SHEET NO. 2 OF 53

Figure 1: 1954 construction drawing showing the layout of the Newark Interchange (HNTB 1954a).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacement and Capacity Enhancements Program
Date: March 2023
Surveyor: Philip A. Hayden
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:



ITEM No.	ITEM	UNIT	APPROXIMATE QUANTITY
1	Protection of Railroad Traffic	L.S.	Lump sum
2	Open Foundation Excavation	Cu.Yds.	15,500
3	Sand Backfill Under Footings	Cu.Yds.	5,000
4	Concrete in Pier Bases	Cu.Yds.	5,200
5	Concrete in Pier Shafts and Diaphragms	Cu.Yds.	6,000
6	Reinforcement Steel	Lbs.	2,150,000
7	Untreated Timber Piles	Lin. Ft.	245,200
8	Timber Test Piles	Each	15
9	Pile Shoes	Each	4,850
10	Borrow Excavation	Cu.Yds.	8,000
11	Drainage Ditch Excavation	Cu.Yds.	2,000
12	Field Office	L.S.	Lump sum
13	Final Cleaning Up	L.S.	Lump sum

Figure 2: 1955 construction drawing showing the general plan and elevation of the Newark Viaduct (HNTB 1955a).

CONTINUATION SHEET

Historic Sites #:

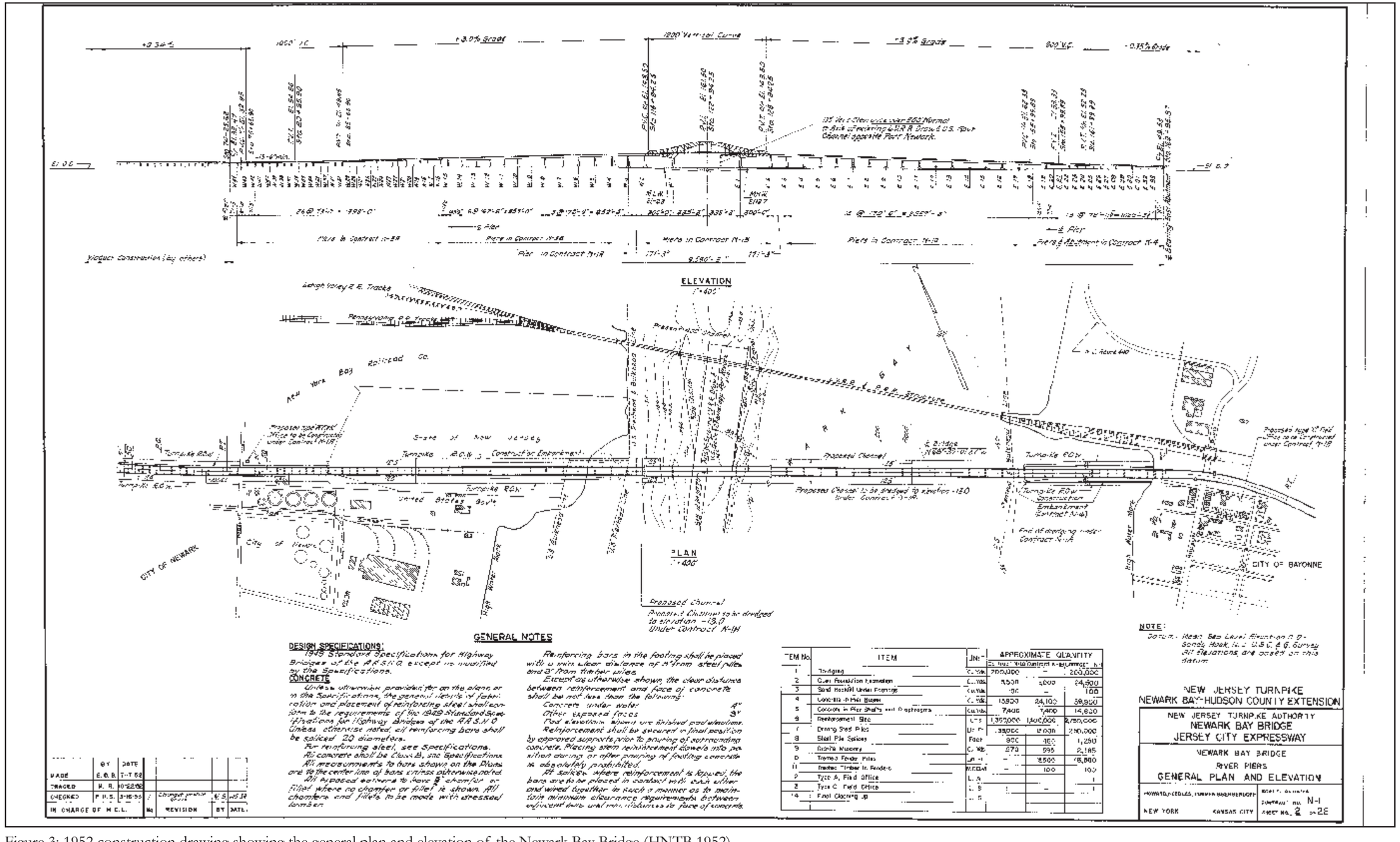


Figure 3: 1952 construction drawing showing the general plan and elevation of the Newark Bay Bridge (HNTB 1952).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacement and Capacity Enhancements Program

Surveyor: Philip A. Hayden

Organization: Richard Grubb & Associates, Inc.

Date: March 2023

CONTINUATION SHEET

Historic Sites #:

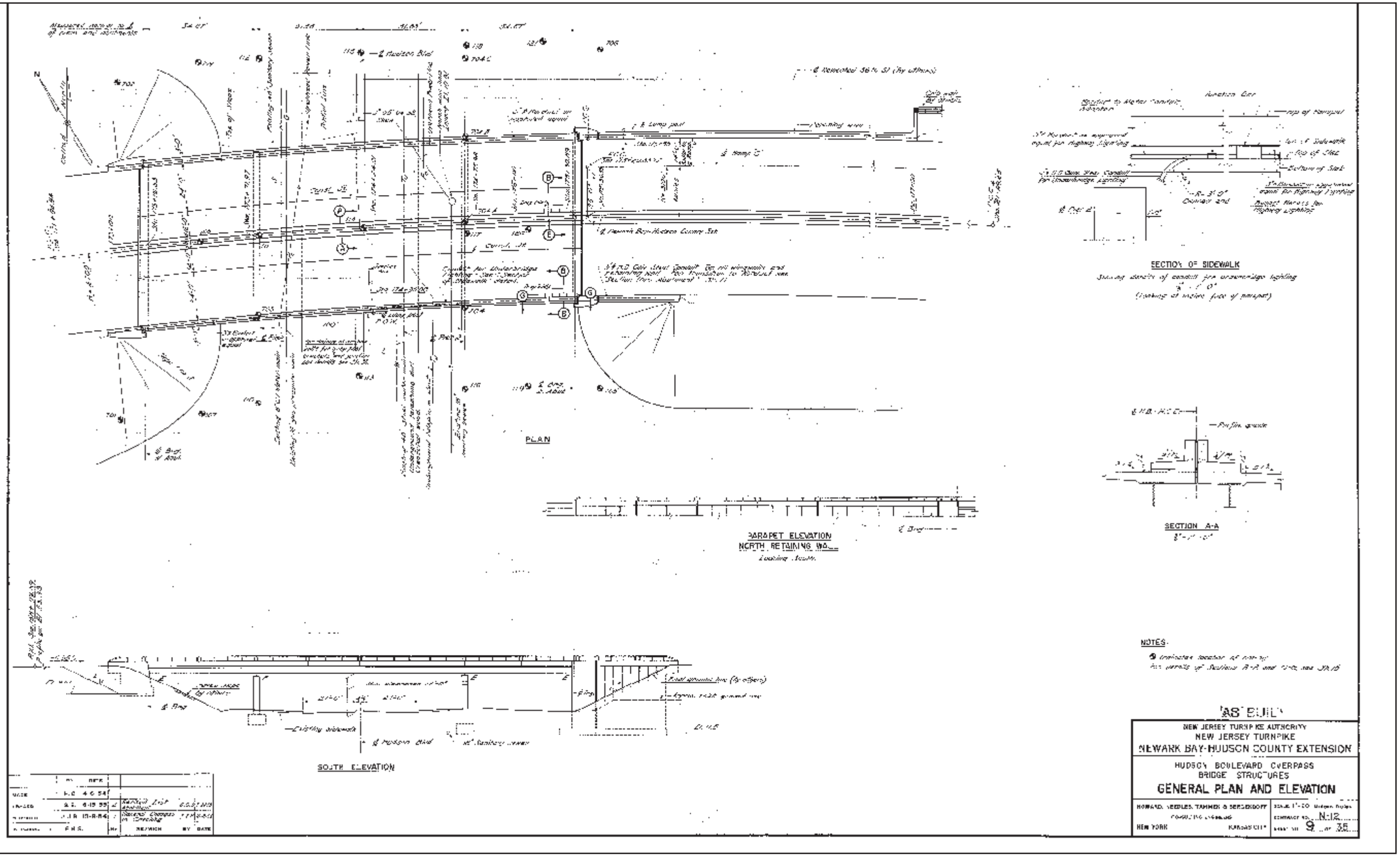


Figure 4: 1955 as-built construction drawing showing the general plan and elevation of the Bridge over JFK Boulevard (formerly Hudson Boulevard Overpass) (HNTB 1955b).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacement and Capacity Enhancements Program

Date: March 2023

Surveyor: Philip A. Hayden

Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

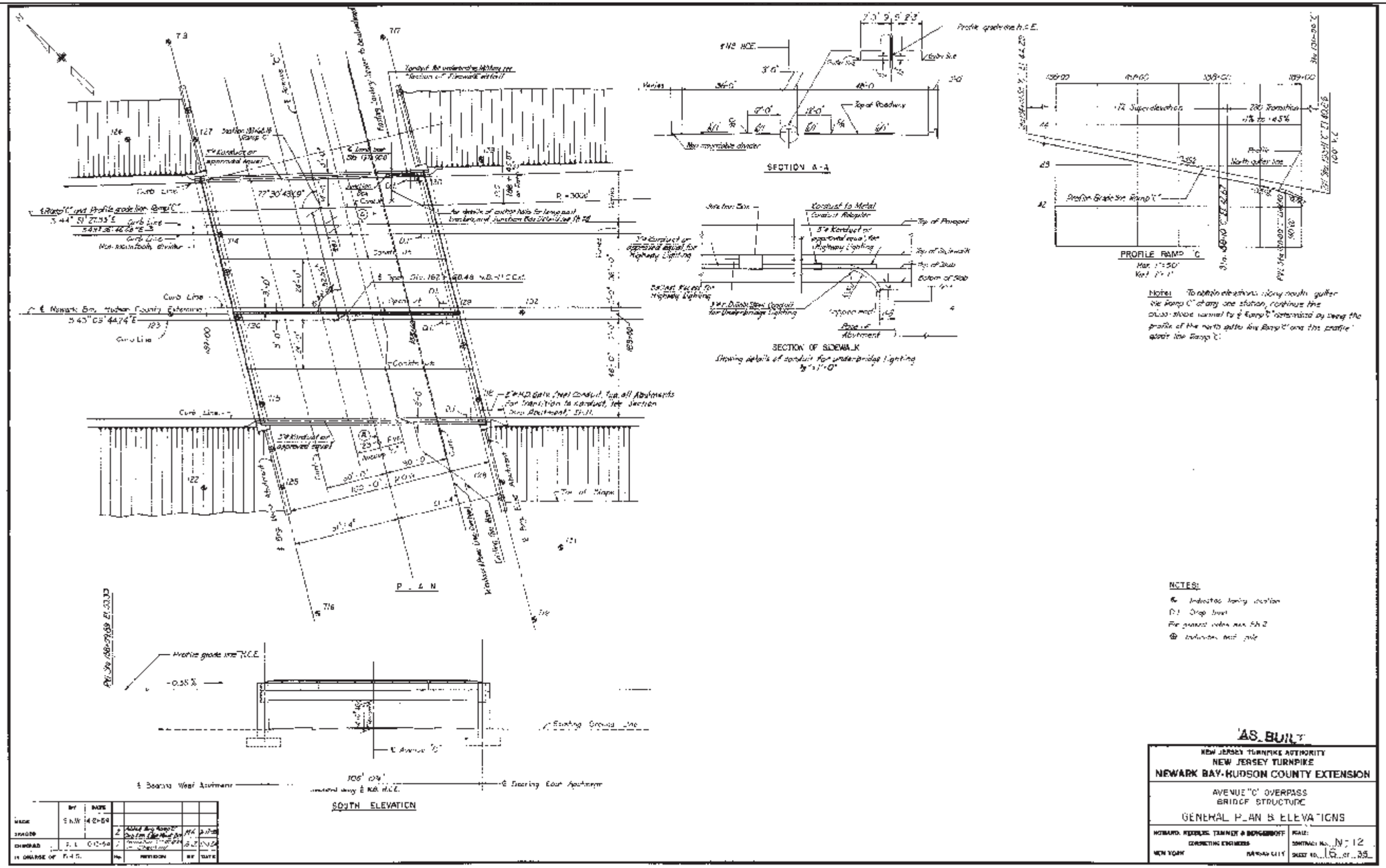


Figure 5: 1955 as-built construction drawing showing the general plan and elevation of the Bridge over Avenue C Overpass (HNTB 1955c).

CONTINUATION SHEET

Historic Sites #:

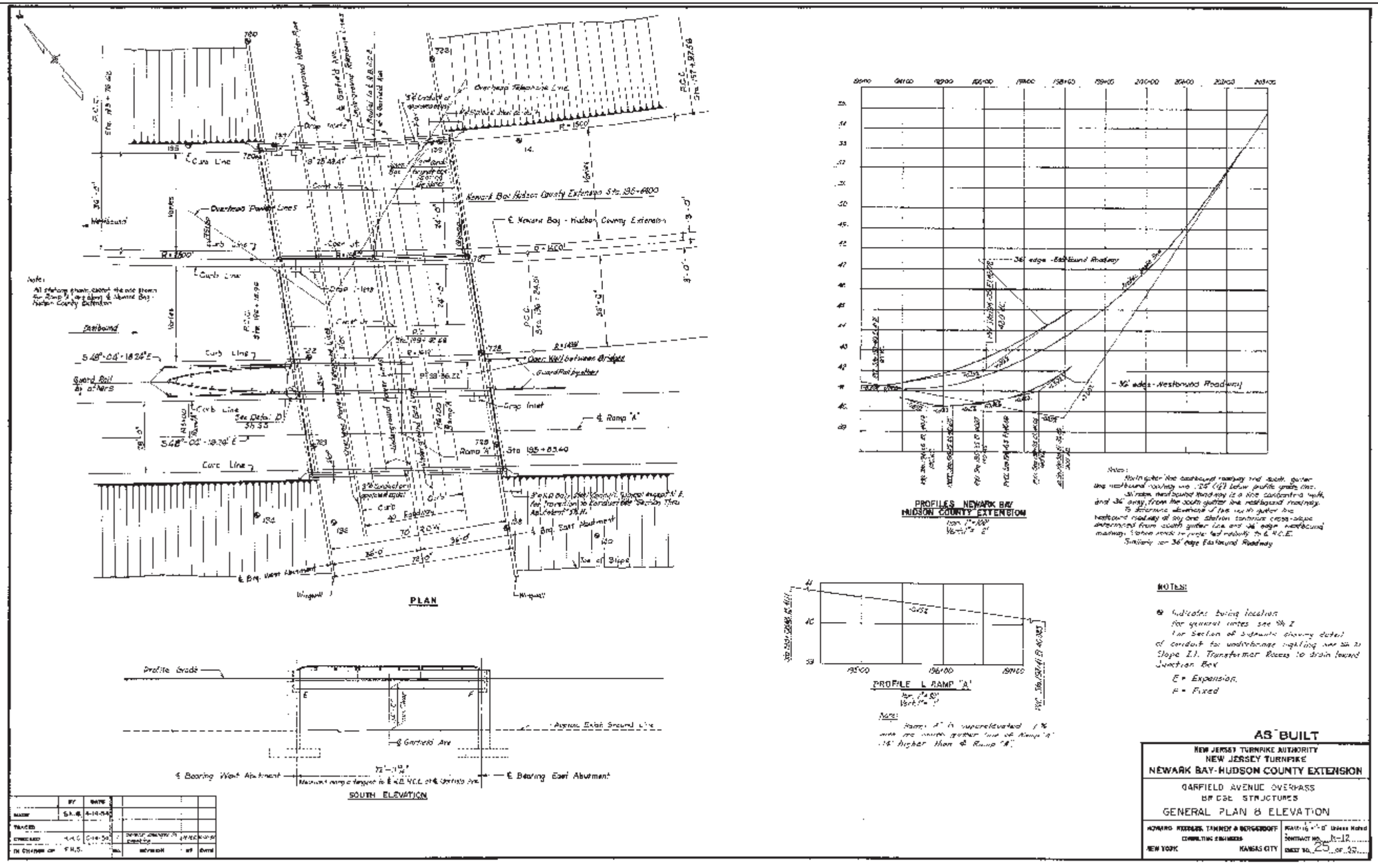


Figure 6: 1954 as-built construction drawing showing the general plan and elevation of the Garfield Avenue Overpass (also known as the Bridge over Garfield Avenue) (HNTB 1954b).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacement and Capacity Enhancements Program

Date: March 2023

Surveyor: Philip A. Hayden

Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

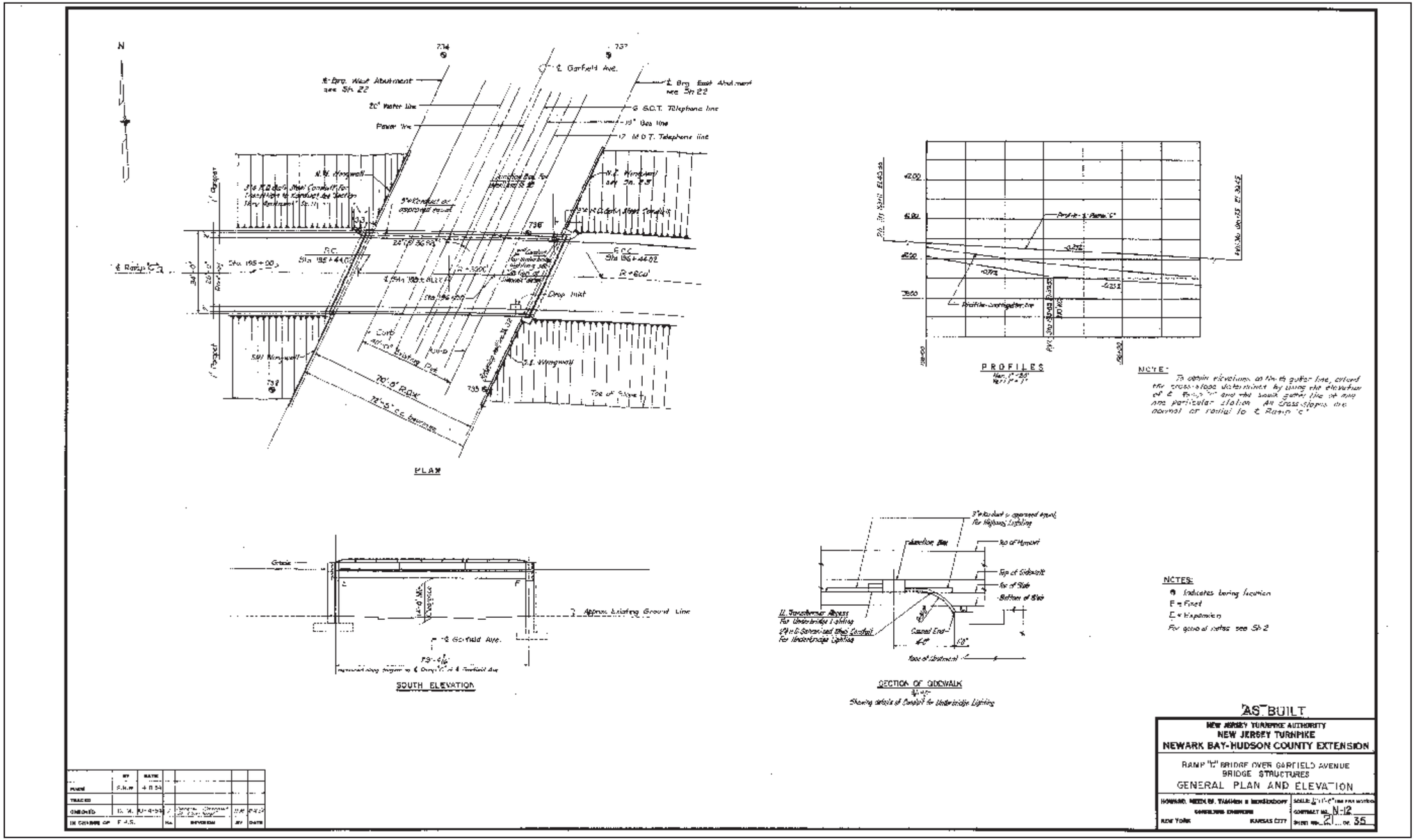


Figure 7: 1954 as-built construction drawing showing the general plan and elevation of the Ramp C Bridge over Garfield Avenue (HNTB 1954c).

CONTINUATION SHEET

Historic Sites #:

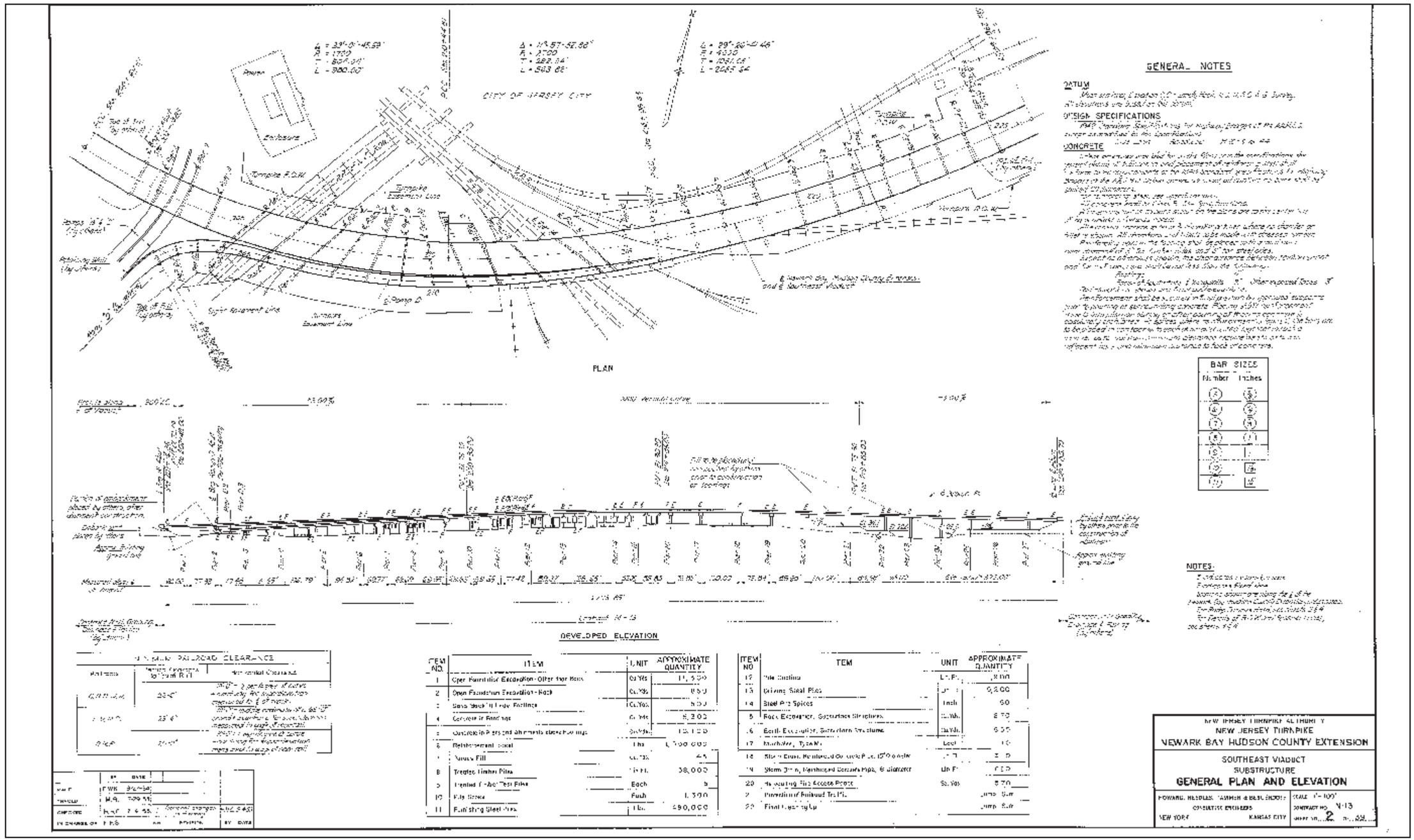


Figure 8: 1955 construction drawing showing the general plan and elevation of the Southeast Viaduct (HNTB 1955d).

CONTINUATION SHEET

Historic Sites #:

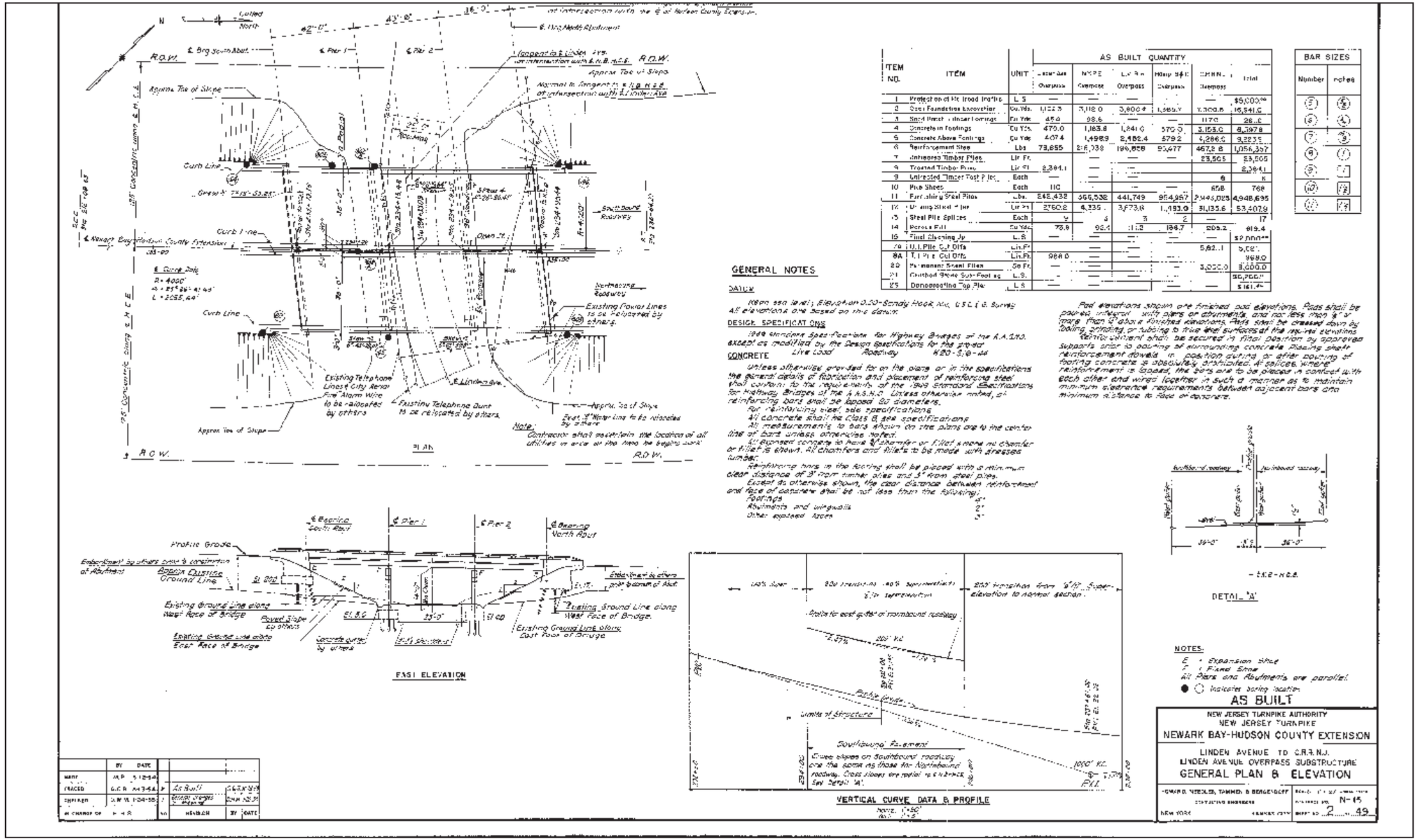


Figure 9: 1955 as-built construction drawing showing the general plan and elevation of the Bridge over Linden Avenue (HNTB 1955e).

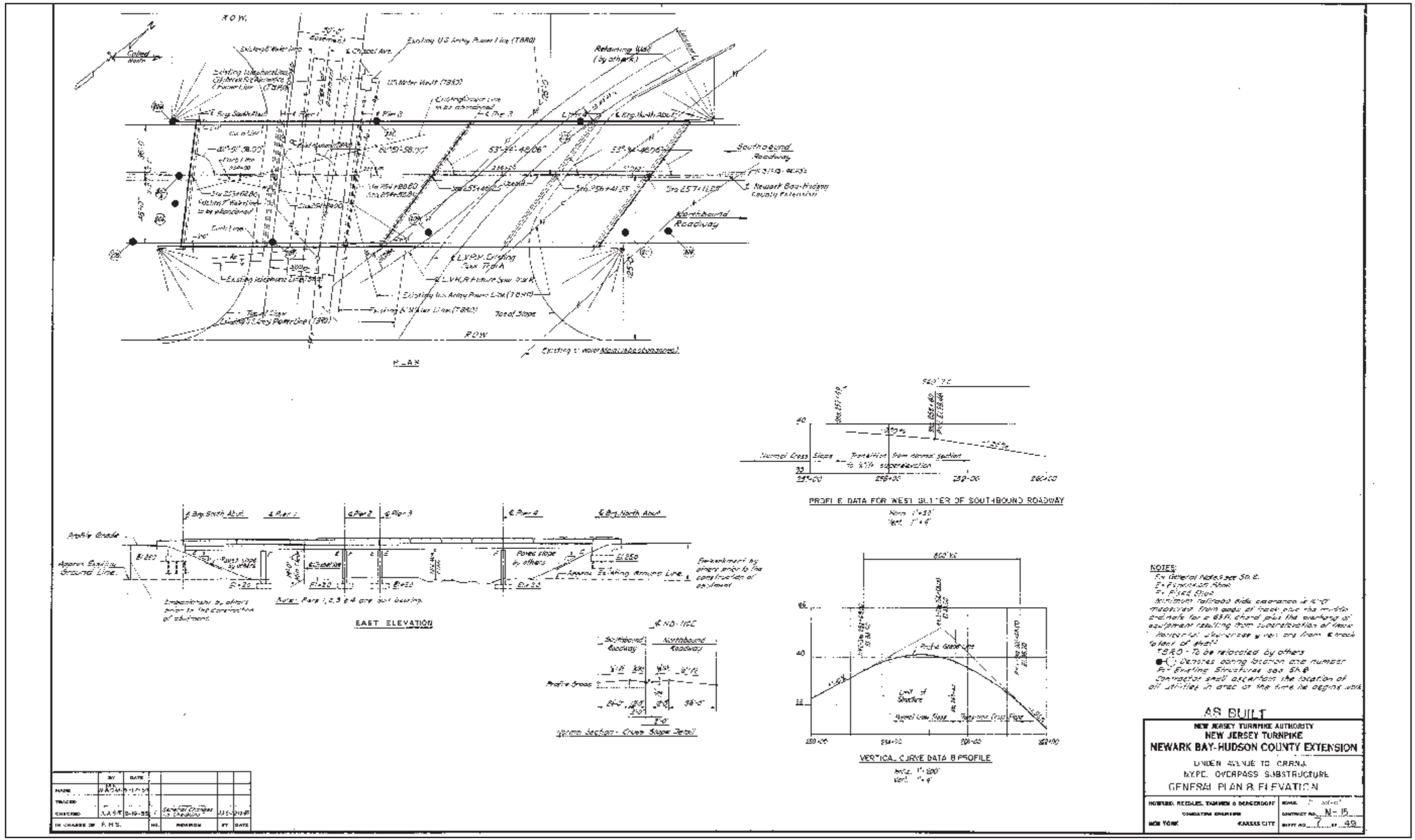


Figure 10: 1955 as-built construction drawing showing the general plan and elevation of the N.Y.P.E. Overpass (today the Bridge over Chapel Avenue & LVRR National Docks Branch Siding) (HNTB 1955f).

CONTINUATION SHEET

Historic Sites #:

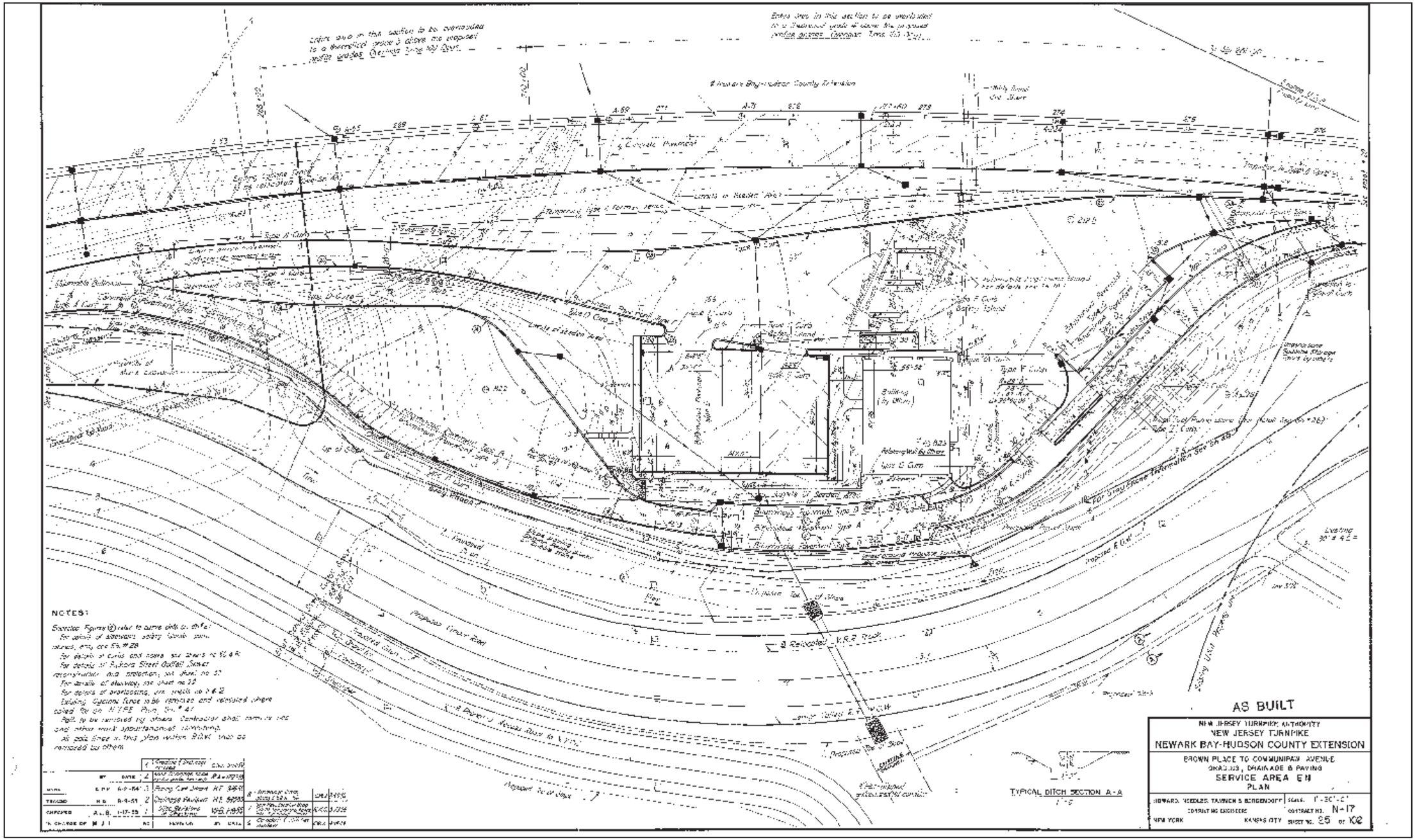
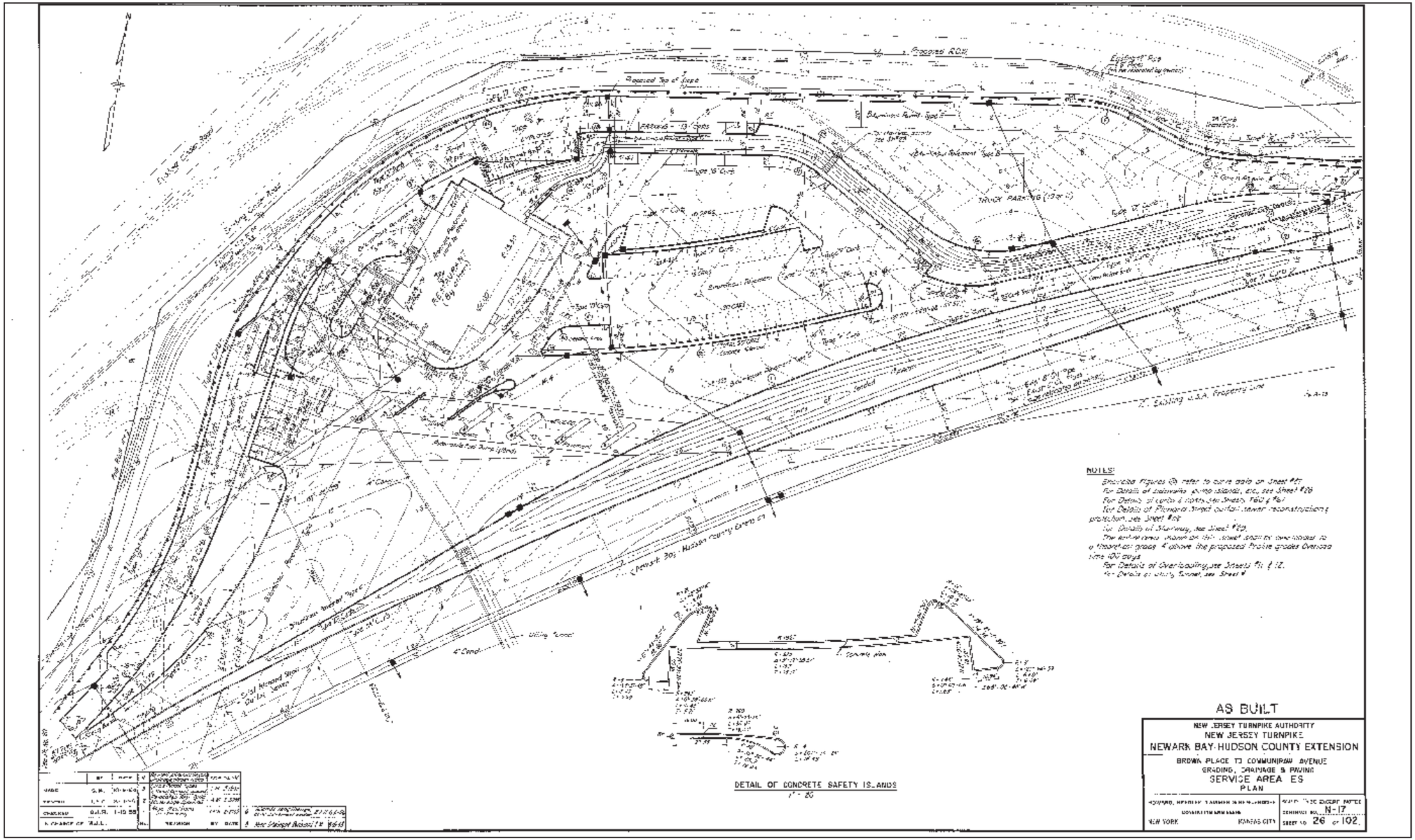


Figure 11: 1956 as-built construction drawing showing the plan of the EN Service Area (later known as the John Stevens Service Area) (HNTB 1956a).

CONTINUATION SHEET

Historic Sites #:


Existing Cedar Road
Existing Turnpike
Proposed Top of Slope
Proposed ROW
Existing Turnpike
Existing Cedar Road
Existing Service Area
Existing Service Area
Existing Service Area

CONTINUATION SHEET

Historic Sites #:

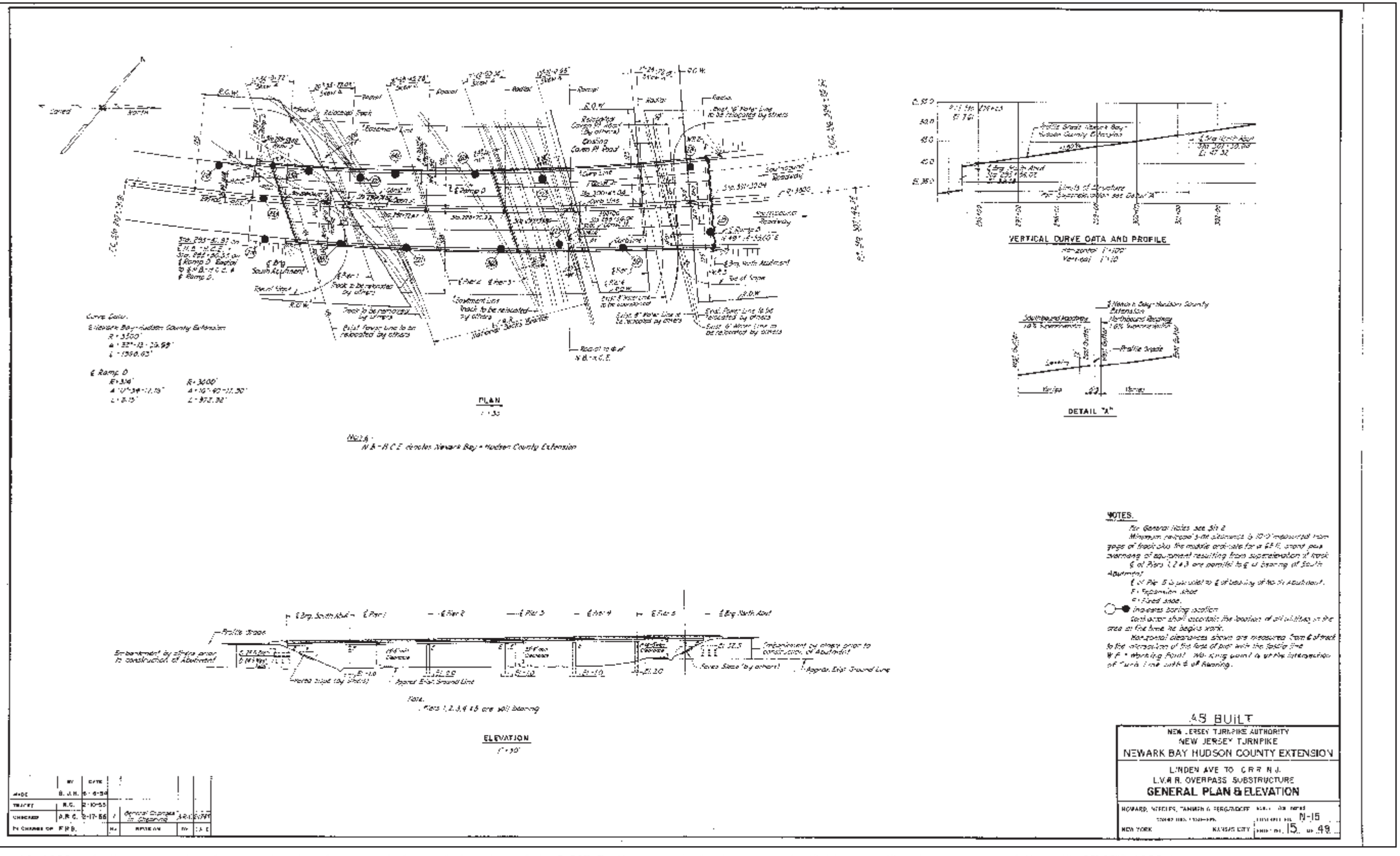
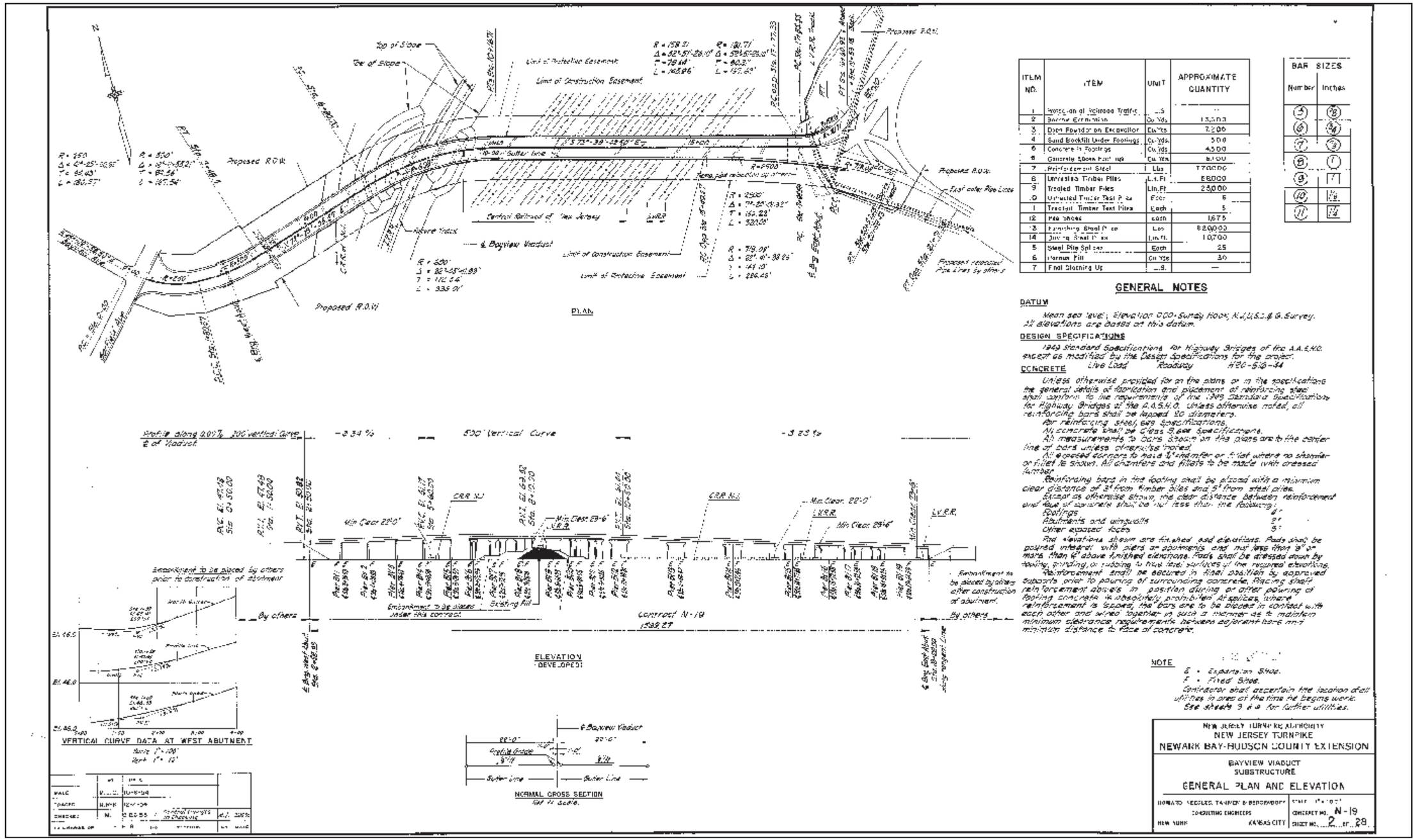


Figure 13: 1955 as-built construction drawing showing the general plan and elevation of the L.V.R.R. Overpass (today known as the Bridge over Bayview Avenue and Conrail) (HNTB 1955g).

CONTINUATION SHEET

Historic Sites #:



ITEM NO.	ITEM	UNIT	APPROXIMATE QUANTITY
1	Protection of Railroad Traffic	L.S.	—
2	Borrow Excavation	Cu. Yds.	13,500
3	Open Foundation Excavation	Cu. Yds.	7,200
4	Sand Backfill Under Footings	Cu. Yds.	500
5	Concrete in Footings	Cu. Yds.	4,500
6	Concrete Above Footings	Cu. Yds.	6,100
7	Reinforcement Steel	Lbs.	770,000
8	Untreated Timber Piles	Lin. Ft.	58,000
9	Treated Timber Piles	Lin. Ft.	23,000
10	Untreated Timber Test Piles	Each	6
11	Treated Timber Test Piles	Each	5
12	Pile Shoes	Each	1,675
13	Furnishing Steel Piles	Lbs.	820,000
14	Driving Steel Piles	Lin. Ft.	10,700
15	Steel Pile Splices	Each	25
16	Furnish Fill	Cu. Yds.	30
17	Final Slotting Up	L.S.	—

BAR SIZES	
Number	Inches
3	3/8
4	1/2
5	5/8
6	3/4
7	7/8
8	1
9	1 1/8
10	1 1/4
11	1 3/8

GENERAL NOTES

DATUM

Mean sea level; Elevation 000 Sandy Hook, N.J. U.S.C.& G. Survey. All Elevations are based on this datum.

DESIGN SPECIFICATIONS

1949 Standard Specifications for Highway Bridges of the A.A.S.H.O. except as modified by the Design Specifications for this project.

CONCRETE Live Load Roadway H20-S16-44

Unless otherwise provided for on the plans or in the specifications the general details of fabrication and placement of reinforcing steel shall conform to the requirements of the 1949 Standard Specifications for Highway Bridges of the A.A.S.H.O. Unless otherwise noted, all reinforcing bars shall be lapped 30 diameters.

For reinforcing steel, see Specifications.

All concrete shall be Class B see Specifications.

All measurements to bars shown on the plans are to the center line of bars unless otherwise noted.

All exposed corners to have 3/4" chamfer or fillet where no chamfer or fillet is shown. All chamfers and fillets to be made with dressed lumber.

Reinforcing bars in the footing shall be placed with a minimum clear distance of 3" from timber piles and 3" from steel piles.

Except as otherwise shown, the clear distance between reinforcement and face of concrete shall be not less than the following:

Footings	6"
Abutments and wingwalls	2"
Other exposed faces	3"

Pile elevations shown are finished cut elevations. Piles shall be poured integral with piers or abutments and not less than 6" or more than 9" above finished elevations. Piles shall be dressed down by sawing, grinding, or rubbing to true level surfaces of the required elevations.

Reinforcement shall be secured in fixed position by approved supports prior to pouring of surrounding concrete. Placing shall reinforcement dowels in position during or after pouring of footing concrete is absolutely prohibited. At splices, where reinforcement is spaced, the bars are to be placed in contact with each other and wired together in such a manner as to maintain minimum clearance requirements between adjacent bars and minimum distance to face of concrete.

NOTE

E = Expansion Shoe.
F = Fixed Shoe.
Contractor shall ascertain the location of all utilities in area of the time he begins work.
See sheets 3 & 4 for further utilities.

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

BAYVIEW VIADUCT
SUBSTRUCTURE

GENERAL PLAN AND ELEVATION

HOWARD NEEDLES TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

CONTRACT NO. N-19
SHEET NO. 2 OF 28

Figure 14: 1955 as-built construction drawing showing the general plan and elevation of the Bayview Viaduct (HNTB 1955h).

CONTINUATION SHEET

Historic Sites #:

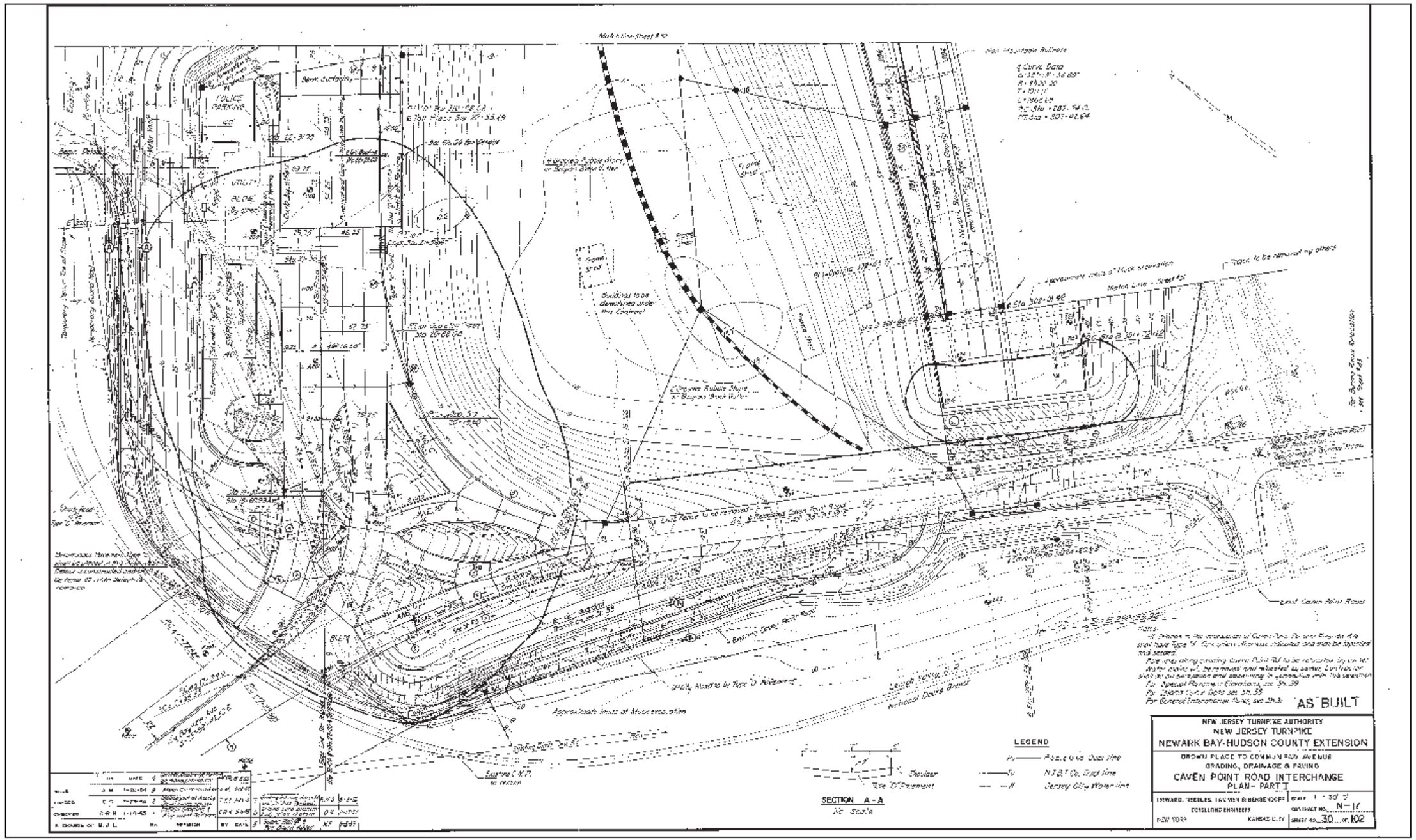


Figure 15: 1956 as-built construction drawing showing the plan of the Caven Point Road Interchange (later the Jersey City Interchange) (HNTB 1956c).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacement and Capacity Enhancements Program

Date: March 2023

Surveyor: Philip A. Hayden

Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

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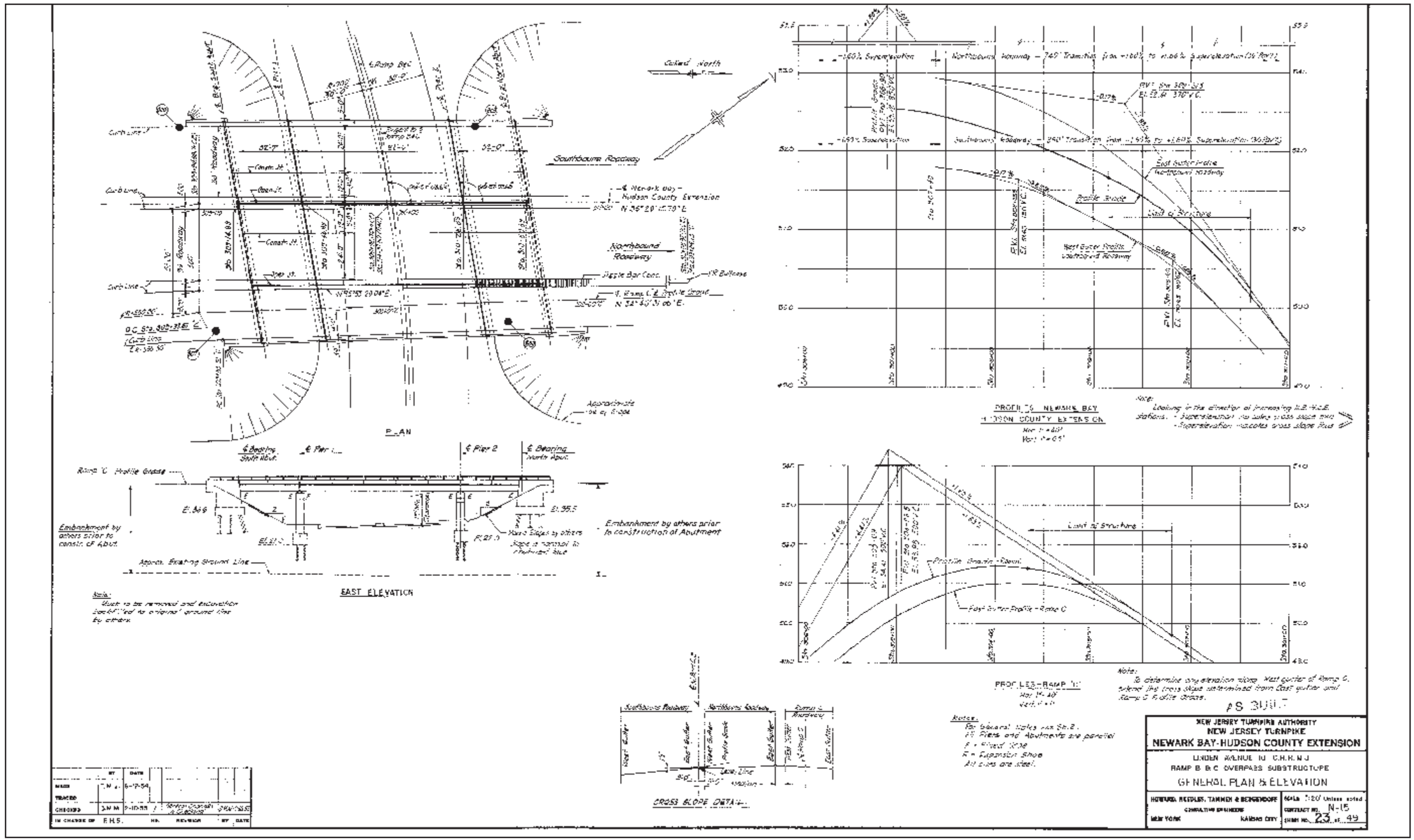


Figure 16: 1955 as-built construction drawing showing the general plan and elevation of the Ramp B and C Overpass (later known as the Bridge over Ramps B and C) (HNTB 1955i).

CONTINUATION SHEET

Historic Sites #:

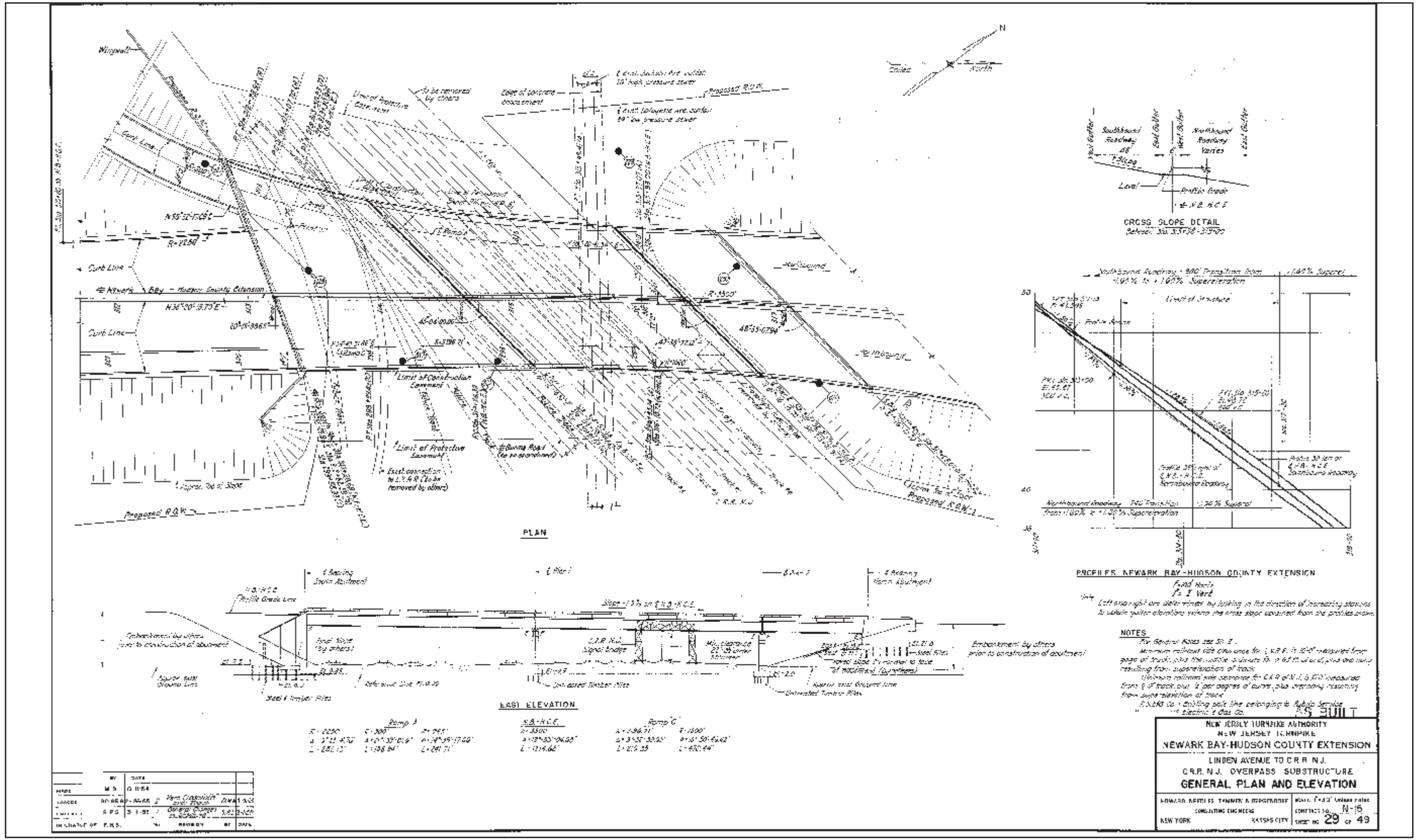


Figure 17: 1955 as-built construction drawing showing the general plan and elevation of the C.R.R.N.J. Overpass (today Bridge over C.R.R.N.J.) (HNTB 1955j).

CONTINUATION SHEET

Historic Sites #:

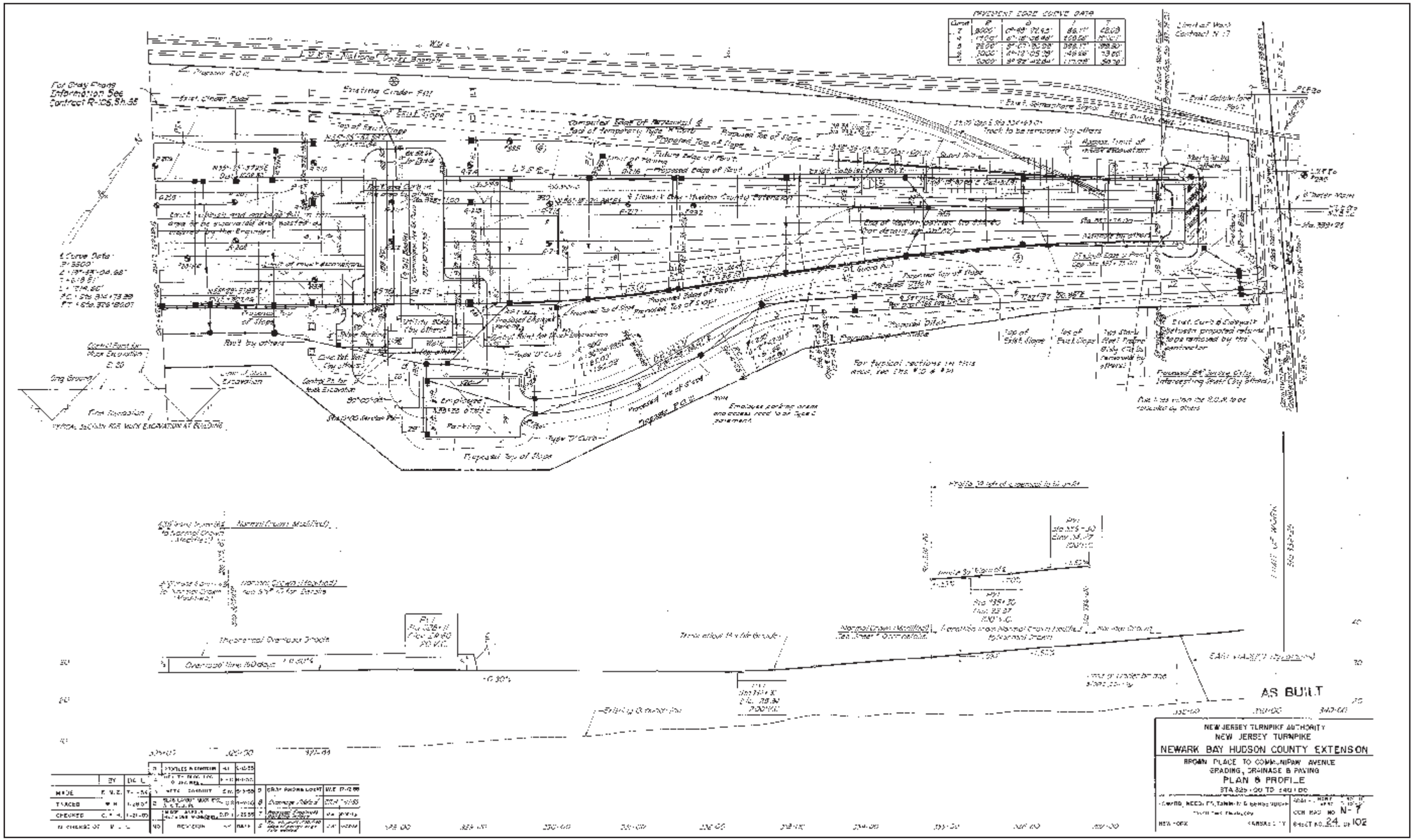


Figure 18: 1956 as-built construction drawing showing the plan and profile of present-day Holland Avenue Interchange (HNTB 1956d).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacement and Capacity Enhancements Program

Date: March 2023

Surveyor: Philip A. Hayden

Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

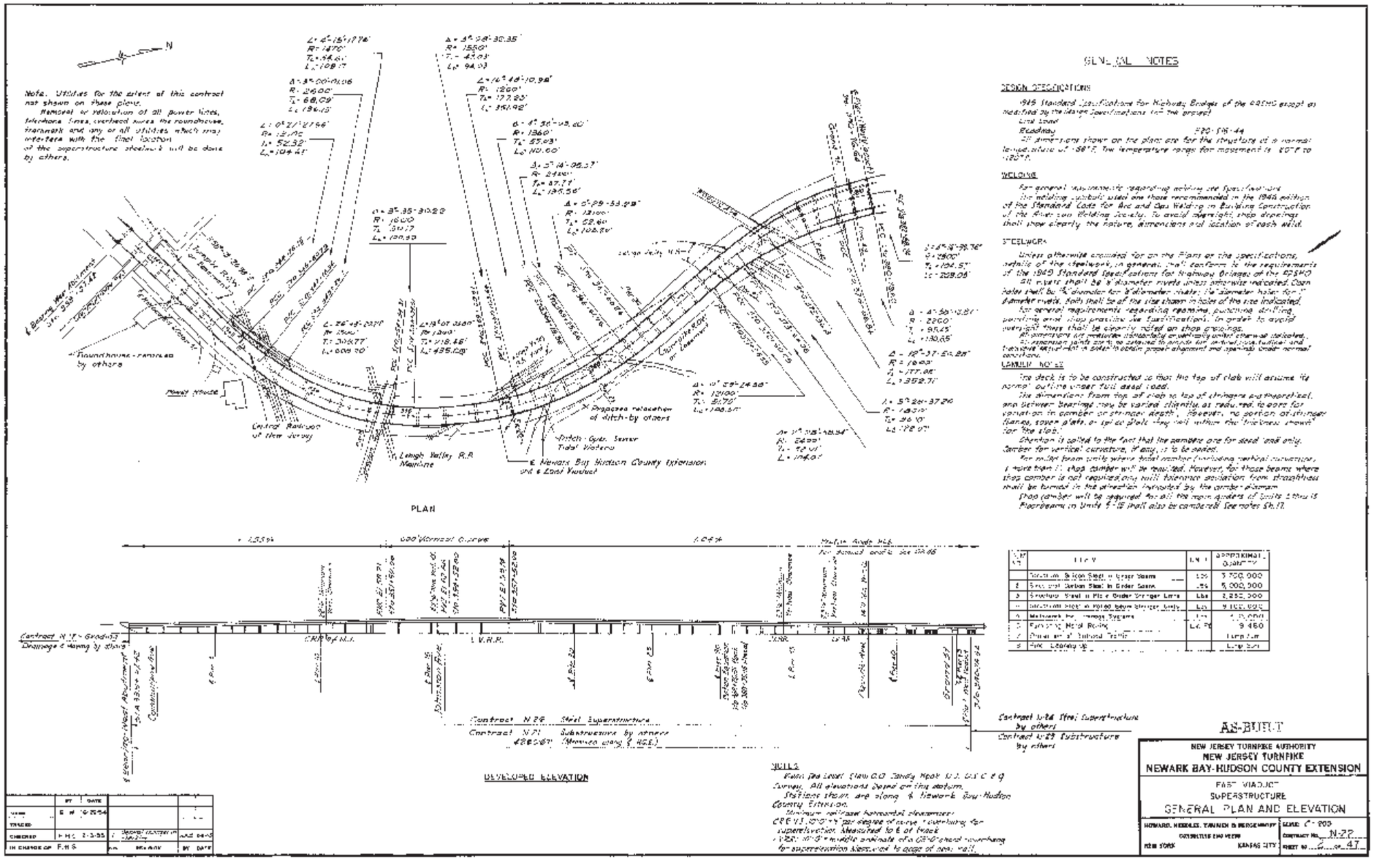


Figure 19: 1954 as-built drawing showing the general plan and elevation of the East Viaduct (HNTB 1954d).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacement and Capacity Enhancements Program

Date: March 2023

Surveyor: Philip A. Hayden

Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

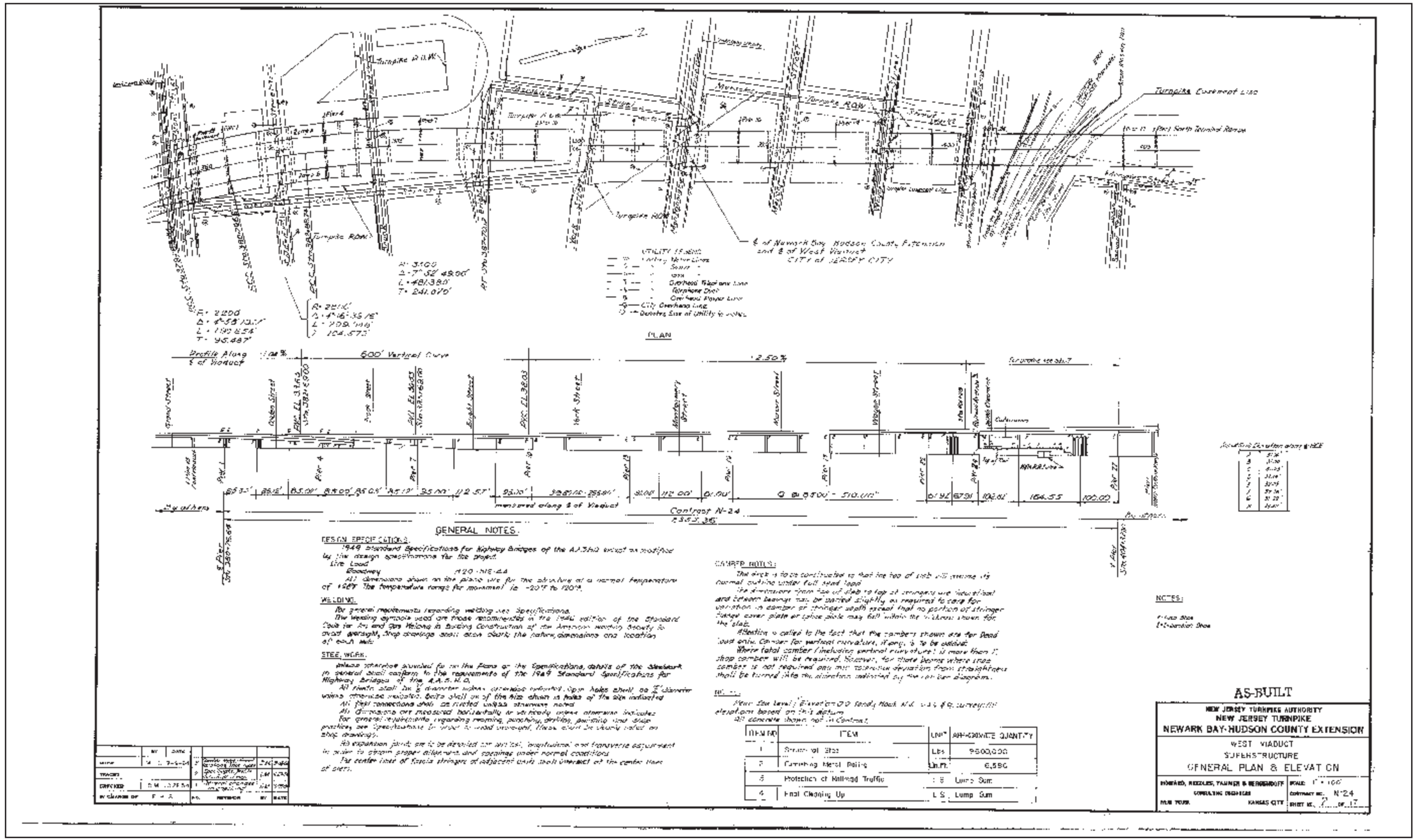


Figure 20: 1954 as-built drawing showing the general plan and elevation of the West Viaduct (HNTB 1954e).

CONTINUATION SHEET

Historic Sites #:

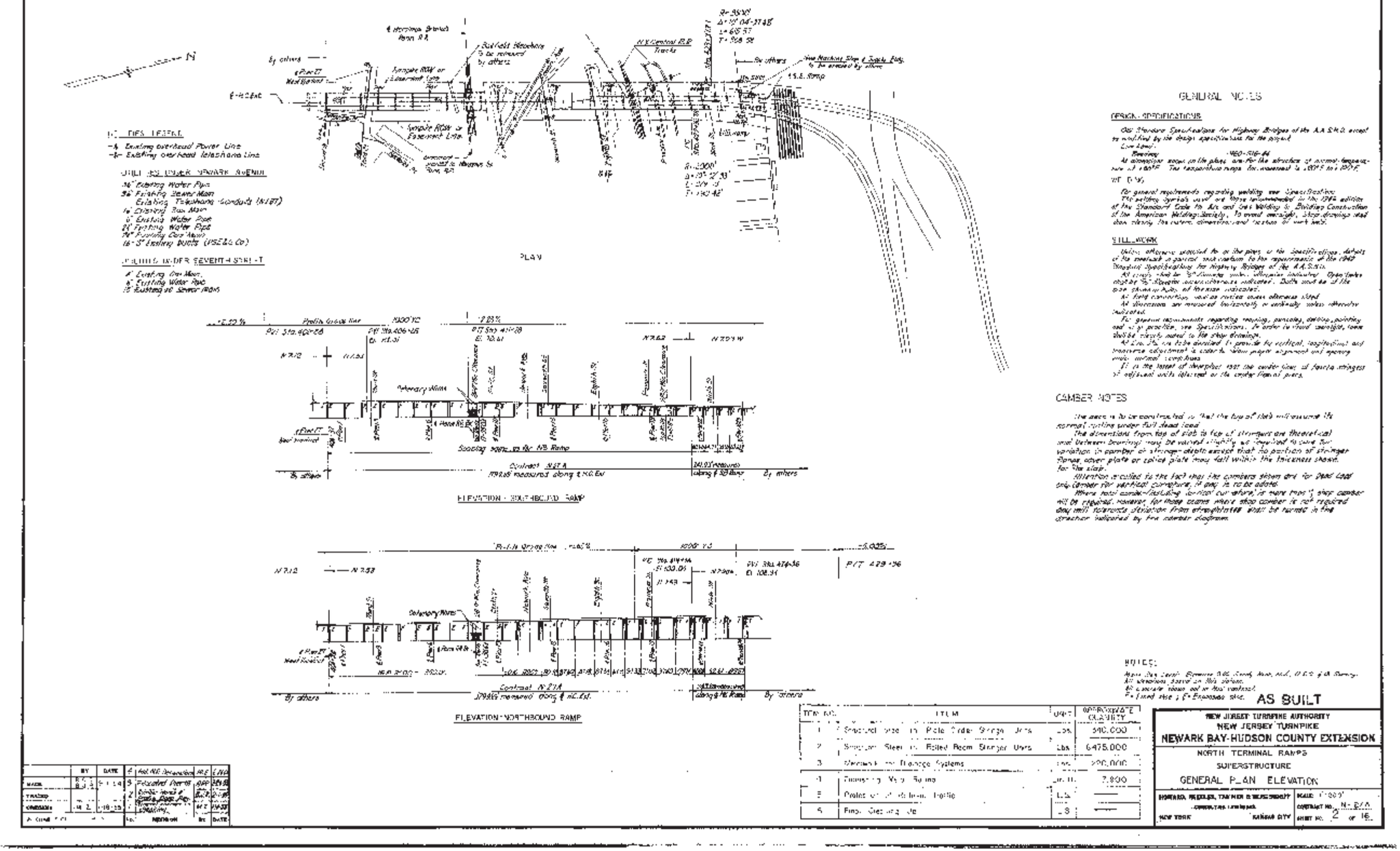


Figure 21: 1955 as-built drawing showing the general plan and elevation of the North Terminal Ramps, Section A (HNTB 1955k).

CONTINUATION SHEET

Historic Sites #:

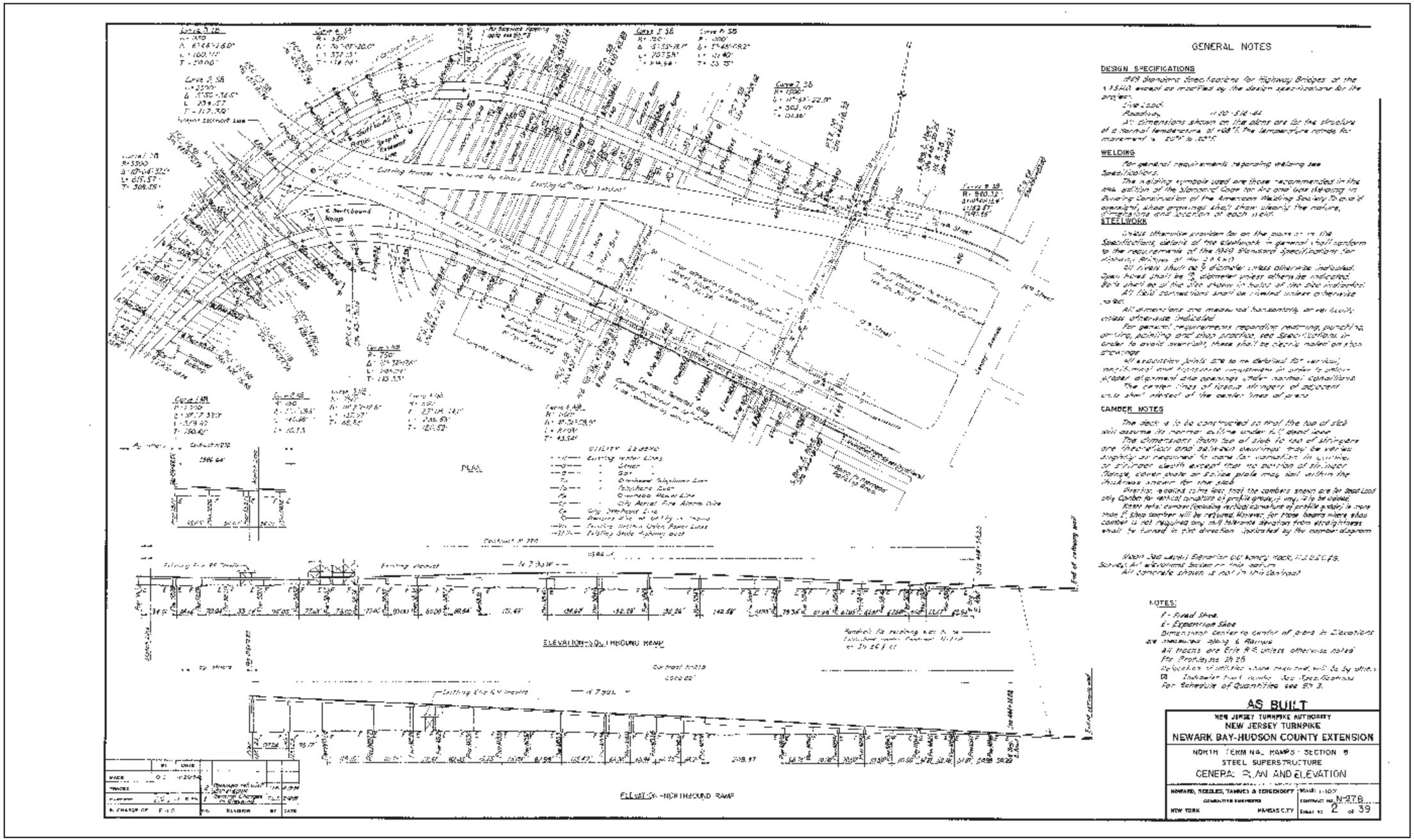


Figure 22: 1955 as-built drawing showing the general plan and elevation of the North Terminal Ramps, Section B (HNTB 1955l).

CONTINUATION SHEET

Historic Sites #:

Figure 23: 1955 photograph showing the formation of the road deck within a portion of the Newark Bay-Hudson County Extension (On file, New Jersey Turnpike Authority Archives, Woodbridge, New Jersey).

CONTINUATION SHEET

Historic Sites #:

Figure 24: 1955 aerial photograph depicting early construction of the Avenue E interchange in Bayonne. The bridge's completed east and west anchor arm truss spans appear in the background, upper left (Fairchild Aerial Surveys, Inc. 1955).

CONTINUATION SHEET

Historic Sites #:

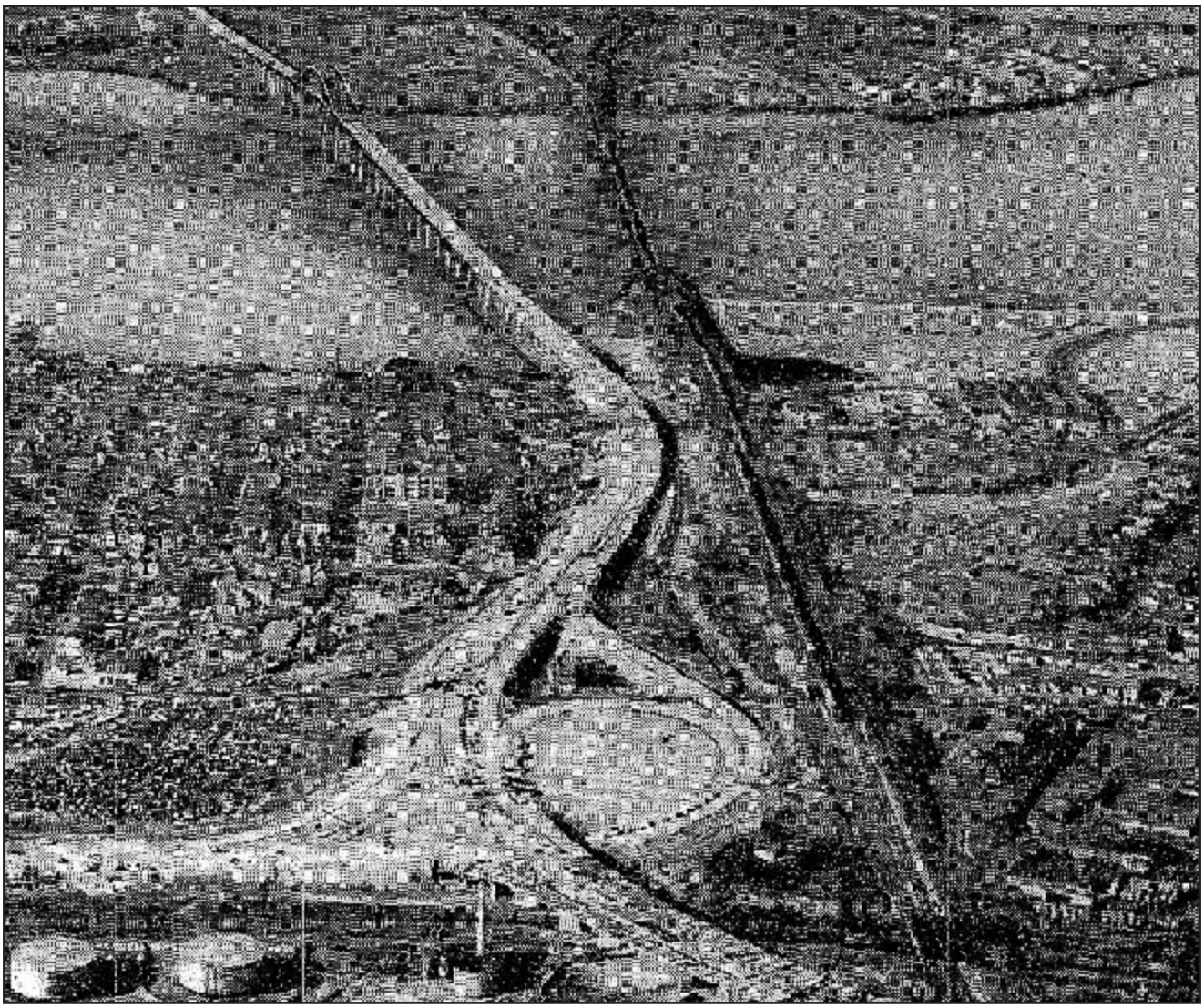


Figure 25: 1956 aerial photograph depicting the nearly finished bridge span (background, upper left) and the Avenue E interchange (foreground). Construction on the remainder of the expressway advances at the lower, center (NYT, 9 January: 1956a: 27).

CONTINUATION SHEET

Historic Sites #:

Figure 26: 1956 NJTA Annual Report aerial photograph depicting the Newark Airport interchange nearing completion at the western terminus of the Newark Bay-Hudson County Extension. The Newark Bay Bridge appears in the background, upper right (NJTA 1956).

CONTINUATION SHEET

Historic Sites #:

Figure 27: 1956 NJTA Annual Report aerial photograph depicting ongoing construction of the rest of the Newark Bay-Hudson County Extension near the intersection of Pacific Avenue and Grand Street in Jersey City (NJTA 1956).

CONTINUATION SHEET

Historic Sites #:

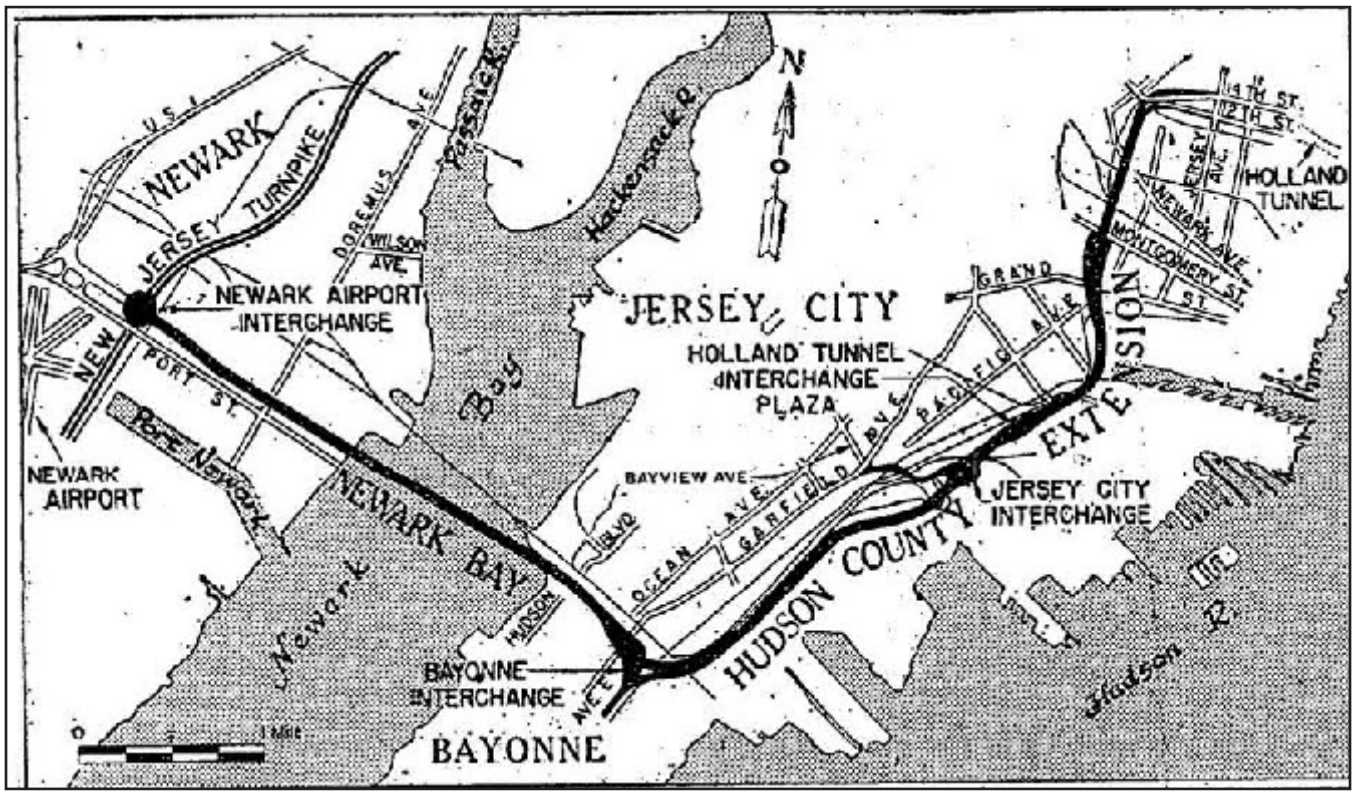


Figure 28: 1956 map of completed Newark Bay-Hudson County Extension (NYT, 9 January 1956a: 27).

CONTINUATION SHEET

Historic Sites #:

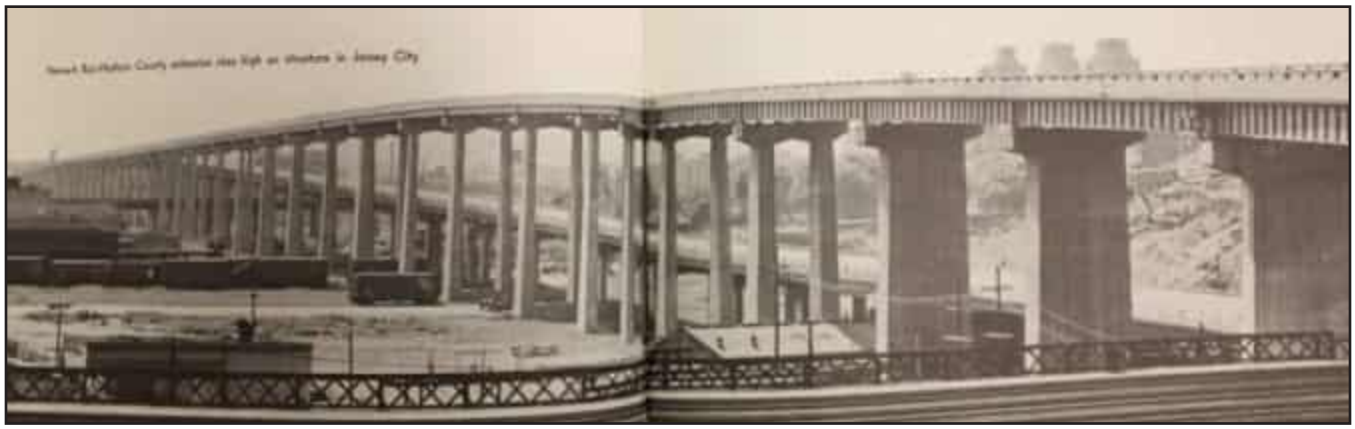


Figure 29: 1956 NJTA Annual Report photograph from the vicinity of the former Erie Railroad viaduct (foreground) depicting the completed Newark Bay-Hudson County Extension's extensive use of elevated viaducts, which contributed to the project's large expense. Clearances between piers dictated the use of girder spans or beam spans (NJTA 1957).

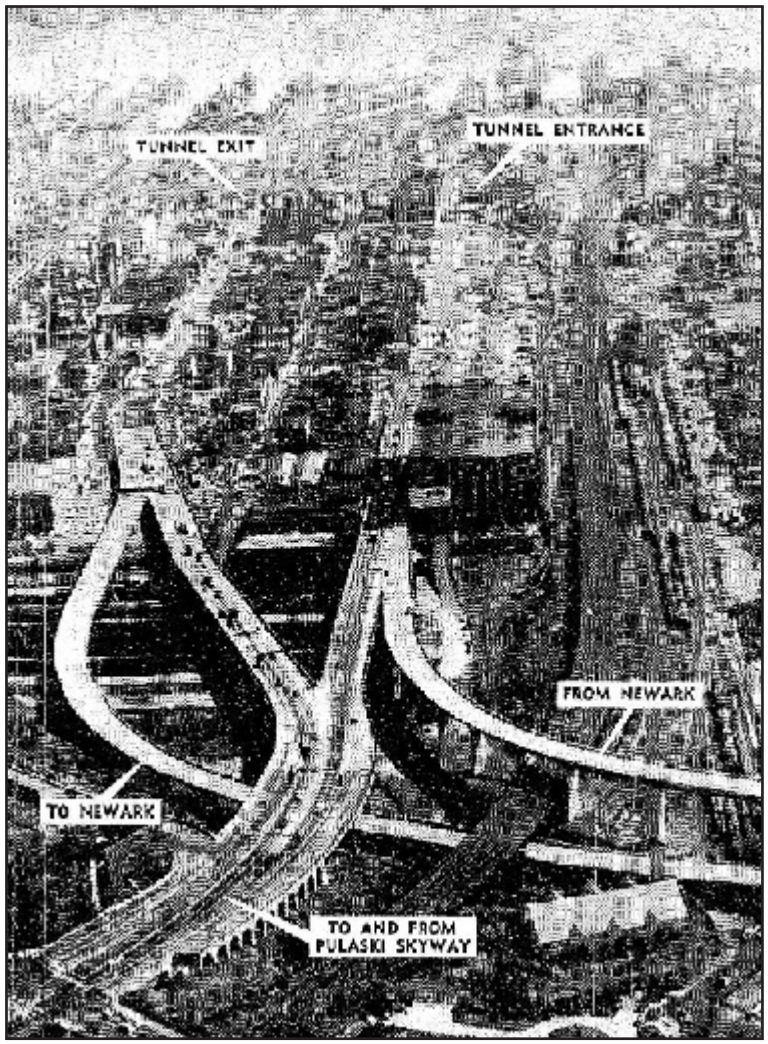


Figure 30: 1956 newspaper aerial photograph depicting the Holland Tunnel terminus of the Newark Bay-Hudson County Extension on opening day, September 15, 1956 (NYT, 15 September 1956e: 14).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Southwest

Photographer: Marissa Agbunag

Date: April 27, 2022

View showing a portion of the Newark Viaduct, looking southwest from Doremus Avenue.

Plate: 2

Photo view: Northwest

Photographer: Allee Davis

Date: April 29, 2021

Overview, Newark Bay Bridge south elevation and east approach.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Northeast

Photographer: Marissa Agbunag

Date: February 18, 2022

Overview, New Jersey Turnpike Newark Bay-Hudson County Extension Bridge over JFK Boulevard depicting typical piers and stringers. Note modern sound barrier.

Plate: 4

Photo view: Northwest

Photographer: Marissa Agbunag

Date: February 18, 2022

Overview, New Jersey Turnpike Newark Bay-Hudson County Extension Bridge over Avenue C depicting typical abutments and built-up girders. Note modern sound barrier.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view: North

Photographer: Rye Fitzgerald

Date: March 2, 2022

New Jersey Turnpike Newark Bay-Hudson County Extension Bridge and Ramp A over Garfield Avenue depicting typical abutments and wingwalls. Note original stormwater drains and pipe railing.

Plate: 6

Photo view: Northeast

Photographer: Marissa Agbunag

Date: April 27, 2022

Overview, New Jersey Turnpike Newark Bay-Hudson County Extension Bayonne Interchange Plaza.

CONTINUATION SHEET

Historic Sites #:

Plate: 7

Photo view: Northeast

Photographer: Marissa Agbunag

Date: April 27, 2022

The New Jersey Turnpike Newark Bay-Hudson County Extension Bayonne Interchange Plaza Administration Building with wireless tower shown in the background.

Plate: 8

Photo view: North

Photographer: Rye Fitzgerald

Date: March 2, 2022

New Jersey Turnpike Newark Bay-Hudson County Extension Ramp C Bridge over Garfield Avenue. Note modern solid concrete parapet wall.

CONTINUATION SHEET

Historic Sites #:

Plate: 9

Photo view: Northwest

Photographer: Rye Fitzgerald

Date: March 2, 2022

New Jersey Turnpike Newark Bay-Hudson County Extension Southeast Viaduct and Ramp D depicting typical abutments, piers, stringer superstructure, and original pipe railing.

Plate: 10

Photo view: Southwest

Photographer: Rye Fitzgerald

Date: March 2, 2022

New Jersey Turnpike Newark Bay-Hudson County Extension Bridge over Linden Avenue depicting typical abutments, piers, stringer superstructure, and original pipe railing.

CONTINUATION SHEET

Historic Sites #:

Plate: 11

Photo view: Northwest

Photographer: Rye Fitzgerald

Date: March 2, 2022

New Jersey Turnpike Newark Bay-Hudson County Extension Bridge over Chapel Avenue and the former LVRR depicting typical piers, solid concrete railroad crash-resistant piers, stringer superstructure, and original pipe railing.

Plate: 12

Photo view: Northwest

Photographer: Marissa Agbunag

Date: February 18, 2022

The New Jersey Turnpike Newark Bay-Hudson County Extension, depicting the site of the former John Stevens Service Area (eastbound). All buildings are demolished.

CONTINUATION SHEET

Historic Sites #:

Plate: 13

Photo view: Southeast

Photographer: Marissa Agbunag

Date: February 18, 2022

The New Jersey Turnpike Newark Bay-Hudson County Extension, depicting the site of the former Peter Stuyvesant Service Area (westbound). All buildings are demolished.

Plate: 14

Photo view: Northwest

Photographer: Rye Fitzgerald

Date: March 2, 2022

The New Jersey Turnpike Newark Bay-Hudson County Extension Bridge over Caven Point Road and the LVRR depicting typical solid concrete railroad crash-resistant piers, stringer superstructure, and original pipe railing.

CONTINUATION SHEET

Historic Sites #:

Plate: 15

Photo view: North

Photographer: Marissa Agbunag

Date: February 18, 2022

The New Jersey Turnpike Newark Bay-Hudson County Extension Bayview Viaduct depicting typical piers, stringer superstructure, and original pipe railing.

Plate 16

Photo view: Northeast

Photographer: Marissa Agbunag

Date: April 27, 2022

View of the New Jersey Turnpike Newark Bay-Hudson County Extension Jersey City Interchange Plaza.

CONTINUATION SHEET

Historic Sites #:

Plate: 17

Photo view: Northwest

Photographer: Rye Fitzgerald

Date: March 2, 2022

New Jersey Turnpike Newark Bay-Hudson County Extension Jersey City Interchange Maintenance Garage. Note replacement bay doors and infill.

Plate: 18

Photo view: East

Photographer: Marissa Agbunag

Date: February 18, 2022

New Jersey Turnpike Newark Bay-Hudson County Extension Bridge over Ramps B and C at the Jersey City Interchange, depicting typical earthen embankments, abutments, piers, stringer superstructure, and original pipe railing.

CONTINUATION SHEET

Historic Sites #:

Plate: 19

Photo view: Southwest

Photographer: Marissa Agbunag

Date: February 18, 2022

New Jersey Turnpike Newark Bay-Hudson County Extension Bridge over the former CRRNJ right of way, depicting typical solid concrete railroad crash-resistant piers, built-up girder superstructure, and original pipe railing.

Plate: 20

Photo view: Southwest

Photographer: Marissa Agbunag

Date: April 27, 2022

View of the New Jersey Turnpike Newark Bay-Hudson County Extension Holland Tunnel Interchange Plaza.

CONTINUATION SHEET

Historic Sites #:

Plate: 21

Photo view: Southeast

Photographer: Rye Fitzgerald

Date: March 18, 2022

New Jersey Turnpike Newark Bay-Hudson County Extension East and West Viaducts and Ramp (westbound), depicting typical piers, stringer superstructure, and modern solid concrete parapet walls.

Plate: 22

Photo view: Northwest

Photographer: Rye Fitzgerald

Date: March 18, 2022

New Jersey Turnpike Newark Bay-Hudson County Extension East and West Viaducts and Ramp (eastbound), depicting typical piers, stringer superstructure, and modern solid concrete parapet walls.

CONTINUATION SHEET

Historic Sites #:

Plate: 23

Photo view: Northwest

Photographer: Rye Fitzgerald

Date: March 18, 2022

New Jersey Turnpike Newark Bay-Hudson County Extension East and West Viaducts and Ramps A and B, depicting the overall structural configuration.

Plate: 24

Photo view: East

Photographer: Marissa Agbunag

Date: March 18, 2022

New Jersey Turnpike Newark Bay-Hudson County Extension North Terminal Ramp (westbound) over the former ERR, Conrail, PRR, and H&MRR (PATH) rights-of-way, depicting typical solid concrete railroad crash-resistant piers, built-up girder superstructure, and modern solid concrete parapet walls. Note modern overhead sign structure.

CONTINUATION SHEET

Historic Sites #:

Plate: 25

Photo view: Southwest

Photographer: Marissa Agbunag

Date: March 18, 2022

New Jersey Turnpike Newark Bay-Hudson County Extension North Terminal Ramp (eastbound) over the former ERR, Conrail, PRR, and H&MRR (PATH) rights-of-way, depicting typical tall solid concrete railroad crash-resistant piers, built-up girder and stringer superstructure, and both original pipe railing and modern solid concrete parapet walls.

Plate 26

Photo view: Southwest

Photographer: Spencer Rubino

Date: July 22, 2022

View of the New Jersey Turnpike Newark Bay-Hudson County Extension North Terminal Ramp (eastbound) and New Jersey Route 139 lanes from Jersey Avenue.

CONTINUATION SHEET

Historic Sites #:

Plate 27:

Photo view: Northwest

Photographer: Spencer Rubino

Date: July 22, 2022

View looking towards the entrance to the New Jersey Turnpike Newark Bay-Hudson County Extension westbound terminus ramp and 14th Street Viaduct (present-day NJ Route 139 westbound).

BASE SURVEY FORM

Historic Sites #:

Property Name: 233-544 Port Street

Street Address: *Street #:* 233 *(Low)* 544 *(High)* *Apartment #:* *(Low)* *(High)*

Prefix: *Street Name:* Port *Suffix:* *Type:* ST

County(s): Essex **Zip Code:** 07102

Municipality(s): City of Newark **Block(s):** 5082

Local Place Name(s): **Lot(s):** 16

Ownership: Private **USGS Quad(s):** Elizabeth NJ-NY

Description:

The parcel at 233-544 Port Street contains a circa-1970, one-story warehouse operated by TRT International; the circa-1979 Port of Newark Sign Shop; and a Public Service Electric & Gas Company (PSE&G) substation (Plates 1-11). The parcel is located in the City of Newark, just north of the Port of Newark, in Essex County, New Jersey. The surrounding area is characterized by expansive industrial development and transportation infrastructure, such as the Port of Newark, the Newark Liberty International Airport, the New Jersey Turnpike main stem (Interstate 95), and the New Jersey Turnpike Newark Bay-Hudson County Extension. The TRT International Warehouse was constructed on the eastern half of the site between sometime 1966 and 1970 (see Plates 1-5). Between 1970 and 1979, the Port of Newark Sign Shop was constructed adjacent to the east of the PSE&G substation (see Plates 6-9). Although the PSE&G substation was the first development on the site in the mid-twentieth century, the equipment and structures have been upgraded and replaced multiple times, and the substation does not contain any extant historic equipment or structures (see Plates 9-11).

Registration and Status Dates:

National Historic Landmark: SHPO Opinion:

National Register: Local Designation:

New Jersey Register: Other Designation:

Determination of Eligibility: Other Designation Date:

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

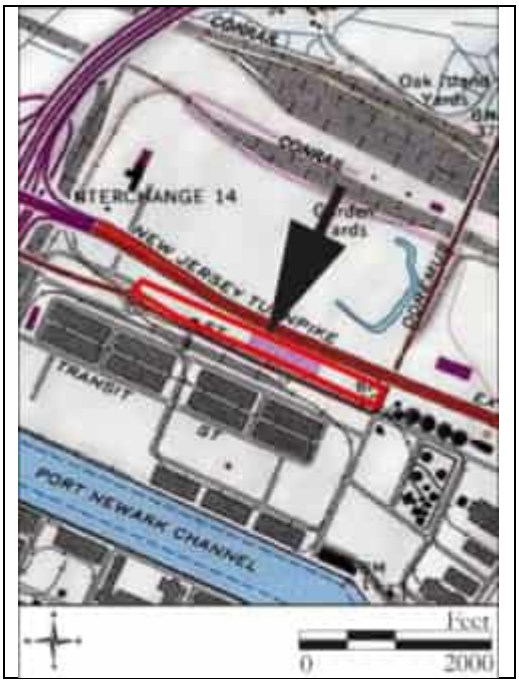
Surveyor: Alison Eberhardt Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 2 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☒ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Alison Eberhardt Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: TRT International, 250 Port Street
Historic Name: 250 Port Street
Present Use: Industrial Activity – Heavy goods handling and processing
Historic Use: Industrial Activity – Heavy goods handling and processing
Construction Date: Circa 1970 **Source:** Nationwide Environmental Title Research [NETR] 1966, 1970
Alteration Date(s): **Source:**
Designer: Unknown **Physical Condition:** Good
Builder: Unknown **Remaining Historic Fabric:** Medium
Style: None
Form: Other **Stories:** 1
Type: N/A **Bays:** N/A
Roof Finish Materials: Rolled Asphalt
Exterior Finish Materials Corrugated Steel

Exterior Description:
The TRT International warehouse at 250 Port Street is a one-story-tall building with a rectangular footprint, which lies parallel to and in between Port Street to the south and the New Jersey Turnpike Newark Bay-Hudson County Extension to the north (see Plates 1-5). The building is clad with corrugated steel siding and is capped by a flat roof covered in rolled asphalt. There are few fenestration openings on the building; the primary (south) elevation is characterized by several cargo loading bays near its west end (see Plates 2-4). There are two large doors containing roll-top overhead metal doors on the west and east elevations of the building. The site is accessible via two gated driveways, one on the west end and one on the east end, and the entire site is encircled by a chain-link fence topped with barbed wire (see Plates 1 and 5). An asphalt and gravel parking lot encircles the warehouse, which is often populated by cars, shipping containers, and tractor-trailers.

Interior Description:
The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the public right-of-way and did not include interior access to the building.

Setting:
The TRT International warehouse at 250 Port Street is located near the eastern end of an approximately 12.1-acre, irregularly shaped parcel (Block 5082, Lot 16) on the north side of Port Street in the City of Newark, Essex County, New Jersey. The building is oriented with its primary elevation facing south and is set back approximately 100 feet from Port Street. A gravel and asphalt parking lot encircles the warehouse to the west, south, and east, and a chain-link fence topped with barbed wire delineates the warehouse site. The Port of Newark Sign Shop is located to the west of the warehouse, and a PSE&G substation is located on the western end of the parcel, opposite of the TRT International warehouse. The subject building is primarily surrounded by mid- to late twentieth-century industrial development. The New Jersey Turnpike Newark Bay-Hudson County Extension is located approximately 80 feet to the north.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: Port of Newark Sign Shop, 255 Port Street
Historic Name: 255 Port Street
Present Use: Industrial Activity – Light industrial
Historic Use: Industrial Activity – Light industrial
Construction Date: Circa 1979 **Source:** NETR 1970, 1979
Alteration Date(s): **Source:**
Designer: Unknown **Physical Condition:** Good
Builder: Unknown **Remaining Historic Fabric:** Medium
Style: New Formalism
Form: Other **Stories:** 1
Type: N/A **Bays:** N/A
Roof Finish Materials: Rubber Membrane
Exterior Finish Materials Other

Exterior Description:
The Port of Newark Sign Shop at 255 Port Street is a one-story-tall building constructed circa 1979 (see Plates 6-9). The building, designed in the New Formalism style, is composed of a main rectangular volume, with a smaller rectangular volume located on the east end of its primary (south) elevation, and an L-shaped breezeway that wraps around the southeastern corner of the building, all of which are capped by flat roofs. The air handling and cooling equipment for the building is located on the roof of the main volume. Buildings designed in the New Formalism style are characterized by simple building volumes that express the structural system and are generally void of ornament. New Formalism also emphasizes hierarchy and order on the elevation of the building; in the case of the Port of Newark Sign Shop, the exposed, rhythmic steel mullions create order by dividing the façade into smaller sections that are infilled with glass and metal opaque structural panels. *See Continuation Sheet*

Interior Description:
The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the public right-of-way and did not include interior access to the building.

Setting:
The Port of Newark Sign Shop at 255 Port Street is sited at the western end of an approximately 12.1-acre, irregularly shaped parcel (Block 5082, Lot 16) on the north side of Port Street in the City of Newark, Essex County, New Jersey. The building is oriented with its primary elevation facing south and is set back approximately 58 feet from Port Street. An asphalt-paved parking lot encircles the warehouse to the west, south, and east, and a chain-link fence delineates the entire site. The parking lot is accessible from an entrance from Port Street to the east of the Port of Newark Sign Shop. The subject building is primarily surrounded by mid- to late twentieth-century industrial development; the New Jersey Turnpike Newark Bay-Hudson County Extension is located approximately 220 feet to the north.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
The industrial parcel at 233-544 Port Street is an unremarkable conglomerate of industrial functions and buildings. Developed between 1950 and 1980, the parcel contains a shipping warehouse, a sign shop for the Port Newark-Elizabeth Marine Terminal, and a PSE&G substation. Although the sign shop was designed in the New Formalism style of modern architecture and appears to have undergone minimal changes, research did not determine the architect or designer of the building. The substation has had its equipment and buildings replaced over the course of its usage and contains no extant historic equipment or buildings. Additionally, research did not indicate that the development of the parcel at 233-544 Port Street was aligned with the development of the Port Newark-Elizabeth Marine Terminal or the construction of the New Jersey Turnpike Newark Bay-Hudson County Extension. The Port of Newark was already established as a trade route by the mid-twentieth century, and the New Jersey Turnpike Newark Bay-Hudson County Extension was completed in the middle of the period of development of 233-544 Port Street.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The industrial parcel at 233-544 Port Street is recommended not eligible for listing in the National Register of Historic Places (NRHP). Research did not indicate that the subject property was associated with prominent individuals or patterns of history. The TRT International warehouse at 250 Port Street retains a high degree of integrity of location, setting, feeling, and association; however, it is a common and unremarkable example of its type and lacks historic and architectural significance. The Port of Newark Sign Shop retains a high degree of location, setting, feeling, workmanship, material, and design; however, it is not the work of a master, nor a strong example of the New Formalism style of modern architecture. The PSE&G substation does not contain any extant historic buildings or equipment. For these reasons, number 233-544 Port Street is recommended not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: TRT International, 250 Port Street
Building/Element Attachment: Port of Newark Sign Shop, 255 Port Street

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

Exterior Description, continued from Building/Element Attachment Form – 255 Port Street:
The smaller, rectangular volume that projects from the east end of the primary (south) elevation is about half of the height of the main volume of the building and is constructed of concrete. The breezeway connects with the east elevation of the smaller volume and wraps around the corner of the primary elevation and about a third of the depth of the east elevation. Square, metal columns support the breezeway. Though the primary entrance is not fully visible from the public right-of-way, it is likely located in and sheltered by the rectangular volume on the primary elevation. A secondary entrance is also partially visible on the south corner of the east elevation, sheltered by the breezeway. The secondary entrance is capped with transom windows positioned above the breezeway roof level. A concrete sidewalk from the asphalt parking lot leads to both entrances.

History:
Number 233-544 Port Street is located on the north side of Port Street, adjacent to the north of the Port Newark-Elizabeth Marine Terminal, in the City of Newark, Essex County, New Jersey. By the beginning of the twentieth century, the Hudson River and Newark Bay were established as frequent maritime routes, though the Port Authority of New York and New Jersey was not established until 1948 (The Port Authority of New York and New Jersey 2022). Research did not indicate that 233-544 Port Street was developed in conjunction with the Port Newark-Elizabeth Marine Terminal; however, a boom in shipping during the 1950s due to improvements to the port may have driven development and construction in the surrounding area when the port saw higher employment, occupancy, and new business development. Today, the Port Newark-Elizabeth Marine Terminal remains the largest port on the east coast (The Port Authority of New York and New Jersey 2022).

The construction of 233-544 Port Street may have also been driven by the completion of the adjacent New Jersey Turnpike Newark Bay-Hudson County Extension. By 1966, the New Jersey Turnpike Newark Bay-Hudson County Extension was completed (NETR 1966). The Extension is located adjacent to the southern boundary of the subject parcel and connects the City of Newark to the City of Bayonne across the Newark Bay. The New Jersey Turnpike Newark Bay-Hudson County Extension added a vital transportation link to the area; the roadway linked the existing New Jersey Turnpike with the Hudson Tunnel and New York City. The construction of a major overland shipping route in the area may have prompted the construction of buildings such as 233-544 Port Street to support the shipping industry and take advantage of the proximity to the highway.

The subject parcel and Port Street were not developed until the middle of the twentieth century (NETR 1931; Sanborn Map Company 1929). The area adjacent to the subject parcel was already active and developed; a 1943 newspaper advertisement promoted employment at the Federal Shipbuilding & Drydock Company that was located at Doremus Avenue and Port Street in the Port Newark-Elizabeth Marine Terminal, adjacent to the east of the subject parcel (*The Item of Milburn and Short Hills*, 12 November 1943:15). Port Street is first depicted on a 1950 Sanborn map; the map also depicts railroad lines running parallel to the south of the parcel, though the site of the present buildings was undeveloped at the time (Sanborn Map Company 1950). The street also appears on a 1954 aerial photograph of the terminal area (NETR 1954; Figure 1). The PSE&G substation and two smaller buildings, one to the west and one to the east of the substation, also appear on the 1954 aerial photograph (NETR 1954). The construction of these buildings and the creation of Port Street may have been influenced by the success of the port in the 1950s.

By 1970, the TRT International warehouse was constructed and operational on the eastern half of the parcel (NETR 1970; Figure 2). Cars and shipping containers were visible in the lot around the warehouse, which may indicate that the warehouse was originally constructed as a shipping center, and it still operates as a shipping center today. The Port of Newark Sign Shop was constructed on the parcel sometime between 1970 and 1979 (NETR 1979; Figure 3). Neither the Port of Newark Sign Shop nor TRT International appear to have been drastically altered since the late twentieth century (NETR 2019). The PSE&G substation has received numerous upgrades and renovations to its equipment and structures; the present building on site was constructed between 2019 and 2020 (Google Imagery 2019, 2020).

CONTINUATION SHEET

Historic Sites #:

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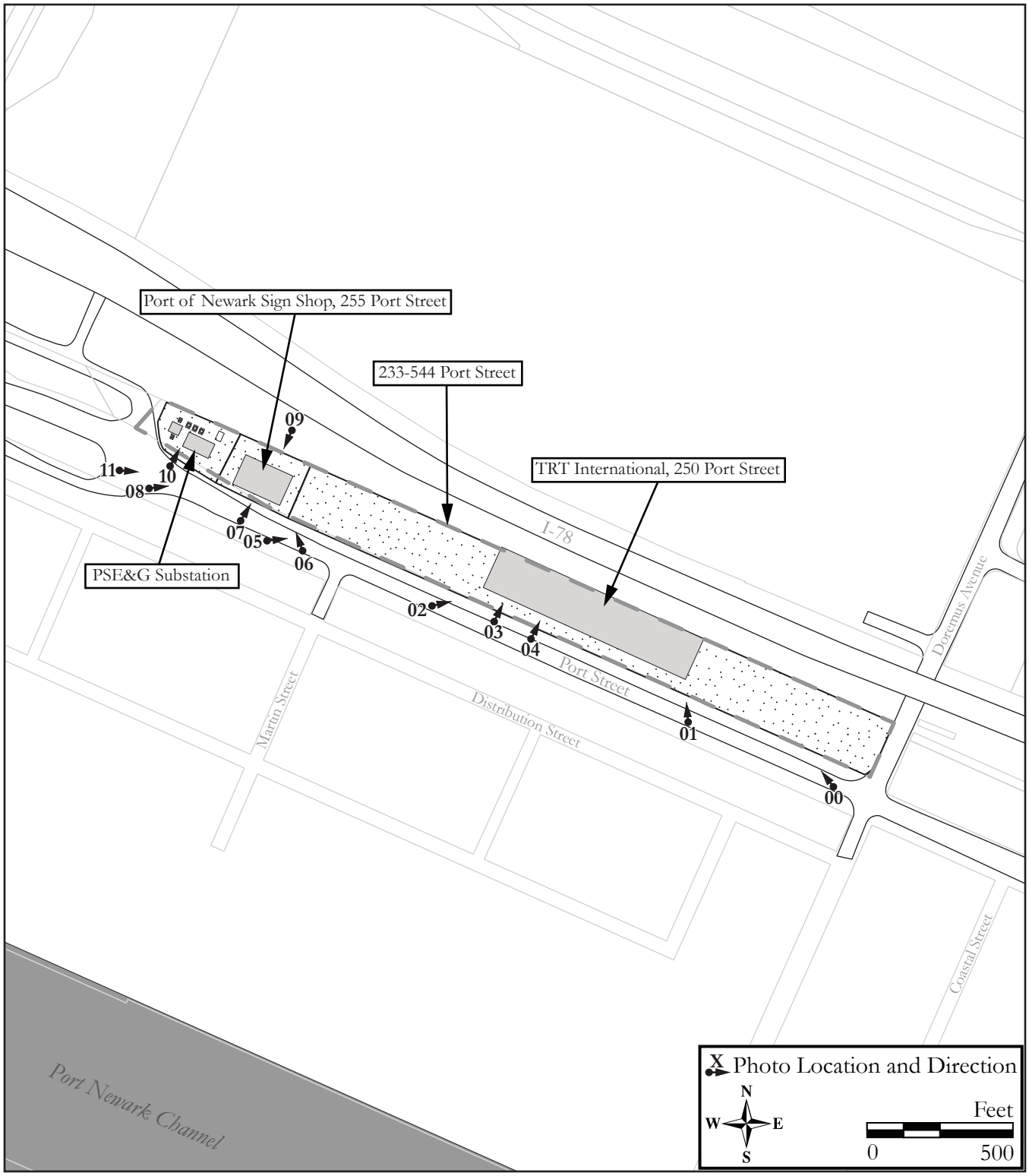
CONTINUATION SHEET

Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Alison Eberhardt

Date: October 2022

Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

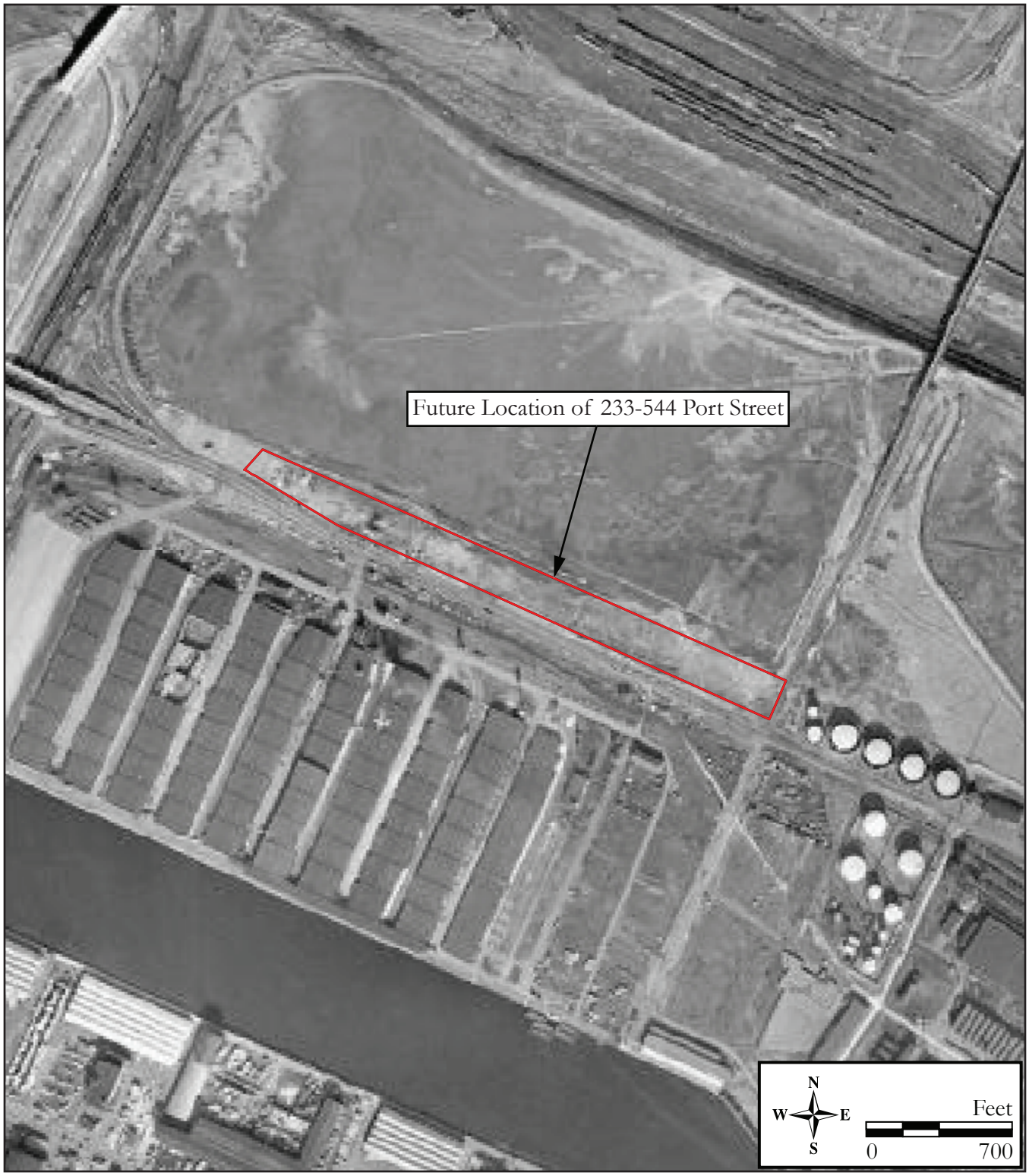


Figure 1: 1954 historic aerial photograph of 233-544 Port Street (Source: NETR 1954).

CONTINUATION SHEET

Historic Sites #:

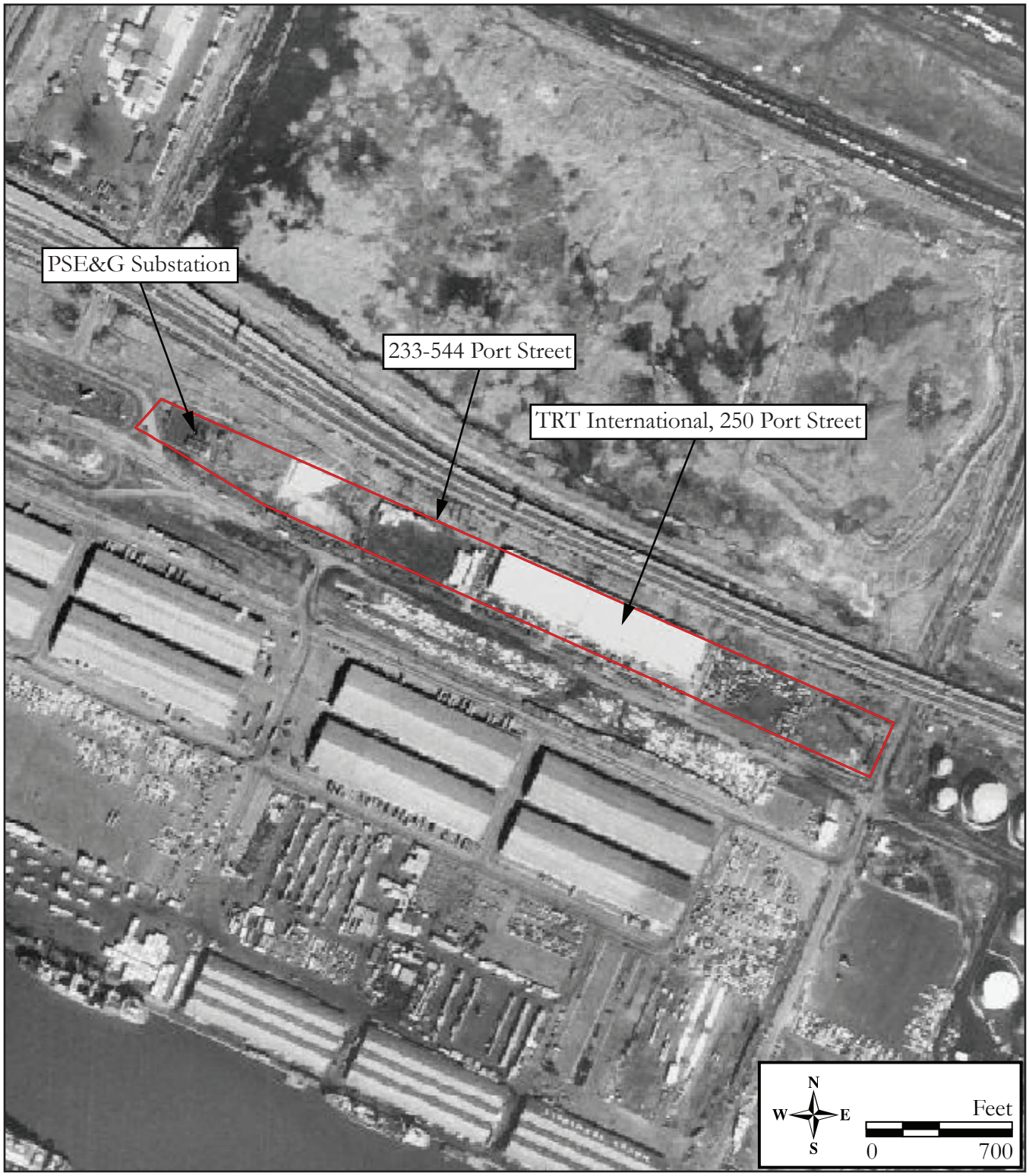


Figure 2: 1970 historic aerial photograph of 233-544 Port Street (Source: NETR 1970).

CONTINUATION SHEET

Historic Sites #:

Figure 3: 1979 historic aerial photograph of 233-544 Port Street (Source: NETR 1979).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Northwest

Photographer: Alison Eberhardt

Date: August 3, 2022

Perspective view of TRT International, located at 250 Port Street, and its eastern entrance.

Plate: 2

Photo view: East

Photographer: Alison Eberhardt

Date: August 3, 2022

View across Port Street towards the TRT International warehouse.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Northeast

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the loading bays at the west end of the TRT International warehouse.

Plate: 4

Photo view: Northeast

Photographer: Alison Eberhardt

Date: August 3, 2022

Detail view of a pair of loading bays at the west end of the primary (south) elevation of TRT International.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view: East

Photographer: Alison Eberhardt

Date: August 3, 2022

View along Port Street towards the western entrance to TRT International.

Plate: 6

Photo view: Northwest

Photographer: Alison Eberhardt

Date: August 3, 2022

Perspective view of the Port of Newark Sign Shop at 255 Port Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 7

Photo view: Northeast

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the primary (south) elevation of the Port of Newark Sign Shop at 255 Port Street.

Plate: 8

Photo view: East

Photographer: Alison Eberhardt

Date: August 3, 2022

Perspective view of the Port of Newark Sign Shop at 255 Port Street, looking towards the New Jersey Turnpike Newark Bay-Hudson County Extension.

CONTINUATION SHEET

Historic Sites #:

Plate: 9

Photo view: Southwest

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the rear (north) elevation of the Port of Newark Sign Shop, TRT International to the east, and the PSE&G Substation to the west.

Plate: 10

Photo view: Northeast

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the PSE&G Substation from Port Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 11

Photo view: Southeast

Photographer: Alison Eberhardt

Date: August 3, 2022

Overview of the 233-544 Port Street parcel, looking southeast from Inner Port Street.

BASE SURVEY FORM

Historic Sites #:

Property Name: 21-93 Firmenich Way

Street Address: *Street #:* 21 *(Low)* 93 *(High)* *Apartment #:* *(Low)* *(High)*

Prefix: *Street Name:* Firmenich *Suffix:* *Type:* WAY

County(s): Essex **Zip Code:** 07114

Municipality(s): City of Newark **Block(s):** 5078.03

Local Place Name(s): **Lot(s):** 85

Ownership: Private **USGS Quad(s):** Elizabeth NJ-NY

Description:

The industrial building at 21-93 Firmenich Way has an irregular-shaped footprint that consists of a circa-1970, one-story main block, with three circa-1979 additions (Plates 1-7). The main block and additions have individual rectangular footprints, are constructed of concrete masonry units, and are capped by flat roofs. One of the additions is located on the southeast corner of the east elevation of the main block, a second addition is located on the eastern corner of the rear (south) elevation of the main block, and the third addition is located on the west elevation of the main block. The main block has a rectangular footprint that is oriented parallel to Firmenich Way and the New Jersey Turnpike Newark Bay-Hudson County Extension (see Plates 1-4). Fenestration throughout is irregular and includes single-leaf metal doors, double-hung metal windows, and roll-top garage doors (see Plates 2 and 4). Ventilation fans and exterior lights also irregularly puncture the exterior of the building. *See Building/Element Attachment*

Registration and Status Dates:

National Historic Landmark: SHPO Opinion:

National Register: Local Designation:

New Jersey Register: Other Designation:

Determination of Eligibility: Other Designation Date:

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Alison Eberhardt Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building ____ Landscape ____ Farm
____ Bridge ____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** ____

Status: ☐ Key-Contributing ☐ Contributing ☒ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Alison Eberhardt Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name:	Hertz Corporation Distribution Office		
Historic Name:	21-93 Firmenich Way		
Present Use:	Industrial Activity – Light Industrial		
Historic Use:	Industrial Activity – Light Industrial		
Construction Date:	Circa 1970	**Source:**	Nationwide Environmental Title Research [NETR] 1966, 1970
Alteration Date(s):	Circa 1979	**Source:**	NETR 1970, 1979
Designer:	Unknown	**Physical Condition:**	Good
Builder:	Unknown	**Remaining Historic Fabric:**	Medium
Style:	None		
Form:	Other	**Stories:**	3
Type:	N/A	**Bays:**	N/A
Roof Finish Materials:	Rubber Membrane		
Exterior Finish Materials	Concrete Block; Metal Siding		

Exterior Description, continued from Base Survey Form:
The addition on the east elevation of the main block is one story tall and is approximately the same length as the main block, yet only one-third of the width (see Plates 1 and 3). The second circa-1979 addition is located on the east corner of the rear (south) elevation of the main block (see Plate 4). The one-story addition is approximately half the height of the main block. There is one entrance and two windows on the south elevation of this addition; the door is a single-leaf metal door. The third circa-1979 addition is located on the west elevation of the main block and is three stories tall (see Plates 5-7). The addition is characterized by two protruding stair towers on the northeast and southeast corners of the addition which are constructed of square masonry blocks. The rest of the addition is faced in corrugated metal siding and features continuous bands of metal sash windows which wrap around each of the three floors. This addition also contains an entrance on its north elevation, which consists of a glass and metal door sheltered by a flat roof with a curved corner.

Interior Description:
The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the public right-of-way and did not include interior access to the building.

Setting:
The industrial building at 21-93 Firmenich Way is sited on an approximately 6.3-acre, irregularly shaped parcel (Block 5078.03, Lot 85) on the south side of Firmenich Way in the City of Newark, Essex County, New Jersey. The building is oriented with its primary elevation facing north and is set back approximately 90 feet from Firmenich Way. An asphalt-paved parking lot surrounds the entire building. The parcel is bordered by Doremus Avenue to the west, Firmenich Way to the north, Warehouse Place to the east, and the New Jersey Turnpike Newark Bay-Hudson County Extension to the south. There are two entrances to the property; two driveways are located approximately 80 feet from the northwest corner of the building and adjacent to each other, and two metal guard houses flank the eastern entrance. Several Quonset huts are located in the asphalt-paved parking lot of the subject parcel. The surrounding area consists primarily of mid- to late twentieth-century industrial buildings; the New Jersey Turnpike Newark Bay-Hudson County Extension is located approximately 200 feet to the south of the property.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
The industrial building at 21-93 Firmenich Way was constructed circa 1970 in the City of Newark, Essex County, New Jersey. Today, the building is occupied by the Hertz Corporation. It is constructed of unremarkable and common building materials, including concrete masonry units capped with a flat roof, and is presently used as a rental car maintenance facility. The building is an undistinguished example of a late-twentieth century industrial building that has undergone alterations, including three additions that date to circa 1979. Although it is located adjacent to the New Jersey Turnpike Newark Bay-Hudson County Extension and the Port Newark-Elizabeth Marine Terminal, 21-93 Firmenich Way is not associated with either and was constructed after both facilities were completed.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The industrial building at 21-93 Firmenich Way is recommended not eligible for listing in the National Register of Historic Places (NRHP). Research did not indicate that the subject property was associated with prominent individuals or patterns of history. Architecturally, the building retains a high degree of its integrity of location, design, materials, feeling, and association; however, it is a common and unremarkable example of its type which lacks historic and architectural significance. The subject building is one of many late twentieth-century industrial buildings found throughout the Port Newark-Elizabeth Marine Terminal and is not the work of a master. For these reasons, the building at 21-93 Firmenich Way is recommended not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 21-93 Firmenich Way

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

21-93 Firmenich Way was constructed circa 1970 and is located on the south side of Firmenich Way, north of the Port Newark-Elizabeth Marine Terminal, in the City of Newark, Essex County, New Jersey. By the beginning of the twentieth century, the Hudson River and Newark Bay were established as frequent maritime routes, though the Port Authority of New York and New Jersey was not established until 1948 (The Port Authority of New York and New Jersey 2022). Research did not indicate that 21-93 Firmenich Way was developed in conjunction with the Port Newark-Elizabeth Marine Terminal; however, a boom in shipping during the 1950s due to improvements to the port may have driven development and construction in the surrounding area when the port saw higher employment, occupancy, and new business development. Today, the Port Newark-Elizabeth Marine Terminal remains the largest port on the east coast (The Port Authority of New York and New Jersey 2022).

The construction of 21-93 Firmenich Way may have also been driven by the completion of the adjacent New Jersey Turnpike Newark Bay-Hudson County Extension. By 1966, the New Jersey Turnpike Newark Bay-Hudson County Extension was completed (NETR 1966). The Extension is located adjacent to the southern boundary of the subject parcel and connects the City of Newark to the City of Bayonne across the Newark Bay. The New Jersey Turnpike Newark Bay-Hudson County Extension added a vital transportation link to the area; the roadway linked the existing New Jersey Turnpike with the Hudson Tunnel and New York City. The construction of a major overland shipping route in the area may have prompted the construction of buildings such as 21-93 Firmenich Way to support the shipping industry and take advantage of the proximity to the highway.

By 1970, the main rectangular block of 21-93 Firmenich Way was constructed (NETR 1970; Figure 1). The building was surrounded by asphalt-paved parking lots and accessed by a road oriented north-south, perpendicular to the New Jersey Turnpike Newark Bay-Hudson County Extension (NETR 1970; see Figure 1). Research to date has not determined the original use of the building, though a 1970 historic aerial photograph shows a large number of automobiles parked around the building suggesting it may have been used as part of the automobile industry (NETR 1970; see Figure 1). By 1979, three additions stemming from the main block of the subject building were constructed (NETR 1979; Figure 2). Since 1979, the subject building has remained largely unchanged, though the area around the building changed in the late twentieth century (NETR 1979, 2019). Between 1979 and 1984, Firmenich Way was constructed to the north of the subject building, as well as a large building to the north across Firmenich Way (NETR 1979, 1984). By 2012, a new roof was installed on the building at 21-93 Firmenich Way, and solar panels were installed on the roofs of the main block and eastern elevation (NETR 2012). Between 2012 and 2013, several temporary automotive shelters were erected to the northeast and south of the subject building (NETR 2012, 2013).

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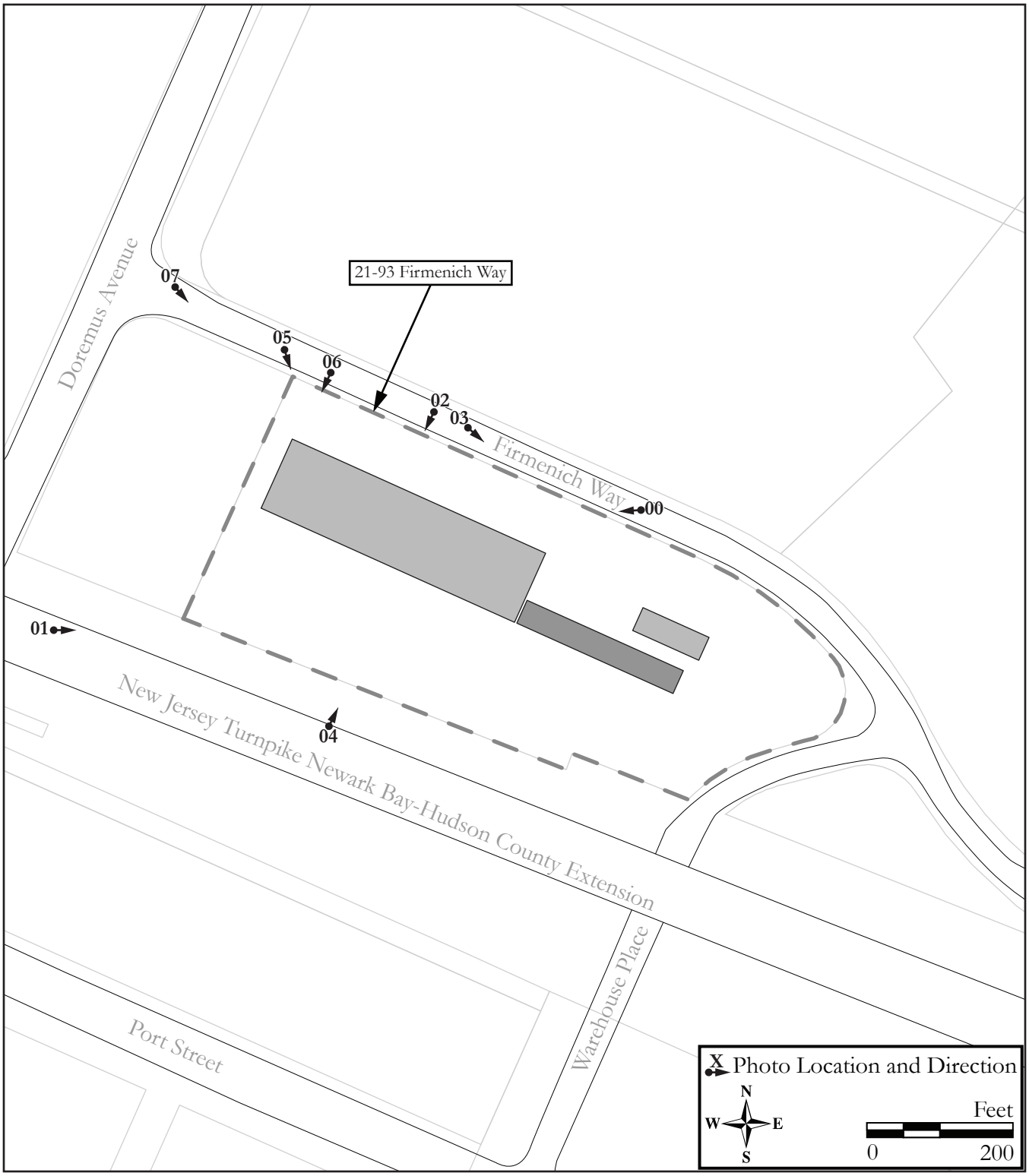
CONTINUATION SHEET

Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Alison Eberhardt
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Figure 1: 1970 historic aerial photograph of 21-93 Firmenich Way (Source: NETR 1970).

CONTINUATION SHEET

Historic Sites #:

Figure 2: 1979 historic aerial photograph of 21-93 Firmenich Way (Source: NETR 1979).

CONTINUATION SHEET

Historic Sites #:

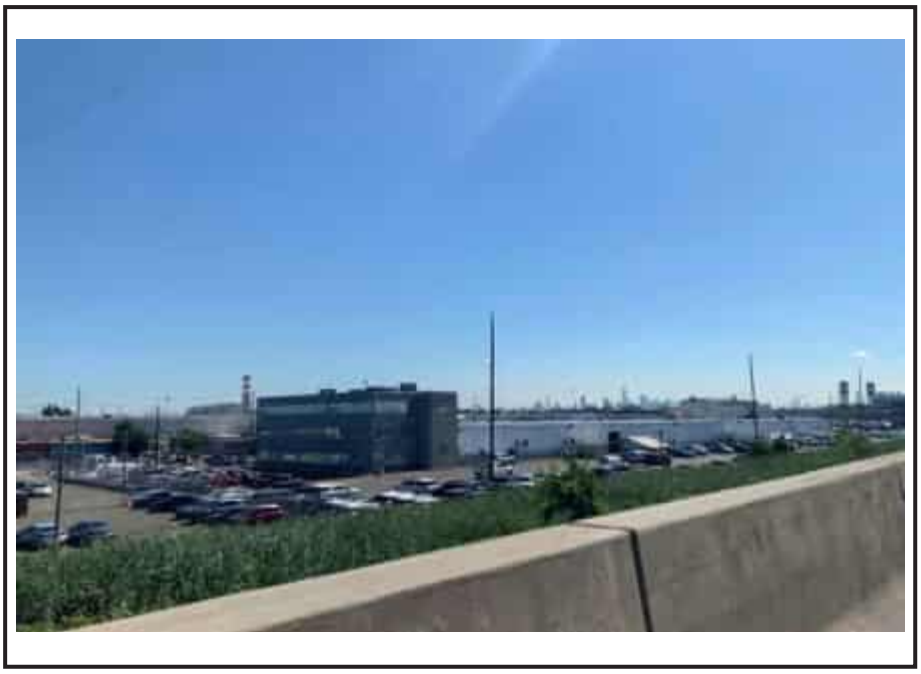


Plate: 1

Photo view: Northeast

Photographer: Alison Eberhardt

Date: August 3, 2022

View of 21-93 Firmench Way from the New Jersey Turnpike Newark Bay-Hudson County Extension.

Plate: 2

Photo view: Southwest

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the primary (north) elevation of the main block of the industrial building at 21-93 Firmenich Way.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: South

Photographer: Alison Eberhardt

Date: August 3, 2022

The main block and circa-1979 addition of the industrial building at 21-93 Firmenich Way. A temporary car shelter sits to the north of the east end of the circa-1979 addition, approximately 10 feet from the building.

Plate: 4

Photo view: Northeast

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the main circa-1970 block and rear circa-1979 addition of the building at 21-93 Firmenich Way from the New Jersey Turnpike Newark Bay-Hudson County Extension. Several temporary car shelters are located to the south of and proximate to the building.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view: Southeast

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the circa-1979 west addition of the building at 21-93 Firmenich Way.

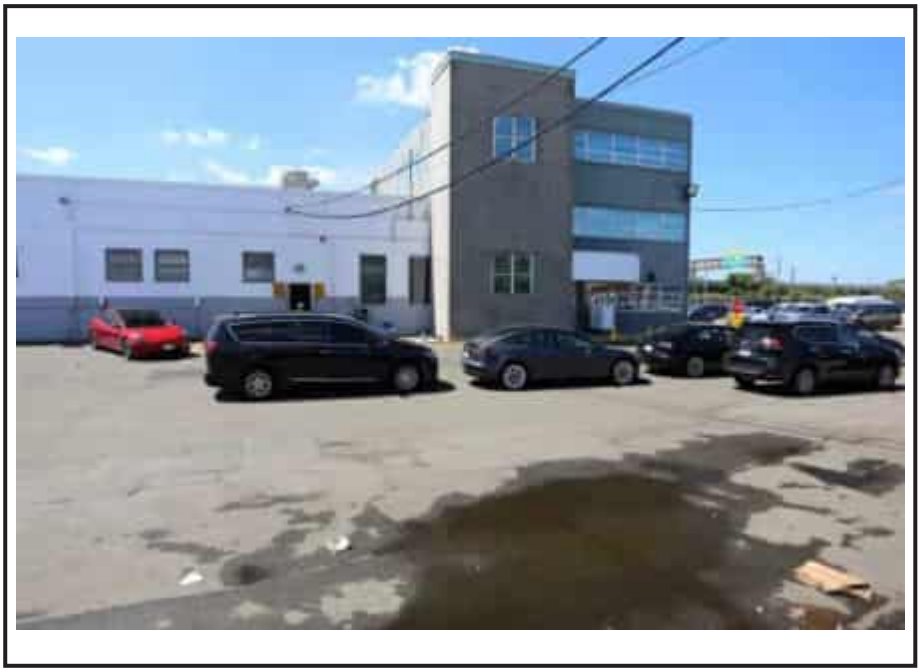


Plate: 6

Photo view: Southwest

Photographer: Alison Eberhardt

Date: August 3, 2022

View towards the entrance to the circa-1979 west addition of the building at 21-93 Firmenich Way.

CONTINUATION SHEET

Historic Sites #:

Plate: 7

Photo view: Southeast

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the northeastern corner of the building, looking towards the New Jersey Turnpike Newark Bay-Hudson County Extension.

HISTORIC DISTRICT OVERLAY

Historic Sites #:

District Name: Sunset Avenue Historic District
County(s): Hudson **District Type:** Residential
Municipality(s): City of Bayonne **USGS Quad(s):** Jersey City NJ-NY
Local Place Name(s):
Development Period: 1963 **To:** 1965 **Source:** NETR 1966; Redfin 2022

Physical Condition: Good
Remaining Historic Fabric: Low

Registration and Status Dates:
National Historic Landmark: **SHPO Opinion:**
National Register: **Local Designation:**
New Jersey Register: **Other Designation:**
Determination of Eligibility: **Other Designation Date:**

Description:
The Sunset Avenue Historic District (SAHD) is an approximately 1.95-acre residential historic district located along both sides of Sunset Avenue in the City of Bayonne, Hudson County, New Jersey (Plates 1-8). The district encompasses 18 duplexes across 36 parcels: Block 23, Lots 1-18, and Block 24, Lots 7-24. Each duplex is sited on two parcels and is three stories tall and four bays wide. Most of the properties within the district are sited on rectangular- or irregularly shaped lots ranging in sizes between 0.04 and 0.08 acres. The duplexes generally share party walls throughout the street and are organized into four blocks of duplexes; the two blocks on the southwestern half of the street are comprised of four duplexes, and the blocks on the northeastern half of Sunset Avenue are comprised of five duplexes. The duplexes on the ends of each block project outward, approximately four feet from the façade of the central units, towards the street. The outer duplexes of each block have hipped-roof front porches, while the central duplexes have porches with front-gabled roofs and front-facing façade gables. The rear yards of each townhouse are typically enclosed by fences.

The district contains four primary types of duplexes, each of which is composed of mirror-imaged townhouses that are all three stories tall and two bays wide. There are eight of one design (Type A), two of a second design (Type B), and eight of a third design (Type C). On the exterior, the duplexes share common design features, such as a rectangular footprint, brick laid in a common bond brick pattern, symmetrical fenestration pattern, and ground-floor enclosed garages. Additionally, all the buildings share minimal ornamentation, except for diamond-shaped formations of brick above the porch roofs sheltering the primary entrances. *See Building/Element Attachment*

Setting:
The SAHD is located in the City of Bayonne, Hudson County, New Jersey. The district is bounded by West 54th Street to the south, the Bayonne Towers apartment complex (see RGA 6) to the east, the site of the former Marist High School Brothers' Residence to the north, and a densely vegetated, undeveloped parcel to the west. Between this undeveloped parcel and the historic district, an unpaved alley that follows the rear property lines of the duplexes on the west side of Sunset Avenue extends northeast from West 54th Street to the northeast end of the development but does not connect to the street that borders to the northeast side of the district. It provides access to the rear yards of the duplexes on the west side of Sunset Avenue. A short distance west is a public park along the Hackensack River. Mature trees are interspersed through the SAHD. The New Jersey Turnpike Newark Bay-Hudson County Extension (I-78) is located approximately 850 feet to the northeast of the center of the district.

BASE SURVEY FORM

Historic Sites #:

Property Name: Building Type A, Sunset Avenue Historic District

Street Address: *Street #:* 9 *(Low)* 11 *(High)* *Apartment #:* *(Low)* *(High)*

Prefix: *Street Name:* Sunset *Suffix:* *Type:* AVE

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 23

Local Place Name(s): **Lot(s):** 5 and 6

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 9-11 Sunset Avenue is a representative example of Building Type A in the Sunset Avenue Historic District, of which there are eight total examples in the district, with two examples in each block of rowhouses: 5-7 Sunset Avenue, 6-8 Sunset Avenue, 9-11 Sunset Avenue, 10-12 Sunset Avenue, 21-23 Sunset Avenue, 22-24 Sunset Avenue, 29-31 Sunset Avenue, and 30-32 Sunset Avenue (see Plate 1). Over the last 50 years, alterations to the duplex have resulted in only a few identifying characteristics that define this block from the others on the street. Building Type A is defined by its front-gabled porch roof sheltering the mirrored primary entrances to each property. The type is also defined by its side-gabled, false roof parapet with centered, front-gabled cornice; the roof is clad in asphalt shingle, and the front-gabled cornice is infilled with vinyl siding. The rear elevations were not visible from the public right-of-way; however, the elevations may resemble those on the east side of Sunset Avenue. They are two bays wide, contain similar window units to those on the primary elevations, and possibly contain an egress onto a back deck or into the back yard (see Plate 8). *See Building/Element Attachment*

Registration and Status Dates:

National Historic Landmark: SHPO Opinion:

National Register: Local Designation:

New Jersey Register: Other Designation:

Determination of Eligibility: Other Designation Date:

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

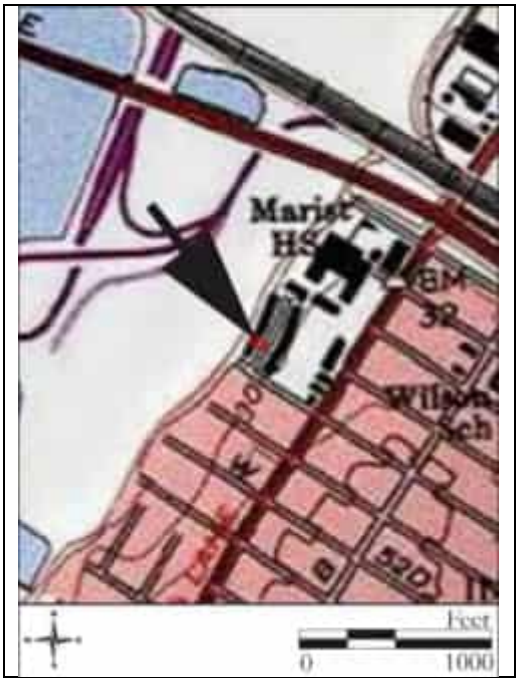
Surveyor: Alison Eberhardt Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Alison Eberhardt Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: Building Type B, Sunset Avenue Historic District

Street Address: *Street #:* 25 *(Low)* 27 *(High)* *Apartment #:* *(Low)* *(High)*

Prefix: *Street Name:* Sunset *Suffix:* *Type:* AVE

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 23

Local Place Name(s): **Lot(s):** 13 and 14

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 25-27 Sunset Avenue is a representative example of Building Type B in the Sunset Avenue Historic District; there are two total examples in the district, 25-27 Sunset Avenue and 26-28 Sunset Avenue (see Plate 2). These rowhouses are situated at the center of the blocks on the northeast side of the district and sit opposite Sunset Avenue from each other. The rear elevations were not visible from the public right-of-way; however, the elevations may resemble those on the east side of Sunset Avenue. They are two bays wide, contain similar window units to those on the primary elevations, and possibly contain an egress onto a back deck or into the back yard (see Plate 8). Building Type B is defined by its hipped-roof porch sheltering the mirrored primary entrances to each property. The type is also defined by its side-gabled, false roof parapet with centered, front-gabled cornice; the roof is clad in asphalt shingle and the front-gabled cornice is infilled with vinyl siding. While this duplex is characteristic of Building Type B, minor alterations over time have introduced new elements on the façade. *See Building/Element Attachment*

Registration and Status Dates:

National Historic Landmark: SHPO Opinion:

National Register: Local Designation:

New Jersey Register: Other Designation:

Determination of Eligibility: Other Designation Date:

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

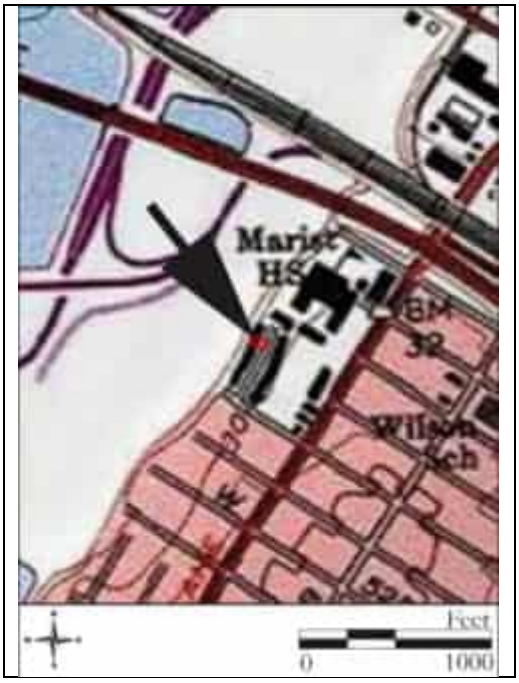
Surveyor: Alison Eberhardt Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Alison Eberhardt Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: Building Type C, Sunset Avenue Historic District

Street Address: *Street #:* 1 *(Low)* 3 *(High)* *Apartment #:* *(Low)* *(High)*

Prefix: *Street Name:* Sunset *Suffix:* *Type:* AVE

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 23

Local Place Name(s): **Lot(s):** 1 and 2

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

1-3 Sunset Avenue is a representative example of Building Type C in the Sunset Avenue Historic District, of which there are eight total examples in the district: 1-3 Sunset Avenue, 2-4 Sunset Avenue, 13-15 Sunset Avenue, 14-16 Sunset Avenue, 17-19 Sunset Avenue, 18-20 Sunset Avenue, 33-35 Sunset Avenue, and 34-36 Sunset Avenue (see Plates 3 and 4). Building Type C is defined by its hipped-roof porch sheltering the mirrored primary entrances to each property. The type is also defined by its side-gabled, false roof parapet; both the porch roof and false roof parapet are clad in asphalt shingles. The most obvious difference between Type C and the two previously mentioned building types is that the type only occurs on the end of the groups of duplexes; the open elevation allows for the installation of windows on the available side. Vinyl-sash windows are located as necessary across the elevation. Minor character-defining features of this specific duplex at 1-3 Sunset Avenue include the type of columns supporting the roof over the primary entrances, the shutters flanking most of the windows, the types of doors in the primary entrances, the types of garage doors, and the number of concrete steps leading up to the primary entrance.

Registration and Status Dates:

National Historic Landmark: SHPO Opinion:

National Register: Local Designation:

New Jersey Register: Other Designation:

Determination of Eligibility: Other Designation Date:

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

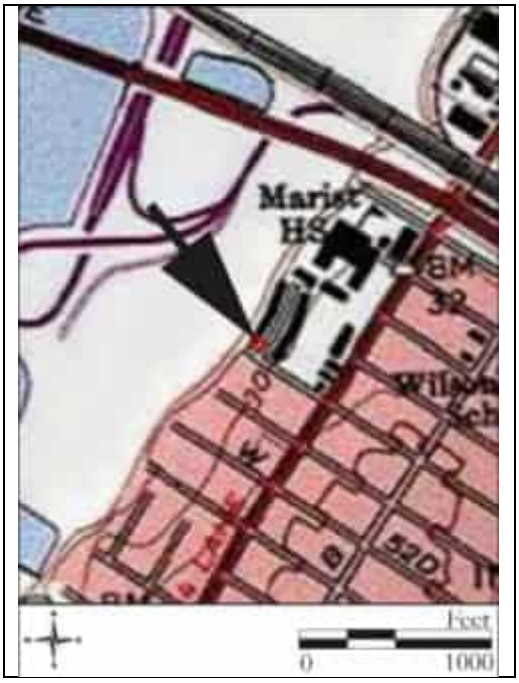
Surveyor: Alison Eberhardt Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
The SAHD is a collection of 36 residential parcels constructed in the mid-twentieth century on either side of Sunset Avenue in the City of Bayonne, Hudson County, New Jersey. Overall, the development of the SAHD reflects the local increase in development following the completion of the Newark Bay Extension in 1956. The houses on the street read as symmetrical twin blocks with elements of the Minimal Traditional style, such as the front-gabled or hipped roof porches that shelter the symmetrical primary entrances on the primary elevations and the side-gabled false roof parapets that face Sunset Avenue. Many of the properties in the district have been altered over the course of the twentieth century, with noticeable changes to the windows, doors, porch roof columns, and railings, though the primary elevations retain their symmetrical fenestration pattern throughout.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The SAHD is recommended not eligible for listing in the National Register of Historic Places (NRHP). Although the construction of Sunset Avenue and the attached duplexes along the street reflect the local development in Bayonne after the completion of the Newark Bay Extension, the district does not possess sufficient significance for eligibility under Criterion A. Research did not uncover associations with any individuals significant in history, thus the district is not recommended eligible under Criterion B. The duplexes along Sunset Avenue are typical of working-class mid-to-late twentieth-century rowhouses in urban areas and are not significant under Criterion C. Changes to buildings, including the replacement of windows, doors, and porch columns and railings, interrupt the visual cohesion of the district. While the district retains integrity of location and setting, the district lacks integrity in design, materials, workmanship, feeling, and association. For these reasons, the SAHD is not recommended eligible for listing in the NRHP.

For Historic Districts Only:

Property Count: Key Contributing: 0 Contributing: 0 Non Contributing: 0

For Individual Properties Only:

List the completed attachments related to the property's significance:

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

Description, continued from Historic District Overlay:
The duplexes deviate from each other in type of roof over the porch and primary entrances and the type of parapet roof facing the street. Building Type A has a front-gabled roof sheltering its porch and a front-facing façade gable on the main block. Building Type B has a front-facing façade gable similar to Type A, though it has a hipped roof over its porch and primary entrances. Building Type C has a hipped roof sheltering its porch and primary entrances and it lacks the front-facing façade gable of the previous two types.

Description, continued from Building Type A, 9-11 Sunset Avenue:
While this duplex is characteristic of Building Type A, minor alterations over time have introduced new elements on the façade. The two porch posts at 9 Sunset Avenue are square and of an unknown material and age. Those at 11 Sunset Avenue are turned wood and appear to have been installed within the past 30 years. In addition, a short section of what appears to be an original dentillated cornice, which was later wrapped with vinyl in the late 1900s or early 2000s, is visible below the roof at 11 Sunset Avenue.

Description, continued from Building Type B, 25-27 Sunset Avenue:
The four porch posts at 25 and 27 Sunset Avenue are square, and of an unknown material and age. Additionally, vinyl-sash windows have replaced the previous window units, and shutters have been affixed adjacent to the windows.

History:
The Sunset Avenue Historic District is located in the City of Bayonne, Hudson County, New Jersey. The surrounding area is characterized primarily by residential buildings, with some industrial and commercial properties located near Newark and Hudson Bay. Most of Bayonne's residential development occurred in the early twentieth century in response to the increased housing demand created by regional industrialization and immigration (Hopkins 1919, 1934).

Historic maps and aerial imagery indicate that the future site of the SAHD was vacant through 1954 (Hopkins 1934; Sanborn Map Company 1950; NETR 1931, 1954). A 1954 historic aerial image depicts the site of present-day Sunset Avenue as an open field abutting Newark Bay, north of West 54th Street's western terminus (NETR 1954; Figure 1). Past real estate listings for the buildings along Sunset Avenue indicate that the houses were constructed in 1964 (Redfin 2022). An aerial image confirms that Sunset Avenue and the houses along it were in place by 1966 (NETR 1966; Figure 2). Physical evidence, such as massing and fenestration on the duplexes, suggest that the townhomes were originally built as single-family dwellings. Additionally, sometime between 1954 and 1966, the shoreline to the west of the street was extended approximately 1,000 feet west into the Newark Bay (NETR 1954, 1966). The shoreline was extended due to the construction of the New Jersey Turnpike Newark Bay-Hudson County Extension, which required filling on either side of the Newark Bay out to established pier lines (HNTB 1952). In September of 1956, the Bayonne-to-Jersey City segment of the Extension was completed with a ceremony at the Holland Tunnel toll plaza, thus opening the new expressway to traffic (*The New York Times*, 15 September 1956: 14). The completion of the roadway likely brought more traffic to Bayonne and spurred more development in the area; the increase in development and the increase of the area's population likely necessitated the construction of more residential buildings, such as the houses along Sunset Avenue or the apartment building to the west of the subject district, Bayonne Towers (RGA 06).

Since their construction in the mid-twentieth century, the residences along Sunset Avenue have experienced varying degrees of alterations. The alterations typically include the replacement of doors, windows, railings, and roofing materials, which date stylistically to the late twentieth century.

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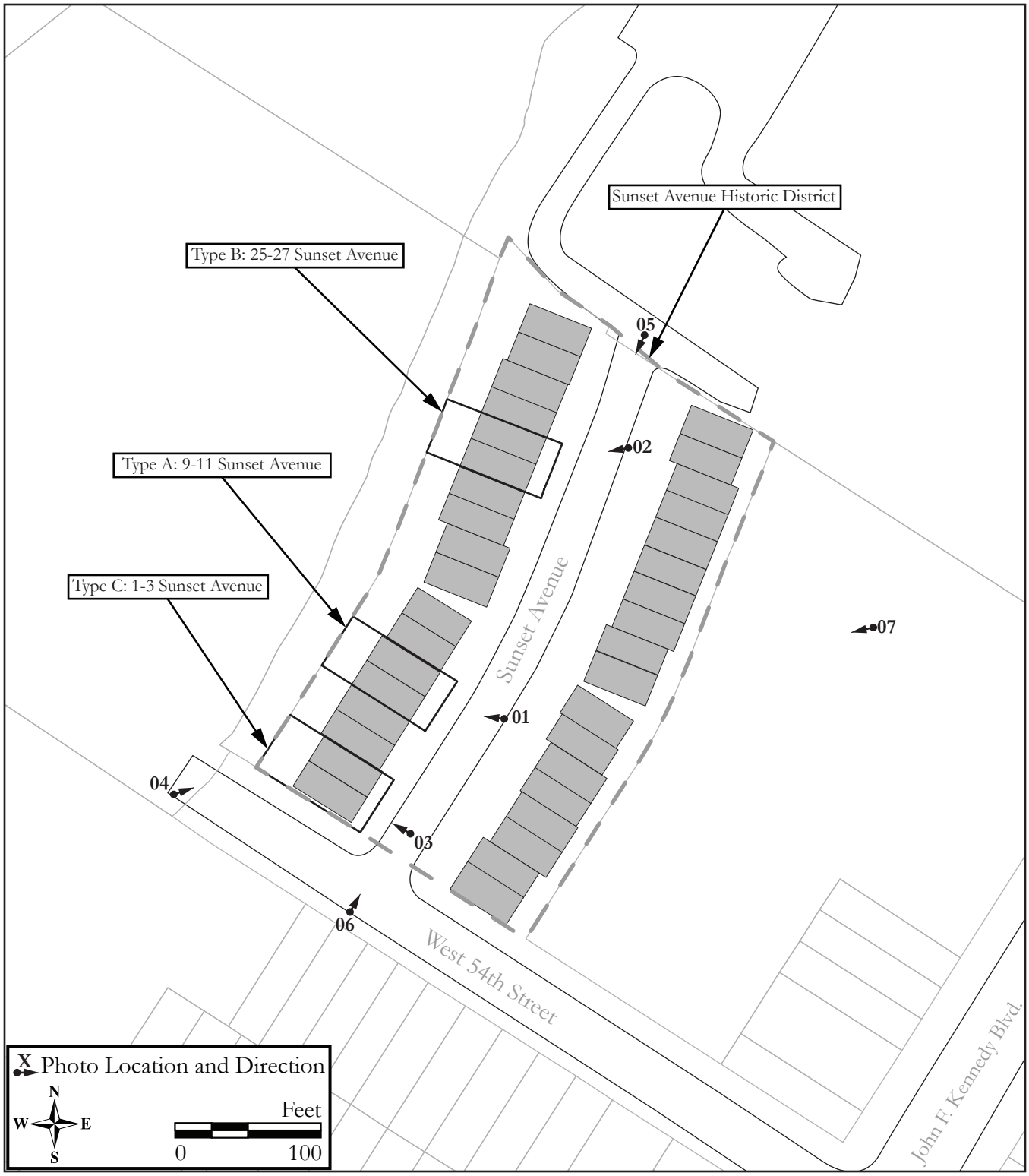
CONTINUATION SHEET

Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Alison Eberhardt
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Figure 1: 1954 historic aerial photograph depicting the future location of Sunset Avenue (Source: NETR 1954).

CONTINUATION SHEET

Historic Sites #:

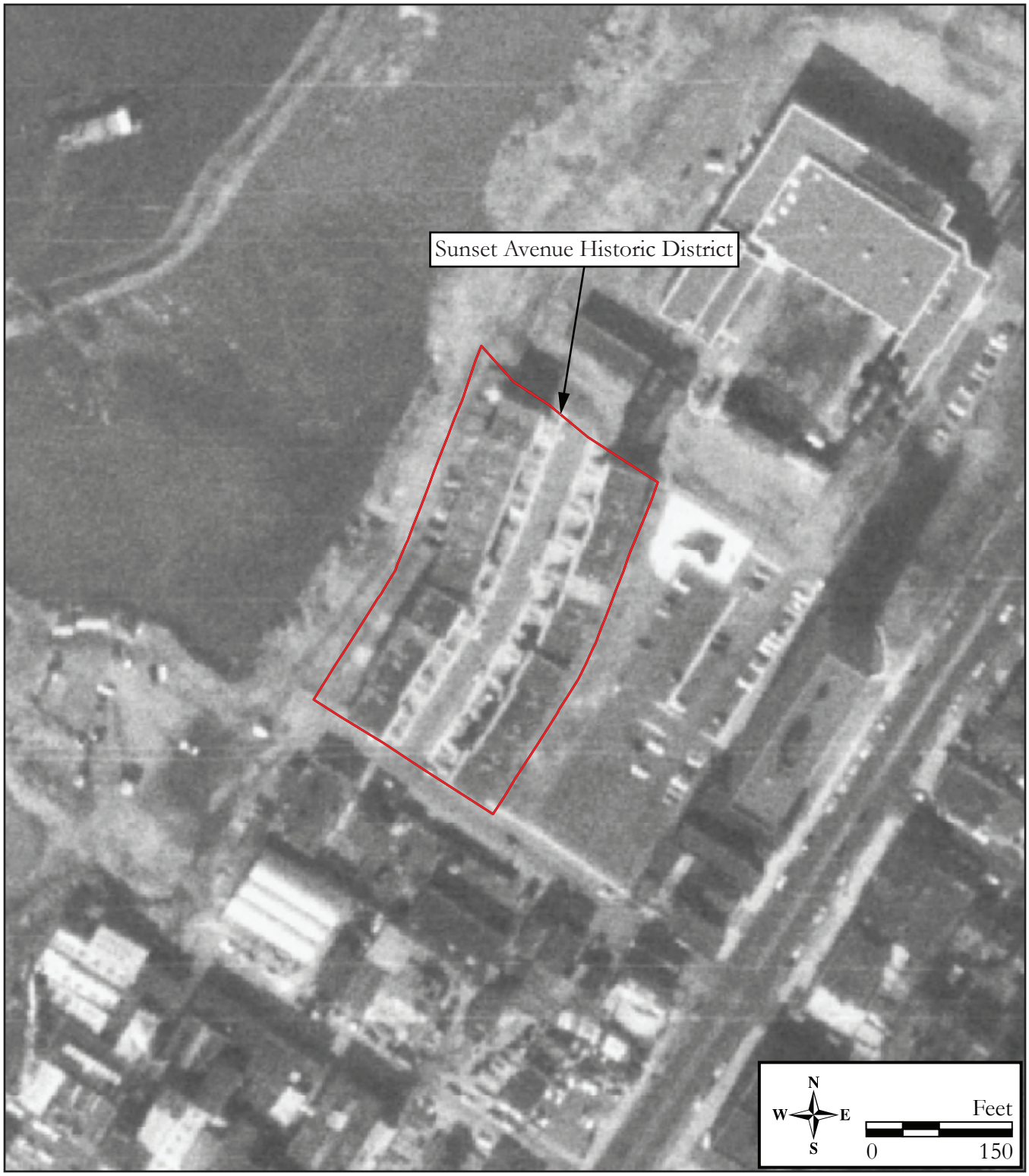


Figure 2: 1966 historic aerial photograph depicting Sunset Avenue (Source: NETR 1966).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Northwest

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the primary (southeast) elevation of 9-11 Sunset Avenue, a representative example of Building Type A in the Sunset Avenue Historic District.

Plate: 2

Photo view: Northwest

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the primary (southeast) elevation of 25-27 Sunset Avenue, a representative example of Building Type B in the Sunset Avenue Historic District.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Northwest

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the primary (southeast) elevation of 1-3 Sunset Avenue, a representative example of Building Type C in the Sunset Avenue Historic District.

Plate: 4

Photo view: West

Photographer: Alison Eberhardt

Date: August 3, 2022

Perspective view of the rear (northwest) and southwest elevations of 1-3 Sunset Avenue from West 54th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view: Southwest

Photographer: Alison Eberhardt

Date: August 3, 2022

An overview of the Sunset Avenue Historic District, looking southwest along Sunset Avenue.

Plate: 6

Photo view: Northeast

Photographer: Alison Eberhardt

Date: August 3, 2022

An overview of the Sunset Avenue Historic District, looking northeast along Sunset Avenue.

CONTINUATION SHEET

Historic Sites #:

Looking west at the rear elevations of the buildings along the east side of Sunset Avenue.

Plate: 7

Photo view: West

Photographer: Alison Eberhardt

Date: August 3, 2022

BASE SURVEY FORM

Historic Sites #:

Property Name: Bayonne Towers

Street Address: *Street #:* 1225 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 24

Local Place Name(s): _____ **Lot(s):** 1

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Constructed circa 1965, Bayonne Towers is a 13-story-tall, brick-clad apartment building located at 1225 John F. Kennedy Boulevard in the City of Bayonne, Hudson County, New Jersey (Plates 1-6). Bayonne Towers is located on the west side of John F. Kennedy Boulevard, north of its intersection with West 54th Street. An asphalt-paved parking lot with an outdoor pool in the northwest corner abuts the apartment building to the west. The building is clad with red brick laid in a running bond and is rhythmically pierced by windows that consist of double-hung, metal-sash units with concrete sills, often grouped in sets of two or three. The primary (east) elevation, which fronts John F. Kennedy Boulevard, is visually separated into thirds by thin, concrete, vertical bands that emphasize the four central bays and primary entrance of the building (see Plates 1 and 2). The windows on the outer thirds of the building's primary elevation are lined by continuous horizontal concrete stringcourses (see Plates 1 and 6). *See Building/Element Attachment*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Alison Eberhardt Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Alison Eberhardt Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name:	Bayonne Towers		
Historic Name:	Kennedy House Condominiums		
Present Use:	Residential Activity, Permanent		
Historic Use:	Residential Activity, Permanent		
Construction Date:	Circa 1965	**Source:**	National Environmental Title Research [NETR] 1954, 1966
Alteration Date(s):		**Source:**	
Designer:	Unknown	**Physical Condition:**	Good
Builder:	Unknown	**Remaining Historic Fabric:**	High
Style:	Modernistic		
Form:	Apartment	**Stories:**	13
Type:	N/A	**Bays:**	16
Roof Finish Materials:	Rubber Membrane		
Exterior Finish Materials	Brick, Running Bond		

Exterior Description:

Continued from Base Survey Form

The primary entrance to the apartment building is located in a one-story, rectangular volume that projects from the center of the primary (east) elevation (see Plate 5). A curved, asphalt driveway with an adjacent concrete sidewalk leads to the primary entrance from John F. Kennedy Boulevard. The primary entrance consists of two metal and glass doors that are located left of center in a metal and glass vestibule positioned in the southern half of the rectangular volume. The northern half of the rectangular volume contains brick walls with one set of doubled, double-hung windows and one set of tripled, double-hung windows. The entire one-story volume is sheltered by a flat roof that is supported by brick wing walls; the brick walls are laid in a stacked bond pattern. The entrance is framed by a stucco-wrapped, square frame with the bottom quarter of the frame wrapped in stone to imitate stone piers or a stone foundation. The north, south, and rear (west) elevations are clad with brick laid in a running bond and contain similar windows to the primary elevation (see Plates 2 and 3). Cell tower equipment is mounted to the parapets on the north, south, and west (rear) elevations.

Interior Description:

The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the public right-of-way and did not include interior access to the building.

Setting:

Bayonne Towers is sited on an L-shaped parcel (Block 24, Lot 1) bordered by an alley to the north, a parking lot and pool to the west, West 54th Street to the south, and John F. Kennedy Boulevard to the east. It is set back approximately 60 feet from John F. Kennedy Boulevard. A circular driveway provides access to the main entrance, as well as access to the parking lot to the rear of the building. Sidewalks line the parcel's boundary with John F. Kennedy Boulevard and the driveway, with additional sidewalks providing pedestrian access to the rear parking lot. The subject property is situated in the northern end of the City of Bayonne and is located approximately 860 feet south of the New Jersey Turnpike Newark Bay-Hudson County Extension. Bayonne Towers is located within an urban setting consisting primarily of early and mid-twentieth-century residences and commercial buildings.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
Built circa 1965, Bayonne Towers, formerly known as Kennedy House Condominiums, is a representative example of a mid-twentieth-century apartment building. Although the building has sustained few exterior alterations since its construction, the building is an unremarkable example of its type. Additionally, research did not indicate that Bayonne Towers is linked to the development of Bayonne or Hudson County. The building was constructed after the majority of residential development; housing construction boomed in the early twentieth century in response to the increased housing demand created by regional industrialization and immigration. Bayonne Towers was also constructed before the completion of the New Jersey Turnpike Newark Bay-Hudson County Extension.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
Bayonne Towers is not recommended eligible for listing in the National Register of Historic Places (NRHP). The subject historic resource was not found to be associated with any significant events in history or important individuals and therefore does not meet Criteria A or B for listing in the NRHP. Architecturally, Bayonne Towers does not meet Criterion C for listing in the NRHP. The apartment building retains integrity of materials, design, workmanship, setting, feeling, and location; however, it lacks architectural significance. While Bayonne Towers is a representative example of a mid-to-late-twentieth century, Modern-style apartment building, the building is not historically or architecturally significant. For these reasons, Bayonne Towers is recommended not eligible for listing in the NRHP.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: Bayonne Towers

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

Bayonne Towers was constructed between 1954 and 1966 and is located at 1225 John F. Kennedy Boulevard in the City of Bayonne, Hudson County, New Jersey (NETR 1954, 1966). Bayonne Township was formed in 1861 from part of Bergen Township and was later renamed Bayonne City in 1869 (Snyder 1969:145). That year, the city was surveyed, and the street grid was laid. Public improvements soon followed, including road grading, sidewalk, and sewer and gas line construction (Whitcomb 1904:75). In 1895, the Bayonne section of Hudson Boulevard, known today as John F. Kennedy Boulevard, was completed (Whitcomb 1904:92). During the late nineteenth and early twentieth century, Bayonne experienced an industrial boom, coupled with a high influx of European immigrants looking for a place to work and live, which led to rapid urbanization and industrial development (City of Bayonne 2022). Pamrapo occupied the northwest region of Bayonne, near the city's border with the City of Jersey City border and has come to be characterized primarily by residential buildings, with some industrial and commercial properties located near Newark and Hudson Bay. Most of the residential development in this area of Bayonne occurred in the early twentieth century in response to the increased housing demand created by regional industrialization and immigration (Hopkins 1919, 1934). A 1929 Sanborn map depicts the future site of Bayonne Towers as part of a planned extension of West 55th Street to the Newark Bay, suggesting the demand for housing precipitated the further subdivision of land to facilitate the construction of more residential buildings (Sanborn Map Company 1929).

Bayonne Towers, formerly known as Kennedy House Condominiums, was constructed sometime between 1954 and 1966 (NETR 1954, 1966). A 1954 aerial photograph depicts the land on which the apartment building would be erected as a lightly wooded area; West 55th Street ended at what was then known as Hudson Boulevard and did not extend to the Newark Bay (NETR 1954; Figure 1). The New Jersey Turnpike Newark Bay-Hudson County Extension (NB-HCE), which lies to the west and north of the subject property, was also constructed around this time. Between 1954 and 1966, the shoreline to the west was also extended due to the construction of the NB-HCE, which required filling on either side of the Newark Bay out to established pier lines (Howard Needles Tammen & Bergendoff 1952). In September of 1956, the Bayonne-to-Jersey City segment of the NB-HCE was completed with a ceremony at the Holland Tunnel toll plaza, thus opening the new expressway to traffic (*The New York Times*, 15 September 1956: 14). Research did not indicate that the construction of Bayonne Towers coincided with the construction of the NB-HCE.

In 1963, Hudson Boulevard was renamed to John F. Kennedy Boulevard to honor the late president (*Ashbury Park Press*, 5 December 1963:26). By 1966, the apartment building, with its adjacent parking lot and pool, appears on a historic aerial photograph (NETR 1966; Figure 2). The Bayonne Towers apartment building has remained largely unchanged since it was constructed (NETR 1966, 2019). The building was renamed from Kennedy House Condominiums to Bayonne Towers between 2015 and 2016 (Google Imagery 2015, 2016).

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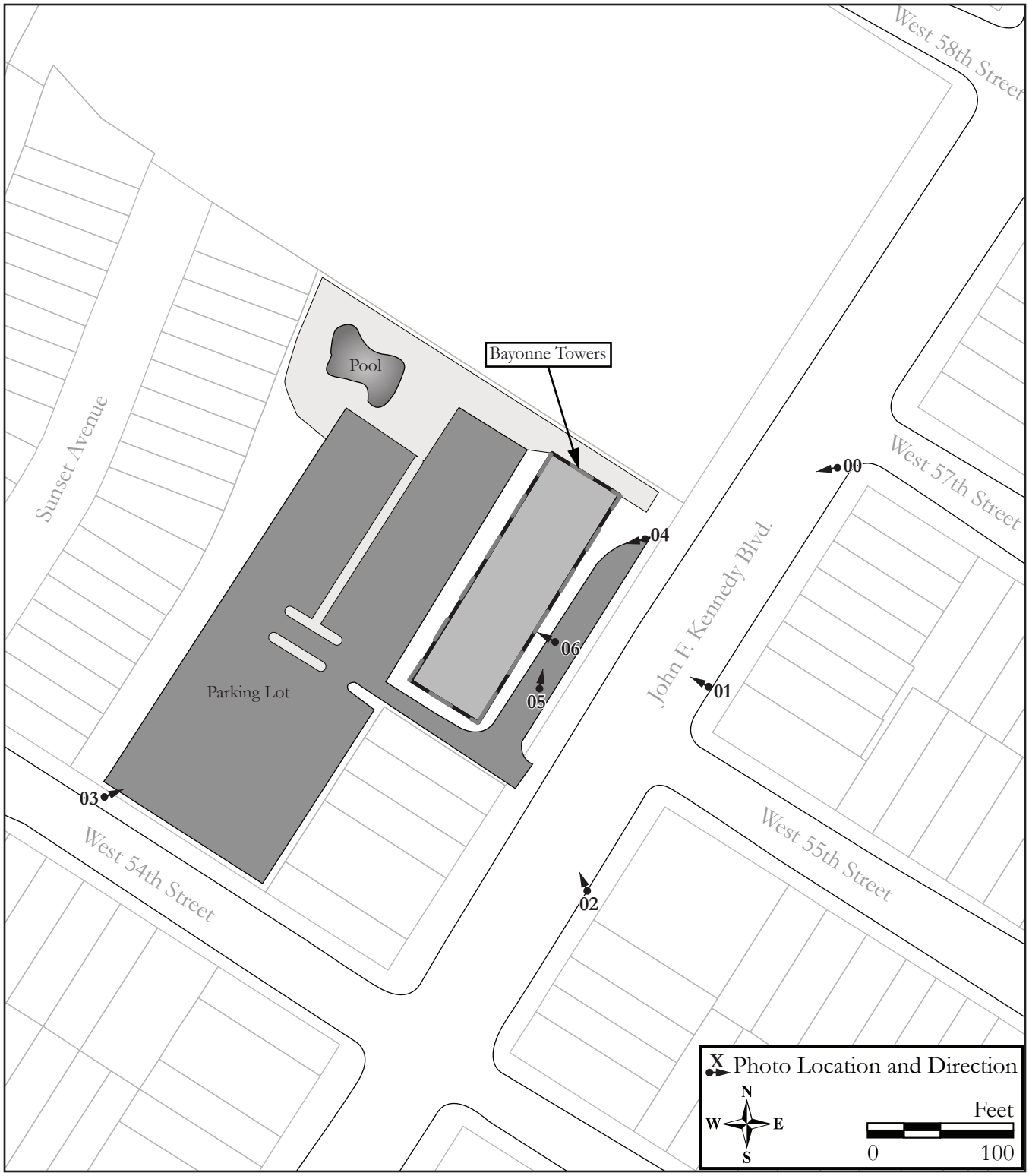
Whitcomb, Royden P.
1904 *First History of Bayonne*. R. P. Whitcomb, Bayonne, New Jersey.

CONTINUATION SHEET

Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Alison Eberhardt
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Figure 1: 1954 historic aerial photograph of 1225 John F. Kennedy Boulevard (Source: NETR 1954).

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Alison Eberhardt
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CONTINUATION SHEET

Historic Sites #:

Figure 2: 1966 historic aerial photograph of 1225 John F. Kennedy Boulevard (Source: NETR 1966).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Northwest

Photographer: Alison Eberhardt

Date: August 3, 2022

Overview of the primary (east) elevation of Bayonne Towers, looking northwest from the intersection of John F. Kennedy Boulevard and West 55th Street.

Plate: 2

Photo view: North

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the primary and south elevations of Bayonne Towers.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Northeast

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the south and west elevations of Bayonne Towers from the adjacent rear (west) parking lot.

Plate: 4

Photo view: West

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the circular driveway and main entrance to Bayonne Towers.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view: North

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the main entrance to Bayonne Towers.

Plate: 6

Photo view: Northwest

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the typical paired, double-hung windows that characterize the fenestration of Bayonne Towers.

HISTORIC DISTRICT OVERLAY

Historic Sites #:

District Name: 1234-1238 John F. Kennedy Boulevard Historic District
County(s): Hudson **District Type:** Residential
Municipality(s): City of Bayonne **USGS Quad(s):** Jersey City, NJ-NY
Local Place Name(s):
Development Period: Circa 1915 **To:** **Source:** Sanborn Map Company 1912; Hopkins 1919

Physical Condition: Fair
Remaining Historic Fabric: Medium

Registration and Status Dates:
National Historic Landmark: **SHPO Opinion:**
National Register: **Local Designation:**
New Jersey Register: **Other Designation:**
Determination of Eligibility: **Other Designation Date:**

Description:
The 1234-1238 John F. Kennedy Boulevard Historic District is a small residential district located on the southeast side of John F. Kennedy Boulevard, between West 56th and West 55th streets, in the City of Bayonne, Hudson County, New Jersey (Plates 1-6). The district includes four, circa-1915, hollow tile-constructed rowhouses at 1234, 1234A, 1236, and 1238 John F. Kennedy Boulevard (Block 25, Lots 1-4). The rowhouses within the district are part of a larger grouping of six rowhouses; the adjoining dwellings at 1230 and 1232 John F. Kennedy Boulevard to the southwest are not included in this district, as they were determined to not fall within the viewshed of the New Jersey Turnpike Newark Bay-Hudson County Extension. Buildings in the district are generally two-bay-wide, two-story-tall dwellings with Italianate influence. The buildings are capped by flat roofs sheathed in rolled asphalt, and most feature a bracketed cornice along the roofline of their primary elevations. There are rooftop features, likely wells to provide natural light, that are shared by 1234 and 1232 John F. Kennedy Boulevard, as well as 1234A and 1246 John F. Kennedy Boulevard. There are simple stone lintels and vinyl replacement windows throughout. Numbers 1234 and 1234A John F. Kennedy Boulevard share a hipped-roof portico, while 1236 John F. Kennedy Boulevard has an awning. Each entryway features two doorways, which lead to separate first-floor and second-floor apartments in each building. Concrete stoops with metal handrails lead to the sidewalk, which is shaded by three large trees. Rear, two-story porches with wood posts extend across the southeast elevation of the rowhouses.

Setting:
The 1234-1238 John F. Kennedy Boulevard Historic District is located approximately 750 feet south of the New Jersey Turnpike Newark Bay-Hudson County Extension. The district is bounded by John F. Kennedy Boulevard to the northwest, West 56th Street to the northeast, residential buildings to the southeast, and an adjoining rowhouse at 1232 John F. Kennedy Boulevard to the southwest. The district encompasses 0.2 acres. The surrounding urban neighborhood is largely residential, with many two-story, wood-frame, single-family dwellings, along with some larger brick apartment buildings and commercial properties. Most of this development dates to the early to mid-twentieth century.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1234 John F. Kennedy Boulevard

Street Address: *Street #:* 1234 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 25

Local Place Name(s): _____ **Lot(s):** 4

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1234 John F. Kennedy Boulevard is a two-story-tall, three-bay-wide, hollow tile-constructed rowhouse, located at the southwest end of the historic district (see Plates 1 and 5). Built circa 1915, the building is flanked by rowhouses of the same age. The subject building is topped by a flat roof sheathed in rolled asphalt, and its primary (northwest) elevation is clad in stucco. A bracketed cornice, likely constructed of wood, runs along the roofline on the primary (northwest) elevation. Windows throughout consist of one-over-one, double-hung, vinyl replacement units which rest on simple stone lintels. There are three second-floor windows and two on the first floor. The subject building shares a hipped-roof portico with 1234A John F. Kennedy Boulevard that is adjacent to the northeast. The portico features an asphalt-shingled roof, half-height walls, and simple supports clad in stucco. A set of brick and concrete steps flanked by metal handrails leads to two doorways sheltered beneath the portico. The doorways are located in the northernmost bay of the first floor and each consist of a screened and paneled door. There are two foundation-level casement windows adjacent to the portico steps. First- and second-story porches with wood posts span the rear (southeast) elevation.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

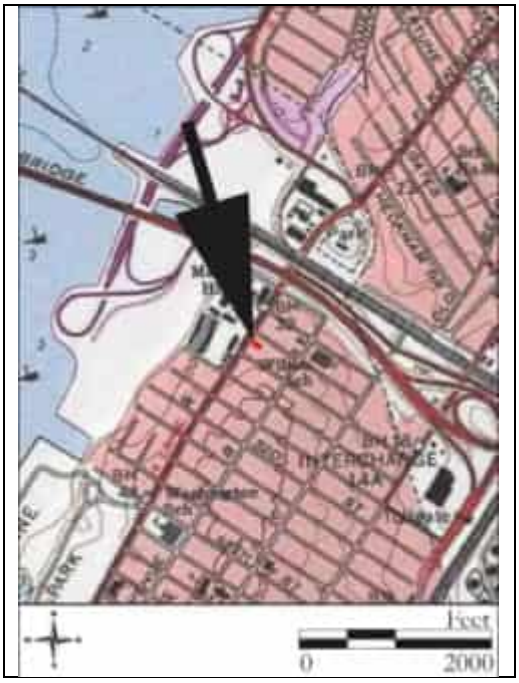
Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1234A John F. Kennedy Boulevard

Street Address: *Street #:* 1234A *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 25

Local Place Name(s): _____ **Lot(s):** 3

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1234A John F. Kennedy Boulevard is a two-story-tall, three-bay-wide, hollow tile-constructed rowhouse (see Plates 2 and 5). Built circa 1915, the building is flanked by rowhouses of the same age. The subject building is topped by a flat roof sheathed in rolled asphalt, and its primary (northwest) elevation is clad in stucco. A bracketed cornice, likely constructed of wood, lines the roofline on the primary (northwest) elevation. Windows throughout consist of one-over-one, double-hung, vinyl replacement units which rest on simple stone lintels. There are three second-floor windows and two on the first floor. The subject building shares a hipped-roof portico with the adjacent rowhouse at 1234 John F. Kennedy Boulevard to the northeast. The portico features an asphalt-shingled roof, half-height walls, and simple supports clad in stucco. A set of brick and concrete steps flanked by metal handrails leads to two doorways sheltered beneath the portico. The doorways are located in the southernmost bay of the first floor and each consist of a screened and paneled door. There are two foundation-level casement windows adjacent to the portico steps. First- and second-story porches with wood posts span the rear (southeast) elevation.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

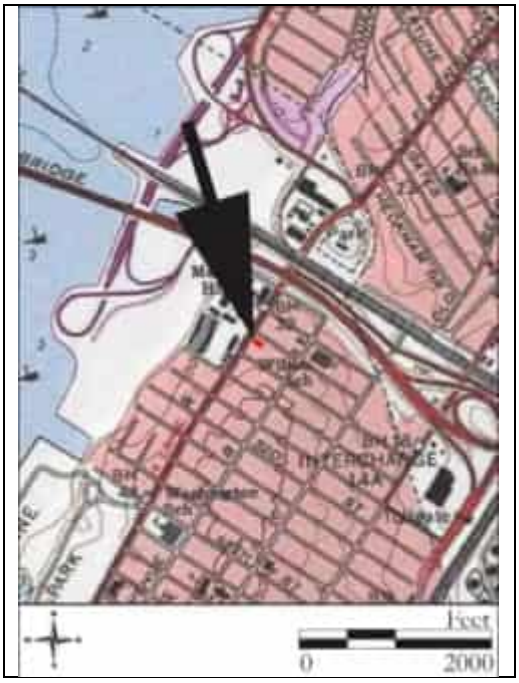
Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1236 John F. Kennedy Boulevard

Street Address: *Street #:* 1236 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 25

Local Place Name(s): _____ **Lot(s):** 2

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1236 John F. Kennedy Boulevard is a two-story-tall, three-bay-wide, hollow tile-constructed rowhouse (see Plates 3 and 5). Built circa 1915, the building is flanked by rowhouses of the same age. The subject building is topped by a flat roof sheathed in rolled asphalt, and its primary (northwest) elevation is clad in stucco. A bracketed cornice, likely constructed of wood, lines the roofline on the primary (northwest) elevation. Windows throughout consist of six-over-six, double-hung, vinyl replacement units which rest on simple stone lintels. There are three second-floor windows and two on the first floor. Two doorways are located in the northernmost bay of the first floor, each consisting of a screened and paneled door. The doorways are sheltered by an aluminum awning and accessed via a set of concrete steps flanked by metal handrails. There are two foundation-level casement windows adjacent to the front steps. First and second story porches with wood posts span the rear (southeast) elevation

Registration and Status Dates:

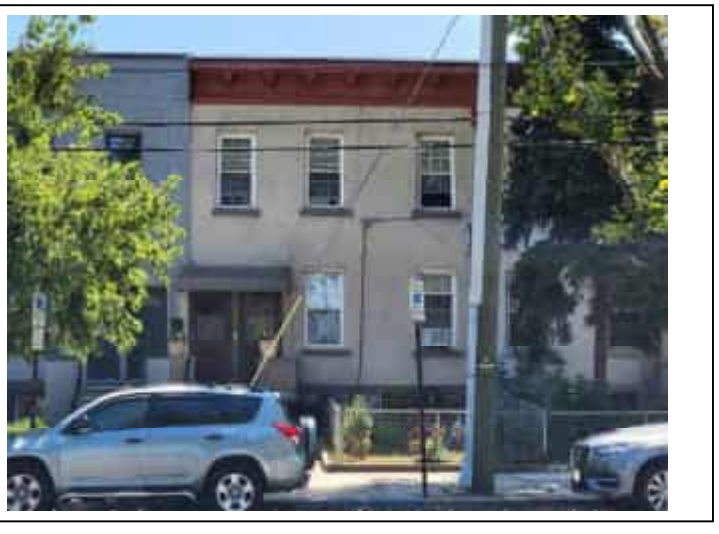
National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

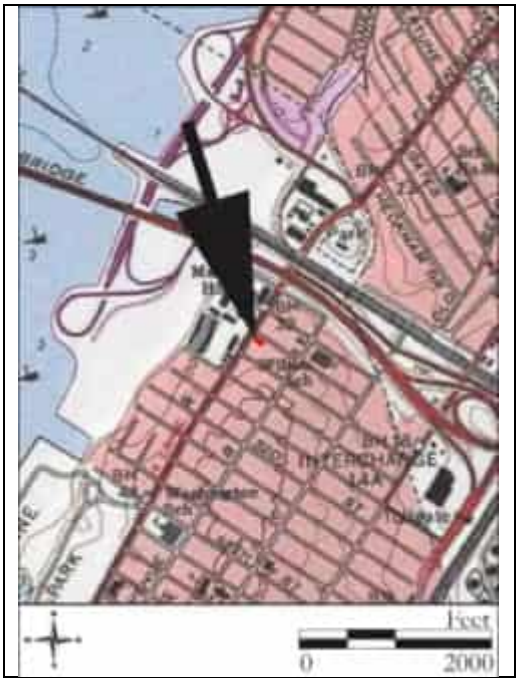
Photograph:



BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1238 John F. Kennedy Boulevard

Street Address: *Street #:* 1238 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 25

Local Place Name(s): _____ **Lot(s):** 1

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1238 John F. Kennedy Boulevard is a two-story-tall, three-bay-wide, hollow tile-constructed rowhouse, located at the northeast end of the historic district (see Plates 4 and 5). Built circa 1915, the building is abutted by a rowhouse of the same age at 1236 John F. Kennedy Boulevard on its southwest elevation. The subject building is topped by a flat roof sheathed in rolled asphalt. Unlike the other rowhouses in the district, this dwelling has a brick veneer and lacks a bracketed cornice. Windows throughout consist of one-over-one, double-hung, vinyl replacement units which rest on simple stone lintels. There are three second-floor windows and two on the first floor of the primary (northwest) elevation, along with three windows on each floor of the side (northeast) elevation. A set of brick and concrete steps flanked by metal handrails leads to two paneled doors located in the southernmost bay of the first floor. There are two foundation-level casement windows adjacent to the portico steps on the primary elevation, and an additional three casement windows on the side (northeast) elevation. A paneled door provides entry to the side of the rowhouse in the northeast corner of the first floor. First- and second-story porches with wood posts span the rear (southeast) elevation.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

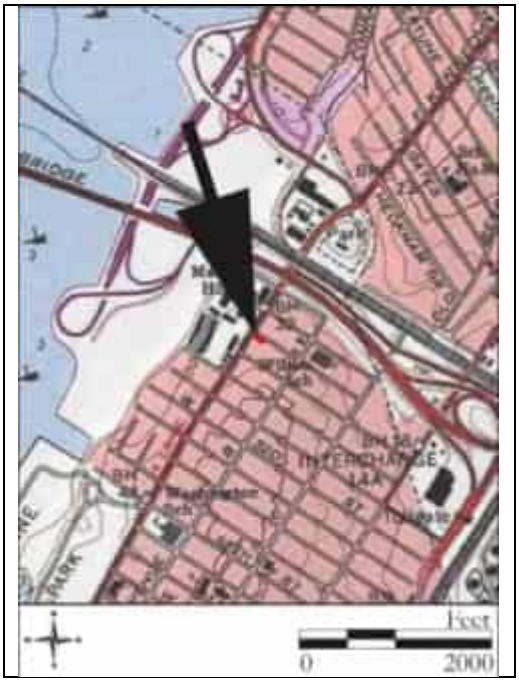
Surveyor: Matthew Goldberg Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg Date: October 2022
Organization: Richard Grubb & Associates, Inc.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
The 1234-1238 John F. Kennedy Boulevard Historic District is a small residential district in the northern area of Bayonne, containing four circa-1915 rowhouses. In response to a turn-of-the-century industrial boom and influx of immigration, residential and commercial buildings were constructed throughout the city. Vernacular, working-class dwellings such as those within the 1234-1238 John F. Kennedy Boulevard Historic District exemplify the construction of this era and the development of Bayonne.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The 1234-1238 John F. Kennedy Boulevard Historic District is recommended not eligible for listing in the National Register of Historic Places (NRHP). Research did not indicate that the district was associated with prominent individuals or patterns of history. Buildings in the district retain a moderate degree of integrity of location, setting, feeling, and association; however, alterations such as the replacement of original windows and doors throughout and the introduction of modern cladding materials diminishes the district's integrity of materials, design, and workmanship. Architecturally, buildings in the district are vernacular iterations of Italianate style rowhouses, which were commonly constructed throughout Bayonne during the early twentieth century. As such, buildings in the district are unremarkable examples of their aforementioned type and style, and do not represent the work of a master. For these reasons, the district is recommended not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 1234-1238 John F. Kennedy Boulevard

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

The subject properties at 1234-1238 John F. Kennedy Boulevard are located in the City of Bayonne, New Jersey. Bayonne Township was formed in 1861 from part of Bergen Township, and was later renamed Bayonne City in 1869 (Snyder 1969:145). That year, the city was surveyed and road maps planning for future development were created. Public improvements soon followed, including road grading, and sidewalk, sewer, and gas line construction (Whitcomb 1904:75). In 1895, the Bayonne section of Hudson Boulevard, now known as John F. Kennedy Boulevard, was completed (Whitcomb 1904:92). During the late nineteenth and early twentieth century, Bayonne experienced an industrial boom, coupled with a high influx of European immigrants looking for a place to work and live, which led to rapid urbanization and industrial development (City of Bayonne 2022). The Pamrapo neighborhood of Bayonne, where the subject property is located, was one of five original villages within Bergen Township. Pamrapo occupied the northwest region of Bayonne, near the city's border with the City of Jersey City. The village was characterized primarily by residential buildings, with some industrial and commercial properties located near the Newark and Hudson bays. Most of the residential development in this area of Bayonne occurred in the early twentieth century in response to the increased housing demand created by regional industrialization and immigration (Hopkins 1919, 1934). Many single-family homes, multi-family homes, and apartment buildings were built at this time (Cultural Resource Consulting Group [CRCG] 2000:21). Apartment buildings were commonly two to four stories high, using a variety of styles and materials. Tudor Revival, terra cotta, and stone ornamentation are often seen. Identical buildings were frequently paired together. Typical settings were narrow urban lots with small yards, spaced tightly, and separated by alleys not driveways (CRCG 2000:33-34).

Historic maps indicate that the four subject buildings in the 1234-1238 John F. Kennedy Boulevard Historic District were constructed circa 1915 as part of a group of seven rowhouses, including 1228-1238 Hudson Boulevard (present-day John F. Kennedy Boulevard) (Sanborn Map Company 1912; Hopkins 1919). The buildings first appear cartographically on a 1919 plat map of Bayonne (Hopkins 1919; Figure 1). The rowhouses were likely constructed at the same time, despite one break in the cornice between 1232 and 1234A John F. Kennedy Boulevard. The 1920-1940 census records show two families living at each property, suggesting they were built with two apartment units. These tenants were mostly immigrants or children of immigrants, with working-class occupations including a bus driver, barber, cooper, and printer (United States Bureau of the Census 1920, 1930, 1940). By 1934, no alterations appear to have been made to the subject buildings, although the neighborhood shows greater development, including an adjacent building to the southwest of the rowhouses (Hopkins 1934). One notable former resident of the district was Jerry Scala, a major league baseball player in the 1940s, who lived at 1238 John F. Kennedy Boulevard with his brother and sister (*The Jersey Journal,* 7 February, 1952:23). A 1950 Sanborn Map illustrates the two-story rowhouses with rear two-story porches, and indicates they were of hollow tile construction with composition roofs (Sanborn Map Company 1950; Figure 2). The porticos on the primary elevations of the buildings are not illustrated on the 1950 Sanborn map; however, they may have simply not been noted (Sanborn Map Company 1950). A 1954 aerial photograph, the first clear aerial view, confirms the presence of the front porticos (NETR 1954; Figure 3). Sometime between 1954 and 1977, the rowhouse at 1228 John F. Kennedy Boulevard, the southernmost building in the original group of seven rowhouses, was demolished; no other alterations are visible within the district during that time (NETR 1954; NJDEP 1977). In 1963, to honor the late president, the name of the road the buildings sit on changed from Hudson Boulevard to John F. Kennedy Boulevard (*Asbury Park Press*, 5 December, 1963:26). During the late twentieth century, most original doors and windows were replaced with vinyl units. Google imagery shows no alterations from 2007 to the present (Google Imagery 2007).

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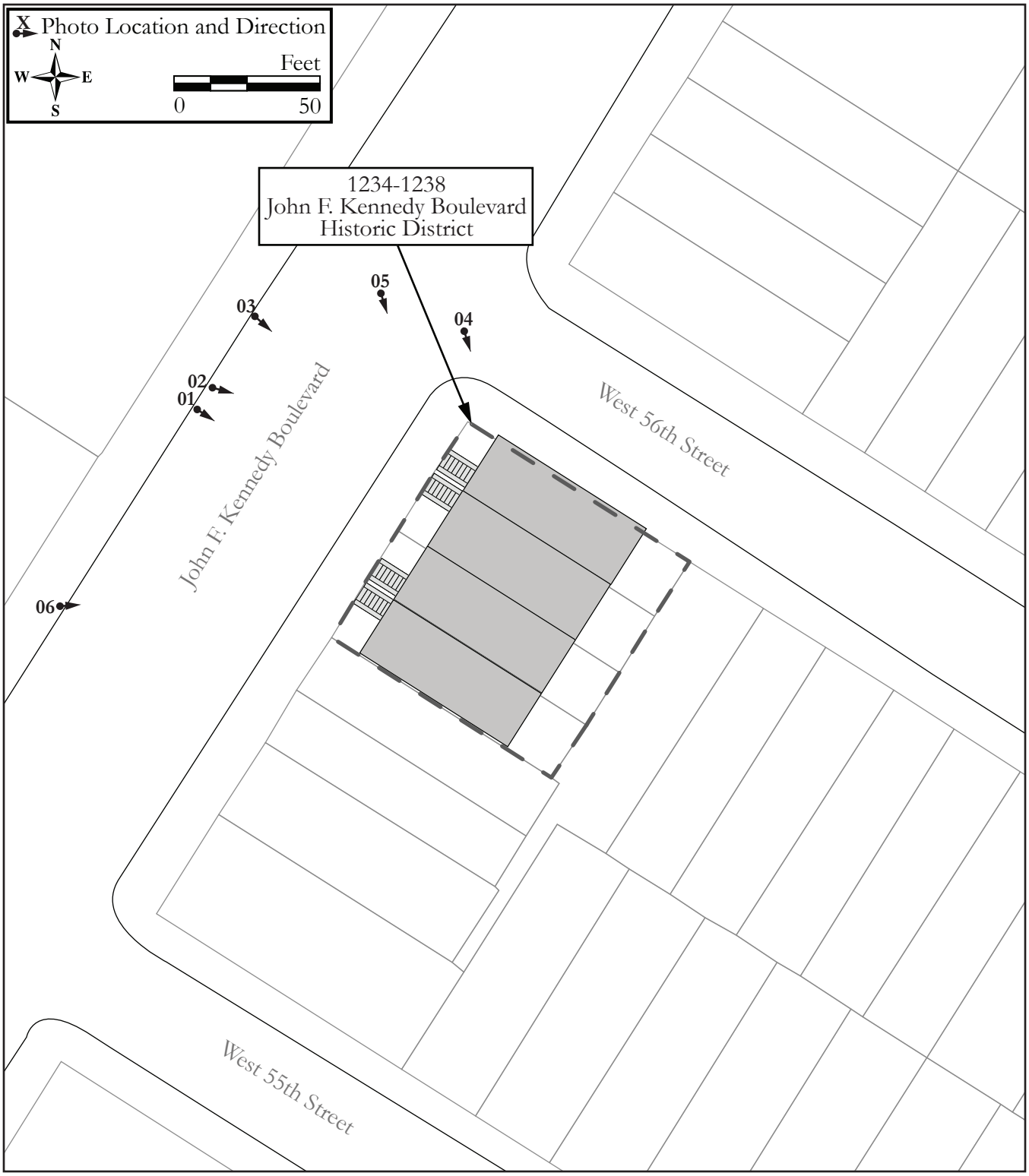
Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Matthew Goldberg

Date: October 2022

Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

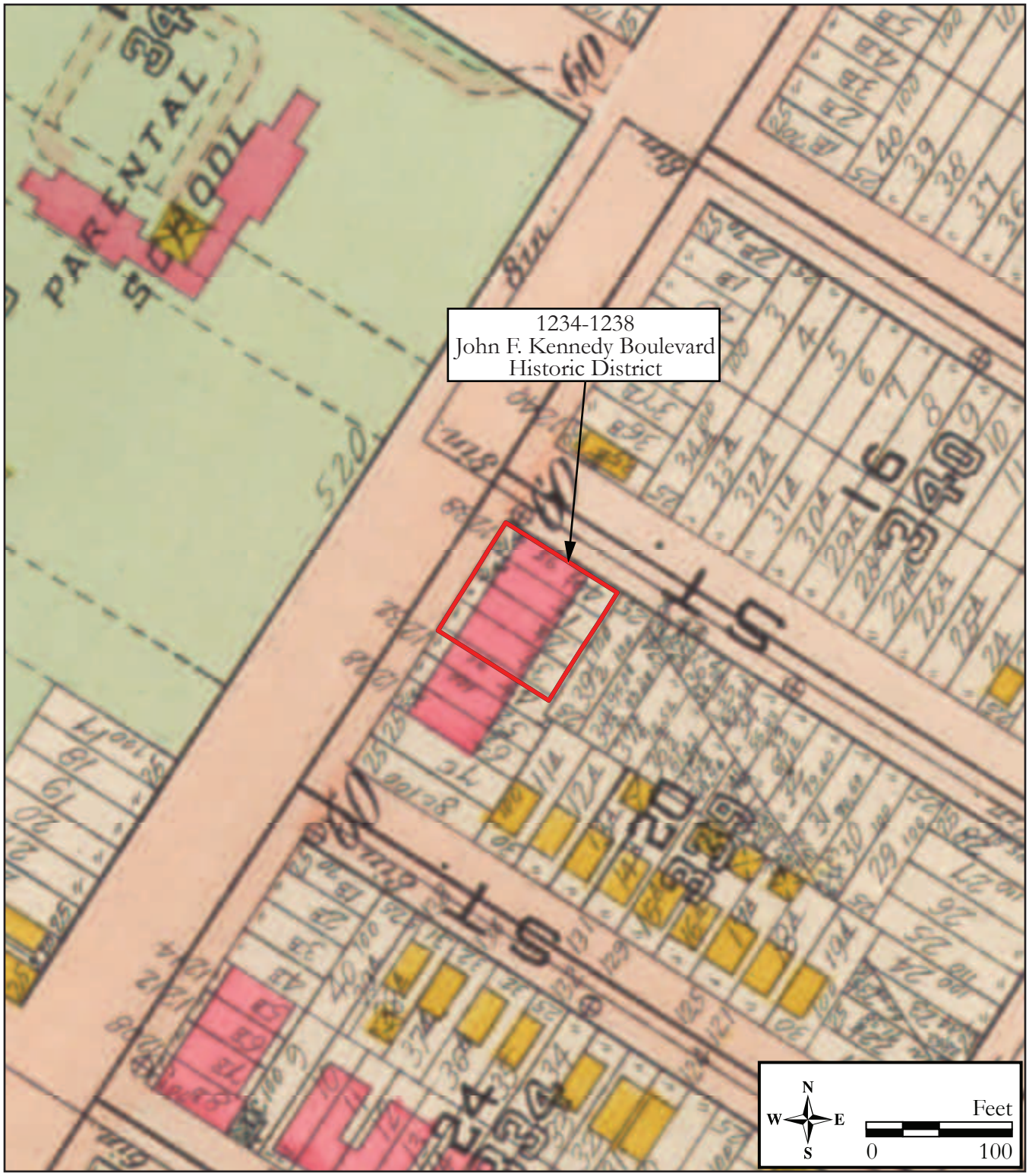


Figure 1: 1919 G.M. Hopkins, *Plat Book of Jersey City and Bayonne, Hudson County, New Jersey* depicting the buildings of the 1234-1238 John F. Kennedy Boulevard Historic District.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

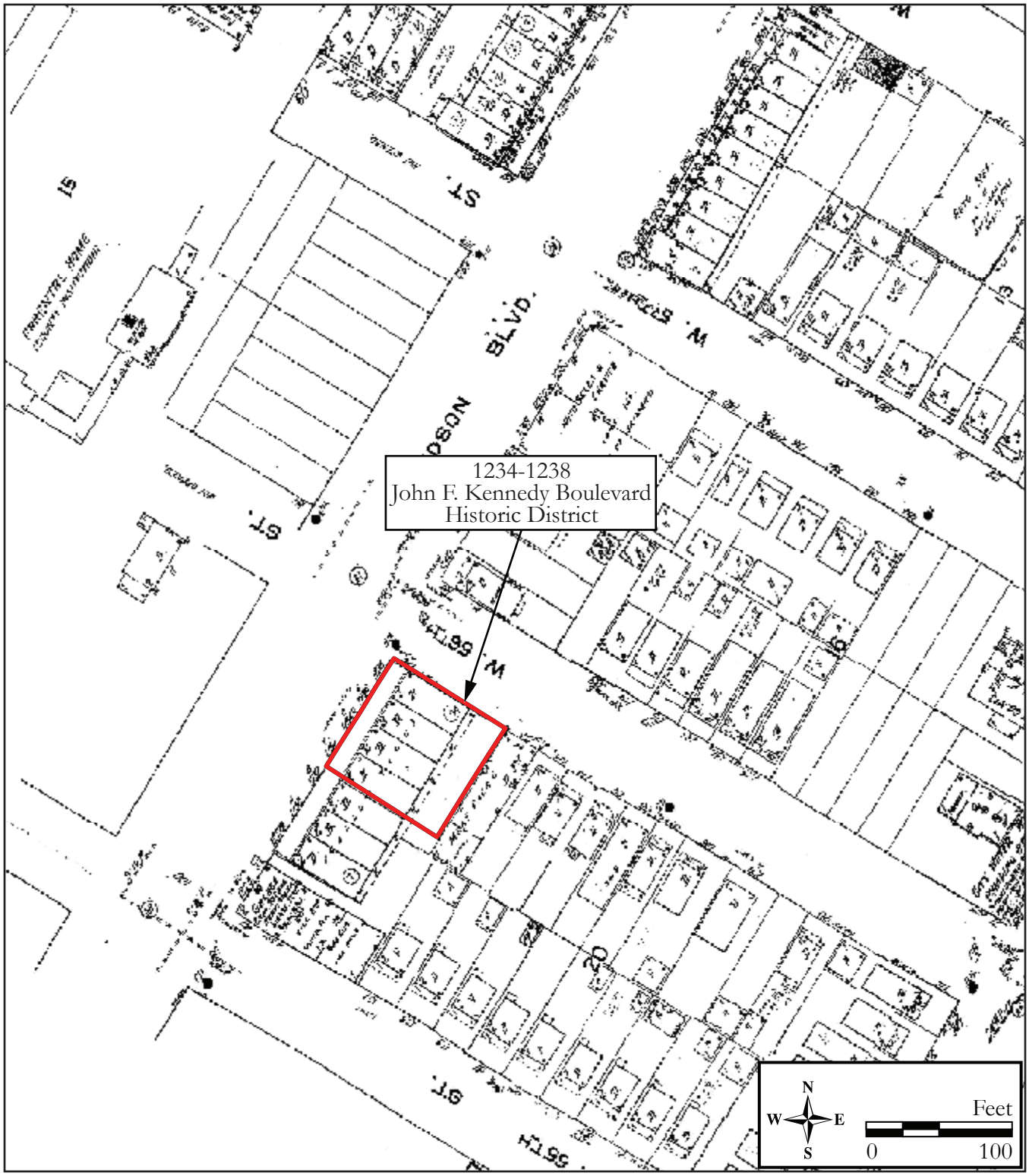


Figure 2: 1950 Sanborn Map Company, *Insurance Maps of Hudson County* illustrating the buildings of the 1234-1238 John F. Kennedy Boulevard Historic District.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Figure 3: 1954 historic aerial photograph depicting the subject buildings of the 1234-1238 John F. Kennedy Boulevard Historic District (NETR 1954). Note the porticos visible on the primary (northwest) elevations of the rowhouses.

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northwest) elevation of 1234 John F. Kennedy Boulevard.

Plate: 2

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northwest) elevation of 1234A John F. Kennedy Boulevard.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northwest) elevation of 1236 John F. Kennedy Boulevard.

Plate: 4

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 3, 2022

Perspective view of the primary (northwest) and side elevation of 1238 John F. Kennedy Boulevard.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 3, 2022

Overall view of the 1234-1238 John F. Kennedy Boulevard Historic District.

Plate: 6

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

Overall view of the 1234-1238 John F. Kennedy Boulevard Historic District.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1240 John F. Kennedy Boulevard

Street Address: *Street #:* 1240 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 17

Local Place Name(s): _____ **Lot(s):** 5

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

1240 John F. Kennedy Boulevard is a circa-1915 two-and-a-half story in the Queen Anne style (Plates 1-4). This frame building is coated in stucco, three bays wide by six bays deep, and sits at the east corner of the intersection of John F. Kennedy Boulevard and West 56th Street. The irregularly shaped roof, sheathed in asphalt shingles, is hipped and features a pyramidal dormer above the primary elevation, a turret at the northwest corner, a gable dormer to the southeast, a shed dormer to the northeast, and an adjacent brick chimney. Although the building features a mostly rectangular footprint, there are several volumes protruding from the main block of the dwelling, including a one-story wing on the rear (southeast), a hipped-roof, enclosed entry on the primary elevation, and a bay window on the southeast elevation.

See Building/Element Attachment

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

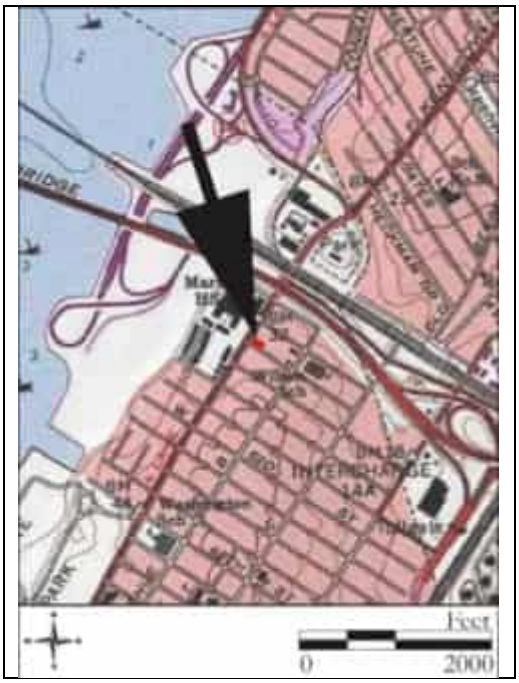
Surveyor: Matthew Goldberg Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: 1240 John F. Kennedy Boulevard
Historic Name: 1240 John F. Kennedy Boulevard
Present Use: Residential Activity, Permanent
Historic Use: Residential Activity, Permanent
Construction Date: Circa 1915 **Source:** Sanborn Map Company 1912; Hopkins 1919
Alteration Date(s): Mid- to late twentieth century **Source:** Stylistic Evidence
Designer: Unknown **Physical Condition:** Fair
Builder: Unknown **Remaining Historic Fabric:** Medium
Style: Queen Anne
Form: Other **Stories:** 2.5
Type: N/A **Bays:** 3
Roof Finish Materials: Asphalt Shingle
Exterior Finish Materials: Stucco

Exterior Description, continued from Base Survey Form:
Due to the building's close proximity to the property adjacent to the north, the fenestration of the northeast elevation cannot be noted from the public right-of-way. Windows throughout are vinyl replacements units. The front door is similarly of contemporary replacement material and features an oval light. A brick stoop with metal handrails leads to and from the primary entrance. Original wood, multi-lite windows are extant at the foundation level, although some openings are boarded. There is a secondary entry to the rear of the southeast elevation with a stoop, awning, and replacement paneled door.

Interior Description:
The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the exterior that is visible from the public right-of-way and did not include interior access to the building.

Setting:
Number 1240 John F. Kennedy Boulevard is situated on a rectangular parcel (Block 17, Lot 5) in the City of Bayonne, Hudson County, New Jersey, approximately 550 feet southwest of the New Jersey Turnpike Newark Bay-Hudson County Extension. The subject property is sited on the east corner of the intersection of John F. Kennedy Boulevard and West 56th. The modest front yard area to the northwest and southwest is paved in concrete and bordered by a metal fence. Number 1242 John F. Kennedy Boulevard (Block 17, Lot 4) is adjacent to the northeast. The surrounding urban neighborhood is largely residential, with many two-story, wood-framed, single-family dwellings, interspersed with larger apartment buildings and commercial properties. Most of this development dates to the early to mid-twentieth century.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
Number 1240 John F. Kennedy Boulevard is a circa-1915 dwelling situated in the northern area of Bayonne. Although heavily altered, elements of the Queen Anne style are present. In response to a turn-of-the-century industrial boom and influx of immigration, residential and commercial buildings were constructed throughout the city. Vernacular dwellings such as 1240 John F. Kennedy Boulevard exemplify the construction of this era and the development of Bayonne.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
Number 1240 John F. Kennedy Boulevard is not recommended eligible for listing in the National Register of Historic Places (NRHP). Research did not indicate that the building was associated with prominent individuals or patterns of history. Architecturally, the building shows elements of the Queen Anne style in the turret, asymmetrical façade, and steeply pitched roof of irregular shape, but does not represent the work of a master. The property retains a moderate degree of integrity of location, setting, feeling, and association; however, significant alterations to the building's footprint, envelope, and the replacement of original windows and doors throughout diminishes the property's integrity of materials, design, and workmanship. For these reasons, the property is recommended not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 1240 John F. Kennedy Boulevard

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

The subject property at 1240 John F. Kennedy Boulevard is located in the City of Bayonne, New Jersey. Bayonne Township was formed in 1861 from part of Bergen Township, and was later renamed Bayonne City in 1869 (Snyder 1969:145). That year, the city was surveyed and road maps planning for future development were created. Public improvements soon followed, including road grading, sidewalk, and sewer and gas line construction (Whitcomb 1904:75). In 1895, the Bayonne section of Hudson Boulevard, now known as John F. Kennedy Boulevard, was completed (Whitcomb 1904:92). During the late nineteenth and early twentieth century, Bayonne experienced an industrial boom, coupled with a high influx of European immigrants looking for a place to work and live, which led to rapid urbanization and industrial development (City of Bayonne 2022). The Pamrapo neighborhood of Bayonne, where the subject property is located, was one of five original villages within Bergen Township. Pamrapo occupied the northwest region of Bayonne, near the city's border with the City of Jersey City. The village is characterized primarily by residential buildings, with some industrial and commercial properties located near Newark and Hudson bays. Most of the residential development in this area of Bayonne occurred in the early twentieth century in response to the increased housing demand created by regional industrialization and immigration (Hopkins 1919, 1934). Many single-family homes, multi-family homes, and apartment buildings were built at this time (Cultural Resource Consulting Group [CRCG] 2000:21). They were constructed in a variety of materials and styles, including Victorian, Colonial Revival, Tudor Revival, and Arts and Crafts. Typical settings were narrow urban lots with small yards, spaced tightly, and separated by alleys not driveways (CRCG 2000:33-34).

Historic maps indicate that the building was constructed circa 1915 (Sanborn Map Company 1912; Hopkins 1919). The dwelling first appears cartographically on a 1919 plat map of Bayonne (Hopkins 1919; Figure 1). This property was one of only two structures on this block, as development moved northeast across the city. Between 1919 and 1934, the parcel on which this dwelling is located was enlarged to the northeast (Hopkins 1934; Figure 2). A 1930 census record lists the Tozzi family as residents of this dwelling. The family emigrated from Italy and the father worked as a mechanical engineer (United States Bureau of the Census [US Census] 1930). By 1934, no alterations appear to have been made to the building, although the neighborhood shows greater development, including additional buildings to the northeast. This property stands out for its relatively large size and as a single-family home in an area, which includes apartment buildings and rowhouses (Hopkins 1934). The 1940 census shows the property as occupied by Thomas Phillips, a schoolteacher, and his wife (US Census 1940). The dwelling, as depicted on a 1950 Sanborn Map, closely resembles its current conditions: the parcel is back to its earlier, narrower size, and the rear porch and bay window to the northeast are delineated (Sanborn Map Company 1950; Figure 3). Sometime between 1954 and 1979, the adjacent house to the northeast was constructed (NETR 1954, 1979). In 1963, to honor the late president, the name of the nearby road changed from Hudson Boulevard to John F. Kennedy Boulevard (*Asbury Park Press*, 5 December 1963:26). During the late twentieth century, most of the original doors and windows were replaced with vinyl units. Other alterations likely made around this time include the addition of exterior stucco, replacement roof shingles, flashing, railings, fencing, gutters and downspouts. Google imagery shows the removal of an awning over the main entry, which is the only alteration from 2007 to the present (Google Imagery 2007).

CONTINUATION SHEET

Historic Sites #:

Bibliography:

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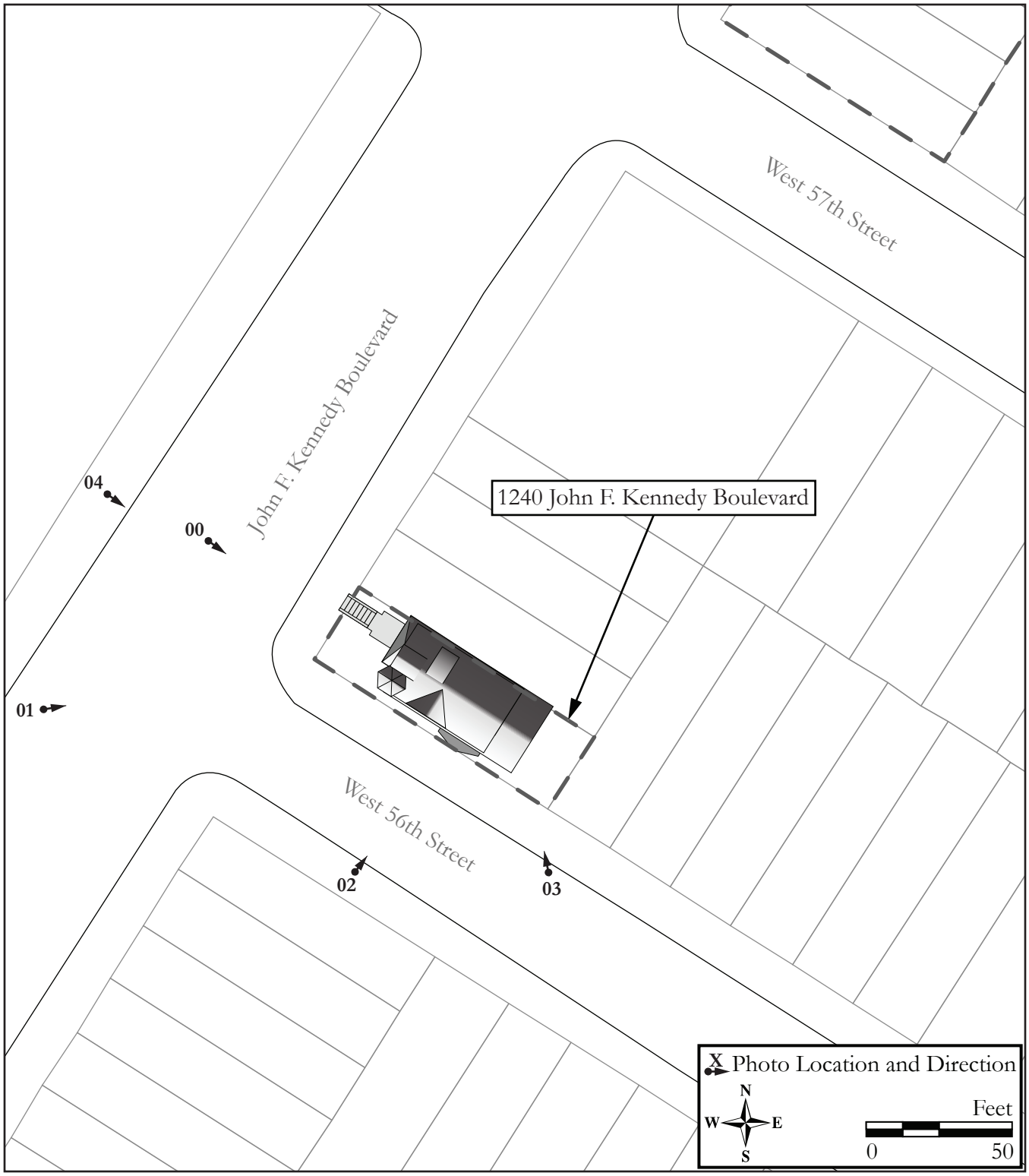
1940 Population Schedule, City of Bayonne, Hudson County, New Jersey.

Whitcomb, Royden P.
1904 *First History of Bayonne*. R. P. Whitcomb, Bayonne, New Jersey.

CONTINUATION SHEET

Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

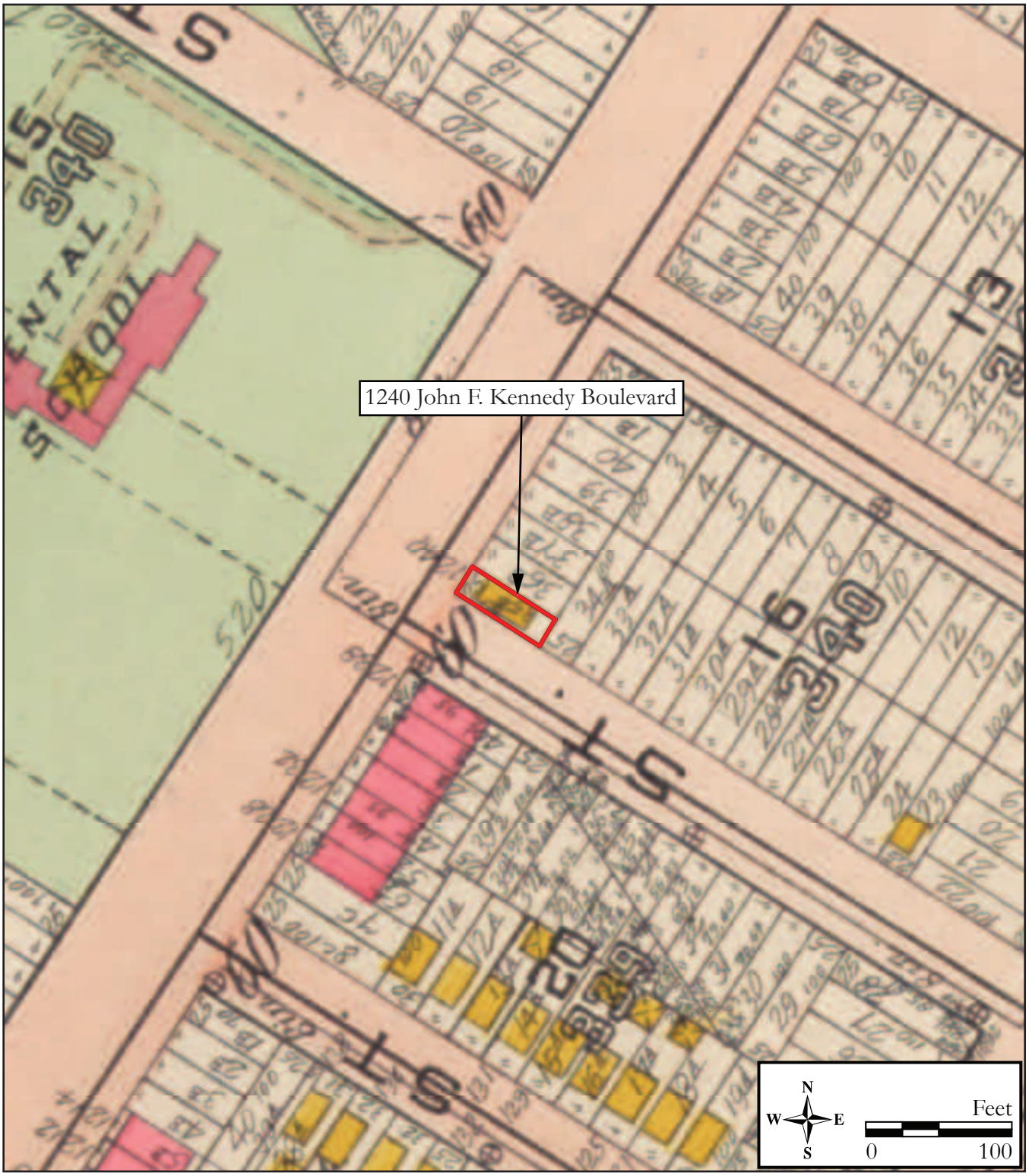


Figure 1: 1919 G.M. Hopkins, *Plat Book of Jersey City and Bayonne, Hudson County, New Jersey* depicting the building at 1240 John F. Kennedy Boulevard.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Figure 2: 1934 G.M. Hopkins, *Plat Book of Jersey City and Bayonne, Hudson County, New Jersey* depicting the expanded parcel of 1240 John F. Kennedy Boulevard.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

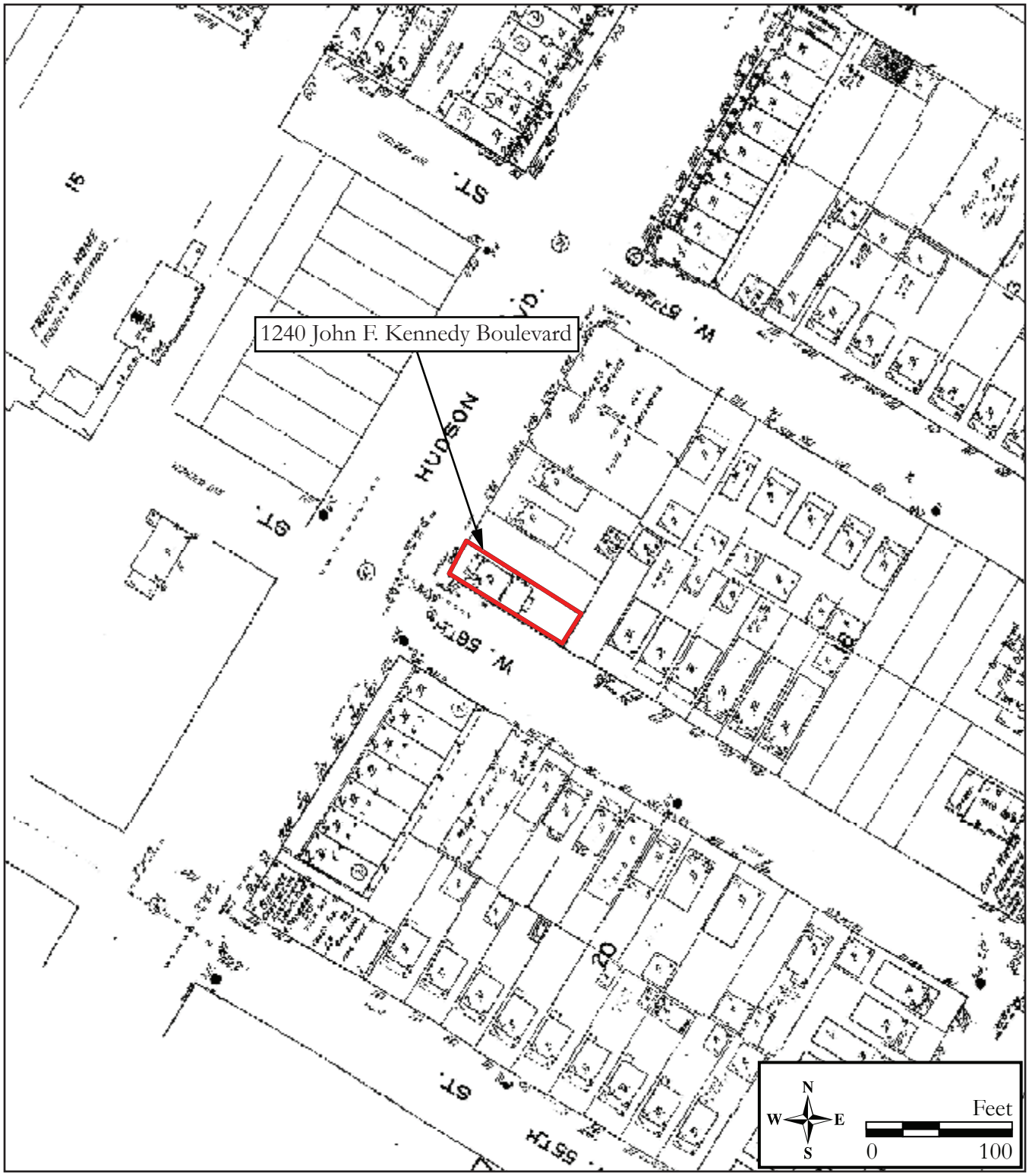


Figure 3: 1950 Sanborn Map Company, *Insurance Maps of Hudson County* depicting the building at 1240 John F. Kennedy Boulevard.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: East

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northwest) of 1240 John F. Kennedy Boulevard and the surrounding area.

Plate: 2

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the southwest elevation of 1240 John F. Kennedy Boulevard.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: North

Photographer: Spencer Rubino

Date: August 3, 2022

View of the rear (southeast) elevation of 1240 John F. Kennedy Boulevard.

Plate: 4

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the area surrounding 1240 John F. Kennedy Boulevard.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1242 John F. Kennedy Boulevard

Street Address: *Street #:* 1242 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 17

Local Place Name(s): _____ **Lot(s):** 4

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1960, the building at 1242 John F. Kennedy Boulevard is a two-story-tall, two-bay-wide dwelling with a ground-level garage (Plates 1-3). The dwelling cannot be assigned one architectural style, but exhibits some features similar to the minimal traditional style. The frame-constructed dwelling is capped by a hipped roof sheathed in asphalt shingles. The exterior is clad in vinyl siding, and the primary (northwest) elevation has a brick veneer on the first story and ground-level garage. The primary elevation that fronts John F. Kennedy Boulevard has a tripartite window located left of center on both the first and second floors.

See Building/Element Attachment

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

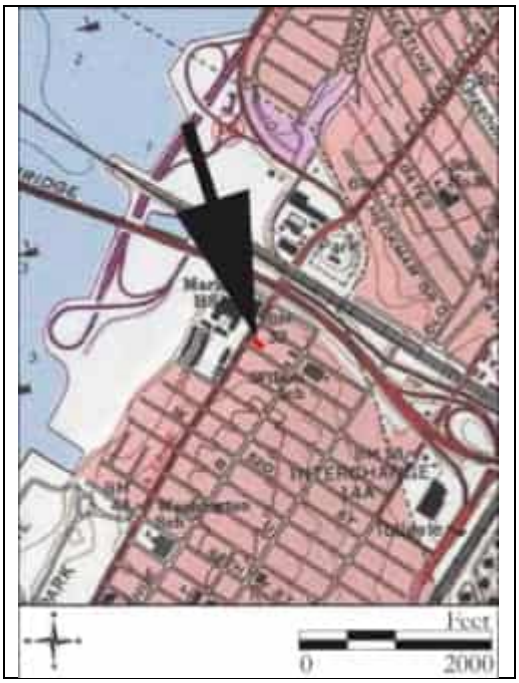
Surveyor: Matthew Goldberg Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: 1242 John F. Kennedy Boulevard
Historic Name: 1242 John F. Kennedy Boulevard
Present Use: Residential Activity, Permanent
Historic Use: Residential Activity, Permanent
Construction Date: Circa 1960 **Source:** Sanborn Map Company 1950; Stylistic Evidence
Alteration Date(s): Late twentieth century **Source:** Stylistic Evidence
Designer: Unknown **Physical Condition:** Fair
Builder: Unknown **Remaining Historic Fabric:** Medium
Style: None
Form: Other **Stories:** 2
Type: N/A **Bays:** 2
Roof Finish Materials: Asphalt Shingle
Exterior Finish Materials: Vinyl Siding; Brick, Running Bond

Exterior Description, continued from Base Survey Form:
A first-floor porch with a wrought iron balustrade spans the full length of the primary elevation, and is sheltered by a full-length awning. Brick steps lead to the main entrance and porch; the primary entrance pierces the south bay of the first floor with a screen door and paneled door. The ground level features a one-car garage with a roll top door. The northeast and southwest elevations are not visible from the public right-of-way, as adjacent dwellings are located within close proximity. The rear (southeast) elevation features two, one-over-one, double-hung, vinyl windows, and a fire escape connected to the southern window on the second floor. The foundation is not visible.

Interior Description:
The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the exterior visible from the public right-of-way and did not include interior access to the building.

Setting:
Number 1242 John F. Kennedy Boulevard is situated on a rectangular parcel (Block 17, Lot 4) in the City of Bayonne, Hudson County, New Jersey; approximately 550 feet southwest of the New Jersey Turnpike Newark Bay-Hudson County Extension. The subject property is sited on the east side of John F. Kennedy Boulevard between its intersections with West 56th and West 57th streets. A concrete driveway leads to the garage from John F. Kennedy Boulevard. A small yard to the rear is covered in grass. A wood fence delineates the backyard from the property adjacent to the southwest. Number 1240 (Block 17, Lot 5) is adjacent to the southwest and 1244 John F. Kennedy Boulevard (Block 17, Lot 3) is adjacent to the northeast, constructed circa 1915 and 1925 respectively. The surrounding urban neighborhood is largely residential, with many two-story, wood-framed, single-family dwellings, interspersed with larger apartment buildings and commercial properties. Most of this development dates to the early to mid-twentieth century.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet.

Significance:
Number 1242 John F. Kennedy Boulevard is a circa-1960 dwelling in the northern area of the City of Bayonne. In response to a turn-of-the-century industrial boom and influx of immigration, residential and commercial buildings were constructed throughout the city. Mid-twentieth-century vernacular dwellings such as 1242 John F. Kennedy Boulevard exemplify the later stage of the development boom, as development spread to the northeast area of the city.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
Number 1242 John F. Kennedy Boulevard is not recommended eligible for listing in the National Register of Historic Places (NRHP). Research did not indicate that the building was associated with prominent individuals or patterns of history. The property retains a moderate degree of integrity of location, setting, feeling, and association. Architecturally, the building cannot be assigned to a particular style and does not represent the work of a master. Non-historic vinyl windows and siding diminish the integrity of the property, which possesses minimal architectural and historic significance. For these reasons, the property is recommended not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 1242 John F. Kennedy Boulevard

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

The subject property at 1242 John F. Kennedy Boulevard is located in the City of Bayonne, New Jersey. Bayonne Township was formed in 1861 from part of Bergen Township, and was later renamed Bayonne City in 1869 (Snyder 1969:145). That year, the city was surveyed and road maps planning for future development were created. Public improvements soon followed, including road grading, sidewalk, and sewer and gas line construction (Whitcomb 1904:75). In 1895, the Bayonne section of Hudson Boulevard, now known as John F. Kennedy Boulevard, was completed (Whitcomb 1904:92). During the late nineteenth and early twentieth century, Bayonne experienced an industrial boom, coupled with a high influx of European immigrants looking for a place to work and live, which led to rapid urbanization and industrial development (City of Bayonne 2022). The Pamrapo neighborhood of Bayonne, where the subject property is located, was one of five original villages within Bergen Township. Pamrapo occupied the northwest region of Bayonne, near the city's border with the City of Jersey City, and is characterized primarily by residential buildings, with some industrial and commercial properties located near Newark and Hudson bays. Most of the residential development in this area of Bayonne occurred in the early twentieth century in response to the increased housing demand created by regional industrialization and immigration (Hopkins 1919, 1934). Many single-family homes, multi-family homes, and apartment buildings were built at this time (Cultural Resource Consulting Group [CRCG] 2000:21). They were constructed in a variety of materials and styles, including Victorian, Colonial Revival, Tudor Revival, and Arts and Crafts. Typical settings were narrow urban lots with small yards, spaced tightly, and separated by alleys not driveways (CRCG 2000:33-34).

Historic maps indicate that the subject parcel remained vacant through the early twentieth century and was combined with the adjacent parcel at 1240 John F. Kennedy Boulevard to the southwest by 1934 (Sanborn Map Company 1912; Hopkins 1919, 1934). By 1950, the current parcel had been created (Sanborn Map Company 1950). In 1963, to honor the late president, Hudson Boulevard was renamed John F. Kennedy Boulevard (*Asbury Park Press*, 5 December, 1963:26). In 1961, Edwarda and Amelia Broderick deeded the property to Albert and Helen Spieva. In 1966, the Spievaks deeded the property to Jansan Builders (Hudson County Clerk's Office [HCCO] 1993:217). No alterations can be tied to the ownership by this construction company. In 1968, Jansan Builders deeded the property to Edward and Barbara Paradine (HCCO 3030:147). No discernable alterations are apparent in a 1977 aerial photograph; however, the siding and windows are likely not original (NJDEP 1977). Google street view imagery shows no alterations from 2007 to the present (Google Imagery 2007).

CONTINUATION SHEET

Historic Sites #:

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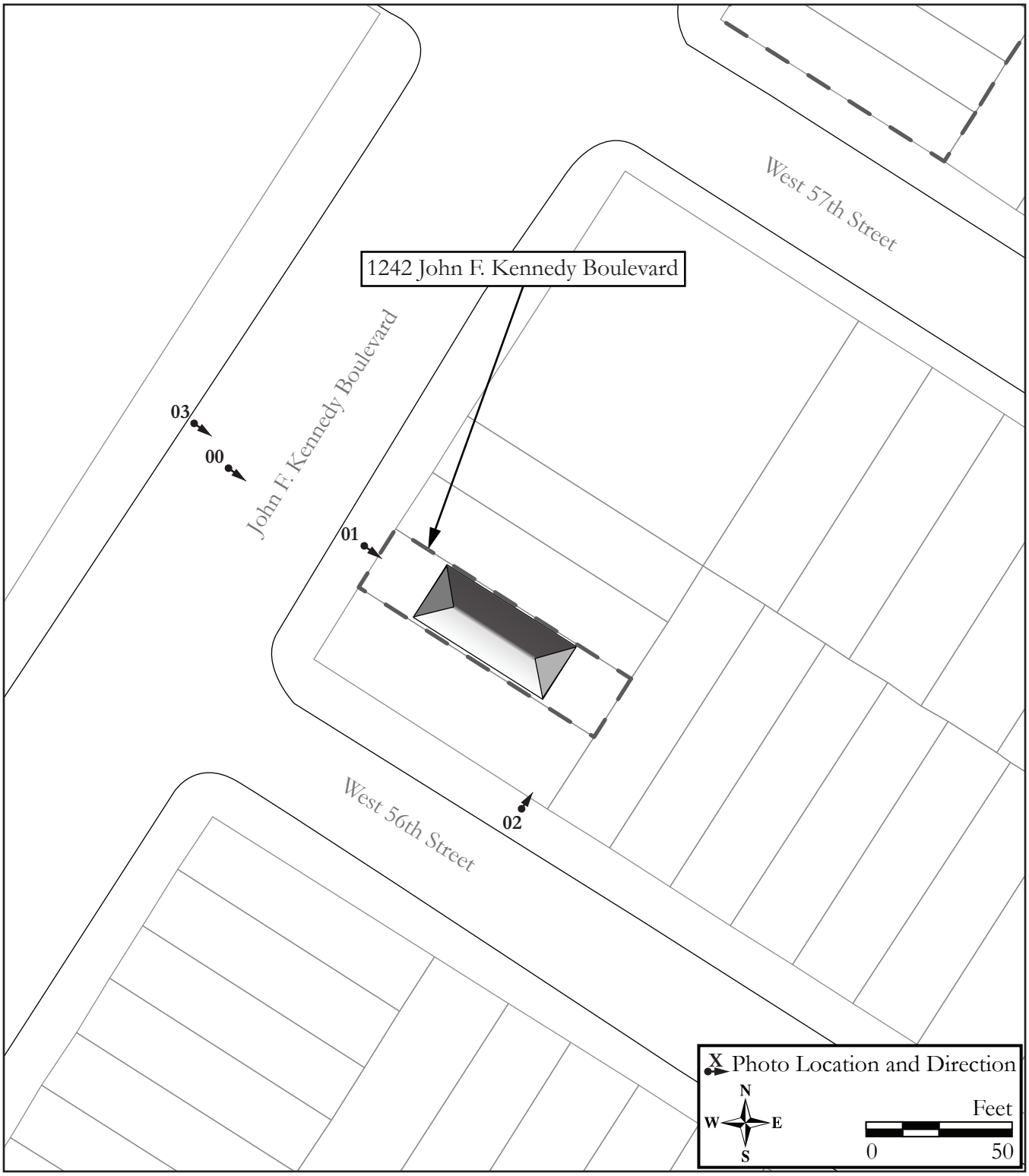
Snyder, John P.
1969 *The Story of New Jersey's Civil Boundaries: 1606-1968*. Bulletin 67, Bureau of Geology and Topography, Trenton, New Jersey.

Whitcomb, Royden P.
1904 *First History of Bayonne*. R. P. Whitcomb, Bayonne, New Jersey.

CONTINUATION SHEET

Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northwest) elevation of the dwelling at 1242 John F. Kennedy Boulevard, at the center-right of the photo.

Plate: 2

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the rear (southeast) elevation of the dwelling at 1242 John F. Kennedy Boulevard, at the center of the photo.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the surrounding area of John F. Kennedy Boulevard.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1244 John F. Kennedy Boulevard

Street Address: *Street #:* 1244 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 17

Local Place Name(s): _____ **Lot(s):** 3

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1925, the building at 1244 John F. Kennedy Boulevard is a two-story-tall, two-bay-wide dwelling built in the Craftsman style (Plates 1-3). The frame-constructed dwelling is capped by a flared-eave roof sheathed in asphalt shingles. Large shed roof dormers, each with two windows, are located on both slopes of the roof, and a brick chimney pierces the peak of the gable. The exterior of the dwelling is clad in vinyl siding and features one-over-one, double-hung, vinyl-sash replacement windows throughout. The flared eave of the main roofline extends over the first-floor brick porch on the primary (northwest) elevation. The porch is supported by wrought iron columns; it shelters a bay window in the building's southern bay and the primary entrance in its northern bay.

See Building/Element Attachment

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Matthew Goldberg Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: 1244 John F. Kennedy Boulevard
Historic Name: 1244 John F. Kennedy Boulevard
Present Use: Residential Activity, Permanent
Historic Use: Residential Activity, Permanent
Construction Date: Circa 1925 **Source:** Hopkins 1919, 1934
Alteration Date(s): Mid- to late twentieth century **Source:** Stylistic evidence
Designer: Unknown **Physical Condition:** Good
Builder: Unknown **Remaining Historic Fabric:** Medium
Style: Craftsman
Form: Other **Stories:** 2
Type: N/A **Bays:** 2
Roof Finish Materials: Asphalt Shingle
Exterior Finish Materials: Vinyl Siding

Exterior Description, continued from Base Survey Form:
The primary entrance consists of a screen door and paneled door surrounded by an entablature and fluted pilasters. A set of brick steps leads to the main entry and porch and has a wrought iron balustrade that continues around the porch. The northeast elevation features two small, irregularly spaced windows of unknown operation: one on each floor, and two basement-level windows in the building's concrete foundation. The rear (southwest) elevation features a one-story, shed-roof ell with a central screen door and window to the north, along with two second-story windows.

Interior Description:
The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the exterior visible from the public right-of-way and did not include interior access to the building.

Setting:
Number 1244 John F. Kennedy Boulevard is situated on a rectangular parcel (Block 17, Lot 3) in the City of Bayonne, Hudson County, New Jersey, approximately 500 feet southwest of the New Jersey Turnpike Newark Bay-Hudson County Extension. The subject property is sited on the east side of John F. Kennedy Boulevard between its intersections with West 56th and West 57th streets. A wide, concrete alleyway to the north of the house provides access to the rear of the property. A small, grass-covered yard at the front is bordered by a metal, chain link fence. Number 1242 (Block 17, Lot 4) is adjacent to the southwest and 1246 John F. Kennedy Boulevard (Block 17, Lot 2) is adjacent to the northeast, constructed circa 1960 and 1925 respectively. The surrounding urban neighborhood is largely residential, with many two-story, wood-framed, single-family dwellings, interspersed with larger apartment buildings and commercial properties. Most of this development dates to the early to mid-twentieth century.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
Number 1244 John F. Kennedy Boulevard is a circa-1925 dwelling situated in the northern area of Bayonne. Although heavily altered, elements of the Craftsman style are present. In response to a turn-of-the-century industrial boom and influx of immigration, residential and commercial buildings were constructed throughout the city. Vernacular dwellings such as 1244 John F. Kennedy Boulevard exemplify the construction of this era and the development of Bayonne.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
Number 1244 John F. Kennedy Boulevard is not recommended eligible for listing in the National Register of Historic Places (NRHP). Research did not indicate that the building was associated with prominent individuals or patterns of history. Architecturally, the building shows elements of the Craftsman style with overhanging eaves, shed dormers and full-width front porch, but does not represent the work of a master. The property retains a moderate degree of integrity of location, setting, feeling, and association; however, alterations such as the replacement of original windows and doors throughout and the introduction of modern cladding materials diminishes the property's integrity of materials, design, and workmanship. For these reasons, the property is recommended not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 1244 John F. Kennedy Boulevard

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

The subject property at 1244 John F. Kennedy Boulevard is located in the City of Bayonne, New Jersey. Bayonne Township was formed in 1861 from part of Bergen Township, and was later renamed Bayonne City in 1869 (Snyder 1969:145). That year, the city was surveyed and road maps planning for future development were created. Public improvements soon followed, including road grading, sidewalk, and sewer and gas line construction (Whitcomb 1904:75). In 1895, the Bayonne section of Hudson Boulevard, now known as John F. Kennedy Boulevard, was completed (Whitcomb 1904:92). During the late nineteenth and early twentieth century, Bayonne experienced an industrial boom, coupled with a high influx of European immigrants looking for a place to work and live, which led to rapid urbanization and industrial development (City of Bayonne 2022). The Pamrapo neighborhood of Bayonne, where the subject property is located, was one of five original villages within Bergen Township. Pamrapo occupied the northwest region of Bayonne, near the city's border with the City of Jersey City, and is characterized primarily by residential buildings, with some industrial and commercial properties located near Newark and Hudson bays. Most of the residential development in this area of Bayonne occurred in the early twentieth century in response to the increased housing demand created by regional industrialization and immigration (Hopkins 1919, 1934). Many single-family homes, multi-family homes, and apartment buildings were built at this time (Cultural Resource Consulting Group [CRCG] 2000:21). They were constructed in a variety of materials and styles, including Victorian, Colonial Revival, Tudor Revival, and Arts and Crafts. Typical settings were narrow urban lots with small yards, spaced tightly, and separated by alleys not driveways (CRCG 2000:33-34).

Historic maps indicate that the subject building was built circa 1925 (Hopkins 1919, 1934). The dwelling first appears cartographically on a 1934 plat map of Bayonne (Hopkins 1934; Figure 1). The 1930 to 1950 census records list the Broderick family, from New York originally, as residing at the property, the father of which worked as an insurance agent and later for an employment agency (United States Bureau of the Census 1930, 1940, 1950). The 1934 map also shows the neighboring dwelling to the northeast at 1246 Hudson Avenue (later renamed John F. Kennedy Boulevard) had been constructed by this time. Due to their similar form and date of construction, these two dwellings were likely built simultaneously by the same builder. A 1950 Sanborn Map shows these two houses, addressed 1244 and 1246 Hudson Boulevard at the time, were located on one parcel, and shared a two-car garage to the rear, which is no longer extant (Sanborn Map Company 1950; Figure 2). The subject dwelling also featured a rear porch in 1950, which is no longer present (Sanborn Map Company 1950). The first known, clear aerial photograph for the dwelling dates to 1954 (NETR 1954; Figure 3). Number 1244 John F. Kennedy Boulevard cannot be assigned one architectural style, but is a common early twentieth-century vernacular dwelling with elements of the Craftsman style. In 1963, to honor the late president, Hudson Boulevard was renamed John F. Kennedy Boulevard (*Asbury Park Press*, 5 December, 1963:26). A 1977 aerial photograph shows the rear, shared garage had been removed by this time (NJDEP 1977; Figure 4). Based on the materials and stylistic evidence, the replacement doors and windows likely date to the late twentieth century. Google imagery shows no alterations from 2007 to the present (Google Imagery 2007).

CONTINUATION SHEET

Historic Sites #:

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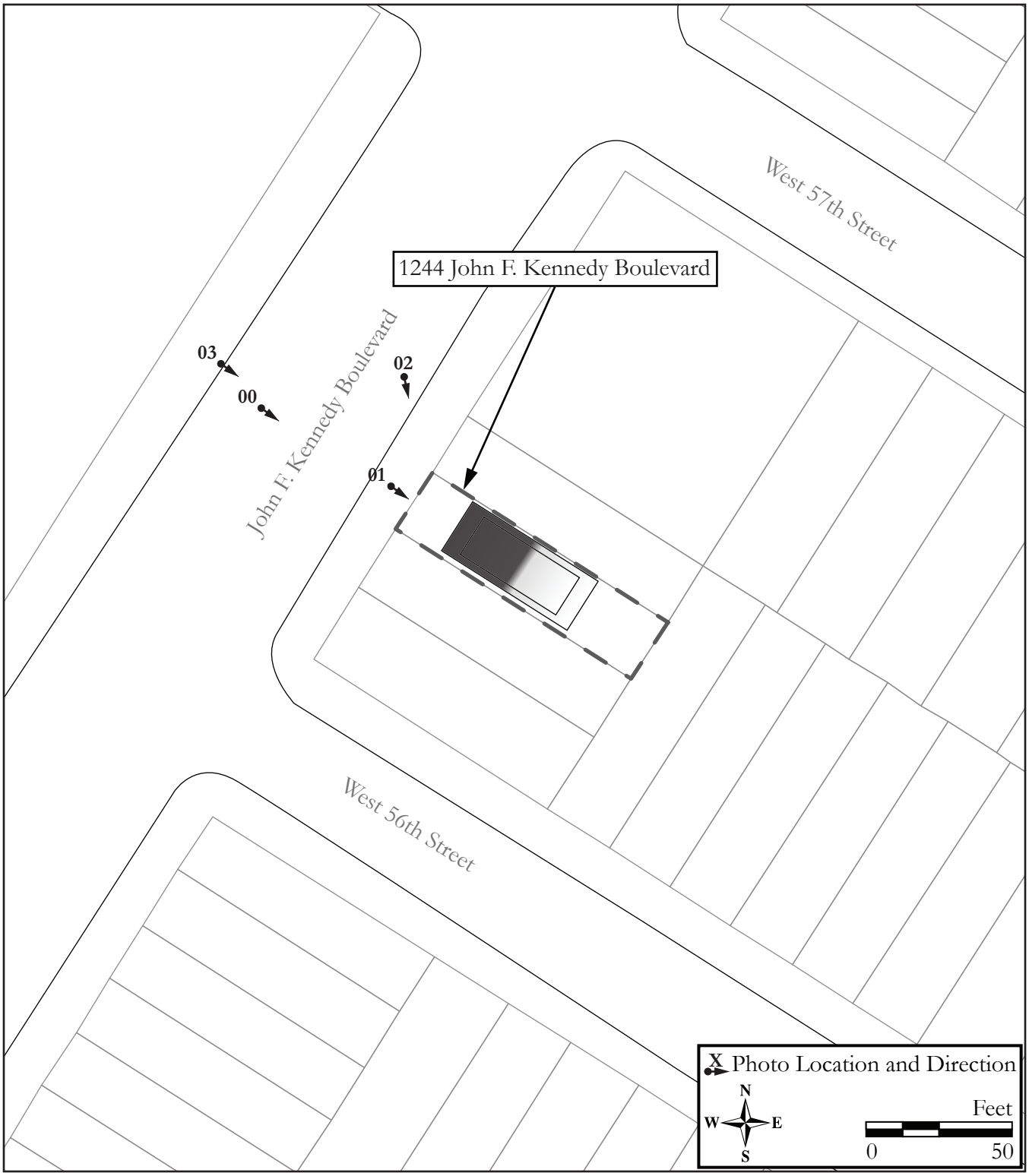
1940 Population Schedule, City of Bayonne, Hudson County, New Jersey.
1950 Population Schedule, City of Bayonne, Hudson County, New Jersey.

Whitcomb, Royden P.
1904 *First History of Bayonne*. R. P. Whitcomb, Bayonne, New Jersey.

CONTINUATION SHEET

Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

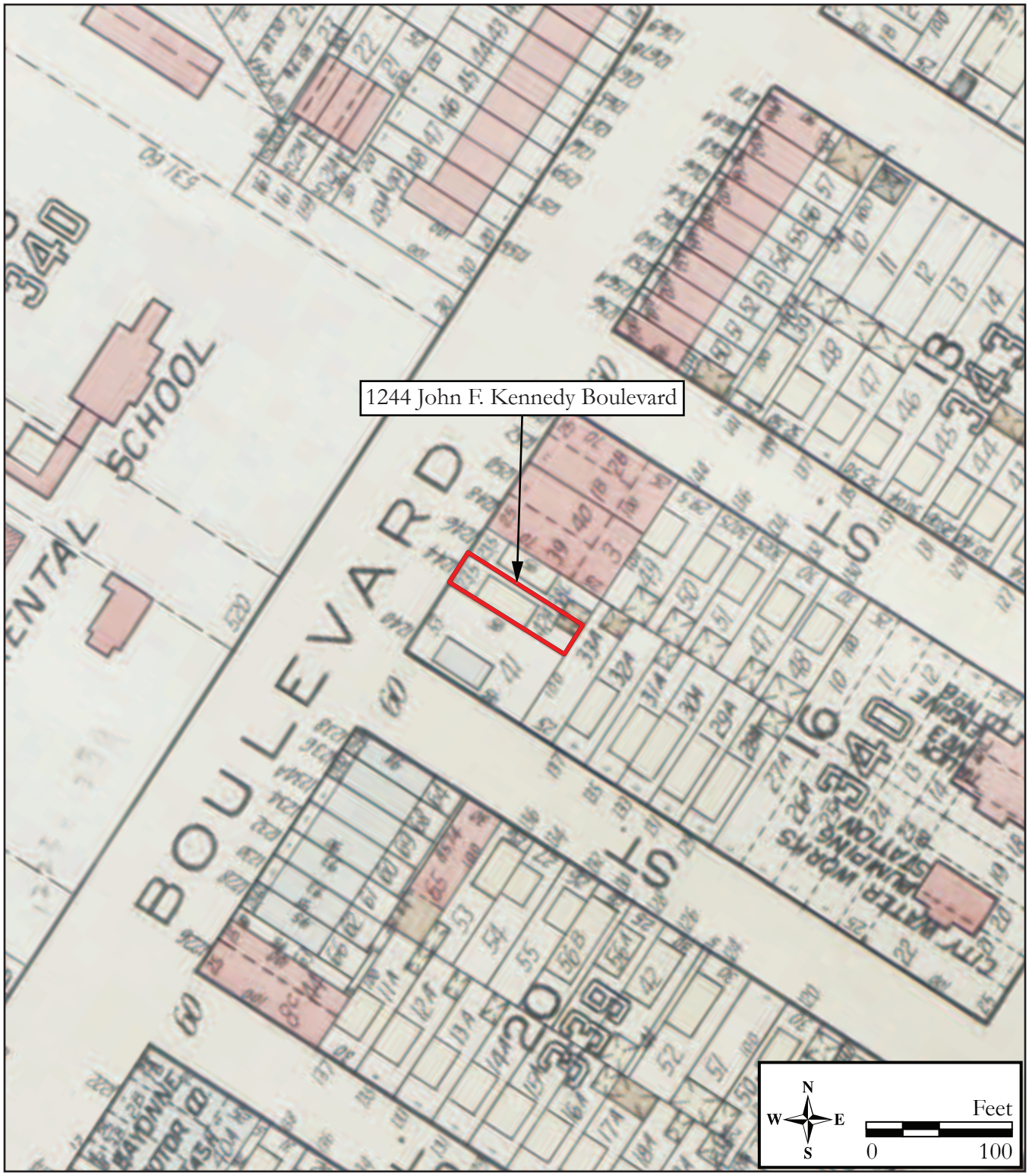


Figure 1: 1934 G.M. Hopkins, *Plat Book of Jersey City and Bayonne, Hudson County, New Jersey* depicting the building at 1244 John F. Kennedy Boulevard.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

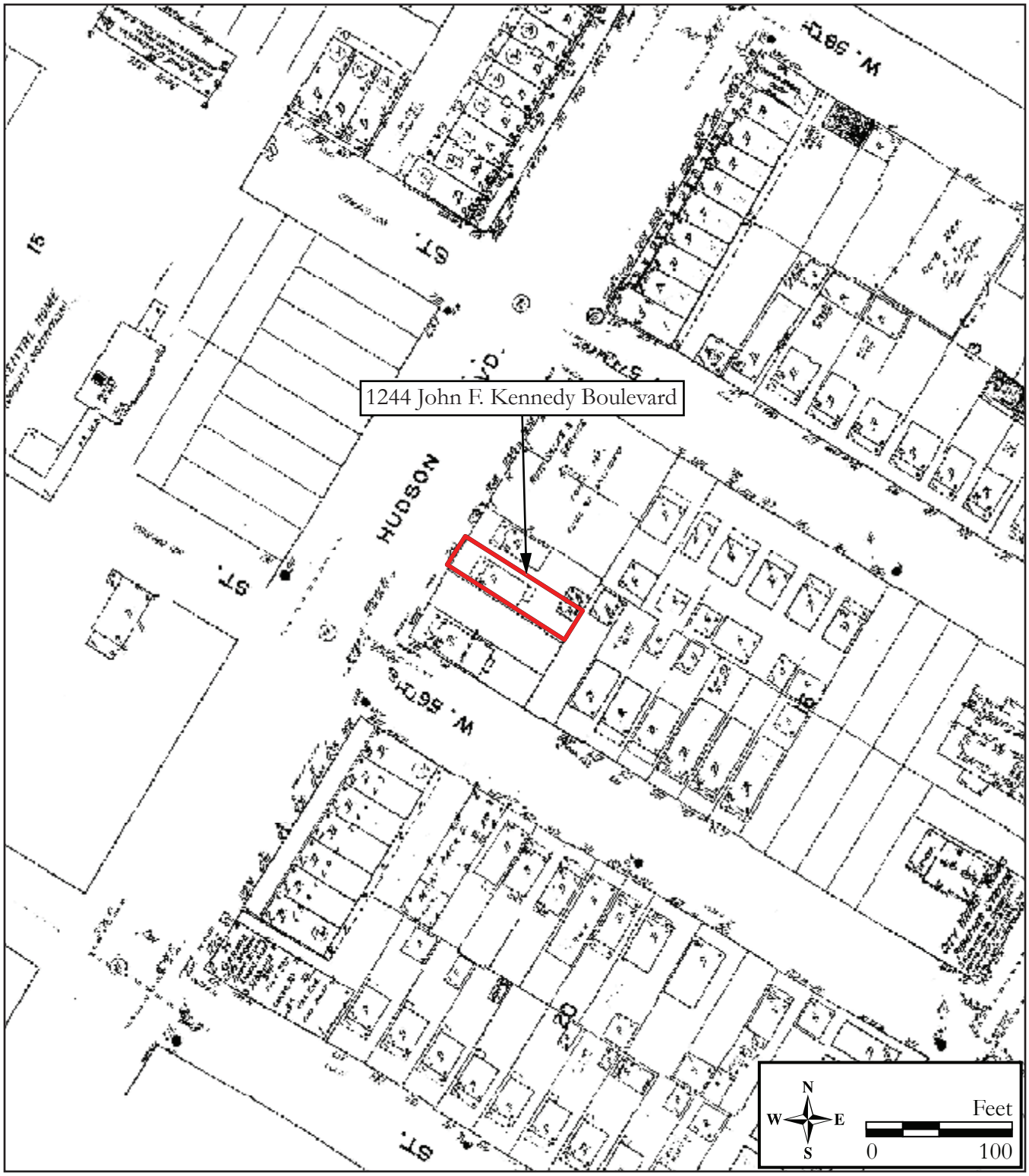


Figure 2: 1950 Sanborn Map Company, *Insurance Maps of Hudson County* depicting the dwelling and rear garage at 1244 John F. Kennedy Boulevard.

CONTINUATION SHEET

Historic Sites #:

Figure 3: 1954 historic aerial photograph depicting 1244 John F. Kennedy Boulevard (NETR 1954).

CONTINUATION SHEET

Historic Sites #:

Figure 4: 1977 historic aerial photograph depicting 1244 John F. Kennedy Boulevard with the rear garage not present (NJDEP 1977).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northwest) elevation of 1244 John F. Kennedy Boulevard.

Plate: 2

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the northeast elevation and foundation of 1244 John F. Kennedy Boulevard.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the surrounding area of John F. Kennedy Boulevard.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1246 John F. Kennedy Boulevard

Street Address: *Street #:* 1246 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 17

Local Place Name(s): _____ **Lot(s):** 2

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1925, the building at 1246 John F. Kennedy Boulevard is a two-story-tall, two-bay-wide dwelling (Plates 1-3). The frame-constructed dwelling is capped by a flared-eave roof sheathed in asphalt shingles. Large, shed-roof dormers, each with two windows, are located on both slopes of the roof, and a brick chimney pierces the peak of the gable. The exterior of the dwelling is clad in vinyl siding and features one-over-one, double-hung, vinyl-sash replacement windows throughout. The primary (northeast) entrance features a screen door and paneled door. A set of stone steps leads to the main entry and enclosed front porch. An ashlar veneer watertable extends across the elevation. The northeast elevation features two typical windows in the gable. The southwest elevation features six irregularly spaced typical windows along with one casement window and three additional casement units in the building's concrete foundation. The rear (southwest) elevation features a one-story, shed-roof ell with a northern screen door and window to the south, along with two central second-story windows.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Matthew Goldberg Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: 1246 John F. Kennedy Boulevard
Historic Name: 1246 John F. Kennedy Boulevard
Present Use: Residential Activity, Permanent
Historic Use: Residential Activity, Permanent
Construction Date: Circa 1925 **Source:** Hopkins 1919, 1934
Alteration Date(s): Mid- to late twentieth century **Source:** Stylistic evidence
Designer: Unknown **Physical Condition:** Good
Builder: Unknown **Remaining Historic Fabric:** Medium
Style: Craftsman
Form: Other **Stories:** 2
Type: N/A **Bays:** 2
Roof Finish Materials: Asphalt Shingle
Exterior Finish Materials: Vinyl Siding

Exterior Description:
See Base Survey Form

Interior Description:
The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the exterior visible from the public right-of-way and did not include interior access to the building.

Setting:
Number 1246 John F. Kennedy Boulevard is situated on a rectangular parcel (Block 17, Lot 2) in the City of Bayonne, Hudson County, New Jersey, approximately 500 feet southwest of the New Jersey Turnpike Newark Bay-Hudson County Extension. The subject property is sited on the east side of John F. Kennedy Boulevard between its intersections with West 56th and West 57th streets. A concrete alleyway divides the property from 1244 John F. Kennedy Boulevard (Block 17, Lot 3), also constructed circa 1925, to the southwest and there is a vacant lot to the northeast. Yards to the front and rear are covered in grass. The surrounding urban neighborhood is largely residential, with many two-story, wood-framed, single-family dwellings, interspersed with larger apartment buildings and commercial properties. Most of this development dates to the early to mid-twentieth century.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet.

Significance:
Number 1246 John F. Kennedy Boulevard is a circa-1925 dwelling situated in the northern area of Bayonne. Although heavily altered, elements of the Craftsman style are present. In response to a turn-of-the-century industrial boom and influx of immigration, residential and commercial buildings were constructed throughout the city. Vernacular dwellings such as 1246 John F. Kennedy Boulevard exemplify the construction of this era and the development of Bayonne.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
Number 1246 John F. Kennedy Boulevard is not recommended eligible for listing in the National Register of Historic Places (NRHP). Research did not indicate that the building was associated with prominent individuals or patterns of history. Architecturally, the building shows elements of the Craftsman style with overhanging eaves, shed dormers and full-width front porch, but does not represent the work of a master. The property retains a moderate degree of integrity of location, setting, feeling, and association; however, alterations such as the replacement of original windows and doors throughout and the introduction of modern cladding materials diminishes the property's integrity of materials, design, and workmanship. For these reasons, the property is recommended not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 1246 John F. Kennedy Boulevard

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

The subject property at 1246 John F. Kennedy Boulevard is located in the City of Bayonne, New Jersey. Bayonne Township was formed in 1861 from part of Bergen Township, and was later renamed Bayonne City in 1869 (Snyder 1969:145). That year, the city was surveyed and road maps planning for future development were created. Public improvements soon followed, including road grading, sidewalk, and sewer and gas line construction (Whitcomb 1904:75). In 1895, the Bayonne section of Hudson Boulevard, now known as John F. Kennedy Boulevard, was completed (Whitcomb 1904:92). During the late nineteenth and early twentieth century, Bayonne experienced an industrial boom, coupled with a high influx of European immigrants looking for a place to work and live, which led to rapid urbanization and industrial development (City of Bayonne 2022). The Pamrapo neighborhood of Bayonne, where the subject property is located, was one of five original villages within Bergen Township. Pamrapo occupied the northwest region of Bayonne, near the city's border with the City of Jersey City, and is characterized primarily by residential buildings, with some industrial and commercial properties located near Newark and Hudson bays. Most of the residential development in this area of Bayonne occurred in the early twentieth century in response to the increased housing demand created by regional industrialization and immigration (Hopkins 1919, 1934). Many single-family homes, multi-family homes, and apartment buildings were built at this time (Cultural Resource Consulting Group [CRCG] 2000:21). They were constructed in a variety of materials and styles, including Victorian, Colonial Revival, Tudor Revival, and Arts and Crafts. Typical settings were narrow urban lots with small yards, spaced tightly, and separated by alleys not driveways (CRCG 2000:33-34).

Historic maps indicate that the subject building was built circa 1925 (Hopkins 1919, 1934). The dwelling first appears cartographically on a 1934 plat map of Bayonne (Hopkins 1934; Figure 1). The 1934 map also shows the neighboring dwelling to the southwest at 1244 Hudson Avenue (later renamed John F. Kennedy Boulevard) had been constructed by this time. Due to the similar form and date of construction, these two dwellings were likely built simultaneously by the same builder. The 1940 census lists the Seala family, from New York originally, as residing at the property, the father of which worked as a builder (United States Bureau of the Census [US Census] 1940). The 1950 census lists the property as occupied by the Folger family, New Jersey natives, the father of which was an officer for the Department of Public Safety (US Census 1950). A 1950 Sanborn Map shows these two houses, addressed 1244 and 1246 Hudson Boulevard at the time, were located on one parcel, and shared a two-car garage to the rear, which is no longer extant (Figure 2). The subject dwelling also featured a rear porch in 1950, which is no longer present (Sanborn Map Company 1950). The first known, clear aerial photograph for the dwelling dates to 1954 (NETR 1954; Figure 3). Number 1246 John F. Kennedy Boulevard cannot be assigned one architectural style, but is a common early twentieth-century vernacular dwelling with elements of the Craftsman style. In 1963, to honor the late president, the name of the nearby road changed from Hudson County Boulevard to John F. Kennedy Boulevard (*Asbury Park Press*, 5 December, 1963:26). A 1977 aerial image shows the rear, shared garage had been removed by this time (NJDEP 1977; Figure 4). During the late twentieth century, most original doors and windows were replaced with vinyl units, and this is likely when the front porch was enclosed. Google imagery shows no alterations from 2007 to the present (Google 2007). The adjacent vacant lot to the northeast was previously used by an auto sales business, with the associated structure demolished between 2015 and 2017 (Google 2015, 2017).

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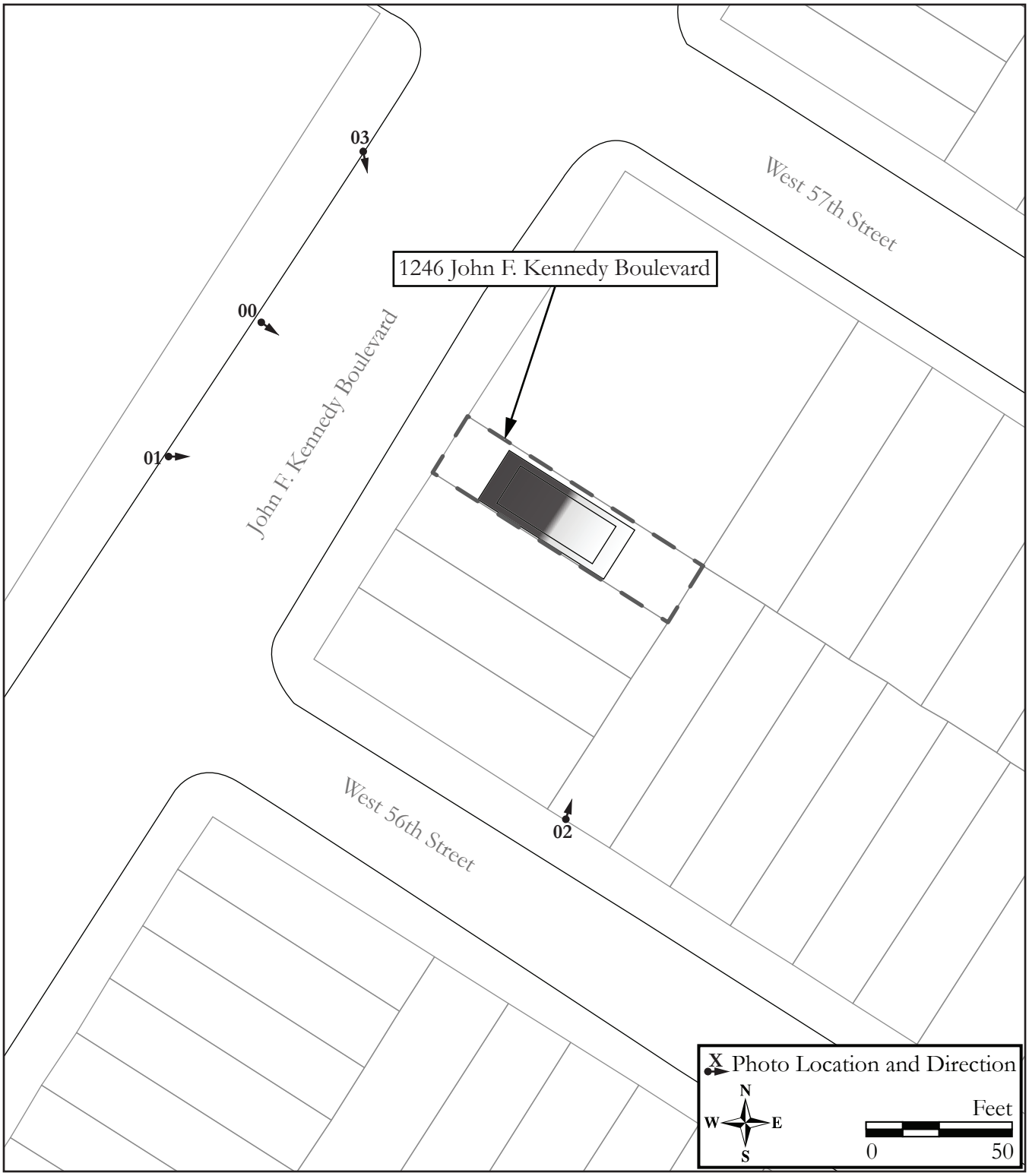
CONTINUATION SHEET

Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

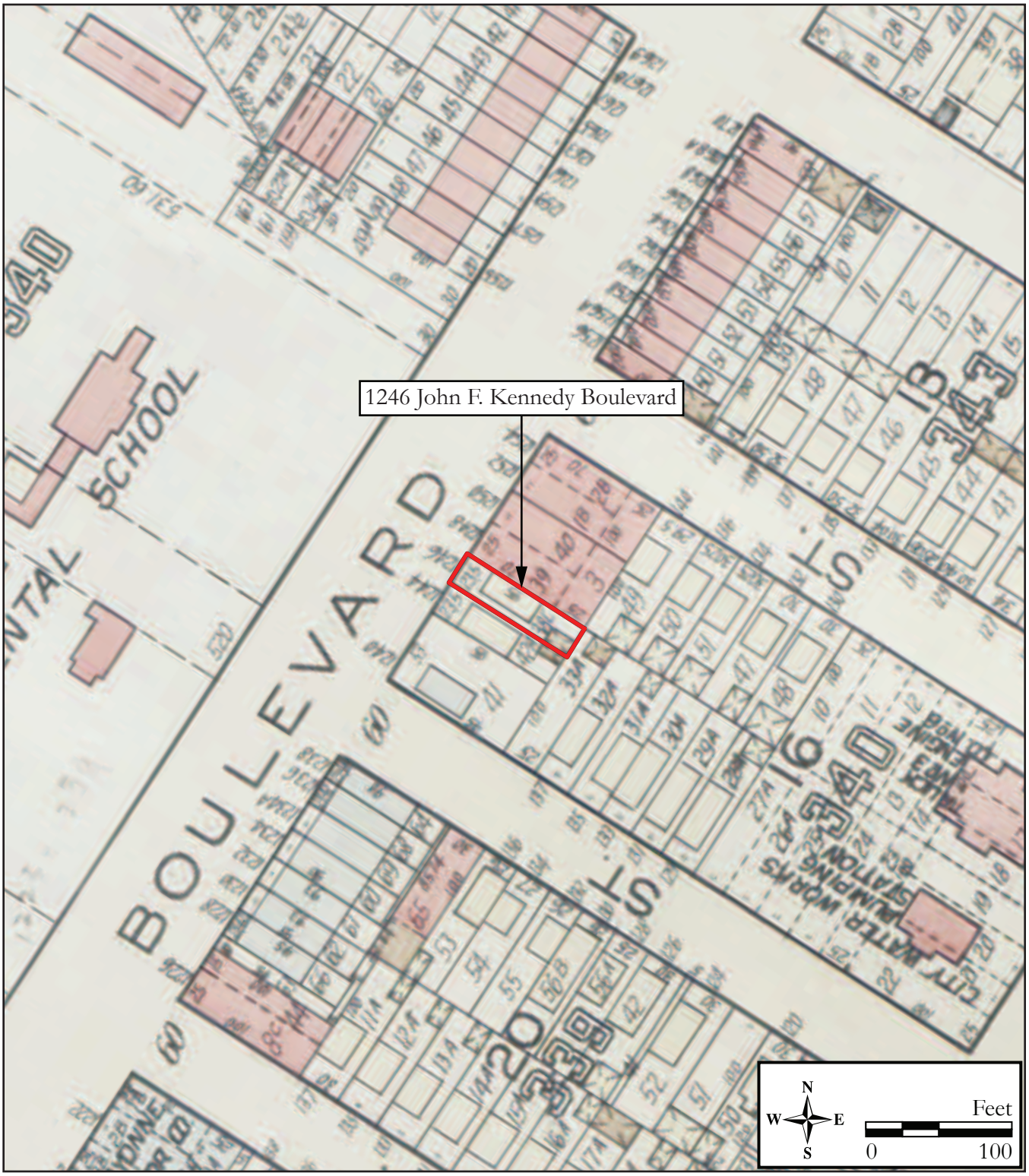


Figure 1: 1934 G.M. Hopkins, *Plat Book of Jersey City and Bayonne, Hudson County, New Jersey* depicting the building at 1246 John F. Kennedy Boulevard.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

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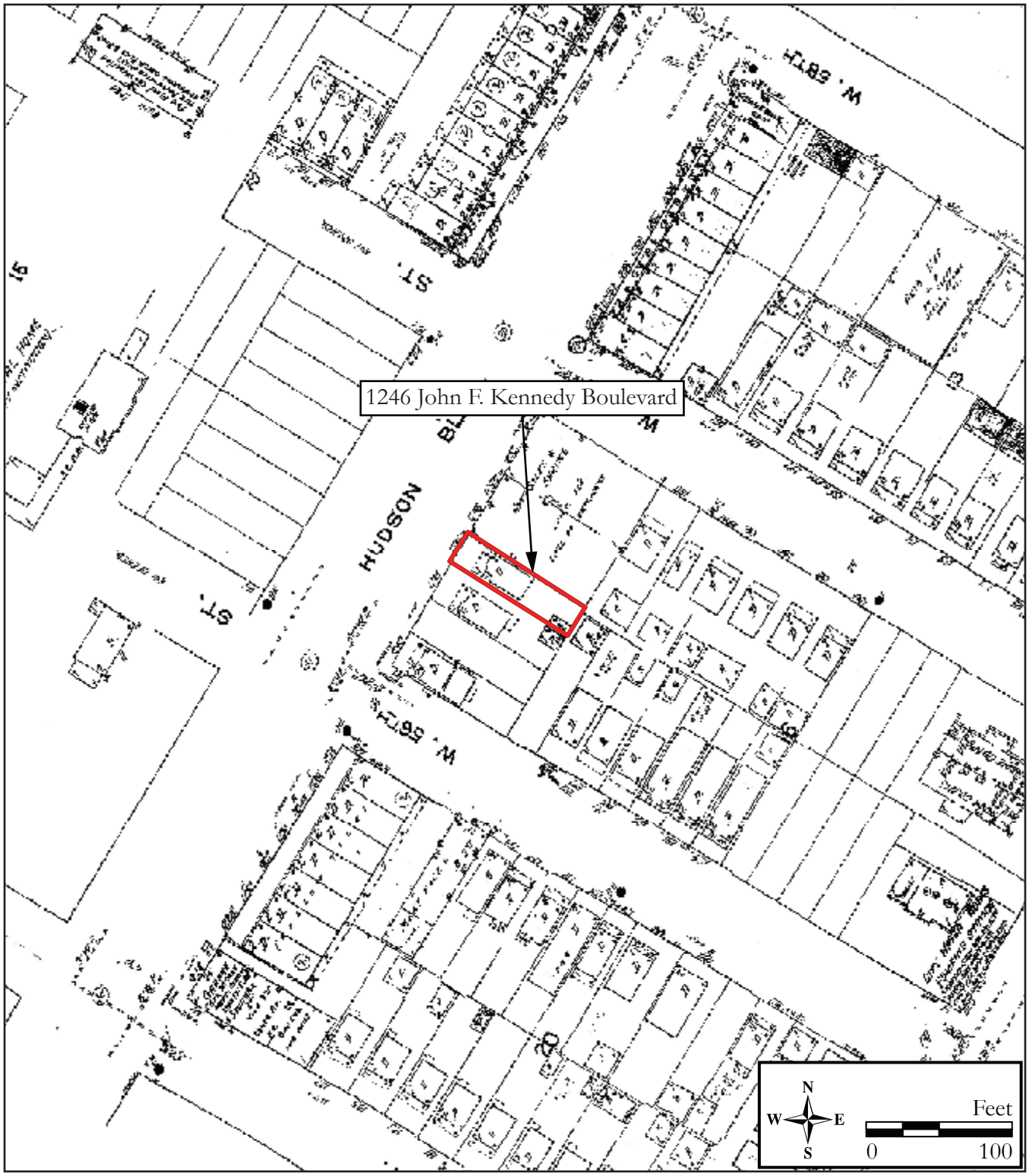


Figure 2: 1950 Sanborn Map Company, *Insurance Maps of Hudson County* depicting the dwelling and rear garage at 1246 John F. Kennedy Boulevard.

CONTINUATION SHEET

Historic Sites #:

Figure 3: 1954 historic aerial photograph depicting 1246 John F. Kennedy Boulevard (NETR 1954).

CONTINUATION SHEET

Historic Sites #:

Figure 4: 1977 historic aerial photograph depicting 1246 John F. Kennedy Boulevard with the rear garage not present (NJDEP 1977).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northwest) elevation of 1246 John F. Kennedy Boulevard.

Plate: 2

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the rear (southeast) elevation1246 John F. Kennedy Boulevard.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Sout

Photographer: Spencer Rubino

Date: August 3, 2022

View of the surrounding area of John F. Kennedy Boulevard.

BASE SURVEY FORM

Historic Sites #:

Property Name: 159 West 57th Street

Street Address: *Street #:* 159 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 13

Local Place Name(s): _____ **Lot(s):** 4

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1931, 159 West 57th Street is a highly altered, two-story-tall, two-bay-wide, vernacular rowhouse that rests atop a raised basement level with a garage (Plates 1-2). The building's primary (southwest) elevation fronts West 57th Street, which is alternatively named Leo Sylvious Road. The southeast elevation faces a driveway, and the northwest elevation directly abuts a neighboring rowhouse at 161 West 57th Street. The northeast elevation faces an enclosed yard, with the New Jersey Turnpike Newark Bay-Hudson County Extension located approximately 200 feet to the northeast. The subject building is capped by a flat roof sheathed in tar, which gently slopes towards the rear (northeast) elevation. The exterior of the subject building is clad in vinyl siding, including vinyl scallop siding, except for the basement level, which is faced with brick on its southwest elevation and concrete on its southeast elevation.

Continued on Building/Element Attachment

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

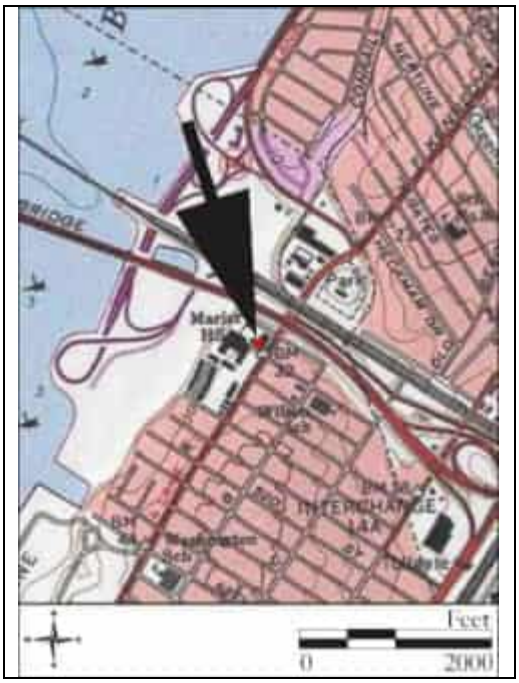
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name:	159 West 57th Street/Leo Sylvious Road		
Historic Name:	159 West 57th Street		
Present Use:	Residential Activity, Permanent		
Historic Use:	Residential Activity, Permanent		
Construction Date:	Circa 1931	**Source:**	G.M. Hopkins & Co. 1919, NETR 1931
Alteration Date(s):	Late twentieth century/Early twenty-first century	**Source:**	Stylistic evidence
Designer:	Unknown	**Physical Condition:**	Excellent
Builder:	Unknown	**Remaining Historic Fabric:**	Low
Style:	None		
Form:	Row	**Stories:**	2
Type:	N/A	**Bays:**	2
Roof Finish Materials:	Built-up Tar		
Exterior Finish Materials:	Brick, Running Bond; Vinyl Siding		

Exterior Description:

Continued from Base Survey Form

Windows on the primary (southwest) elevation are six-over-six, double-hung, vinyl-sash replacement units. The primary entrance punctures the western bay and consists of a paneled door with a large sidelight to its west, and a transom window. The entrance is sheltered by a small front-gabled roof supported by wood brackets and is accessed via a large set of brick steps. The brick steps occupy the western end of the raised basement level, and the remainder of the basement elevation is occupied by a vinyl, roll top garage door. A short driveway slopes downward toward the garage door, connecting it to the street level (see Plate 1). The southeast elevation is three bays wide and features multi-light, double-hung, vinyl replacement windows. The basement floor has two small windows directly below the central and northern bays (see Plate 2). The rear (northeast) elevation was not visible from the public right-of-way at the time of survey.

Interior Description:

The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the public right-of-way and did not include interior access to the building.

Setting:

The building at 159 West 57th Street is located on the north side of West 57th Street, west of its intersection with John F. Kennedy Boulevard on a narrow rectangular parcel (Block 13, Lot 4) in the City of Bayonne, Hudson County, New Jersey. This section of West 57th Street is alternatively named Leo Sylvious Road. The northeast portion of the parcel is heavily vegetated, and the New Jersey Turnpike Newark Bay-Hudson County Extension is located approximately 200 feet northeast of the property. Located in the northwest corner of the City of Bayonne, the surrounding area consists mostly of early twentieth-century dwellings.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
Number 159 West 57th Street is an example of a highly altered, early twentieth-century rowhouse. Built circa 1931, the construction of the dwelling coincided with a period of industrial development and heavy immigration in Bayonne around the turn of the twentieth century, which is reflected in its proximity to industrial sites as well as being more austere than other high style architecture of the period. Its historical ties to immigrant families in the early twentieth century highlights its function as affordable housing for new immigrants who were looking for industrial jobs.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
Number 159 West 57th Street is recommended not eligible for listing in the National Register of Historic Places (NRHP). Research did not uncover that the property was associated with significant persons or events. Architecturally, the building is not a particularly good example of its type, nor representative of the work of a master. The subject property has been highly altered and does not convey its historic integrity through style or material. For these reasons, the building is recommended as not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 159 West 57th Street/Leo Sylvious Road

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

Bayonne Township was formed in 1861 from part of Bergen Township, and was later renamed Bayonne City in 1869 (Snyder 1969:145). That year, the city was surveyed and the street grid was laid out. Public improvements soon followed, including road grading, sidewalk, and sewer and gas line construction (Whitcomb 1904:75). During the late nineteenth and early twentieth centuries, Bayonne experienced an industrial boom, coupled with a high influx of European immigrants looking for a place to work and live, which led to rapid urbanization and industrial development (Cultural Resource and Consulting Group [CRCG] 2000). The subject property is located in what was one of five original villages within Bergen Township named Pamrapo. Pamrapo occupied the northwest region of Bayonne, near the Bayonne/Jersey City border, and is now characterized primarily by residential buildings, with some industrial and commercial properties located near Newark and Hudson bays. Most of the area's residential development occurred in the early twentieth century in response to the increased housing demand created by regional industrialization and immigration (CRCG 2000; Hopkins 1919, 1934).

The subject building at 159 West 57th Street was built sometime between 1919 and 1931 (Hopkins 1919; NETR 1931). A 1931 aerial photograph confirms the subject building had been constructed by that time along with two adjoining rowhouses (NETR 1931; Figure 1). A 1934 map indicates that the subject building was constructed of brick, as were the adjoining rowhouses (Hopkins 1934; Figure 2). The 1930 United States Census indicates that a single family, the Johnsons, were residing at the subject property. Similar to many residents of Bayonne at the time, the family contained a first generation immigrant, with Albert Johnson's family emigrating from Scandinavia (United States Bureau of the Census, [US Census] 1930).

The 1940 United States Census indicates that two families were living at the subject dwelling, suggesting that the building may have been split into a two-family duplex (US Census 1940). Similar to many residents of Bayonne at the time, the two families living in the subject building, the Thomases and the Campbells, were immigrants (US Census 1940). Walter and Hilda Thomas immigrated from England while William and Winnie Campbell immigrated from Scotland, and both Walter and William worked for the Western Electric Company, which had local plants in Kearny and Jersey City (US Census 1940). Walter and Hilda Thomas lived at 159 West 57th Street from 1935 to at least 1957, the last known year of residency (US Census 1940; *The Jersey Journal*, 24 May, 1965:11). It is unclear if the subject property was intended as a duplex at this time.

A 1950 Sanborn Map illustrates the subject property in more detail, denoting the building as a two-story dwelling with first- and second-story porches spanning both its primary (southwest) elevation, and rear (northeast) elevation (Sanborn Map Company 1950; Figure 3). The map also indicates that there was a basement-level garage in the building by this point. Given the building's circa-1931 construction date, it would be unusual for the dwelling to have originally included a garage, so it is possible the dwelling was altered sometime before 1950 to include the basement-level garage space, though research to date has not been able to confirm this. The front and rear porches were likely enclosed sometime during the mid to late twentieth century. Other exterior alterations such as replacement vinyl siding, windows, and the garage door can be dated stylistically to the late twentieth century to early twenty-first century (NETR 1954, 1979, 1995). Imagery of the subject building in 2007 indicates that no major alterations have been made to the building since then (Google Maps 2007).

CONTINUATION SHEET

Historic Sites #:

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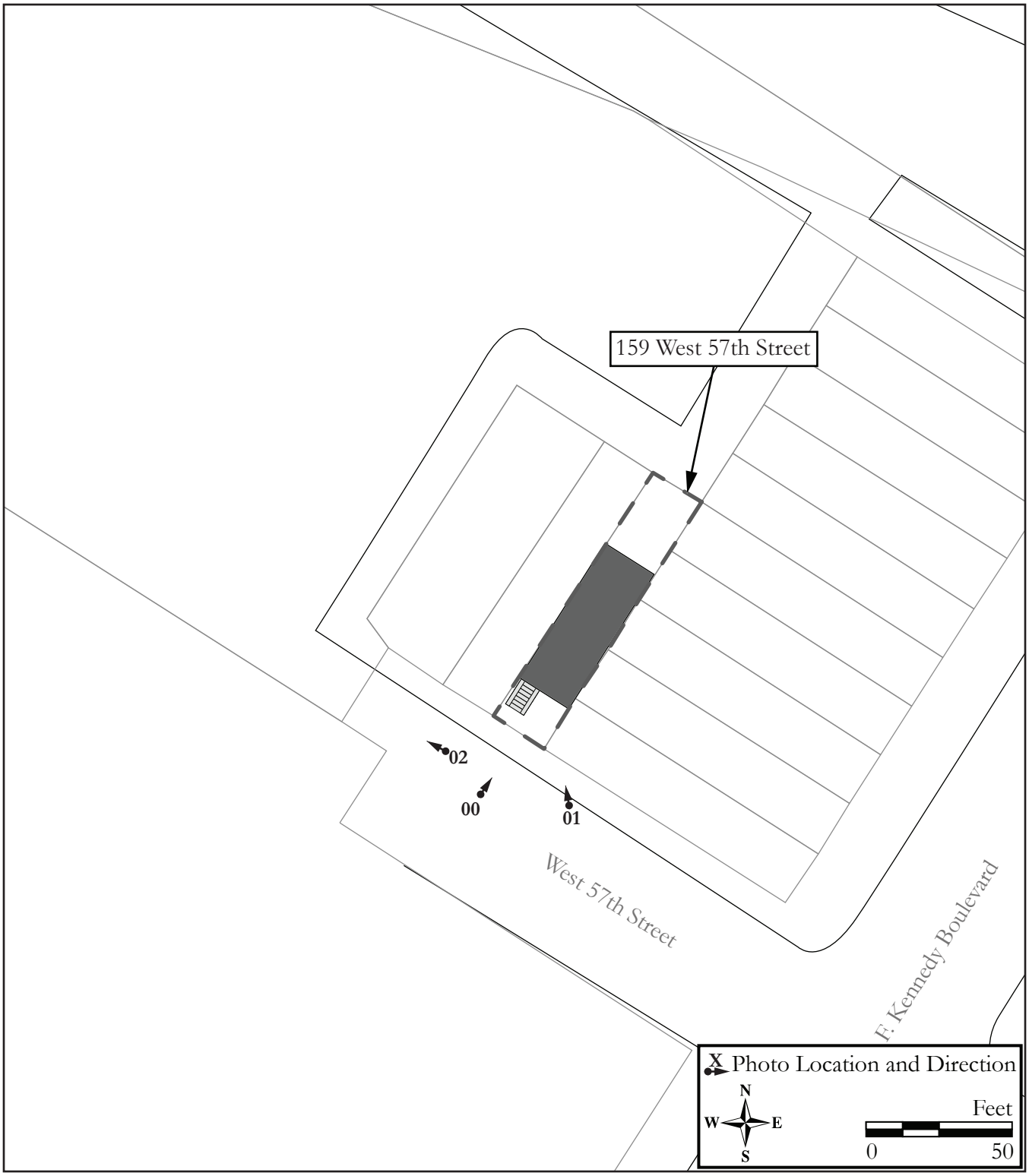
CONTINUATION SHEET

Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Figure 1: 1931 historic aerial photograph depicting the subject building at 159 West 57th Street (NETR 1931).

CONTINUATION SHEET

Historic Sites #:

Figure 2: 1934 G.M. Hopkins, *Volume One Plat Book of Jersey City and Bayonne, Hudson County, New Jersey*.

CONTINUATION SHEET

Historic Sites #:

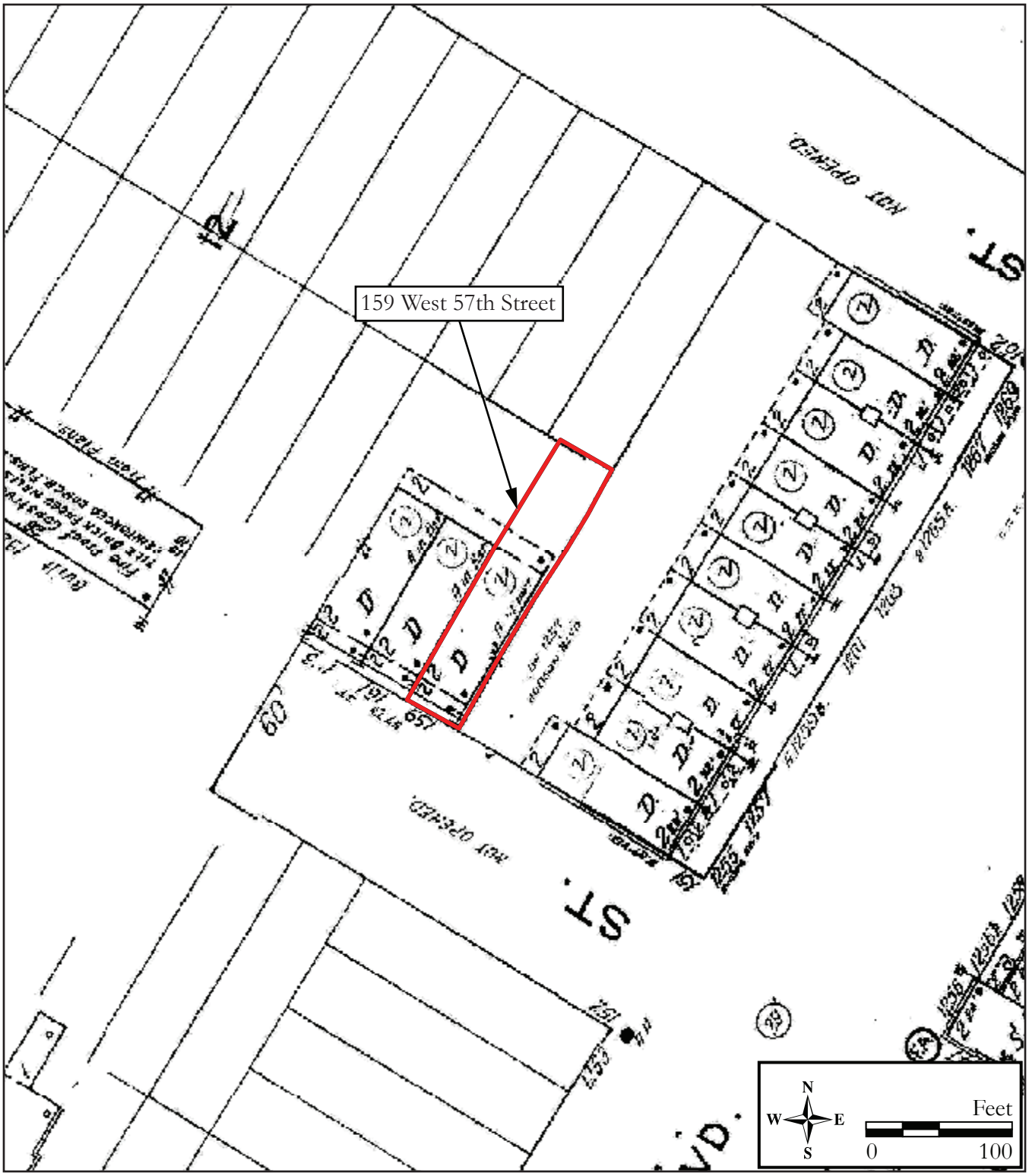


Figure 3: 1950 Sanborn Company Map, *Insurance Maps of Hudson County*. Note the rapid development of the surrounding area in the 16-year span between 1934 and 1950.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: North

Photographer: Spencer Rubino

Date: August 3, 2022

Perspective view of 159 West 57th Street's southwest and southeast elevations.

Plate: 2

Photo view: Northwest

Photographer: Spencer Rubino

Date: August 3, 2022

View of the New Jersey Turnpike Newark Bay-Hudson County Extension that runs east to west behind and adjacent to 159 West 57th Street.

BASE SURVEY FORM

Historic Sites #:

Property Name: 161 West 57th Street

Street Address: *Street #:* 161 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 13

Local Place Name(s): _____ **Lot(s):** 3

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1931, 161 West 57th Street is a heavily altered, two-story-tall, two-bay-wide, vernacular rowhouse which rests atop a raised basement level with a garage (Plates 1 and 2). The building's primary (southwest) elevation fronts West 57th Street, which is alternatively named Leo Sylvious Road. The subject building is flanked by attached rowhouses: 163 West 57th Street to the northwest, and 159 West 57th Street to the southeast. The northeast elevation faces an enclosed yard, with the New Jersey Turnpike Newark Bay-Hudson County Extension located approximately 200 hundred feet northeast. The subject building is capped by a flat roof sheathed in tar, which gently slopes towards the rear (northeast) elevation. The exterior of the subject building is clad in vinyl siding, except for the basement level which is brick.

Continued on Building/Element Attachment

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

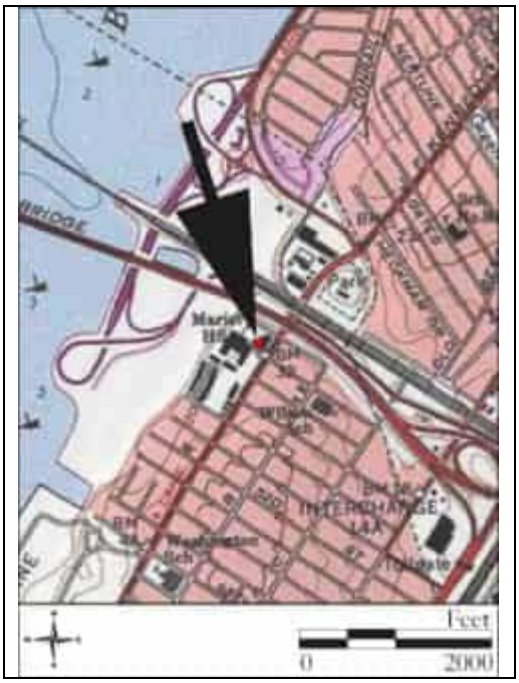
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name:	161 West 57th Street/Leo Sylvious Road		
Historic Name:	161 West 57th Street		
Present Use:	Residential Activity, Permanent		
Historic Use:	Residential Activity, Permanent		
Construction Date:	Circa 1931	**Source:**	Hopkins 1919; NETR 1931
Alteration Date(s):	Late twentieth century/Early twenty-first century	**Source:**	Stylistic evidence
Designer:	Unknown	**Physical Condition:**	Good
Builder:	Unknown	**Remaining Historic Fabric:**	Low
Style:	None		
Form:	Row	**Stories:**	2
Type:	N/A	**Bays:**	2
Roof Finish Materials:	Built-up Tar		
Exterior Finish Materials	Vinyl Siding; Brick, Running Bond		

Exterior Description:

Continued from Base Survey Form

Windows on the primary (southwest) elevation are single light casement vinyl-sash replacement units. Between the second and first floors is an asphalt-shingled pent roof, which extends across the southwest elevation, continuing onto the primary elevation of the neighboring rowhouse to the northwest. The primary entrance punctures the western bay and consists of a paneled door flanked by sidelights to its west. The brick steps occupy the western end of the raised basement level, and the remainder of the basement elevation is occupied by a vinyl, roll top garage door. A short driveway slopes downward toward the garage door, connecting it to the street level. The rear (northeast) elevation was not visible from the public right-of-way at the time of survey.

Interior Description:

The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the public right-of-way and did not include interior access to the building.

Setting:

Number 161 West 57th Street is located on the north side of West 57th Street, west of its intersection with John F. Kennedy Boulevard; this section of West 57th Street is alternatively named Leo Sylvious Road. The subject building is sited on a narrow rectangular lot (Block 13, Lot 3) in the City of Bayonne, Hudson County, New Jersey. The northeast portion of the parcel is heavily vegetated, and the New Jersey Turnpike Newark Bay-Hudson County Extension is located approximately 200 feet northeast of the property. Located in the northwest corner of the City of Bayonne, the surrounding area consists mostly of early twentieth-century dwellings.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
The building at 161 West 57th Street is an example of a highly altered, early twentieth-century rowhouse. Built circa 1931, the construction of the dwelling coincided with a period of industrial development and heavy immigration in Bayonne around the turn of the twentieth century, which is reflected in its proximity to industrial sites as well as being more austere than other high style architecture of the period.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The building at 161 West 57th Street is recommended not eligible for listing in the National Register of Historic Places (NRHP). Research did not uncover that the building was associated with significant persons or events. Architecturally, the building is not a particularly good example of its type, nor representative of the work of a master The subject property has been highly altered and does not convey its historic integrity through style or material. For these reasons, the building is recommended as not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 161 West 57th Street/Leo Sylvious Road

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

Bayonne Township was formed in 1861 from part of Bergen Township, and was later renamed Bayonne City in 1869 (Snyder 1969:145). That year, the city was surveyed and the street grid was laid out. Public improvements soon followed, including road grading, sidewalk, and sewer and gas line construction (Whitcomb 1904:75). During the late nineteenth and early twentieth centuries, Bayonne experienced an industrial boom, coupled with a high influx of European immigrants looking for a place to work and live, which led to rapid urbanization and industrial development (Cultural Resource and Consulting Group [CRCG] 2000). The subject property is located in what was one of five original villages within Bergen Township named Pamrapo. Pamrapo occupied the northwest region of Bayonne, near the Bayonne/Jersey City border, and is now characterized primarily by residential buildings, with some industrial and commercial properties located near Newark and Hudson bays. Most of the area's residential development occurred in the early twentieth century in response to the increased housing demand created by regional industrialization and immigration (CRCG 2000; Hopkins 1919, 1934).

The subject building at 161 West 57th Street was built sometime between 1919 and 1931 (Hopkins 1919; NETR 1931). A 1931 aerial photograph confirms the subject building had been constructed by that time along with two adjoining rowhouses (NETR 1931; Figure 1). The dwelling is fist depicted cartographically on a 1934 map which indicates that the building was constructed of brick, as were the adjoining rowhouses (Hopkins 1934; Figure 2). The 1930 United States Census indicates that two families were living at the subject dwelling, suggesting that the building may have been split into a two-family duplex (US Census 1930). The Bohrmans were both from New Jersey, but George Bohrman's father was a German immigrant. The Thomas's were also native to the United States (US Census 1930).

A 1950 Sanborn Map shows the subject property in more detail, illustrating the building as a two-story dwelling with first- and second-story porches spanning both its primary (southwest) and rear (northeast) elevations (Sanborn Map Company 1950; Figure 3). The map also indicates that there was a basement-level garage in the building by this point. Given the building's circa-1931 construction date, it would be unusual for the dwelling to have originally included a garage, so it is possible the dwelling was altered sometime before 1950 to include the basement-level garage space, though research to date has not been able to confirm this. The front and rear porches were likely enclosed sometime during the mid- to late twentieth century. Other exterior alterations such as replacement vinyl siding, windows, and the addition of the garage door can be dated stylistically to the late twentieth century to the early twenty-first century (NETR 1954, 1979, 1995). Imagery of the subject building in 2007 indicates that no major alterations have been made to the building since then (Google Maps 2007).

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1919 *Volume One Plat Book of Jersey City and Bayonne, Hudson County, New Jersey.* G.M. Hopkins Co., Philadelphia, Pennsylvania.
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Google Maps
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CONTINUATION SHEET

Historic Sites #:

Bibliography, continued:

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Sanborn Map Company

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1950 *Insurance Maps of Hudson County*. Revised from 1912. Vol. 10. Sanborn Map Company, New York.

Whitcomb, Royden P.

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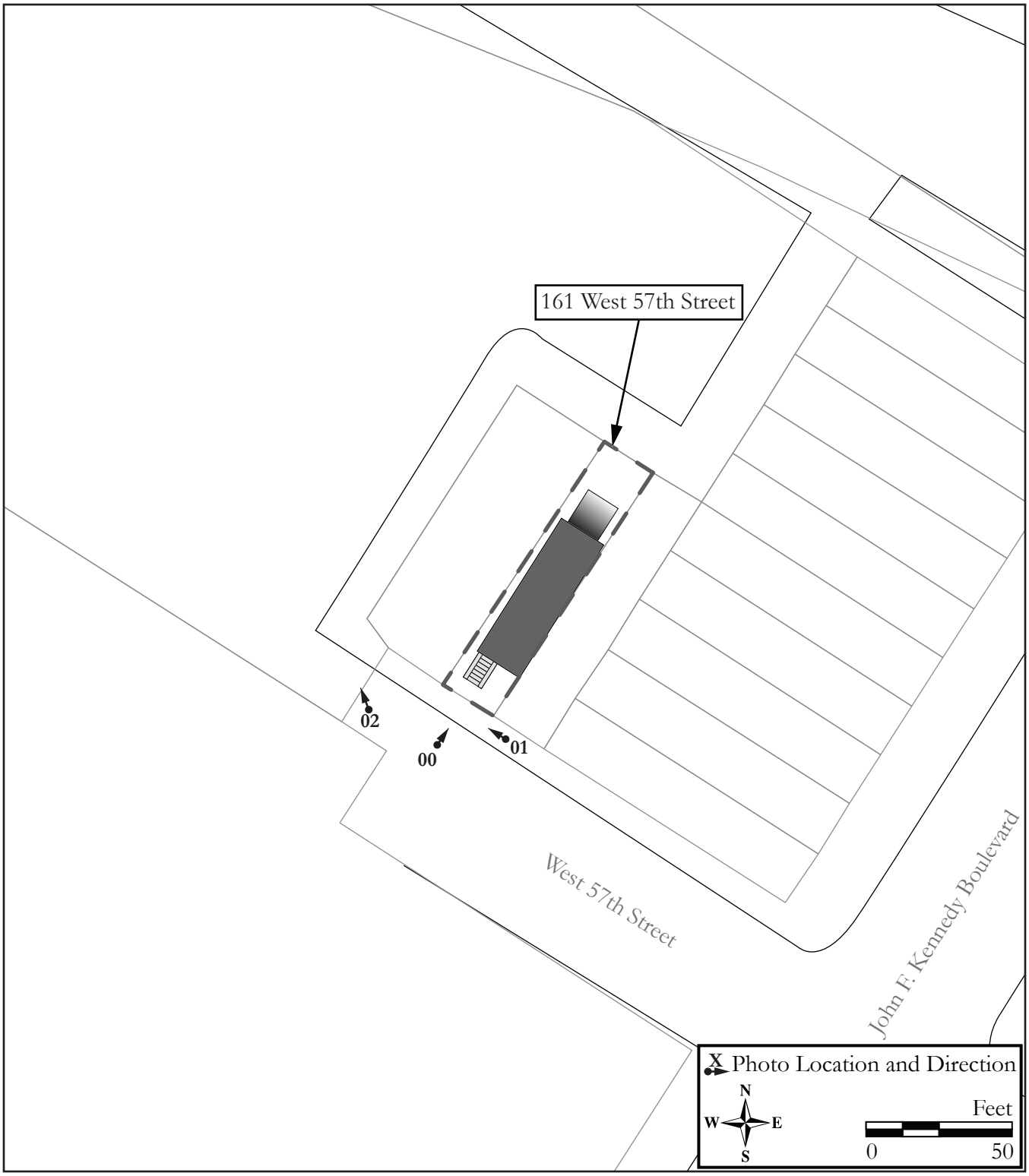
CONTINUATION SHEET

Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Figure 1: 1931 historic aerial photograph depicting the subject building at 159 West 57th Street (NETR 1931).

CONTINUATION SHEET

Historic Sites #:

Figure 2: 1934 G.M. Hopkins, *Volume One Plat Book of Jersey City and Bayonne, Hudson County, New Jersey*.

CONTINUATION SHEET

Historic Sites #:

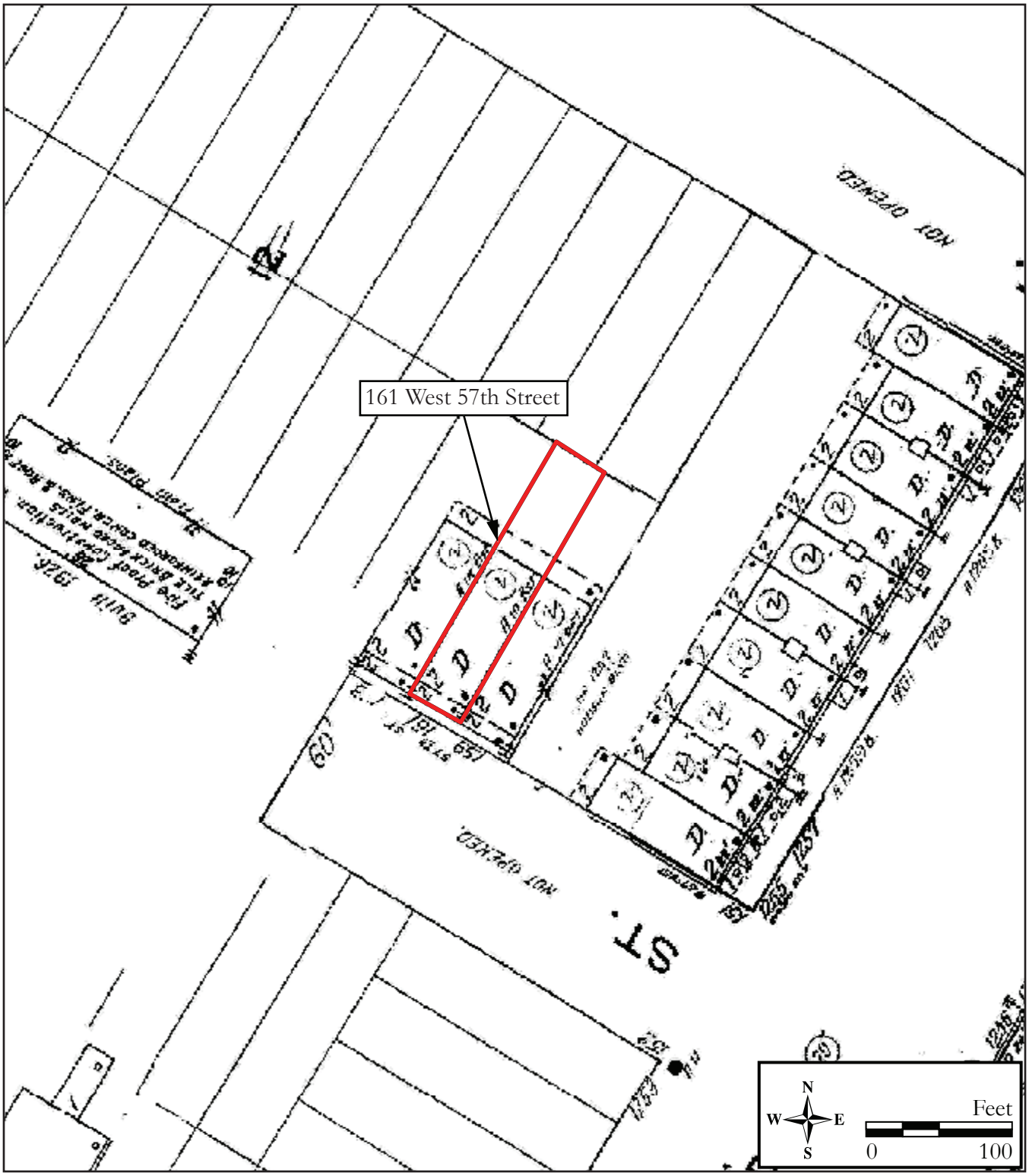


Figure 3: 1950 Sanborn Company Map, *Insurance Maps of Hudson County*. Note the rapid development of the surrounding area in the 16-year span between 1934 and 1950.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino
Date: October 2022
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CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Southwest

Photographer: Spencer Rubino

Date: August 8, 2022

View of the site of the former Marist High School with the New Jersey Turnpike Newark Bay-Hudson County Extension partially visible beyond.

Plate: 2

Photo view: Northwest

Photographer: Spencer Rubino

Date: August 8, 2022

View north towards the New Jersey Turnpike Newark Bay-Hudson County Extension from the middle of 57th Street; number 161 West 57th Street lies to the northeast of the photo.

BASE SURVEY FORM

Historic Sites #:

Property Name: 163 West 57th Street

Street Address: *Street #:* 163 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 13

Local Place Name(s): _____ **Lot(s):** 2

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1931, 163 West 57th Street is a highly altered, two-story-tall, two-bay-wide, vernacular rowhouse that rests atop a raised basement level with a garage (Plates 1 and 2). The building's primary (southwest) elevation fronts West 57th Street, which is alternatively named Leo Sylvious Road. The northwest elevation faces an asphalt-paved road, which leads to a parking lot for the former Marist High School, and the southeast elevation adjoins a neighboring rowhouse at 161 West 57th Street. The northeast elevation faces an enclosed yard, with the New Jersey Turnpike Newark Bay-Hudson County Extension located approximately 200 hundred feet northeast. The building is capped by a flat roof sheathed in tar, which gently slopes towards the rear (northeast) elevation. The front (southwest) elevation of the subject building is clad in vinyl siding, except for the basement level which is brick.

Continued on Building/Element Attachment

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

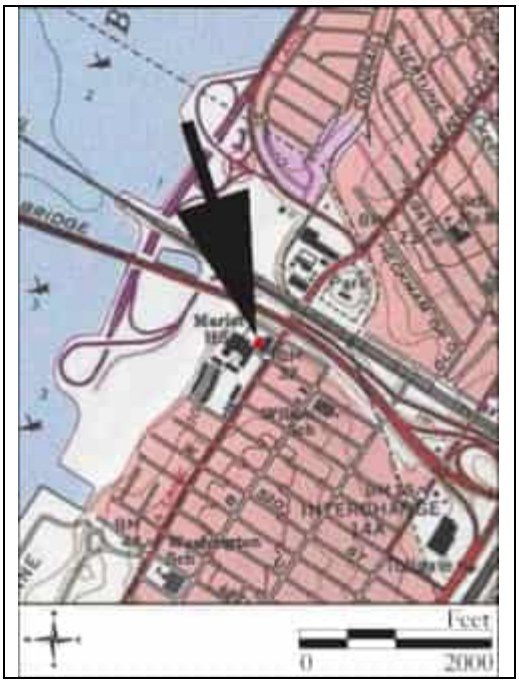
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: 163 West 57th Street/Leo Sylvious Road
Historic Name: 163 West 57th Street
Present Use: Residential Activity, Permanent
Historic Use: Residential Activity, Permanent
Construction Date: Circa 1931 **Source:** Hopkins 1919; NETR 1931
Alteration Date(s): Late twentieth to early twenty-first century **Source:** Stylistic evidence
Designer: Unknown **Physical Condition:** Good
Builder: Unknown **Remaining Historic Fabric:** Low
Style: None
Form: Row **Stories:** 2
Type: N/A **Bays:** 2
Roof Finish Materials: Built-up Tar
Exterior Finish Materials Vinyl Siding; Brick, Running Bond

Exterior Description:

Continued from Base Survey Form

Windows on the primary (southwest) elevation consist of one-over-one, double hung vinyl sash replacement units (see Plate 1). Between the second and first floors is an asphalt-shingled pent roof, which extends across the southwest elevation, continuing onto the primary elevation of the neighboring rowhouse to the southeast The primary entrance punctures the western bay and consists of a paneled door flanked by sidelights and is accessed by a large set of brick steps flanked by metal hand railings, which occupy the eastern end of the raised basement level. The remainder of the basement elevation is occupied by a vinyl roll top garage door. A short driveway slopes downward toward the garage door, connecting it to the street level. The northwest elevation is clad in stucco and consists of grouped double-hung vinyl replacement units and single vinyl double-hung replacement units. The rear (northeast) elevation is characterized by a closed-in porch clad in vinyl siding. Only the second floor is visible, which consists of grouped double-hung vinyl replacement units. The first floor is obscured by vegetation.

Interior Description:

Not accessible.

Setting:

The building at 163 West 57th Street is located on the north side of West 57th Street, west of its intersection with John F. Kennedy Boulevard; this section of West 57th Street is alternatively named Leo Sylvious Road. The subject building is sited on a narrow rectangular lot (Block 13, Lot 2) in the City of Bayonne, Hudson County, New Jersey. The northeast portion of the parcel is heavily vegetated, and the New Jersey Turnpike Newark Bay-Hudson County Extension is located approximately 200 feet northeast of the property. Located in the northwest corner of the City of Bayonne, the surrounding area consists mostly of early twentieth-century dwellings.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
The building at 163 West 57th Street is an example of a highly altered, early twentieth-century rowhouse. Built circa 1931, the construction of the dwelling coincided with a period of industrial development and heavy immigration in Bayonne around the turn of the twentieth century, which is reflected in its proximity to industrial sites as well as being more austere than other high style architecture of the period. Its historical ties to immigrant families in the early twentieth century highlights its function as affordable housing for new immigrants who were looking for industrial jobs.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The building at 163 West 57th Street is recommended not eligible for listing in the National Register of Historic Places (NRHP). Research did not uncover that the building was associated with significant persons or events. Architecturally, the building is not a particularly good example of its type, nor representative of the work of a master. The subject property has been highly altered and does not convey its historic integrity through style or material. For these reasons, the building is recommended as not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 163 West 57th Street/Leo Sylvious Road

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

Bayonne Township was formed in 1861 from part of Bergen Township, and was later renamed Bayonne City in 1869 (Snyder 1969:145). That year, the city was surveyed and the street grid was laid out. Public improvements soon followed, including road grading, sidewalk, and sewer and gas line construction (Whitcomb 1904:75). During the late nineteenth and early twentieth centuries, Bayonne experienced an industrial boom, coupled with a high influx of European immigrants looking for a place to work and live, which led to rapid urbanization and industrial development (Cultural Resource and Consulting Group [CRCG] 2000). The subject property is located in what was one of five original villages within Bergen Township named Pamrapo. Pamrapo occupied the northwest region of Bayonne, near the Bayonne/Jersey City border, and is now characterized primarily by residential buildings, with some industrial and commercial properties located near Newark and Hudson bays. Most of the area's residential development occurred in the early twentieth century in response to the increased housing demand created by regional industrialization and immigration (CRCG 2000; Hopkins 1919, 1934).

During the early twentieth century, the subject property was undeveloped and there was little development in the surrounding area (Sanborn Map Company 1912). The subject building at 163 West 57th Street was built sometime between 1919 and 1931 (Hopkins 1919; NETR 1931). A 1931 aerial photograph confirms the subject building had been constructed by that time, along with two adjoining rowhouses to the southeast at 161 and 159 West 57th Street (Figure 1; NETR 1931). The subject dwelling is fist depicted cartographically on a 1934 map, which indicates that the building was constructed of brick, as were the adjoining rowhouses (Figure 2; Hopkins 1934).

The 1930 United States Census indicates that three families were living in the subject property, obscuring the original layout of the dwelling. Abraham Levine, who helped to construct 1255 through 1269 John F. Kennedy Boulevard, lived at 163 West 57th Street with his wife and three sons (*The Jersey Journal*, 24 August, 1922:15). The Levines were Russian Immigrants and Abraham Levine was a local carpenter. The Mowers were mostly native-born except Margaret Mower, the matriarch, who was a first generation immigrant. The third family, whose family name is illegible, was Egyptian (US Census 1930). The 1940 United States Census indicates that two families were living at the subject dwelling, suggesting that the building may have been split into a multi-family duplex (United States Bureau of the Census, [US Census] 1940). Similar to many residents of Bayonne at the time, the two families residing in the subject building, the Jerines and the O'Hagans, were immigrants (US Census 1940). Abraham and Alice Jerine emigrated from Russia while Philip O'Hagan, his wife Barabara, and their son Gilbert emigrated from England (US Census 1940).

A 1950 Sanborn Map shows the subject property in more detail, illustrating the building as a two-story dwelling with first- and second-story porches spanning both its primary (southwest) and rear (northeast) elevations (Figure 3; Sanborn Map Company 1950). The map also indicates that there was a basement-level garage in the building by this point. Given the building's circa-1931 construction, date it would be unusual for the dwelling to have originally included a garage, so it is possible the dwelling was altered sometime before 1950 to include the basement-level garage space, though research to date has not been able to confirm this. The front and rear porches were likely enclosed sometime during the mid- to late twentieth century. Other exterior alterations, such as replacement vinyl siding, windows, and the addition of the garage door, can be dated stylistically to the late twentieth to early twenty-first century (NETR 1954, 1979, 1995). Imagery of the subject building in 2007 indicates that no major alterations have been made to the building since then (Google Maps 2007).

CONTINUATION SHEET

Historic Sites #:

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1995 Historic Aerial Photographs, electronic document, https://www.historicaerials.com/viewer. Accessed August 1, 2022.

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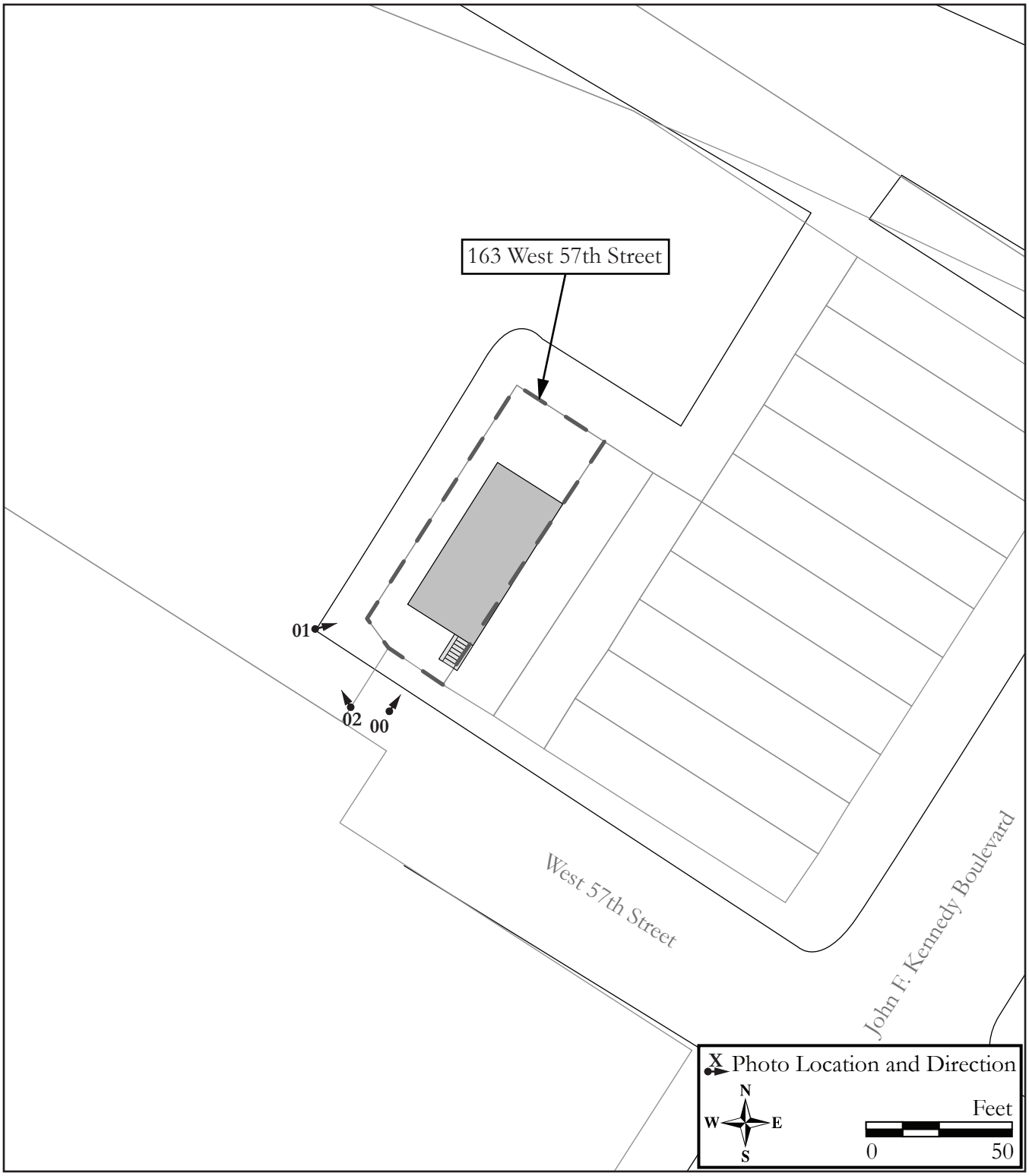
CONTINUATION SHEET

Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Figure 1: 1931 historic aerial photograph depicting the subject building at 159 West 57th Street (NETR 1931).

CONTINUATION SHEET

Historic Sites #:

Figure 2: 1934 G.M. Hopkins, *Volume One Plat Book of Jersey City and Bayonne, Hudson County, New Jersey*.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino
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CONTINUATION SHEET

Historic Sites #:

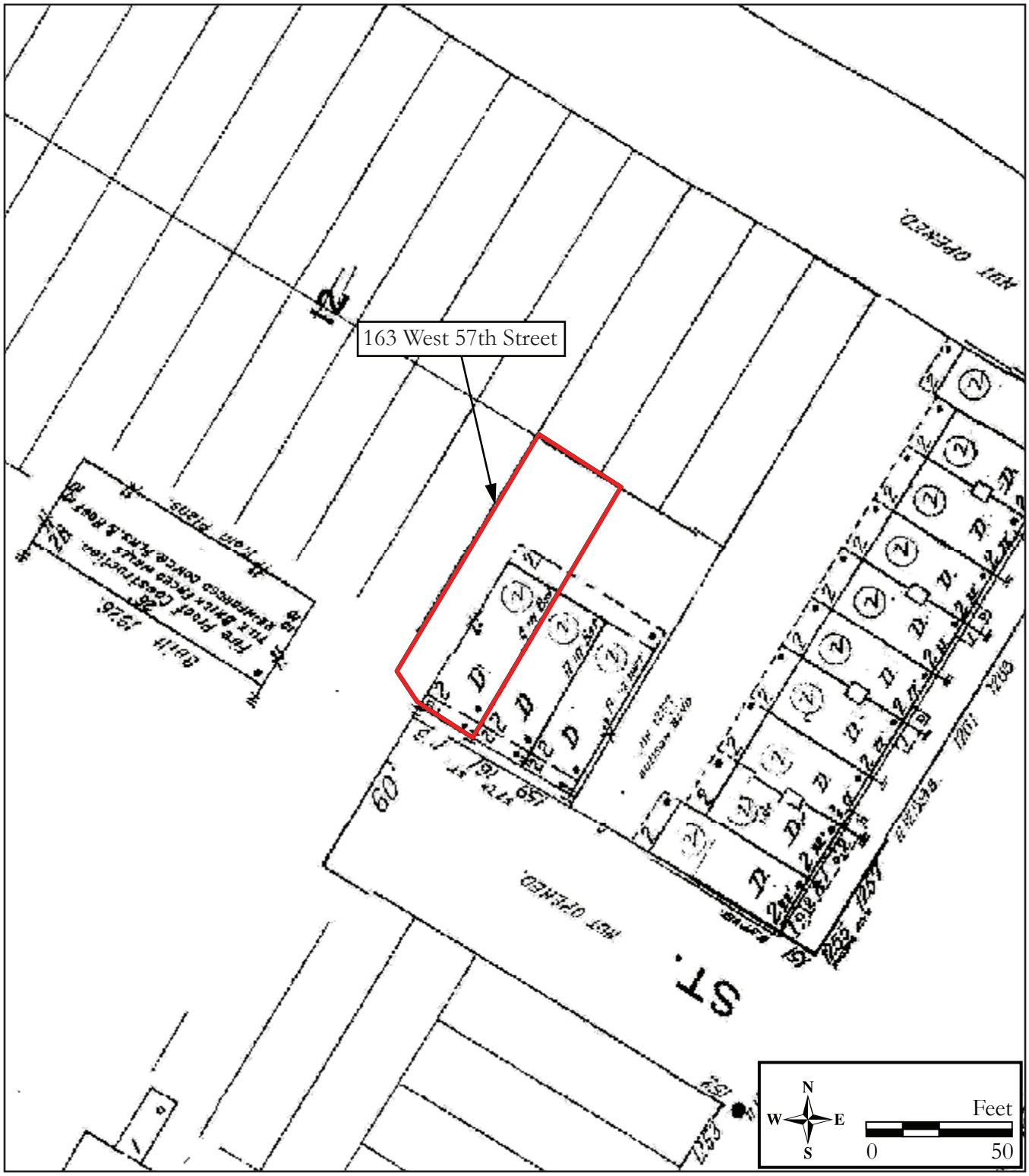


Figure 3: 1950 Sanborn Company Map, *Insurance Maps of Hudson County*. Note the rapid development of the surrounding area in the 16-year span between 1934 and 1950.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 8, 2022

Perspective view of the southwest corner of 163 West 57th Street.

Plate: 2

Photo view: Northwest

Photographer: Spencer Rubino

Date: August 8, 2022

View north towards the New Jersey Turnpike Newark Bay-Hudson County Extension from the middle of 57th Street; number 163 West 57th Street lies to the northeast of the photo.

HISTORIC DISTRICT OVERLAY

Historic Sites #:

District Name: Pamrapo Renaissance Revival Historic District

County(s): Hudson **District Type:** Residential

Municipality(s): City of Bayonne **USGS Quad(s):** Jersey City NJ-NY

Local Place Name(s):

Development Period: Circa 1922 **To:** 1923 **Source:** The Jersey Journal, 16 August 1923:15

Physical Condition: Good

Remaining Historic Fabric: Low

Registration and Status Dates:

National Historic Landmark:
National Register:
New Jersey Register:
Determination of Eligibility:
SHPO Opinion:
Local Designation:
Other Designation:
Other Designation Date:

Description:

The Pamrapo Renaissance Revival Historic District is a residential district situated on the west side of John F. Kennedy (JFK) Boulevard between its intersections with West 58th and West 57th streets in the City of Bayonne, Hudson County, New Jersey (Plates 1-15). The district consists of a contiguous block of 10 vernacular Renaissance Revival-style rowhouses (Block 13, Lots 5-14). Each rowhouse is sited on narrow, half-acre lots that front JFK Boulevard.

Constructed in 1923, the two-story-tall rowhouses are clad in Flemish bond brick and share a continuous parapet across their primary (southeast) elevations. The dwellings are capped by flat roofs sheathed in rolled asphalt. Each dwelling is two bays wide and has a modified brick porch which alludes to them being enclosed on the first floor of the primary (southeast) elevation, topped by either a one- or two-bay-wide, second-floor addition, typically clad in wood, vinyl, or aluminum siding. Primary entrances generally consist of a single-paneled replacement door with a central light, with the exception of 1257 JFK Boulevard, which has a double-door entrance. A majority of the dwellings in the district also feature an enclosed rear first-story porch on their northwest elevations. Basement access is provided beneath the southeast and northwest porches, those on the southeast elevation are accessed via five steps of either brick or concrete. Windows throughout are vinyl replacement units of varying light arrangements and operations, often in groups of two or three. Most of these alterations are from the late twentieth and early twenty-first century.

Setting:

The Pamrapo Renaissance Revival Historic District is located in the northwest section of the City of Bayonne, near the city's border with Jersey City. The district comprises a contiguous block of 10 rowhouses on the west side of JFK Boulevard between its intersections with West 58th Street to the north and West 57th Street to the south. The western edge of the district abuts the eastern lot line of a neighboring property at 159 West 57th Street. The New Jersey Turnpike Newark Bay-Hudson County Extension is located approximately 100 feet to the north of the district's northern terminus. The 0.45-acre district is located within a dense residential setting consisting primarily of early to mid-twentieth-century residential buildings, with some commercial buildings located along the east side of JFK Boulevard

BASE SURVEY FORM

Historic Sites #:

Property Name: 1255 John F. Kennedy Boulevard

Street Address: *Street #:* 1255 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 13

Local Place Name(s): _____ **Lot(s):** 5

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1255 JFK Boulevard is an altered, two-story-tall, two-bay-wide, brick rowhouse (see Plate 1). The subject property is the southernmost building in the district, located on the north corner of JFK Boulevard and West 57th Street (alternatively named Leo Sylvious Road). The building is capped by a flat roof sheathed in rolled asphalt and features a brick parapet with pronounced corners that extends along the primary (southeast) and southwest elevations. The windows throughout primarily consist of double-hung, vinyl-sash replacement units. The second floor of the primary (southeast) elevation contains a group of three windows in its southern bay and a flat-roofed, vinyl-clad addition projecting from its northern bay. The addition in the northern bay has a central picture window, flanked by two smaller one-over-one windows on its primary elevation, all sheltered beneath a metal awning. The first floor of the primary elevation has a two-bay-wide brick addition, which extends to sit flush with the second-story addition above. The southern bay of the first-floor addition is characterized by a group of three windows on the primary elevation and a pair of two windows on its southwest elevation. Directly below is a vinyl door that leads to the basement, neighbored by a small, fixed basement window. The northern bay of the first-floor addition contains a vinyl-paneled door with two central lights, surrounded by vinyl siding that frames the bay. Five concrete steps flanked by metal railings lead to the door. *See Continuation Sheet*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

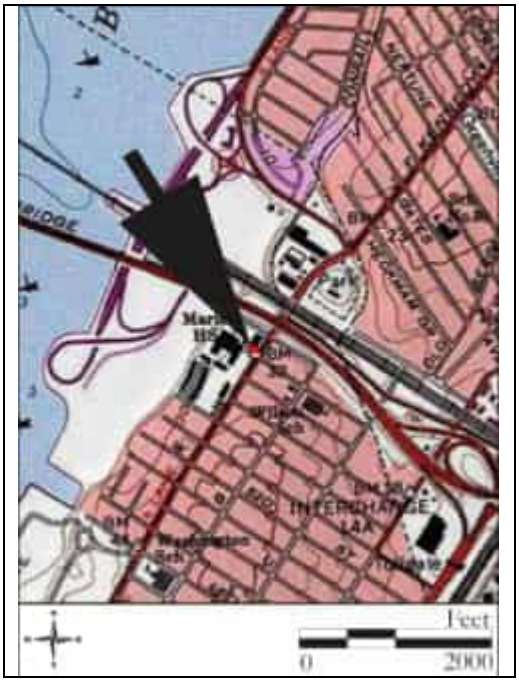
Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1255B John F. Kennedy Boulevard

Street Address: *Street #:* 1255B (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 13

Local Place Name(s): _____ **Lot(s):** 6

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1255B JFK Boulevard is a highly altered, two-story-tall, two-bay-wide rowhouse (see Plate 2). The building is capped by a flat roof sheathed in rolled asphalt and has a brick parapet along its primary (southeast) elevation. Windows and doors throughout consist of vinyl replacement units. A two-bay-wide, vinyl-siding-clad addition with a flat roof projects from the second floor of the primary elevation and features two three-unit grouped, one-over-one, double hung windows. The first floor of the primary elevation also has a two-bay wide, brick-faced addition which extends to sit flush with the second-story addition above. The southern bay of the first-floor addition contains a central picture window flanked by one-over-one double hung units. Below is a paneled vinyl door that provides access to the basement. The north bay contains a set of double doors with central oculus windows. The doors are surrounded by infilled sidelights and transoms. Five brick steps flanked by a metal railing lead up to the door.

The rear (northwest) elevation is characterized by an enclosed two-story vinyl-siding-clad porch with a second-floor balcony extending from it. The second story has a central vinyl sliding door, and the first story has a vinyl door with an awning extending overhead in its northern bay. Three double-hung vinyl windows are spaced evenly to the south of the first floor's door.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

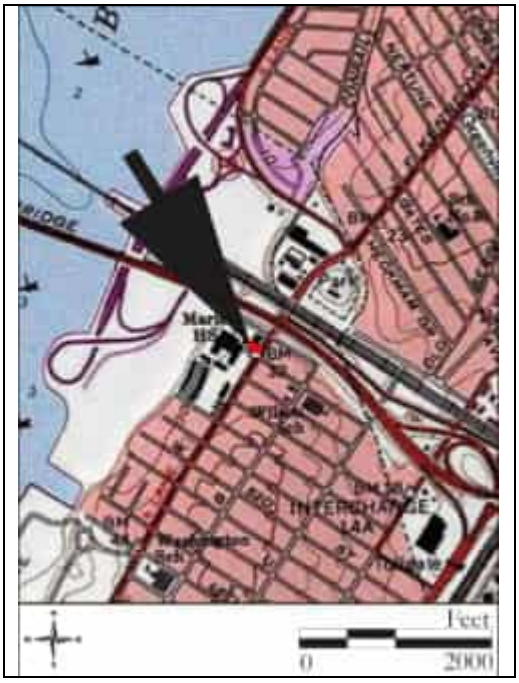
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1257 John F. Kennedy Boulevard

Street Address: *Street #:* 1257 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 13

Local Place Name(s): _____ **Lot(s):** 7

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1257 JFK Boulevard is a highly altered, two-story-tall, two-bay-wide rowhouse (see Plate 3). The building is capped by a flat roof sheathed in rolled asphalt and has a brick parapet along its primary (southeast) elevation. Windows and doors throughout consist of vinyl replacement units. A two-bay-wide, flat-roofed addition clad in vinyl shake siding projects from the second floor of the primary elevation and features a group of three one-over-one, double-hung windows in each bay. The first floor of the primary elevation also has a two-bay-wide addition which is faced with brick and extends to sit flush with the second-story addition above. The southern bay of the first-floor addition contains the primary entrance, consisting of a vinyl panel door surrounded by brick. Four brick steps flanked by a metal railing lead up to the door. The northern bay consists of a group of three, one-over-one, double-hung windows. Below is a metal door that accesses the basement, flanked by a sliding window. An asphalt shingle pent roof extends across the primary elevation between the first and second floors.

The rear (northwest) elevation's second floor is characterized by an enclosed vinyl clad porch with a wood balcony. The first floor features a vinyl addition extending from it. The windows consist of paired one-over-one, double-hung units. The second story has a recessed door, and the rear lot can be accessed via a stairwell.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

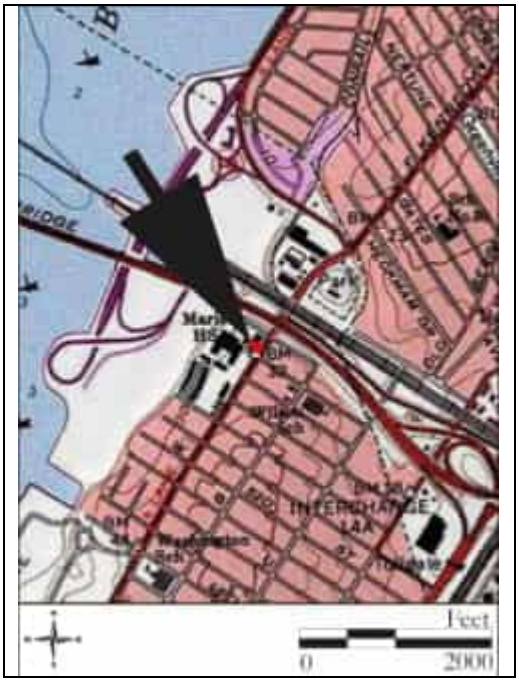
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1259 John F. Kennedy Boulevard

Street Address: *Street #:* 1259 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 13

Local Place Name(s): _____ **Lot(s):** 8

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1259 JFK Boulevard is a highly altered, two-story-tall, two-bay-wide rowhouse (see Plate 4). The building is capped by a flat roof sheathed in rolled asphalt and has a brick parapet along its primary (southeast) elevation. A two-bay-wide, flat-roofed addition clad in vinyl shake siding projects from the second floor of the primary elevation and features a group of four casement windows in each bay. The first floor of the primary elevation also has a two-bay-wide addition which is faced with brick and extends to sit flush with the second-story addition above. The southern bay of the first-floor addition contains a group of four casement windows. Below is a metal door that accesses the basement, flanked by a sliding window. The north bay contains a vinyl paneled door surrounded by infilled sidelights and transoms. Five brick steps flanked by a metal railing lead up to the door. An asphalt-shingled pent roof extends across the primary elevation between the first and second floors.

The rear (northwest) elevation was not visible from the public right-of-way at the time of survey and is obscured by vegetation in available aerial imagery. It is not described on this form.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

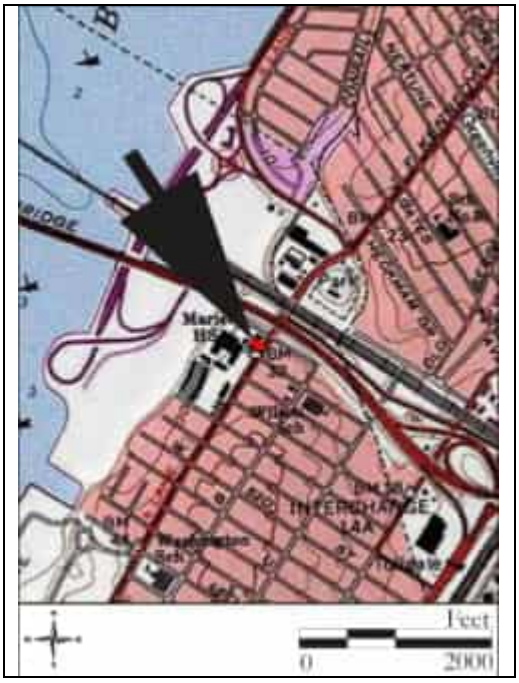
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1261 John F. Kennedy Boulevard

Street Address: *Street #:* 1261 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 13

Local Place Name(s): _____ **Lot(s):** 9

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1261 JFK Boulevard is a highly altered, two-story-tall, two-bay-wide (see Plate 5). The building is capped by a flat roof sheathed in rolled asphalt and has a brick parapet along its primary (southeast) elevation. The second floor of the primary elevation has a vinyl-shake-siding-clad addition projecting from its southern bay, with a flat roof and a pair of one-over-one, double hung windows on its southeast elevation. The northern bay of the second floor contains a group of three one-over-one, double-hung windows. The first floor of the primary elevation has a two-bay-wide addition which is faced with brick and extends to sit flush with the second-story addition above. An asphalt-shingled pent roof sits between the first and second story additions. The southern bay of the first-floor addition contains the primary entrance, consisting of a wood panel door flanked on either side by sidelights and decorative paneling, and capped with an infilled transom. Five concrete steps flanked by a metal railing lead up to the door. The northern bay contains a central picture window flanked by one-over-one double hung units. Below is a paneled vinyl door that accesses the basement, capped with an awning and flanked by a sliding window.

The rear (northwest) elevation was not visible from the public right-of-way at the time of survey and is obscured by vegetation in available aerial imagery. It is not described on this form.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

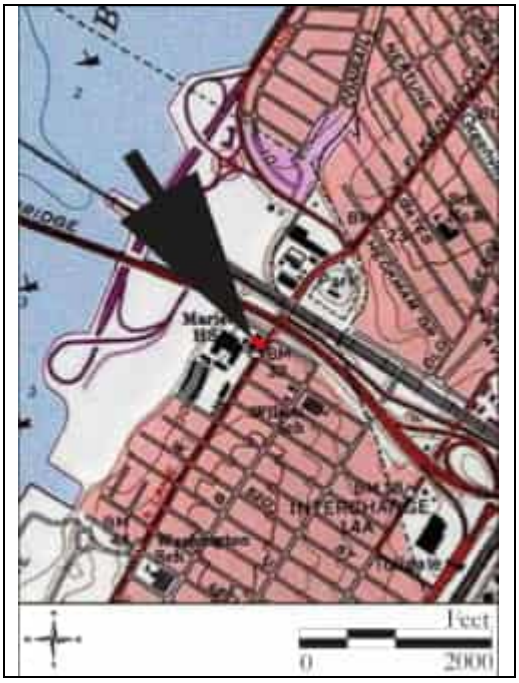
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1263 John F. Kennedy Boulevard

Street Address: *Street #:* 1263 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 13

Local Place Name(s): _____ **Lot(s):** 10

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1263 JFK Boulevard is a highly altered, two-story-tall, two-bay-wide rowhouse (see Plate 6). The building is capped by a flat roof sheathed in rolled asphalt and features a brick parapet across its primary (southeast) elevation. On the second floor of the primary elevation, the southern bay contains a pair of six-over-six, double hung vinyl windows, and the northern bay is occupied by a projecting addition with a flat roof. The addition is clad in aluminum siding and has a single, one-over-one, double-hung, vinyl window centered on its southeast elevation. The first floor of the primary elevation also has a two-bay-wide addition which is faced with brick and extends to sit flush with the second-story addition above. The southern bay of the first-floor addition consists of a pair of one-over-one, double-hung aluminum sash windows, with aluminum board and batten siding above. Below is a paneled door that leads to the basement, flanked by a sliding window. The northern bay contains the primary entrance; a metal paneled door surrounded by aluminum board and batten siding. Six brick steps flanked by a metal railing lead up to the door.

The rear (northwest) elevation was not visible from the public right-of-way at the time of survey and is obscured by vegetation in available aerial imagery. It is not described on this form.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

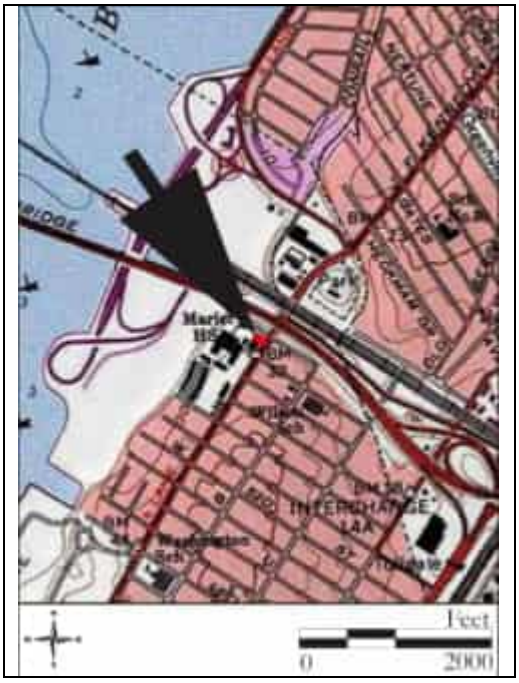
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1265 John F. Kennedy Boulevard

Street Address: *Street #:* 1265 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 13

Local Place Name(s): _____ **Lot(s):** 11

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1265 JFK Boulevard is a highly altered, two-story-tall, two-bay-wide rowhouse (see Plate 7). The building is capped by a flat roof sheathed in rolled asphalt, with a brick parapet across its primary (southeast) elevation. Windows and doors throughout consist of vinyl replacement units. On the second floor of the primary elevation, a vinyl-siding-clad addition with a flat roof occupies the southern bay, and features a pair of one-over-one, double hung windows. The north bay of the second floor is characterized by a group of three one-over-one, double-hung windows. The first floor of the primary elevation consists of a two-bay-wide addition, which extends to sit flush with the second-story addition above. An asphalt-shingled pent roof sits between the first- and second-story additions on the southern bays. The southern bay of the first-floor addition contains a vinyl paneled door surrounded by vinyl siding. Six brick steps flanked by metal railings lead up to the door. The northern bay of the first-story addition is clad with brick and contains a group of three one-over-one, double-hung windows. Below is a paneled vinyl door that accesses the basement, flanked by a sliding window.

The rear (northwest) elevation was not visible from the public right-of-way at the time of survey and is obscured by vegetation in available aerial imagery. It is not described on this form.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

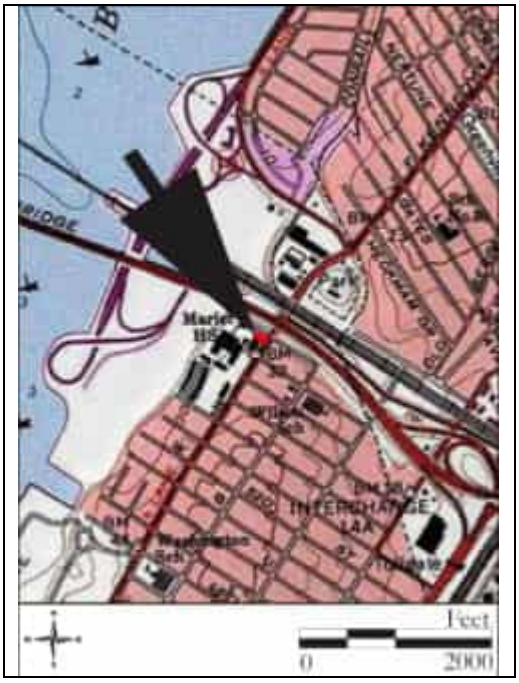
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1267A John F. Kennedy Boulevard

Street Address: *Street #:* 1267 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 13

Local Place Name(s): _____ **Lot(s):** 12

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1267A JFK Boulevard is a highly altered, two-story-tall, two-bay-wide rowhouse (see Plate 8). The building is capped by a flat roof sheathed in rolled asphalt and has a brick parapet across its primary (southeast) elevation. Windows and doors throughout consist of vinyl replacement units. The second-floor, southeast elevation has two bays; its southern bay has a grouped three-unit double-hung window. The north bay is an addition clad in vinyl shake with a grouped three-bay, double-hung window facing the street. The first floor extends out to support the addition and is enclosed in either bay. The southern bay consists of grouped, four-unit, single-light casement window. Below is a paneled vinyl door that accesses the basement, flanked by a sliding window. The northern bay consists of a vinyl door with central lights surrounded by vinyl shake siding. Seven brick steps flanked by metal railings lead up to the door. An asphalt pent roof covers the northern first-floor bay.

The rear (northwest) elevation is mostly obscured by vegetation and not visible, except the second floor which features an enclosed porch with a center grouped two-unit, double-hung window.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

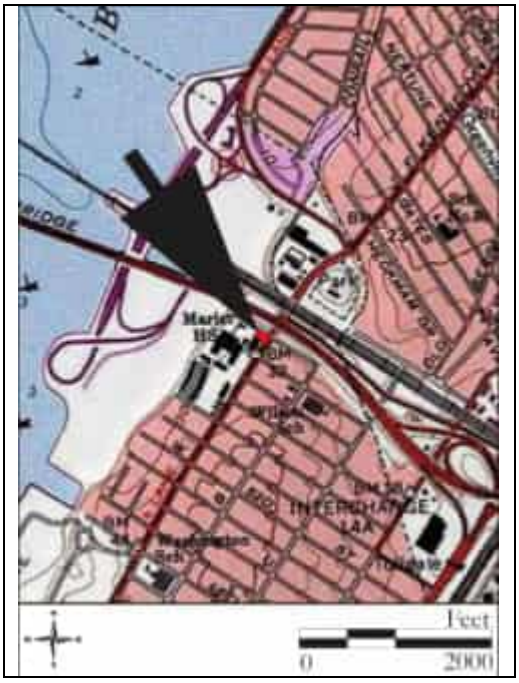
Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1267B John F. Kennedy Boulevard

Street Address: *Street #:* 1267B (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 13

Local Place Name(s): _____ **Lot(s):** 13

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1267B JFK Boulevard is a highly altered two-story-tall, two-bay-wide rowhouse (see Plate 9). Capped with a rolled asphalt flat roof, a front parapet extends across the southeast elevation. The second-floor, southeast elevation is completely obscured by a vinyl-clad addition that extends across both bays. The south bay features one double-hung window. The north bay has a grouped, two-unit, double-hung window. The first floor extends out to support the addition and is enclosed in either bay. The southern bay is characterized by a metal paneled front door with a center light, surrounded by vinyl siding that extends and meets the addition, creating a cohesive façade. The northern bay consists of four-unit casement bay windows, capped by vinyl siding that extends to the addition above.

The rear (northwest) elevation is mostly obscured by vegetation and not visible.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

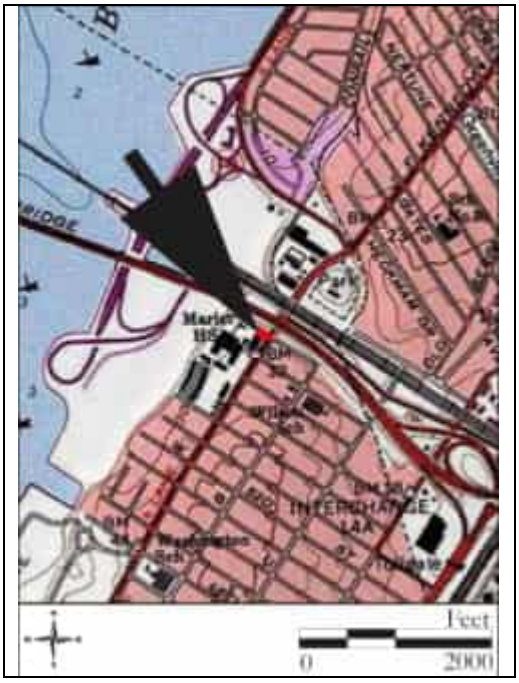
Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1269 John F. Kennedy Boulevard

Street Address: *Street #:* 1269 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 13

Local Place Name(s): _____ **Lot(s):** 14

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1269 JFK Boulevard is a two-story-tall, two-bay-wide rowhouse (see Plate 10). Capped with a rolled asphalt flat roof, a front parapet extends across the southeast and northeast elevation. The second-floor, southeast elevation features two bays. The southern bay is characterized by a single, double-hung window. The northern bay features a grouped, three-unit, double-hung window. There is a screen door between the bays that leads out to the roof of the first-floor enclosed porch, surrounded by a wrought iron railing. The first floor extends and is enclosed in either bay. The southern bay is characterized by a vinyl paneled door, surrounded by vinyl siding and brick. It is capped by a semicircular awning. Nine concrete steps flanked by metal railings lead up to the door. The northern bay has a grouped, double-hung window flanked by sidelights. Below is a vinyl screen door capped by a semicircular awning and flanked by a sliding window.

The northeast elevation has four bays mostly consisting of single, double-hung windows on each floor, except the easternmost bays which feature a grouped, three-unit double-hung window. Above the second-floor bays is square brick motif. Four fixed basement windows sit below the first floor, irregularly spaced. The rear (northwest) elevation retains its original two-story wood porch, which is capped with asphalt shingle half-mansard roof. The elevation is clad in vinyl and has two bays; the northern bay has a single, double-hung window on either floor, and the first-floor's southern bay has a vinyl-clad addition with a doorway leading to the porch on its northeast elevation and one sliding window on its northwest elevation (see Plate 12). The second-floor, southern bay is not visible

Registration and Status Dates:

National Historic Landmark:		SHPO Opinion:	
National Register:		Local Designation:	
New Jersey Register:		Other Designation:	
Determination of Eligibility:		Other Designation Date:	

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

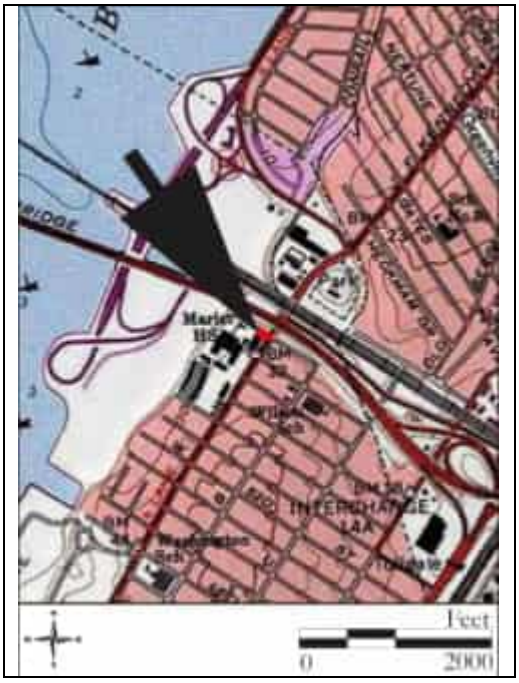
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
The Pamrapo Renaissance Revival Historic District is a collection of 10 contiguous vernacular Renaissance Revival-style rowhouses near the City of Bayonne's northern border with Jersey City, in what originally was the Pamrapo village of Bergen. The dwellings within the district are examples of early twentieth-century, vernacular iterations of Renaissance Revival-style architecture. The majority of the houses in the district have been insensitively altered over the course of the twentieth century. These alterations include additions, enclosures, and replacement of original cladding, windows, and doors on some dwellings with appropriate materials such as vinyl. With industrial development located proximate to the historic district to the southeast and southwest, the buildings reflect the need for housing in a particularly heavy developmental period in Bayonne's history during the early twentieth century.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The Pamrapo Renaissance Revival Historic District is recommended not eligible for listing in the National Register of Historic Places (NRHP) under Criteria A, B, or C. While Nathan I. Welitoff is associated with the building, he was not a significant architect in a local, state, or national context. Architecturally, the rowhouses within the district are vernacular and unremarkable examples of the Renaissance Revival style. Multiple alterations to each dwelling, including various additions, replacement windows, doors, and siding, diminish the district's integrity of design, materials, workmanship, and feeling. For these reasons, the Pamrapo Renaissance Revival Historic District is recommended not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non-Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:

Historic District Overlay: Pamrapo Renaissance Revival Historic District
Base Survey Form: 1255 John F. Kennedy Boulevard
Base Survey Form: 1255B John F. Kennedy Boulevard
Base Survey Form: 1257 John F. Kennedy Boulevard
Base Survey Form: 1259 John F. Kennedy Boulevard
Base Survey Form: 1261 John F. Kennedy Boulevard
Base Survey Form: 1263 John F. Kennedy Boulevard
Base Survey Form: 1265 John F. Kennedy Boulevard
Base Survey Form: 1267A John F. Kennedy Boulevard
Base Survey Form: 1267B John F. Kennedy Boulevard
Base Survey Form: 1269 John F. Kennedy Boulevard

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

Description (Continued from Building/Element Attachment, 1255 John F. Kennedy Boulevard):
The southwestern elevation is five bays wide, constructed out of brick which transitions into vinyl siding at the western end of the elevation. The easternmost bay contains a group of three windows, and all other bays are single-window units. Metal awnings cap the westernmost and easternmost bays on the second floor of the elevation. Sliding, basement-level windows extend across the elevation, spaced irregularly.

The rear (northwestern) elevation is characterized by a two-story, enclosed porch, clad in aluminum siding. A metal balcony extends from the northern bay of the second story enclosed porch and is supported by decorative wrought iron columns. The bays consist of vinyl replacement units for doors and windows, capped with awnings. The northern bay on the second floor is characterized by a vinyl screen door, flanked by vinyl window. The southern bays consist of a single, double-hung window. The northern bay of the first floor consists of a vinyl screen door flanked by a double-hung window. The southern bay has a double-hung window. Below is a cellar opening. On the southwest side of the addition are two double-hung vinyl windows, on either floor respectively.

History:
The subject district is located in the Pamrapo neighborhood which is regionally located in the northwest corner of Bayonne. Historically, Pamrapo was its own village, but in the 1860s, five villages, including Pamrapo, that were part of North Bergen merged to form what is known as Bayonne. At the turn of the twentieth century, the small resort town of the City of Bayonne saw substantial industrial development as railroads began connecting the City of Newark with ports along Hudson River, by way of Bayonne and the City of Jersey City. The introduction of rail lines allowed Bayonne to interconnect their shoreline area inland and reliably and quickly transport their material around the east coast. The accessibility of Bayonne, due to its proximity to Jersey City, Newark, and Manhattan, made it a prime location for European immigration during the early twentieth century. As industry proliferated throughout Bayonne, the need for workers also increased with immigrants making up the majority of the industrial labor force. Due to this, Bayonne experienced a population boom between 1880 and 1910, during which the population essentially quadrupled in size (Cultural Resource Consulting Group [CRCG] 2000). With a high influx of population, housing also experienced a boom, and a large number of single- and multi-family dwellings and apartment buildings were built in Bayonne (CRCG 2000). A 1912 Sanborn Map indicates that the blocks surrounding Hudson Boulevard were not an early developmental portion of Bayonne, since most parcels on the map appear vacant (Sanborn Map 1912; Figure 1). Most of Bayonne's development by this point existed south of 55th Street, closer to the Kill Van Kull. A 1919 G.M. Hopkins Co. Map of Bayonne shows that the blocks around and including the subject district were still mostly vacant at the time, and those scattered parcels that had been developed typically contained frame buildings. More notable buildings were being built nearby, like the parental school just southwest of the district, which was replaced with Marist High School, constructed in 1954 (The Jersey Journal, 2 September 1954:17;G.M. Hopkins 1919; Figure 2).

In 1922, Abraham Levine, a local builder and Russian immigrant, alongside Michael Pape, started construction on 10 two-family rowhouses along Hudson Boulevard, now JFK Boulevard. The designer of these houses was Nathan I. Welitoff. Welitoff was a locally known residential architect who specialized in apartment design and a Russian immigrant who moved to the United States a decade prior. Welitoff built many local projects, like the apartment building at 107–111 Kensington Avenue in Jersey City and at 630 Bergen Avenue—both of which are still extant (The Jersey Journal, 24 August, 1922:15; The Jersey Journal, 23 April, 1928:1,12). Levine was also a Bayonne resident, having resided proximate to the development at 163 West 57th Street with his wife and three sons (United States Bureau of the Census [US Census] 1930). The rowhouses of the subject historic district were of brick construction, measuring 20 feet by 41 feet, except for the corner units which were 20 feet by 52 feet, and featured designs that were vernacular iterations of the Renaissance Revival.

CONTINUATION SHEET

Historic Sites #:

History, continued:

Renaissance Revival architecture was predominantly popular in the United States during the late nineteenth and early twentieth centuries. Its popularity started in the late 1800s in New York with the Villard Houses, which were a group of mansions on Madison Avenue that took inspiration from Italian Renaissance Villas. It quickly became a style that was distinguishable from other Victorian styles that were popular during the time. Brick veneering, which became popular post-World War I, lent itself to more accurate interpretations of Italian architecture. Vernacular interpretations of the style were common in the latter half of its popularity, notably during the 1920s. However, it was not nearly as popular as its contemporaries, including Colonial Revival, Tudor Revival, and Craftsman styles. By 1940, the style had mostly run its course and was replaced with the success of Modern and Art Deco styles (V. McAlester 1993; L. McAlester 1993).

In 1923, construction of the subject dwellings was completed, and all 10 were sold for $106,000 to Jennie Dubow, who owned multiple properties in Bayonne at the time. Each house had either five or six rooms. Following her acquisition, Dubow immediately sold the houses, making a $2,000 profit. Some of the first owners were Herman Prossack, Eva Lipshitz, Israel Cohen, and David Schneiderman (The Jersey Journal, 16 August, 1923:15). At least one of these tenants, Herman Prossack, was an immigrant who came from Russia in 1917 (US Census 1930). Most of the other tenants, who by 1930 had changed, were immigrants as well. Families from Lithuania, England, Italy, and Russia all lived on this row, and had immigrated within 20 years of living in these dwellings (US Census 1930).

The 10 rowhouses within the district first appear cartographically on a 1934 G.M. Hopkins Map, which illustrates an abundance of development and building construction in the surrounding area, which a little more than a decade prior had mostly been vacant. A similar residential development of rowhouses directly across Hudson Boulevard (present-day JFK Boulevard) is also visible on this map (G.M. Hopkins 1934). A 1950 Sanborn Map provides more detail about the properties within the subject district, indicating that some had been altered through the addition of full-front porches (Sanborn Map Company 1950; Figure 3). Each dwelling also had a rear, two-story porch original to the house. With the exception of 1269 John F. Kennedy Boulevard, all the rear porches have all been enclosed by 2022. Most of the additions and alterations to buildings within the district, including vinyl-clad additions and enclosures, as well as vinyl door and window replacements, are stylistically representative of the latter half of the twentieth century. Today, the block is mostly residential with one office in the basement of 1269 John F. Kennedy Boulevard (NETR 1979, 1987, 2007; Google 2007, 2015, 2021).

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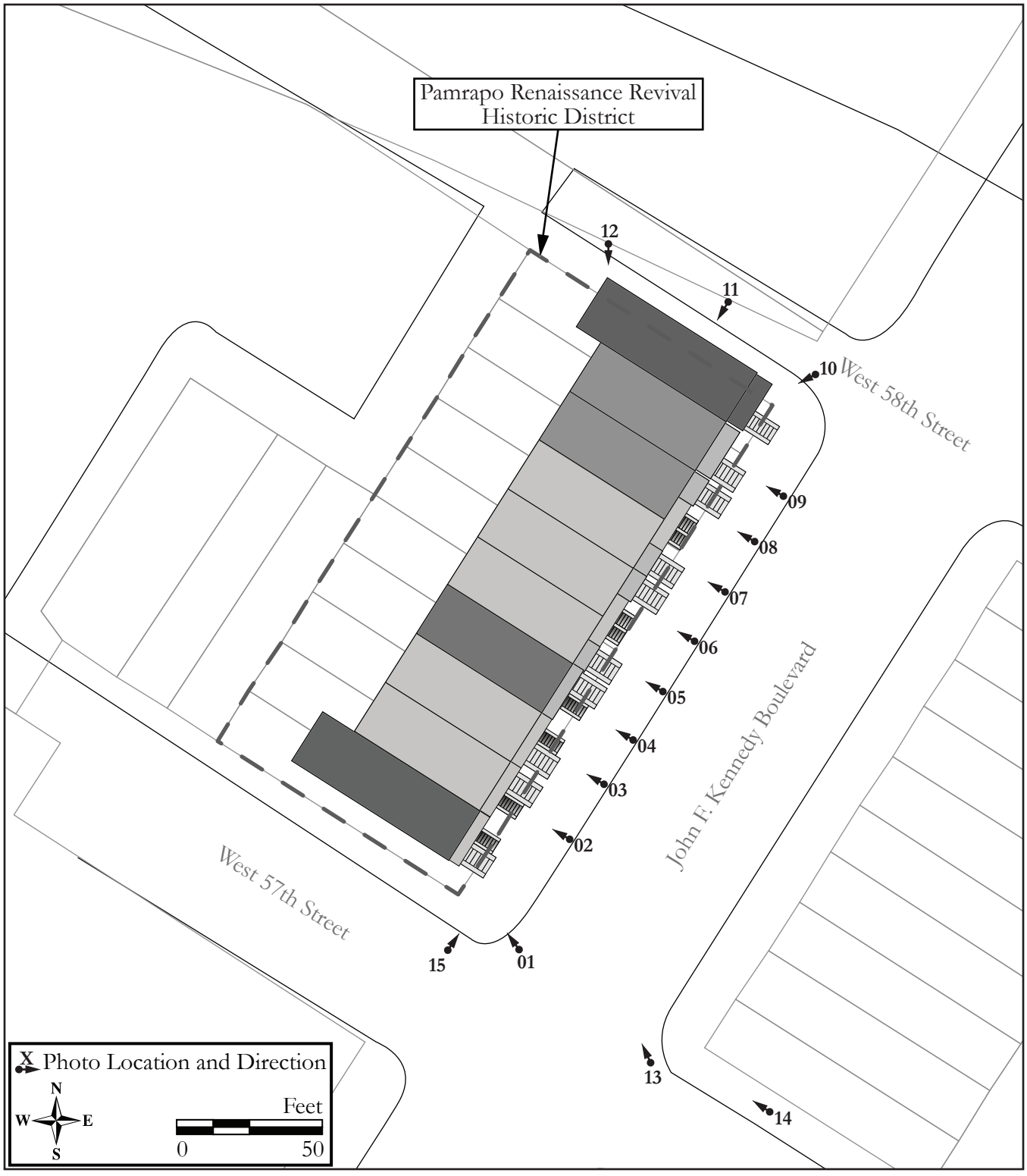
CONTINUATION SHEET

Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

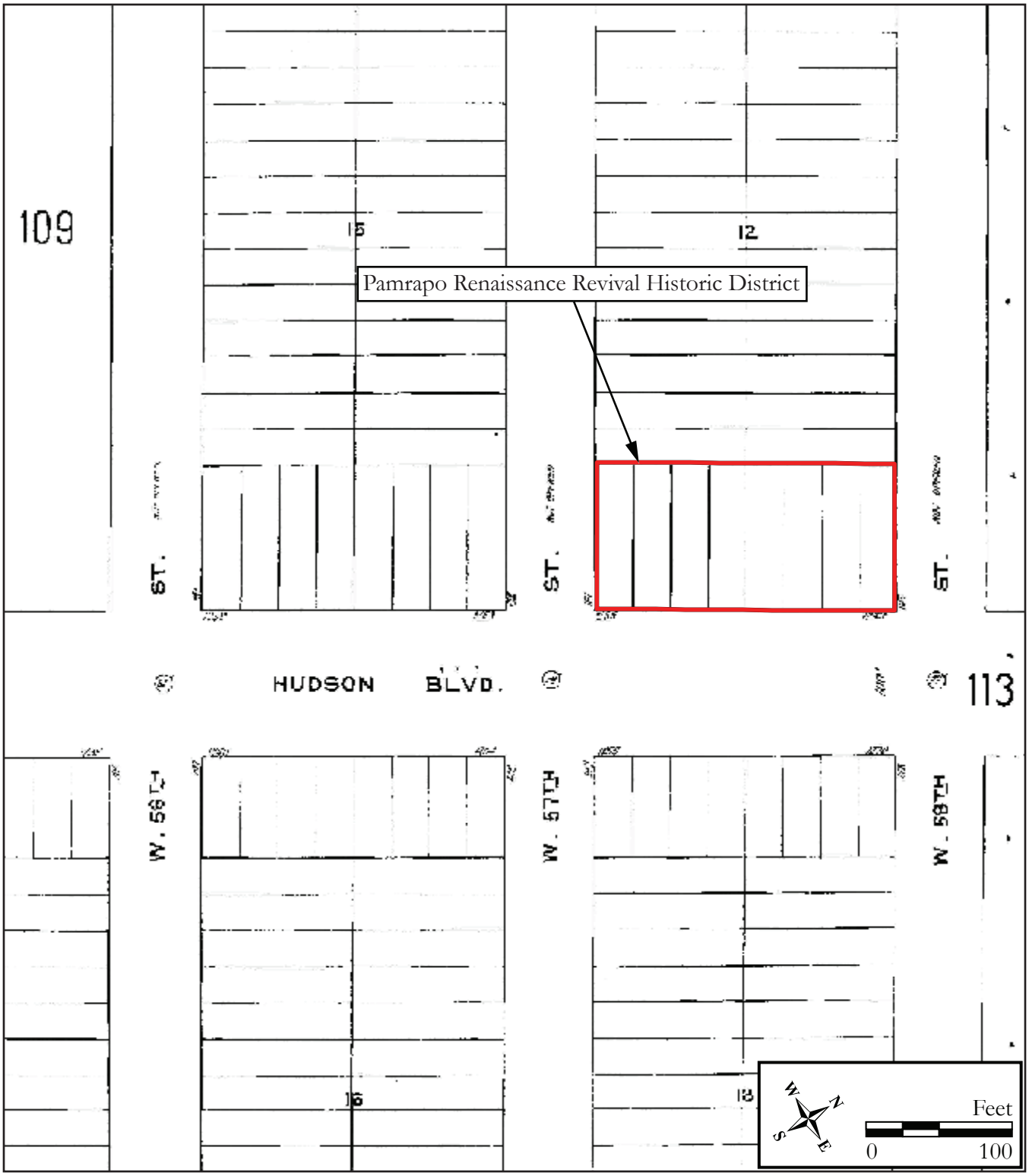


Figure 1: 1912 Sanborn Map of the district (Source: Sanborn Map Company 1912).

CONTINUATION SHEET

Historic Sites #:

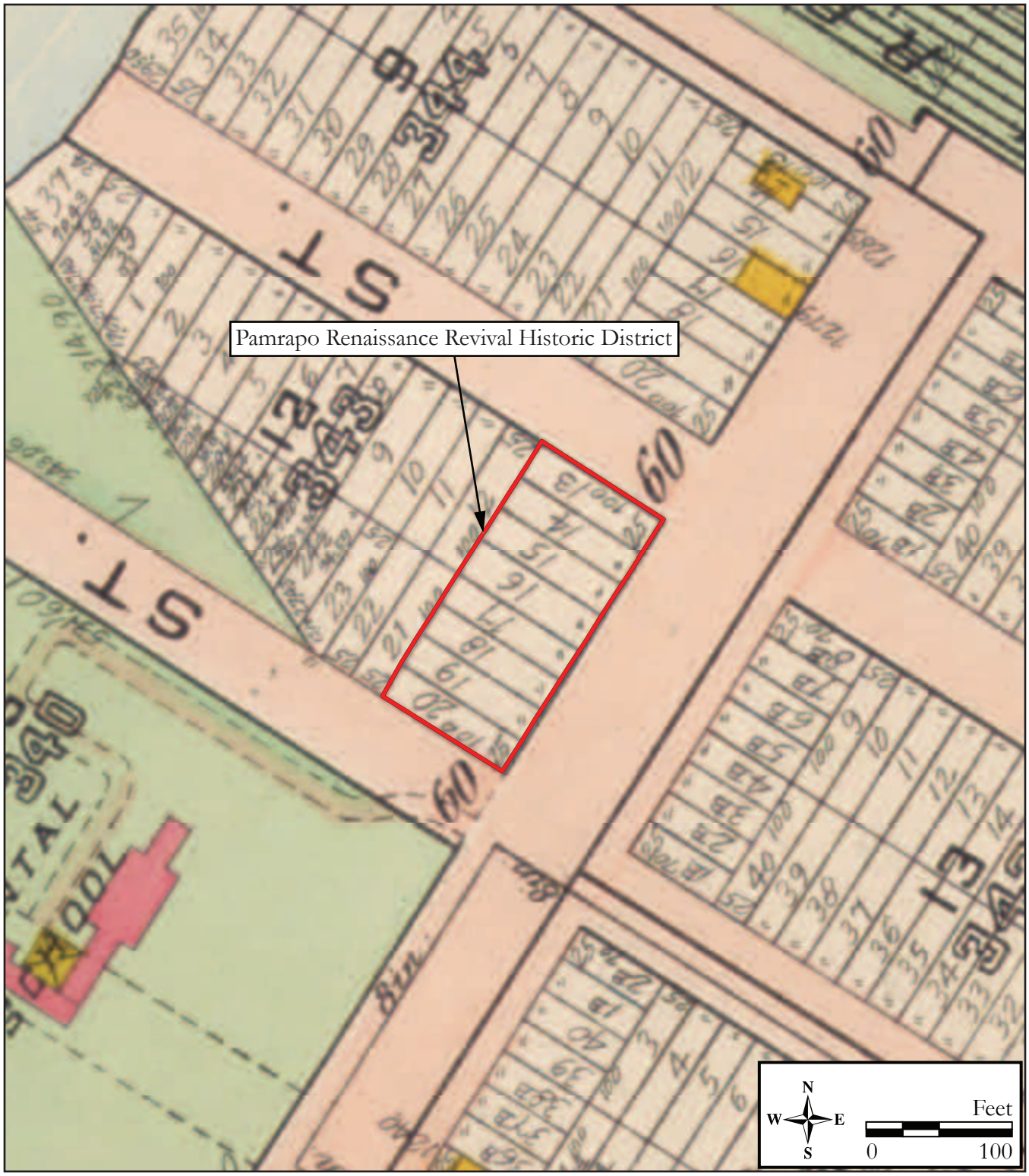


Figure 2: 1919 G.M. Hopkins map of the district (Source: G.M. Hopkins 1919).

CONTINUATION SHEET

Historic Sites #:

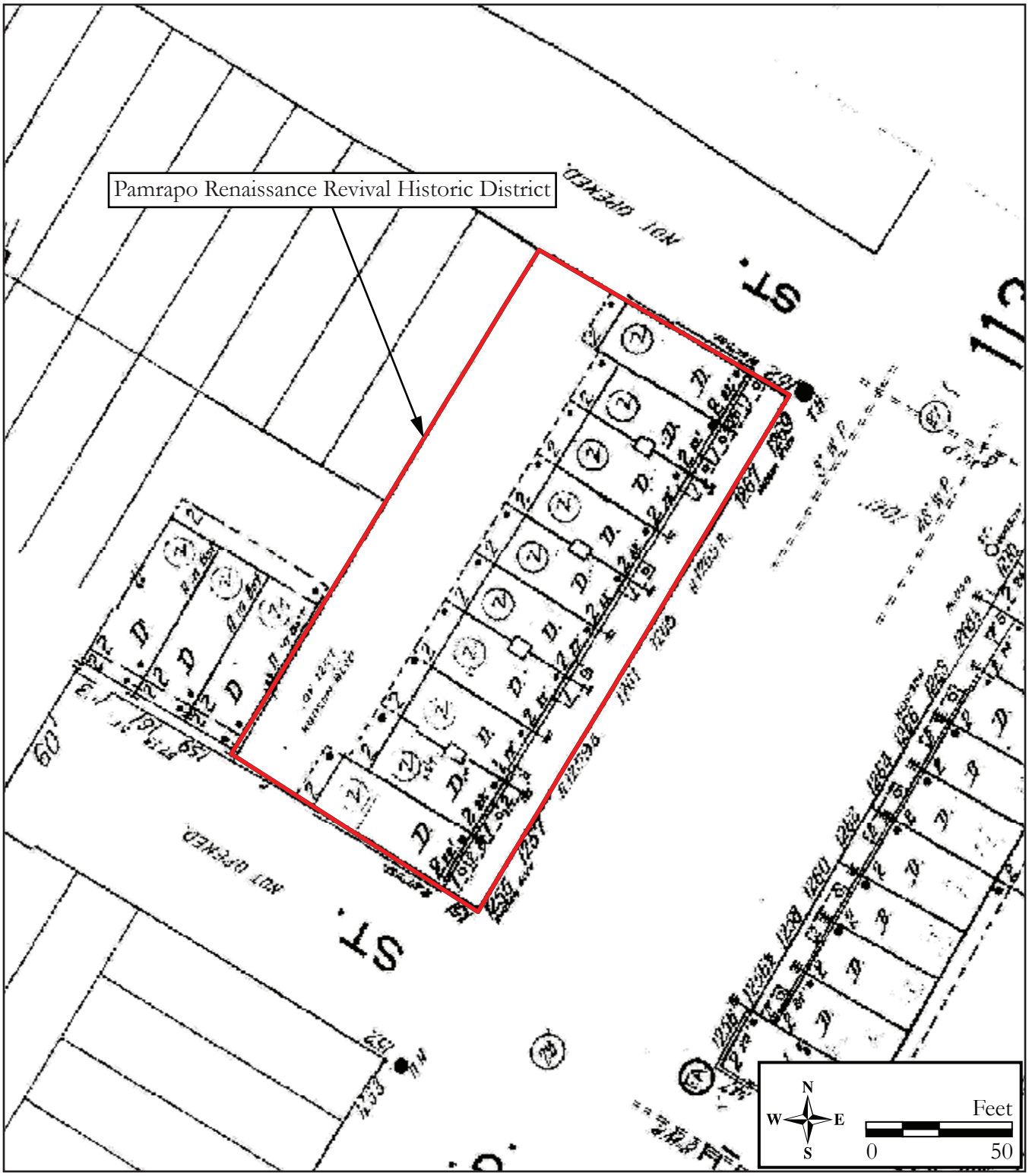


Figure 3: 1950 Sanborn Map of the district (Sanborn Map Company 1950).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: West

Photographer: Spencer Rubino

Date: August 3, 2022

Southeast elevation of 1255 John F. Kennedy Boulevard.

Plate: 2

Photo view: West

Photographer: Spencer Rubino

Date: August 3, 2022

Southeast elevation of 1255B John F. Kennedy Boulevard.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: West

Photographer: Spencer Rubino

Date: August 3, 2022

Southeast elevation of 1257 John F. Kennedy Boulevard.

Plate: 4

Photo view: West

Photographer: Spencer Rubino

Date: August 3, 2022

Southeast elevation of 1259 John F. Kennedy Boulevard.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view: West

Photographer: Spencer Rubino

Date: August 3, 2022

Southeast elevation of 1261 John F. Kennedy Boulevard.

Plate: 6

Photo view: West

Photographer: Spencer Rubino

Date: August 3, 2022

Southeast elevation of 1263 John F. Kennedy Boulevard.

CONTINUATION SHEET

Historic Sites #:

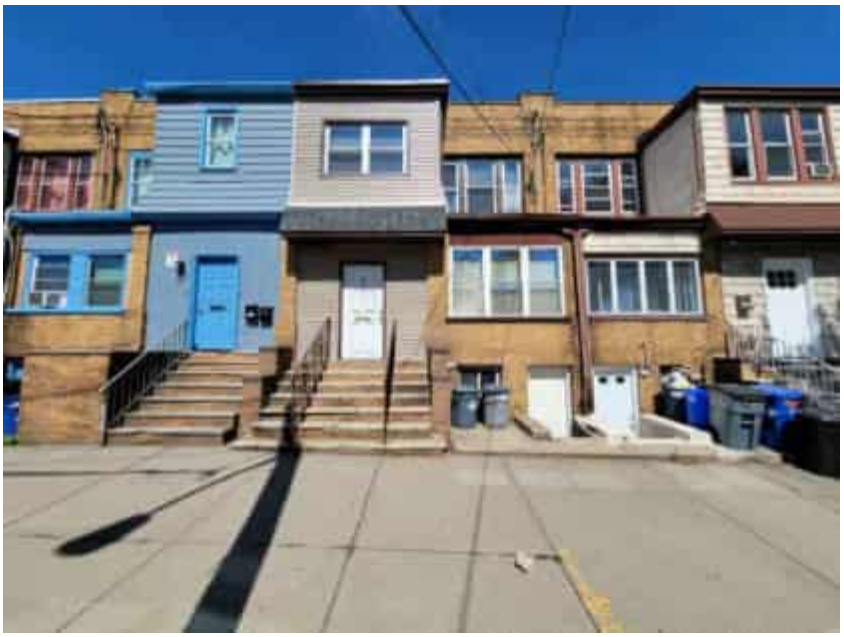


Plate: 7

Photo view: West

Photographer: Spencer Rubino

Date: August 3, 2022

Southeast elevation of 1265 John F. Kennedy Boulevard.

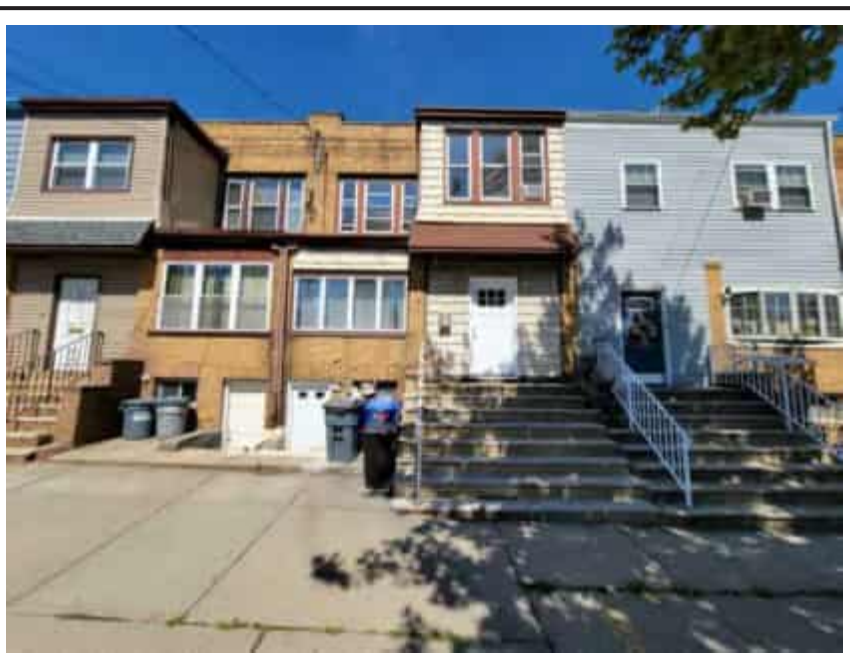


Plate: 8

Photo view: West

Photographer: Spencer Rubino

Date: August 3, 2022

Southeast elevation of 1267A John F. Kennedy Boulevard.

CONTINUATION SHEET

Historic Sites #:

Plate: 9

Photo view: West

Photographer: Spencer Rubino

Date: August 3, 2022

Southeast elevation of 1267B John F. Kennedy Boulevard.

Plate: 10

Photo view: South

Photographer: Spencer Rubino

Date: August 3, 2022

Looking toward the northwest corner of 1269 John F. Kennedy Boulevard.

CONTINUATION SHEET

Historic Sites #:

Plate: 11

Photo view: Southwest

Photographer: Spencer Rubino

Date: August 3, 2022

Looking toward the southwest elevation of 1269 John F. Kennedy Boulevard.

Plate: 12

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 3, 2022

Looking toward the rear (southeast) elevation of 1269 John F. Kennedy Boulevard.

CONTINUATION SHEET

Historic Sites #:

Plate: 13

Photo view: Northwest

Photographer: Spencer Rubino

Date: August 3, 2022

Overview across John F. Kennedy Boulevard, looking towards the southern end of the Pamrapo Renaissance Revival Historic District.

Plate: 14

Photo view: West

Photographer: Spencer Rubino

Date: August 3, 2022

View across John F. Kennedy Boulevard, looking past the Pamrapo Renaissance Revival Historic District at the New Jersey Turnpike Newark Bay-Hudson County Extension.

CONTINUATION SHEET

Historic Sites #:

Plate: 15

Photo view: North

Photographer: Spencer Rubino

Date: August 3, 2022

View towards the New Jersey Turnpike Newark Bay-Hudson County Extension, adjacent to the north of 58th Street.

HISTORIC DISTRICT OVERLAY

Historic Sites #:

District Name: John F. Kennedy Boulevard Historic District

County(s): Hudson **District Type:** Residential

Municipality(s): City of Bayonne **USGS Quad(s):** Jersey City, NJ-NY

Local Place Name(s):

Development Period: Circa 1922 **To:** Circa 1931 **Source:** The Jersey Journal 1922; NETR 1931

Physical Condition: Good

Remaining Historic Fabric: Low

Registration and Status Dates:

National Historic Landmark: **SHPO Opinion:**

National Register: **Local Designation:**

New Jersey Register: **Other Designation:**

Determination of Eligibility: **Other Designation Date:**

Description:

The John F. Kennedy Boulevard Historic District is a residential historic district situated on the southeast side of John F. Kennedy Boulevard between its intersections with West 58th and West 57th streets in the City of Bayonne, Hudson County, New Jersey (Plates 1-16). The district contains a block of eight, circa-1922 vernacular, two-story, load-bearing brick rowhouses and two, mixed-use commercial and residential buildings at 1256-1270 John F. Kennedy Boulevard (Block 15, Lots 1-10). All properties within the district are sited on rectangular-shaped lots measuring between 0.040 and 0.041 acres. A wide, concrete-paved sidewalk, ornamented with four mature trees, lines the northwest side of the block along John F. Kennedy Boulevard. The sidewalk wraps around the west corner and lines the southwest side along West 57th Street. Along the northwest side of the block, the area between the northernmost building at 1270 John F. Kennedy Boulevard and West 58th Street is paved with asphalt.

Based on the uniformity of their exterior materials and shared design vocabulary, all of the attached buildings in the district appear to have been constructed as a single development project. The rowhouses from 1256 ½ John F. Kennedy Boulevard to 1268A John F. Kennedy Boulevard are arranged in pairs in which each unit is a mirror image of its neighbor. Although they were constructed at the same time, with the same exterior features, each building is in separate ownership. Thus, they display varying degrees of alterations and different sizes and types of additions to each building. Some of the rowhouses retain more of their original design, materials, and workmanship, while others are more heavily altered according to the individual needs of their respective owners. The rowhouses are capped by shed roofs sheathed in rolled asphalt and feature a perforated brick parapet that extends across the primary (northwest) elevation of all buildings except the two northernmost buildings at 1268A & 1270 John F. Kennedy Boulevard. *See Continuation Sheet.*

Setting:

The John F. Kennedy Boulevard Historic District is located on the southeast side of John F. Kennedy Boulevard within the Pamrapo neighborhood of the City of Bayonne. The district is bounded by John F. Kennedy Boulevard to the northwest, West 58th Street to the northeast, residential buildings to the southeast, and West 57th Street to the southwest. John F. Kennedy Boulevard is a four-lane arterial corridor with parallel parking on both sides. West 57th Street and West 58th Street are one-way, one-lane streets with parallel parking on both sides. The 0.4-acre district is located within a dense urban setting consisting primarily of early to mid-twentieth-century residential buildings, with some commercial buildings located along John F. Kennedy Boulevard. The New Jersey Turnpike Newark Bay-Hudson County Extension is located approximately 131 feet northeast of the north end of the district.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1256 John F. Kennedy Boulevard

Street Address: *Street #:* 1256 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 15

Local Place Name(s): _____ **Lot(s):** 10

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Built circa 1922, 1256 John F. Kennedy Boulevard is a two-story, load-bearing brick, vernacular mixed-use building with a commercial space on its first floor (see Plates 1, 2, and 3). The building has a flat roof sheathed in rolled asphalt and features a perforated brick parapet with solid brick piers at the corners and a solid brick panel at the center of the southwest elevation. A shallow, corbeled brick cornice spans the primary (northwest) and southwest elevations. Windows consist of vinyl sash replacement units and show signs of infilling throughout. The second floor of the primary elevation contains a tripartite picture window, with inoperable louvered shutters. All of the second-story windows are capped by aluminum awnings. The first floor of the primary elevation is faced in split-rib masonry units that wrap around the west corner to cover a portion of the southwest elevation. This block is a late twentieth-century alteration of the original storefront, the configuration of which is not known. The first story of the primary elevation now features two individual fixed windows at the center flanked by entrances at the outer ends of the elevation. The northern-most door is wood with panels and two lights, and the southern-most door is glass. A pent roof sheathed in wood shingles separates the first and second floors on the primary elevation, and partially wraps around to the southwest elevation.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

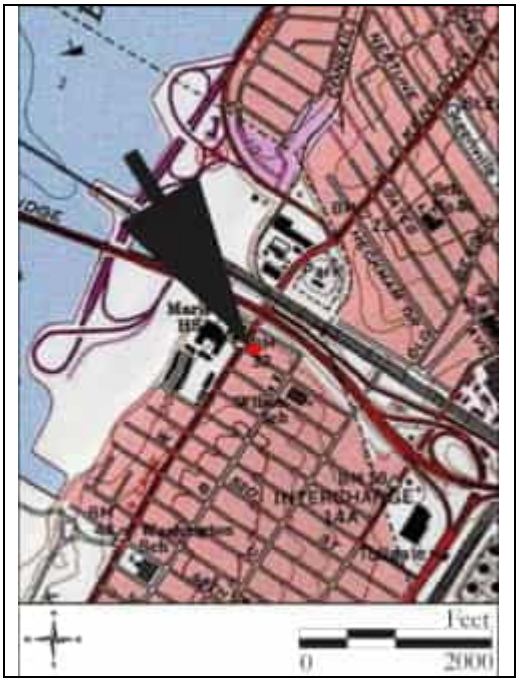
Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1256½ John F. Kennedy Boulevard

Street Address: *Street #:* 1256½ *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 15

Local Place Name(s): _____ **Lot(s):** 9

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1256½ John F. Kennedy Boulevard is a two-story, two-bay-wide, load-bearing brick rowhouse (see Plate 4). Built circa 1922 as part of a multi-unit development, it is flanked by buildings of the same age and appears to retain the greatest integrity of design, materials, and workmanship of all the buildings in the block. The subject building is topped by a low-pitched shed roof sheathed in rolled asphalt and features a perforated brick parapet with solid brick piers at the corners, and a shallow, corbeled brick cornice across its primary (northwest) elevation. The northern half of the second floor is occupied by a group of three double-hung vinyl windows, and the southern half is dominated by a flat-roofed porch. The second-story porch shelters a wood multi-light door and a six-over-six double-hung window. The porch is supported by two wood Tuscan columns and has a solid wood balustrade covered in wood shingle. The first floor also features a group of three double-hung vinyl windows on its northern half, and a porch on its southern half. The first-floor porch shelters a pair of metal doors, each with a diamond-shaped central light. The porch is supported by square brick columns sitting on a brick base with three concrete steps that lead up to a landing with the doors. Two sliding basement-level windows are located on the north half of the primary elevation. The rear (southeast) elevation was not visible from the public right-of-way.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

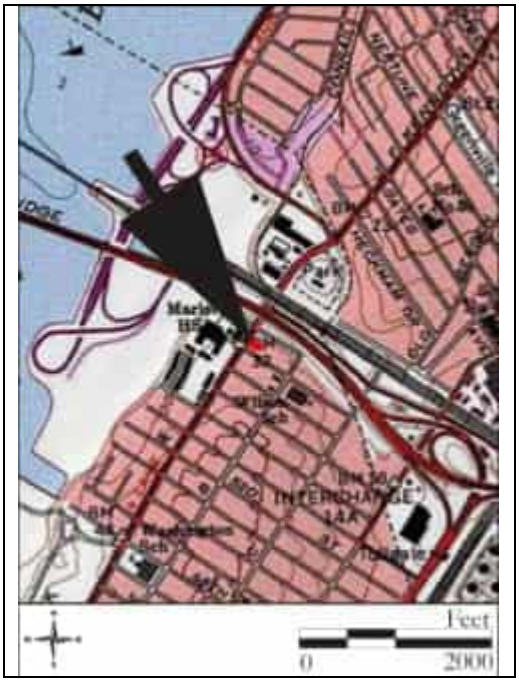
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☐ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1258 John F. Kennedy Boulevard

Street Address: *Street #:* 1258 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 15

Local Place Name(s): _____ **Lot(s):** 8

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1258 John F. Kennedy Boulevard is a two-story, two-bay-wide, load-bearing brick, vernacular rowhouse (see Plate 5). Built circa 1922 as part of a multi-unit development, it is flanked by rowhouses of the same age. The subject building has a low-pitched shed roof sheathed in rolled asphalt and features a perforated brick parapet with solid brick piers at the corners, and a shallow, corbeled brick cornice that extends across its northwest elevation. The northern half of the second floor is dominated by a flat-roofed porch, and the southern half is occupied by a group of four vinyl windows. The second-story porch shelters a metal storm door and a double-hung vinyl sash window. The porch is supported by two wood Tuscan columns and has a solid wood balustrade clad in vinyl siding. The first floor also features a porch on its northern half and a group of four vinyl windows on its southern half. The first floor porch, which shelters a pair of vinyl doors with four lights above four panels, is supported by square brick columns sitting on a brick base with four wood steps that lead up to a landing with the doors. Two sliding basement-level windows are located on the south half of the primary elevation. The rear (southeast) elevation was not visible from the public right-of-way.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

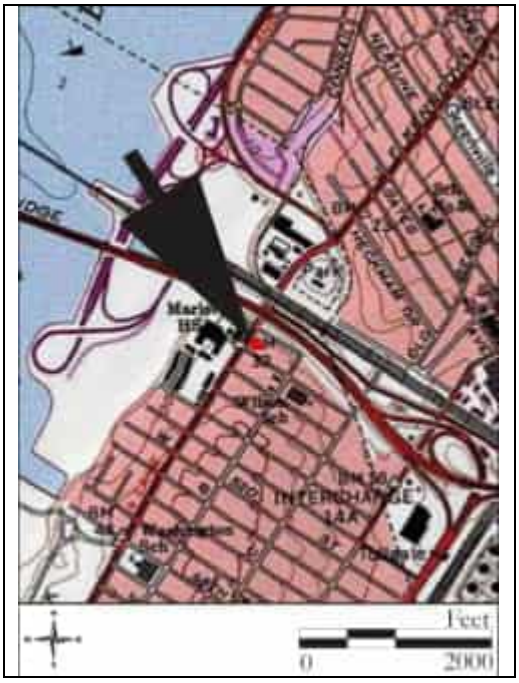
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☐ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1260 John F. Kennedy Boulevard

Street Address: *Street #:* 1260 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 15

Local Place Name(s): _____ **Lot(s):** 7

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1260 John F. Kennedy Boulevard is a two-story, two-bay-wide, load-bearing brick, vernacular rowhouse (see Plate 6). Built circa 1922 as part of a multi-unit development, it is flanked by rowhouses of the same age. The subject building has a low-pitched shed roof sheathed in rolled asphalt and features a perforated brick parapet with solid brick piers at the corners, and a shallow, corbeled brick cornice that extends across its northwest elevation. The southern half of the second floor is dominated by a shed roof porch, and the northern half is occupied by a group of three vinyl windows. The second story porch shelters a metal storm door next to an original window opening that has been infilled or covered with wood or siding. The porch is supported by two wood Tuscan columns and has a solid wood balustrade clad in vinyl siding. The first floor also features a porch on its southern half and a group of three vinyl windows on its northern half. The first-floor porch, which shelters a pair of vinyl doors with large, oval, leaded-glass windows, is supported by square brick columns sitting on a brick base with four brick steps that lead up to a landing with the doors. Two sliding basement-level windows are located on the north half of the primary elevation. The rear (southeast) elevation was not visible from the public right-of-way, but online images from 2022 show that the elevation features a rear wood porch with three bays on both floors, mostly consisting of double-hung vinyl window sashes. The southern bays on either floor have been enclosed with vinyl siding, with vinyl screen doors that lead out to the porch (Redfin 2022).

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

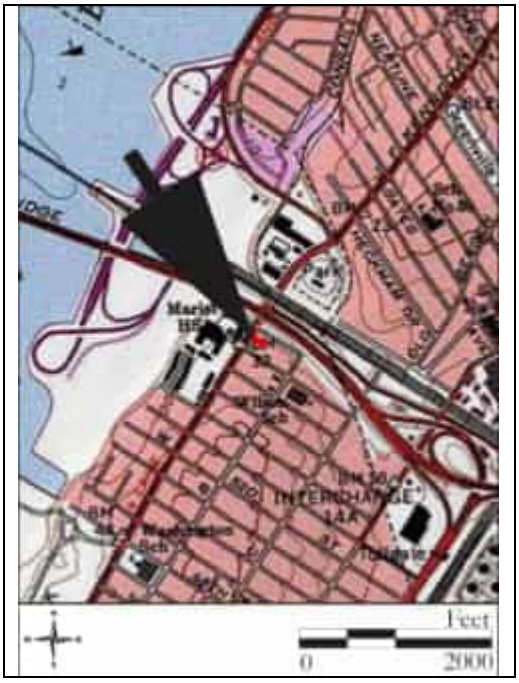
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☐ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1262 John F. Kennedy Boulevard

Street Address: *Street #:* 1262 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 15

Local Place Name(s): _____ **Lot(s):** 6

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1262 John F. Kennedy Boulevard is a two-story, two-bay-wide, load-bearing brick, vernacular rowhouse (see Plate 7). Built circa 1922 as part of a multi-unit development, it is flanked by rowhouses of the same age. The subject building has a low-pitched shed roof sheathed in rolled asphalt and features a perforated brick parapet with solid brick piers at the corners, and a shallow, corbeled brick cornice that extends across its northwest elevation. The northern half of the second floor is dominated by a shed roof porch, and the southern half is occupied by a group of three vinyl windows. The second story porch shelters a multi-light wood door and a double-hung vinyl sash window. The porch is supported by two wood Tuscan columns and has a solid wood balustrade covered in vinyl siding. The first floor also features a porch on its northern half and a group of three vinyl windows on its southern half. The first-floor porch, which shelters a pair of wood doors with glazing above two panels, is supported by brick columns sitting on a brick base with six brick steps that lead up to a landing with the doors. Two sliding basement-level windows are located on the south half of the primary elevation. The rear (southeast) elevation was not visible from the public right-of-way, but online images from 2022 show that the elevation features a rear wood porch with three bays on both floors, mostly consisting of double-hung vinyl window sashes. The northern bays on either floor have been enclosed with vinyl siding, with vinyl screen doors that lead out to the porch (Redfin 2022).

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

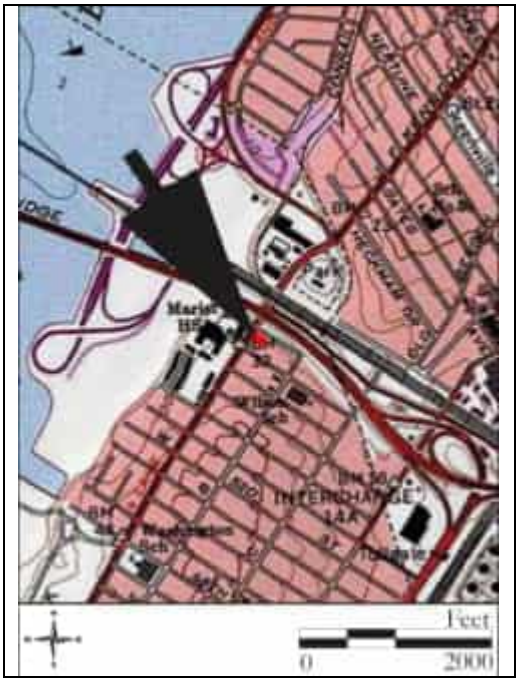
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☐ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1264 John F. Kennedy Boulevard

Street Address: *Street #:* 1264 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 15

Local Place Name(s): _____ **Lot(s):** 5

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1264 John F. Kennedy Boulevard is a two-story, two-bay-wide, load-bearing brick, vernacular rowhouse (see Plate 8). Built circa 1922 as part of a multi-unit development, it is flanked by rowhouses of the same age. The subject building has a low-pitched shed roof sheathed in rolled asphalt and features a perforated brick parapet with solid brick piers at the corners, and a shallow, corbeled brick cornice that extends across its northwest elevation. The southern half of the second floor is dominated by a shed roof porch, and the northern half is occupied by a group of three vinyl windows. The second story porch shelters a louvered vinyl door and a double-hung vinyl sash window. The porch is supported by two wood Tuscan columns and has a solid wood balustrade covered in vinyl siding. The first floor also features a porch on its southern half and a group of three vinyl windows on its northern half. The first-floor porch, which shelters a pair of vinyl doors with fanlights above four panels, is supported by brick columns sitting on a brick base with six brick steps that lead up to a landing with the doors. Two, four-light, wood, basement-level windows are located on the north half of the primary elevation. The rear (southeast) elevation was not visible from the public right-of-way, but online images from 2022 show that the elevation features a rear wood porch with three bays on both floors. The southern bays on either floor have been enclosed with vinyl siding, with vinyl screen doors that lead out to the porch. The enclosed southern bay on the second floor is characterized by a picture window consisting of a fixed center sash flanked by double-hung sashes. The exposed bays on either floor consist of double-hung window sashes (Redfin 2022).

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

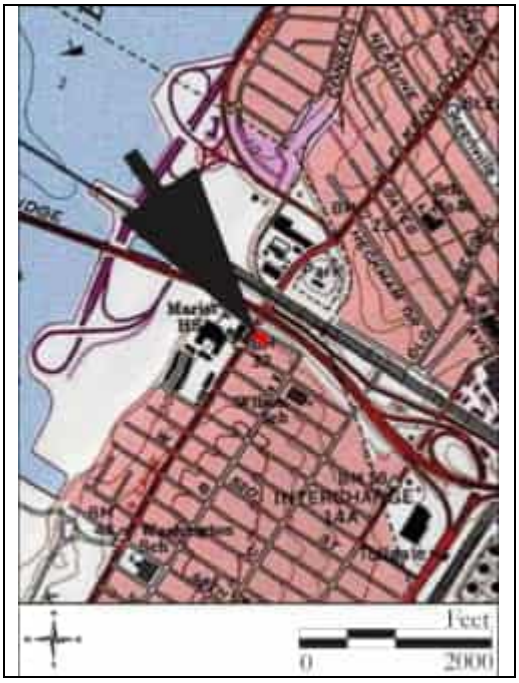
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☐ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1266 John F. Kennedy Boulevard

Street Address: *Street #:* 1266 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 15

Local Place Name(s): _____ **Lot(s):** 4

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1266 John F. Kennedy Boulevard is a two-story, two-bay-wide, load-bearing brick, vernacular rowhouse (see Plate 9). Built circa 1922 as part of a multi-unit development project, it is flanked by rowhouses of the same age. The building has a low-pitched shed roof sheathed in rolled asphalt and features a perforated brick parapet with solid brick piers at the corners, and a shallow, corbeled brick cornice that extends across its northwest elevation. On the second story, the flat-roofed porches of the subject building and the adjacent rowhouse at 1268, have been rebuilt. Each porch has a shed roof that slopes to the outer side, giving the overall appearance of a shallow-pitched, front-gabled roof. The walls of both porches appear to have been reframed and are now covered in vinyl siding, so that, altogether, the rebuilt porch is a large façade addition with window openings on the front of each unit. A group of three, double-hung, vinyl windows pierces the enclosed porch of the subject property. A tripartite picture window pierces the southern half of the second story of the subject building. The first floor also features a porch on its northern half and a tripartite picture window on its southern half. The first-floor porch, which shelters a pair of two vinyl doors with tall, oval windows behind glass storm doors, is supported by brick columns sitting on a brick base with seven brick steps that lead up to a landing with the doors. Two sliding vinyl basement-level windows are located on the south half of the primary elevation. The rear (southeast) elevation was not visible from the public right-of-way.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

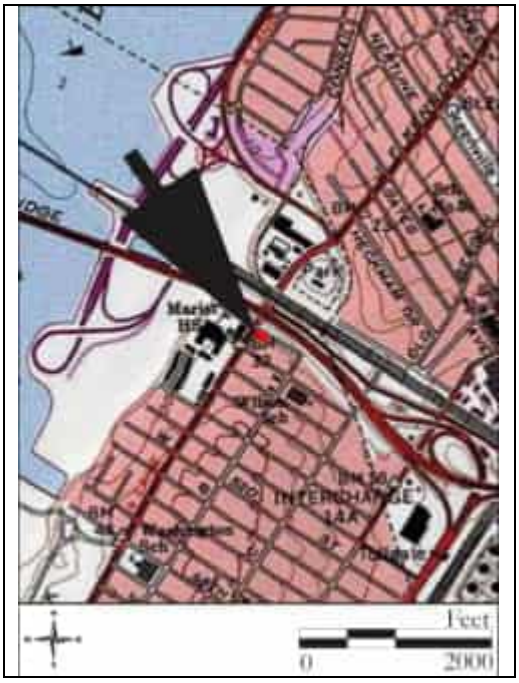
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☐ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1268 John F. Kennedy Boulevard

Street Address: *Street #:* 1268 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 15

Local Place Name(s): _____ **Lot(s):** 3

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1268 John F. Kennedy Boulevard is a two-story, two-bay-wide, load-bearing brick, vernacular rowhouse (see Plate 10). Built circa 1922 as part of a multi-unit development, it is flanked by rowhouses of the same age. The building has a low-pitched shed roof sheathed in rolled asphalt and features a perforated brick parapet with solid wood piers at the corners, and a shallow, corbeled brick cornice that extends across its northwest elevation. On the second story, the flat-roofed porches of the subject building and the adjacent rowhouse at 1266, have been rebuilt. Each porch has a shed roof that slopes to the outer side, giving the overall appearance of a shallow-pitched, front-gabled roof. The walls of both porches appear to have been reframed and are now covered in vinyl siding, so that, altogether, the rebuilt porch is a large façade addition with window openings on the front of each unit. A pair of double-hung, vinyl windows pierces the enclosed porch of the subject property. A second pair of double-hung, vinyl windows window pierces and the northern half of the second story.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

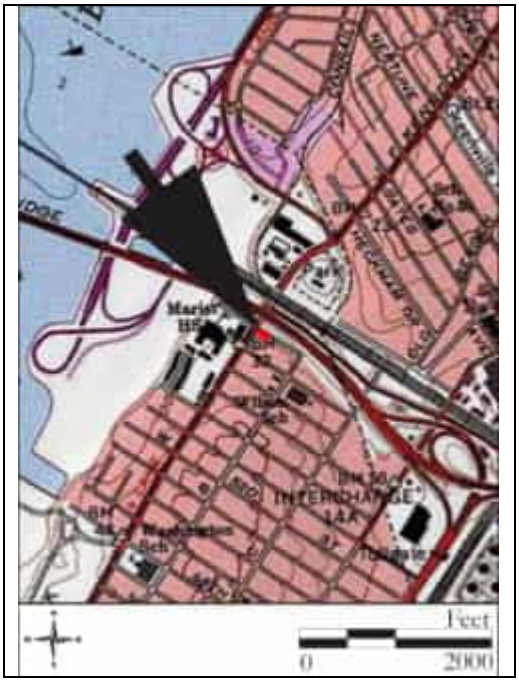
Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☐ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1268A John F. Kennedy Boulevard

Street Address: *Street #:* 1268A *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 15

Local Place Name(s): _____ **Lot(s):** 2

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1268A John F. Kennedy Boulevard is a two-story, two-bay-wide, load-bearing brick, vernacular rowhouse (see Plate 11). Built circa 1922 as part of a multi-unit development, it is flanked by buildings of the same age. The subject building has been heavily altered over the past 70 years. It has a low-pitched shed roof sheathed in rolled asphalt. The original perforated parapet with solid brick piers at the corners has been removed or overbuilt with a false mansard-type parapet that is faced with what appear to be synthetic shingles. The original two-story, flat-roofed porch, which occupied the north half of the primary (northwest) elevation, has been removed or overbuilt and enclosed within the same footprint. The second story is sheathed in vinyl siding with a group of three vinyl windows on the façade. A group of three, double-hung, vinyl windows pierces the southern half of the second story. The first story of the enclosed porch is veneered in running bond brick with a central three-panel door with tall, one-light sidelights in the façade. A set of six brick steps lead to the front door.

Registration and Status Dates:

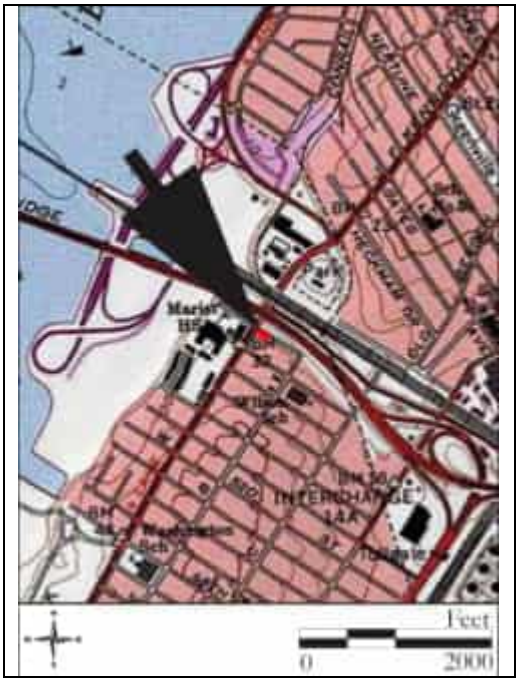
National Historic Landmark:		SHPO Opinion:	
National Register:		Local Designation:	
New Jersey Register:		Other Designation:	
Determination of Eligibility:		Other Designation Date:	

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☐ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1270 John F. Kennedy Boulevard

Street Address: *Street #:* 1270 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* John F. Kennedy *Suffix:* _____ *Type:* BLVD

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 15

Local Place Name(s): _____ **Lot(s):** 1

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 1270 John F. Kennedy Boulevard is a highly altered two-story, two-bay-wide, vernacular brick mixed-use building with a rectangular footprint. It houses commercial space on the first floor below one or more apartments on the second floor (see Plates 12, 13, and 14). The building has a shed roof sheathed in rolled asphalt and features a brick parapet with pronounced corners, and a shallow, corbeled brick cornice that carries around the primary (northwest) and northeast elevations. Evidence suggests that the elevation has been veneered with a beige brick sometime between 1966 and 1979, when the original storefront was enclosed. Windows consist of vinyl sash replacement units. The second floor of the primary elevation has a group of three vinyl windows in the north bay and a single vinyl sash unit in the south bay. The first floor of the primary elevation is dominated by a recessed north bay with a grouped pair of vinyl windows, and a single vinyl screen door in the south bay. A pent roof sheathed in asphalt shingles separates the first and second floors on the primary elevation.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

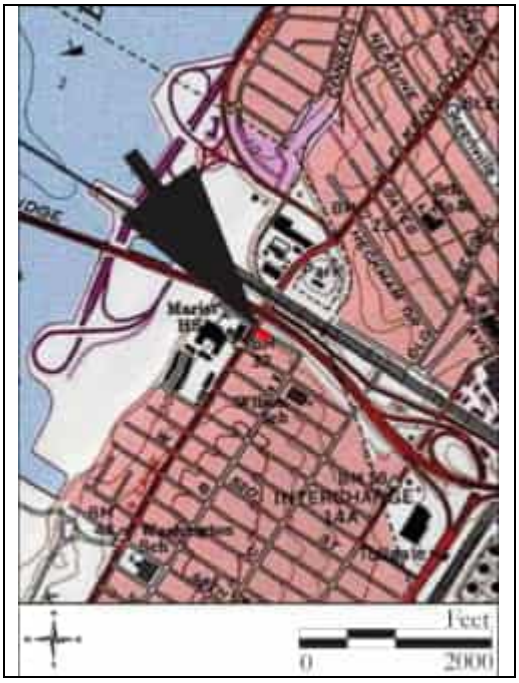
Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☐ No
(Known or potential Sites – if yes, please describe briefly)

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
See Continuation Sheet

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The John F. Kennedy Boulevard Historic District is recommended not eligible for listing in the National Register of Historic Places (NRHP) under Criteria A, B or C. The buildings are not related to a significant architect in local, state, or national context. Architecturally, the rowhouses within the district are vernacular and unremarkable examples of early twentieth-century rowhouses and are not indicative of any high style. Multiple alterations to each dwelling including various additions, replacement windows, doors, and siding diminish the properties' integrity of design, materials, workmanship, and feeling. For these reasons, the John F. Kennedy Historic District is recommended not eligible for listing in the NRHP under Criteria A, B or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:

Historic District Overlay: John F. Kennedy Boulevard Historic District
Base Survey Form: 1256 John F. Kennedy Boulevard
Base Survey Form: 1256½ John F. Kennedy Boulevard
Base Survey Form: 1258 John F. Kennedy Boulevard
Base Survey Form: 1260 John F. Kennedy Boulevard
Base Survey Form: 1262 John F. Kennedy Boulevard
Base Survey Form: 1264 John F. Kennedy Boulevard
Base Survey Form: 1266 John F. Kennedy Boulevard
Base Survey Form: 1268 John F. Kennedy Boulevard
Base Survey Form: 1268A John F. Kennedy Boulevard
Base Survey Form: 1270 John F. Kennedy Boulevard

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

Description (Continued from Base Survey Form):
Each rowhouse is typically two bays wide and features a two-story porch in one bay of its primary elevation, which shelters the primary entrances. Where original porches remain intact, they feature square brick columns supporting the second-story porch, which feature low frame walls on which rest Tuscan columns that carry the hipped porch roofs. Each rowhouse features two units, split between the first and second floor. The northern and southernmost buildings in the district, 1270 and 1256 John F. Kennedy Boulevard, project forward slightly from the residential buildings they frame and, because they were historically mixed use, with first-floor commercial tenants, are built to the property line. The entry doors have all been replaced and vary between vinyl doors, wood paneled doors with central lights, and commercial doors. The windows consist primarily of grouped, double-hung wood units with some six-over-one, double-hung wood or vinyl units and converted bay windows. Although not fully visible from the public right-of-way, the two-story porch that spans the southeast elevation of the rowhouses has been enclosed in stages over the past 70 years, with only two sections of porch remaining open.

Building Description (Continued from 1256 John F. Kennedy Boulevard):
The southwest elevation has two, irregularly spaced, tripartite picture windows flanking a central double-hung window on the second story. The first story, which was covered with pebbledash stucco in the late twentieth century, is pierced by three, small, irregularly spaced, fixed windows. The two-story, brick-veneered addition on the southeast elevation appears to have been constructed in the late twentieth century. It projects roughly 15 feet and then steps down to one story. It has one pair of double-hung windows on the second story and two sliding windows flanked by paneled doors with shake-covered awnings on the first story. The rear (southeast) elevation has a second-story porch capped with a shed roof that extends over the one-story addition.

Building Description (Continued from 1268 John F. Kennedy Boulevard):
The first floor features a porch on its southern half and a projecting bay window filled with fixed vinyl sash on its northern half. Sheltered by the overhanging second-story addition, the paired entries are filled with different doors. The right, or south, entrance contains a door with three diamond-shaped lights, while the left, or north, door features four small lights above four panels. Square brick columns, which rest on solid brick balustrades, support the second-story addition. A set of seven brick and concrete steps lead from the sidewalk to the porch. Two sliding vinyl windows are located on the north half of the primary elevation at the basement level below the bay window. Below the basement-level windows, what appears to be a raised planter bed with solid concrete walls extends forward from the north half of the elevation to the sidewalk. The rear (southeast) elevation's second floor features a pitched roof enclosed porch, clad with vinyl siding. A vinyl storm door with a wooden staircase characterizes the southern bay, and the norther bay features a group of five vinyl windows. The first floor was not visible from the public right-of-way.

Building Description (Continued from 1268A John F. Kennedy Boulevard):
The southwest elevation of the porch's enclosed first story has what appears to be a glazed-and-paneled door behind a screen door that opens onto a small, uncovered deck composed of a concrete slab supported by the foundation of the enclosed porch to the northeast and a brick wall at the southwest edge. A low metal railing spans the perimeter of the deck. A group of three, double-hung, vinyl windows pierces the south half of the façade and overlooks the deck. A curb-cut in the sidewalk provides vehicular access to a concrete driveway and the open area below the deck, where a vinyl roll-up garage door opens into the northwest elevation of the foundation below the deck. The rear (southeast) elevation's second floor features a pitched roof enclosed porch, clad in vinyl with four, spaced double hung vinyl window sashes on its elevation. The first floor was not visible from the public right-of-way.

CONTINUATION SHEET

Historic Sites #:

Building Description (Continued from 1270 John F. Kennedy Boulevard):
The northeast elevation consists of the two-story main block with four windows across the second story. Two windows pierce the east half of the first story and are aligned below the second-story openings. Two additional masses protrude from the original building. The eastern-most mass is a four-bay-wide rock-faced concrete block addition. The northeast elevation of this mass, which has been clad in vinyl overtop of the rock-face concrete, features three bays, the interior two consisting of sliding vinyl windows. Flanked to the east is a vinyl screen door. In-between the original building and eastern mass is a two-story connecting addition consisting of a vinyl rolling garage door. The roof of the addition is rolled asphalt and capped with an asphalt shingle parapet. The rear (southeast) elevation is characterized by the second story shed addition with two vinyl double-hung windows on either end. The first floor is a continuation of the stone four-bay addition, which features a single vinyl window.

History:
The John F. Kennedy Boulevard Historic District encompasses a block of vernacular rowhouses, part of a planned residential and commercial development in the Pamrapo neighborhood of Bayonne. The district is situated on the southeast side of John F. Kennedy Boulevard, which was originally called Hudson Boulevard until the name was changed in 1963. At the turn of the twentieth century, Bayonne saw substantial industrial development in the small resort town. The arrival of the railroad allowed Bayonne to interconnect its shoreline area with inland locations; the railroad allows commodities to be reliably and quickly transported around the east coast. The accessibility of Bayonne due to its proximity to Jersey City, Newark, and Manhattan, made it a prime location for European immigration during the early twentieth century. Industrial growth brought jobs, and immigrants comprised the majority of the industrial workforce. Immigration led to a population boom in Bayonne between 1880 and 1910; the population nearly quadrupled during this period (Cultural Resource Consulting Group [CRCG] 2000). The dramatic rise in population led to a housing boom in the early twentieth century, and a significant number of single- and multi-family dwellings and apartment buildings were constructed in Bayonne at that time (CRCG 2000).

By 1900, most of Bayonne's development had occurred south of 55th Street, closer to the Kill Van Kull. A 1919 G.M. Hopkins Co. map of Bayonne suggests the great influx of people and development in Bayonne during the early twentieth century. While the blocks around and including the subject district were still mostly vacant, some of the surrounding parcels had frame buildings on them. Civic and institutional buildings were being built nearby, like the parental school just southwest of the district, which was replaced with Marist High School (Hopkins 1919; Figure 1). Between 1919 and 1922, all the rowhouses within the John F. Kennedy Boulevard Historic District were constructed. An article in the *Jersey Journal* advertised rooms in 1256 John F. Kennedy Boulevard, noted as "improvements" which alludes to the building existing at least a year before the article was written (The Jersey Journal, 6 January 1922:16). The uniform brickwork and features like the repeated front porches also allude to the district being built as a single development project, with details, such as the ornamental parapet, carried across all the buildings, and a consistent design vocabulary demonstrated by the shared porches between dwellings and bookended commercial buildings on either end of the district. The 1930 United States Census gives insight into families who lived in the rowhouses, which seem to have operated as duplexes. Most of the families were second-generation immigrants from Europe, which highlights the demographic that lived in Bayonne during this period (United States Bureau of the Census [US Census] 1930). The district first appears cartographically in a 1934 G.M. Hopkins map, which shows the substantial development of Pamrapo that occurred just within a decade. In addition to the subject buildings on the west side of Hudson Boulevard, which is now John F. Kennedy Boulevard, other brick dwellings had been constructed nearby along many of the blocks south of West 58th Street (Hopkins 1934; Figure 2).

The 1950 Sanborn map details some of the features of the district. The map illustrates that the two-story porch on the southeast elevation extended across every building, only being split in the middle by a central division. However, most of the porches have since been divided and enclosed. The two corner buildings' first floors were dedicated to commercial uses, with the south corner building at 1256 John F. Kennedy Boulevard being labeled as a store, and the north corner

CONTINUATION SHEET

Historic Sites #:

History, continued:
building at 1270 John F. Kennedy Boulevard labeled as 'AUTO UPHOLSTERER' (Sanborn Map Company 1950; Figure 3). In the 1950s and 1960s, the store at 1256 John F. Kennedy Boulevard was a local deli and restaurant called Foosies, that specialized in party catering, and operated out of the first floor of the building. The business was owned by Herbert Foosaner (The Jersey Journal, 9 December 1960:5, 21 November 1957:2). The auto upholstering business at 1270 John F. Kennedy Boulevard was named "Auto Seat Cover Co.," which specialized in car windows, mirrors, and covers (The Jersey Journal, 11 September 1950:6). Other businesses that previously occupied the northernmost building at 1270 John F. Kennedy Boulevard included Johnson Oil Company and Johnson Motor Company (The Jersey Journal, 20 September 1932:18; 16 September 1926:14).

In 1956, the Newark Bay Extension of the New Jersey Turnpike was built just northeast of West 58th Street, approximately 130 feet from the northwest corner of the John F. Kennedy Boulevard Historic District. The rowhouses and businesses adjacent to the highway, likely including those in the subject district, were damaged by its construction, as noted in an article in the *Jersey Journal*, with debris breaking storefronts and roofs (The Jersey Journal, 3 April 1955:1). In 1963 Hudson Boulevard was renamed to John F. Kennedy Boulevard after the 35th President of the United States. The rear additions to both corner properties occurred sometime between 1954 and 1979 (NETR 1954; 1979). Alterations, including new siding, doors, windows; and the enclosing of the rear porches from materiality and stylistic evidence took place in the latter half of the twentieth century and twenty-first century.

Significance:
The John F. Kennedy Boulevard Historic District is a cohesive collection of eight, attached vernacular brick rowhouses and two mixed-use buildings within the Pamrapo neighborhood of Bayonne. During the 1920s northern Pamrapo substantially developed due to the influx of industry and population due to immigration. The buildings within the district are intact examples of early twentieth-century vernacular rowhouses and mixed-used commercial buildings. Originally containing 16 dwelling units within eight rowhouses, as well as apartments in the second story of the buildings on the corners, the John F. Kennedy Boulevard Historic District is important as a development constructed to meet the demand for additional housing as the area's population increased dramatically during the first decades of the twentieth century. The majority of the buildings in the district have been heavily altered over the past 50 years and have lost many of their character-defining features. Alterations include the replacement of windows and doors on most of the buildings, infill of the commercial storefronts of the corner buildings, installation of new or replacement siding on secondary elevations, and changes to the two-story front porches of the rowhouses. Furthermore, several of the buildings, including 1256, 1266, 1268, and 1268A, and 1270 John F. Kennedy Boulevard have received substantial additions on primary facades or highly visible secondary elevations. Altogether, these alterations substantially diminish the district's integrity of design, materials, workmanship, feeling, and association.

CONTINUATION SHEET

Historic Sites #:

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1932 Johnson Oil Company ad. 20 September: 18. Bayonne, New Jersey.
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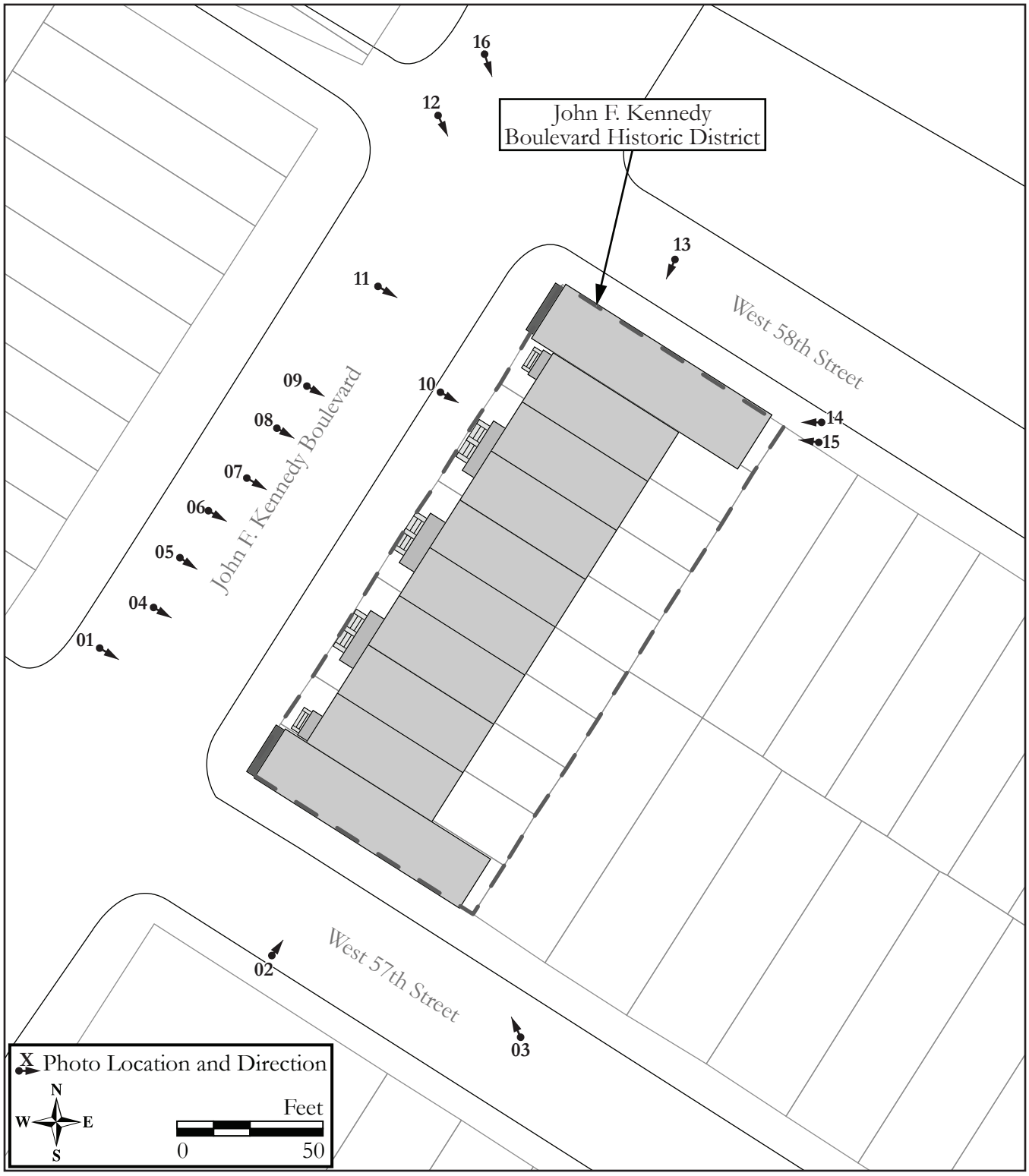
Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

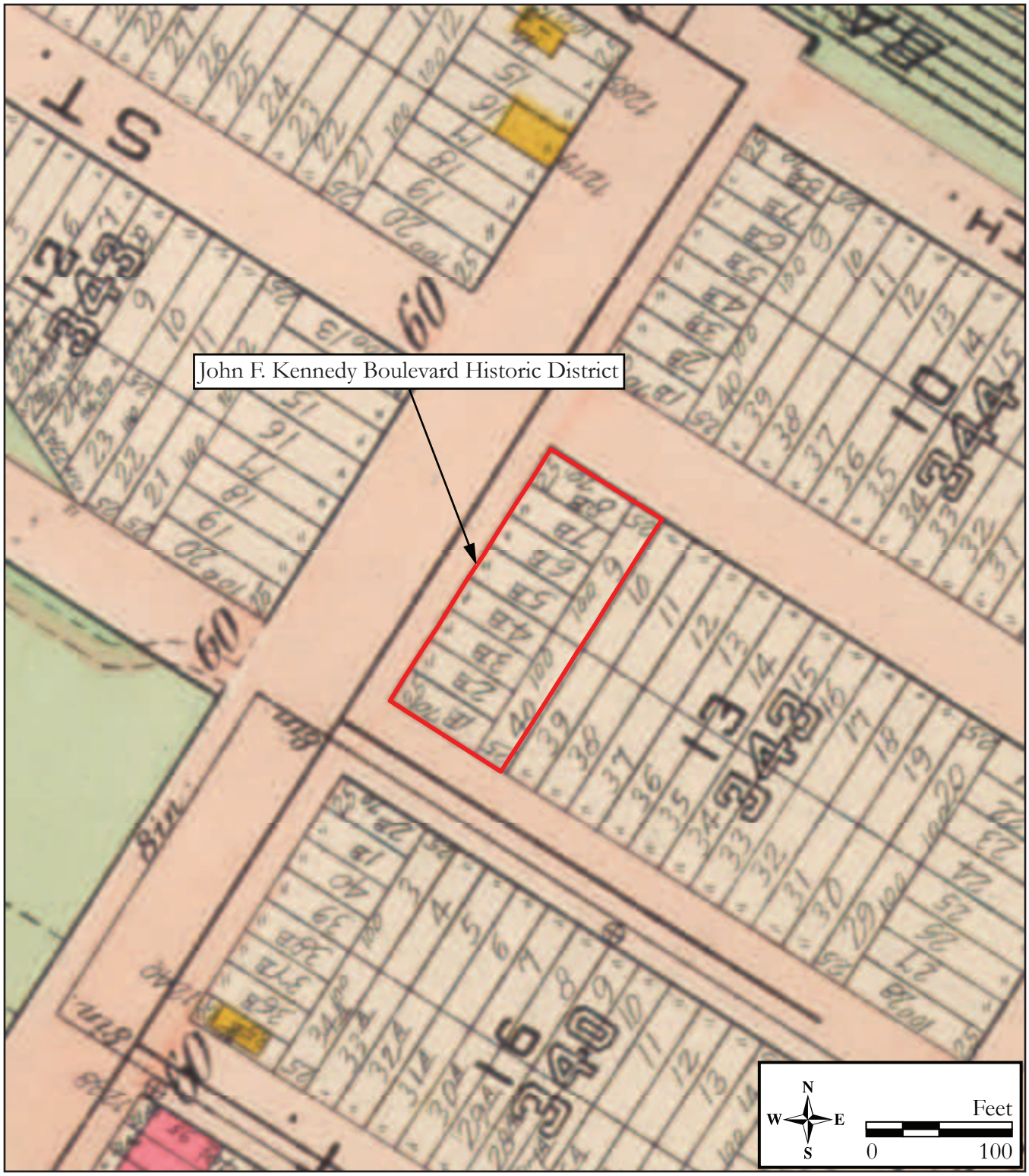


Figure 1: 1919 G.M. Hopkins Co., *Plat Book of Jersey City and Bayonne, Hudson County, New Jersey,* depicting the district and surrounding context.

CONTINUATION SHEET

Historic Sites #:

Figure 2: 1934 G.M. Hopkins Co., *Atlas of Hudson County, New Jersey; Volume Two Comprising Jersey City*, depicting the district and surrounding context.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

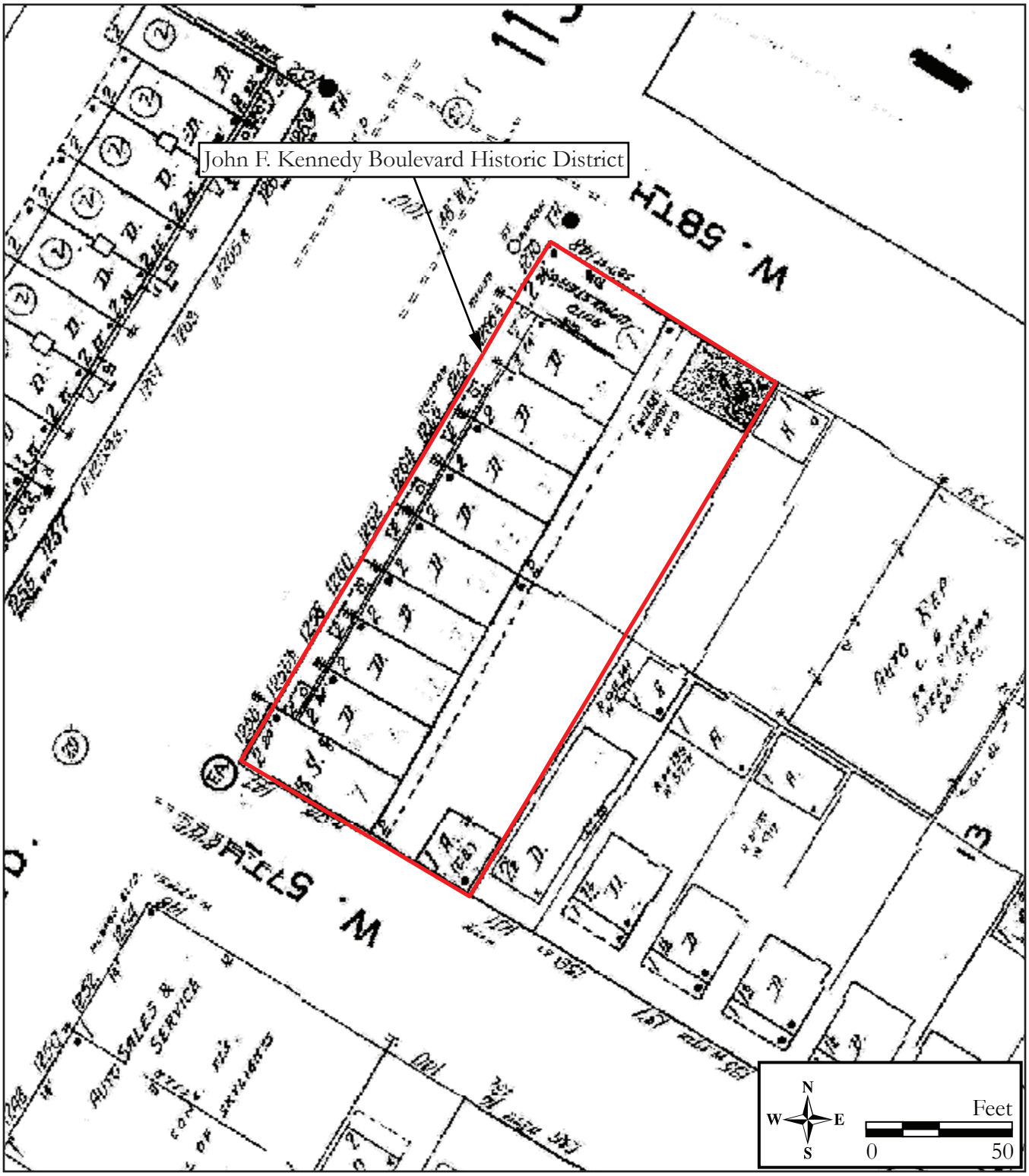


Figure 3: 1950 Sanborn Map Co., *Insurance Maps of Hudson County*, depicting the district and surrounding context.

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 16, 2022

Perspective view of 1256 John F. Kennedy Boulevard's front (northwest) elevation.

Plate: 2

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the southwest elevation of 1256 John F. Kennedy Boulevard.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Northwest

Photographer: Spencer Rubino

Date: August 3, 2022

View of the rear (southeast) elevation of 1256 John F. Kennedy Boulevard.

Plate: 4

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 16, 2022

View of 1256½ John F. Kennedy Boulevard's front (northwest) elevation from across the boulevard.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 16, 2022

View of 1258 John F. Kennedy Boulevard's front (northwest) elevation from across the boulevard.

Plate: 6

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 16, 2022

View of 1260 John F. Kennedy Boulevard's front (northwest) elevation from across the boulevard.

CONTINUATION SHEET

Historic Sites #:

Plate: 7

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 16, 2022

View of 1262 John F. Kennedy Boulevard's front (northwest) elevation from across the boulevard.

Plate: 8

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 16, 2022

View of 1264 John F. Kennedy Boulevard's front (northwest) elevation from across the boulevard.

CONTINUATION SHEET

Historic Sites #:

Plate: 9

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 16, 2022

View of 1266 John F. Kennedy Boulevard's front (northwest) elevation from across the boulevard.

Plate: 10

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 8, 2022

View of 1268 John F. Kennedy Boulevard's front (northwest) elevation.

CONTINUATION SHEET

Historic Sites #:

Plate: 11

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 16, 2022

View of 1269A John F. Kennedy Boulevard's front (northwest) elevation from across the boulevard.

Plate: 12

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 16, 2022

View of 1270 John F. Kennedy Boulevard's northwest corner from across the boulevard.

CONTINUATION SHEET

Historic Sites #:

Plate: 13

Photo view: Southwest

Photographer: Spencer Rubino

Date: August 16, 2022

View of 1270 John F. Kennedy Boulevard's southwest elevation from across West 58th Street.

Plate: 14

Photo view: West

Photographer: Spencer Rubino

Date: August 3, 2022

View of the rear (southeast) elevation of 1270 John F. Kennedy Boulevard.

CONTINUATION SHEET

Historic Sites #:

Plate: 15

Photo view: West

Photographer: Spencer Rubino

Date: August 3, 2022

View of the rear (southeast) elevations of the district.

Plate: 16

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 16, 2022

Overview shot of the John F. Kennedy Boulevard Historic District, from across the boulevard.

BASE SURVEY FORM

Historic Sites #:

Property Name: 358-360 Avenue B

Street Address: *Street #:* 358 *(Low)* 360 *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* Avenue B *Suffix:* _____ *Type:* AVE

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 2, 3

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

The building at 358-360 Avenue B is a two-story-tall, six-bay-wide, semi-detached brick dwelling built circa 1925 (Plates 1-3). Composed of two units, the building has a rectangular footprint and is capped by a flat roof with parapet walls and has a shared, centered light well. The parapet walls of the roof have stone capstones and feature squat, brick piers at the corners and a slight gable centered above each unit. The brick is laid in a common bond with a soldier belt course above the raised basement and a double soldier belt course above the second floor. Windows are all vinyl replacement units with brick lintels. Stone sills are featured on the windows of unit 358 while the sills on unit 360 are wrapped in aluminum. The two main entrances are situated in the outermost bays of the primary (northwest) elevation and both contain replacement doors sheltered by metal awnings. Brick stoops provide access to the entrances. *See Building/Element Attachment*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

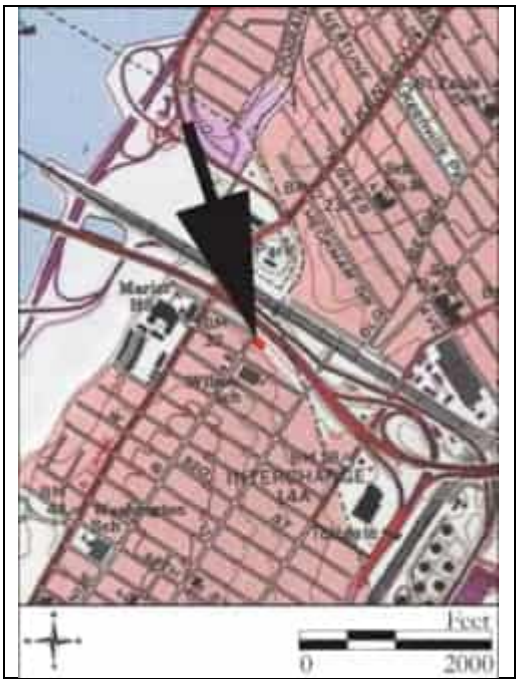
Surveyor: Lauren Dunkle Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: 358-360 Avenue B
Historic Name: 358-360 Avenue B
Present Use: Residential Activity, Permanent
Historic Use: Residential Activity, Permanent
Construction Date: Circa 1925 **Source:** Hopkins 1919; NJDEP 2022
Alteration Date(s): N/A **Source:** N/A
Designer: Unknown **Physical Condition:** Good
Builder: Unknown **Remaining Historic Fabric:** Medium
Style: Other
Form: Semi-detached **Stories:** 2
Type: N/A **Bays:** 6
Roof Finish Materials: Unknown
Exterior Finish Materials Brick, Common Bond

Exterior Description, continued from Base Survey Form:
The northeast and southwest elevations have asymmetrical fenestration patterns with segmental-arch brick lintels topping each window. Secondary entrances are centrally placed on both elevations and contain replacement panel doors. The rear (southeast) elevation was not visible from the public right-of-way. The building has a brick foundation.

Interior Description:
The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the public right-of-way and did not include interior access to the building.

Setting:
The building at 358-360 Avenue B is situated on the southeast side of Avenue B's intersection with West 58th Street. The building is sited on two lots (Block 16, Lots 2 and 3), which together form an irregular shape. With its primary elevation facing northwest, the building is set back approximately 20 feet from Avenue B. A concrete sidewalk extends along the northwest border of the property, and two concrete driveways flank the northeast and southwest elevations of the building. Dense vegetation and mature trees provide a buffer between the dwelling and the New Jersey Turnpike Newark Bay-Hudson County Extension, which runs approximately 70 feet to the northeast.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
The building at 358-360 Avenue B is a typical and unremarkable example of an early twentieth-century duplex. Built circa 1925, the subject dwellings were likely constructed to house immigrant workers who were moving to the area during the industrial boom that occurred in Bayonne during the late nineteenth and early twentieth centuries. Since its construction, the building appears to have undergone minimal exterior changes.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The duplex at 358-360 Avenue B is recommended not eligible for listing in the National Register of Historic Places (NRHP). Research did not indicate that the subject property was associated with prominent individuals or patterns of history. Architecturally, the residence retains a high degree of integrity of location, setting, feeling, materials, design, and workmanship; however, it is a common and unremarkable example of its type. The subject building is one of many early twentieth-century residences found throughout Bayonne and is not the work of a master. For these reasons, the dwelling at 358-360 Avenue B is recommended not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non-Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 358-360 Avenue B

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

The building at 358-360 Avenue B is located on the southeast side of Avenue B in the City of Bayonne, Hudson County, New Jersey. The subject property is situated in the northwest region of Bayonne that was historically known as Pamrapo village prior to the twentieth century. Pamrapo was one of five nineteenth-century villages that would later form Bayonne Township in 1861 and be redesignated Bayonne City in 1869 (Cultural Resource Consulting Group [CRCG] 2000; Snyder 1969:145). Originally a rural resort community, the area of Bayonne's easy access to railroad lines and shipping ports quickly turned it into an industrial city during the late nineteenth century. The industrial boom attracted immigrants to the area looking for work, and the population drastically increased during the turn of the century. In 1890, the population was approximately 19,000 people, and by 1910, it had increased to over 55,500 residents. As a result, the need for more housing during the early 1900s led to the development of the land surrounding the subject property (CRCG 2000).

Though the route of Avenue B was present during the late nineteenth century, development of the subject property did not occur until the early twentieth century (Sanborn Map Company 1912; Hopkins 1934). By 1912, lots were laid out at the intersection of Avenue B and 58th Street; however, no buildings were present (Sanborn Map 1912). Immigrants continued to move to the area with the population reaching 88,930 people by 1930 (CRCG 2000). The earliest documented evidence found to date of the building at 358-360 Avenue B is a 1930 aerial photograph, suggesting the building was constructed sometime between 1919 and 1930 (Hopkins 1919; NJDEP 2022). A 1934 plat map depicts the brick duplex at 358-360 Avenue B with its current footprint and a frame shed situated behind unit 358 (Hopkins 1934; Figure 1).

Newspaper articles and deeds indicate that the two units were sold and owned separately after they were built (*Jersey Journal* [JJ], 8 March 1928:28, 3 March 1932:22; Hudson County Clerk's Office n.d.). A 1928 sale announcement described the residence at 360 Avenue B as a "two-story brick dwelling" on a 22-by-100-foot lot, and a 1932 article described 358 Avenue B as a "two-story brick dwelling" on a 25-foot by 100-foot lot (JJ, 8 March 1928:28, 3 March 1932:22). Based on a review of historic maps, the shed to the rear of unit 358 was removed by 1950 (Sanborn Map Company 1950; Figure 2). Since the building's construction, minimal changes have been made to its exterior. The windows and doors were likely replaced sometime during the late twentieth and early twenty-first centuries, and the brick stoop of unit 360 was replaced around 2012 (Google Imagery 2012).

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Google Imagery
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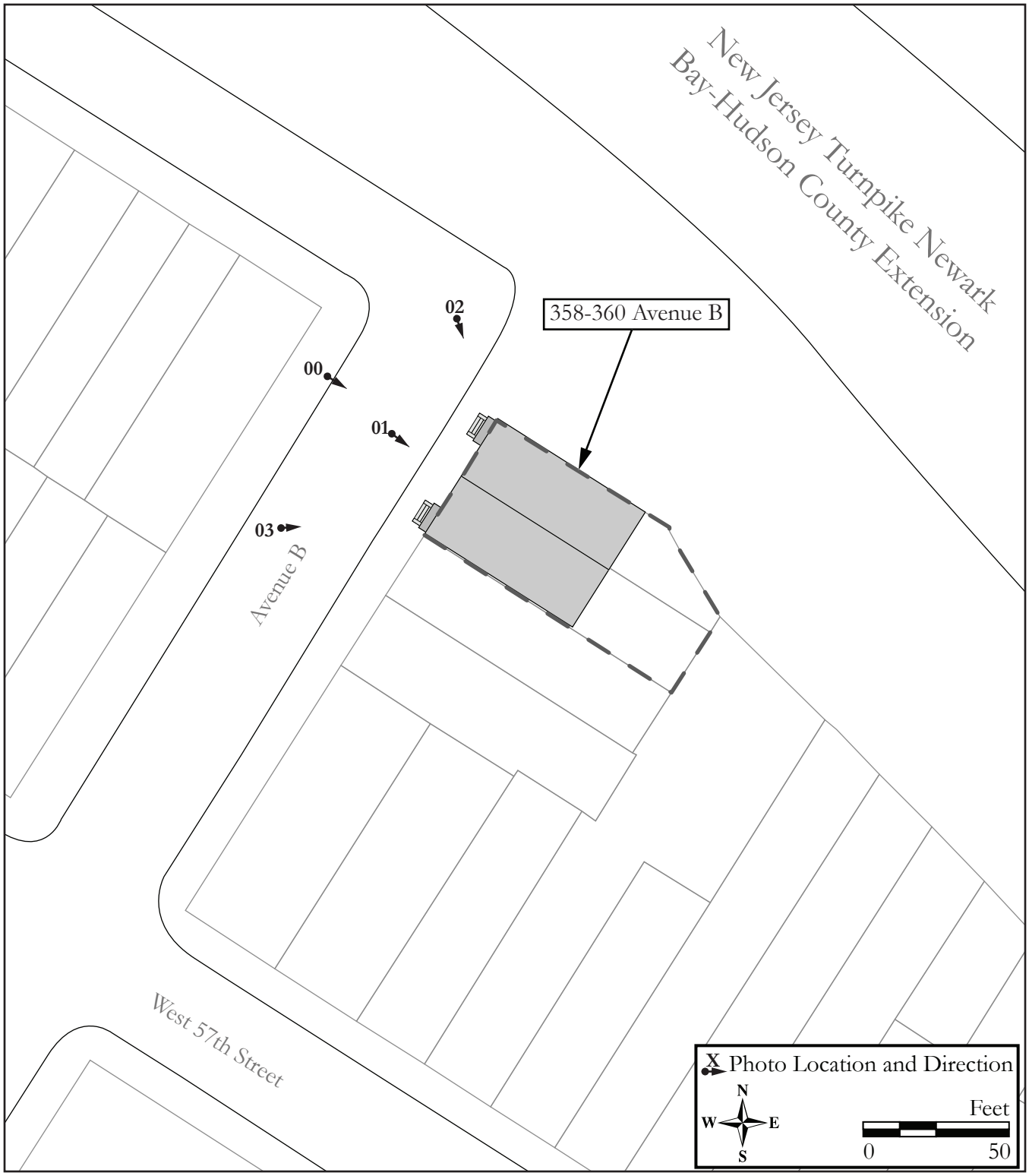

Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Lauren Dunkle
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

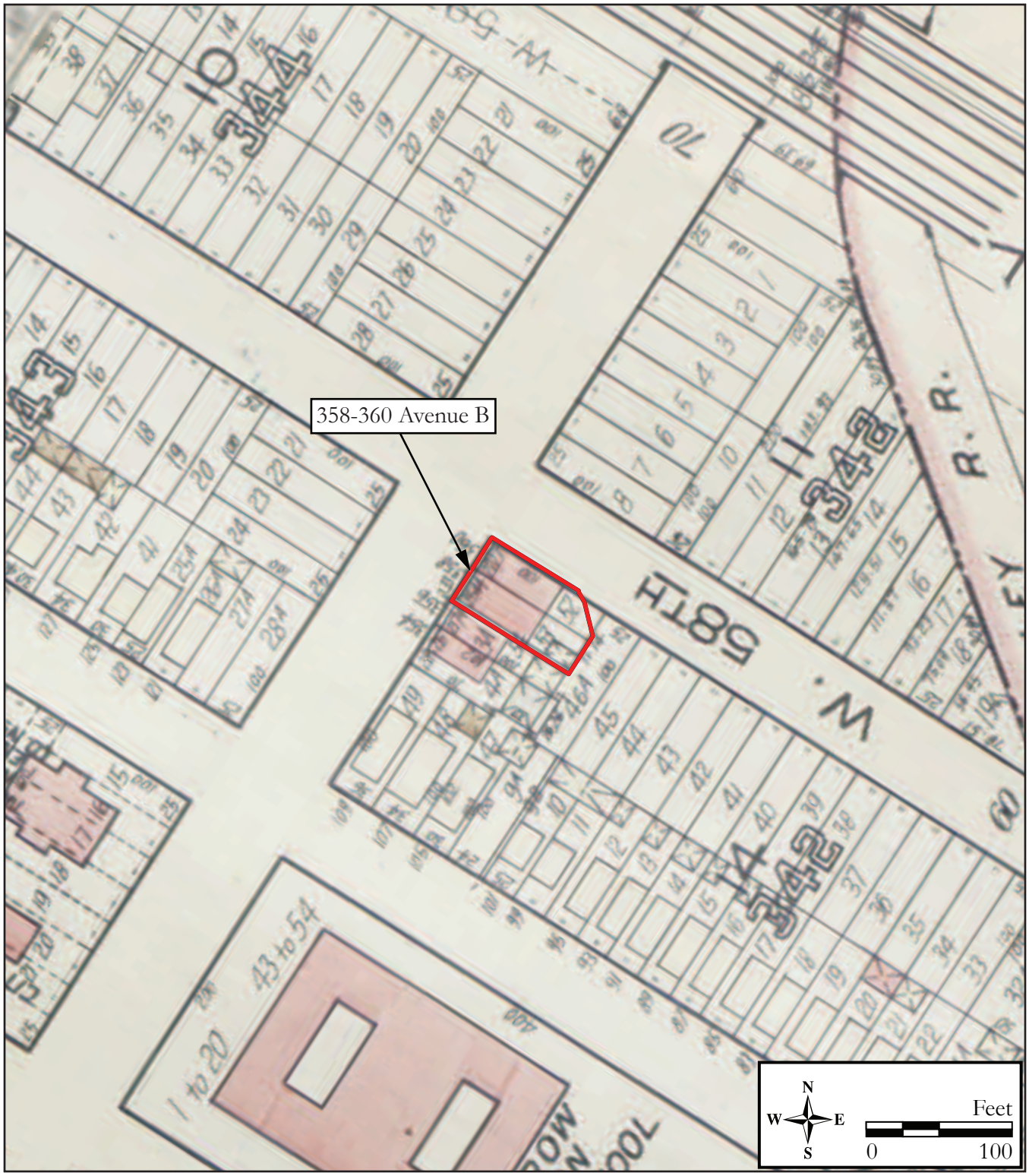

Figure 1: 1934 G. M. Hopkins, *Atlas of Hudson County, New Jersey; Volume Two Comprising Jersey City*, depicting 358-360 Avenue B.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
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CONTINUATION SHEET

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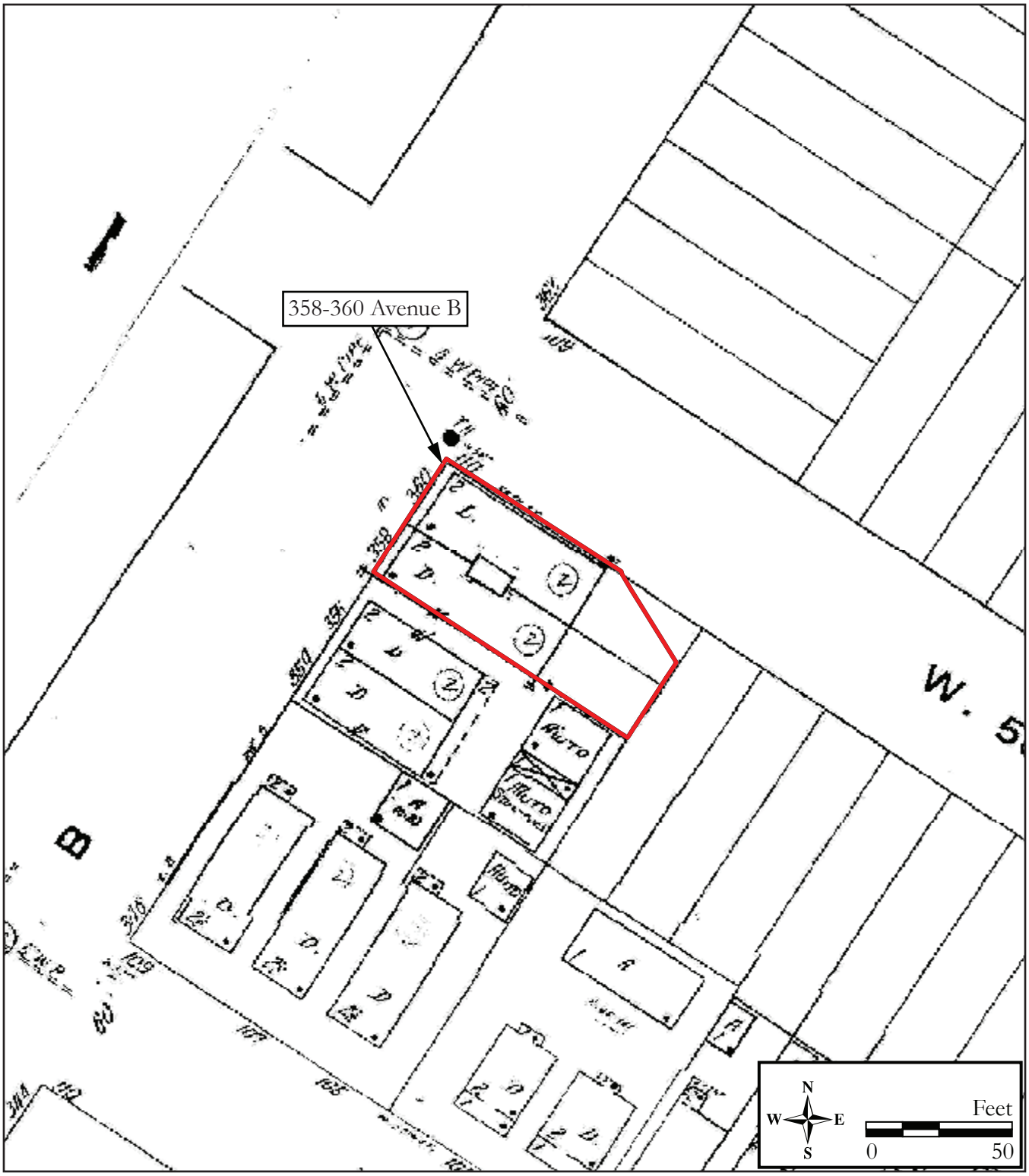


Figure 2: 1950 Sanborn Fire Insurance Map, *Bayonne, Hudson County, New Jersey*, depicting 358-360 Avenue B.

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Southeast

Photographer: Lauren Dunkle

Date: August 3, 2022

View of the primary (northwest) elevation of 358-360 Avenue B.

Plate: 2

Photo view: Southeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of 358-360 Avenue B's northern corner showing the primary and northeast elevations.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: East

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of 358-360 Avenue B's western corner showing the primary and southwest elevations.

BASE SURVEY FORM

Historic Sites #:

Property Name: 354-356 Avenue B

Street Address: *Street #:* 354 *(Low)* 356 *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* Avenue B *Suffix:* _____ *Type:* AVE

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 4, 5

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

The building at 354-356 Avenue B is a two-story-tall, four-bay-wide, semi-detached brick dwelling built circa 1925 (Plates 1-3). Composed of two units, the building has a rectangular footprint and is capped by a flat roof with a stepped parapet extending the length of the primary elevation. The brick is laid in a common bond with a soldier belt course above the raised basement and a double-soldier belt course above the second floor. Symmetrically placed tan, or cream, brick accents the parapet and frames the windows and doors. The windows are vinyl replacement units with brick lintels and aluminum-wrapped sills. The main entrances are situated in the two center bays of the primary (northwest) elevation, and both contain modern, wood-panel doors with metal storm doors flanked by side lights. Access to the entrances is provided by brick stoops with wood railings sheltered by metal awnings. Additional metal awnings cover the first-floor windows flanking the entrances. *See Building/Element Attachment*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

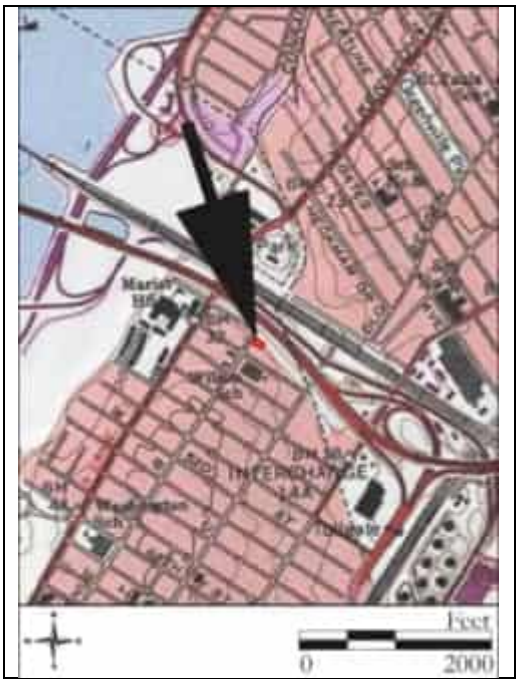
Surveyor: Lauren Dunkle Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name:	354-356 Avenue B		
Historic Name:	354-356 Avenue B		
Present Use:	Residential Activity, Permanent		
Historic Use:	Residential Activity, Permanent		
Construction Date:	Circa 1925	**Source:**	Hopkins 1919; NJDEP 2022
Alteration Date(s):	Late twentieth century; early twenty-first century	**Source:**	Stylistic evidence
Designer:	Unknown	**Physical Condition:**	Fair
Builder:	Unknown	**Remaining Historic Fabric:**	Medium
Style:	Other		
Form:	Semi-detached	**Stories:**	2
Type:	N/A	**Bays:**	4
Roof Finish Materials:	Unknown		
Exterior Finish Materials	Brick, Common Bond		

Exterior Description, continued from Base Survey Form:
The northeast and southwest elevations have asymmetrical fenestration patterns with segmental-arch brick lintels crowning each window. View of the rear (southeast) elevation was limited from the public right-of-way; however, a two-story, enclosed porch sheathed in vinyl siding extends along the elevation. A second-story deck is also present on unit 354.

Interior Description:
The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the public right-of-way and did not include interior access to the building.

Setting:
The building at 354-356 Avenue B is situated on the southeast side of Avenue B near its intersection with West 58th Street. The building is sited on two lots (Block 16, Lots 4 and 5), which together form a rectangular shape. With its primary elevation facing northwest, the building is set back around 20 feet from Avenue B. A concrete sidewalk extends along the northwest border of the property, and concrete driveways flank the northeast and southwest elevations of the building. Dense vegetation and mature trees border the northeast corner of the property and provide a buffer between the dwelling and the New Jersey Turnpike Newark Bay-Hudson County Extension, which runs approximately 85 feet to the northeast.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
The building at 354-356 Avenue B is a typical and unremarkable example of an early twentieth-century duplex. Built circa 1925, the subject building was likely constructed to house immigrant workers who were moving to the area during the industrial boom that occurred in Bayonne in the late nineteenth and early twentieth centuries. Since its construction, the building appears to have undergone minimal exterior changes.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The duplex at 354-356 Avenue B is recommended not eligible for listing in the National Register of Historic Places (NRHP). Research did not indicate that the subject property was associated with prominent individuals or patterns of history. Architecturally, the residence retains a high degree of integrity of location, setting, feeling, materials, design, and workmanship; however, it is a common and unremarkable example of its type. The subject building is one of many early twentieth-century residences found throughout Bayonne and is not the work of a master. For these reasons, the building at 354-356 Avenue B is recommended not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 354-356 Avenue B

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

The building at 354-356 Avenue B is located on the southeast side of Avenue B in the City of Bayonne, Hudson County, New Jersey. The subject property is situated in the northwest region of Bayonne that was historically known as Pamrapo village prior to the twentieth century. Pamrapo was one of five nineteenth-century villages that would later form Bayonne Township in 1861 and be redesignated Bayonne City in 1869 (Cultural Resource Consulting Group [CRCG] 2000; Snyder 1969:145). Originally a rural resort community, the area of Bayonne's easy access to railroad lines and shipping ports quickly turned it into an industrial city during the late nineteenth century. The industrial boom attracted immigrants to the area looking for work, and the population drastically increased during the turn of the century. In 1890, the population was approximately 19,000 people, and by 1910, it had increased to over 55,500 residents. As a result, the need for more housing during the early 1900s led to the development of the land surrounding the subject property (CRCG 2000).

Though the route of Avenue B was present during the late nineteenth century, development of the subject property did not occur until the early twentieth century (Sanborn Map Company 1912; Hopkins 1934). By 1912, lots were laid out at the intersection of Avenue B and 58th Street; however, no buildings were present (Sanborn Map 1912). Immigrants continued to move to the area with the population reaching 88,930 people by 1930 (CRCG 2000). The earliest documented evidence found to date of the building at 354-356 Avenue B is a 1930 aerial photograph, suggesting the building was constructed sometime between 1919 and 1930 (Hopkins 1919; NJDEP 2022). A 1934 plat map depicts the brick building at 358-360 Avenue B with its current footprint and two frame garages situated along the southeast border of the property (Hopkins 1934; Figure 1).

Available deeds and contemporary newspaper articles indicate that the two units of the subject building were, and continue to be, treated as separate properties (Hudson County Clerk's Office Deeds [HCCO], 3281:680, 4197:215). A 1937 newspaper article describes 354 Avenue B as a "two-story brick semi-detached dwelling" that was in foreclosure at the time (*Jersey Journal* [JJ], 13 July 1937:18). Though the unit at 354 Avenue B appears to have only contained one residence, a 1939 sale announcement describes 356 Avenue B as a "two-family dwelling" that contained "four and five-room apartments with baths and separate steam heating systems" and a two-car garage on the property, suggesting 356 Avenue B was further subdivided (JJ, 3 March 1939:20).

By 1950, a two-story porch extending along the rear elevation of the building was built and the two garages were connected by a one-story, hipped-roof building (Sanborn Map Company 1950; Figure 2). By 1979, both of the garages were demolished (Nationwide Environmental Title Research 1979). Sometime during the late twentieth century or early twenty-first century, the rear two-story porch was enclosed, and another second-story porch was added to the rear elevation of 354 Avenue B. The windows were also likely replaced sometime during the early twenty-first century (Google Imagery 2012). Today, both units are owned by Manuel and Maria Caamano, and both appear to function as single-family rental units (HCCO, Deeds, 3281:680, 4197:215).

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Google Imagery
2012 Google Streetview. Electronic document. https://www.google.com/maps/, accessed August 2022.

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1919 *Plat Book of Jersey City and Bayonne, Hudson County, New Jersey.* G.M. Hopkins Co., Philadelphia, New Jersey.
1934 *Volume Two Atlas of Hudson County, New Jersey.* G.M. Hopkins & Co., Philadelphia, Pennsylvania.

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Historic Sites #:

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Nationwide Environmental Title Research
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New Jersey Department of Environmental Protection (NJDEP)
2022 NJ-GeoWeb. Electronic Document, https://www.nj.gov/dep/gis/geowebsplash.htm, accessed August 2022.

Sanborn Map Company
1912 *Insurance Maps of City of Hudson County, New Jersey*. Sanborn Map Company, New York, NY.
1950 *Insurance Maps of City of Hudson County, New Jersey*. Sanborn Map Company, New York, NY.

Snyder, John P.
1969 *The Story of New Jersey's Civil Boundaries: 1606-1968*. Bulletin 67, Bureau of Geology and Topography, Trenton, New Jersey.

CONTINUATION SHEET

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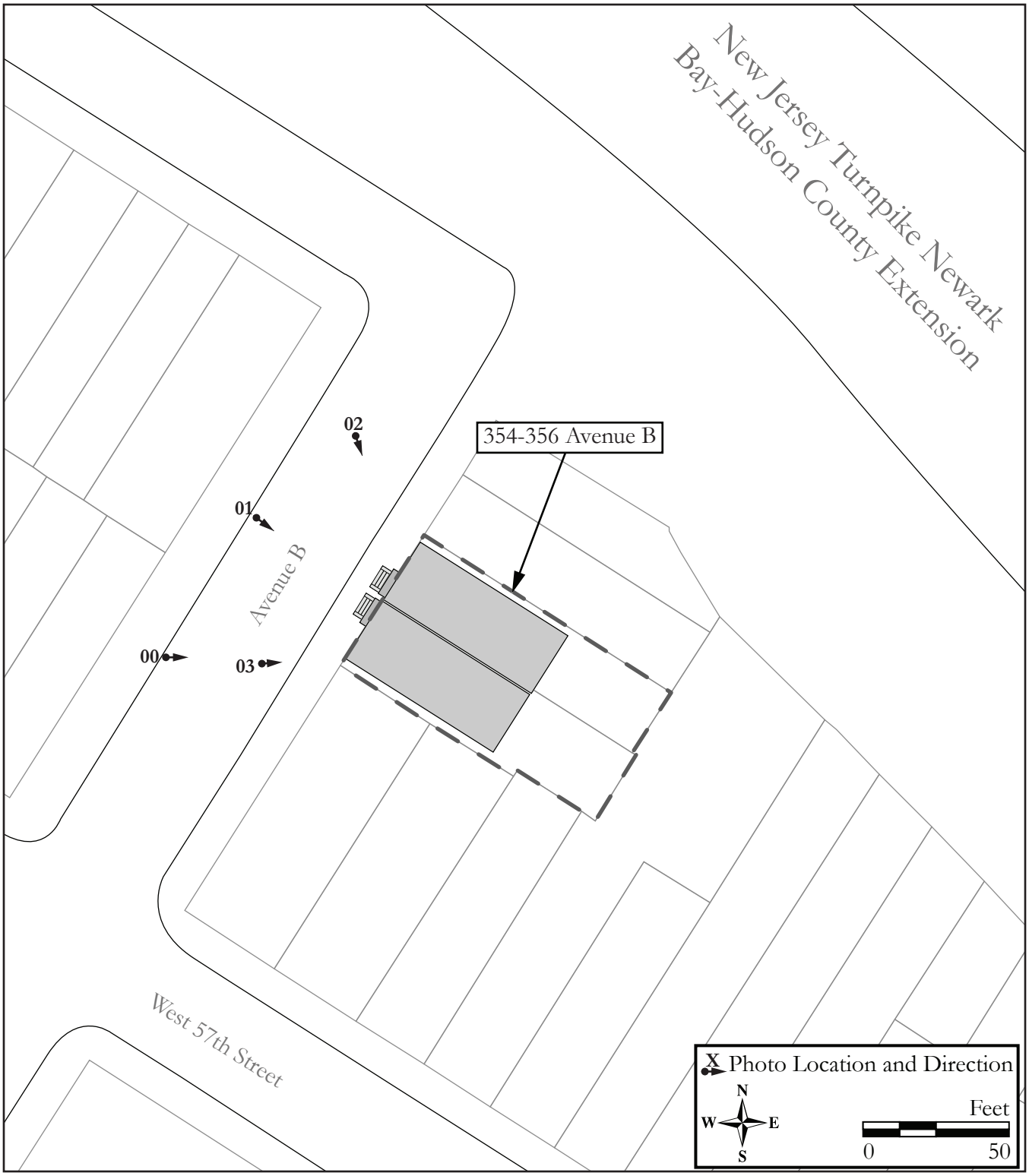

Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Lauren Dunkle
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Figure 1: 1934 G. M. Hopkins Co., *Atlas of Hudson County, New Jersey; Volume Two Comprising Jersey City*, depicting 354-356 Avenue B.

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CONTINUATION SHEET

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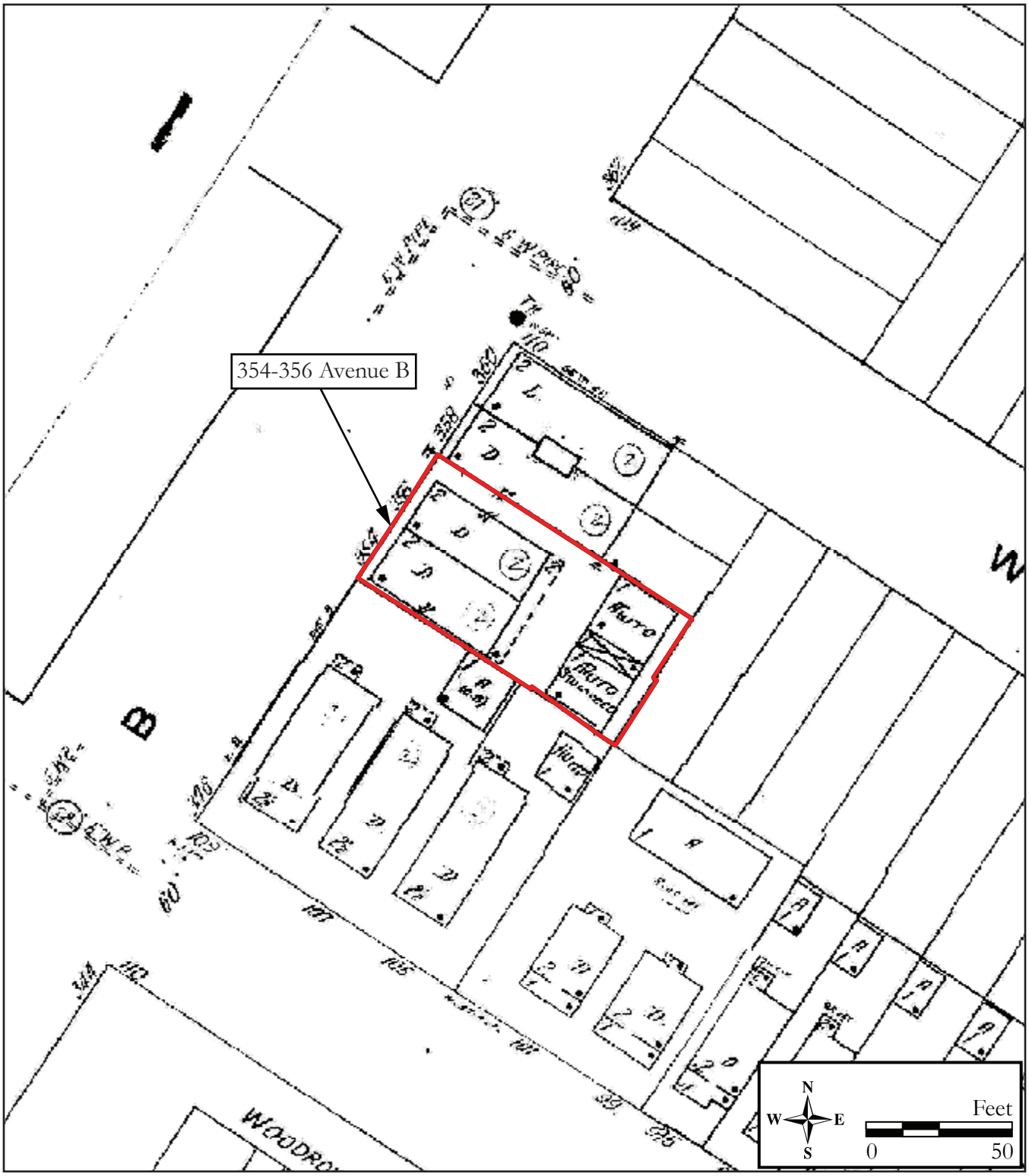


Figure 2: 1950 Sanborn Fire Insurance Map, *Bayonne, Hudson County, New Jersey*, depicting 354-356 Avenue B.

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Southeast

Photographer: Lauren Dunkle

Date: August 3, 2022

View of the primary (northwest) elevation of 354-356 Avenue B.

Plate: 2

Photo view: Southeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of 354-356 Avenue B's northern corner showing the primary and northeast elevations.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: East

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of 354-356 Avenue B's western corner showing the primary and southwest elevations.

HISTORIC DISTRICT OVERLAY

Historic Sites #:

District Name: West 57th Street Historic District

County(s): Hudson **District Type:** Residential

Municipality(s): City of Bayonne **USGS Quad(s):** Jersey City NJ-NY

Local Place Name(s):

Development Period: Circa 1920 **To:** Circa 1930 **Source:** Hopkins 1919; NJDEP 2022

Physical Condition: Good

Remaining Historic Fabric: Low

Registration and Status Dates:

National Historic Landmark:
National Register:
New Jersey Register:
Determination of Eligibility:
SHPO Opinion:
Local Designation:
Other Designation:
Other Designation Date:

Description:

The West 57th Street Historic District is a residential district situated on the northeast side of West 57th Street in the City of Bayonne, Hudson County, New Jersey (Plates 1-25). The district spans one block along West 57th Street, from Avenue B to the northwest to Avenue C to the southeast, and currently consists of 23 residential properties (Block 16, Lots 6-28). Of the 23 properties, 22 feature dwellings that date to between circa 1925 and circa 1927, which are generally characterized as two or two-and-one-half-story, single-family, frame buildings. Since their construction, the dwellings have each undergone varying degrees of alterations that generally comprise the replacement of original windows, doors, and exterior cladding materials; the enclosure of the front porches; and mid- to late twentieth-century additions. One property located within the historic district, 103 West 57th Street (Block 16, Lot 9), was built circa 2000 (see Plate 23). Most of the properties within the district are sited on rectangular-shaped lots ranging in size from 0.04 to 0.15 acres. Several properties, including those at 71, 89, 91, 93, and 99 West 57th Street, retain their early twentieth-century garages.

Setting:

The West 57th Street Historic District is located near the northern border of the City of Bayonne, which is on the northeast side of West 57th Street in Hudson County. The district is bounded by Avenue B to the northwest, the New Jersey Turnpike Newark Bay-Hudson County Extension (NB-HCE) to the northeast, Avenue C to the southeast, and West 57th Street to the southwest. The approximately 1.7-acre district is located within a dense residential setting consisting primarily of early to mid-twentieth-century residential buildings. Dense vegetation and mature trees provide a buffer between the rear of the dwellings in the district and the NB-HCE, which runs approximately 100 feet to the northeast of the district along a northwest-southeast alignment.

BASE SURVEY FORM

Historic Sites #:

Property Name: 109 West 57th Street

Street Address: *Street #:* 109 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 6

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 109 West 57th Street is a two-and-one-half-story, three-bay wide, multi-unit, frame dwelling built circa 1925 (see Plate 1). The dwelling consists of a rectangular main block capped by a hipped roof and a two-story rear (northeast) addition topped by a shed-roof, which was built circa 1950. The main block features hipped-roof, wood-shingled dormers on the northeast and northwest slopes and a large wall dormer with a hip-on-gable roof on the northwest elevation. The roof is sheathed in asphalt shingles and pierced by an interior brick chimney in the northeast corner. The exterior envelope of the dwelling consists of aluminum siding. Windows primarily consist of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern. Two entrances, each containing metal replacement doors, are located in the easternmost bays of the primary (southwest) elevation. A brick porch with brick posts and metal railings provides access to the entrances. An overhang of the second floor shelters the porch area and is accentuated by a slight flare. Located in the westernmost bay of the primary elevation is a bay window. A third entrance is located in the third northernmost bay of the northwest elevation and contains another metal replacement door. Metal Bilco doors, located in the western corner of the rear elevation, provide exterior access to the basement. The foundation of the main block is parged with concrete, and the foundation of the addition has brick piers with rough-faced concrete block infill above grade.

Registration and Status Dates:

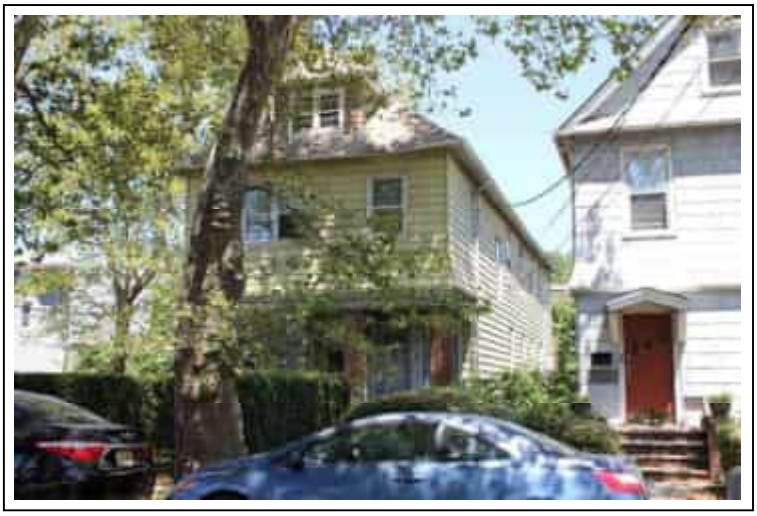
National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:



Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

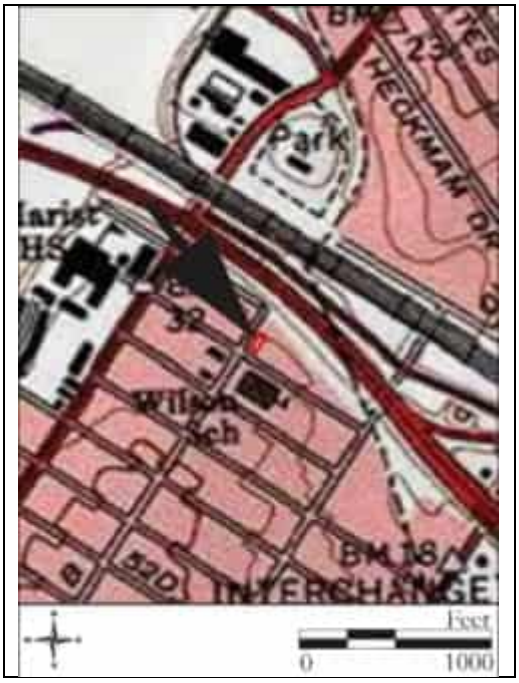
Surveyor: Lauren Dunkle Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 107 West 57th Street

Street Address: *Street #:* 107 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 7

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 107 West 57th Street is a two-and-one-half-story, two-bay-wide, frame dwelling that was constructed circa 1925 (see Plate 2). The dwelling is capped by a pedimented, front-gabled roof sheathed in asphalt shingles. An interior brick chimney pierces the northwest slope of the roof. The exterior is clad in composite shingles and the bottom of the second floor is slightly flared, creating a shallow overhang over the first floor. Windows are spaced irregularly on all elevations and primarily consist of single and grouped vinyl-sash replacement units. A pair of replacement windows are featured in the gable end of the primary (southwest) elevation, and a group of three windows is situated in the easternmost bays of the first and second floors. The main entrance is located in the westernmost bay of the primary elevation and contains a wood Rising Lights Door. A brick stoop provides access to the main entrance and is sheltered by a gabled portico. A secondary entrance is located on the southeast elevation. Materials of the secondary entrance were indiscernible from the public right-of-way. A one-bay-wide, two-story porch with metal railings is located in the westernmost bay of the rear elevation and capped with a shed roof.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

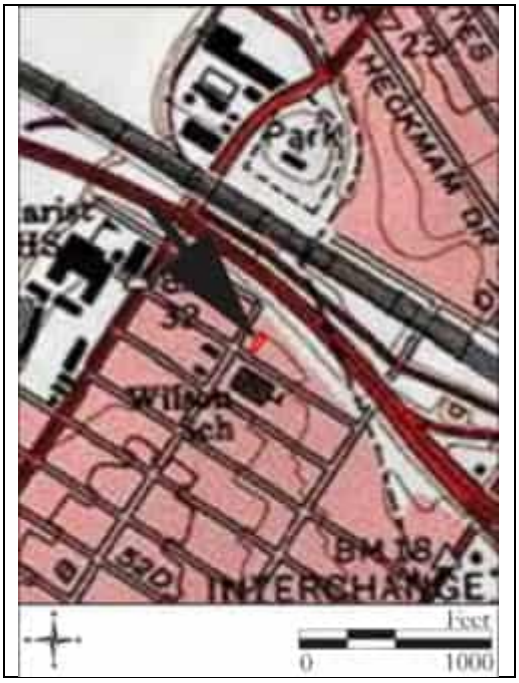
Surveyor: Lauren Dunkle Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 105 West 57th Street

Street Address: *Street #:* 105 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 8

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 105 West 57th Street is a two-and-one-half-story, two-bay-wide, frame dwelling that was constructed circa 1925 (see Plate 3). The dwelling is capped by a pedimented, front-gabled roof sheathed in asphalt shingles. An interior brick chimney pierces the northwest slope of the roof. The exterior is primarily clad in aluminum siding, with the exception of a textured brick veneer on the first floor of the primary (southwest) elevation. The bottom of the second floor is slightly flared, creating a shallow overhang over the first floor. Windows generally consist of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern. A bay window flanked by inoperable louvered shutters is featured in the primary elevation's gable peak, and a group of four casement units are situated in the easternmost bays of the first and second floors. The main entrance is located in the westernmost bay of the primary elevation and contains a modern replacement door. A brick stoop with metal railings provides access to the main entrance. The rear (northeast) elevation was not visible from the public right-of-way.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

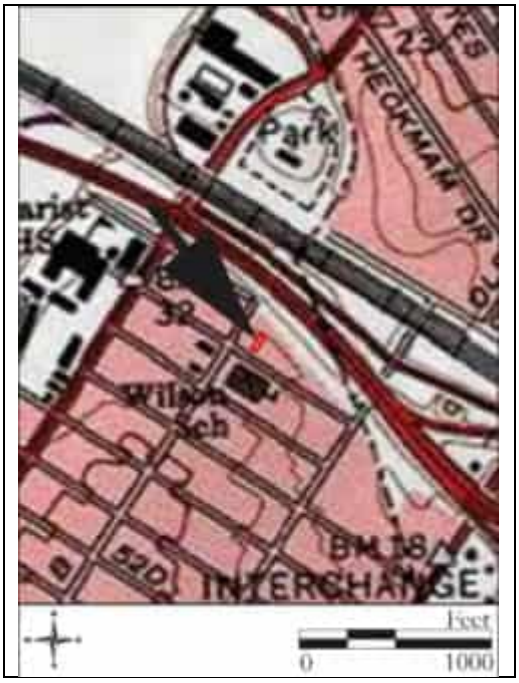
Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 101 West 57th Street

Street Address: *Street #:* 101 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 10

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 101 West 57th Street is a two-story-tall, three-bay-wide, frame dwelling that was constructed circa 1925 (see Plate 4). The dwelling consists of an enclosed front porch and a side-gabled main block capped by a shed-roof. Asphalt shingles sheath the roof. The exterior is primarily clad in vinyl siding with the exception of formstone on the primary (southwest) elevation of the enclosed porch. Windows generally consist of vinyl-sash replacement units. The primary elevation has an asymmetrical fenestration pattern with the main entrance located in the easternmost bay. Sheltered by a metal awning, the main entrance contains a modern replacement door that is accessed by a brick stoop with metal railings. A bay window is located west of the primary entrance. A centrally placed, secondary entrance is located on the southeast elevation and contains a replacement panel door. The rear (northeast) elevation was not visible from the public right-of-way. A modern, frame shed stands approximately 35 feet northeast of the dwelling.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

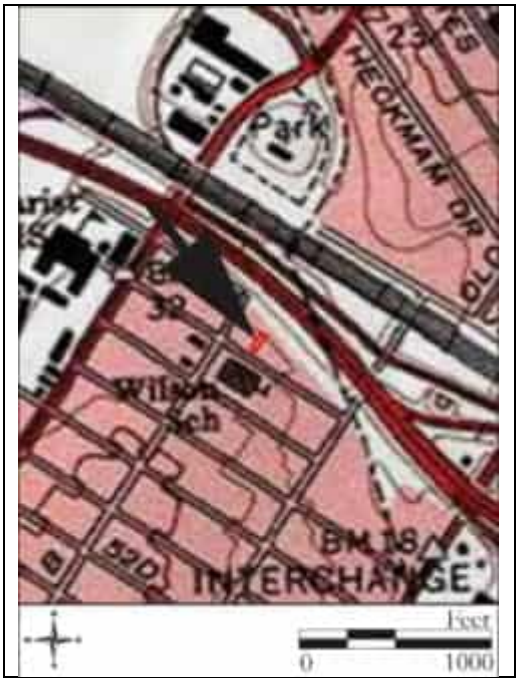
Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 99 West 57th Street

Street Address: *Street #:* 99 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 11

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Number 99 West 57th Street is a two-and-one-half-story, three-bay wide, frame dwelling that was constructed circa 1925 (see Plate 5). The dwelling is composed of a side-gabled, main block with a shed-roofed, enclosed front porch. Asphalt shingles sheath the roof, and an interior chimney of unknown material is situated in the northeast slope. The exterior is clad in aluminum siding. Windows generally consist of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern on the primary (southwest), northwest, and southeast elevations. The main entrance is located in the westernmost bay of the primary elevation and contains a wood-paneled door with a fan light and metal storm door. A brick stoop with a metal railing provides access to the main entrance and is sheltered by a metal awning. A centrally placed, secondary entrance containing a replacement door with glazing and a metal storm door is located on the northwest elevation. The rear (northeast) elevation was not visible from the public right-of-way. A circa-1925 one-story-tall, frame garage is located at the rear of the property, approximately 35 feet northeast of the dwelling. The garage is topped by an asphalt-shingled, shed roof and clad in aluminum siding. The primary (southwest) elevation features two metal roll-top doors. The garage is accessed via a concrete driveway along the northwest side of the property.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

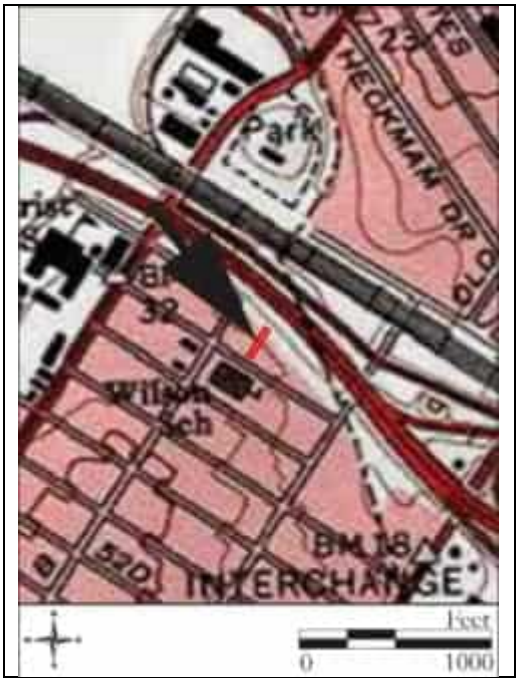
Surveyor: Lauren Dunkle Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 95 West 57th Street

Street Address: *Street #:* 95 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 12

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Number 95 West 57th Street is a two-and-one-half-story, two-bay-wide, frame dwelling that was constructed in 1926 (see Plate 6). The dwelling consists of a side-gabled main block with an enclosed, hip-roofed front porch and a two-story, shed-roofed addition on the rear (northeast) elevation that was built during the mid-twentieth century. A centrally placed, one-bay-wide, shed-roof dormer interrupts the southwest slope of the main block, and an interior brick chimney pierces the northern corner. Asphalt shingles sheath the roof. The exterior is clad in vinyl siding. Windows generally consist of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern on the primary (southwest), northwest, and southeast elevations. The main entrance is slightly recessed within a small inset porch in the easternmost bay of the primary elevation and contains a paneled replacement door with an oval light. A brick stoop with metal railings provides access to the inset porch and main entrance. Located on the second floor of the northwest elevation is a centrally placed, two-bay-wide projection. The rear elevation was not visible from the public right-of-way. The foundation is rock-faced concrete block above grade.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

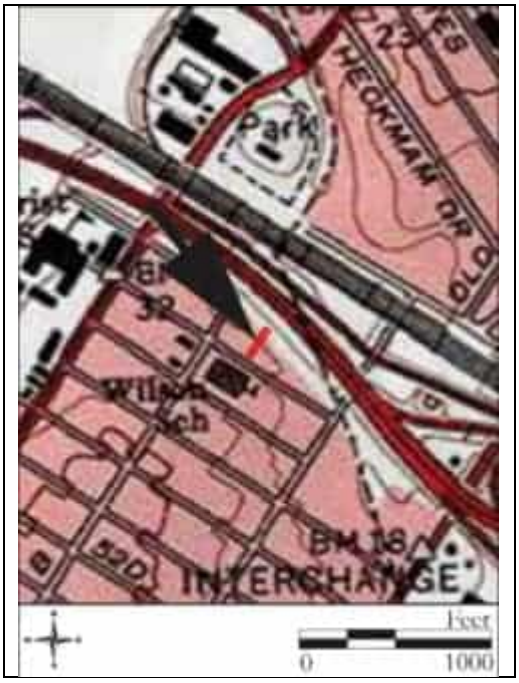
Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 93 West 57th Street

Street Address: *Street #:* 93 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 13

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Number 93 West 57th Street is a two-and-one-half-story, two-bay-wide, frame dwelling that was constructed in 1926 (see Plate 7). The dwelling features a side-gabled main block with an enclosed, hip-roofed front porch and a two-story, shed-roofed addition on the rear (northeast) elevation that was built during the mid-twentieth century. A centrally placed, one-bay-wide, shed-roof dormer interrupts the southwest slope of the main block, and an interior brick chimney pierces the northern corner. Asphalt shingles sheath the roof and the exterior is clad in aluminum siding. Windows generally consist of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern on the primary (southwest), northwest, and southeast elevations. Inoperable, vinyl, louvered shutters flank the windows on the second floor of the primary elevation. The main entrance is slightly recessed within a small inset porch in the easternmost bay of the primary elevation and contains a paneled replacement door with a semi-circular light and a wood storm door. A square wood post supports the porch roof. A brick stoop with metal railings on brick side walls leads to the main entrance. Located on the second floor of the northwest elevation is a centrally placed, two-bay-wide projection. The rear elevation was not visible from the public right-of-way. The foundation is rock-faced concrete block above grade. A circa-1926 one-story-tall, one-bay-wide, frame garage is located at the rear of the property, approximately 35 feet northeast of the dwelling. The garage is topped by a shed roof and appears to be clad in plywood siding. It features a pair of wood doors with crossbucks on the primary (southwest) elevation. The garage is accessed via a concrete driveway along the northwest side of the property.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Lauren Dunkle Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 91 West 57th Street

Street Address: *Street #:* 91 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 14

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Number 91 West 57th Street is a two-and-one-half-story, two-bay-wide, frame dwelling that was constructed in 1926 (see Plate 8). The dwelling consists of a side-gabled main block with an enclosed, hip-roofed porch on its primary (southwest) elevation. Asphalt shingles cover the roof, and an interior chimney of unknown materials pierces the northern corner of the main block. Vinyl siding covers the main block, while the enclosed front porch is covered with a brick veneer. Windows generally consist of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern on the primary (southwest), northwest, and southeast elevations. The main entrance is recessed within a small inset porch in the easternmost bay of the primary elevation and contains a paneled replacement door. Spanning the full width of the enclosed porch is an unsheltered porch finished with the same brick veneer. It features brick corner piers and metal railings along with a short set of brick steps that provides access to the main entrance. The rear (northeast) elevation was not visible from the public right-of-way. A circa-1926 one-story-tall, one-bay-wide, frame garage is located at the rear of the property, approximately 35 feet northeast of the dwelling. The garage is capped by a shed roof and appears to be clad in plywood. The primary (southwest) elevation features asphalt shingles located below the roofline and a doorless garage bay.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 89 West 57th Street

Street Address: *Street #:* 57 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 15

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Number 89 West 57th Street is a two-and-one-half-story, two-bay-wide, frame dwelling that was constructed in 1926 (see Plate 9). The dwelling consists of a side-gabled main block with an enclosed, hip-roofed front porch. A centrally placed, one-bay-wide, shed-roof dormer interrupts the southwest slope of the main block, and an interior chimney of unknown materials pierces the northern corner. Asphalt shingles cover the roof. The exterior is clad in vinyl siding. Windows generally consist of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern on the primary (southwest), northwest, and southeast elevations. The main entrance is recessed within a small inset porch in the easternmost bay of the primary elevation and contains a wood replacement door with an oval light. A concrete stoop with a metal railing provides access to the main entrance. The rear (northeast) elevation was not visible from the public right-of-way. The foundation is rusticated concrete block above grade. A circa-1926 one-story-tall, one-bay-wide, frame garage is located at the rear of the property, approximately 35 feet northeast of the dwelling. The garage is capped by a shed roof and is clad in vinyl siding. The primary (southwest) elevation is symmetrical with a metal roll-top garage door. The garage is accessed via a concrete driveway along the northwest side of the property.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Lauren Dunkle Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 87 West 57th Street

Street Address: *Street #:* 87 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 16

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Number 87 West 57th Street is a two-and-one-half-story, two-bay-wide, frame dwelling that was constructed in 1926 (see Plate 10). The dwelling consists of a side-gabled main block with an enclosed, hip-roofed front porch and a one-story, hip-roofed rear (northeast) addition that was built during the mid-twentieth century. Asphalt shingles cover the roof, and an interior chimney of unknown materials pierces the northern corner of the main block. Solar panels cover the southwest slope of the main block's roof. Aluminum siding covers the main block, while the enclosed front porch is covered with a brick veneer. Windows generally consist of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern on the primary (southwest), northwest, and southeast elevations. A picture window is featured in the westernmost bay of the primary elevation's first floor and the main entrance, containing a paneled replacement door, is recessed within a small inset porch in the easternmost bay. A brick stoop with metal railings provides access to the main entrance. A secondary entrance is located on the northwest elevation of the rear addition. Materials of the secondary entrance and the rear elevation were not visible from the public right-of-way. The foundation of the main block is rusticated concrete block above grade, and the brick veneer at the base of the porch extends forward to enclose a low planter bed bordered by the driveway, sidewalk, and front steps.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 85 West 57th Street

Street Address: *Street #:* 85 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 17

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Number 85 West 57th Street is a two-and-one-half-story, two-bay-wide, frame dwelling that was constructed in 1926 (see Plate 11). The dwelling consists of a side-gabled main block with an enclosed, hip-roofed front porch. A centrally placed, one-bay-wide, shed-roofed dormer interrupts the southwest slope of the main block, and an interior chimney of unknown materials pierces the northern corner. Asphalt shingles cover the roof. The exterior is clad in aluminum siding. Windows generally consist of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern on the primary (southwest), northwest, and southeast elevations. A group of three replacement windows is featured in the westernmost bay of the primary elevation's first floor. The main entrance is recessed within a small inset porch in the easternmost bay of the primary elevation and contains a paneled replacement door with a fan light and a metal storm door. A concrete stoop with metal railings provides access to the main entrance. The rear (northeast) elevation was not visible from the public right-of-way. The foundation is rusticated concrete block above grade.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Lauren Dunkle Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 83 West 57th Street

Street Address: *Street #:* 83 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 18

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Number 83 West 57th Street is a two-and-one-half-story, two-bay-wide, frame dwelling that was constructed circa 1927 (see Plate 12). The dwelling consists of a pedimented, front-gabled main block with a front-gabled, enclosed porch. The roof is clad in asphalt shingles and an interior brick chimney pierces the southeast slope. The exterior is clad in aluminum siding. Windows generally consist of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern on the primary, northwest, and southeast elevations. The main entrance is recessed within a small inset porch in the easternmost bay of the primary elevation and contains a wood-paneled door with a semi-circular light and a metal storm door. A brick stoop with metal railings provides access to the main entrance. A secondary entrance is located in the northernmost bay of the northwest elevation and contains a replacement panel door with glazing. The rear (northeast) elevation was not visible from the public right-of-way. The foundation is rusticated concrete block above grade. A twenty-first century, corrugated metal shed stands approximately 50 feet northeast of the dwelling.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm _____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 81 West 57th Street

Street Address: *Street #:* 81 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 19

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Number 81 West 57th Street is a two-and-one-half-story, two-bay-wide, frame dwelling that was constructed circa 1927 (see Plate 13). The dwelling consists of a pedimented, front-gabled main block with a shed-roofed, enclosed front porch. The roof is clad in asphalt shingles, and an interior brick chimney pierces the southeast slope. Solar panels line both roof slopes of the main block. The exterior is clad in composite shingles. Windows generally consist of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern on the primary, northwest, and southeast elevations. The main entrance is recessed within a small inset porch in the easternmost bay of the primary elevation and contains a wood-paneled door with a semi-circular light and a metal storm door. A brick stoop with metal railings provides access to the main entrance. A secondary entrance is located in the second northernmost bay of the northwest elevation and contains a modern panel door with glazing. The rear (northeast) elevation was not visible from the public right-of-way.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 79 West 57th Street

Street Address: *Street #:* 79 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 20

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Number 79 West 57th Street is a two-and-one-half-story, two-bay-wide, frame dwelling that was constructed circa 1927 (see Plate 14). The dwelling consists of a pedimented, front-gabled, main block with a pedimented, front-gabled, enclosed porch. The roof is clad in asphalt shingles, and an interior brick chimney pierces the southeast slope of the main block. The exterior is clad in aluminum siding. Windows generally consist of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern on the primary (southwest), northwest, and southeast elevations. The main entrance is recessed within a small inset porch in the easternmost bay of the primary elevation and contains a replacement door with an oval light and a metal storm door. A brick stoop with cast-concrete-capped brick side walls provides access to the main entrance. A secondary entrance is located in the second northernmost bay of the northwest elevation and contains a modern panel door with glazing. The rear (northeast) elevation was not visible from the public right-of-way. The foundation is rusticated concrete block above grade.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 77 West 57th Street

Street Address: *Street #:* 77 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 21

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Number 77 West 57th Street is a two-and-one-half-story, two-bay-wide, frame dwelling that was constructed circa 1927 (see Plate 15). The dwelling consists of a pedimented, front-gabled, main block with a shed-roofed, enclosed, front porch. The roof is clad in asphalt shingles, and an interior brick chimney pierces the southeast slope of the main block. The exterior is clad in composite shingles. Windows generally consist of single and grouped three-light wood-sash awning units on the primary (southwest) elevation and one-over-one, double hung, vinyl-sash replacement units on the northwest and southeast elevations. The windows are organized in an asymmetrical fenestration pattern on all elevations. The main entrance is recessed within a small inset porch in the easternmost bay of the primary elevation and contains a wood door with eight lights above two vertical panels. A brick stoop with metal railings provides access to the main entrance. The rear (northeast) elevation was not visible from the public right-of-way.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

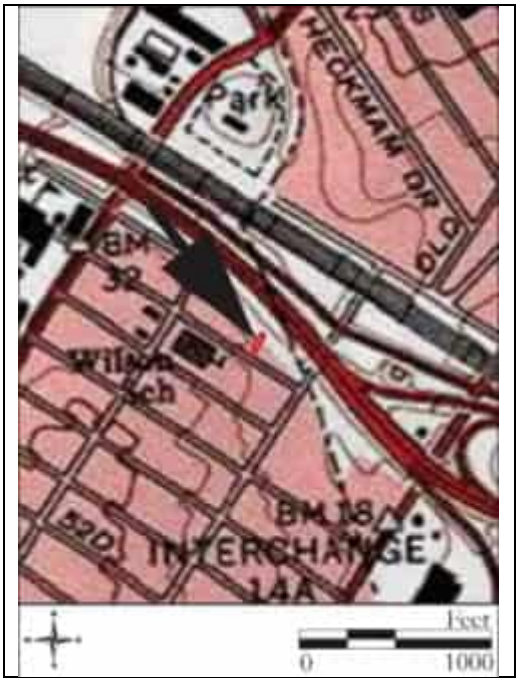
Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 75 West 57th Street

Street Address: *Street #:* 75 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 22

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Number 75 West 57th Street is a two-and-one-half-story, two-bay-wide, frame dwelling that was constructed circa 1927 (see Plate 16). The dwelling consists of a pedimented, front-gabled main block with a front-gabled, enclosed front porch. The roof is clad in asphalt shingles, and an interior brick chimney pierces the southeast slope of the main block. The exterior is clad in vinyl siding, and scalloped vinyl siding accents the gable peak on the primary (southwest) elevation of the main block. Windows generally consist of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern on the primary, northwest, and southeast elevations. Vinyl window surrounds topped with molded trim are featured on the second floor of the primary elevation. The main entrance is recessed within a small inset porch in the easternmost bay of the primary elevation and contains a replacement panel door with a semi-circular light flanked by vinyl, fluted pilasters. A brick stoop with metal railings provides access to the main entrance, and vinyl, fluted pilasters below a sunburst motif further accentuate the entryway. A bay window topped with asphalt shingles is located on the primary elevation of the enclosed porch, west of the entrance. A secondary entrance is located in the second northernmost bay of the northwest elevation and contains a modern panel door with glazing. The rear (northeast) elevation was not visible from the public right-of-way. The foundation is brick above grade.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Lauren Dunkle Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 73 West 57th Street

Street Address: *Street #:* 73 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 23

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Number 73 West 57th Street is a two-and-one-half-story, two-bay-wide, frame dwelling that was constructed circa 1925 (see Plate 17). The dwelling consists of a front-gable main block with a hipped-roof, enclosed front porch and a one-story hipped-roof rear (northeast) addition (built circa 1970). The roof is clad in asphalt shingles, and an interior brick chimney pierces the roof ridge of the main block. The exterior is primarily clad in vinyl siding, with brick veneer on the enclosed front porch. Windows generally consist of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern on the primary (southwest), northwest, and southeast elevations. Inoperable, louvered vinyl shutters flank the windows in the upper two floors of the primary elevation. The main entrance is recessed within a small inset porch in the easternmost bay of the enclosed porch's primary elevation and contains a replacement panel door and a metal storm door. A brick stoop, with metal railings and sheltered by a metal awning, provides access to the main entrance. A secondary entrance, also sheltered by a metal awning, is located on the southeast elevation of the main block. The rear (northeast) elevation and foundation materials were not visible from the public right-of-way.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Lauren Dunkle Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 71 West 57th Street

Street Address: *Street #:* 71 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 24

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Number 71 West 57th Street is a two-and-one-half-story, two-bay-wide, frame dwelling built circa 1925 (see Plate 18). The dwelling consists of a side-gabled main block with a shed-roofed, enclosed front porch. A large, shed-roof dormer, which spans almost the entire length of the primary (southwest) elevation, occupies the southwest roof slope of the main block. The roof is covered in asphalt shingles throughout. The exterior is primarily clad in vinyl siding, with the exception of the primary (southwest) elevation of the main block and the enclosed front porch, which are sheathed in wood shingles. Windows generally consist of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern on the primary (southwest), northwest, and southeast elevations. The main entrance is located in the easternmost bay of the primary elevation and contains a replacement door with a central light and a metal storm door. A brick stoop with metal railings provides access to the main entrance. A secondary entrance is located in the second southernmost bay of the southeast elevation and contains a replacement panel door. The rear (northeast) elevation was not visible from the public right-of-way. A circa-1940, one-story-tall, one-bay-wide, concrete-block garage is located at the rear of the property, approximately 35 feet northeast of the dwelling. The garage is topped with an asphalt-shingled, hipped roof, and the primary (southwest) elevation contains a wood-paneled roll-top garage door with lights in the second uppermost panels.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Lauren Dunkle Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 69 West 57th Street

Street Address: *Street #:* 69 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 25

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Number 69 West 57th Street is a two-and-one-half-story, two-bay-wide, Dutch Colonial Revival-style frame dwelling that was constructed circa 1925 (see Plate 18). The dwelling consists of a front-gambrel-roofed main block with full-length shed-roofed dormers on the northwest and southeast (side) elevations. A one-story, enclosed front porch with a shed roof projects from the primary (southwest) elevation, and an addition, built circa 1930, is located on the rear (northeast) elevation. The roof is clad in asphalt shingles, and an interior brick chimney pierces the roof ridge of the main block. The exterior is clad in vinyl siding. Windows generally consist of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern on the primary, northwest, and southeast elevations. Inoperable, louvered vinyl shutters flank the windows on the primary elevation. The main entrance is located in the easternmost bay of the enclosed porch's primary elevation and contains a replacement door with six lights over two vertical panels. A masonry stoop with metal railings, which is sheltered by a metal awning, provides access to the main entrance. A secondary entrance is located in the center bay of the southeast elevation; however, materials were not discernable. The rear (northeast) elevation was not visible from the public right-of-way.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Lauren Dunkle Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Lauren Dunkle Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 67 West 57th Street

Street Address: *Street #:* 67 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 26

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Number 67 West 57th Street is a two-and-one-half-story, two-bay-wide, frame dwelling that was constructed circa 1925 (see Plate 20). The dwelling consists of a side-gabled main block; a shed-roofed, enclosed front porch; and a one-story, flat-roofed, rear (northeast) addition (built circa 1970). A full-length, shed-roofed dormer occupies the southwest roof slope of the main block, and an interior brick chimney pierces the rear slope. Asphalt shingles cover the roof. The exterior of the main block is clad in aluminum siding on the primary (southwest) elevation and composite shingles on the northwest and southeast elevations. Wood shingles cover the enclosed porch. Windows generally consist of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern on the primary, northwest, and southeast elevations. A bay window is featured in the westernmost bay of the enclosed porch's primary elevation, and the main entrance is located in the easternmost bay. It contains a replacement door with an oval light and metal storm door. A brick stoop with metal railings provides access to the main entrance. A secondary entrance is located in the center bay of the southeast elevation and contains a replacement panel door with a semi-circular light. A gable-roofed portico shelters the secondary entrance. The rear (northeast) elevation was not visible from the public right-of-way.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

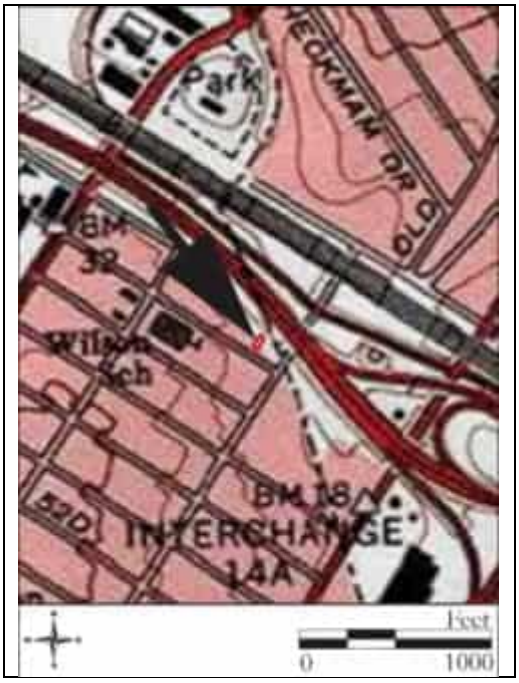
Surveyor: Lauren Dunkle Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Lauren Dunkle Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 65 West 57th Street

Street Address: *Street #:* 65 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 27

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Number 65 West 57th Street is a two-and-one-half-story, two-bay-wide, Dutch Colonial Revival-style frame dwelling that was constructed circa 1925 (see Plate 21). The dwelling consists of a front-gambrel-roofed main block with full-length, shed-roofed dormers on the northwest and southeast (side) elevations. A one-story, enclosed front porch with a front-gabled roof projects from the primary (southwest) elevation, and a two-story addition, built circa 1970, is located on the rear (northeast) elevation. The roof is clad in asphalt shingles, and an interior brick chimney pierces the roof ridge of the main block. The exterior is clad in aluminum siding. Windows generally consists of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern on the primary, northwest, and southeast elevations. A picture window is featured in the westernmost bay of the enclosed porch's primary elevation, and the main entrance is located in the easternmost bay. It contains a replacement door with an oval light and metal storm door. A brick stoop with metal railings provides access to the main entrance. The rear (northeast) elevation was not visible from the public right-of-way.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

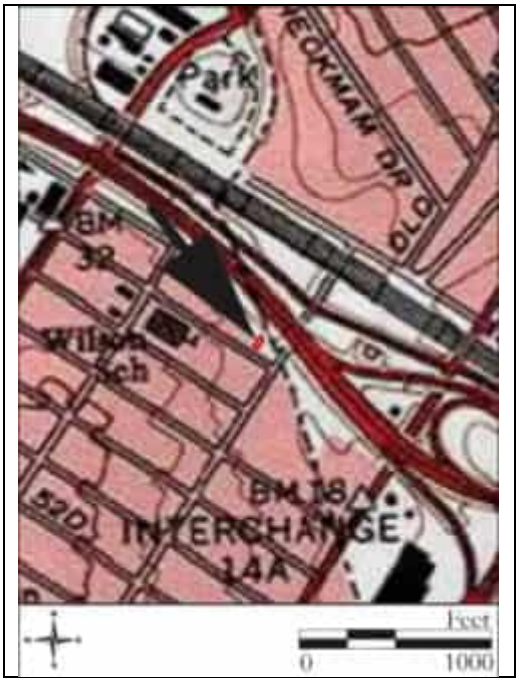
Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BASE SURVEY FORM

Historic Sites #:

Property Name: 63 West 57th Street

Street Address: *Street #:* 63 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 16

Local Place Name(s): _____ **Lot(s):** 28

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Number 63 West 57th Street is a two-story, three-bay-wide, frame dwelling that was constructed circa 1925 (see Plate 22). The dwelling consists of an original two-bay-wide, side-gabled main block with an enclosed, shed-roofed front porch. Extending from the southeast elevation of the main block is a two-story, one-bay-wide, side-gabled addition that was built circa 1980. Asphalt shingles cover the roof, and an interior chimney of undetermined material pierces the rear (northeast) slope of the main block. The exterior of the dwelling is clad in vinyl siding. Windows generally consist of single and grouped vinyl-sash replacement units organized in an asymmetrical fenestration pattern on the primary (southwest), northwest, and southeast elevations. The enclosed front porch is one story tall and spans the width of the main block's primary elevation. The main entrance is located in the easternmost bay of the enclosed porch and contains a wood-paneled door. A brick stoop with metal railings provides access to the main entrance. The rear (northeast) elevation was not visible from the public right-of-way.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
See Continuation Sheet

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
See Continuation Sheet

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:

Historic District Overlay: West 57th Street Historic District
Base Survey Form: 109 West 57th Street
Base Survey Form: 107 West 57th Street
Base Survey Form: 105 West 57th Street
Base Survey Form: 101 West 57th Street
Base Survey Form: 99 West 57th Street
Base Survey Form: 95 West 57th Street
Base Survey Form: 93 West 57th Street
Base Survey Form: 91 West 57th Street
Base Survey Form: 89 West 57th Street
Base Survey Form: 87 West 57th Street
Base Survey Form: 85 West 57th Street
Base Survey Form: 83 West 57th Street
Base Survey Form: 81 West 57th Street
Base Survey Form: 79 West 57th Street
Base Survey Form: 77 West 57th Street
Base Survey Form: 75 West 57th Street
Base Survey Form: 73 West 57th Street
Base Survey Form: 71 West 57th Street
Base Survey Form: 69 West 57th Street
Base Survey Form: 67 West 57th Street
Base Survey Form: 65 West 57th Street
Base Survey Form: 63 West 57th Street

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

The West 57th Street Historic District is located on the northeast side of West 57th Street between Avenue B and Avenue C in the City of Bayonne, Hudson County, New Jersey. The historic district is situated in the northwest area of Bayonne that was historically known as Pamrapo village prior to the twentieth century. Pamrapo was one of five nineteenth-century villages that would later form Bayonne Township in 1861 and be redesignated Bayonne City in 1869 (Cultural Resource Consulting Group [CRCG] 2000; Snyder 1969:145). Originally a rural resort community, easy access to railroad lines and shipping ports quickly turned the area of Bayonne into an industrial city during the late nineteenth century. The industrial boom attracted immigrants to the area looking for work, and the population drastically increased during the turn of the century. In 1890, the population was approximately 19,000, and by 1910, it had increased to over 55,500. As a result, the need for more housing during the early 1900s led to the development of the land surrounding the subject property (CRCG 2000). Though the routes of West 57th Street, Avenue B, and Avenue C were present during the late nineteenth century, development of the subject district did not occur until the early twentieth century (Sanborn Map Company 1912). By 1912, lots were laid out along West 57th Street; however, no buildings were present until after 1919 (Sanborn Map 1912; Hopkins 1919).

The dwellings at present-day 85, 87, 89, 91, 93, and 95 West 57th Street were built by System Construction Company in December of 1926. A newspaper article noting their completion described them as "similar in style" and priced between $10,600 and $11,300 (JJ, 17 December 1926:33). According to a 1926 article in the *Jersey Journal,* the System Construction Company also built five more dwellings "of a similar character" nearby but did not specify where. Based on stylistic evidence, these additional dwellings are believed to be the residences at present-day 75, 77, 79, 81, and 83 West 57th Street (JJ, 17 December 1926:33). During the 1920s, the System Construction Company appears to have constructed various buildings throughout Bayonne that ranged from single-family residences to multi-unit apartment buildings (JJ, 16 January 1925:14, 4 November 1926:26). According to a newspaper article, the company likely built the four-story apartment building at present-day 894-896 John F. Kennedy Boulevard (JJ, 16 January 1925:14). In 1927, approximately one year after the houses at 75 through 83 West 57th Street were completed, they were foreclosed on and sold together at a Sheriff's Sale to James A. Kelly (JJ, 10 January 1928:18). Though the builders of the remaining 11 properties in the West 57th Street Historic District are unknown, stylistic evidence suggests that they were likely also constructed in groups.

By 1930, all of the early twentieth-century dwellings situated within the historic district were present (NJDEP 2022). A 1934 plat map depicts 14 of the properties with garages or outbuildings situated near the northern corners of the parcels (Hopkins 1934; Figure 1). Between 1934 and 1950, several properties within the historic district underwent alterations including the construction of two-story, one-bay-wide additions on the rear elevations of 99, 101, 105, 107, and 109 West 57th Street and the construction of a one-story garage behind 71 West 57th Street (Sanborn Map Company 1950; Figure 2). In September of 1956, the Bayonne-to-Jersey City segment of the New Jersey Turnpike Newark Bay-Hudson County Extension was completed approximately 100 feet northeast of the West 57th Street Historic District, defining the current rear parcel boundaries of many of the properties (*The New York Times*, 15 September 1956:14).

During the late twentieth century, all of the front porches were likely enclosed with the exception of the porch on 109 West 57th Street. Additions were also added to the rear elevations of 65, 67, 69, 73, and 89 West 57th Street and the southeast elevation of 63 West 57th Street (NETR 1966, 1979, 1987). It was also likely around this time that some of the houses were reclad in aluminum siding. Around 2000, the dwelling at 103 West 57th Street was built between the existing residences at 101 and 105 57th Street, resulting in the demolition of the garage historically associated with 105 West 57th Street (NETR 1995, 2002). The garages at 69, 73, 85, 87, 95, and 101 West 57th Street also appear to have been demolished sometime during the early twenty-first century (NETR 2002, 2008). Modern sheds were constructed behind 83 and 101 West 57th Street sometime during the twenty-first century. Other recent alterations have been limited to the replacement of exterior cladding materials with vinyl siding and the replacement of the original doors and windows on almost all of the houses.

CONTINUATION SHEET

Historic Sites #:

Significance:

The West 57th Street Historic District is a collection of 23 residences that were primarily constructed during the 1920s on the northeast side of West 57th Street in Bayonne, Hudson County, New Jersey. Of the 23 properties included within the historic district, 22 contain early twentieth-century residences. The dwellings of the subject historic district were likely constructed to house immigrant workers that were moving to the area during the industrial boom that occurred in Bayonne in the late nineteenth and early twentieth centuries. Overall, the dwellings within the historic district are typical and unremarkable examples of their type and are highly altered. Generally, these alterations include insensitive additions, and the replacement of original cladding materials, windows, and doors with modern, incompatible materials.

Justification of Eligibility/Ineligibility:

The West 57th Street Historic District is recommended not eligible for listing in the National Register of Historic Places (NRHP). The dwellings in the district were likely constructed in response to the population growth spurred by the industrial boom occurring in Bayonne during the late nineteenth and early twentieth centuries. While the construction of West 57th Street reflects the local development in Bayonne during the early twentieth century, the West 57th Street Historic District does not possess sufficient significance for eligibility under Criterion A. Research did not indicate that the properties within the historic district were associated with prominent individuals or patterns of history, and, therefore, it is not recommended eligible under Criterion B. Architecturally, the residences retain a low degree of historic integrity due to modern alterations such as enclosing the front porches, removing several of the early twentieth-century garages, and replacing the exterior cladding materials, windows, and doors. Furthermore, they are all common and unremarkable examples of their type and are not the work of a master. As a result, the historic district is not eligible under Criterion C. For these reasons, the West 57th Street Historic District is recommended not eligible for listing in the NRHP under Criteria A, B, or C.

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1919 *Plat Book of Jersey City and Bayonne, Hudson County, New Jersey.* G.M. Hopkins Co., Philadelphia, New Jersey.
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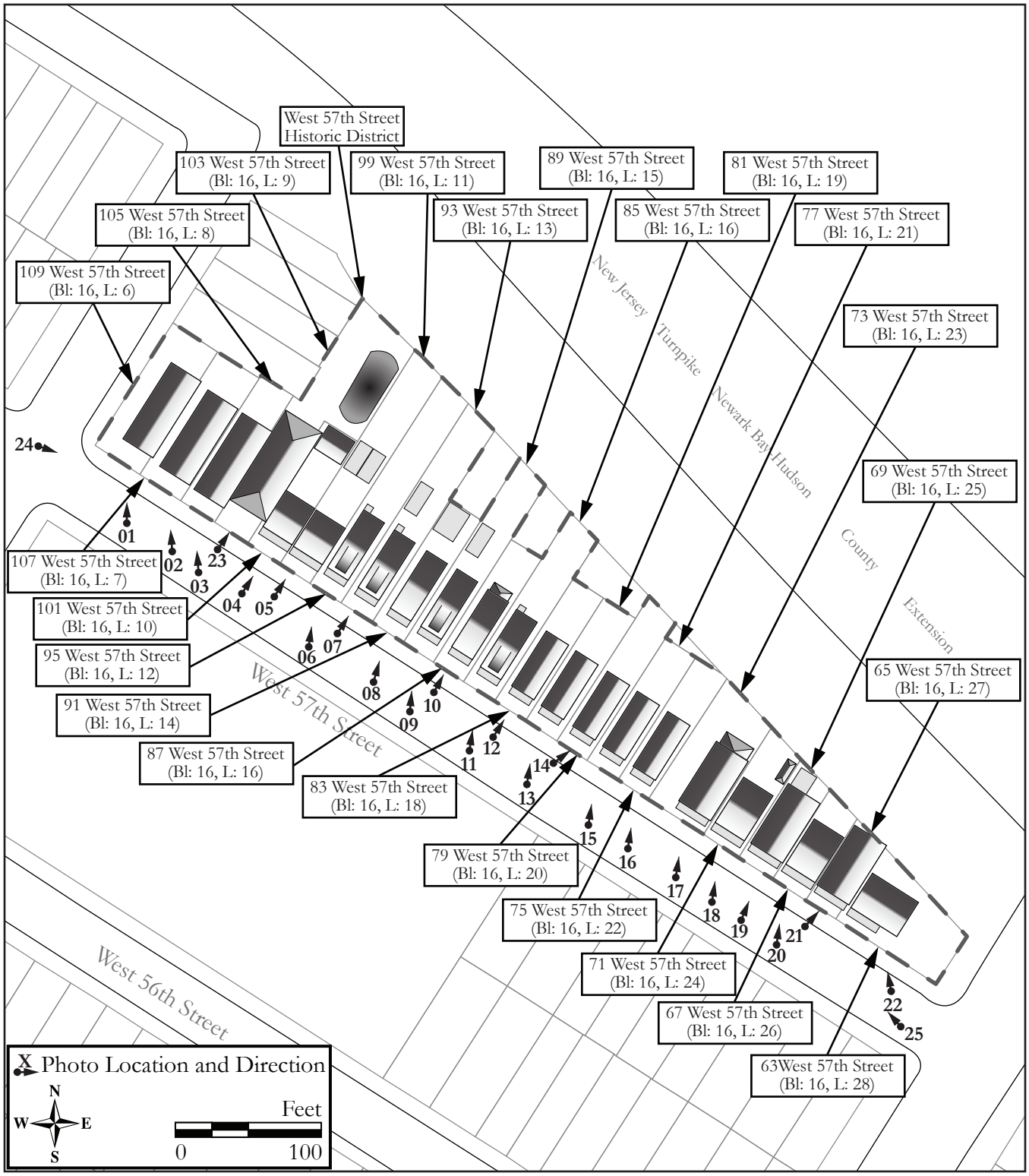
CONTINUATION SHEET

Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Lauren Dunkle

Date: October 2022

Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

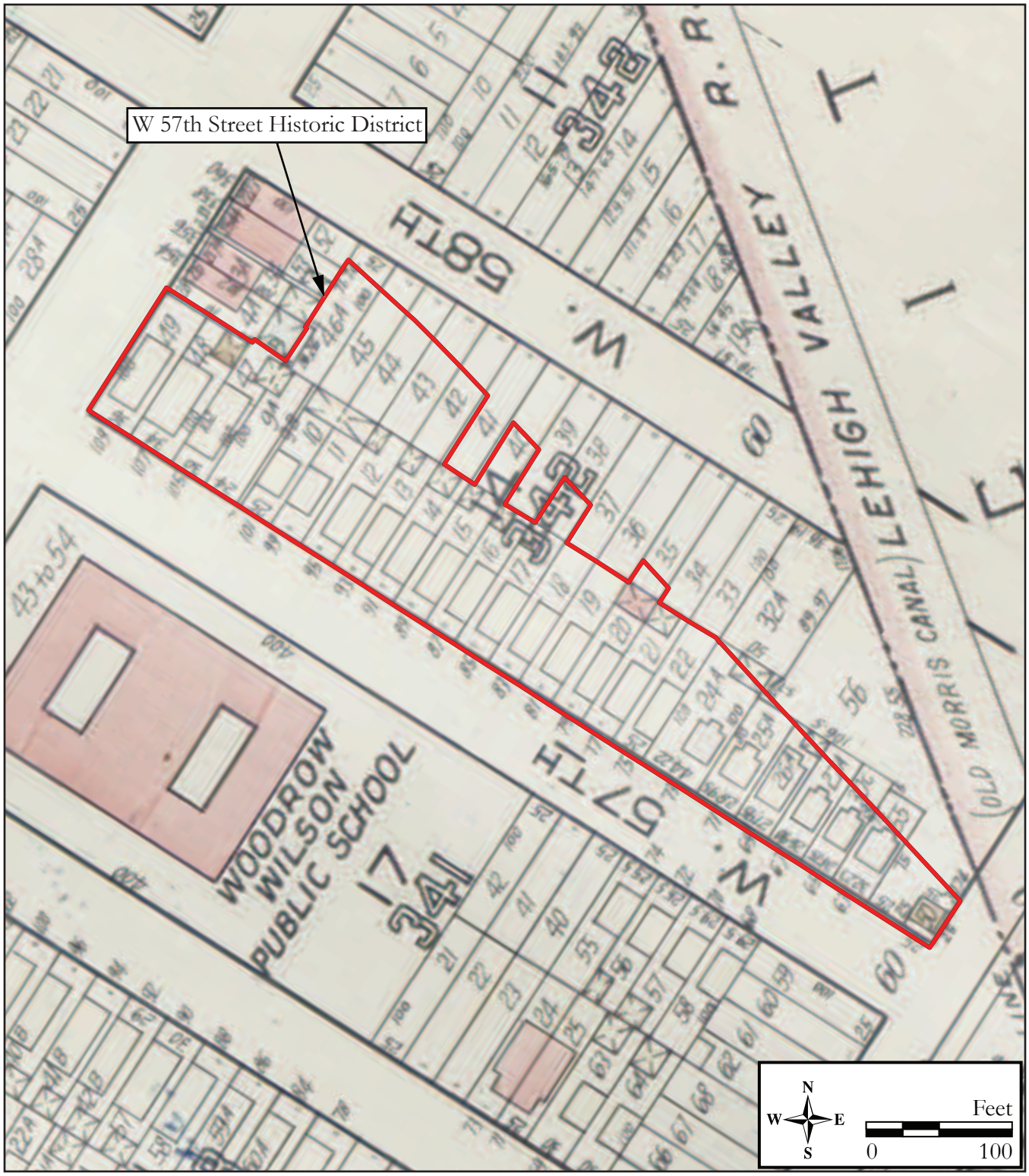


Figure 1: 1934 G. M. Hopkins Co., *Atlas of Hudson County, New Jersey; Volume Two Comprising Jersey City*, depicting the subject buildings within the West 57th Street Historic District.

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CONTINUATION SHEET

Historic Sites #:

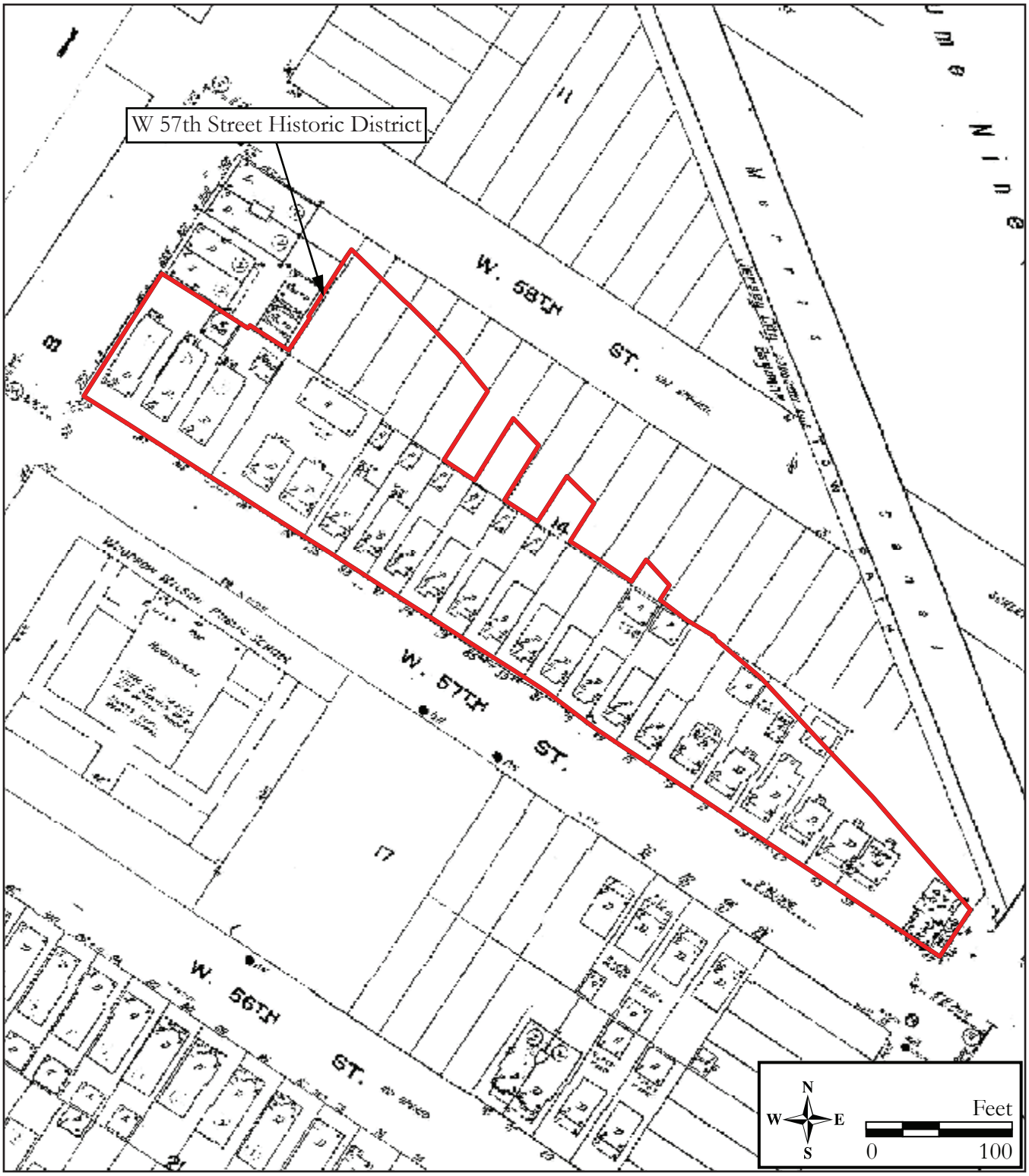

Figure 2: 1950 Sanborn map depicting the subject buildings within the West 57th Street Historic District (Sanborn Map Company 1950).

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Date: October 2022
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CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: North

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 109 West 57th Street.

Plate: 2

Photo view: North

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 107 West 57th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: North

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 105 West 57th Street.

Plate: 4

Photo view: Northeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 101 West 57th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view: Northeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 99 West 57th Street.

Plate: 6

Photo view: North

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 95 West 57th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 7

Photo view: Northeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 93 West 57th Street.

Plate: 8

Photo view: North

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 91 West 57th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 9

Photo view: North

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 89 West 57th Street.

Plate: 10

Photo view: Northeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 87 West 57th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 11

Photo view: North

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 85 West 57th Street.

Plate: 12

Photo view: Northeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 83 West 57th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 13

Photo view: North

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 81 West 57th Street.

Plate: 14

Photo view: Northeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 79 West 57th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 15

Photo view: North

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 77 West 57th Street.

Plate: 16

Photo view: North

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 75 West 57th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 17

Photo view: North

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 73 West 57th Street.

Plate: 18

Photo view: North

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 71 West 57th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 19

Photo view: North

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 69 West 57th Street.

Plate: 20

Photo view: North

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 67 West 57th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 21

Photo view: Northeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 65 West 57th Street.

Plate: 22

Photo view: North

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the dwelling at 63 West 57th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 23

Photo view: Northeast

Photographer: Lauren Dunkle

Date: August 3, 2022

View of the circa 2000 dwelling at 103 West 57th Street.

Plate: 24

Photo view: Southeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Overview of the West 57th Street Historic District from its northwest terminus at the intersection of West 57th Street and Avenue B.

CONTINUATION SHEET

Historic Sites #:

Plate: 25

Photo view: Northwest

Photographer: Lauren Dunkle

Date: August 3, 2022

Overview of the West 57th Street Historic District from its southeast terminus at the intersection of West 57th Street and Avenue C.

BASE SURVEY FORM

Historic Sites #:

Property Name: Woodrow Wilson School Number 10

Street Address: *Street #:* 101 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 18

Local Place Name(s): _____ **Lot(s):** 1

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Built in 1930, the Woodrow Wilson School Number 10 is a brick school building with Collegiate Gothic Revival-style details (Plates 1-10). It consists of a partially embanked, three-story main block with two central courtyards and a three-story, circa-2004 addition to the southeast elevation. Both the main block and the addition have exposed basements on the rear (northeast) elevation. A flat roof with solar panels tops the building and is lined by a brick parapet with stone cornice and coping. The exterior brick walls are laid in a running bond pattern and colossal brick pilasters separate the window bays and accentuate the corners. Windows are primarily single and grouped metal replacement units with stone sills. A stone-capped water table extends below the first-floor windows and wraps around the main block and addition. Entrances contain single and paired metal replacement doors with rectangular lights throughout. *See Building/Element Attachment*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

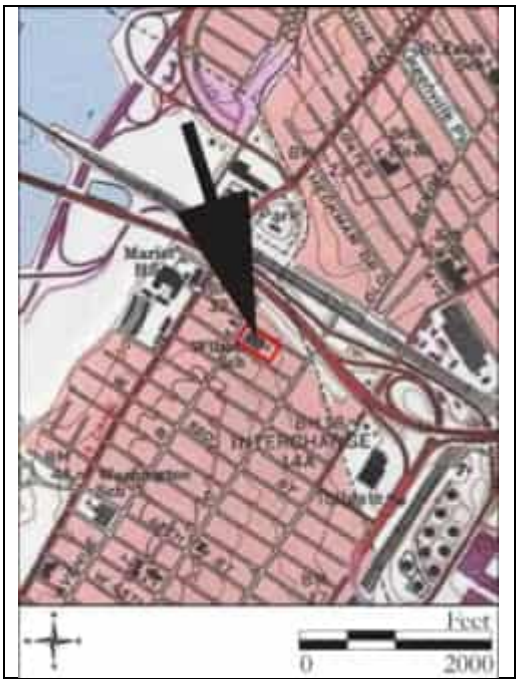
Surveyor: Lauren Dunkle Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
The 2000 Historic Sites Survey for the City of Bayonne identified the Woodrow Wilson School Number 10. The survey described the building as a three-story, Gothic Revival-style school building and made no recommendations for National Register of Historic Places (NRHP) eligibility; however, it was recommended as a potential historic landmark (Cultural Resource Consulting Group [CRCG] 2000).

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Lauren Dunkle Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: Woodrow Wilson School Number 10
Historic Name: Woodrow Wilson School Number 10
Present Use: Institutional Activities, Educational
Historic Use: Institutional Activities, Educational
Construction Date: 1930 **Source:** Date Stone
Alteration Date(s): Circa 2004 **Source:** Nationwide Environmental Title Research [NETR] 2002, 2006
Designer: Donald G. Anderson **Physical Condition:** Good
Builder: Unknown **Remaining Historic Fabric:** High
Style: Gothic Revival
Form: Other **Stories:** 3
Type: N/A **Bays:** 7
Roof Finish Materials: Unknown
Exterior Finish Materials Brick, Running bond

Exterior Description, continued from Base Survey Form:
The primary (southwest) elevation is seven bays wide with a central entrance bay. Windows are generally grouped in banks of five with shared surrounds and metal-clad mullions. The main entrance is emphasized by a slight, three-story-tall projection with a parapet gable accentuated by a foliate acroterion (see Plate 3). A four-centered stone arch with "Woodrow Wilson School" carved above it tops the doorway. Flanking the entrance are three-story-tall brick pilasters with stone bases and recessed panels on the first floor. Between the banks of windows on the second and third stories of the entrance bay is a stone panel with a diaper-patterned quatrefoil motif. Above the bank of windows on the third story is another four-centered arch filled with a simplified crest carved or cast in relief. A finial, capped by a foliate design and flanked by hooded tablets, rises from the center of the arch. The outer bays are narrow and blind. A date stone with the date "1930" is located in the western corner of the primary elevation's foundation (see Plate 4). *See Continuation Sheet*

Interior Description:
The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the exterior visible from the public right-of-way and did not include interior access to the building.

Setting:
The Woodrow Wilson School Number 10 is situated on an approximately 1.80-acre parcel (Block 18, Lot 1) that is flanked by West 56th Street to the southwest, Avenue B to the northwest, and West 57th Street to the northeast. A low metal fence with monumental brick piers spans the southwest, northwest, and northeast perimeters of the property and a tall, chain-link fence lines the southeast border. An asphalt-paved parking lot is located in the southern corner of the parcel between the main block and the addition. Mature trees and shrubs are planted within close proximity of the building's southwest and northwest elevations. The route of the New Jersey Turnpike Newark Bay-Hudson County Extension runs approximately 285 feet north of the subject property.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
Associated with education during the Progressive Era (c. 1900-1930), the Woodrow Wilson School Number 10 is an intact example of an early twentieth-century school building constructed to accommodate a growing student population in Bayonne. Built in 1930, it is one of several school buildings designed by the local school architect, Donald G. Anderson, who was hired by the Bayonne School Board during the early twentieth century to design multiple schools in the area. Today, the Woodrow Wilson School is one of seven extant schools known to have been designed by Anderson in Bayonne. Constructed of brick in the Collegiate Gothic Revival style, the building's design and materials were common of New Jersey schools constructed during the early twentieth century and addressed modern educational theories concerning safety, light, ventilation, and sanitation.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
See Continuation Sheet

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: Woodrow Wilson School Number 10

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

Exterior Description, continued from Building/Element Attachment:

The southeast elevation is asymmetrical and contains a secondary entrance in the second southernmost bay. Similar to the main entrance, it is set within a three-story-tall projection; however, it is topped with a stepped parapet and features stone quoins. The entrance is topped with a four-centered stone arch with stone surrounds that accentuate the windows in the floors above it. A pointed stone arch is featured above the windows on the third floor. The northwest elevation is the most asymmetrical elevation. Like the southeast elevation, it contains a secondary entrance in the second southernmost bay with identical ornamentation to the entrance on the southeast elevation. Two bays north of the secondary entrance is an additional entrance within a raised, one-story, stone-block projection with a stepped parapet. In the bay north of the additional entrance is a one-story-tall, semi-circular projection topped with a flat roof.

Though it is not truly symmetrical due to a blind bay in the westernmost bay and the gentle slope of grade that exposes the basement in the easternmost corner, the rear elevation has an overall tripartite, symmetrical form with the central auditorium flanked by corridors and classrooms. The two outermost sections of the elevation contain central entrance bays that slightly project and feature quoined corners of cast stone. The entrances themselves are recessed within ornamental, cast-stone surrounds capped by finialled, four-centered arches. Similar to the primary elevation, the second- and third-story windows are separated by a narrow cast-stone panel. The third-story windows in each bay occupy lancet-arched openings capped by foliate finials. Access to the basement of the main block is located in the rear elevation's southeasternmost bay.

Extending from the two northernmost bays of the main block's southeast elevation, the circa-2004 addition features a rectangular footprint and is three stories tall with a partially exposed basement. The floor levels match up with that of the main block. Windows are all metal units that are primarily grouped in sets of seven on the southwest and northeast elevations. The brick addition has design elements similar to that of the main block, including the full-height pilasters that separate the window bays and cast stone detailing. Entrances to the addition are irregularly placed on the northwest, southeast, and southwest elevations and consist of paired metal doors. The southeast elevation contains a single column of windows in the center, suggesting that the interior features a double-loaded corridor on all three floors. Both the main block and addition have stone foundations.

History:

The Woodrow Wilson School Number 10 (referred to as Woodrow Wilson School hereafter) was built in 1930 in response to the growing student population in Bayonne City during the first few decades of the twentieth century. Located at 101 West 56th Street, the subject property is situated in the northwest region of Bayonne, historically known as Pamrapo village prior to the twentieth century. Pamrapo was one of five nineteenth-century villages that would later form Bayonne Township in 1861 and be redesignated Bayonne City in 1869 (CRCG 2000; Snyder 1969:145). When the city first received its charter, only two schools were present; however, five brick schools were quickly constructed within the first decade (*Jersey Journal* [JJ], 18 April 1961:9). Many of Bayonne's nineteenth-century schools have since been demolished and replaced with the early twentieth-century buildings that still stand today.

Originally a rural resort community, the area of Bayonne quickly turned into an industrial city during the late nineteenth century due to easily accessible railroad lines and shipping ports. The regional industrial boom attracted immigrants in search of work, and the population drastically increased during the turn of the century. In 1890, the population was approximately 19,000, and by 1910, it had increased to over 55,500. The population of Bayonne increased well into the twentieth century, reaching 88,930 by 1930 (CRCG 2000). The rapid population growth further necessitated the construction of additional public schools in Bayonne during what was known as the Progressive Era (c. 1900-1930) (CRCG 2000; DMR Architects 2017). It was during this time that the design of school buildings reflected scientific ideas of sanitation, ventilation, and educational settings with larger, multi-room school buildings being built in place of the nineteenth-century, one-room school buildings (State of New Jersey Department of Public Instruction 1927). As a result, school buildings built during the first three decades of the twentieth century became larger and more elaborate so that they could house more students as well as meet the needs of the evolving school curriculum at the time.

CONTINUATION SHEET

Historic Sites #:

History, continued:

In 1912, the State Board of Education in New Jersey adopted the State School Building Code which, in addition to addressing sanitary concerns, focused on safety measures in schools and the inclusion of specialized spaces in the building (New Jersey Commissioner of Education 1918). An increased awareness of health and fire safety measures during the Progressive Era also influenced the design and layout of early twentieth-century school buildings. Large functional windows and high-ceilinged classrooms circulated natural light and air and were two common examples of architectural elements used to enhance a school's sanitary conditions. In terms of safety measures, the early twentieth-century schools were often arranged around a linear corridor with staircases placed at the ends of the buildings. This arrangement enabled occupants to exit a building more efficiently and safely during a fire or other emergency than the more common central location observed in other nineteenth-century school buildings (Michigan State Historic Preservation Office 2003).

The scientific attitude of the Progressive Era towards education resulted in a re-examination of student curriculum that shifted towards specialized coursework (West 1964). The expanded curriculum necessitated specialized classrooms and facilities not previously seen in school buildings, including rooms designated for art, music, and physical education. Community education was also important during this period and public-school grounds and buildings were increasingly used by members of the community. As schools became more integrated for community use, gymnasiums and auditoriums became more common in school plans (Michigan State Historic Preservation Office 2003). Occasionally combined, this space was typically located near the first-story entrance for easy access by the general public. In 1914, the New Jersey Department of Public Instruction issued its *Desirable Physical Standards of Good Schools*. In general, the department recommended well-proportioned buildings on a good foundation, with expansive, ceiling-high windows, and to be "substantial in appearance" (New Jersey Department of Public Instruction 1914: 10-11).

Hired by the Bayonne School Board during the early twentieth century, Donald G. Anderson designed at least seven school buildings in the city between 1919 and 1931, including the subject Woodrow Wilson School. It is possible that Anderson designed more schools in Bayonne during this time; however, recordation of his work was limited. In addition to the Woodrow Wilson School, his other works included the Junior High Vocational School at 669 Avenue A, the Henry Harris School Number 1 at 135 Avenue C, the Mary J. Donohue School Number 4 at 25 East 5th Street, the Lincoln Community School Number 5 at 208 Prospect Avenue, the Horace Mann School Number 6 at 25 West 38th Street, and the George Washington School Number 9 at 191 Avenue B (JJ, 25 January 1926:16, 25 July 1919:6, 2 March 1923:12, 14 September 1925:12; *The Courier News* 29 January 1924:3; *The American Architect* 1919:251; CRCG 2000). All constructed of brick, the seven extant schools vary in style including the Beaux Arts, Greek Revival, and Gothic Revival styles. A newspaper article also suggests that Anderson designed additions for existing schools, including the Bayonne Senior High School which was constructed circa 1935 and located at 669 Avenue A (CRCG 2000; JJ, 25 January 1926:16).

Anderson's consideration of the new sanitary and safety measures is best documented in his design of the nearby George Washington School Number 9 which was featured in the 1919 publication of *The American Architect*. Using the most up-to-date mechanical equipment for sanitation and ventilation at the time, his design was referred to as an "excellent example of the latest developments in American elementary school buildings" (*The American Architect* 1919:251). Comprised of 30 classrooms that included spaces for general instruction, cooking, sewing, and workshops, the rooms were organized on the exterior of the building with a gymnasium and a large auditorium placed in the center of the building. The use of skylights in this design further allowed for both daylight and ventilation in all major indoor spaces. The building was also built to be fire-resistant using reinforced concrete and brick on the exterior walls (*The American Architect* 1919:251-255).

Constructed for $1,000,000, the Woodrow Wilson School was designed as an elementary school in 1929 and erected in 1930 (JJ, 7 June 1929:22, 20 February 1931:16). The Gothic Revival style utilized for the Woodrow Wilson School followed the trends of the time period, and its symmetry and ornamental details added an air of formality to the building.

CONTINUATION SHEET

Historic Sites #:

History, continued:

Though documentary information about Anderson's design for the Woodrow Wilson School was limited, physical evidence suggests that its design followed similar concepts and principles used in the Washington School Number 9. Classrooms were lined along the exterior walls and the presence of large banks of windows on each story allows for abundant light and ventilation in each room. Additional light and ventilation are also provided to the more centralized spaces by the two interior courtyards (Sanborn Map Company 1950).

A plat map depicts the main block of the brick school building four years after it was completed (Hopkins 1934; Figure 1). The 1950 Sanborn Map reveals that no changes were made to the building's footprint by the mid-twentieth century. It also provides some insight to the building's layout depicting a central auditorium and classrooms lining the exterior walls of the building (Sanborn Map Company 1950; Figure 2). In 1951, a fire damaged the school's auditorium, requiring extensive repairs (Sanborn Map Company 1950; JJ, 11 December 1951:13). The building continued to operate as an elementary school through the second half of the twentieth century. Renovations to the Woodrow Wilson School in October of 1961 included the replacement of the boilers and extensive electrical work (JJ, 12 October 1961:4). Late twentieth-century alterations to the building included renovating of the child hygiene clinic on the first floor of the school in November of 1995 and incorporating a new kitchen. By the end of the twentieth century, the school also offered learning-accessible classes for students with special needs, such as a "Fresh Air Class" designed to improve their "physical vitality" (JJ, 14 November 1995:2). Since its construction, some changes have occurred to the exterior of building. Between 2002 and 2006, the addition to the southeast elevation was built, and the original windows were replaced with smaller, metal units sometime after 2000 (NETR 2002, 2006; CRCG 2000).

Justification of Eligibility/Ineligibility:

The Woodrow Wilson School Number 10 is recommended not eligible for individual listing in the NRHP. Built in 1930, the Woodrow Wilson School is one of seven extant school buildings in Bayonne that were designed by architect Donald G. Anderson during the early twentieth century. Though they vary in style, his designs appear to have followed the common trends of school design during the Progressive Era (c. 1900-1930) which generally included the use of fire-resistant materials, such as brick, and the incorporation of large windows and courtyards for natural light and ventilation. All seven of the schools known to be designed by Anderson are still standing and they all have undergone similar twentieth-century alterations including the replacement of windows and doors. A majority of the schools have also been expanded with additions of varying sizes. Of the seven schools, the Lincoln Community School Number 5 has been determined individually eligible for listing in the NRHP (SHPO Opinion: 2/28/1991). Similar to the Woodrow Wilson School Number 10, the Lincoln Community School Number 5 has undergone some modern alterations including the construction of a late twentieth-century addition and the replacement of the windows and doors.

In comparison to Anderson's other works in the City of Bayonne, the subject building is not a particularly outstanding or compelling example of his work. The Woodrow Wilson School Number 10 is a common example of an early twentieth-century, architect-designed school building found throughout the State of New Jersey. It, along with Anderson's other schools, was constructed in a style and form common within the state to accommodate the growing population of school children at the time. While the Woodrow Wilson School Number 10 does exhibit some elements of design which aided in achieving new ideas of sanitation, these are reflective of broader, nationwide patterns. Furthermore, the subject building was built at the end of the Progressive Era (c. 1900-1930) and was not an innovative example of the building type, nor is it a prototype from which other buildings were based. While the building does retain a high degree of its original architectural features, such as the exterior stone detailing, the replacement of the windows and doors and the construction of the circa-2004 addition detract from the building's architectural integrity of design, materials, and workmanship. As a result, the Woodrow Wilson School Number 10 does not qualify as eligible under Criterion C. For these reasons, the Woodrow Wilson School Number 10 is recommended not eligible for individual listing in the NRHP under Criteria A, B, or C. The building was not evaluated under NRHP Criterion D.

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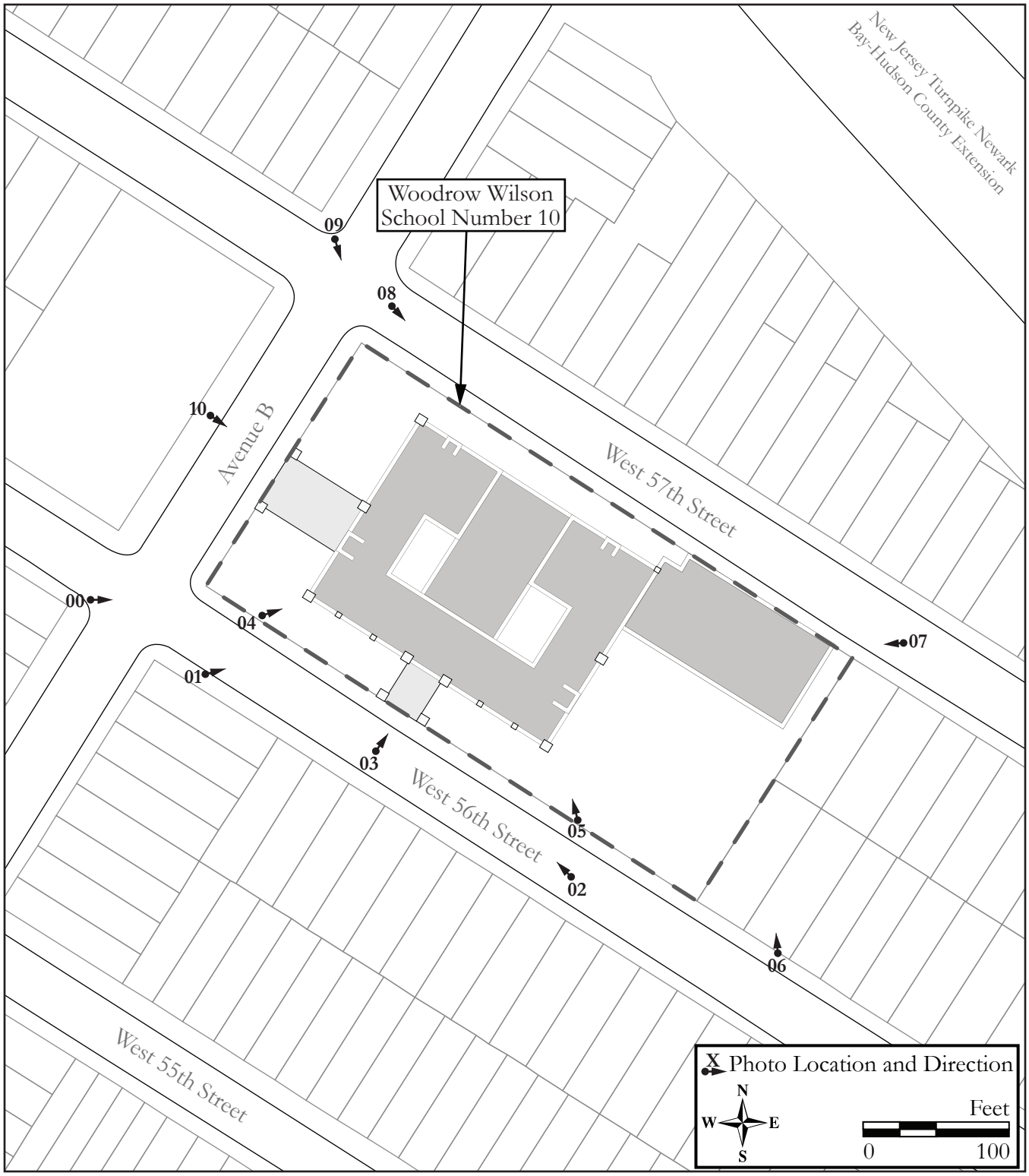


Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Lauren Dunkle
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

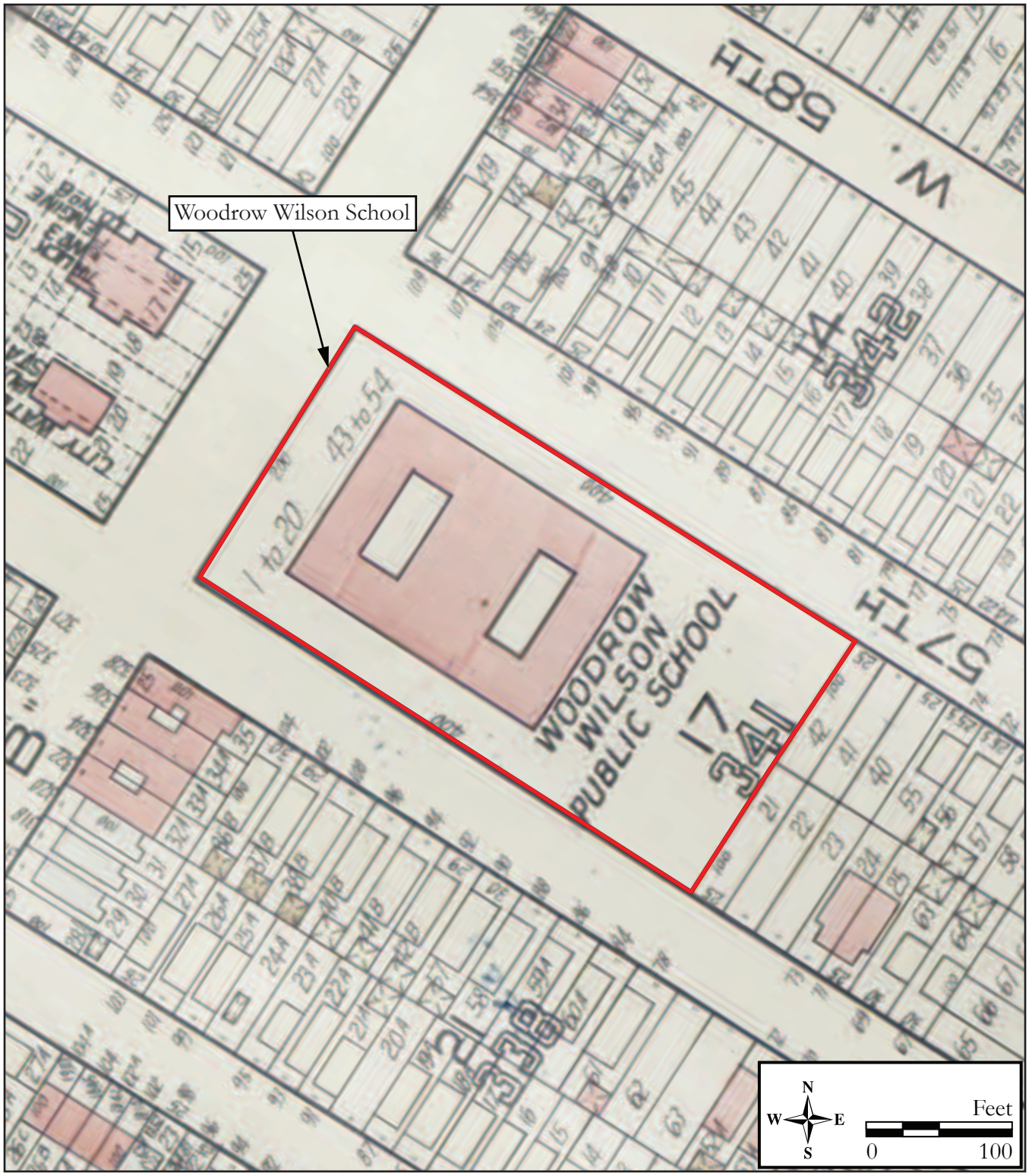


Figure 1: 1934 G. M. Hopkins Co., *Atlas of Hudson County, New Jersey; Volume Two Comprising Jersey City*, depicting the Woodrow Wilson School Number 10.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Lauren Dunkle
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

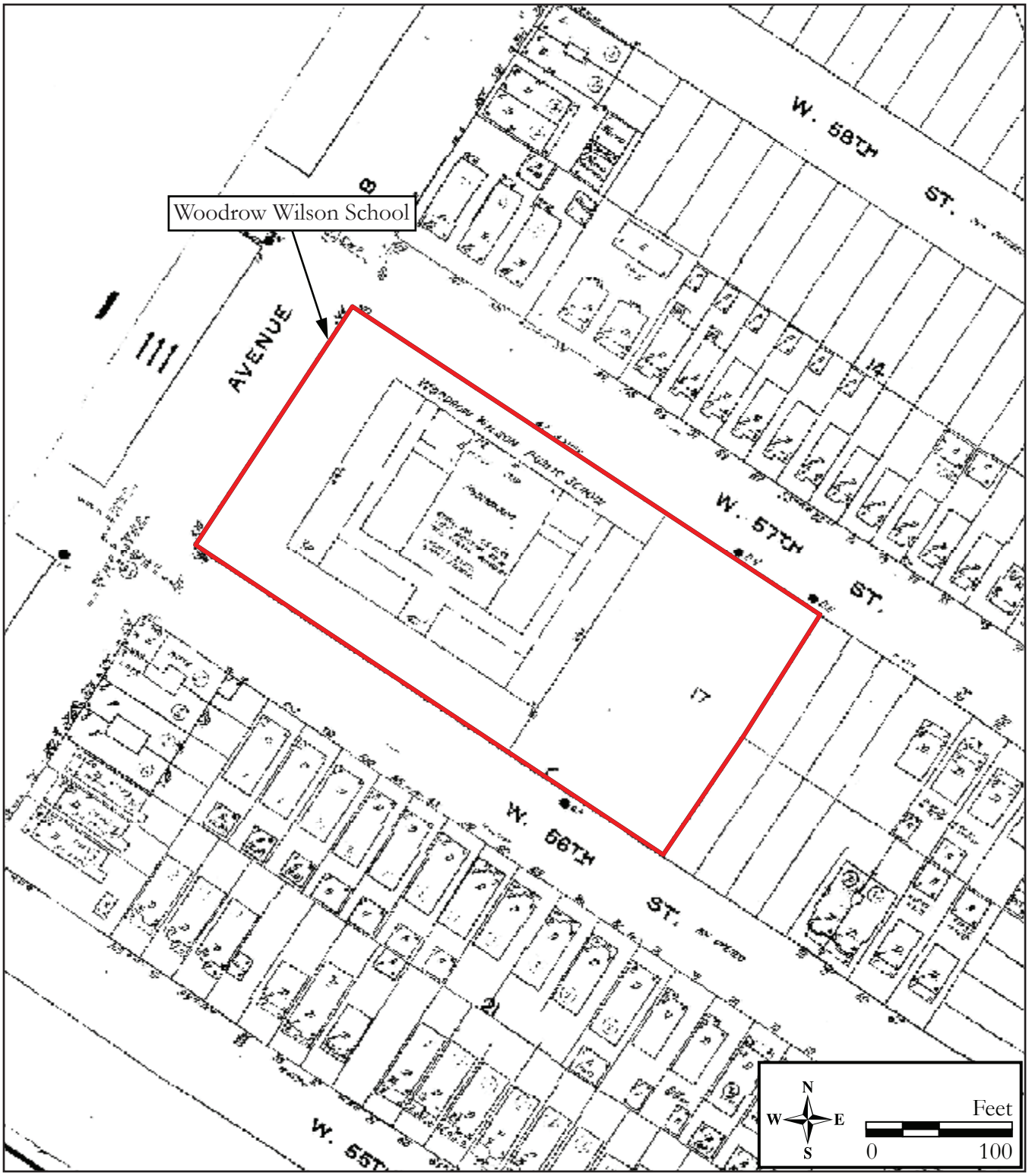


Figure 2: 1950 Sanborn Fire Insurance Map, *Bayonne, Hudson County, New Jersey,* depicting Woodrow Wilson School Number 10.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Lauren Dunkle
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Northeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the west corner of the Woodrow Wilson School Number 10, showing the primary (southwest) and northwest elevations.

Plate: 2

Photo view: Northwest

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the Woodrow Wilson School Number 10's primary elevation.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Northeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Detail view of the Woodrow Wilson School Number 10's main entrance.

Plate: 4

Photo view: Northeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Detail view of the Woodrow Wilson School Number 10's date stone.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view: Northwest

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the Woodrow Wilson School Number 10's south corner, showing the primary and southeast elevations.

Plate: 6

Photo view: North

Photographer: Lauren Dunkle

Date: August 3, 2022

Overview of the twenty-first-century addition, showing the southwest elevation.

CONTINUATION SHEET

Historic Sites #:

Plate: 7

Photo view: West

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the twenty-first-century addition's east corner, showing the southeast and northeast elevations.

Plate: 8

Photo view: Southeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the Woodrow Wilson School Number 10's rear (northeast) elevation.

CONTINUATION SHEET

Historic Sites #:

Plate: 9

Photo view: South

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the Woodrow Wilson School Number 10's north corner, showing the rear and northwest elevation.

Plate: 10

Photo view: Southeast

Photographer: Lauren Dunkle

Date: August 3, 2022

View of the Woodrow Wilson School Number 10's northwest elevation.

BASE SURVEY FORM

Historic Sites #:

Property Name: 62 West 57th Street

Street Address: *Street #:* 62 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 57th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 18

Local Place Name(s): _____ **Lot(s):** 11

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

The building at 62 West 57th Street is a one-and-one-half-story-tall dwelling of frame construction atop a parged foundation, built circa 1954 (Plates 1-8). It consists of a two-bay-wide, four-bay-deep, main block and a circa-1995 second-story addition on the rear (southwest) elevation, both of which are capped with front-gabled roofs. The roof is clad in asphalt shingles throughout. A shed-roofed dormer runs almost the entire depth of the dwelling's main block on the southeast slope of the roof. An off-center, interior brick chimney pierces this dormer. A second shed-roofed dormer extends along the back half of the northwestern roof slope. The exterior of the dwelling is clad in imitation wood vinyl shingle siding, and windows throughout are all double-hung, vinyl-sash replacement units. Basement-level windows in the raised foundation wall are visible above grade and have been infilled with plywood (see Plates 5 and 6). Facing West 57th Street, the primary (northeast) elevation contains the main entrance, located in the east bay of the first story (see Plates 1 and 2). It consists of a modern, six-paneled door with rectangular lights in the top two panels, and a modern, exterior glass-and-metal storm door. The entrance is accessed by an uncovered porch, which consists of a thin concrete slab above a continuous brick foundation and spans the east bay. *See Building/Element Attachment*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

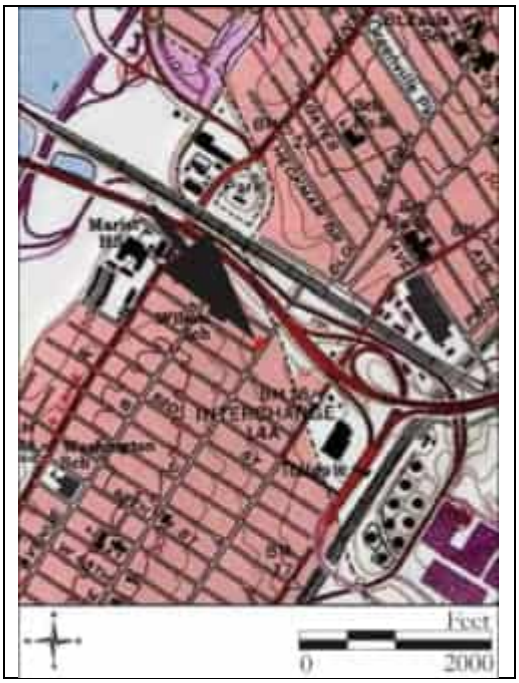
Surveyor: Alison Eberhardt Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: 62 West 57th Street

Historic Name: 62 West 57th Street

Present Use: Residential Activity, Permanent

Historic Use: Residential Activity, Permanent

Construction Date: Circa 1954 **Source:** Sanborn Map Company 1950; Nationwide Environmental Title Research [NETR] 1954

Alteration Date(s): Circa 1990 **Source:** NETR 1987, 1995

Designer: Unknown **Physical Condition:** Good

Builder: Unknown **Remaining Historic Fabric:** Medium

Style: None

Form: Gable Front **Stories:** 1.5

Type: N/A **Bays:** 2

Roof Finish Materials: Asphalt Shingle

Exterior Finish Materials Vinyl

Exterior Description:

Continued from Base Survey Form

A set of brick and stone stairs extend from the porch to a concrete sidewalk in front of the house; the stairs are slightly narrower than the porch. Modern metal railings line the stoop and stairs. The westernmost bay of the first floor of the primary elevation contains a set of three double-hung vinyl sash windows. Windows on the first floor of the main block and primary entrance are capped with Colonial Revival-inspired dentillated cornices that have been applied over the siding. The primary elevation also contains a three-sided, angled bay window in the gable end. The bay window is supported by triangular brackets and capped by a hipped roof. It contains three vinyl-sash windows, and the central window is wider than the two flanking windows. At some point, a thru-wall air conditioner was installed to the east of the bay window. Scalloped vinyl shingles accent the gable end above the bay window, where a rectangular, louvered vent pierces the attic wall directly below the gable peak. The southeast and northwest elevations of the main block both have asymmetrical vinyl-sash windows that match the units throughout the building (see Plates 2-4). A full-width addition projects from the second story of the rear (southwest) elevation. It is supported by a steel beam that rests on two steel columns on each end of the beam. The steel beam is located at about half the depth of the addition, and the rear half of the addition cantilevers out from the beam. Two vinyl-sash windows pierce the addition's southwest elevation (see Plate 5). A thru-wall air conditioner was installed at the northeast corner of the southeast elevation of the addition. A secondary entrance, located on the first story of the rear elevation of the main block, is sheltered by the second-story addition. This secondary entrance contains a modern, paneled wood door with three sidelights at the top, and it is accessed by the concrete driveway to the rear of the building.

Interior Description:

The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the exterior visible from the public right-of-way and did not include interior access to the building.

Setting:

The dwelling at 62 West 57th Street is sited on a rectangular-shaped parcel (Block 18, Lot 11) bordered by West 57th Street to the northeast, Avenue C to the southeast, and two residential buildings to the southwest and northwest. The building is oriented with its primary elevation facing northeast and is set back approximately 35 feet from West 57th Street. Mature trees and shrubs and a concrete sidewalk line the northeast and southeast boundaries of the parcel. A concrete driveway extends from Avenue C to the southwest corner of the dwelling. The subject property is located within an urban setting and is generally surrounded by early twentieth-century residences. The New Jersey Turnpike Newark Bay-Hudson County Extension is located approximately 150 feet to the northeast of the building.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
62 West 57th Street was constructed circa 1954 in the City of Bayonne, Essex County, New Jersey. By the time of its construction, the City of Bayonne was heavily developed as a residential and industrial area with ties to New York City via the shipping industry and, later, the New Jersey Turnpike Newark Bay-Hudson County Extension, which finished construction after the construction of the subject dwelling. Number 62 West 57th Street is a typical example of a mid-twentieth-century residence and has a late twentieth-century second-floor rear addition.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The dwelling at 62 West 57th Street is recommended not eligible for listing in the National Register of Historic Places (NRHP). Research did not indicate that the subject property was associated with prominent individuals in Bayonne or New Jersey or that the dwelling was tied to the development of the area. Architecturally, the building is a common and unremarkable example of its type. Although it retains integrity of its setting and location, it has lost integrity of design, materials, workmanship, feeling, and association. The subject building is one of many mid-twentieth-century residences found throughout the City of Bayonne and is not the work of a master. Additionally, the building is not a representative example of any building form or architectural style. For these reasons, the dwelling at 62 West 57th Street is recommended not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 62 West 57th Street

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

The dwelling at 62 West 57th Street is located on the southwest side of the street on the west corner of its intersection with Avenue C in the City of Bayonne, Hudson County, New Jersey. The surrounding area is characterized primarily by residential buildings, with some industrial and commercial properties located near Newark Bay. Originally a rural resort community, easy access to railroad lines and shipping ports quickly turned the area of Bayonne into an industrial city during the late nineteenth century. The industrial boom attracted immigrants to the area looking for work and the population drastically increased during the turn of the century. In 1890, the population was approximately 19,000 people, and by 1910, it had increased to over 55,500 residents. As a result, the need for more housing during the early 1900s led to the development of the land surrounding the subject property (CRCG 2000; Hopkins 1919, 1934).

Though the routes of Avenue C and West 57th Street were present during the late nineteenth century, the subject property was not platted until the early twentieth century (Sanborn Map Company 1912; Hopkins 1919). By 1912, lots were laid out at the intersection of Avenue C and West 57th Street; however, no buildings had been erected, and the present site of 62 West 57th Street is depicted as having its plot running parallel to West 57th Street and facing Avenue C, as opposed to its current alignment fronting West 57th Street (Sanborn Map 1912). A 1950 Sanborn Map of Bayonne also depicted the lot as fronting Avenue C (Sanborn Map Company 1950; Figure 1).

The dwelling at 62 West 57th Street was constructed sometime between 1950 and 1954 (Sanborn Map Company 1950; NETR 1954). A 1954 historic aerial image depicts the main block of the dwelling with a rectangular footprint that runs parallel to Avenue C and fronts on West 57th Street with small front and back yards (NETR 1954; Figure 2). Since the building's construction, a second-floor addition was added on to the rear (south) elevation of the building sometime between 1987 and 1995 (NETR 1987, 1995). The building has remained largely unchanged since 1995. Additionally, sometime after 1995, the windows were replaced with vinyl units, the angled-bay window was added to the gable end of the facade, the siding was replaced with imitation wood shingle vinyl siding, and applied cornices were installed over the first-story openings.

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Bibliography, continued:

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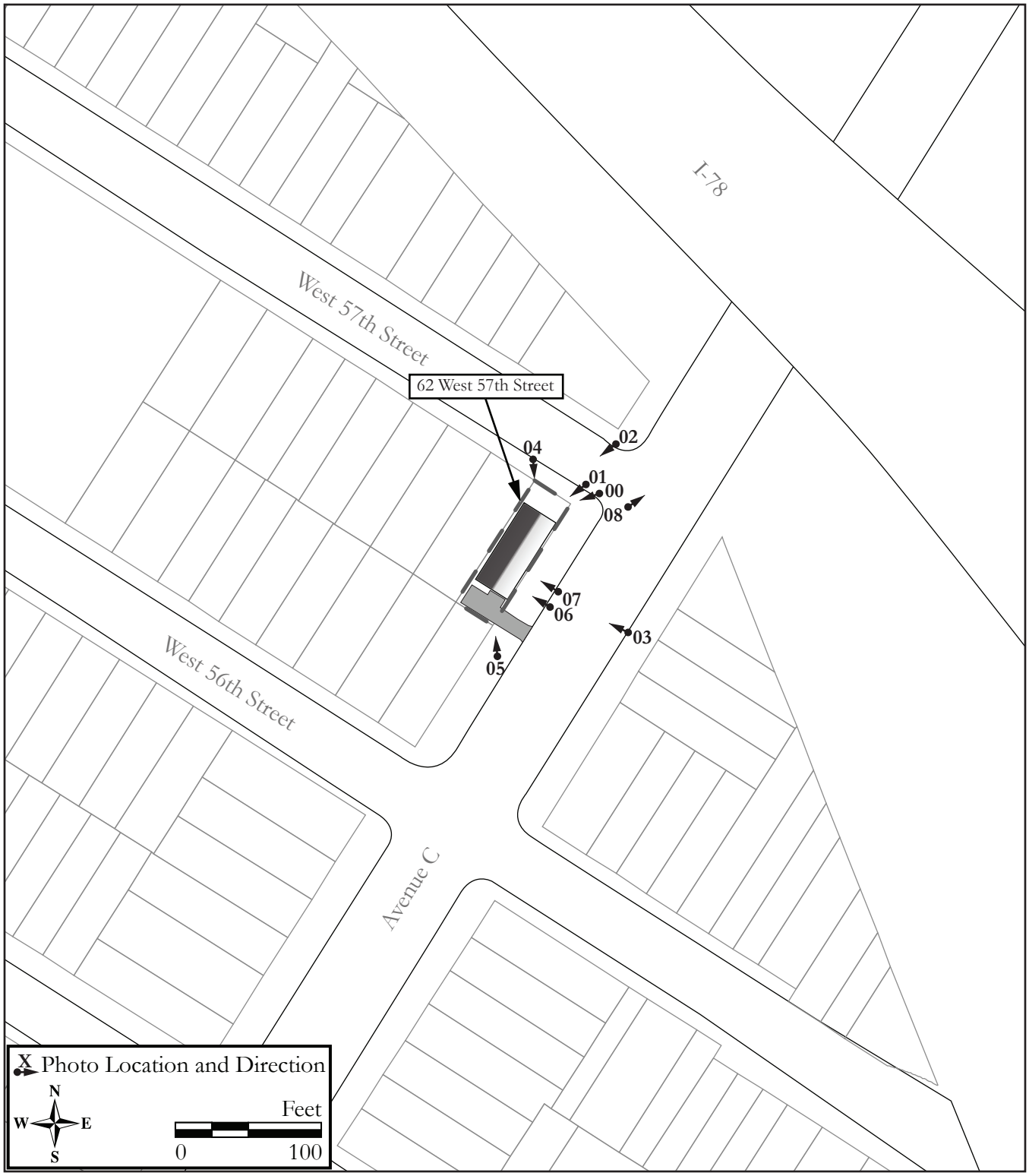


Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Alison Eberhardt

Date: October 2022

Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

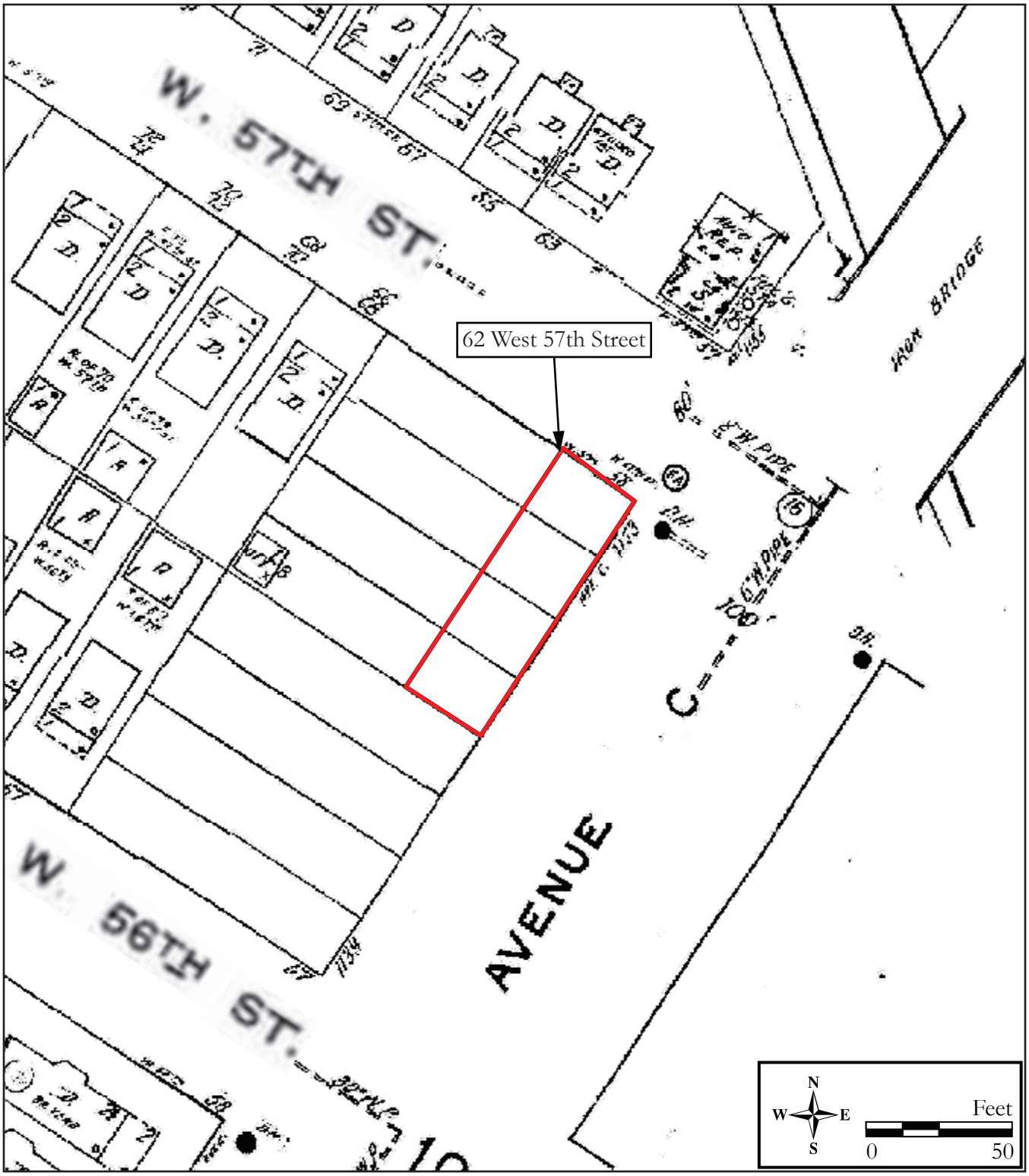


Figure 1: 1950 Sanborn Fire Insurance Map, *Bayonne, Hudson County, New Jersey*, depicting 62 West 57th Street.

CONTINUATION SHEET

Historic Sites #:

Figure 2: 1954 aerial photograph of 62 West 57th Street (Source: NETR 1954).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Southwest

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the primary (northeast) elevation of 62 West 57th Street.

Plate: 2

Photo view: Southwest

Photographer: Alison Eberhardt

Date: August 3, 2022

Perspective view of the east corner of 62 West 57th Street, showing the primary and southeast elevations.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Northwest

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the southeast elevation of 62 West 57th Street facing Avenue C.

Plate: 4

Photo view: South

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the northwest elevation of 62 West 57th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view: North

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the rear (southwest) elevation of 62 West 57th Street.

Plate: 6

Photo view: West

Photographer: Alison Eberhardt

Date: August 3, 2022

View of a typical window unit on the southeast elevation of 62 West 57th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 7

Photo view: West

Photographer: Alison Eberhardt

Date: August 3, 2022

A basement window opening on the southeast elevation of 62 West 57th Street, infilled with plywood.

Plate: 8

Photo view: Northeast

Photographer: Alison Eberhardt

Date: August 3, 2022

Looking northeast at the New Jersey Turnpike Newark Bay Extension from 62 West 57th Street.

BASE SURVEY FORM

Historic Sites #:

Property Name: 61 West 56th Street

Street Address: *Street #:* 61 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 18

Local Place Name(s): _____ **Lot(s):** 10

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

The building at 61 West 56th Street is a one-and-one-half-story-tall dwelling built circa 1954 (Plates 1-8). The building consists of a two-bay-wide by five-bay-deep, front-gabled main block and a circa-1975, one-story-tall, shed-roof addition extending from the northeast corner of the main block's rear (northeast) elevation. The roof is sheathed in asphalt shingles. A one-bay-wide shed dormer is located in the center of the southeast slope of the roof (see Plate 4). On the northwest slope is a two-bay-wide shed dormer, which is pierced by an off-center, interior brick chimney (see Plate 2). The exterior of the dwelling is clad in vinyl siding. Windows on the first and second floors of the dwelling are vinyl-sash replacement units, and there are wood-sash units located on the basement level (see Plates 6 and 7). Facing West 56th Street, the primary (southwest) elevation contains the main entrance, located in the westernmost bay (see Plates 1-3). It consists of a modern door and a metal storm door.

See Building/Element Attachment

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

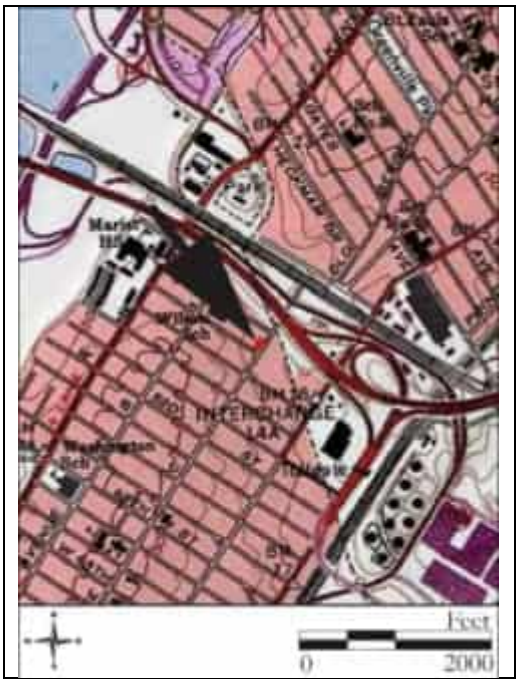
Surveyor: Alison Eberhardt Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: 61 West 56th Street
Historic Name: 61 West 56th Street
Present Use: Residential Activity, Permanent
Historic Use: Residential Activity, Permanent
Construction Date: Circa 1954 **Source:** Sanborn Map Company 1950; Nationwide Environmental Title Research [NETR] 1954
Alteration Date(s): Circa 1975 **Source:** NETR 1966, 1979
Designer: Unknown **Physical Condition:** Good
Builder: Unknown **Remaining Historic Fabric:** Low
Style: None
Form: Gable Front **Stories:** 1.5
Type: N/A **Bays:** 2
Roof Finish Materials: Asphalt Shingle
Exterior Finish Materials Vinyl Siding

Exterior Description:

Continued from Base Survey Form

The main entrance is sheltered by a metal awning, installed circa 2013, and is accessed by a set of brick stairs that extend halfway across the width of the primary elevation. The eastern bay of the primary elevation is occupied by a tripartite picture window. The first floor of the primary elevation is separated from the gable end by a raking cornice running the width of the entire façade; the raking cornice and fenestration of the primary elevation are elements of the Colonial Revival and Minimal Traditional styles. A pair of double-hung, vinyl-sash window units are located in the center of the gable above the pent roof, and a vent is located near the apex. The northwest and southeast elevations contain asymmetrical fenestration patterns, yet both elevations contain similar double-hung, vinyl- and-wood-sash window units (see Plates 2-4). The southeast elevation also contains a secondary entrance in the center bay. The secondary entrance contains a wood door and a metal screen door and is sheltered by a metal and glass awning (see Plate 4). Vinyl-sash window units, similar to those on the rest of the building, are also used on the rear addition, which is capped with a shed roof (see Plates 4 and 5).

Interior Description:

The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the exterior visible from the public right-of-way and did not include interior access to the building.

Setting:

The dwelling at 61 West 56th Street is sited on a rectangular-shaped parcel (Block 18, Lot 10) in the City of Bayonne, Hudson County, New Jersey. The property is bordered by West 56th Street to the southwest, Avenue C to the southeast, and dwellings to the northwest and northeast. The building is oriented with its primary elevation facing southwest and is set back approximately 30 feet from West 56th Street. Mature trees, shrubs, and a concrete sidewalk line the southeast and southwest side of the property. A concrete driveway extends from Avenue C and occupies the rear portion of the parcel. The subject property is located within an urban setting and is generally surrounded by early twentieth-century residences. The New Jersey Turnpike Newark Bay-Hudson County Extension is located approximately 280 feet northeast of the building.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
Number 61 West 56th Street was constructed circa 1954 in the City of Bayonne, Hudson County, New Jersey. By the time of its construction, the City of Bayonne was heavily developed as a residential and industrial area with ties to New York City via the shipping industry and, later, the New Jersey Turnpike Newark Bay-Hudson County Extension, which finished construction after the construction of the subject dwelling. The dwelling is a typical example of a mid-twentieth-century residence with elements of the Colonial Revival and Minimal Traditional styles and has a late twentieth-century, first-floor rear addition.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The dwelling at 61 West 56th Street is recommended not eligible for listing in the National Register of Historic Places (NRHP). Research did not indicate that the subject property was associated with prominent individuals in Bayonne or New Jersey, or that the dwelling was tied to the development of the area. Architecturally, the building is a common and unremarkable example of its type. Although it retains integrity of location and setting, the building does not retain integrity of materials, workmanship, design, feeling, and association. The subject building is one of many mid-twentieth-century residences found throughout the City of Bayonne and is not the work of a master. For these reasons, the dwelling at 61 West 56th Street is recommended not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 61 West 56th Street

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

The dwelling at 61 West 56th Street is located on the northwest side of the intersection of West 56th Street and Avenue C in the City of Bayonne, Hudson County, New Jersey. The surrounding area is characterized primarily by residential buildings, with some industrial and commercial properties located near Newark Bay. Originally a rural resort community, easy access to railroad lines and shipping ports quickly turned the area of Bayonne into an industrial city during the late nineteenth century. The industrial boom attracted immigrants to the area looking for work, and the population drastically increased during the turn of the century. In 1890, the population was approximately 19,000 people, and by 1910, it had increased to over 55,500 residents. As a result, the need for more housing during the early 1900s led to the development of the land surrounding the subject property (CRCG 2000; Hopkins 1919, 1934).

Though the routes of Avenue C and West 56th Street were present during the late nineteenth century, development of the subject property did not occur until the early twentieth century (Sanborn Map Company 1912; Hopkins 1919). By 1912, lots were laid out at the intersection of Avenue C and West 57th Street; however, no buildings were present, and the present site of 61 West 56th Street is depicted as having its plot running parallel to West 56th Street and facing Avenue C, as opposed to its current arrangement fronting West 56th Street (Sanborn Map 1912). This same parcel orientation is illustrated again on a 1950 Sanborn map (Sanborn Map Company 1950; Figure 1).

By 1954, the subject dwelling at 61 West 56th Street was constructed (Sanborn Map Company 1950; NETR 1954). A 1954 historic aerial image depicts the main block of the house with a rectangular footprint oriented parallel to Avenue C and fronting West 56th Street, with small front and back yards (NETR 1954; Figure 2). Since the building's construction, a one-story addition was added to the rear (northeast) elevation of the building sometime between 1966 and 1979 (NETR 1966, 1979). The building has remained largely unchanged since 1979; although, at some point. the original windows were replaced with the extant vinyl-sash units (NETR 1979, 2019). Between 2012 and 2013, the present awning and metal railing on the primary elevation and the awning sheltering the secondary entrance on the east elevation of the dwelling were installed (Google Imagery 2012, 2013).

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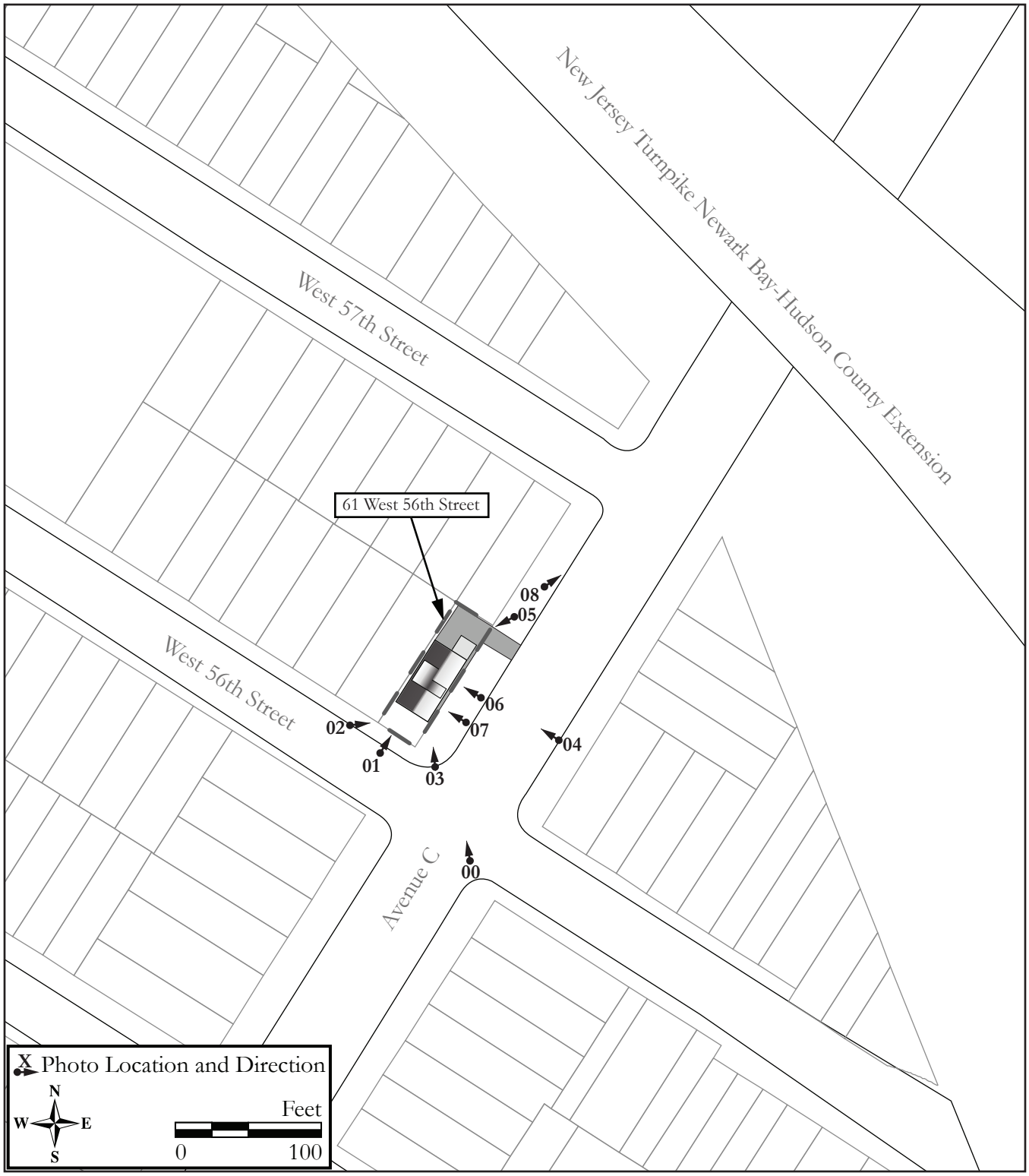
CONTINUATION SHEET

Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Alison Eberhardt
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

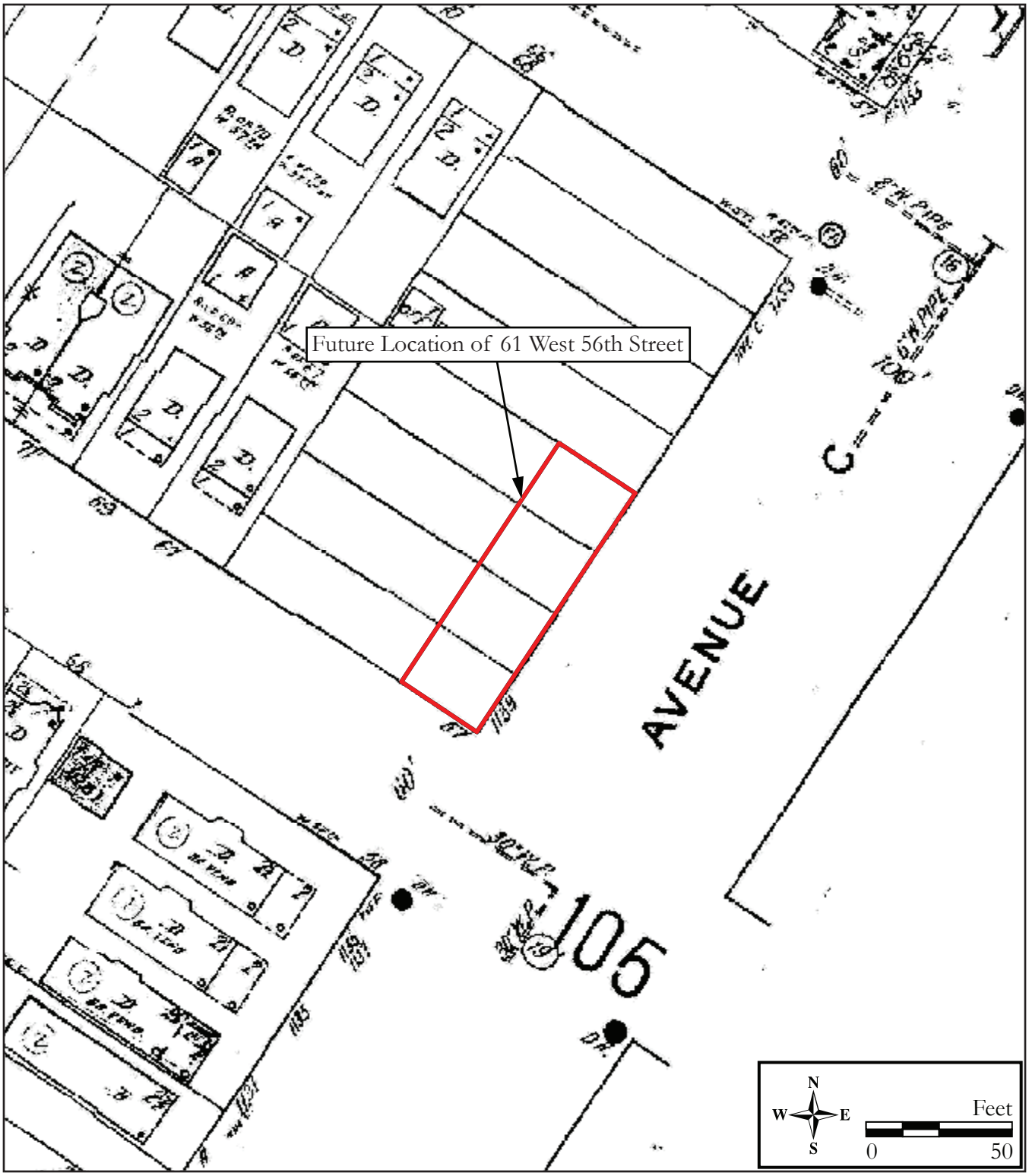


Figure 1: 1950 Sanborn Fire Insurance Map, *Bayonne, Hudson County, New Jersey*, depicting the future location of 61 West 56th Street.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Alison Eberhardt
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Figure 2: 1954 aerial photograph of 61 West 56th Street (Source: NETR 1954).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Northeast

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the primary (southwest) elevation of 61 West 56th Street.

Plate: 2

Photo view: East

Photographer: Alison Eberhardt

Date: August 3, 2022

Perspective view of the primary (southwest) and northwest elevations of 61 West 56th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: North

Photographer: Alison Eberhardt

Date: August 3, 2022

Perspective view of the primary (southwest) and southeast elevations of 61 West 56th Street.

Plate: 4

Photo view: Northwest

Photographer: Alison Eberhardt

Date: August 3, 2022

View of the southeast elevation of 61 West 56th Street, facing Avenue C.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view: Southwest

Photographer: Alison Eberhardt

Date: August 3, 2022

Perspective view of the northeast (rear) and southeast elevations of 61 West 56th Street.

Plate: 6

Photo view: Northwest

Photographer: Alison Eberhardt

Date: August 3, 2022

A detail view of paired, double-hung, vinyl-sash window units with inoperable shutters on the southeast elevation of 61 West 56th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 7

Photo view: Northwest

Photographer: Alison Eberhardt

Date: August 3, 2022

A detail view of a basement window on the southeast elevation of 61 West 56th Street.

Plate: 8

Photo view: Northeast

Photographer: Alison Eberhardt

Date: August 3, 2022

View towards the New Jersey Turnpike Newark Bay-Hudson County Extension from 61 West 56th Street.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1137 Avenue C

Street Address: *Street #:* 1137 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* Avenue C *Suffix:* _____ *Type:* AVE

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 26

Local Place Name(s): _____ **Lot(s):** 33

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

The building at 1137 Avenue C is a two-and-one-half-story-tall, two-bay-wide, single-family dwelling constructed circa 1919 (Plates 1-7). The main block has a rectangular footprint with a one-story, hipped-roof addition (built circa 1970) on the rear (northwest) elevation. The roof of the main block consists of a hipped roof on the front of the dwelling that turns into a gable roof on the rear and features overhanging eaves with wood brackets and gable end returns. The roof is sheathed in asphalt shingles. A hipped-roof dormer interrupts the roof slope on the primary (southeast) elevation, and two interior brick chimneys pierce the roof ridge. Exterior walls are made of brick laid in a running bond with a header course separating the floors. Windows are primarily three-over-one, wood-sash units with aluminum storm screens. Non-operable, louvered vinyl shutters flank some of the windows on the primary and northeast elevations. *See Building/Element Attachment*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

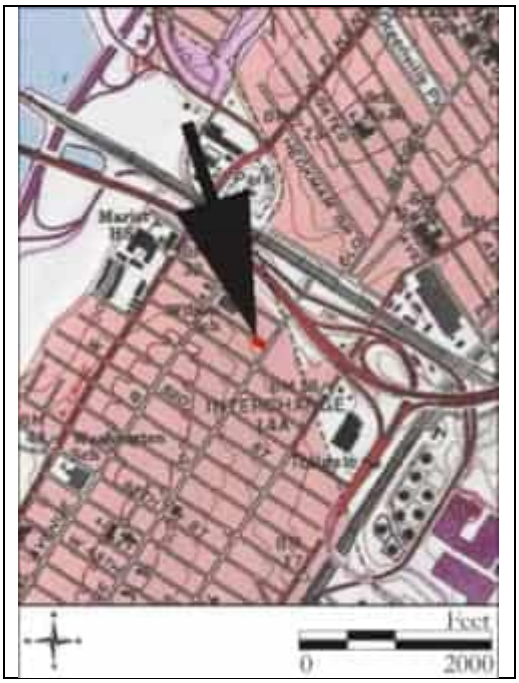
Surveyor: Lauren Dunkle Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 2 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: 1137 Avenue C, Dwelling
Historic Name: 1137 Avenue C, Dwelling
Present Use: Residential Activity, Permanent
Historic Use: Residential Activity, Permanent
Construction Date: Circa 1919 **Source:** Hopkins 1919
Alteration Date(s): Late twentieth century **Source:** Sanborn Map Company 1950; Nationwide Environmental Title Research (NETR) 1966, 1970
Designer: Unknown **Physical Condition:** Good
Builder: Unknown **Remaining Historic Fabric:** Medium
Style: Other
Form: Other **Stories:** 2.5
Type: N/A **Bays:** 2
Roof Finish Materials: Asphalt Shingle
Exterior Finish Materials Brick, Running Bond

Exterior Description, continued from Base Survey Form:
A pent roof accented by wood brackets extends along the first floor of the primary elevation and wraps around the northeast and southwest corners. The main entrance is situated in the northernmost bay of the primary elevation and contains a pair of circa-1970, wood-paneled doors set within a wood surround with fluted pilasters and a wood sunburst panel above the door. A semi-circular portico topped with a flat roof and supported by spun wood posts shelters the entrance. Featured below the window on the second floor are decorative recessed wood panels. The northeast and southwest elevations have asymmetrical fenestration patterns with segmental arches topping the windows on the first floor. A semi-hexagonal, two-story projection is featured on the northeast elevation, and two-light, wood awning units are centered in both floors of the projection. Paired six-over-one windows are located in the southernmost bay of the northeast elevation. The rear elevation features segmental arches above all of the windows. A late twentieth century addition occupies most of the first floor on the rear elevation. Dense vegetation covers the northeast elevation of the addition, and the rear elevation is void of fenestration.

Interior Description:
The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. (RGA) was limited to the public right-of-way and did not include interior access to the building.

Setting:
The dwelling at 1137 Avenue C is situated on the northwest side of Avenue C, adjacent to the south of its intersection with West 56th Street. The building is sited on a rectangular lot (Block 26, Lot 33) in the City of Bayonne, Hudson County, New Jersey. The building's primary elevation faces southeast and is set back approximately 25 feet from Avenue C. A concrete sidewalk runs along the southeast and northeast borders of the parcel, and a concrete driveway extends from West 56th Street to the garage along the rear (northwest) border of the property. Mature trees and shrubs are planted within close proximity of the dwelling. The subject property is generally surrounded by early twentieth-century residences. The route of the New Jersey Turnpike Newark Bay-Hudson County Extension runs approximately 410 feet to the northeast.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: 1137 Avenue C, Garage
Historic Name: 1137 Avenue C, Garage
Present Use: Transportation and Movement Activity, Vehicular Parking
Historic Use: Transportation and Movement Activity, Vehicular Parking
Construction Date: Circa 1925 **Source:** Hopkins 1919, 1934
Alteration Date(s): N/A **Source:** N/A
Designer: Unknown **Physical Condition:** Good
Builder: Unknown **Remaining Historic Fabric:** Medium
Style: None
Form: Other **Stories:** 1
Type: Garage **Bays:** 2
Roof Finish Materials: Asphalt Shingle
Exterior Finish Materials Brick, Running Bond

Exterior Description:
The garage at 1137 Avenue C is a one-story, masonry building capped with a pyramidal roof sheathed in asphalt shingles. Exterior walls are primarily constructed of brick, with the exception of the northwest elevation which is constructed of rusticated concrete block. The primary (northeast) elevation has a symmetrical fenestration pattern with two wood-paneled, roll-top garage doors. The southeast and rear (southwest) elevations were not visible from the public right-of-way at the time of survey.

Interior Description:
The subject property is a privately owned parcel. Access to the property by RGA was limited to the public right-of-way and did not include interior access to the building.

Setting:
The garage at 1137 Avenue C abuts the rear (northwest) boundary of the parcel and sits approximately four feet from the dwelling. Its primary elevation faces West 56th Street, and a concrete driveway connects from the garage to West 56th Street.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
Number 1137 Avenue C is a typical and unremarkable example of an early twentieth-century residence. Built circa 1919, the subject dwelling was constructed with at least four other dwellings at the corner of Avenue C and West 56th Street. It was likely built to house immigrant workers during the industrial boom that occurred in Bayonne City during the late nineteenth and early twentieth centuries. Since its construction, the two-story front porch has been enclosed on both floors, and a late twentieth-century addition was added to the rear of the dwelling.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The dwelling at 1137 Avenue C is recommended not eligible for listing in the National Register of Historic Places (NRHP). The building has no known associations to any event or pattern of events significant to history to qualify as eligible under NRHP Criterion A. In addition, research found no connection between the subject property and any individuals or groups that made significant historical contributions at the local, state, or national level for eligibility under Criterion B. Architecturally, the dwelling has undergone some exterior alterations, but it still features some of its original wood-sash windows, wood brackets below the roof line, and a pair of historic wood doors and wood surround in the main entrance. Though the dwelling retains a moderate degree of integrity of setting, location, feeling, association, materials, design, and workmanship, it is an unremarkable example of an early twentieth-century residence and is not the work of a master. Therefore, it is not recommended eligible under Criterion C. For these reasons, the dwelling at 1137 Avenue C is recommended not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non-Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 1137 Avenue C, Dwelling
Building/Element Attachment: 1137 Avenue C, Garage

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

Number 1137 Avenue C is located on the northwest side of Avenue C at its intersection with West 56th Street in the City of Bayonne, Hudson County, New Jersey. The subject property is situated in the northwest region of Bayonne that was historically known as Pamrapo village prior to the twentieth century. Pamrapo was one of five nineteenth-century villages that would later form Bayonne Township in 1861 and be redesignated Bayonne City in 1869 (Cultural Resource Consulting Group [CRCG] 2000; Snyder 1969:145). Originally a rural resort community, the area of Bayonne's easy access to railroad lines and shipping ports quickly turned it into an industrial city during the late nineteenth century. The industrial boom attracted immigrants to the area looking for work, and the population drastically increased during the turn of the century. In 1890, the population was approximately 19,000 people, and by 1910, it had increased to over 55,500 residents. As a result, the need for more housing during the early 1900s led to the development of the land surrounding the subject property (CRCG 2000).

Though the routes of Avenue C and West 56th Street were present during the late nineteenth century, development of the subject property did not occur until the early twentieth century (Sanborn Map Company 1912; Hopkins 1934). By 1912, building lots were laid out at the intersection of Avenue C and West 56th Street; however, no buildings were present (Sanborn Map 1912). Constructed circa 1919, the brick dwelling at 1137 Avenue C first appears cartographically on a 1919 atlas of Hudson County, New Jersey (Hopkins 1919). Built in a similar form and style to the neighboring houses at present-day 1129 Avenue C, 1131 Avenue C, 1133 Avenue C, and 68 West 56th Street, the five dwellings were likely constructed by the same building company. According to deeds, the house was owned by Mildred J. and Edward A. Tierney at the time of its construction and was sold to Jacob Kohn in 1920 (Hudson County Clerk's Office [HCCO], Deeds, 1383:32). An immigrant from Russia, Kohn worked as a plumber and resided in the dwelling with his wife, Lena, and their two daughters, Rosalin and Ada (United States Census Bureau [USCB] 1920) Under the Kohn's ownership, the extant one-story garage was constructed behind the dwelling around 1925 (Hopkins 1934; Figure 1).

By 1940, Jacob was employed as a metal worker and was living in the subject dwelling with Lena, their oldest daughter, Rosalin, and their two sons, Arthur and Paul (USCB 1940). A 1950 Sanborn map shows that a two-story front porch was added to the building by the mid-twentieth century (Sanborn Map Company 1950; Figure 2). In 1953, Jacob and Lena Kohn sold the house to Chester and Ida Stein (HCCO, Deeds, 2503:589). Chester Stein died in November of 1968, and full ownership of the property was given to his wife, Ida. Ida continued to reside in the house until 2002, when it was sold by her executrix, Janet Pickover, to the current owner, Robert A Garritano (HCCO, Deeds, 7014:93). Since the building's construction, minimal changes have been made to the exterior of the building. Sometime during the late twentieth century, the two-story front porch was enclosed on both floors. Based on stylistic evidence of the front door, the porch was likely enclosed sometime around 1970 (Mahoney Sash & Door Company 1966). It was also during this time that the circa-1970 addition was added to the rear elevation (NETR 1966, 1979).

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1920 Population Schedule, Bayonne Ward 3, Hudson County, New Jersey.
1940 Population Schedule, Bayonne Ward 3, Hudson County, New Jersey.

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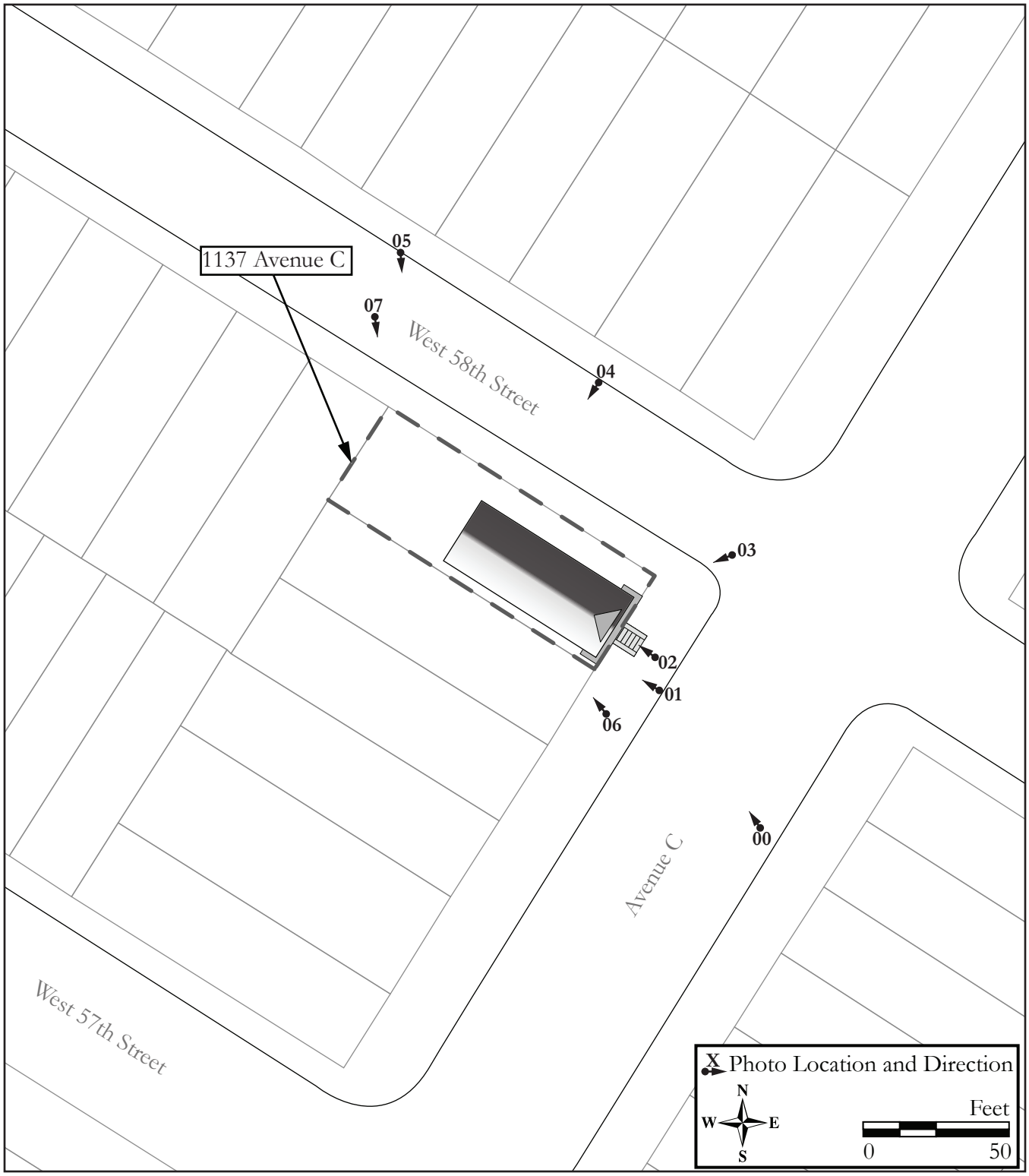


Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Lauren Dunkle
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

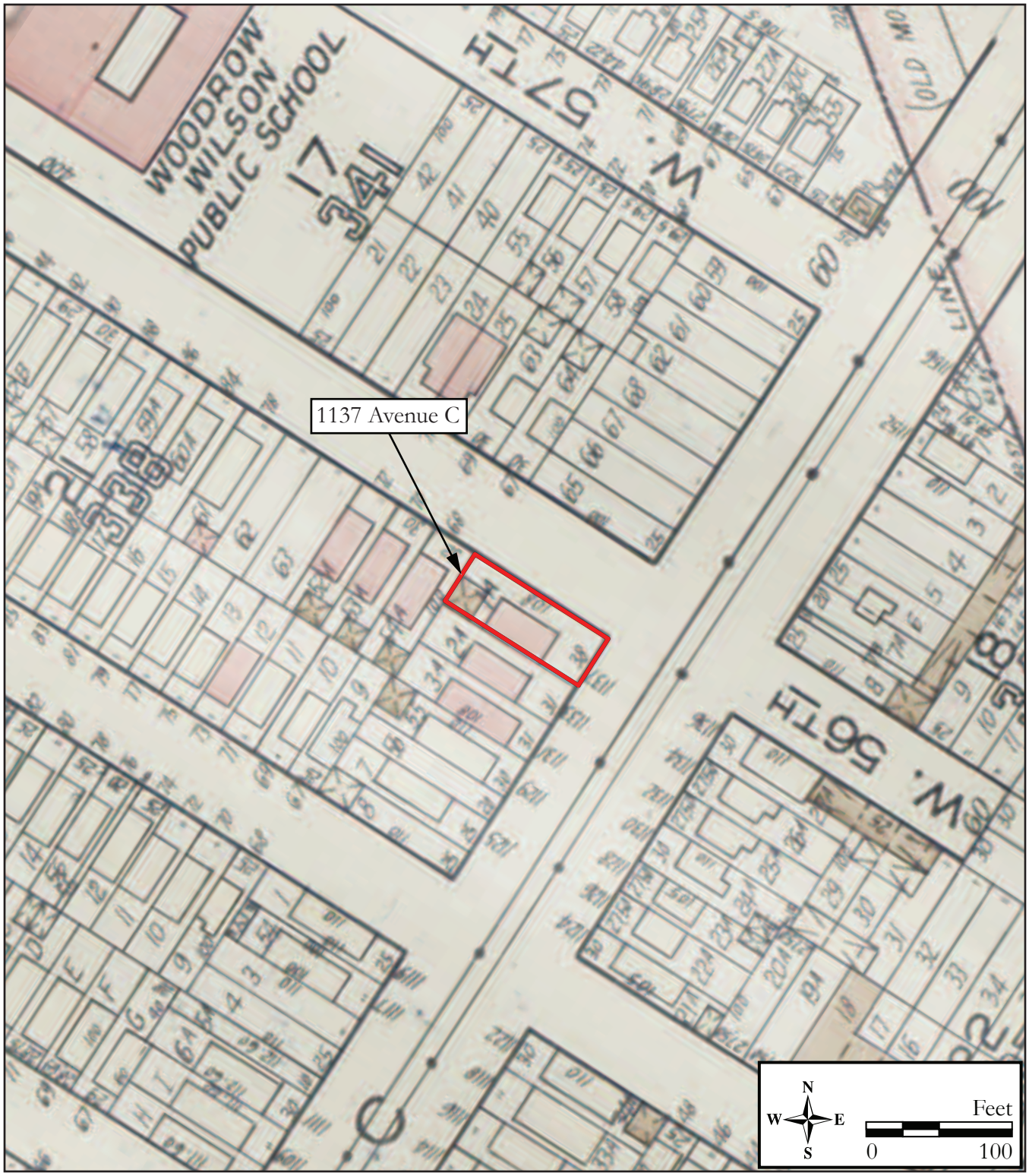


Figure 1: 1934 G. M. Hopkins Co., *Atlas of Hudson County, New Jersey; Volume Two Comprising Jersey City*, depicting 1137 Avenue C.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Lauren Dunkle
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

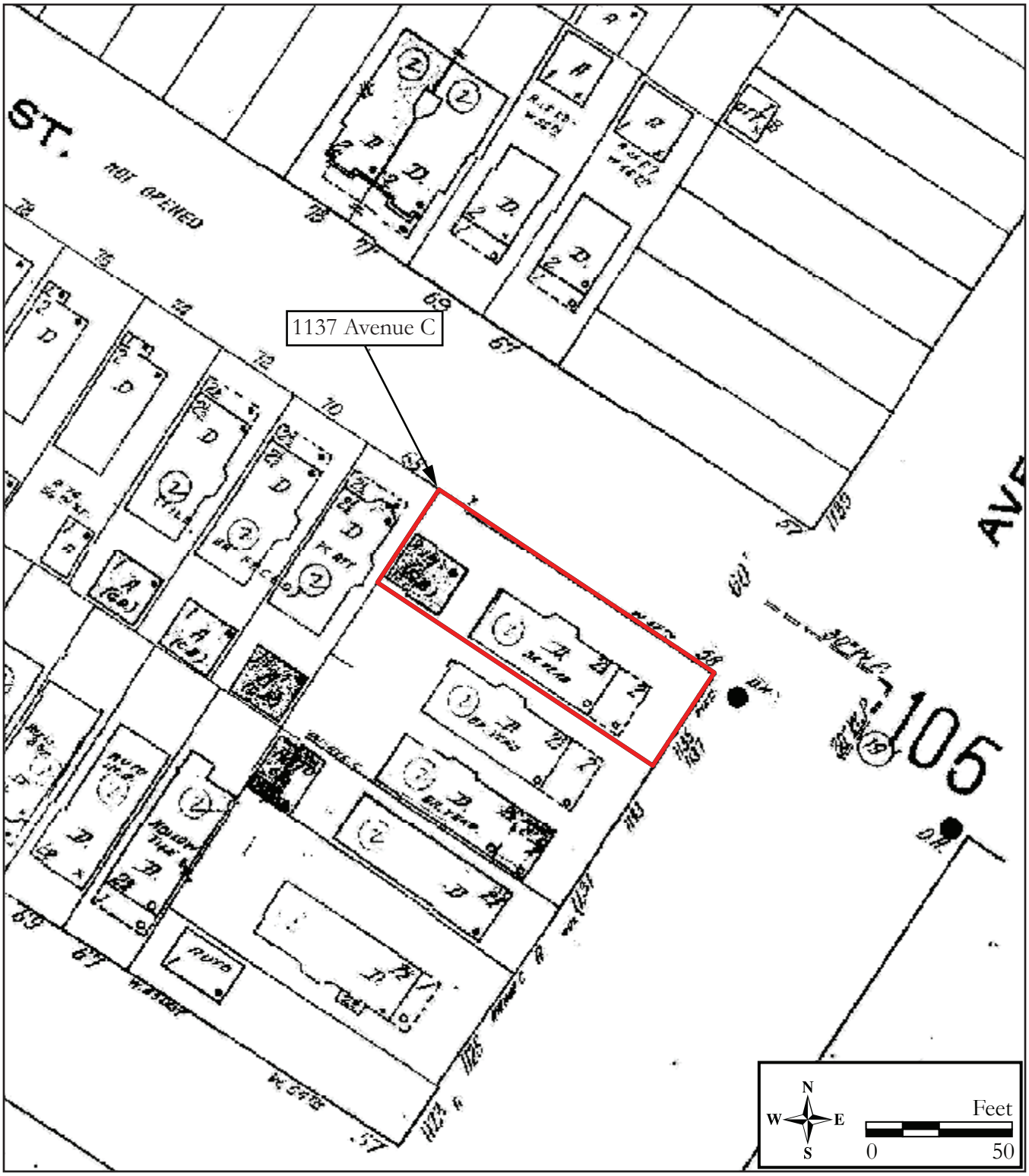


Figure 2: 1950 Sanborn Fire Insurance Map, *Bayonne, Hudson County, New Jersey*, depicting 1137 Avenue C.

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Northwest

Photographer: Lauren Dunkle

Date: August 3, 2022

View of the primary (southeast) elevation of 1137 Avenue C.

CONTINUATION SHEET

Historic Sites #:

Plate: 2

Photo view: Northwest

Photographer: Lauren Dunkle

Date: August 3, 2022

Detail view of 1137 Avenue C's main entrance.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Southwest

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the primary (southeast) and northeast elevations of 1137 Avenue C.

Plate: 4

Photo view: Southwest

Photographer: Lauren Dunkle

Date: August 3, 2022

View of the northeast elevation of 1137 Avenue C.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view: South

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of 1137 Avenue C's northern corner showing the northeast and rear (northwest) elevations.

Plate: 6

Photo view: Northwest

Photographer: Lauren Dunkle

Date: August 3, 2022

View of 1137 Avenue C's southwest elevation.

CONTINUATION SHEET

Historic Sites #:

Plate: 7

Photo view: South

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the garage's northern corner showing the primary (northeast) and northwest elevations.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1133 Avenue C

Street Address: *Street #:* 1133 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* Avenue C *Suffix:* _____ *Type:* AVE

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 26

Local Place Name(s): _____ **Lot(s):** 32

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

The building at 1133 Avenue C is a two-and-a-half-story-tall, two-bay-wide, single-family dwelling constructed circa 1919 and heavily altered in the late twentieth century (Plates 1-3). The house has a rectangular footprint and is capped with a hipped roof on the front of the dwelling that turns into a gable roof on the rear end and features overhanging eaves with gable end returns. The roof is clad in asphalt shingles throughout. A hipped-roof dormer interrupts the roof slope on the primary (southeast) elevation, and two interior brick chimneys pierce the roof ridge. The exterior walls are primarily covered in stucco on the side and rear elevations. Synthetic stone veneer covers the now-enclosed inset porch and extends from the primary elevation of the dwelling to the southern bays of the northeast and southwest elevations. Aluminum siding covers the dormer. Windows are vinyl-sash replacement units throughout. Metal awnings shelter the windows on the primary elevation. *See Building/Element Attachment*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

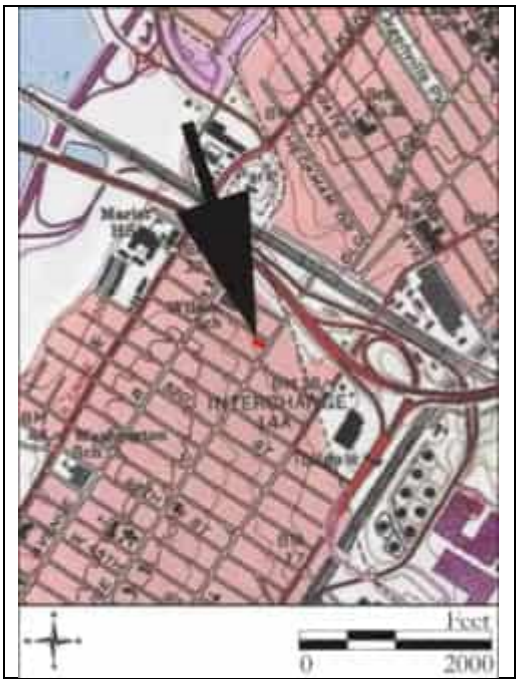
Surveyor: Lauren Dunkle Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: 1133 Avenue C
Historic Name: 1133 Avenue C
Present Use: Residential Activity, Permanent
Historic Use: Residential Activity, Permanent
Construction Date: Circa 1919 **Source:** Hopkins 1919
Alteration Date(s): N/A **Source:** N/A
Designer: Unknown **Physical Condition:** Good
Builder: Unknown **Remaining Historic Fabric:** Low
Style: None
Form: Other **Stories:** 2.5
Type: N/A **Bays:** 2
Roof Finish Materials: Asphalt Shingle
Exterior Finish Materials Stucco

Exterior Description, continued from Base Survey Form:
Accessed by a parged masonry front porch that spans the full width of the primary elevation, the main entrance is located in the northern bay of the primary (southeast) elevation. It contains a modern panel door with a metal storm door set within a wood panel surround with fluted pilasters. The left, or south bay, is pierced by a wide window opening filled with a tripartite window composed of a fixed central pane flanked by one-light windows that appear to slide open. A full-width metal awning, supported by metal posts with a metal railing, shelters the first-story openings and porch. Above the porch, a tripartite window composed of a single, fixed pane flanked by double-hung sash has been retrofit within a wider opening that is shielded by a fixed metal awning. Aluminum or vinyl siding fills the narrow space on either side of the window. A single, small, double-hung window, sheltered by a metal awning, pierces the southeast elevation of the dormer. The northeast and southwest elevations have asymmetrical fenestration patterns, and segmental arches top the windows on the first floor. A semi-hexagonal, two-story projection is featured on the northeast elevation. The view of the rear elevation was limited from the public right-of-way; however, all of the windows appear to be topped with segmental arches, and a single window is located in the gable peak. The foundation is parged.

Interior Description:
The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the public right-of-way and did not include interior access to the building.

Setting:
The residence at 1133 Avenue C is situated on the northwest side of Avenue C, approximately 30 feet southwest of its intersection with West 56th Street. The building is sited on a rectangular lot (Block 26, Lot 32). The building's primary elevation faces southeast, and the building is set back around 25 feet from Avenue C. A concrete sidewalk runs along the southeast border of the parcel and a concrete driveway covers the front yard between the sidewalk and the house. The driveway also extends along the northeast elevation of the house. The subject property is generally surrounded by early twentieth-century residences. The route of the New Jersey Turnpike Newark Bay-Hudson County Extension (I-78) runs approximately 425 feet to the northeast.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
Number 1133 Avenue C is a typical and unremarkable example of an early twentieth-century residence. Built circa 1919, the subject dwelling was constructed with at least four other dwellings at the corner of Avenue C and West 56th Street. It was likely built to house immigrant workers during the industrial boom that occurred in Bayonne City during the late nineteenth and early twentieth centuries. Since its construction, the dwelling has undergone extensive exterior alterations. The two-story inset front porch was enclosed sometime during the late twentieth century and the exterior was covered in stucco and stone veneer around that same time. The windows were likely replaced sometime during the twenty-first century.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The dwelling at 1133 Avenue C is recommended not eligible for listing in the National Register of Historic Places (NRHP). Research did not indicate that the subject property was associated with prominent individuals or patterns of history. Architecturally, the residence has been altered and retains a low degree of integrity of materials, design, and workmanship. Furthermore, it is a common and unremarkable example of its type. The subject building is one of many early twentieth-century residences found throughout Bayonne and is not the work of a master. For these reasons, the dwelling at 1133 Avenue C is recommended not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 1133 Avenue C

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

Number 1133 Avenue C is located on the northwest side of Avenue C in the City of Bayonne, Hudson County, New Jersey. The subject property is situated in the northwest region of Bayonne that was historically known as Pamrapo village prior to the twentieth century. Pamrapo was one of five nineteenth-century villages that would later form Bayonne Township in 1861 and be redesignated Bayonne City in 1869 (Cultural Resource Consulting Group [CRCG] 2000; Snyder 1969:145). Originally a rural resort community, easy access to railroad lines and shipping ports quickly turned the area of Bayonne into an industrial city during the late nineteenth century. The industrial boom attracted immigrants to the area looking for work, and the population drastically increased during the turn of the century. In 1890, the population was approximately 19,000, and by 1910, it had increased to over 55,500 residents. As a result, the need for more housing during the early 1900s led to the development of the land surrounding the subject property (CRCG 2000).

Though the route of Avenue C was present during the late nineteenth century, development of the subject property did not occur until the early twentieth century (Sanborn Map Company 1912). By 1912, lots were laid out surrounding the intersection of Avenue C and West 56th Street; however, no buildings were present (Sanborn Map 1912). Constructed circa 1919, the brick dwelling at 1133 Avenue C first appears cartographically on a 1919 aerial (Hopkins 1919). Built in a similar form and style to the neighboring houses at present-day 1129 Avenue C, 1131 Avenue C, 1137 Avenue C, and 68 West 56th Street, the five dwellings were all likely constructed by the same building company. Immigrants continued to move to the area with the population reaching 88,930 by 1930 (CRCG 2000). Prior the mid-1930s, the subject dwelling was owned by Frank and Loretta Fritscher, though they were likely not the original owners of the house (Hudson County Clerk's Office [HCCO], Deeds, 1890:604). Frank immigrated from Czechoslovakia in 1923 and worked as a Machine Engineer in Bayonne (New Jersey, U.S., Naturalization Records n.d.; United States Census Bureau 1940). A 1934 plat map depicts the subject dwelling as a brick building (Hopkins 1934; Figure 1). Two years after it was built, in 1936, the Fritscher family sold the subject property to George Bernstein (HCCO, Deeds, 1890:604).

A 1950 Sanborn map depicts the dwelling as being clad in brick veneer and having a two-story inset porch on the primary elevation (Sanborn Map Company 1950; Figure 2). In 1956, George Bernstein died devising ownership of the property to his wife, Sophie Bernstein. A year later, in 1957, Sophie and the executor of her husband's last will and testament, Abraham Bernstein, sold the house to Gerard and Josephine Tozzi (HCCO, Deeds, 2707:153). Josephine died in September of 1974, and ownership of the house went to Gerard. The current owners of the dwelling, Mario and Nicolina DeStefano, purchased the property from Gerard in 1975 (HCCO, Deeds, 3182:928). Sometime during the late twentieth century, the exterior was covered in stucco and the two-story inset porch was enclosed on both floors. Another one-story porch was added to the primary elevation by 1979 (Nationwide Environmental Title Research 1979). The windows were likely replaced sometime during the early twenty-first century.

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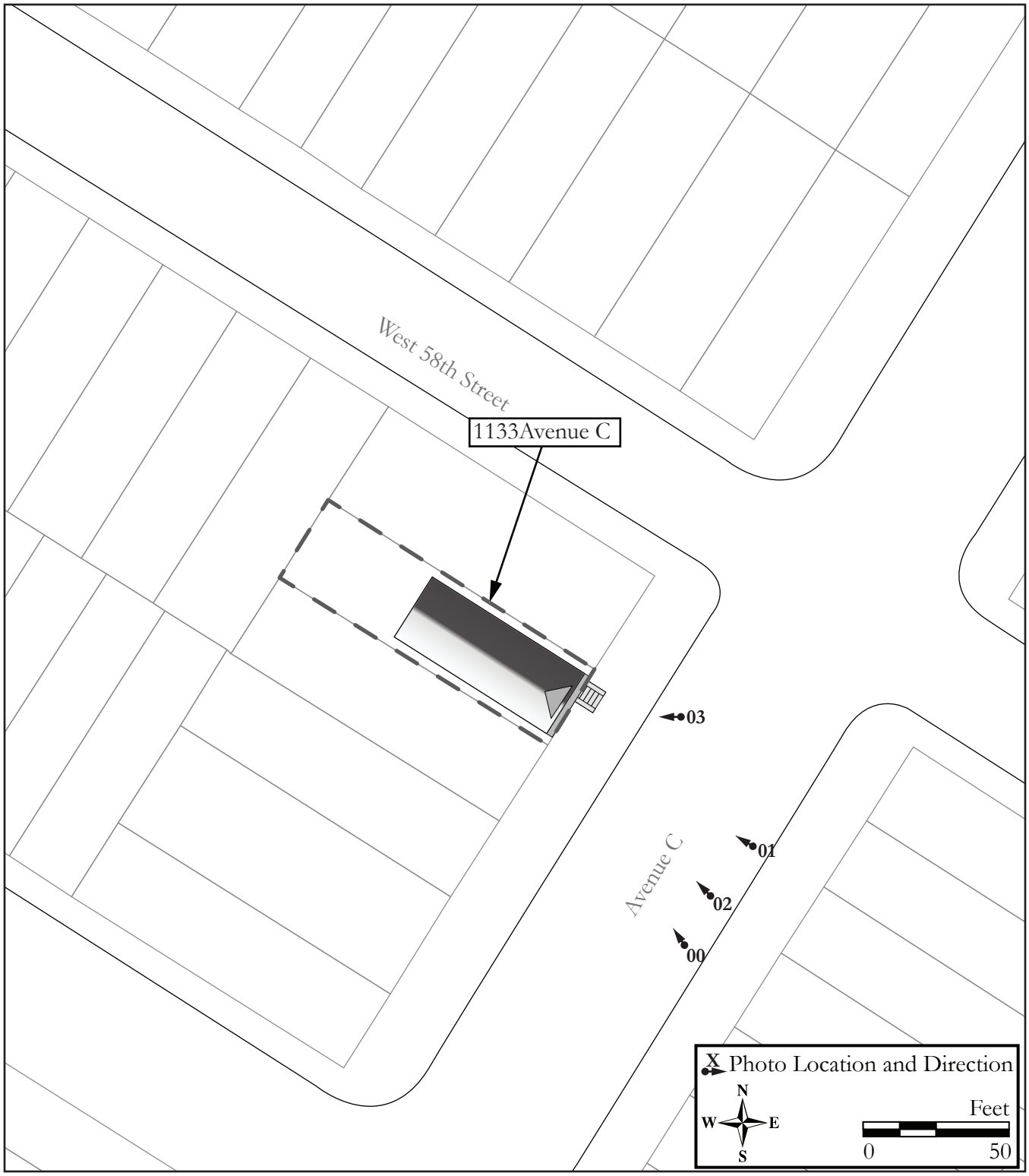
CONTINUATION SHEET

Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Lauren Dunkle
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

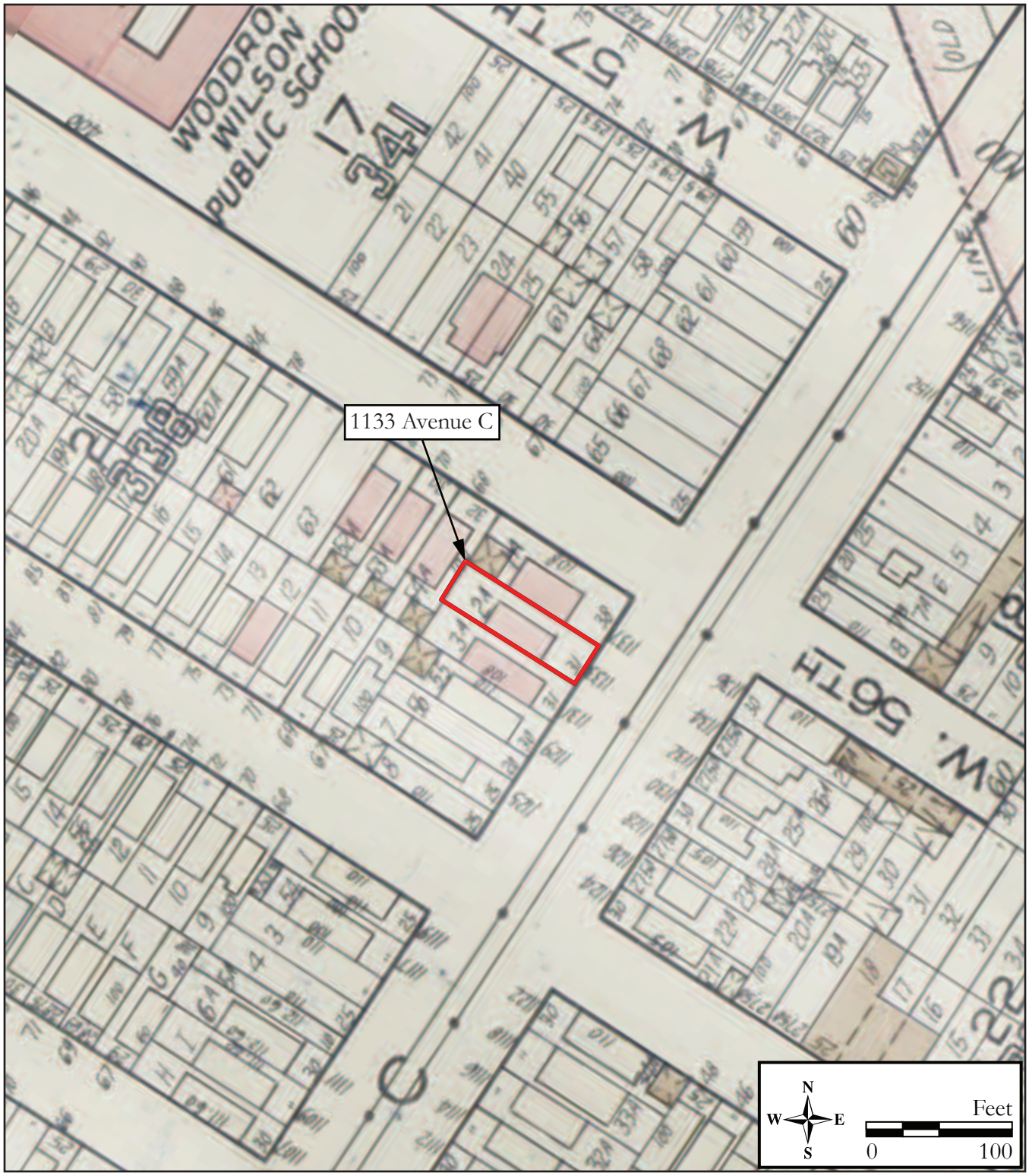


Figure 1: 1934 G. M. Hopkins Co., *Atlas of Hudson County, New Jersey; Volume Two Comprising Jersey City*, depicting 1133 Avenue C.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Lauren Dunkle
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

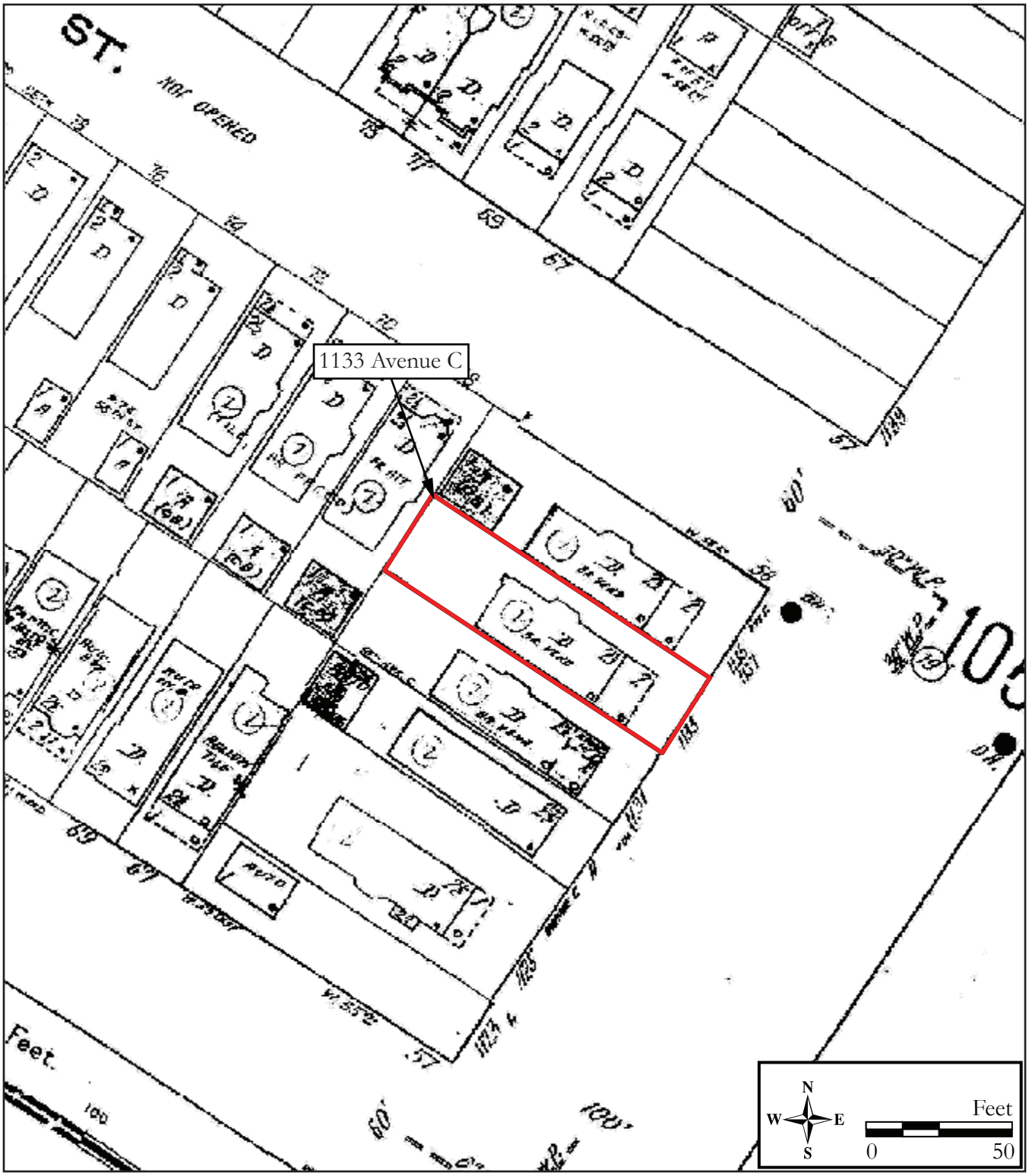


Figure 2: 1950 Sanborn Fire Insurance Map, Bayonne, Hudson County, New Jersey, depicting 1133 Avenue C.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Lauren Dunkle
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Northwest

Photographer: Lauren Dunkle

Date: August 3, 2022

View of the primary (southeast) elevation of 1133 Avenue C.

Plate: 2

Photo view: Northwest

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of 1133 Avenue C's southern corner showing the primary and southwest elevations.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Northwest

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of 1133 Avenue C's eastern corner showing the primary and northeast elevations.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1136 Avenue C

Street Address: *Street #:* 1136 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* Avenue C *Suffix:* _____ *Type:* AVE

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 28

Local Place Name(s): _____ **Lot(s):** 19

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1915, the building at 1136 Avenue C is a highly altered, two-and-a-half story dwelling with a raised basement located at the south corner of the intersection of Avenue C and West 56th Street. The dwelling has a rectangular-shaped footprint measuring two bays wide by four bays deep and features stucco-parged exterior walls above the foundation, which has been veneered with fieldstone to the bottom of the windows on the first story (Plates 1-4). The front-gabled roof is oriented perpendicular to Avenue C and is sheathed in asphalt shingles with a fieldstone-veneered chimney. A shallow, one-bay-wide addition projects from the second story over the main entrance on the primary (northwest) elevation. *See Building/Element Attachment*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

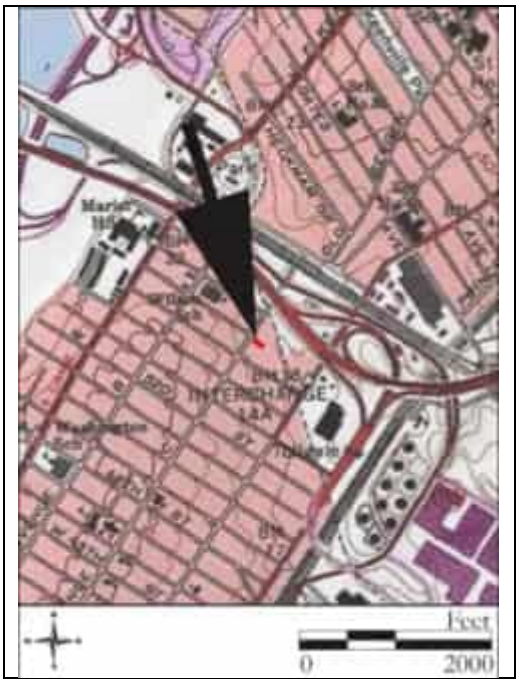
Surveyor: Matthew Goldberg Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: 1136 Avenue C
Historic Name: 1136 Avenue C
Present Use: Residential Activity, Permanent
Historic Use: Residential Activity, Permanent
Construction Date: Circa 1915 **Source:** Sanborn Map Company 1912; Hopkins 1919
Alteration Date(s): c. 1930, c. 1970, c. 2000, c. 2007 **Source:** Hopkins 1934; NETR 1979; NETR 2002; Google 2007
Designer: Unknown **Physical Condition:** Fair
Builder: Unknown **Remaining Historic Fabric:** Low
Style: None
Form: Other **Stories:** 2.5
Type: N/A **Bays:** 3
Roof Finish Materials: Asphalt Shingle
Exterior Finish Materials: Stucco; Stone, Random Ashlar

Exterior Description, continued from Base Survey Form:
An angled, three-sided bay projection, which is veneered in fieldstone, rises along the northeast elevation and ends in a gable-roofed wall dormer whose ridgeline intersects with the main roof. A shed-roofed dormer projects from the northeast slope of the roof to the north, at the rear of the house. There are replacement vinyl six-over-six windows throughout. The primary (northwest) elevation features a second-story cantilevered bay supported by two columns which extend between the first and second stories and which rest on the fieldstone-veneered side walls that line the small front porch and stairs that lead from Avenue C. The primary entrance is comprised of modern, paneled double doors located below the cantilevered bay addition. Above the entrance, the projecting second-story addition features a group of four windows in a shared surround on the northwest elevation and a single window on each of the side elevations. To the left, or north, of the entrance, the façade features a two-story angled bay with a single window on each of its three sides on the first and second stories. A pair of windows in a shared surround pierces the gable peak on the primary elevation. A one-story, five-bay wide garage erected between 1919 and 1934 and recently veneered in fieldstone is attached to the rear of the building. There is a secondary paneled door adjacent the garage to the northeast of the house. Further details on the side (southwest) are not visible from the public right-of-way.

Interior Description:
The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the exterior visible from the public right-of-way and did not include interior access to the building.

Setting:
Number 1136 Avenue C is situated on a rectangular parcel (Block 28, Lot 19) in the City of Bayonne, Hudson County, New Jersey, approximately 400 feet southwest of the New Jersey Turnpike Newark Bay-Hudson County Extension. The subject property is sited on the south corner of the intersection of Avenue C and West 56th Street. The building fronts a small grass lawn enclosed by a masonry retaining wall that has been parged with stucco between fieldstone-veneered piers along the property line. A flagstone-paved walkway connects the public sidewalk to the front porch. The rear attached garage faces northeast towards West 56th Street. The surrounding urban neighborhood is largely residential, with many two-story, wood-framed, single-family dwellings, interspersed with larger apartment buildings and commercial properties. Most of this development dates to the early to mid-twentieth century.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet.

Significance:
Number 1136 Avenue C is a highly altered example of a circa-1915 dwelling built in the northern area of Bayonne. In response to a turn-of-the-century industrial boom and influx of immigration, residential and commercial buildings were constructed throughout the city. Vernacular dwellings such as 1136 Avenue C exemplify the construction of this era and the development of Bayonne. A common house type in Bayonne features similar design elements seen in the subject property including front-gable roofs and first-story porches with large columns and narrow urban lot sizes.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The building at 1136 Avenue C is not recommended eligible for listing in the National Register of Historic Places (NRHP). Research to date did not indicate that the subject property was associated with any prominent individuals or patterns of history to qualify as eligible under NRHP Criteria A and B. Architecturally, the subject property does not represent a particular style or the work of a master to warrant eligibility under NRHP Criterion C. Furthermore, alterations to the building, such as the replacement of original windows and doors throughout and the introduction of modern cladding materials, have significantly diminished its integrity of materials, design, and workmanship. For these reasons, the building at 1136 Avenue C is recommended not eligible for listing in the NRHP under Criteria A, B, or C. The subject property was not evaluated under NRHP Criterion D.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 1136 Avenue C

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

The subject property at 1136 Avenue C is located within the City of Bayonne in Hudson County. Bayonne Township was formed in 1861 from part of Bergen Township and was later renamed Bayonne City in 1869 (Snyder 1969:145). That year, the city was surveyed and road maps planning for future development were created. Public improvements soon followed, including road grading, sidewalk, and sewer and gas line construction (Whitcomb 1904:75). During the late nineteenth and early twentieth century, Bayonne experienced an industrial boom, coupled with a high influx of European immigrants looking for a place to work and live, which led to rapid urbanization and industrial development (City of Bayonne 2022). The Pamrapo neighborhood of Bayonne, where the subject property is located, was one of five original villages within Bergen Township. Pamrapo occupied the northwest region of Bayonne, near the city's border with the City of Jersey City, and is characterized primarily by residential buildings, with some industrial and commercial properties located near the Newark and Hudson bays. Most of the residential development in this area of Bayonne occurred in the early twentieth century in response to the increased housing demand created by regional industrialization and immigration (Hopkins 1919, 1934). Many single-family homes, multi-family homes, and apartment buildings were built at this time (Cultural Resource Consulting Group [CRCG] 2000:21). They were constructed in a variety of materials and styles, including Victorian, Colonial Revival, Tudor Revival, and Arts and Crafts. Similar to the subject property, a common house type was a two-and-a-half-story, front-gabled frame dwelling with a first-floor porch, buff brick columns, and often-ornamental brickwork. Typical settings were narrow urban lots with small yards, spaced tightly, and separated by alleys not driveways (CRCG 2000:33-34).

Avenue C, originally a dirt road, was asphalted in 1902. As of 1904, only some Bayonne roads had been macadamized or asphalted, suggesting that Avenue C was a relatively important corridor through Bayonne (Whitcomb 1904:96). The 1912 Hudson County Sanborn map displays no structures on the subject property; however, a building with a similar footprint as the present-day dwelling, without the garage, is shown on a 1919 plat map, suggesting a circa-1915 construction date (Sanborn 1912; Hopkins 1919; Figure 1). The earliest known owners are the Stearns. In 1934, Phillip and Ellen Stearns took out a mortgage on this property, described as a two-story frame dwelling and 22-car parking garage (*The Jersey Journal,* 2 June 1934:13). The 1930 census indicates that Phillip previously worked in the garage business prior to the purchase of the subject property, indicating this was a commercial venture (United States Bureau of the Census [US Census] 1930). A 1934 map shows an L-shaped garage, with a separate structure adjacent to the southwest, on a separate parcel (Hopkins 1934; Figure 2). The 1940 census lists two families residing at the property, including Helen Keann – a Polish immigrant who married a bank clerk, along with Phillip Stratman and his daughter and son-in-law – both teachers (US Census 1940). The 1950 census, fitting the trend of working-class occupations for this property and the surrounding area, lists the Cantly family, fathered by a physical education teacher (US Census 1950). By 1950, a Sanborn map of the subject property shows the 22-car parking garage prresent at the rear of the property arranged in an L-shape footprint, along with the separate garage, all on one large parcel (Sanborn Map Company 1950; Figure 3). By the mid-1950s, aerial imagery shows these rear garages and different roofs of both the dwelling and attached garage; the former appears to be a different shingle type and the latter shows rolled asphalt (NETR 1954; Figure 4; Fairchild 1955; Figure 5). By 1979, the attached parking garage and parcel were reduced to their current size and the standalone garage was demolished (NETR 1979; Figure 6). By 2002, the rear shed dormer was added to the roof of the subject dwelling (NETR 2002; Figure 7). A 2007 Google street view image shows the exterior alterations in progress; the front and side elevations lack siding and there are recently installed windows, doors, and a roof. The second-story addition on the primary elevation had not yet been constructed by this time. The 2007 image shows that the façade featured a two-story, flat-roofed, open porch with the same footprint as the addition. (Google 2007; Figure 8).

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Historic Sites #:

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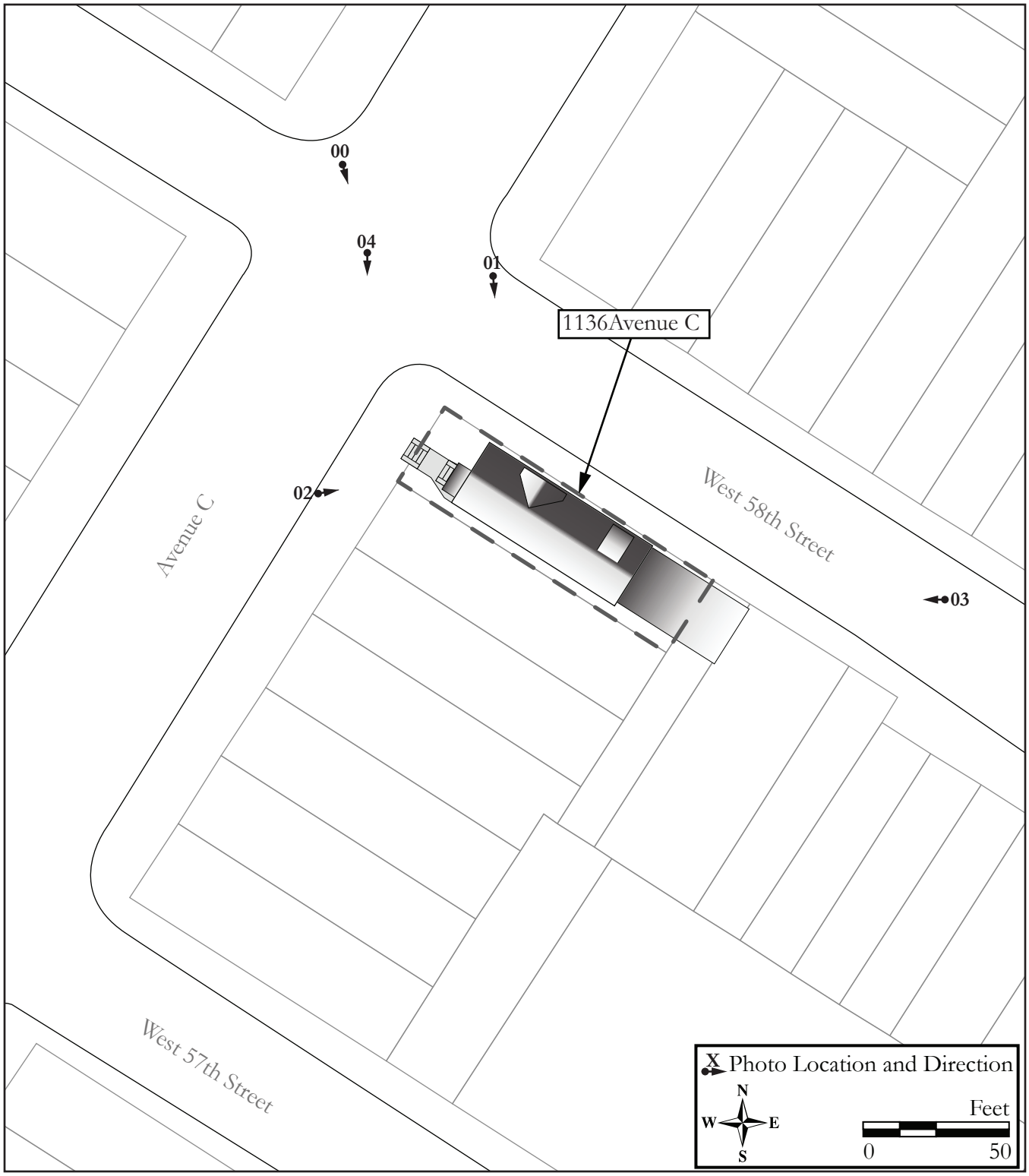


Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

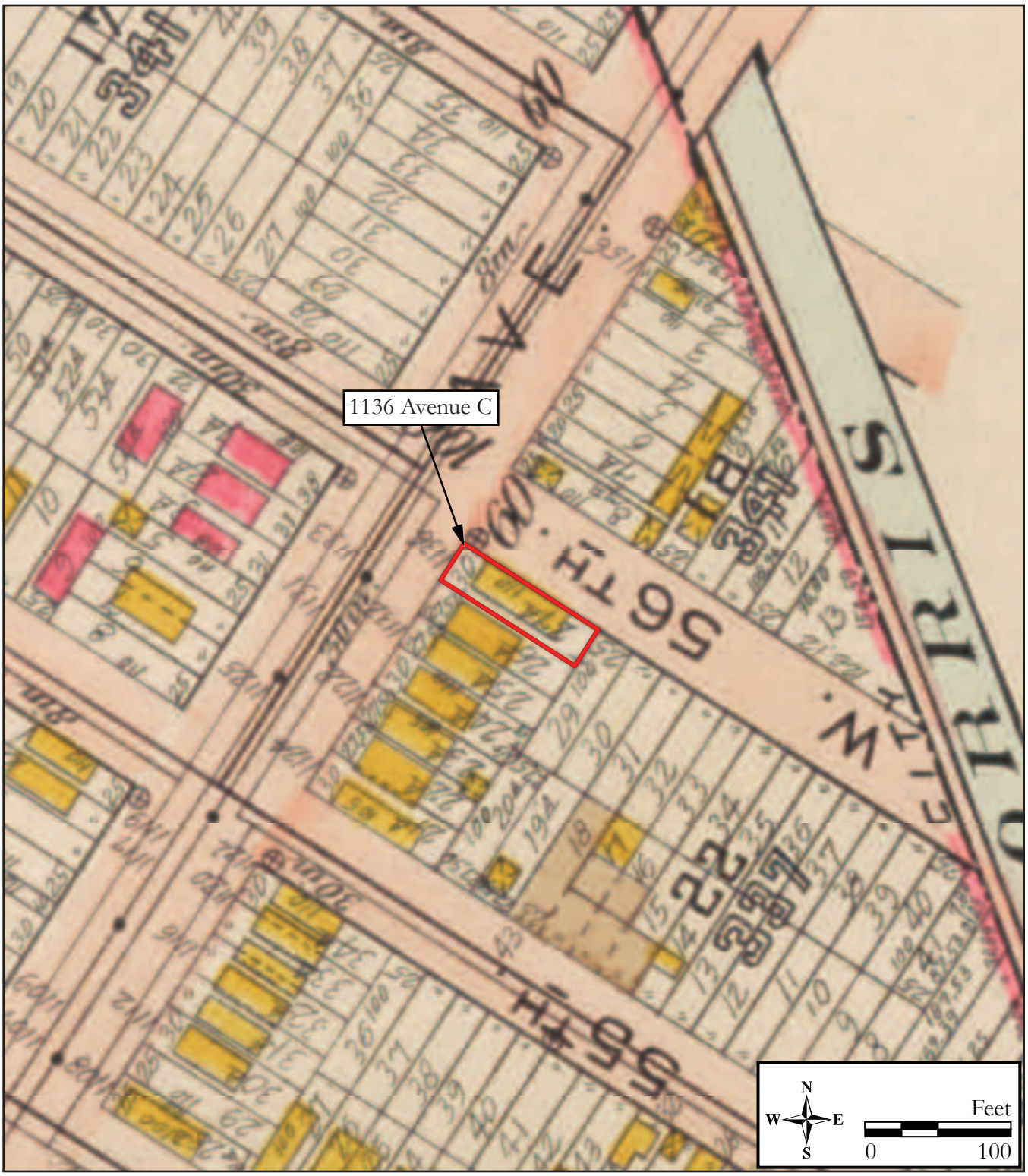


Figure 1: 1919 G.M. Hopkins, *Plat Book of Jersey City and Bayonne, Hudson County, New Jersey* depicting the building at 1136 Avenue C.

CONTINUATION SHEET

Historic Sites #:

Figure 2: 1934 G.M. Hopkins, *Plat Book of Jersey City and Bayonne, Hudson County, New Jersey* showing the parking garage of 1136 Avenue C.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

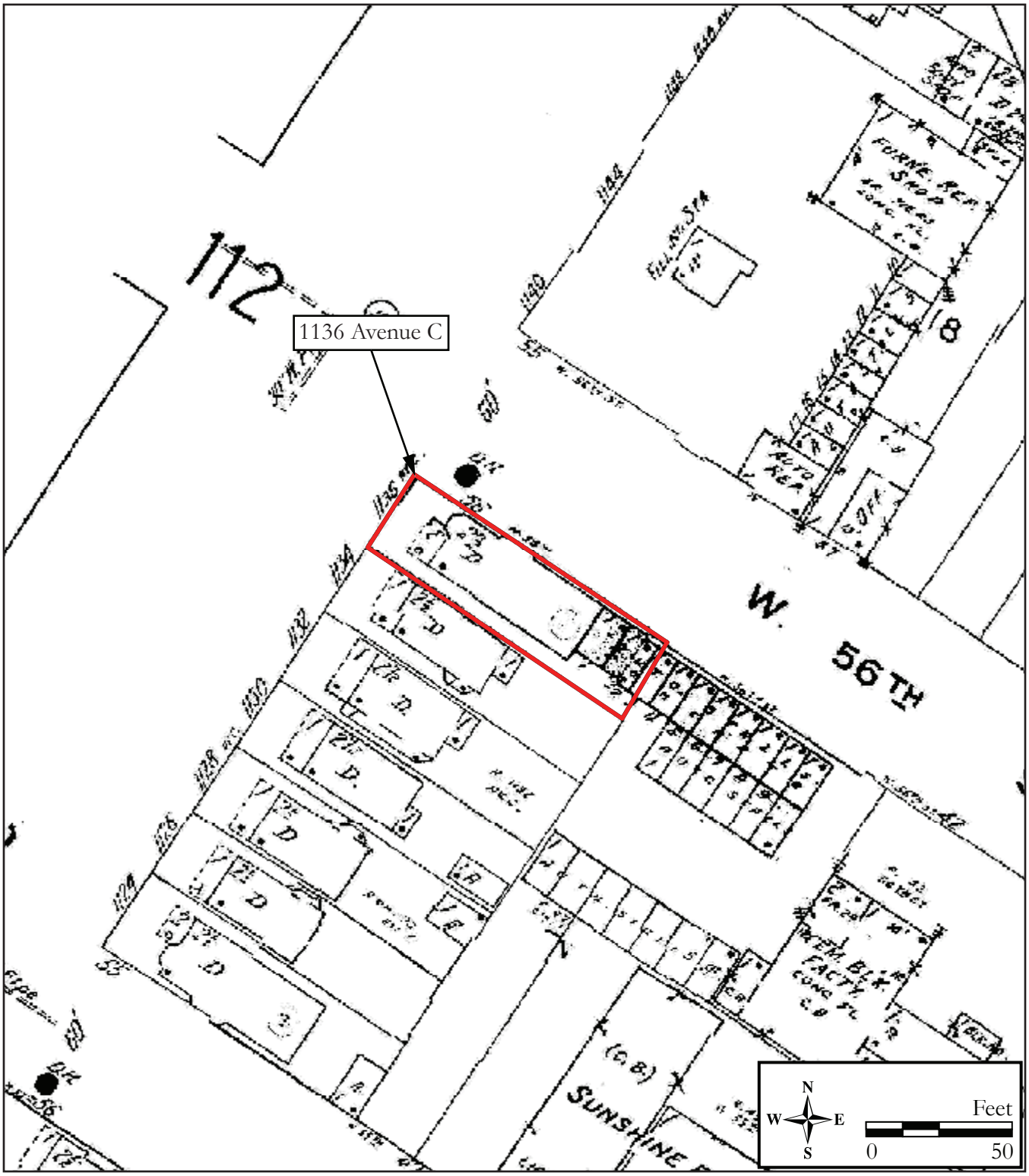


Figure 3: 1950 Sanborn Map Company, *Insurance Maps of Hudson County* depicting 1136 Avenue C on one parcel.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Figure 4: 1954 historic aerial photograph of 1136 Avenue C (NETR 1954).

CONTINUATION SHEET

Historic Sites #:

Figure 5: 1955 historic aerial photograph, showing the rear elevation of 1136 Avenue C (Fairchild 1955).

CONTINUATION SHEET

Historic Sites #:

Figure 6: 1979 historic aerial photograph, showing the current parcel and building footprint of 1136 Avenue C (NETR 1979).

CONTINUATION SHEET

Historic Sites #:

Figure 7: 2002 historic aerial photograph, showing the added shed dormer of 1136 Avenue C (NETR 2002).

CONTINUATION SHEET

Historic Sites #:

Figure 8: 2007 Street view photograph, showing alterations in progress of 1136 Avenue C (Google 2007).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: South

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view of the northwestern corner of 1136 Avenue C.

Plate: 2

Photo view: Northeast

Photographer: Lauren Dunkle

Date: August 3, 2022

Perspective view showing the primary (northwest) elevation of 1136 Avenue C.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: West

Photographer: Lauren Dunkle

Date: August 3, 2022

View of the rear (southeast) elevation of 1136 Avenue C.

Plate: 4

Photo view: South

Photographer: Lauren Dunkle

Date: August 3, 2022

View of the surrounding area of Avenue C.

BASE SURVEY FORM

Historic Sites #:

Property Name: 1134 Avenue C

Street Address: *Street #:* 1134 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* Avenue C *Suffix:* _____ *Type:* AVE

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 28

Local Place Name(s): _____ **Lot(s):** 20

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1915, the building at 1134 Avenue C is a two-and-a-half-story, two-bay, frame dwelling capped by a front-gabled roof sheathed in asphalt shingles with a gabled dormer on its northeast slope (Plates 1-3). The building's primary (northwest) elevation, which fronts Avenue C, is clad in a running bond brick veneer, while all other elevations are clad in vinyl siding. Field survey and the condition of comparable properties nearby suggest that the brick veneer is likely a later addition. There are replacement vinyl windows throughout. The primary elevation features cornice returns, concrete-veneer quoins, a pair of double-hung windows in a shared surround in the upper gable end, a group of three windows separated by wide mullions in a shared surround second-floor window with dentillated trim covered by a shallow shed roof, and a first-story porch with a hipped roof. The porch has square, brick columns atop half-height brick walls which shelter the building's primary entrance in the northern bay, and a bay window in the southern bay. The foundation, where visible, is brick. *See Building/Element Attachment*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

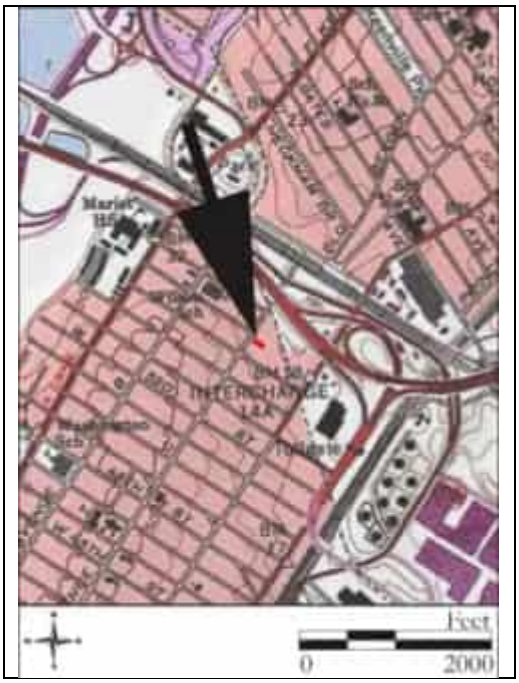
Surveyor: Matthew Goldberg Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: 1134 Avenue C
Historic Name: 1134 Avenue C
Present Use: Residential Activity, Permanent
Historic Use: Residential Activity, Permanent
Construction Date: Circa 1915 **Source:** Sanborn Map Company 1912; Hopkins 1919
Alteration Date(s): Mid- to late twentieth century **Source:** Stylistic Evidence
Designer: Unknown **Physical Condition:** Good
Builder: Unknown **Remaining Historic Fabric:** Low
Style: None
Form: Other **Stories:** 2.5
Type: N/A **Bays:** 3
Roof Finish Materials: Asphalt Shingle
Exterior Finish Materials: Brick, Running Bond; Vinyl Siding

Exterior Description, continued from Base Survey Form:
The porch is accessed by a set of stone steps and the primary entrance consists of a paneled and screen door set within a classical surround composed of narrow pilasters capped by brackets that support a short cornice. To the left (north) of the entrance is a small, narrow window. To the right (south) of the entrance, a single window pierces each of the three sides. Fenestration on the northeast and southwest elevations was not fully visible from the public right-of-way, though there is a bay window on the first story of the southwest elevation. A rear ell extends from the northern bay of the rear (southeast) elevation, with a shed roof. There is a coupled window in the gable – which features cornice returns as well as two, second-story windows and a central vinyl sash door. A rectangular ground-level wood deck extends outward from the elevation into the backyard. In the backyard is a rectangular pergola with a pyramidal roof.

Interior Description:
The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the exterior visible from the public right-of-way and did not include interior access to the building.

Setting:
Number 1134 Avenue C is situated on a rectangular parcel (Block 28, Lot 20) in the City of Bayonne, Hudson County, approximately 450 feet southwest of the New Jersey Turnpike Newark Bay-Hudson County Extension. The subject property is sited on the south side of Avenue C, between its intersections with West 55th and West 56th Streets. A concrete driveway leads from the sidewalk to the primary elevation and a metal fence runs along the northwest boundary of the front yard. The rear of the property is bounded by a vinyl fence and features an above ground pool, a rectangular hipped-roof wooden pergola, and a ground-level rectangular wooden deck extending from the rear elevation. The surrounding urban neighborhood is largely residential, with many two-story, wood-framed, single-family dwellings, interspersed with larger apartment buildings and commercial properties. Most of this development dates to the early to mid-twentieth century.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet.

Significance:
Number 1134 Avenue C is an example of a circa-1915 dwelling built in the northern area of Bayonne. In response to a turn-of-the-century industrial boom and influx of immigration, residential and commercial buildings were constructed throughout the city. Vernacular dwellings such as 1134 Avenue C exemplify the construction of this era and the development of Bayonne. The subject dwelling was likely erected at the same time as the three houses to the south along Avenue C, which are nearly identical and share its overall form and details. A common house type in Bayonne features similar design elements seen in the subject property including front-gable roofs, first story porches with large columns and narrow urban lot sizes.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The building at 1134 Avenue C is not recommended eligible for listing in the National Register of Historic Places (NRHP). Research to date did not indicate that the subject property was associated with any prominent individuals or patterns of history to qualify as eligible under NRHP Criteria A and B. Architecturally, the subject property does not represent a particular style or the work of a master to warrant eligibility under NRHP Criterion C. Furthermore, alterations to the building, such as the replacement of original windows and doors throughout and the introduction of modern cladding materials, have significantly diminished its integrity of materials, design, and workmanship. For these reasons, the building at 1134 Avenue C is recommended not eligible for listing in the NRHP under Criteria A, B, or C. The subject property was not evaluated under NRHP Criterion D.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 1134 Avenue C

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

The subject property at 1134 Avenue C is located within City of Bayonne, Hudson County. Bayonne Township was formed in 1861 from part of Bergen Township, and was later renamed Bayonne City in 1869 (Snyder 1969:145). Public improvements soon followed, including road grading, sidewalk, and sewer and gas line construction (Whitcomb 1904:75). During the late nineteenth and early twentieth century, Bayonne experienced an industrial boom, coupled with a high influx of European immigrants looking for a place to work and live, which led to rapid urbanization and industrial development (City of Bayonne 2022). The Pamrapo neighborhood of Bayonne, where the subject property is located, was one of five original villages within Bergen Township. Pamrapo occupied the northwest region of Bayonne, near the city's border with the City of Jersey City, and is characterized primarily by residential buildings, with some industrial and commercial properties located near the Newark and Hudson bays. Most of the residential development in this area of Bayonne occurred in the early twentieth century in response to the increased housing demand created by regional industrialization and immigration (Hopkins 1919, 1934). Many single-family homes, multi-family homes, and apartment buildings were built at this time (Cultural Resource Consulting Group [CRCG] 2000:21). They were constructed in a variety of materials and styles, including Victorian, Colonial Revival, Tudor Revival, and Arts and Crafts. Similar to the subject property, a common house type was a two-and-a-half-story, front-gabled frame dwelling with a first-floor porch, buff brick columns, and often ornamental brickwork. Typical settings were narrow urban lots with small yards, spaced tightly, and separated by alleys not driveways (CRCG 2000:33-34).

Avenue C, originally a dirt road, was asphalted in 1902. As of 1904, only some Bayonne roads had been macadamized or asphalted, suggesting that Avenue C was a relatively important corridor through Bayonne (Whitcomb 1904: 96). No structures are seen on the 1912 Sanborn map at 1134 Avenue C, and the building is first shown on a 1919 plat map, suggesting a circa-1915 construction date (Sanborn 1912; Hopkins 1919; Figure 1). However, this map does not show the rear ell. This house was likely constructed at the same time and by the same company as the three houses to the south along Avenue C, which are nearly identical to the subject property in form and details. The earliest known ownership records date to 1922 when Ralph Palmisano sold the property to Charles A. Cleary (*The Jersey Journal,* 25 October, 1922:19). The 1930 census lists the Kretzmer family as residing at the property, the father of which was a policeman (United States Bureau of the Census [US Census] 1930). A 1934 plat map shows a wood-framed building with a similar footprint to property currently – a rectangular core block with a rear ell (Hopkins 1934; Figure 2). The two adjacent properties to the southwest also show rear ells in 1934 but not on the 1919 map, suggesting they were not included in the earlier map, although they were possibly built as additions. The 1940 and 1950 census records list the Clavey and Perritt families respectively, with occupations of truck driver, oil filler, and telephone operator, fitting the theme of working-class growth throughout Bayonne (US Census 1940, 1950). A 1950 Sanborn map shows the front porch and bay window, also likely original (1950 Sanborn Map Company; Figure 3). The rear elevation, roof, and surrounding area can be seen in a 1955 historic aerial image; no alterations can be discerned between this view and the present (Fairchild 1955; Figure 4). A 1979 historic aerial image shows an apparent above ground pool (NETR 1979; Figure 5). This area was covered by a pergola by 2002 (NETR 2002). Later aerial imagery shows a change in roofing material by 2006 (NETR 2006). Google imagery shows that no alterations were made from 2007 to the present (Google 2007).

CONTINUATION SHEET

Historic Sites #:

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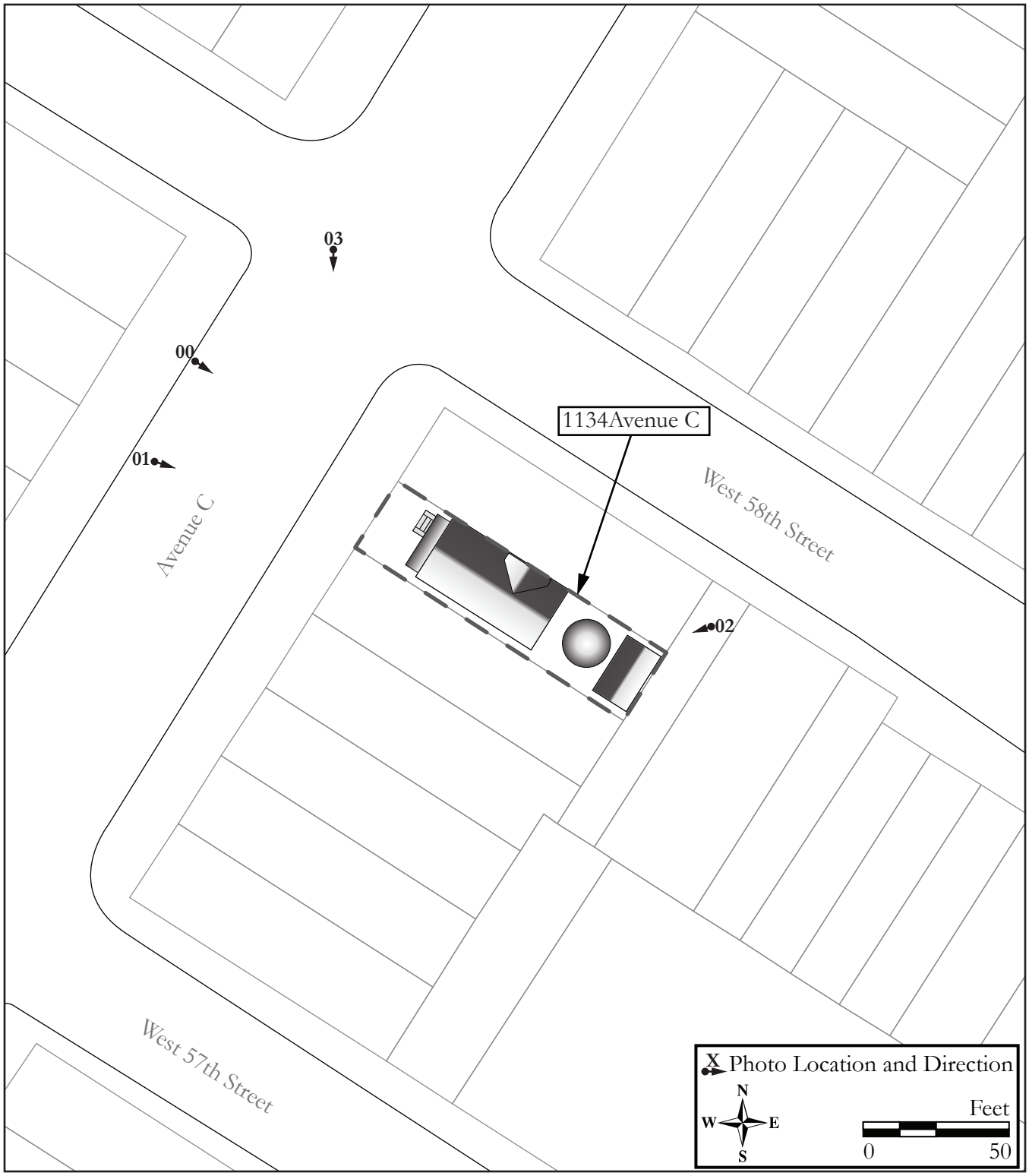


Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

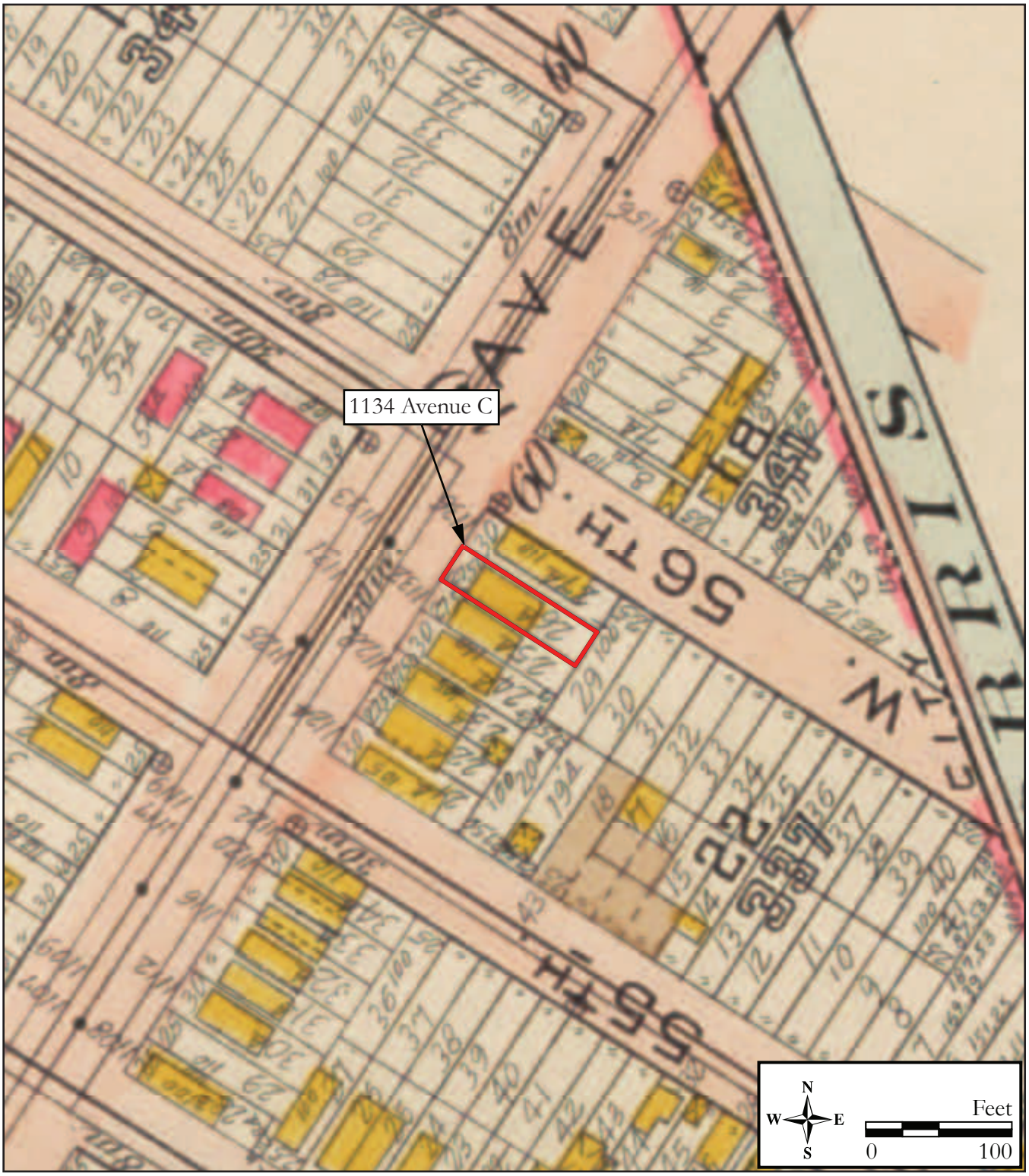


Figure 1: 1919 G.M. Hopkins, *Plat Book of Jersey City and Bayonne, Hudson County, New Jersey* depicting the building at 1134 Avenue C.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Figure 2: 1934 G.M. Hopkins, *Plat Book of Jersey City and Bayonne, Hudson County, New Jersey* showing the rear ell of 1134 Avenue C.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Matthew Goldberg
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

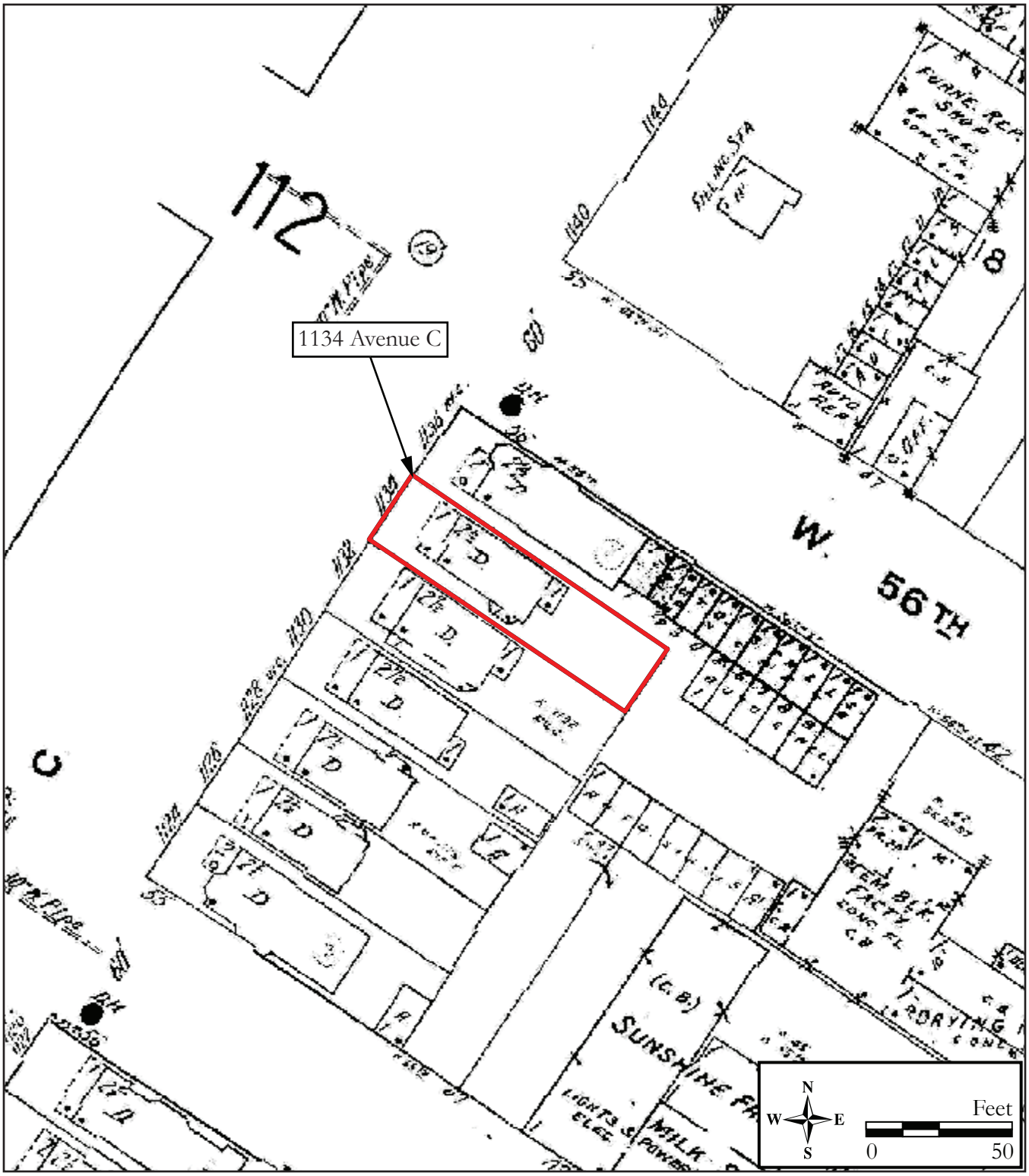


Figure 3: 1950 Sanborn Map Company, *Insurance Maps of Hudson County* depicting the front porch and the bay window details 1134 Avenue C.

CONTINUATION SHEET

Historic Sites #:

Figure 4: 1955 historic aerial photograph, showing the rear elevation of 1134 Avenue C (Fairchild 1955).

CONTINUATION SHEET

Historic Sites #:

Figure 5: 1979 historic aerial photograph, showing the backyard alterations of 1134 Avenue C (NETR 1979).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: East

Photographer: Lauren Dunkle

Date: August 3, 2022

View of the primary (northwest) elevation of 1134 Avenue C.

Plate: 2

Photo view: West

Photographer: Lauren Dunkle

Date: August 3, 2022

View of the rear (southeast) elevation of 1134 Avenue C.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: South

Photographer: Lauren Dunkle

Date: August 3, 2022

View of the surrounding area of Avenue C.

HISTORIC DISTRICT OVERLAY

Historic Sites #:

District Name: West 56th Street Historic District

County(s): Hudson **District Type:** Residential

Municipality(s): City of Bayonne **USGS Quad(s):** Jersey City, NJ-NY

Local Place Name(s):

Development Period: 1968 **To:** Circa 1973 **Source:** The Jersey Journal, 9 September 1968:3; 16 September 1973:2

Physical Condition: Good

Remaining Historic Fabric: High

Registration and Status Dates:

National Historic Landmark:
National Register:
New Jersey Register:
Determination of Eligibility:
SHPO Opinion:
Local Designation:
Other Designation:
Other Designation Date:

Description:

The West 56th Street Historic District is a residential district situated on the either side of West 56th Street, west of its intersection with Avenue C in the City of Bayonne, Hudson County, New Jersey (Plates 1-18). Built between 1968 and circa 1970, the 19 attached rowhouses comprising the district are three stories tall, with facades veneered with brick over frame construction that is clad in a variety of different siding materials on the secondary elevations. They occupy the following parcels: Block 28, Lots 6-17, and Block 27, Lots 6-12. Most of the properties within the district are sited on rectangular-shaped lots ranging in size from 0.09 to 0.04 acres. The rowhouses are organized in four groups, with two nearly identical blocks of six units each on the southwest side of West 56th Street. These rowhouses are roughly centered on their lots, with front and rear yards of nearly equal depth. On the northeast side of the street are a group of four rowhouses and a group of three rowhouses. Due to the configuration of the development site, the rowhouses at the southeast end of West 56th Street sit closer to the front property line and have shallow rear yards, while those at the northwest end of the district have deep rear yards. Each rowhouse is two bays wide and topped by a flat roof sheathed in rolled asphalt. Residences in the district repeat one of two distinct designs but have many shared features, including brick-clad primary elevations, basement-level garages, vinyl doors and windows, glass block window accents, and second-story balconies separated by brick buttresses and accessed via vinyl-frame sliding glass doors. The rowhouses stylistically are a mix between early twentieth century New Formalist design and Mansard Style sensibilities. All rowhouses have flat roofs with variations between their parapets. They vary between a simple brick parapet, and a false front shingled mansard roof—usually trading off between every two rowhouses. Most of the rowhouses within the district have undergone minimal alterations, with mostly vinyl replacements in fenestration and sheathing.

Setting:

The West 56th Street Historic District is located in the City of Bayonne, on either side of West 56th Street, west of its intersection with Avenue C. West 56th Street terminates in a dead end at the eastern end of the district. The 1.4-acre district is located within a dense, urban setting consisting primarily of early to mid-twentieth-century residential buildings, with interspersed commercial buildings of similar age. The NB-HCE is located approximately 194.5 feet to the north of the district.

BASE SURVEY FORM

Historic Sites #:

Property Name: 46 West 56th Street

Street Address: *Street #:* 46 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 28

Local Place Name(s): _____ **Lot(s):** 17

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 46 West 56th Street is a three-story-tall, two-bay-wide rowhouse that displays stylistic elements of New Formalism and directly abuts a neighboring rowhouse of the same age and overall design to the southeast (see Plate 1). The building is capped by a flat roof covered in rolled asphalt and features a parapet with vinyl flashing across its primary (northeast) elevation. The primary elevation is clad with brick, and the northwest and southwest elevations are clad with vinyl siding. On the second and third stories of the primary elevation, a set of vinyl pilasters capped with a curved cornice frame the western bay. The western bay of the third story contains a pair of six-over-six, double-hung, vinyl-sash windows, and the western bay of the second story contains a sliding glass door which leads to a balcony with a simple, metal railing. In the eastern bay, a narrow, vertical ribbon of glass block that is one unit wide extends from the first to third story, interrupted by the balcony. The western bay of the first story contains a central picture window, flanked by smaller, double-hung units, all with vinyl sashes. *See Continuation Sheet*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

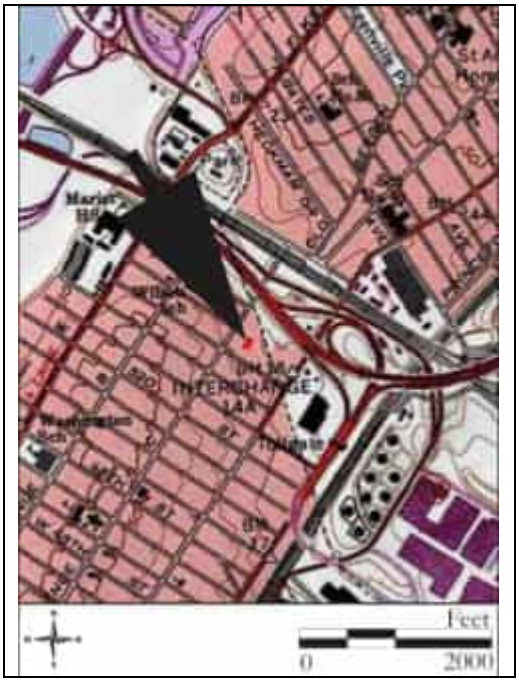
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 45 West 56th Street

Street Address: *Street #:* 45 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 27

Local Place Name(s): _____ **Lot(s):** 6

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 45 West 56th Street is a three-story-tall, two-bay-wide rowhouse that displays stylistic elements of New Formalism and directly abuts a neighboring rowhouse of the same age and overall design to the southeast (see Plate 2). The building is capped by a flat roof covered in rolled asphalt and features a parapet with vinyl flashing across its primary (southwest) elevation. The primary elevation is clad with brick, and the southeast and northeast elevations are clad with vinyl siding. On the second and third stories of the primary elevation, a set of vinyl pilasters capped with a cornice frame the western bay. The western bay of the third story contains a pair of double-hung, vinyl-sash windows, and the western bay of the second story contains a sliding glass door which leads to a balcony with a simple, metal railing. In the eastern bay, a narrow, vertical ribbon of glass block that is one unit wide extends from the first to third story, interrupted by the balcony. The western bay of the first story contains a central picture window, flanked by smaller, double-hung units, all with vinyl sashes. *See Continuation Sheet*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 44 West 56th Street

Street Address: *Street #:* 44 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 28

Local Place Name(s): _____ **Lot(s):** 16

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 44 West 56th Street is a three-story-tall, two-bay-wide rowhouse that displays stylistic elements of New Formalism and directly abuts a neighboring rowhouse of the same age and overall design to the northwest (see Plate 3). The building is capped by a flat roof covered in rolled asphalt and features a parapet with vinyl flashing across its primary (northeast) elevation. The primary elevation is clad with brick, and the northwest and southwest elevations are clad with vinyl siding. On the second and third stories of the primary elevation, a set of vinyl pilasters capped with a curved cornice frame the eastern bay. The eastern bay of the third story contains a set of three double-hung, vinyl-sash windows, and the eastern bay of the second story contains a sliding glass door which leads to a balcony with a simple, metal railing. In the western bay, a narrow, vertical ribbon of glass block that is one unit wide extends from the first to third floor, interrupted by the balcony. The eastern bay of the first floor contains a set of three double-hung, vinyl-sash windows. The western bay of the first floor contains the primary entrance, consisting of a paneled vinyl door with a fanlight. The primary entrance is accessed via six brick steps that lead up to an elevated shared landing. Below the landing is a paneled vinyl door with a fanlight that accesses the basement level. The eastern bay of the basement level is occupied by a vinyl rolltop garage door. The rear (southwest) elevation was not visible from the public right-of-way (ROW).

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

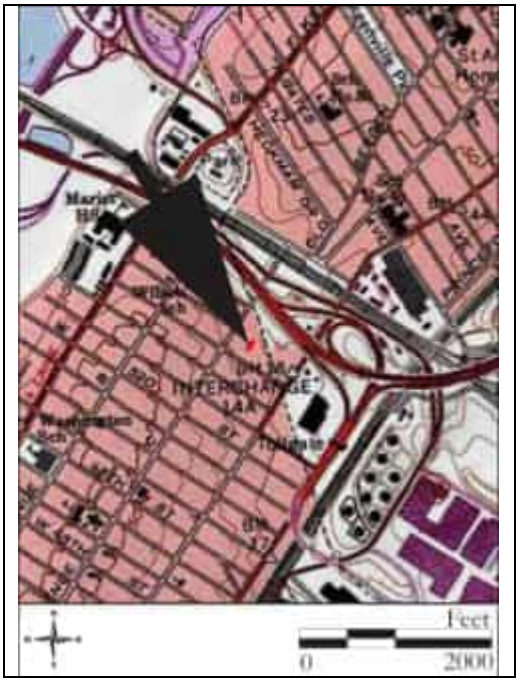
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 43 West 56th Street

Street Address: *Street #:* 43 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 27

Local Place Name(s): _____ **Lot(s):** 7

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 43 West 56th Street is a three-story-tall, two-bay-wide rowhouse that displays stylistic elements of New Formalism and directly abuts a neighboring rowhouse of the same age and overall design to the southeast and northwest (see Plate 4). The building is capped by a flat roof covered in rolled asphalt and features a parapet with vinyl flashing across its primary (southwest) elevation. The primary elevation is clad with brick, and the northeast elevation is clad with vinyl siding. On the second and third stories of the primary elevation, a set of vinyl pilasters capped with a curved cornice frame the western bay. The western bay of the third story contains a pair of double-hung, vinyl-sash windows, and the western bay of the second story contains a sliding glass door which leads to a balcony with a simple, metal railing. In the eastern bay, a narrow, vertical ribbon of glass block that is one unit wide extends from the first to third story, interrupted by the balcony. The western bay of the first story contains a set of three double-hung, vinyl sashes. The eastern bay of the first story contains the primary entrance, consisting of a central-light door. The primary entrance is accessed via seven brick steps that lead up to a shared, elevated landing. Below the landing is a paneled vinyl door with a fanlight that accesses the basement level. The western bay of the basement level is occupied by a vinyl rolltop garage door. The rear (northeast) elevation was not visible from the public ROW.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

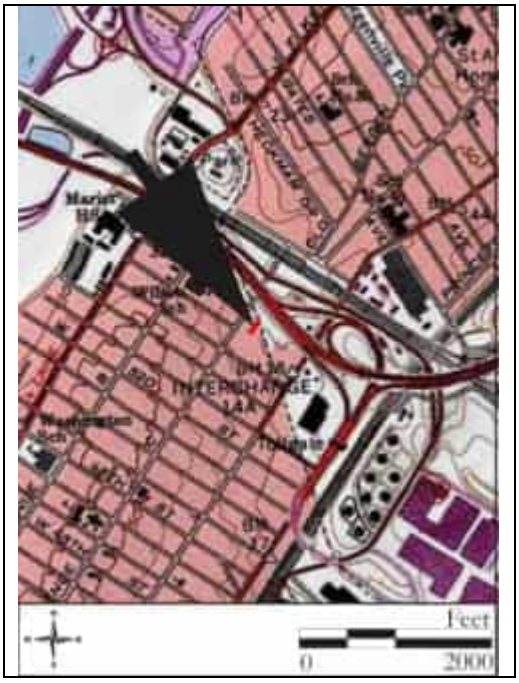
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 42 West 56th Street

Street Address: *Street #:* 42 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 28

Local Place Name(s): _____ **Lot(s):** 15

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 42 West 56th Street is a three-story-tall, two-bay-wide rowhouse that displays modest elements of the Mansard style (see Plate 5). The building is capped by a flat roof covered in rolled asphalt. The building is directly abutted by rowhouses of the same age to the northwest and southeast. The primary (northeast) elevation is primarily faced with brick, with the exception of the third story which is dominated by a false mansard roof covered in wood shingles. The false mansard roof is interrupted by a group of three four-over-four, double-hung, vinyl-sash windows. The western bay of the second story contains a sliding glass door in a vinyl frame that leads out to a full-length balcony with a simple, metal railing. In the eastern bay, a narrow, vertical ribbon of glass block that is one unit wide and extends down to first story, interrupted by the balcony. The first story contains a picture window flanked by smaller, double-hung units in its western bay and the primary entrance in its eastern bay. The primary entrance consists of a paneled door, accessed via six brick steps that lead up to an elevated, shared landing. Below the landing is a paneled vinyl door that accesses the basement level. The western bay of the basement level contains a vinyl rolltop garage door. The rear (southwest) elevation was not visible from the public ROW.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

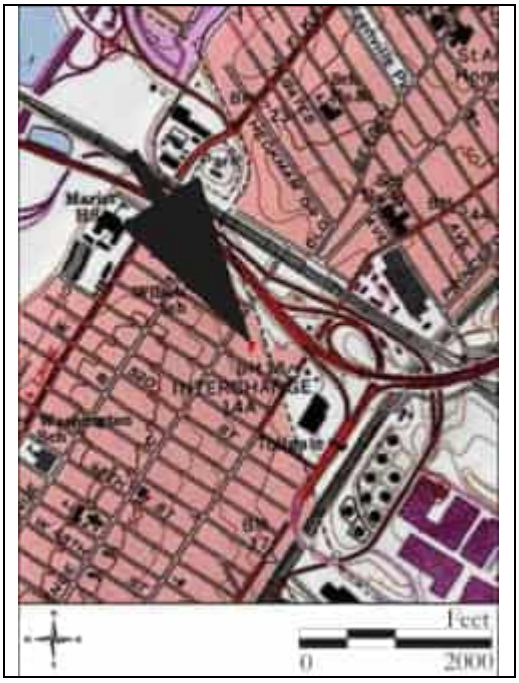
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 41 West 56th Street

Street Address: *Street #:* 41 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 27

Local Place Name(s): _____ **Lot(s):** 8

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 41 West 56th Street is a three-story-tall, two-bay-wide rowhouse that displays stylistic elements of New Formalism and directly abuts a neighboring rowhouse of the same age to the southeast and northwest (see Plate 4). The building is capped by a flat roof covered in rolled asphalt and features a parapet with vinyl flashing across its primary (southwest) elevation. The primary elevation is clad with brick, and the northeast elevation is clad with vinyl siding. On the second and third stories of the primary elevation, a set of vinyl pilasters capped with a curved cornice frame the eastern bay. The eastern bay of the third story contains a set of three double-hung, vinyl-sash windows, and the eastern bay of the second story contains a sliding glass door which leads to a balcony with a simple, metal railing. A narrow, vertical ribbon of glass block that is one unit-wide extends from the first to third story, interrupted by the balcony. The eastern bay of the first story contains a set of four six-light casement windows. The western bay of the first story contains the primary entrance, consisting of a central-light wood door. The primary entrance is accessed via seven brick steps that lead up to a shared, elevated landing. Below the landing is a paneled vinyl door that accesses the basement level. The eastern bay of the basement level is occupied by a vinyl rolltop garage door. The rear (northeast) elevation was not visible from the public ROW.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 40 West 56th Street

Street Address: *Street #:* 40 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 28

Local Place Name(s): _____ **Lot(s):** 14

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 40 West 56th Street is a three-story-tall, two-bay-wide rowhouse that displays modest elements of the Mansard style (see Plate 6). The building is capped by a flat roof covered in rolled asphalt. The building is directly abutted by rowhouses of the same age to the northwest and southeast. The primary (northeast) elevation is primarily faced with brick, with the exception of the third story which is dominated by a false mansard roof covered in wood shingles. The false mansard roof is interrupted by a group of three eight-light fixed windows. The eastern bay of the second story contains by a sliding glass door in a vinyl frame that leads out to a full-length balcony with a simple, metal railing. In the western bay, a narrow, vertical strip of glass block that is one unit wide extends down to first story, interrupted by the balcony. The first story contains a picture window flanked by smaller, eight-light, fixed units in its eastern bay, and the primary entrance in its western bay. The primary entrance consists of a center-light vinyl paneled door and a metal storm door, accessed via six brick steps that lead up to an elevated, shared landing. Below the landing is a paneled, vinyl door that accesses the basement level. The eastern bay of the basement level contains a vinyl rolltop garage door. The rear (southwest) elevation was not visible from the public ROW.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

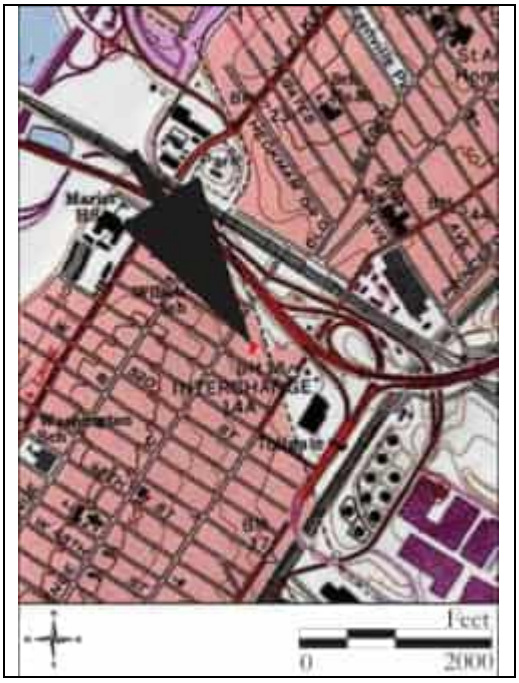
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 39 West 56th Street

Street Address: *Street #:* 39 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 27

Local Place Name(s): _____ **Lot(s):** 9

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 39 West 56th Street is a three-story-tall, two-bay-wide rowhouse that displays stylistic elements of New Formalism and directly abuts a neighboring rowhouse of the same age to the southeast (see Plate 7). The building is capped by a flat roof covered in rolled asphalt and features a parapet with vinyl flashing across its primary (southwest) elevation. The primary elevation is clad with brick, and the southeast and northeast elevations are clad with vinyl siding. On the second and third stories of the primary elevation, a set of vinyl pilasters capped with a bent cornice frame the eastern bay. The eastern bay of the third story contains a pair of double-hung, vinyl-sash windows, and the eastern bay of the second story contains a sliding glass door which leads to a balcony with a simple, metal railing. In the western bay, a narrow, vertical ribbon of glass block that is one unit wide extends from the first to third story, interrupted by the balcony. The eastern bay of the first story contains a central picture window, flanked by smaller, double-hung units, all with vinyl sashes. The western bay of the first story contains the primary entrance, consisting of a six-light door and a vinyl and glass storm door. *See Continuation Sheet.*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 38 West 56th Street

Street Address: *Street #:* 38 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 28

Local Place Name(s): _____ **Lot(s):** 13

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 38 West 56th Street is a three-story-tall, two-bay-wide rowhouse that displays stylistic elements of New Formalism and directly abuts a neighboring rowhouse of the same age and overall design to the northwest (see Plate 8). The building is capped by a flat roof covered in rolled asphalt and features a parapet with vinyl flashing across its primary (northeast) elevation. The primary elevation is clad with brick, and the northwest elevation is clad with vinyl siding. On the second and third stories of the primary elevation, a set of vinyl pilasters capped with a cornice frame the eastern bay. The western bay of the third story contains a set of three fixed, vinyl-sash windows, and the western bay of the second story contains a sliding glass door which leads to a balcony with a simple, metal railing. In the eastern bay, a narrow, vertical ribbon of glass block that is one unit wide extends from the first to third story, interrupted by the balcony. The western bay of the first story contains a set of four fixed vinyl sash windows. The eastern bay of the first story contains the primary entrance, consisting of a center light vinyl door with a vinyl storm door. The primary entrance is accessed via nine brick steps that lead up to an elevated, shared landing. Below the landing is a paneled vinyl door with a vinyl screen door that accesses the basement level. The western bay of the basement level is occupied by a vinyl rolltop garage door. The rear (southwest) elevation was not visible from the public ROW.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

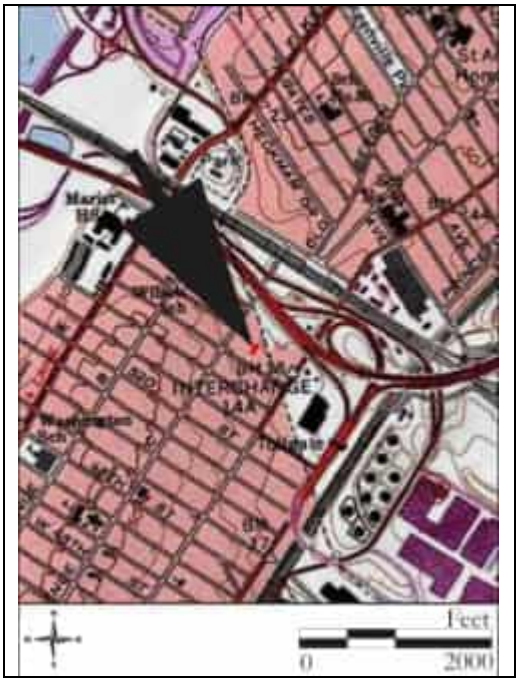
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 37 West 56th Street

Street Address: *Street #:* 37 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 27

Local Place Name(s): _____ **Lot(s):** 10

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 37 West 56th Street is a three-story-tall, two-bay-wide rowhouse that displays stylistic elements of New Formalism and directly abuts a neighboring rowhouse of the same age to the southeast (see Plate 9). The building is capped by a flat roof covered in rolled asphalt and features a parapet with vinyl flashing across its primary (southwest) elevation. The primary elevation is clad with brick, and the northwest and northeast elevations are clad with vinyl siding. On the second and third stories of the primary elevation, a set of vinyl pilasters capped with a cornice frame the western bay. The western bay of the third story contains a set of eight-light casement, vinyl sash windows, and the western bay of the second story contains a 15-light sliding glass door which leads to a balcony with a simple, metal railing. In the eastern bay, a narrow, vertical ribbon of glass block that is one unit wide extends from the first to third story, interrupted by the balcony. The western bay of the first story contains a central picture window, flanked by smaller four-over-four, double-hung units, all with vinyl sashes. The eastern bay of the first story contains the primary entrance, consisting of a paneled door and a vinyl and glass storm door. *See Continuation Sheet*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

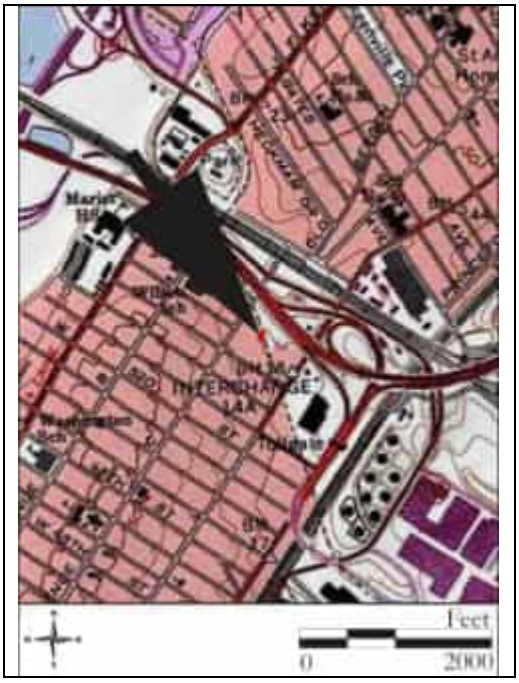
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 36 West 56th Street

Street Address: *Street #:* 36 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 28

Local Place Name(s): _____ **Lot(s):** 12

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 36 West 56th Street is a three-story-tall, two-bay-wide rowhouse that displays stylistic elements of New Formalism and directly abuts a neighboring rowhouse of the same age and overall design to the northwest (see Plate 11). The building is capped by a flat roof covered in rolled asphalt and features a parapet with vinyl flashing across its primary (northeast) elevation. The primary elevation is clad with brick, and the southwest and northwest elevations are clad with vinyl siding. On the second and third stories of the primary elevation, a set of vinyl pilasters capped with a bent cornice frame the eastern bay. The eastern bay of the third story contains a set of three four-over-four, double-hung, vinyl-sash windows, and the eastern bay of the second story contains a sliding glass door which leads to a balcony with a simple, metal railing. In the western bay, a narrow, vertical ribbon of glass block that is one unit wide extends from the first to third story, interrupted by the balcony. The eastern bay of the first story contains a set of three six-over-six double-hung, vinyl-sash windows. The western bay of the first story contains the primary entrance, consisting of a wood door with a wood storm door. *See Continuation Sheet*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

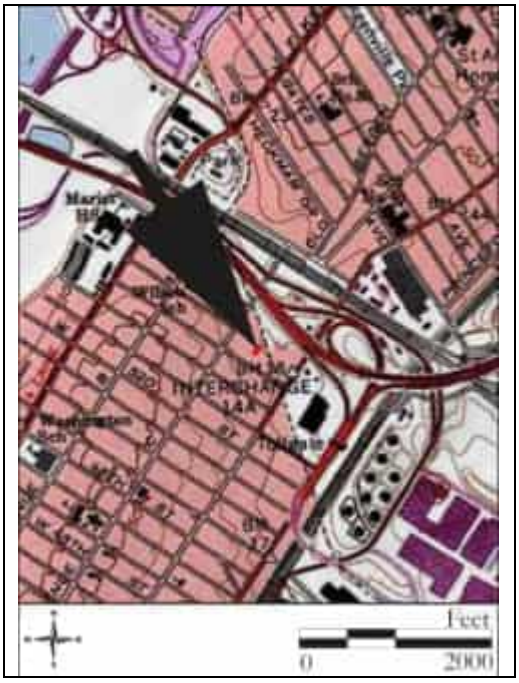
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 35 West 56th Street

Street Address: *Street #:* 35 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 27

Local Place Name(s): _____ **Lot(s):** 11

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 35 West 56th Street is a three-story-tall, two-bay-wide rowhouse that displays stylistic elements of New Formalism and directly abuts a neighboring rowhouse of the same age to the northwest (see Plate 11). The building is capped by a flat roof covered in rolled asphalt and features a parapet with vinyl flashing across its primary (southwest) elevation. The primary elevation is clad with brick, and the northeast elevation is clad with vinyl siding. On the second and third stories of the primary elevation, a set of vinyl pilasters capped with a bent cornice frame the eastern bay. The eastern bay of the third story contains a set of eight-light casement, vinyl sash windows, and the eastern bay of the second story contains a sliding glass door which leads to a balcony with a simple, metal railing. In the western bay, a narrow, vertical ribbon of glass block that is one unit wide extends from the first to third story, interrupted by the balcony. The eastern bay of the first story contains a set of three double-hung, vinyl-sash windows. The western bay of the first story contains the primary entrance, consisting of a paneled door and a vinyl storm door. The primary entrance is accessed via six brick steps that lead up to a shared, elevated landing. Below the landing is a multi-light vinyl door that accesses the basement level. The eastern bay of the basement level is occupied by a vinyl rolltop garage door. The rear (northeast) elevation was not visible from the public ROW.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

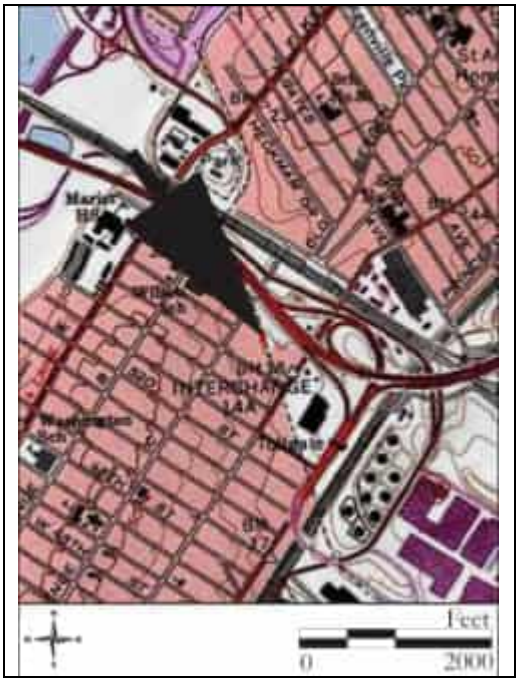
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 34 West 56th Street

Street Address: *Street #:* 34 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 28

Local Place Name(s): _____ **Lot(s):** 11

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 34 West 56th Street is a three-story-tall, two-bay-wide rowhouse that displays stylistic elements of New Formalism and directly abuts a neighboring rowhouse of the same age and styling to the southeast (see Plate 12). The building is capped by a flat roof covered in rolled asphalt and features a parapet with vinyl flashing across its primary (northeast) elevation. The primary elevation is clad with brick, and the southwest and northwest elevations are clad with vinyl siding. On the second and third stories of the primary elevation, a set of vinyl pilasters capped with a cornice frame the western bay. The western bay of the third story contains a set of three four-over-four, double-hung, vinyl-sash windows, and the western bay of the second story contains a sliding glass door which leads to a balcony with a simple, metal railing. In the eastern bay, a narrow, vertical ribbon of glass block that is one unit wide extends from the first to third story, interrupted by the balcony. The western bay of the first story contains a central picture window, flanked by smaller, four-over-four, double-hung units, all with vinyl sashes. The eastern bay of the first story contains the primary entrance, consisting of a paneled, center-light wood door with a wood storm door. *See Continuation Sheet*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

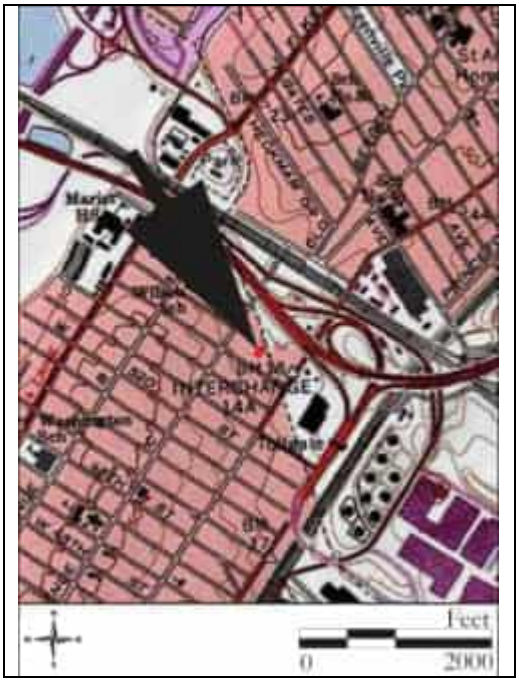
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 33 West 56th Street

Street Address: *Street #:* 33 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 27

Local Place Name(s): _____ **Lot(s):** 12

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 33 West 56th Street is a three-story-tall, two-bay-wide semi-detached brick dwelling that displays elements of the Mansard Style (see Plate 13). The subject dwelling is different than others in its type, with it being larger and more faithful to the Mansard Style. Capped with a rolled asphalt flat roof, a shingled mansard false front extends across the southwest elevation. A single casement window recessed within the false Mansard roof pierces the western bay of the third story. The eastern bay contains a pair of double-hung, vinyl window sashes and a single double-hung, vinyl window sash set within a vertical cut-out in the false Mansard roof. A small, fixed oculus window flanked on its east side by a narrow, vertical ribbon of glass block pierces the western bay of the second story. The eastern bay of the second story contains a three-unit glass sliding door that leads onto a small, cantilevered balcony with a metal railing. The main entrance occupies the western bay of the first story, where a robustly paneled front door, flanked on its east side by a narrow, vertical ribbon of glass block, is sheltered by a small, flat, porch roof supported at the south corner by a square, brick column. *See Continuation Sheet*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

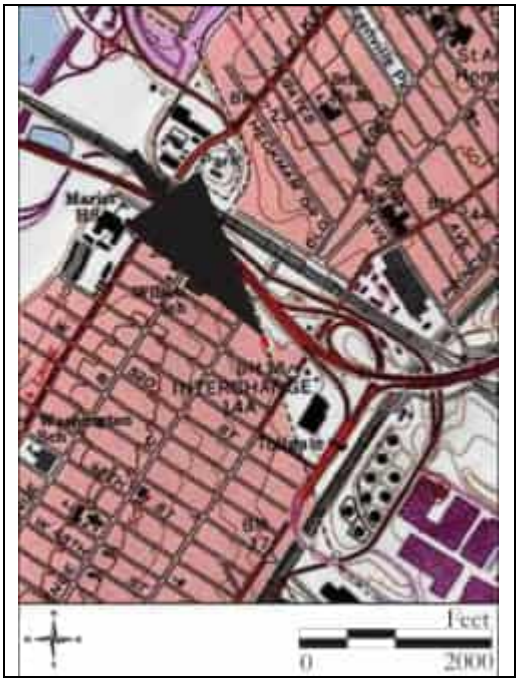
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 32 West 56th Street

Street Address: *Street #:* 32 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 28

Local Place Name(s): _____ **Lot(s):** 10

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 32 West 56th Street is a three-story-tall, two-bay-wide rowhouse that displays stylistic elements of New Formalism and directly abuts a neighboring rowhouse of the same age to the southeast and northwest (see Plate 14). The building is capped by a flat roof covered in rolled asphalt and features a parapet with vinyl flashing across its primary (northeast) elevation. The primary elevation is clad with brick, and the southwest elevation is clad with vinyl siding. On the second and third stories of the primary elevation, a set of vinyl pilasters capped with a cornice frame the eastern bays. The eastern bay of the third story contains a set of three double-hung, vinyl-sash windows, and the eastern bay of the second story contains a sliding glass door which leads to a balcony with a simple, metal railing. In the western bay, a narrow, vertical ribbon of glass block that is one unit wide extends from the first to third story, interrupted by the balcony. The eastern bay of the first story contains a central picture window, flanked by smaller, double-hung units, all with vinyl sashes. The western bay of the first story contains the primary entrance, consisting of a paneled, vinyl door with a fanlight. The primary entrance is accessed via seven brick steps that lead up to an elevated, shared landing. Below the landing is a vinyl door that accesses the basement level. The eastern bay of the basement level is occupied by a paneled vinyl rolltop garage door. The rear (southwest) elevation was not visible from the public ROW.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

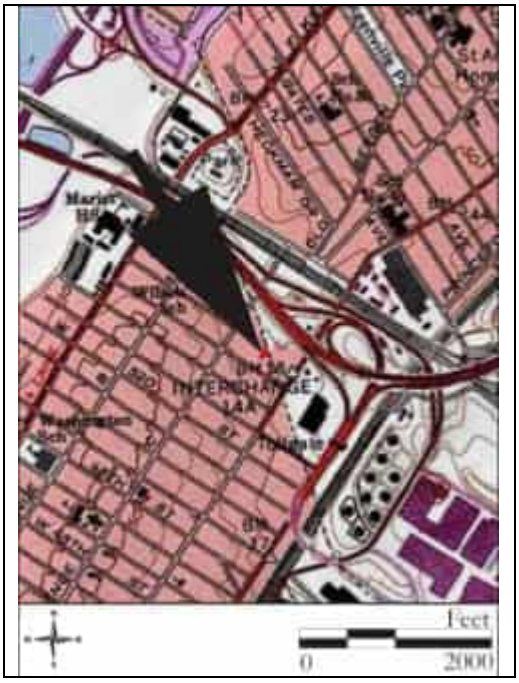
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 30 West 56th Street

Street Address: *Street #:* 30 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 28

Local Place Name(s): _____ **Lot(s):** 9

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 30 West 56th Street is a three-story-tall, two-bay-wide rowhouse that displays modest elements of the Mansard style (see Plate 15). The building is capped by a flat roof covered in rolled asphalt and is directly abutted by rowhouses of the same age to the northwest and southeast. The primary (northeast) elevation is primarily faced with brick, with the exception of the third story which is dominated by a false mansard roof covered in wood shingles. A pair of double-hung, vinyl-sash windows is set within a vertical cut-out in the false Mansard roof. The western bay of the second story contains a sliding glass door in a vinyl frame that leads out to a full-width, cantilevered balcony with a simple, metal railing. A narrow, vertical ribbon of glass block that is one unit wide extends down to first story, interrupted by the balcony. The first story contains a picture window flanked by smaller, double-hung units in its western bay, and the primary entrance in its eastern bay. The primary entrance consists of a center light wood paneled door, accessed via seven brick steps that lead up to an elevated shared landing. Below the landing is a paneled wood door that accesses the basement level. The western bay of the basement level contains a vinyl rolltop garage door. The rear (southwest) elevation was not visible from the public ROW.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

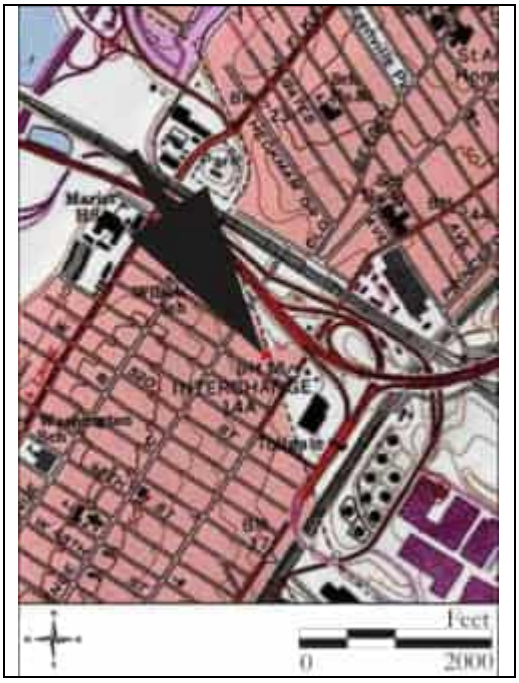
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 28 West 56th Street

Street Address: *Street #:* 28 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 28

Local Place Name(s): _____ **Lot(s):** 8

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 28 West 56th Street is a three-story-tall, two-bay-wide rowhouse that displays modest elements of the Mansard style (see Plate 16). The building is capped by a flat roof covered in rolled asphalt. The building is directly abutted by rowhouses of the same age to the northwest and southeast. The primary (northeast) elevation is primarily faced with brick, with the exception of the third story which is dominated by a false mansard roof covered in wood shingles. A pair of double-hung, vinyl-sash windows are set within a vertical cut-out in the false Mansard roof. The eastern bay of the second story contains a sliding glass door in a vinyl frame that leads out to a full-width balcony with a simple, metal railing. A narrow, vertical ribbon of glass block that is one unit wide extends down to first story, interrupted by the balcony. The first story contains a set of three double-hung, vinyl window units in its eastern bay, and the primary entrance in its western bay. The primary entrance consists of a center-light, wood-paneled door, accessed via seven brick steps that lead up to an elevated, shared landing. Below the landing is a wood door that accesses the basement level. The eastern bay of the basement level contains a vinyl rolltop garage door. The rear (southwest) elevation was not visible from the public ROW.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

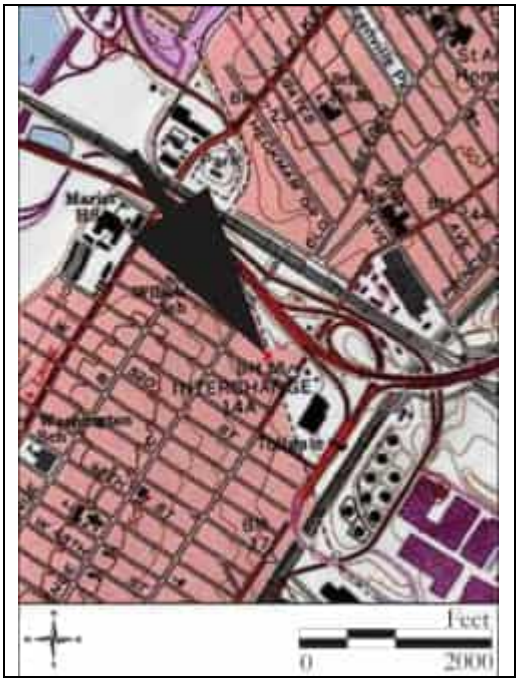
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 26 West 56th Street

Street Address: *Street #:* 26 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 28

Local Place Name(s): _____ **Lot(s):** 7

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 26 West 56th Street is a three-story-tall, two-bay-wide rowhouse that displays stylistic elements of New Formalism and directly abuts neighboring rowhouses of the same age to the southeast and northwest (see Plate 17). The building is capped by a flat roof covered in rolled asphalt and features a parapet with vinyl flashing across its primary (northeast) elevation. The primary elevation is clad with brick, and the southwest elevation is clad with vinyl siding. On the second and third stories of the primary elevation, a set of vinyl pilasters capped with a cornice frame the western bay. The western bay of the third story contains a set of three double-hung, vinyl-sash windows, and the western bay of the second story contains a sliding glass door which leads to a cantilevered balcony with a simple, metal railing. In the eastern bay, a narrow, vertical ribbon of glass block that is one unit wide extends from the first to third story, interrupted by the balcony. The western bay of the first story contains a central picture window, flanked by smaller, double-hung units, all with vinyl sashes. The eastern bay of the first story contains the primary entrance, consisting of a wood paneled door and a metal screen door. The primary entrance is accessed via eight brick steps that lead up to an elevated, shared landing. Below the landing is a louvered wood door that accesses the basement level. The western bay of the basement level is occupied by a paneled, vinyl rolltop garage door. *See Continuation Sheet*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

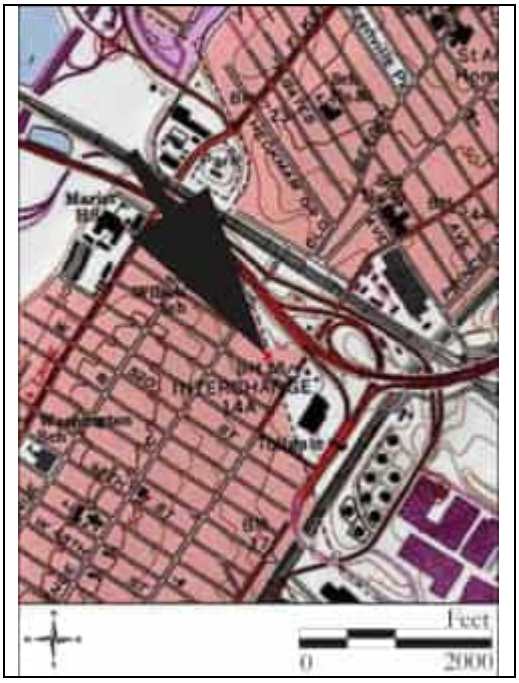
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Property Name: 24 West 56th Street

Street Address: *Street #:* 24 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: W *Street Name:* 56th *Suffix:* _____ *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 28

Local Place Name(s): _____ **Lot(s):** 6

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

Built circa 1973, 26 West 56th Street is a three-story-tall, two-bay-wide rowhouse that displays stylistic elements of New Formalism and directly abuts a neighboring rowhouse of the same age to the northwest (see Plate 18). The building is capped by a flat roof covered in rolled asphalt and features a parapet with vinyl flashing across its primary (northeast) elevation. The primary elevation is clad with brick, and the southeast and southwest elevations are clad with vinyl siding. On the second and third stories of the primary elevation, a set of vinyl pilasters capped with a cornice frame the eastern bay. The eastern bay of the third story contains a pair of double-hung, vinyl-sash windows, and the eastern bay of the second story contains a sliding glass door which leads to a cantilevered balcony with a simple, metal railing. In the western bay, a narrow, vertical ribbon of glass block that is one unit wide extends from the first to third story, interrupted by the balcony. The eastern bay of the first story contains a central picture window, flanked by smaller casement units, all with vinyl sashes. The western bay of the first story contains the primary entrance, consisting of a wood-paneled door and a vinyl screen door. The primary entrance is accessed via eight brick steps that lead up to an elevated, shared landing. Below the landing is a vinyl door that accesses the basement level. The eastern bay of the basement level is occupied by a paneled vinyl rolltop garage door. *See Continuation Sheet*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

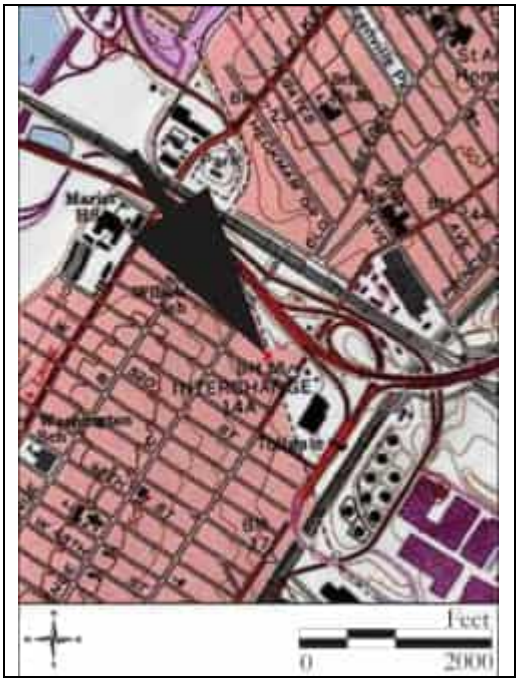
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
The West 56th Street Historic District is a collection of 19 rowhouses in the city of Bayonne, New Jersey. The dwellings within the district are intact examples of mid-twentieth-century rowhouses that display elements of New Formalism and the Mansard style. They remain a mostly cohesive collection that retains their layout, form, and many character-defining features. Alterations include additions and replacement of windows and doors on some dwellings, and some rear and side additions. Located within proximity of the NB-HCE, the development of the northern Bayonne during the mid-twentieth century was caused by the increase in commuter culture and a city that was an affordable and increasingly accessible alternative to larger cities.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The West 56th Street Historic District is recommended not eligible for listing in the National Register of Historic Places (NRHP) under Criteria A, B, or C. The buildings within the district are not related to a significant architect in a local, state, or national context. Architecturally, the rowhouses that compose the district display elements of New Formalism and the Mansard style, yet are unremarkable and lack architectural distinction. While minimally altered, replacement windows, doors, and siding diminish the properties' integrity of design, materials, workmanship, and feeling. For these reasons, the West 56th Street Historic District is recommended not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:

Historic District Overlay: West 56th Street Historic District
Base Survey Form: 46 West 56th Street
Base Survey Form: 45 West 56th Street
Base Survey Form: 44 West 56th Street
Base Survey Form: 43 West 56th Street
Base Survey Form: 42 West 56th Street
Base Survey Form: 41 West 56th Street
Base Survey Form: 40 West 56th Street
Base Survey Form: 39 West 56th Street
Base Survey Form: 38 West 56th Street
Base Survey Form: 37 West 56th Street
Base Survey Form: 36 West 56th Street
Base Survey Form: 35 West 56th Street
Base Survey Form: 34 West 56th Street
Base Survey Form: 33 West 56th Street
Base Survey Form: 32 West 56th Street
Base Survey Form: 30 West 56th Street
Base Survey Form: 28 West 56th Street
Base Survey Form: 26 West 56th Street
Base Survey Form: 24 West 56th Street

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

Building Description (Continued from 46 West 56th Street)
The eastern bay of the first story contains the primary entrance, consisting of a four-light, paneled vinyl door and a vinyl and glass storm door. The primary entrance is accessed via six brick steps that lead up to an elevated, shared landing. Below the landing is a paneled vinyl door with a fanlight that accesses the basement level. The western bay of the basement level is occupied by a vinyl, rolltop garage door. The northwest elevation has two irregularly placed bays per story, consisting of with small double-hung, vinyl windows. The rear (southwest) elevation was not visible from the public ROW.

Building Description (Continued from 45 West 56th Street)
The eastern bay of the first story contains the primary entrance, consisting of a center-light door and a vinyl and glass storm door. The primary entrance is accessed via seven brick steps that lead up to an elevated landing. Below the landing is a paneled vinyl door with a fanlight that accesses the basement level. The western bay of the basement level is occupied by a vinyl, rolltop garage door. The northwest elevation has two irregularly placed bays per story, consisting of with small, double-hung, vinyl windows. The rear (northeast) elevation was not visible from the public ROW.

Building Description (Continued from 39 West 56th Street)
The primary entrance is accessed via seven brick steps that lead up to an elevated landing. Below the landing is a nine-light paneled vinyl door that accesses the basement level. The eastern bay of the basement level is occupied by a vinyl, rolltop garage door. The southeast elevation has two irregularly placed bays per story, consisting of with small double-hung, vinyl windows. The rear (northeast) elevation was not visible from the public ROW.

Building Description (Continued from 37 West 56th Street)
The primary entrance is accessed via six brick steps that lead up to a shared elevated landing. Below the landing is a louvered wood door and a metal screen door that access the basement level. The western bay of the basement level is occupied by a vinyl, rolltop garage door. The northwest elevation has two irregularly placed bays per story, consisting of small, double-hung, vinyl windows. The rear (northeast) elevation was not visible from the public ROW.

Building Description (Continued from 36 West 56th Street)
The primary entrance is accessed via nine brick steps that lead up to an elevated, shared landing. Below the landing is a wood door that accesses the basement level. The eastern bay of the basement level is occupied by a vinyl rolltop garage door. The southeast elevation has two irregularly placed bays per story, consisting of small, double-hung, vinyl windows. The rear (southwest) elevation was not visible from the public ROW.

Building Description (Continued from 34 West 56th Street)
The primary entrance is accessed via seven brick steps that lead up to an elevated, shared landing. Below the landing is a wood door that accesses the basement level. The western bay of the basement level is occupied by a paneled vinyl, rolltop garage door. The northwest elevation has two irregularly placed bays per story, consisting of with small double-hung, vinyl windows. On the second story, a small, gabled protrusion sheathed in asphalt shingle extends off of the south bay. The rear (southwest) elevation was not visible from the public ROW.

Building Description (Continued from 33 West 56th Street)
The northwest side of the porch roof is anchored to the full-height buttress that separates 33 West 56th Street from the neighboring unit at 35 West 56th Street. The front door is accessed via seven brick steps that lead up to the raised porch. The eastern bay contains two double-hung, vinyl windows. The southeast elevation is clad in vinyl siding and consists of one bay, with a single, double-hung, wood window on each story. The dwelling and lot are moderately covered in foliage. The southeast and northeast elevations are not visible.

CONTINUATION SHEET

Historic Sites #:

Building Description (Continued from 26 West 56th Street)
The rear (southwest) elevation is clad in vinyl. The third story features two bays, both of which consist of grouped two-unit vinyl, double-hung windows. Centrally located on the second story is a tripartite vinyl window consisting of a central fixed unit flanked on either side by double-hung units. The first story has two bays. The western bay has a single, vinyl, double-hung window. The eastern bay consists of a grouped, two-unit, double-hung, vinyl window.

Building Description (Continued from 24 West 56th Street)
The rear (southwest) elevation is clad in vinyl. The third story features two bays, both of which consist of grouped two-unit vinyl, double-hung windows. Centrally located on the second story is a tripartite vinyl window consisting of a central fixed unit flanked on either side by double-hung units. The first story is not visible.

History:
The West 56th Street Historic District encompasses a collection of 19 vernacular brick rowhouses constructed from 1968 to circa 1970 in the City of Bayonne, Hudson County, New Jersey. In the early twentieth century, the lots which now comprise the subject district remained vacant and undeveloped, with the exception of one circa-1919 frame building on the northeast side of West 56th Street, which was later demolished by 1934 (Sanborn Map Company 1912; Hopkins 1919, 1934; Figures 1 and 2). By 1934, several buildings associated with a neighboring dwelling at 1136 Avenue C were constructed on the southwest side of West 56th Street (Hopkins 1934; see Figure 2). A 1950 Sanborn Map indicates that these buildings were used as garages (Sanborn Map Company 1950; Figure 3). By 1950, a cement block factory owned by the Bayonne Block Company had been constructed to the southeast of the garages within the bounds of the present-day district (Sanborn Map Company 1950; see Figure 3). The factory consisted of two attached sections arranged in an 'L'-shaped footprint which contained a main production floor and a separate drying room. The Bayonne Block Company operated out of this location at least until 1963 (The Jersey Journal, 8 November 1963:45). The remaining property comprising the present-day district was still vacant in 1950 (Sanborn Map Company 1950). In 1956, the Newark Bay-Hudson County Extension of the New Jersey Turnpike was built along the Bayonne/Jersey City border just north of the district. Construction of the turnpike allowed faster travel between Manhattan and Jersey City, resulting in a population increase due to ease of access between the two cities.

In 1968, developers F.L. Studier, of Bayonne, and L. Pini & Sons, of Hoboken, partnered on a joint venture to buy the then-abandoned Bayonne Block Company building and surrounding parcels to construct 19 rowhouses on the lots (The Jersey Journal, 9 September 1968:3). By 1973, the two developers had demolished the Bayonne Block Company building and started construction on the rowhouses. In the same year they applied for a variance to build rowhouses on the irregular-shaped lots at 33-35 West 56th Street, which abut the Bayonne/Jersey City border (The Jersey Journal 16 September 1973:2). Between 1970 and circa 1973, all the rowhouses were completed. A 1979 aerial photograph shows the completed development (NETR 1979; Figure 4).

Stylistically, 14 of the 19 rowhouses display modest, restrained elements of New Formalism, an architectural style popular during the third quarter of the twentieth century. Innovated by New York architect Edward Durell Stone, as well as Philip Johnson and Minoru Yamasaki, New Formalism was a response to American Modernism that pervaded the architectural landscape of the 1950's. New Formalism used modern materials paired with classical design principles, creating a blend between modern technology and traditional form. Characteristics of the style include repeating columns and pilasters, monolithic construction, smooth features, and delicate details (Fullerton Heritage 2008). Although these rowhouses are not a high-style example of New Formalism in domestic architecture, they display features that, altogether, represent the style's influence in their design. Five of the 19 rowhouses display modest elements of the Mansard Style, an architectural style that was also popular in residential construction during the second half of the twentieth century. Emerging from the French Eclectic Style of the 1930's and 40's, the Mansard Style emerged in the 1960's and 70's and usually features a prominent, steeply sloped mansard roof that makes up the entirety of a building story. The mansard is usually has punched window openings and sheathed in cedar shingles or other similar cladding

CONTINUATION SHEET

Historic Sites #:

History, continued:

types. The use of modern style cues and materiality made it stand out against the previous French Eclectic Style it originated from (Department of Archaeology & Historic Preservation [DAHP] 2022).

Since their construction, buildings in the district have received minimal alterations. The most common alterations to the rowhouses are the replacement of doors and windows with vinyl units, which likely date from the late twentieth or early twenty-first century. Several rowhouses have had decks added to their rear elevations but otherwise do not have any major additions. The rowhouse at 34 West 56th Street has the only noticeable addition which protrudes from its southwest elevation.

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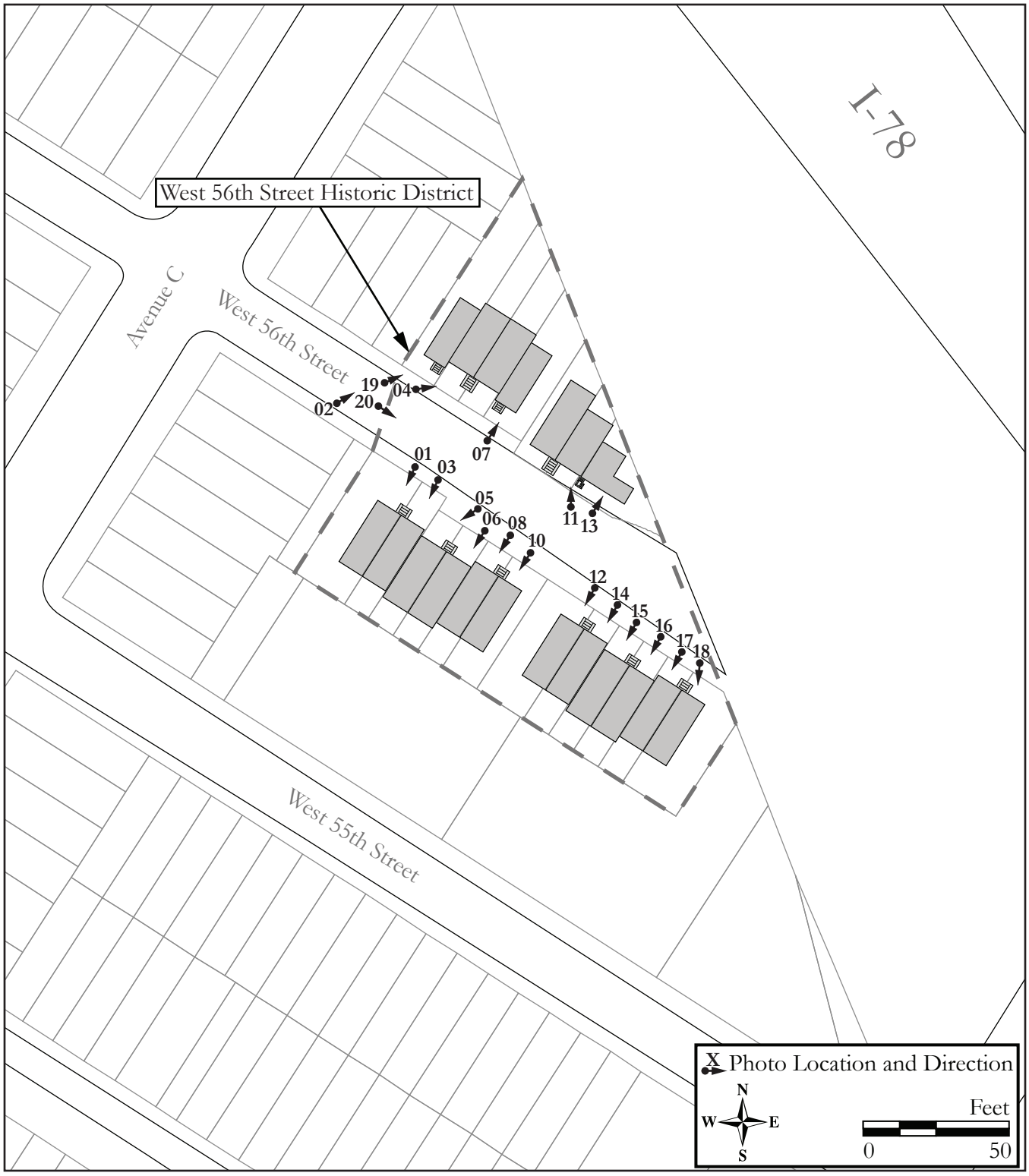

Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

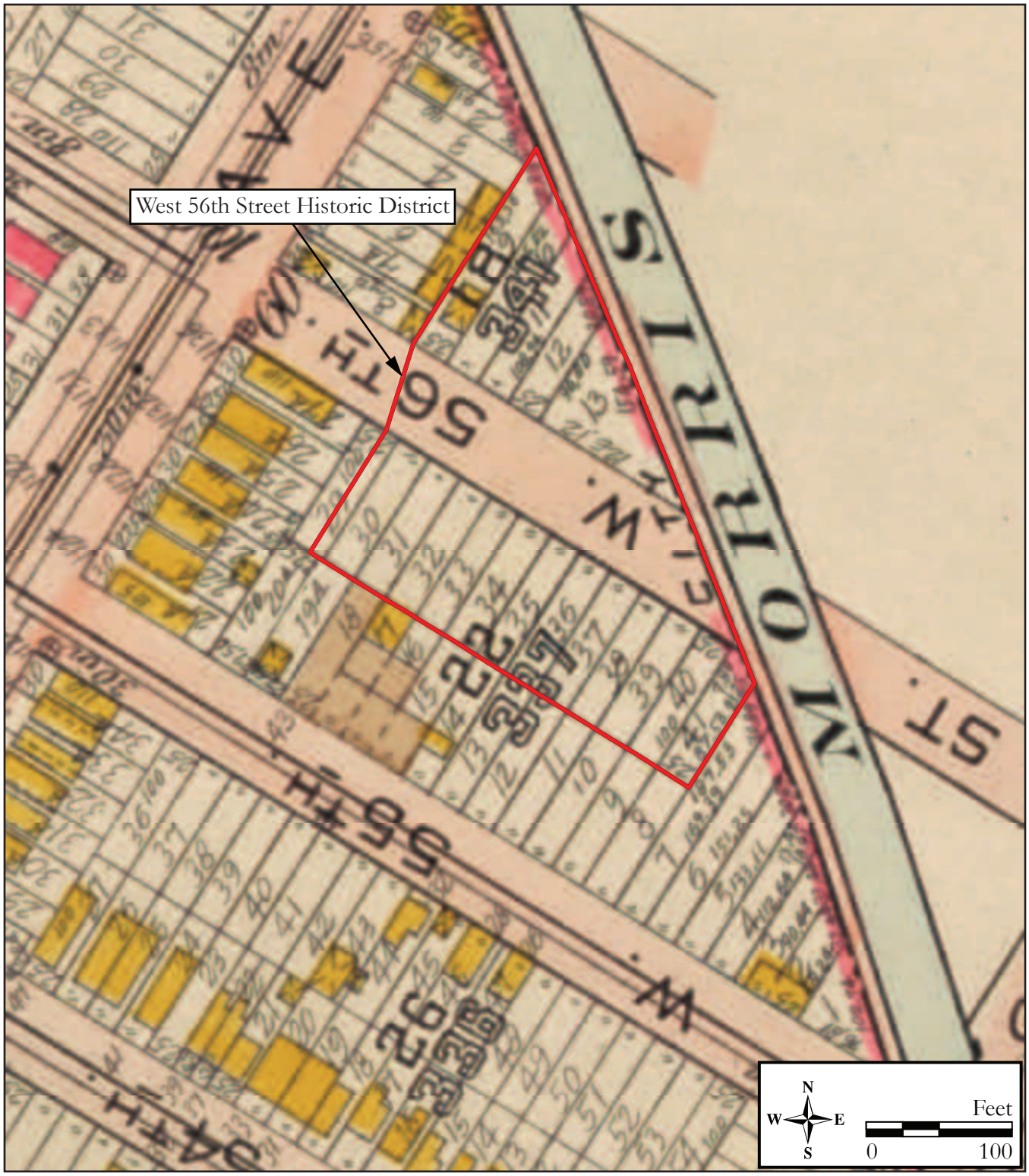

Figure 1: 1919 G.M. Hopkins, V*olume One Plat Book of Jersey City and Bayonne, Hudson County, New Jersey*, depicting the future site of the West 56th Street Historic District.

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CONTINUATION SHEET

Historic Sites #:

Figure 2: 1934 G. M. Hopkins, *Atlas of Hudson County, New Jersey; Volume Two Comprising Jersey City*, depicting buildings that would be demolished to make way for the rowhouses in the West 56th Street Historic District.

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CONTINUATION SHEET

Historic Sites #:

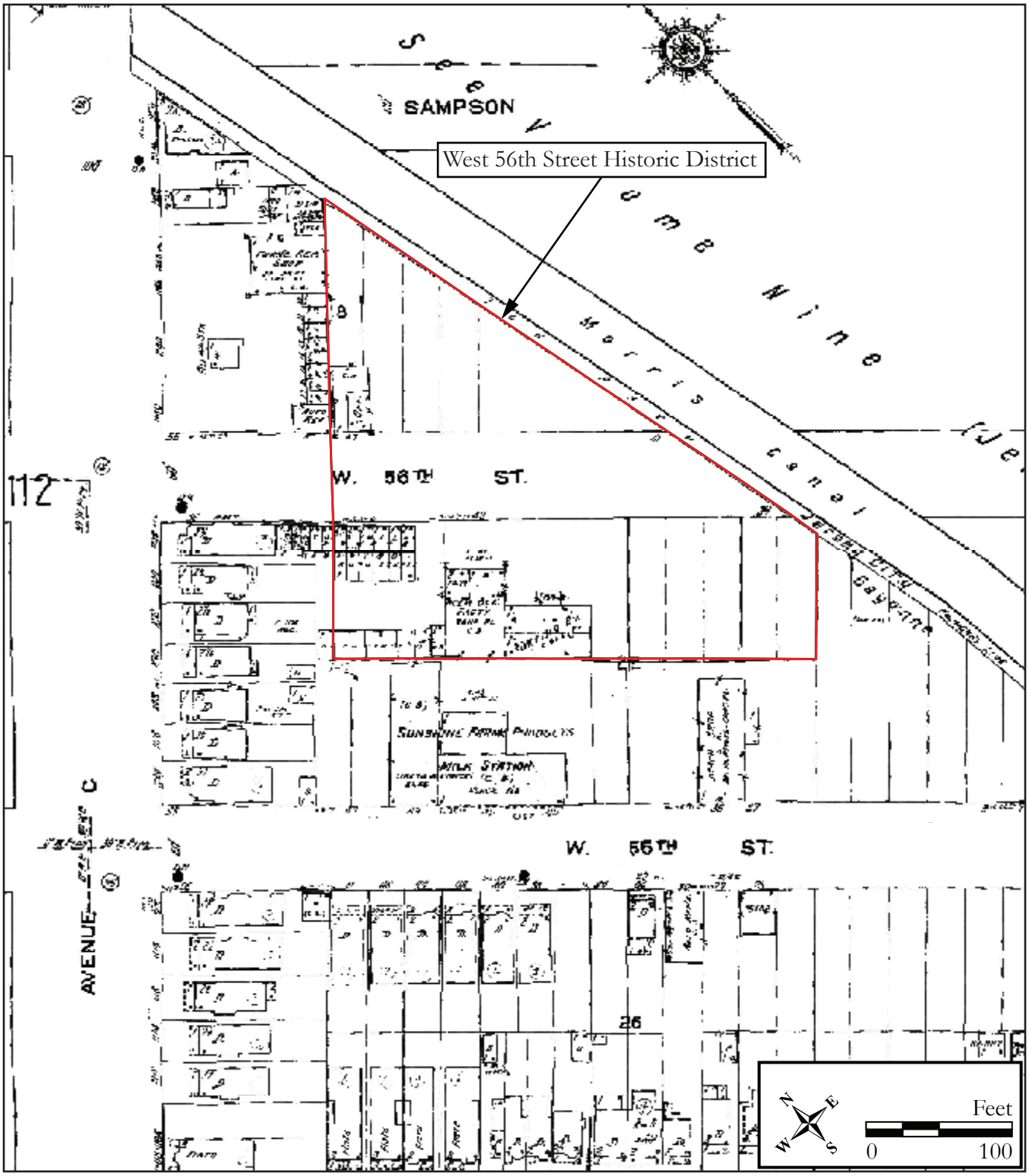


Figure 3: 1950 Sanborn Fire Insurance Map, *Bayonne, Hudson County, New Jersey*, depicting buildings that would be demolished to make way for the rowhouses in the West 56th Street Historic District

CONTINUATION SHEET

Historic Sites #:

Figure 4: 1979 historic aerial photograph of the West 56th Street Historic District (NETR 1979).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Southwest

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northeast) elevation of the rowhouse at 46 West 56th Street.

Plate: 2

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (southwest) elevation of the rowhouse at 45 West 56th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Southwest

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northeast) elevation of the rowhouse at 44 West 56th Street.

Plate: 4

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (southwest) elevation of the rowhouses at 43 & 41 West 56th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view: Southwest

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northeast) elevation of the rowhouse at 42 West 56th Street.

Plate: 6

Photo view: Southwest

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northeast) elevation of the rowhouse at 40 West 56th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 7

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (southwest) elevation of rowhouse at 39 West 56th Street.

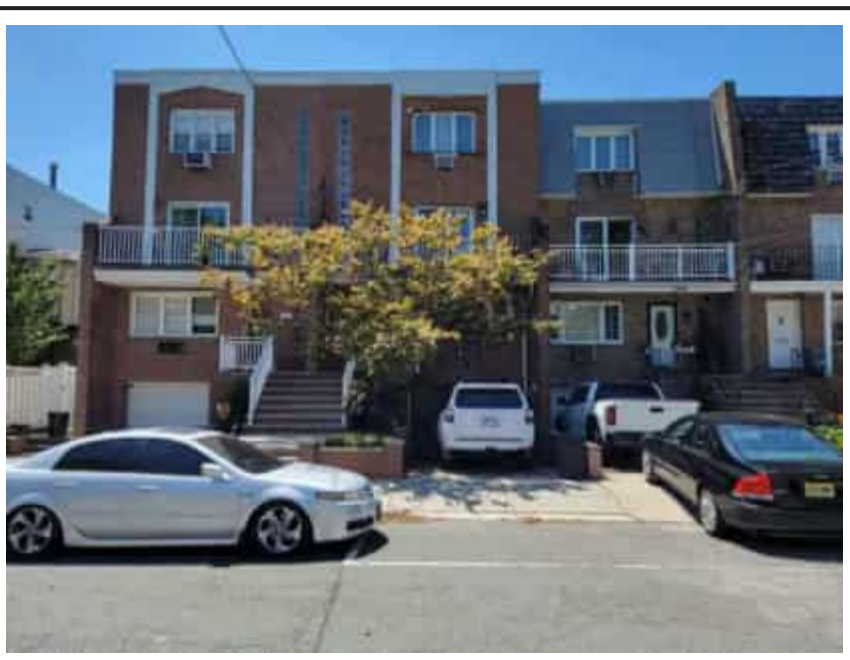


Plate: 8

Photo view: Southwest

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northeast) elevation of the rowhouse at 38 West 56th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 9

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (southwest) elevation of the rowhouse at 37 West 56th Street.

Plate: 10

Photo view: Southwest

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northeast) elevation of the rowhouse at 36 West 56th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 11

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (southwest) elevation of the rowhouse at 35 West 56th Street.

Plate: 12

Photo view: Southwest

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northeast) elevation of the rowhouse at 34 West 56th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 13

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (southwest) elevation of the rowhouse at 33 West 56th Street.

Plate: 14

Photo view: Southwest

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northeast) elevation of the rowhouse at 32 West 56th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 15

Photo view: Southwest

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northeast) elevation of the rowhouse at 30 West 56th Street.

Plate: 16

Photo view: Southwest

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northeast) elevation of the rowhouse at 28 West 56th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 17

Photo view: Southwest

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northeast) elevation of the rowhouse at 26 West 56th Street.

Plate: 18

Photo view: Southwest

Photographer: Spencer Rubino

Date: August 3, 2022

View of the primary (northeast) elevation of the rowhouse at 24 West 56th Street.

CONTINUATION SHEET

Historic Sites #:

Plate: 19

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

Street view of the odd number rowhouses in the West 56th Street Historic District, located on the northeast side of West 56th Street. .

Plate: 20

Photo view: Southeast

Photographer: Spencer Rubino

Date: August 3, 2022

Street view of the even number rowhouses in the in the West 56th Street Historic District, located on the southwest side of West 56th Street.

BASE SURVEY FORM

Historic Sites #:

Property Name: 19-31 West 55th Street

Street Address: *Street #:* 19 *(Low)* 31 *(High)* *Apartment #:* *(Low)* *(High)*

Prefix: W *Street Name:* 55th *Suffix:* *Type:* ST

County(s): Hudson **Zip Code:** 07002

Municipality(s): City of Bayonne **Block(s):** 28

Local Place Name(s): **Lot(s):** 3

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

The building at 19-31 West 55th Street is a one-story-tall industrial building which consists of two main sections. The original building, which dates to circa 1950, is constructed of concrete block and situated near the center of the parcel. Circa 1954, an addition was built on the northwest elevation of the original building, filling the area between the original building and the northwest property line (Plates 1-6). Both sections of the building abut the sidewalk that lines the southwest side of the parcel. The 1954 addition extends to the rear (northeast) property line, while the original building has a shallow setback. Each section is capped by a front-gabled roof sheathed in rolled asphalt, both of which are obscured on the building's primary (southwest) elevation by a tall parapet wall. The parapet wall extends across a narrow alley separating the subject building from another building immediately to the northwest at 33-45 West 55th Street. *See Building/Element Attachment*

Registration and Status Dates:

National Historic Landmark: SHPO Opinion:

National Register: Local Designation:

New Jersey Register: Other Designation:

Determination of Eligibility: Other Designation Date:

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

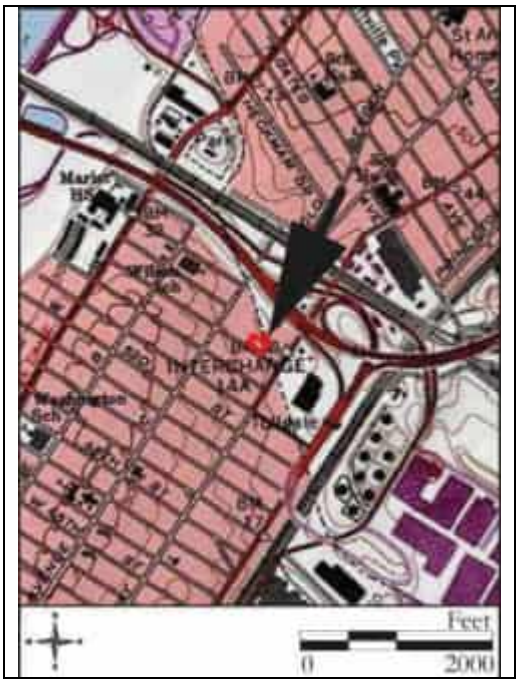
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name:	19–31 West 55th Street		
Historic Name:	19–31 West 55th Street		
Present Use:	Industrial Activity – Heavy goods handling and processing		
Historic Use:	Industrial Activity – Heavy goods handling and processing		
Construction Date:	Circa 1950	**Source:**	Sanborn Map Company
Alteration Date(s):	Circa 1954, circa 1979, circa 1987	**Source:**	NETR 1954, 1979, 1987
Designer:	Unknown	**Physical Condition:**	Good
Builder:	Unknown	**Remaining Historic Fabric:**	Low
Style:	None		
Form:	Other	**Stories:**	1
Type:	N/A	**Bays:**	7
Roof Finish Materials:	Rolled Asphalt		
Exterior Finish Materials	Brick, Running Bond; Stucco		

Exterior Description, continued from Base Survey Form:
The primary (southwest) elevation has been heavily altered to create a single, shared facade between the subject property's buildings and the adjacent northwest property (see Plate 1). The façade is a mix of pebble-dashed and smooth stucco applied in a stylized motif. A central pair of one-light, sliding, metal-sash windows, which are flanked by two doors, pierces the primary elevation of the original, 1950 building. To the east of the windows, the opening contains a flush, double-leaf, metal door accessed by two concrete steps. To the west of the windows is a single-paneled, single-leaf door. Similarly, two four-light, awning, metal-sash windows flanked by doors are centrally located on the primary elevation of the 1954 addition. To the east is a paneled, single-leaf door, while a flush, double-leaf, metal door pierces the wall to the west of the windows. A metal chain-link gate on the western end of the elevation leads to the alley that separates the subject building at 19–31 West 55th Street from 33–45 West 55th Street to the northwest.

Interior Description:
The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the public right-of-way and did not include interior access to the building.

Setting:
The industrial building at 19–31 West 55th Street is sited on an irregularly shaped parcel (Block 28, Lot 3) on the north side of West 55th Street between its intersections with Avenue C to the west and Broadway and Garfield Avenue to the east, in the City of Bayonne, Hudson County, New Jersey. The building is located in the western corner of the lot and is oriented with its primary elevation facing southwest, fronting West 55th Street. The remainder of the lot is paved with asphalt, with a small area paved with concrete. The surrounding area is primarily characterized by residential development, with some commercial, institutional, and early twentieth-century industrial buildings. The subject building marks the transition to mostly commercial and industrial buildings to the southeast but is mostly surrounded by modest vernacular dwellings. The Jersey Turnpike Newark Bay-Hudson County Extension is located approximately 297 feet northeast of the subject property.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
19–31 West 55th Street is an example of a mid-twentieth-century light industrial building. Originally starting as a machine shop in the 1950's, the building was bought and repurposed by a local dairy company; United Dairy Co./Sunshine Farms who had owned 33–45 West 55th Street. They owned the subject property through the 1940's until 1971. The subject property is associated with the increased industrialization of Bayonne that began in the early twentieth century and continued into the mid twentieth century. Its merging with 33–45 West 55th Street shows the evolving industrial landscape in the northern section of the Bayonne.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The building at 19–31 West 55th Street is recommended not eligible for listing in the National Register of Historic Places (NRHP). Research did not uncover that the building was associated with significant persons or events. Architecturally, the building has been heavily altered with its original façade and parapet being covered and its late 1900s and early 2000s doors and windows replaced on the southwest and southeast elevations. Alterations such as these diminish the historic integrity of the building, obscuring its original industrial association. The building is not representative of the work of a master. For these reasons, the building is recommended as not eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non-Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 19–31 West 55th Street

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

Building Description (Continued from Building/Element Attachment):
The northwest elevation is constructed out of concrete block and faced with brick, with seven windows equally spaced across the elevation. They contain fixed, multi-light, industrial metal sash. The north end of the elevation is connected to 33–45 West 55th Street via a one-story addition that spans the alley between the two buildings. The southeast elevation (see Plates 2 and 3) is made up of five visible bays. Three of the bays on the south end of the elevation are characterized by evenly spaced fixed vinyl windows that appear to be replacement sash installed after 2000. A stucco protrusion with a shallow, single-pitch roof extends from the north end of the elevation with two bays. The center bay is characterized by a metal commercial door, while the second bay flanks in north side, characterized by an infilled window. The rear (northeast) elevation was not visible from the public right-of-way at the time of survey.

History:
The building at 19–31 West 55th Street consists of two sections: a circa-1950 southeast block and a circa-1954 northwest block. Prior to their construction, several lots comprised the parcel which would eventually be combined (Sanborn Map Company 1912; Figure 1) Between 1919 and 1934, a group of frame buildings occupied by the Knickerbocker Ice Company were constructed on the parcel (Hopkins 1919; Figure 2). A 1931 aerial indicates that these buildings were still extant by this point. Adjacent to the property to the northwest was a United Dairy Co. building (NETR 1931; The Jersey Journal, 24 October 1932:20). Cartographically, a 1934 G.M. Hopkins Map depicts the Knickerbocker Ice Company complex (Hopkins 1934; Figure 3).

By 1950, the buildings comprising the Knickerbocker Ice Company were demolished, and a new building was constructed (Sanborn Map Company 1950; Figure 3). This building is extant and is the southeast half of the property at 19–31 West 55th Street. The 1950 Sanborn map labeled the property address as 37–30 West 55th Street, indicating that the street was later renumbered. The building, labeled as a machine shop, is depicted with a rectangular footprint and a small room that projects from the southeast elevation of the main block. The Sanborn Map labeled the building as having a concrete block structural system with brick pilasters and a concrete floor. The lots had been joined into one, large parcel (Sanborn Map Company 1950; Figure 4). United Dairy Co., which at this point had been renamed to Sunshine Farms, owned the adjacent property to the northwest and used the new building (The Jersey Journal, 18 February 1944:2; The Jersey Journal, 5 January 1957:12). Historic aerial imagery indicates that sometime between 1950 and 1954, the northwest block of the subject building was added to the northwest end of the original circa-1950 section (NETR 1954; Figure 5).

Between 1966 and 1979, 33–45 West 55th Street was demolished and rebuilt into a larger facility by FLORTEK, a floor product manufacturing company who by 1971 had purchased the property from Sunshine Farms (NETR 1966; The Jersey Journal, 21 October 1971:1). By 1979, 19–31 West 55th Street and 33–45 West 55th Street were combined by a rear addition bridging the two buildings (NETR 1; Plate 3). Between 1979 and 1987, a combined southwest façade was constructed on the subject building and 33–45 West 55th Street (NETR 1987). No major alterations were made to the subject property between 1987 and 2022, and FLORTEK remains the current owner.

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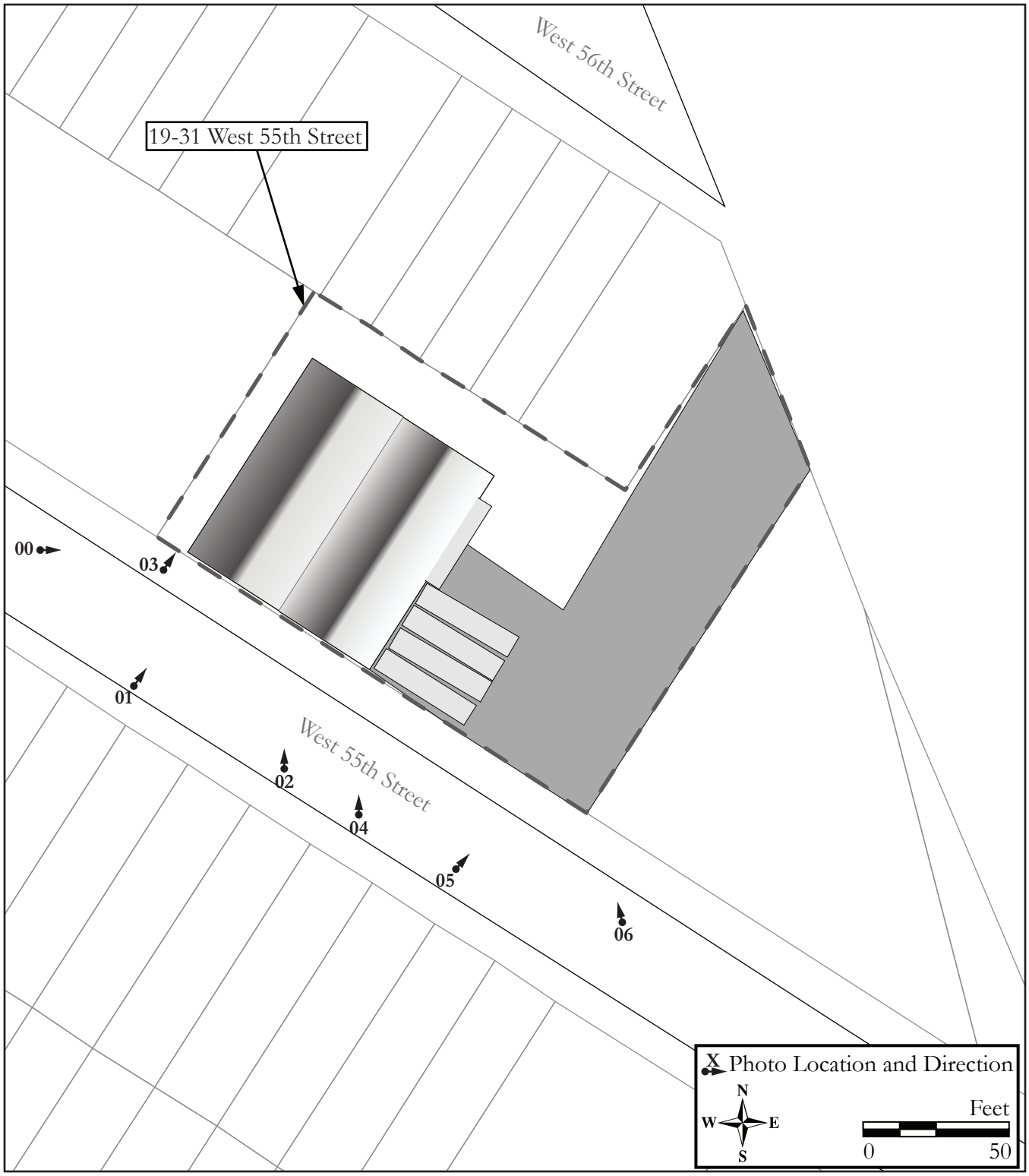
CONTINUATION SHEET

Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

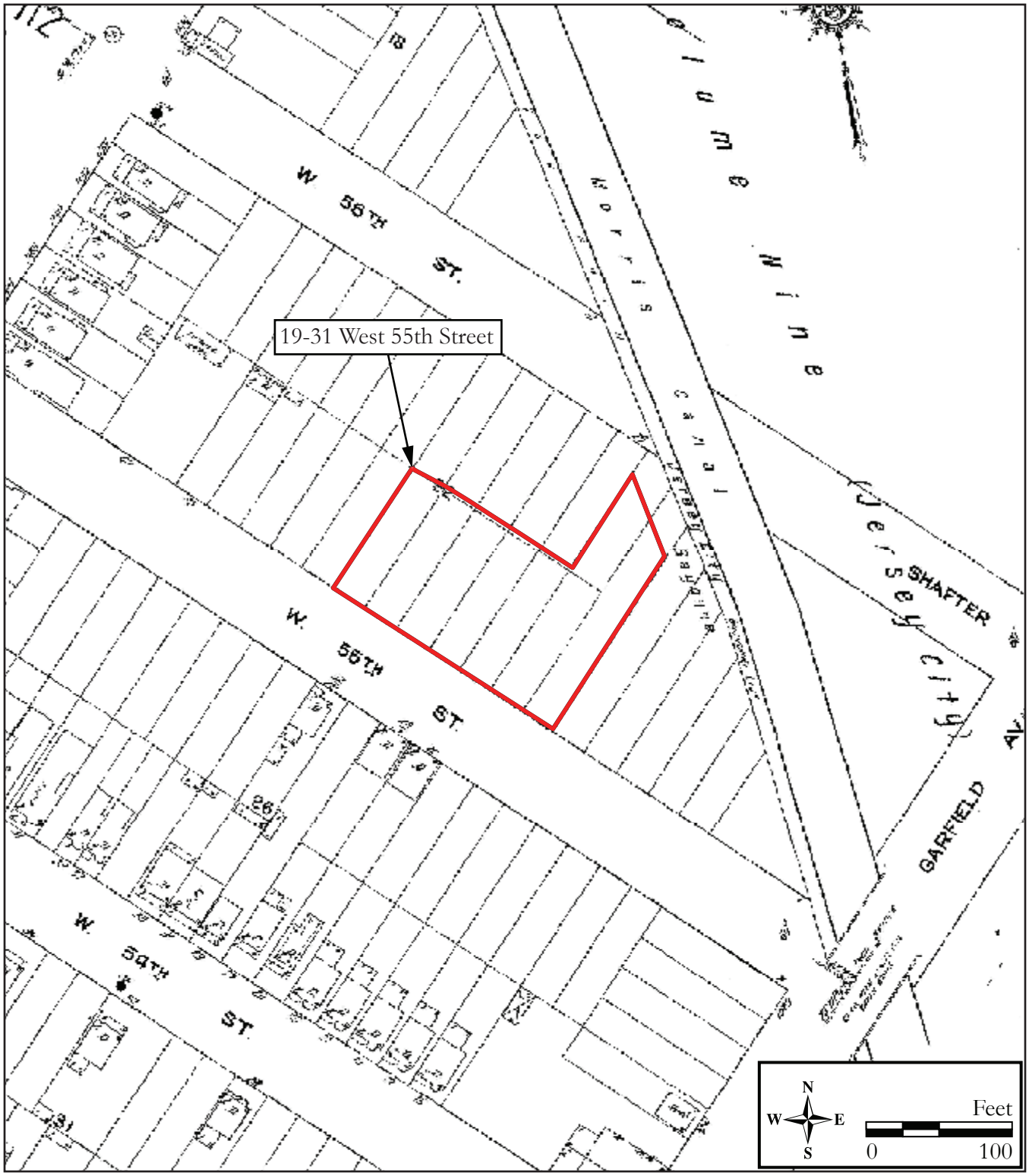


Figure 1: 1912 Sanborn Map of Bayonne (Sanborn Map Company 1912).

CONTINUATION SHEET

Historic Sites #:

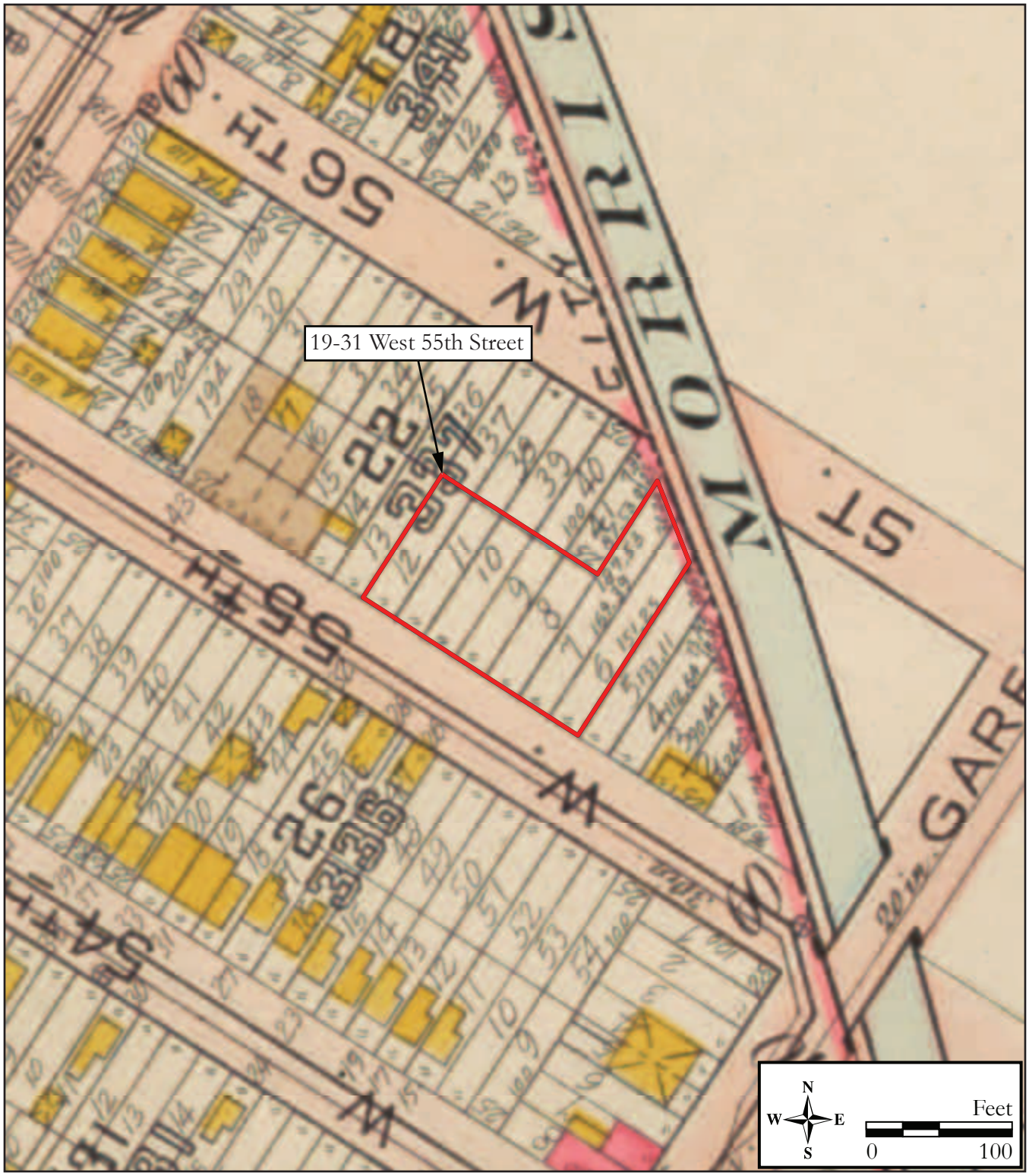


Figure 2: 1919 G.M. Hopkins & Co Map of Bayonne (Source: Hopkins 1919).

CONTINUATION SHEET

Historic Sites #:

Figure 3: 1934 G.M. Hopkins & Co Map of Bayonne (Hopkins 1934)

CONTINUATION SHEET

Historic Sites #:

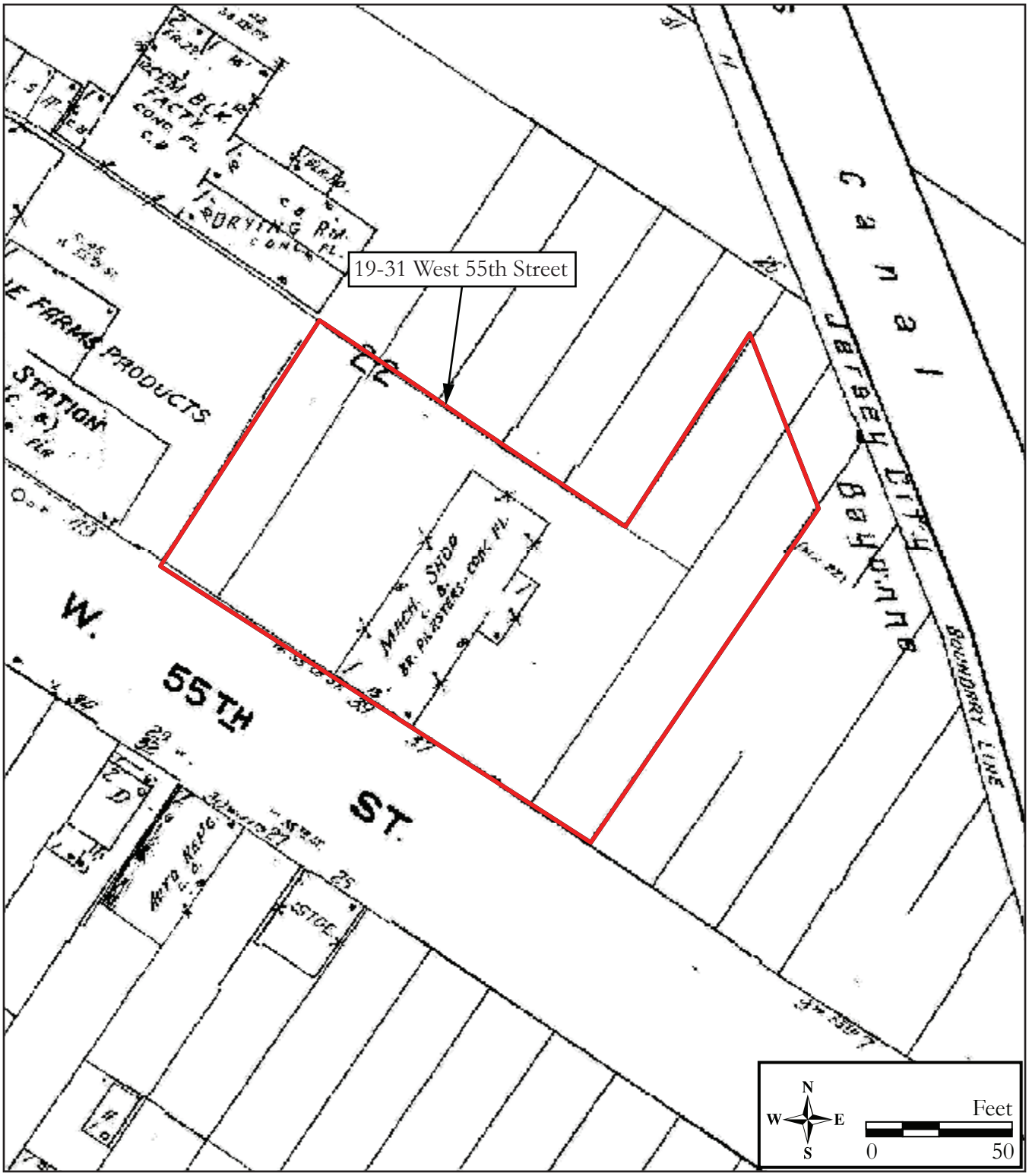


Figure 4: 1950 Sanborn Map of Bayonne (Sanborn Map Company 1950)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Spencer Rubino
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

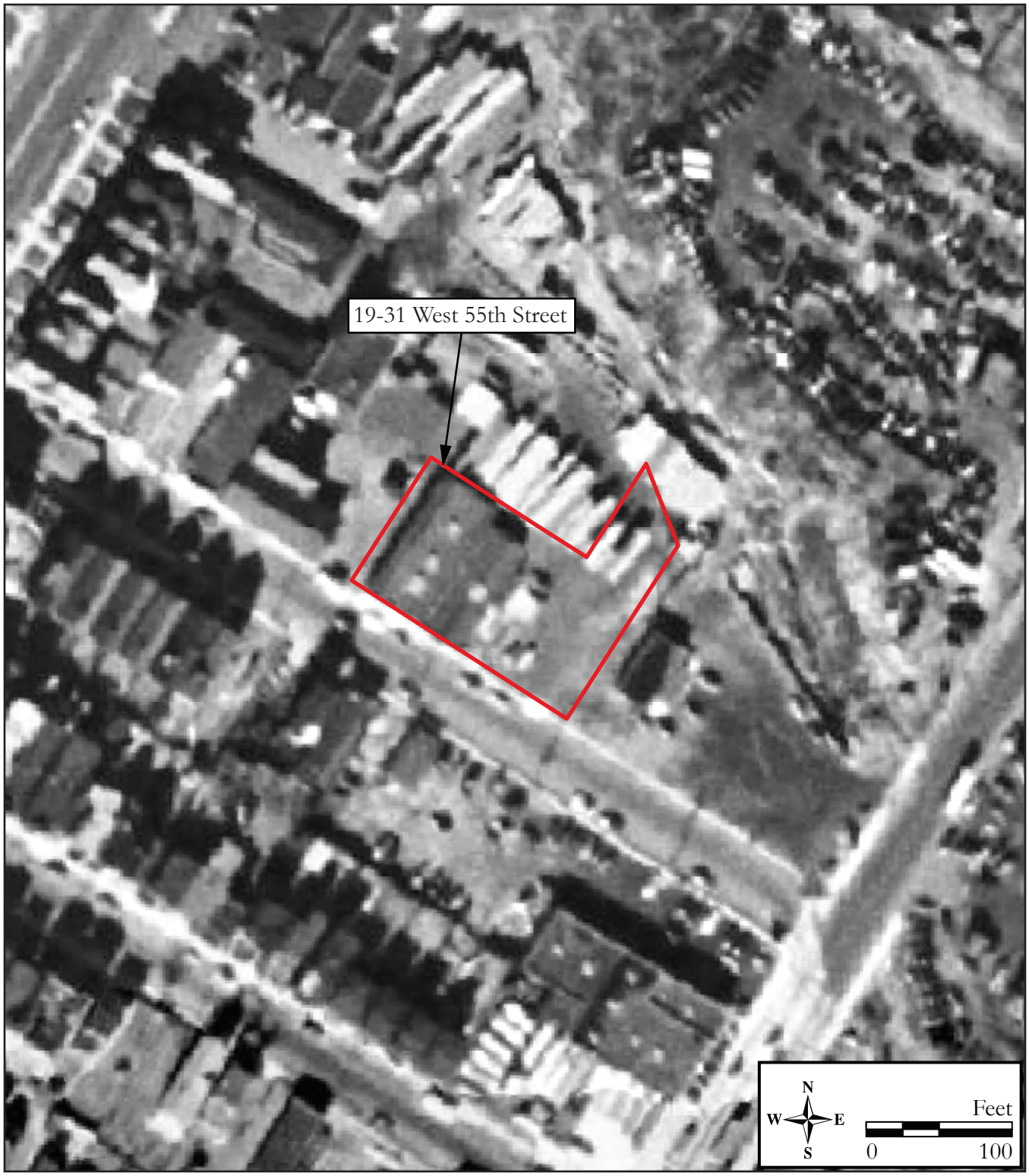


Figure 5: 1954 Historic Aerial of the subject property and surrounding context (Source: NETR 1954).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

View from across West 55th Street, looking toward the primary (southwest) elevation of the subject property.

Plate: 2

Photo view: Northwest

Photographer: Spencer Rubino

Date: August 3, 2022

View from across West 55th Street, looking toward the southeast corner of the subject property.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

View looking between 19–31 & 33–45 West 55th Street, note the rear bridging portion.

Plate: 4

Photo view: Northwest

Photographer: Spencer Rubino

Date: August 3, 2022

View from across West 55th Street, looking toward southeast elevation of the subject property.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view: Northeast

Photographer: Spencer Rubino

Date: August 3, 2022

View from across West 55th Street, looking toward the southwest open lot of the subject property, with the Newark Extension of the New Jersey Turnpike beyond.

Plate: 6

Photo view: Northwest

Photographer: Spencer Rubino

Date: August 3, 2022

View of the protrusion on the southeast elevation of the subject property.

BASE SURVEY FORM

Historic Sites #:

Property Name: Hudson Lanes

Street Address: *Street #:* 1 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* Garfield *Suffix:* _____ *Type:* AVE

County(s): Hudson **Zip Code:** 07305

Municipality(s): City of Jersey City **Block(s):** 30203

Local Place Name(s): Greenville **Lot(s):** 4

Ownership: Private **USGS Quad(s):** Jersey City

Description:

Hudson Lanes is a circa-1961 one-story, Mid-Century Modern bowling alley of load-bearing concrete block construction, faced in brick (Plates 1–6). The building has a rectangular footprint topped by parallel bowstring-trusses oriented perpendicular to the street. They are separated by, and surrounded by, a margin of flat roof, with a trapezoidal section extending from the northwest with a flat roof. The primary (southeast) elevation displays bilateral symmetry, and the brick facing is arranged in four roughly square sections across each of the bowstring-trussed sections in alternating panels of brown and cream. These panels are punctuated by stucco-covered, engaged buttresses that are a slightly lighter shade of brown than the brick. The buttresses are capped with cast concrete copings and do not support an overhang. The northern and southernmost piers on the façade feature the word "BOWL" in individually mounted letters arranged vertically and visible from each end of the building. These signs appear to be original. *See Building/Element Attachment*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

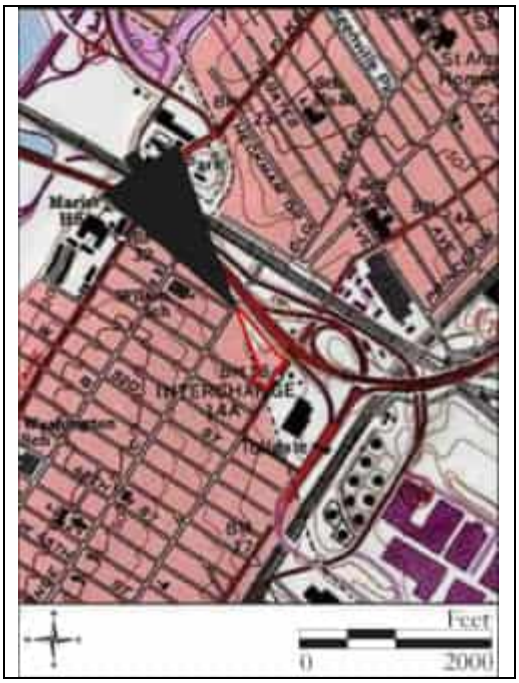
Surveyor: Rye Fitzgerald, Spencer Rubino Date: March 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Rye Fitzgerald, Spencer Rubino Date: March 2022
Organization: Richard Grubb & Associates, Inc.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name:	Hudson Lanes		
Historic Name:	Hudson Lanes, Hudson County Lanes		
Present Use:	Active recreation - indoor		
Historic Use:	Active recreation - indoor		
Construction Date:	Circa 1961	**Source:**	NETR 1954, 1966; The Jersey Journal, 20 July 1960:2; 4 October 1961:34
Alteration Date(s):		**Source:**	
Designer:	Unknown	**Physical Condition:**	Good
Builder:	Unknown	**Remaining Historic Fabric:**	Good
Style:	Other		
Form:	Other	**Stories:**	1
Type:	Other	**Bays:**	N/A
Roof Finish Materials:	Flat Seam Metal		
Exterior Finish Materials	Brick, Stucco		

Exterior Description:
At the center of the elevation, the entrance portal is set below a broad, cantilevered canopy that extends over the brick face of the outer walls. Below the canopy, the two aluminum-framed glass doors are widely spaced, deeply recessed, and accessed by short flights of stairs lined by metal railings. They flank a wide section of the façade, which is covered in cream-colored stucco and features "Hudson Lanes" in cursive lettering and figures of two stylized pins and a bowling ball, all of which is dark brown in color. The façade sections below the canopy and flanking the entries are covered in dark brown stucco. The arched ends of the bowstring trusses are parallel to the façade and clad in vertically oriented vinyl siding (see Plate 1).

Interior Description:
The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the public right-of-way and did not include interior access to the building.

Setting:
Hudson Lanes is sited on a triangular parcel (Block 30203, Lot 4) located northwest of the Garfield Avenue and West 55th Street intersection in Jersey City, Hudson County, New Jersey. The building is oriented with its primary elevation facing southeast and is set back from Garfield Avenue approximately 19 feet. A large, asphalt parking lot occupies the remainder of the parcel. The surrounding area consists of early to mid-twentieth-century residential and commercial buildings, with a spate of contemporary commercial buildings along Broadway/Garfield Avenue. New Jersey Turnpike Newark Bay-Hudson County Extension [NB-HCE] runs directly adjacent to the property, approximately one hundred feet northeast of the building.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
Hudson Lanes is an example of Mid-Century recreational design. It was built in conjunction with other urban renewal projects under Jersey City's 'Project Rebirth' in the late 1950s and early 1960s, spearheaded by Commissioner James F. Murray Jr. Project Rebirth was a substantial redevelopment project that included three industrial parks, multiple housing projects, and public buildings like the Five Corner Branch Public Library. The project also included commercial complexes like the Twin City Shopping Center across Garfield Avenue. The bowling alley was constructed by Philip J. Levin of Levin Properties (now Levin Management Corp.), a prominent developer and public figure in the United States. Part of the site is built over a filled-in portion of a historic resource, the Morris canal. It is the only remaining bowling alley in operation in Jersey City, as well as an intact representation of modern-style recreational design.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
Hudson Lanes is not recommended individually eligible for the National Register of Historic Places (NRHP). The subject building, while associated with a major period of development in the Jersey City under 'Project Rebirth,' was not a direct result of the initiative. Under NRHP Criterion B, research did not uncover any information to suggest that Hudson Lanes is associated with any historically significant individuals. Architecturally, the subject building represents an intact example of Mid-Century Modern recreational design. While retaining relatively high integrity, with the only exterior alteration being the removal of the central signage tower in circa 2016, it is not a significant example of Mid-Century Modern recreational design. Therefore, it does not warrant eligibility under NRHP Criterion C. For these reasons, Hudson Lanes is recommended as not eligible for listing in the NRHP under Criteria A, B or C. The building was not evaluated under NRHP Criterion D.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non-Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: Hudson Lanes

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

The subject property is located in Greenville, a neighborhood in Jersey City which was mostly underdeveloped until the early twentieth century when the Greenville Yard, an important railyard and marine loading operation, was constructed. A historic aerial from 1931 of the Greenville area indicates the residential growth that was taking place during this period, mostly east of the subject property (Sanborn Map Company 1912; Figure 1; NETR 1931; Figure 2). This residential growth between 1912 and 1931, while not substantial, can be attributed to the development of the railroad, which spurred economic growth and a need for workers (Historic American Engineering Record [HAER] 1983:55).

By the 1950s, the issues with coal smoke from locomotives had been mitigated along with implementations of other technological innovations and civil measures which addressed the quality of life of area inhabitants, leading to even more residential growth that was previously stagnated by the air quality from the railroad (HAER 1983:56; NETR 1954; Figure 3). The New Jersey Turnpike (NJT) opened in 1952, and in 1956, the New Jersey Turnpike Newark Bay-Hudson County Extension (NB-HCE) of the NJT was built, and its alignment followed parallel to the railroad through Jersey City. The construction of the turnpike extension and New Jersey Route 440, which also crosses through Greenville, brought yet another season of growth to the area, increasing residential, institutional, and industrial development (Richard Grubb & Associates [RGA] 2011:13). The area became more accessible to the mainland of New Jersey as well as Manhattan, mirroring the greater level of interconnectivity which the highway system was bringing across the nation.

In October of 1958, the Jersey City Department of Revenue and Finance, led by Commissioner James F. Murray, Jr., released a bid for the land that would become the Hudson Lanes and the Twin City Shopping Center. Murray Jr., who was well-renowned for defeating Mayor Frank Hague in the 1949 Freedom Ticket, was instrumental in the development of Jersey City in the 1950s (Hudson County Facts 2015). The lot was sold for $275,000 to Philip J. Levin, a business mogul who specialized in the construction of shopping centers (The Jersey Journal, 28 October 1958:2). Levin was a prominent businessman in the mid-twentieth century. He started his business career by building gas stations in the 1930s, and quickly changed his venture to the construction of shopping centers after seeing their potential. Levin was responsible for many of the early shopping centers on the east coast and amassed a fortune. By his death in 1971, he held stock in 50 firms, sitting on the board of Gulf & Western Land Development Company among other companies. He was the president of Madison Square Garden Corporation and owned multiple raceways and sports teams. He was well-known for trying to buy out MGM in a stock battle in the 1960s which he eventually lost, though he still owned most shares (The Jersey Journal, 4 August, 1971:12).

In circa 1959, James F. Murray Jr. spearheaded 'Operation Rebirth' which aimed to economically rejuvenate Jersey City through key development of land. Hearings were held for three days where speakers of different departments and businesses gave their opinion on how to go about generating growth and development in the city (The Jersey Journal, 8 October 1959:3). Hudson Lanes and Greenville as a whole were rolled into this movement, with many of the development solutions discussed at the conference implemented in the area. These projects included multiple industrial parks, like the Lawrence Industrial Park, as well as multiple housing projects including Country Village and Bay Shore Homes (The Jersey Journal, 30 June, 1961:6; Figure 5)

As the nation was becoming more mobile and prosperous, recreational sports became popular mainstream activities during the mid-twentieth century. While the invention of the automatic pin setter in 1951 helped to spur on the popularity of bowling, it had already been on the rise for years (Riefe 2014). The advent of the highway increased the accessibility of these 'palaces' leading the way for the formation of bowling leagues and tournaments which could be attended with ease.

Hudson Lanes broke ground in 1960 and opened only a year later in 1961 (The Jersey Journal, 20 July 1960:2; Figure 4 4 October 1962:34). Its proximity to Interstate 78 reflected the construction trend to have bowling centers built near major highways. By 1965, Hudson Lanes was the location of many competitions and tournaments and even had an eponymous home league team which was very active (The Courier-News 1965:27).

CONTINUATION SHEET

Historic Sites #:

History, continued:

By the late-twentieth century, bowling faced declines in popularity, and many bowling alleys experienced closures amongst reports of a shrinking customer base. Hudson Lanes managed to adapt to the changing times and attitudes. For example, the building served as the location of the 1994 Gay Games, an Olympics style sports and cultural festival scheduled to coincide with the 25th anniversary of the Stonewall riots in New York City. The building appealed to the New York organizers over other Manhattan bowling alleys because of its large size and capability to accommodate more than 400 event participants (Lumenick 1994:E2). Today, Nationwide Bowling Centers owns the subject building as part of a chain of bowling alleys based in Jersey City. There have been minimal exterior changes to the building since its circa-1961 construction. Changes include the removal of a tower over the entryway marquee on the southeast elevation between 2013 and 2016 (Google Street View 2007, 20013, 2016).

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1958 Sale to Philip J. Levin. 28 October: 2. Jersey City, New Jersey.
1959 Operation Rebirth Begins. 8 October: 3. Jersey City, New Jersey.
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1960 "They'll Bowl Here". 20 July: 2. Jersey City, New Jersey
1962 "Star Bowlers Resume Play at Hudson Lanes". 4 October: 34. Jersey City, New Jersey.
1971 Philip J. Levin Obituary. 4 August: 12. Jersey City, New Jersey

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2008 Bowling for Dollars. *Daily Record*, 13 January:D6, D5. Morristown, New Jersey.

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Historic Sites #:

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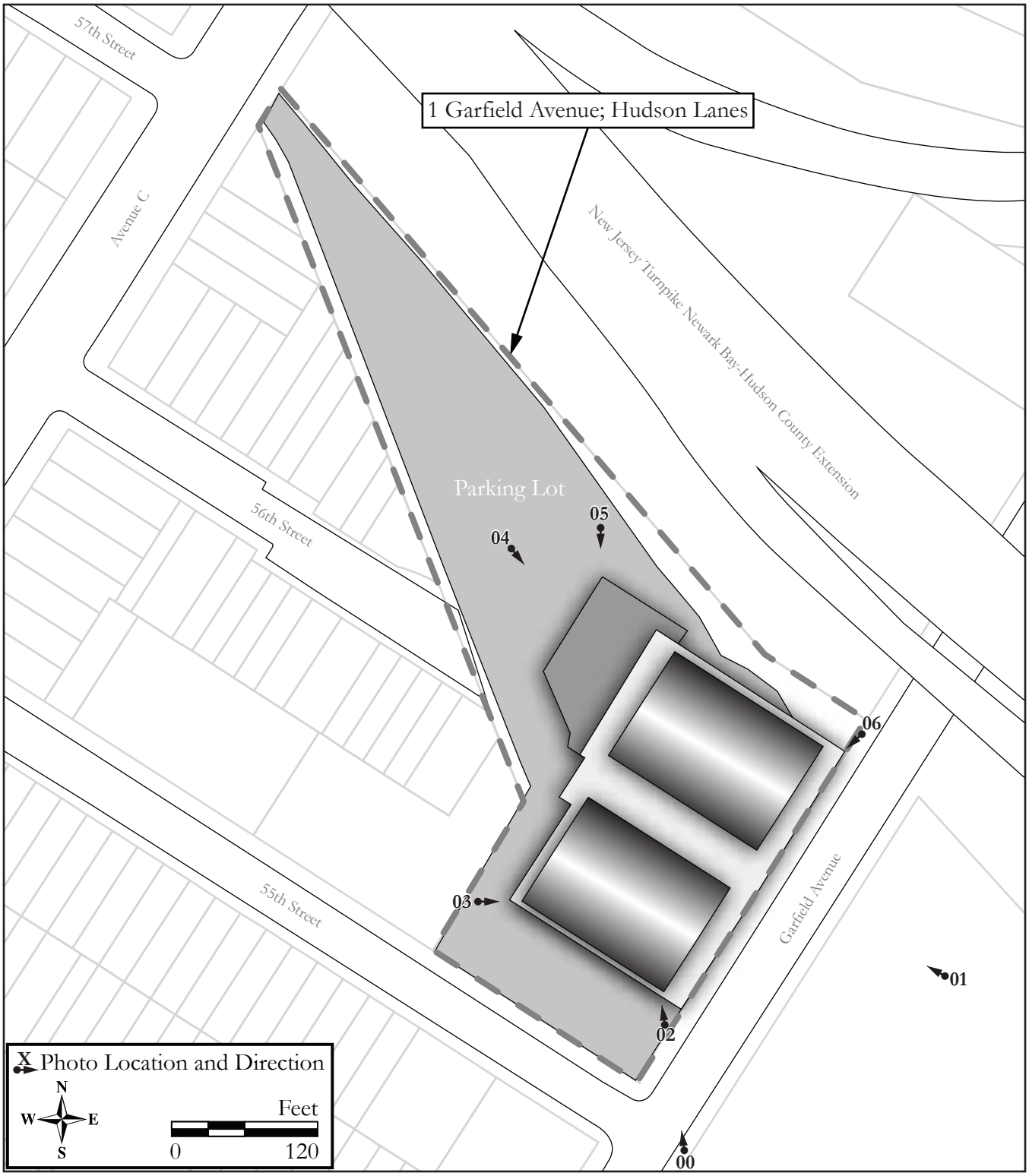
2014 "Bowlarama" Exhibit at L.A.'s A+D Architecture and Design Museum Celebrates Bowling Architecture. *The Hollywood Reporter*, 7 March. https://www.hollywoodreporter.com/lifestyle/lifestyle-news/bowlarama-exhibit-at-las-a-698959/.

CONTINUATION SHEET

Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Rye Fitzgerald, Spencer Rubino
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

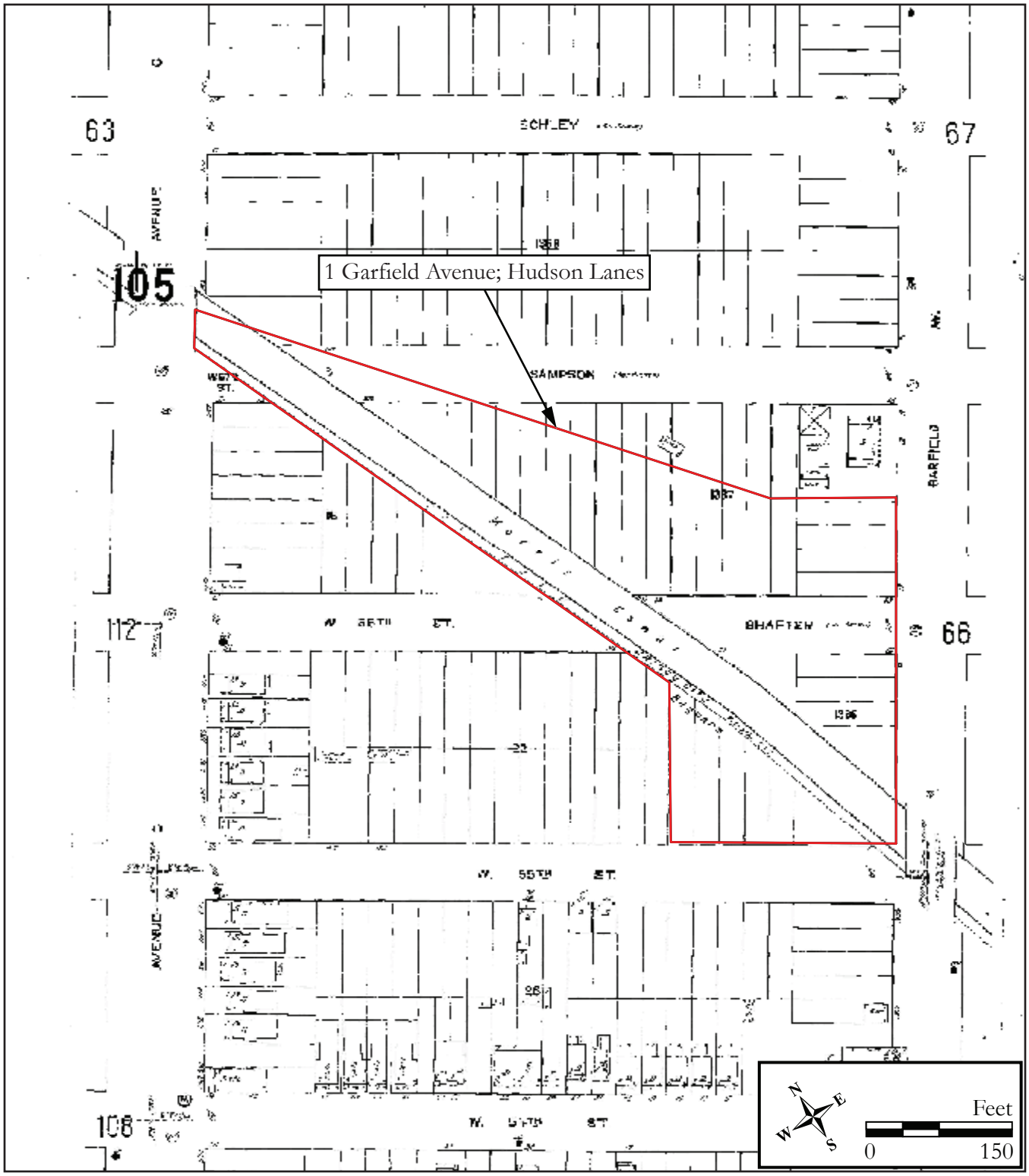


Figure 1: 1912 Sanborn Map of the subject property and surrounding context (Source: Sanborn Map Company 1912)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Rye Fitzgerald, Spencer Rubino
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

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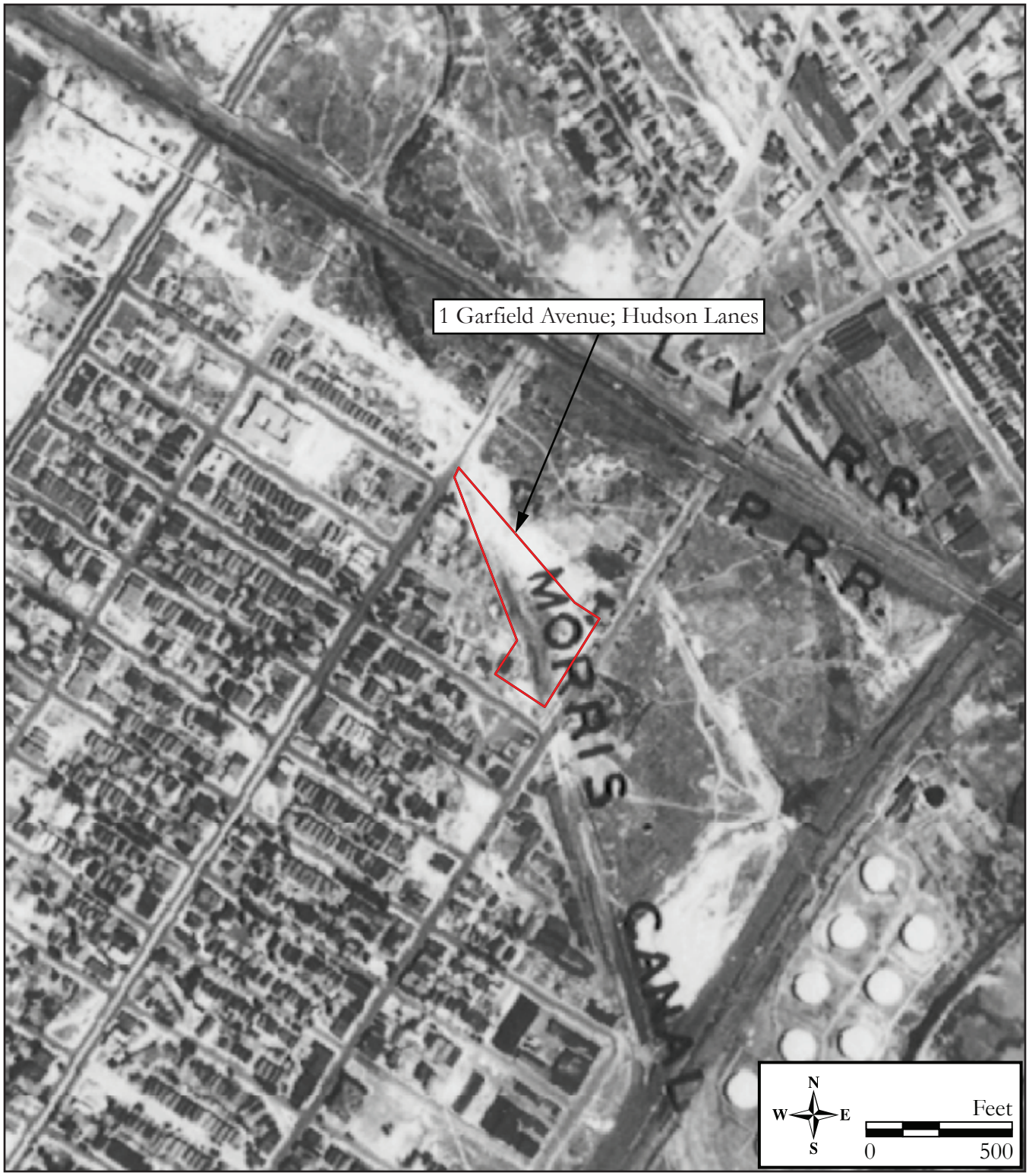


Figure 2: 1931 aerial of the subject property and surrounding context (Source: NETR 1931).

CONTINUATION SHEET

Historic Sites #:

Figure 3: 1954 aerial of the subject property and surrounding context (Source: NETR 1954).

CONTINUATION SHEET

Historic Sites #:

THEY'LL BOWL HERE—Ground-breaking ceremonies are held on Garfield Avenue at Bayonne-Jersey City line for 60-lane bowling center. Participating from left, are Julius Kislak, William Lauten, Emil Lence, Mayor Alfred Brady of Bayonne and Philip Levin.

Bayonneite Accused Of Tipsy Driving

Figure 4: 1960 Photograph of Julius Kislak, William Lauten, Emil Lence, Mayor Alfred Brady of Bayonne, and Philip J. Levin at the groundbreaking of Hudson Lanes (Source: The Jersey Journal, 20 July 1960:2).

CONTINUATION SHEET

Historic Sites #:

Figure 5: 1961 Advertisement of Project Rebirth with an image of Hudson Lanes (Source: The Jersey Journal, 30 June 1961:6).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Northwest

Photographer: Rye Fitzgerald

Date: 2 February 2022

View of the southwest elevation of Hudson Lanes, from across Garfield Avenue.

Plate: 2

Photo view: North

Photographer: Rye Fitzgerald

Date: 2 February 2022

Perspective view of the south corner of Hudson Lanes.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Northeast

Photographer: Rye Fitzgerald

Date: 2 February 2022

Perspective view of the southwest corner of Hudson Lanes.

Plate: 4

Photo view: Southeast

Photographer: Rye Fitzgerald

Date: 2 February 2022

Perspective view of the northwest elevation of Hudson Lanes.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view: South

Photographer: Rye Fitzgerald

Date: 2 February 2022

Perspective view of the north elevation of Hudson Lanes.

Plate: 6

Photo view: West

Photographer: Rye Fitzgerald

Date: 2 February 2022

Perspective view of the east corner of Hudson Lanes.

BASE SURVEY FORM

Historic Sites #:

Property Name: Twin City Shopping Center

Street Address: *Street #:* 2 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* Garfield *Suffix:* _____ *Type:* AVE

County(s): Hudson **Zip Code:** 07305

Municipality(s): City of Jersey City **Block(s):** 30302

Local Place Name(s): Greenville **Lot(s):** 1

Ownership: Private **USGS Quad(s):** Jersey City, NJ

Description:

The Twin City Shopping Center is a circa-1960 Mid-Century Modern, one-story-tall commercial complex situated on an irregularly shaped parcel of approximately six acres on the southeast side of Garfield Avenue in the Greenville neighborhood of Jersey City, New Jersey (Plates 1–15). It is composed of one multi-tenant commercial strip made up of five distinct blocks, and two detached commercial buildings constructed between 1966 and 1979. The complex was constructed between 1959 and 1960, and one circa-1994 addition was constructed later. In total, the complex houses 10 businesses. The property is bounded by Garfield Avenue to the northwest, the Newark Bay Extension of the New Jersey Turnpike to the northeast and southeast, and East 53rd Street to the southwest. The buildings are organized around a central, asphalt-paved parking lot. The primary (northeast) elevation of the commercial strip features a covered walkway that fronts the central parking lot. *See Continuation Sheet.*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

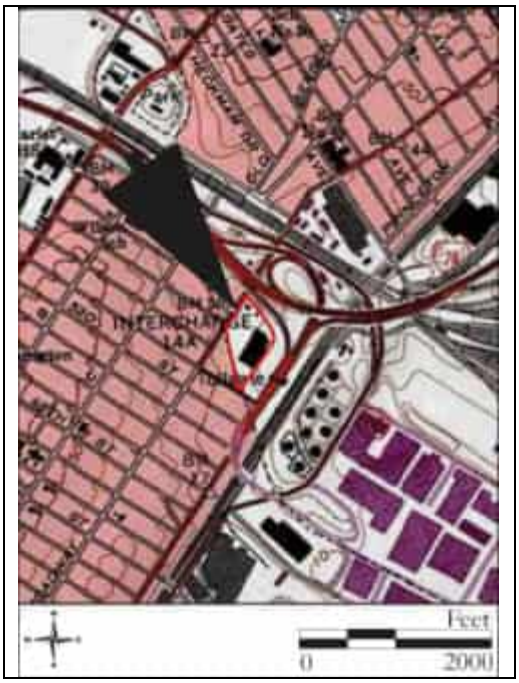
Surveyor: Spencer Rubino Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 5 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: Twin City Shopping Center Commercial Strip
Historic Name: Twin City Shopping Center
Present Use: Commercial Activity, Shopping
Historic Use: Commercial Activity, Shopping
Construction Date: Circa 1960 **Source:** *Jersey Journal,* 30 September 1959:11; 3 October 1960:3
Alteration Date(s): Circa 1995, circa 2013, circa 2017 **Source:** NETR 1995; Google Maps 2013, 2016; Fieldwork 2022
Designer: Unknown **Physical Condition:** Good
Builder: Levin Properties (Levin Management Corp.) **Remaining Historic Fabric:** Low
Style: Other
Form: Commercial **Stories:** 1
Type: N/A **Bays:** N/A
Roof Finish Materials: Rolled Asphalt
Exterior Finish Materials Concrete; Stucco; Brick, Running Bond; Concrete Block, Modern

Exterior Description:
The Twin City Shopping Center complex is constructed out of load-bearing concrete block and faced in split-rib masonry units. It is capped by a flat, rolled asphalt roof. Each block has a stucco false front that extends past the roof line and is capped with a decorative cornice. The northeastern-most block is a heavily altered, two-bay-by-two-bay portion of the Twin City Shopping Center complex (see Plate 2). The block consists of a rectangular form that connects to the rest of the complex on its southwest elevation. The stuccoed parapet wall is raised higher over the retail space at the northeast end than the rest of the complex. This added height accommodates a two-line sign above the canopy for the fast-food restaurant Popeyes. The primary (northwest) elevation is faced in split-rib masonry units and has two bays. The northern bay has more contemporary fixed fenestration with a central glass double door. The southern bay is older and is characterized by an offset glass door and two fixed windows. Capping the bay is a metal rolling door. A flat canopy, which spans the full width of the northwest elevation of the shopping center, shelters the commercial entrances and the concrete walkway that lines the façade. Colossal columns that rest on stone-veneered bases support the outer edge of the canopy. Alternating in between some of the columns are slender metal posts that extend from the walkway to the canopy. The roof's soffit is vinyl as well as its fascia. The rest of the blocks' bays are variations of grouped and fixed metal frame windows, with metal commercial doors (Plates 3–6). The southwestern businesses of the complex have bays characterized by grouped, fixed metal windows with metal rolling doors capping them (see Plate 7). The southern elevation of the complex's bays was converted from six rolling garage doors to contemporary metal, fixed windows with canvas awnings extending over them in circa 2017 (see Plate 8). *See Continuation Sheet.*

Interior Description:
Not accessible.

Setting:
The northeast end of the complex sits adjacent to the northeast border of the parcel which runs along the Newark Bay Extension of the New Jersey Turnpike. The detached buildings are situated to the northwest of the shopping center complex. An access road curves around the northeast elevation to lead to the rear (southeast) elevation of the complex. A central, asphalt-paved parking lot is located to the northwest of the mass. The complex as a whole is sited on the border of Jersey City and Bayonne, which is characterized by the Newark Bay Extension of the New Jersey Turnpike, as well as various commercial lots, industrial buildings to the east, and residential dwellings to the south and west.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
The Twin City Shopping Center is an example of mid-twentieth-century automobile-oriented, multi-tenant commercial strip mall. It was built in conjunction with other urban renewal projects under Jersey City's 'Project Rebirth' in the late 1950s and early 1960s, spearheaded by James F. Murray. The complex's main attraction was the Acme store that was added in 1960, a popular and growing grocery chain in the Tri-State area. Constructed by Levin Properties (now Levin Management Corp.), a national shopping center developer, the complex was one of many shopping centers constructed in the early 1960s by founder Philip J. Levin. The shopping center has undergone multiple alterations since its construction, including additions and alterations that expanded the available retail space and upgraded the exterior to meet changing corporate tastes in commercial design through the early 2000s.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The Twin City Shopping Center is recommended not eligible for listing in the National Register of Historic Places (NRHP) under Criteria A, B or C. Research has uncovered that the shopping center was an integral element of Jersey City's "Project Rebirth," a significant urban renewal project that saw to the construction of various properties aimed at revitalizing Jersey City in the early 1960's, but its integrity in terms of design, materials, and workmanship is substantially diminished due to additions and exterior alterations that completely overwrite its original and historic appearance. Thus, the property does not retain integrity to the period when it gained significance. Although the building is associated with Philip J. Levin, the shopping center does not embody his significance in local history. Architecturally, the complex is an unremarkable example of a mid-twentieth-century shopping center. Multiple alterations to the complex including at least one major addition, the complete renovation and repurposing of the original Acme grocery store, and the circa-2013 exterior upgrade that greatly altered the building's façade, diminish the property's integrity of design, materials, workmanship, and feeling. For these reasons, the Twin City Shopping Center is recommended not eligible for listing in the NRHP under Criteria A, B or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non-Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: Twin City Shopping Center Complex

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

Description, continued (from Base Survey Form):
The other two buildings are freestanding, single-tenant restaurants that display corporate-branded architectural design from the late twentieth and early twenty-first centuries. One building is sited on the northwestern-most corner of the parcel and is a commercial drive-thru. The other, situated southwest of the aforementioned building and northeast of the original complex is another commercial drive-thru.

Description, continued (from Building/Element Attachment Form):
The rear of the complex is characterized by an irregular façade that coincides with the businesses on the front of the complex. The exposed, load-bearing concrete block walls follow an irregular footprint, outlining the rear volume of each tenant space within the building. Rear entrances into each retail unit mostly consist of metal commercial doors (Plate 9–14). To the southeast of the original Acme grocery store is a small projection that serves as a loading dock. Two loading bays on its northeastern elevation contain metal rolling doors. Another bay on the southeast elevation is characterized by a strip curtain that leads out to an elevated concrete platform with a metal overhang (see Plate 13).

History, continued:
The subject property sits on the edge of Jersey City, immediately adjacent to the Jersey City/Bayonne border. Located on the Greenville neighborhood of New Jersey, the area was mostly a working-class neighborhood in the late nineteenth and early twentieth centuries. The area at this time was characterized by easy commuting transportation to Jersey City proper, comfortable homes, and wide, auto-centric streets (New Jersey City University 2021). In an 1898 Sanborn Company Map, the site of the subject property was mostly vacant, with 53rd through 57th Street running east between Garfield Avenue and Avenue East. While these streets had rowhouse-shaped parcels, none had been built at this point. The most prominent feature on the site was the Morris Canal which cut diagonally through the lot. North of the site was the Holmes & Cogan coal yard, across the Lehigh Valley Railroad which ran east and west, and between Garfield and Avenue East. A 1912 Sanborn Map shows no substantial difference, with the only real change being the names of the streets. None of the parcels on the subject property are built at this time. The Holmes & Cogan coal yard to the north is now owned by the Greenville Coal & Ice Company, and is shared with the Lehigh Valley Railroad. A large factory owned by W. M. Crane Company also sits on this lot, which manufactured Vulcan Gas Appliances (Sanborn Map Company 1912; Figure 1).

By 1950, the vacant parcels between 54th and 57th had been turned into auto sales lots abutting the east side of Garfield Avenue. The only buildings at this time were an auto body shop and office (Sanborn Map Company 1950). A 1954 aerial shows that these car lots have extended across Garfield Avenue, and the area is defined by these car lots on vacant land. A large building, defined in the 1950 Sanborn Map as the Penn Railroad Substation, had been either rebuilt or enlarged in the four years and now stands as the closest prominent building to the site (NETRonline 1954; Figure 2). In 1956, the Newark Bay Extension of the New Jersey Turnpike was constructed. Exit 14A for State Route 40 to Bayonne led right to Avenue East, where travelers and commuters could pull right off to the southern edge of Greenville.

In October of 1958, the Jersey City Department of Revenue and Finance, led by Commissioner James F. Murray, Jr., released a bid for the land that would become the Twin City Shopping Center. The lot was sold for $275,000 to Philip J. Levin, a business mogul who specialized in the construction of shopping centers (The Jersey Journal, 28 October, 1958:2). Levin was a prominent businessman in the mid-twentieth century. He started his business career by building gas stations in the 1930s and quickly changed his venture to the construction of shopping centers after seeing their potential. Levin was responsible for many of the early shopping centers on the east coast and amassed a fortune. By his death in 1971, he held stock in 50 firms, sitting on the board of Gulf & Western Land Development Company among other companies. He was the president of Madison Square Garden Corporation and owned multiple raceways and sports teams. He was most famous for trying to buy out MGM in a stock battle in the 1960s which he eventually lost, though he still owned most shares (The Jersey Journal, 4 August, 1971:12).

CONTINUATION SHEET

Historic Sites #:

History, continued:

In 1959, James F. Murray Jr. spearheaded "Operation Rebirth" which aimed to economically rejuvenate Jersey City through key development of land. Hearings were held for three days where speakers of different departments and businesses gave their opinion on how to go about generating growth and development in the city (The Jersey Journal, 8 October, 1959:3). Twin City Shopping Center and Greenville as a whole were rolled into this movement, with many of the development solutions discussed at the conference implemented in the area. These projects included multiple industrial parks, like the Lawrence Industrial Park, as well as multiple housing projects including Country Village and Bay Shore Homes (The Jersey Journal, 30 June, 1961:6; Figure 3). In circa 1960, the Twin City Shopping Center had been constructed, turning a junk car lot into a new shopping center that could be used in conjunction with the brand-new Newark Bay New Jersey Extension, which was built adjacent to the lot, with easy access off of exit 14A (The Jersey Journal, 3 October, 1960:3; Figure 4)

The design of the shopping center was typical of mid-century retail developments, with a large central parking lot and a main multi-tenant retail building, covered by a walkway. Design features like large commercial windows and flat planes from the covered walkway characterized the complex, which was constructed of load-bearing concrete block faced in a fluted or split-rib concrete on the façade and brick on the side elevations. The largest draw to the new shopping center was the brand-new Acme grocery store, which was the largest single store in the complex. The Acme performed well for a number of years and was heralded for the time with its innovations in grocery design, such as wider isles for better circulation and an "open air door" which used a curtain of air instead of a traditional operating door (The Jersey Journal, 3 November, 1960:19). Other businesses like McCrory's, a variety store, also had a space in the shopping center in the 1960s and 1970s (The Jersey Journal, 26 January, 1972:5). A 1966 aerial shows that there was a detached building on the Twin City lot in the northwest corner, owned by Miles Shoes where the northwestern detached building now stands (NETRonline 1966; Figure 5).

By 1979, the detached buildings were constructed on the northwest side of the lot, and alterations to the roofline with updated faux mansard standing seam metal roofs took place in the latter half of the 1970s (NETRonline 1979). The multi-tenant retail building remained unaltered until circa 1994 when the addition was built onto the southwest elevation of the complex. In addition to adding square footage for retail shops, an A-1 auto shop was built with garages on the southwest elevation of the addition (The Jersey Journal, 28 September, 1994:7; NETRonline 1995).

Circa 2013, the shopping center was updated by Levin Management Company. The company removed the standing seam metal roofs in exchange for stucco false fronts that had new signage on them. Some of the masses were painted and given updated windows, and some portions of the northwest façade were stuccoed as well. The walkway was updated with new columns and a redone overhanging roof (Google 2013).

Between 2016 and 2017, the northwestern detached building was altered to accompany a more contemporary appearance, with updated signage and materials (Google 2016; 2017). In circa 2017, the garage doors on the southern elevation of the complex were altered into commercial windows (Plate 8). Since then, no major changes have been made, and the complex and associated buildings remain extant. The original builder, Levin Properties, now Levin Management Corporation, retains ownership of the property.

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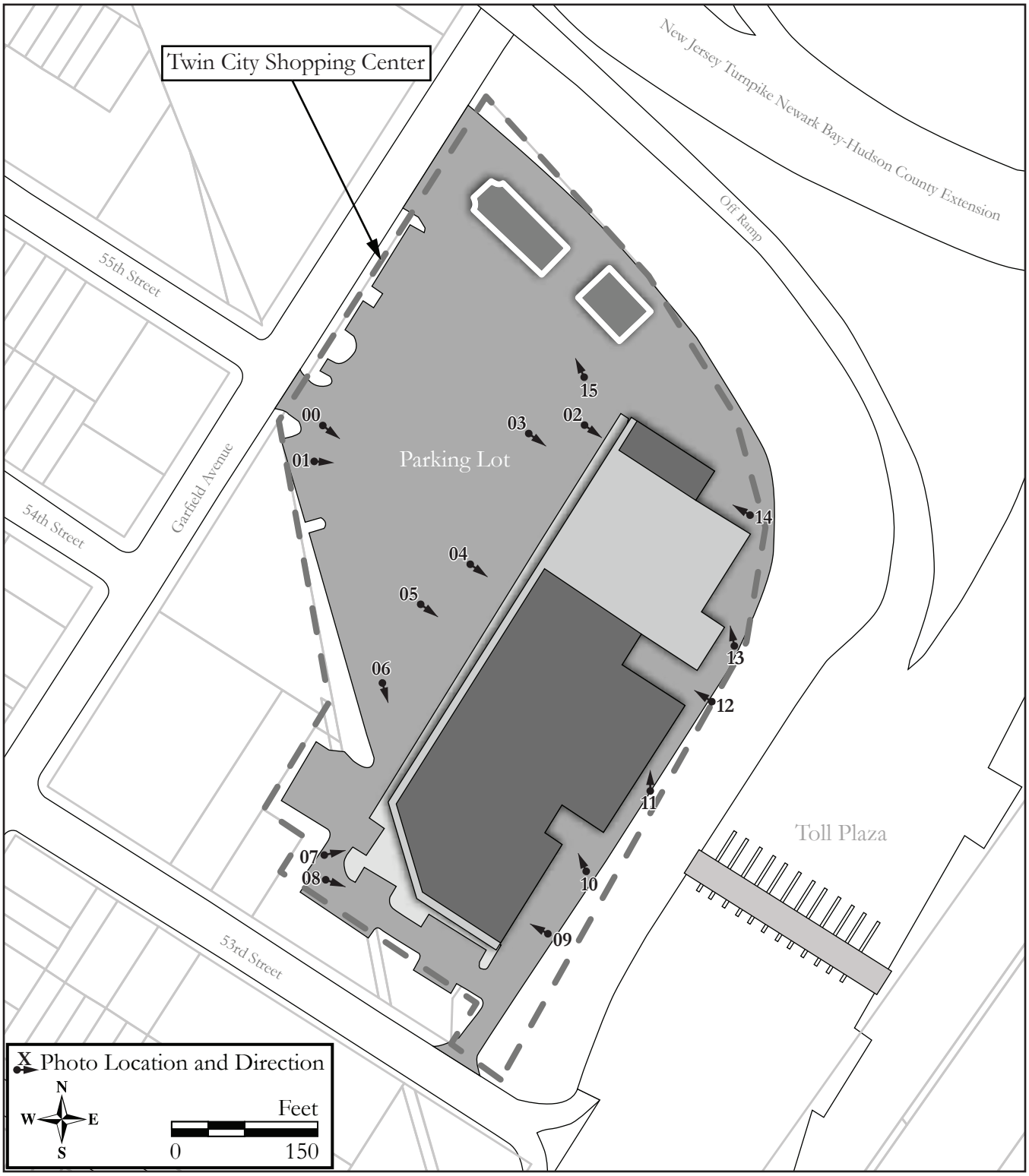
Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Spencer Rubino

Date: October 2022

Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

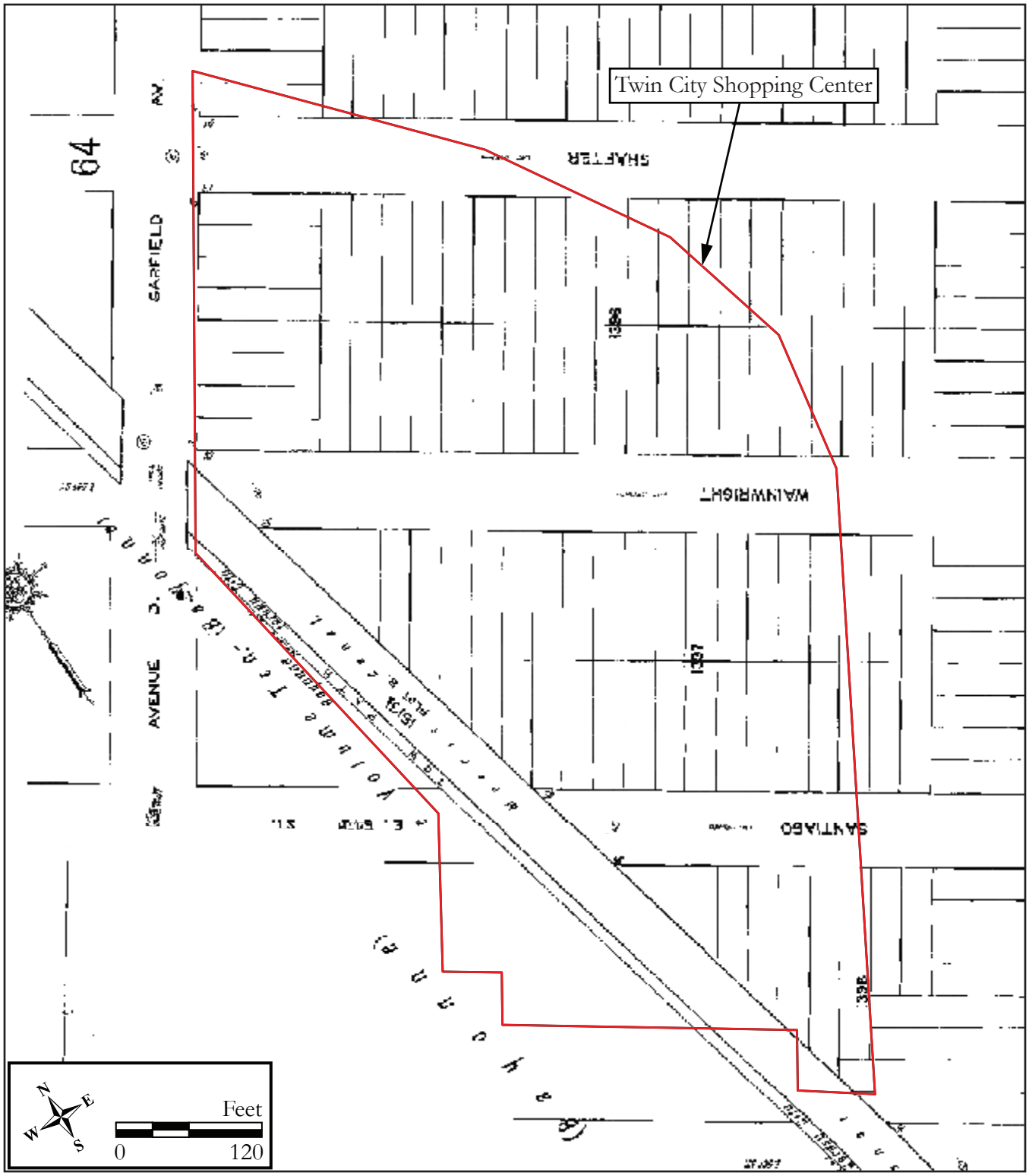


Figure 1: Sanborn Map Company 1912, *Insurance Maps of Hudson County, New Jersey*. Sanborn Map Company, New York, New York. (Source: Sanborn Map Company 1912).

CONTINUATION SHEET

Historic Sites #:

Figure 2: National Environmental Title Research 1954, Historic Aerial Photograph. Electronic document, accessed June 28, 2022. (Source: NETR 1954).

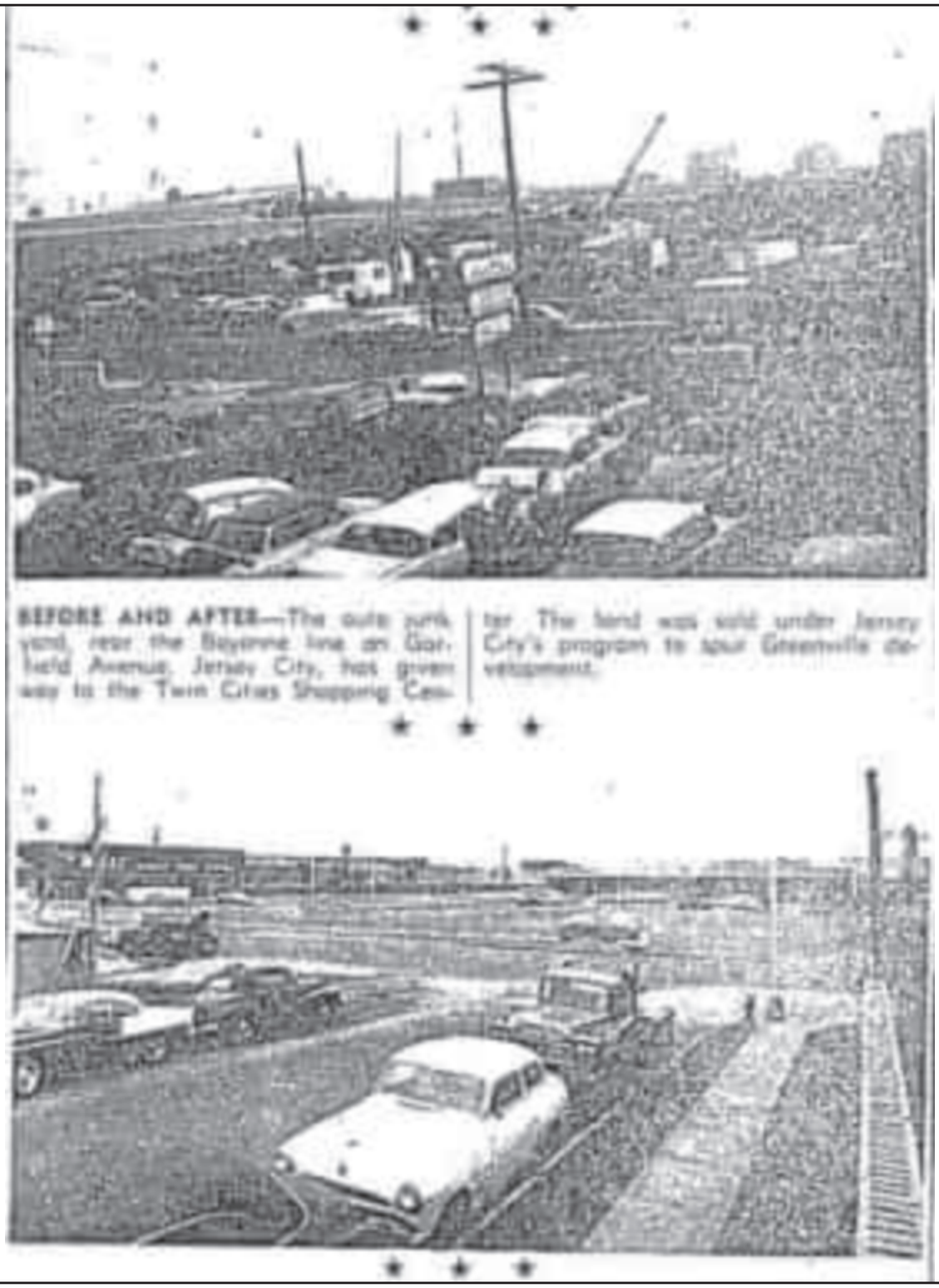
CONTINUATION SHEET

Historic Sites #:

Figure 3: The Jersey Journal 1961, Operation Rebirth, Jersey City Land Sales Program. 30 June: 6. Jersey City, New Jersey. (Source: The Jersey Journal, 30 June 1961:6).

CONTINUATION SHEET

Historic Sites #:



BEFORE AND AFTER—The auto junk yard, near the Bayonne line on Garfield Avenue, Jersey City, has given way to the Twin Cities Shopping Center. The land was sold under Jersey City's program to spur Greenville development.

Figure 4: The Jersey Journal 1960, Greenville Sets the Pace as Jersey City Grows. 3 October: 3. Jersey City, News Jersey. (Source: The Jersey Journal, 3 October 1960:3).

CONTINUATION SHEET

Historic Sites #:

Figure 4: National Environmental Title Research 1966, Historic Aerial Photograph. Electronic document, accessed June 28, 2022. (Source: NETR 1966).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Southeast

Photographer: Spencer Rubino

Date: July 22, 2022

Overview of the Twin City Shopping Center from the west side of the lot.

Plate: 2

Photo view: Southeast

Photographer: Spencer Rubino

Date: July 22, 2022

View of Block A's northwest elevation.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Southeast

Photographer: Spencer Rubino

Date: July 22, 2022

View of Block B's northwest elevation.

Plate: 4

Photo view: Southeast

Photographer: Spencer Rubino

Date: July 22, 2022

View of a portion of Block C's northwest elevation.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view: Southeast

Photographer: Spencer Rubino

Date: July 22, 2022

View of a portion of Block C's northwest elevation.

Plate: 6

Photo view: Southeast

Photographer: Spencer Rubino

Date: July 22, 2022

View of Block D's northwest elevation.

CONTINUATION SHEET

Historic Sites #:

Plate: 7

Photo view: Northeast

Photographer: Spencer Rubino

Date: July 22, 2022

View of Block E's southwest elevation.

Plate: 8

Photo view: East

Photographer: Spencer Rubino

Date: July 22, 2022

View of Block E's south elevation.

CONTINUATION SHEET

Historic Sites #:

Plate: 9

Photo view: Northwest

Photographer: Spencer Rubino

Date: July 22, 2022

View of Block E's rear (southeast) elevation

Plate: 10

Photo view: Northwest

Photographer: Spencer Rubino

Date: July 22, 2022

View of Block C's rear (southeast) elevation.

CONTINUATION SHEET

Historic Sites #:

Plate: 11

Photo view: Northwest

Photographer: Spencer Rubino

Date: July 22, 2022

A continuation of Block C's rear (southeast) elevation.

Plate: 12

Photo view: Northwest

Photographer: Spencer Rubino

Date: July 22, 2022

View of Block B's rear (southeast) elevation.

CONTINUATION SHEET

Historic Sites #:

Plate: 13

Photo view: Northwest

Photographer: Spencer Rubino

Date: July 22, 2022

A continuation of Block B's rear (southeast) elevation.

Plate: 14

Photo view: Northwest

Photographer: Spencer Rubino

Date: July 22, 2022

View of Block A's rear (southeast) elevation.

CONTINUATION SHEET

Historic Sites #:

Plate: 15

Photo view: Northwest

Photographer: Spencer Rubino

Date: July 22, 2022

View of the detached buildings in the northwest end of the lot.

BASE SURVEY FORM

Historic Sites #:

Property Name: Cenveo

Street Address: *Street #:* 25 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* Linden *Suffix:* E *Type:* AVE

County(s): Hudson **Zip Code:** 07305

Municipality(s): City of Jersey City **Block(s):** 30305

Local Place Name(s): Jersey City **Lot(s):** 23

Ownership: Private **USGS Quad(s):** Jersey City NJ-NY

Description:

Constructed in 1961, the industrial building at 25 Linden Avenue East, which now houses the firm Cenveo, is one story tall and oriented with its primary elevation facing northeast (Plates 1-4). It has a deep setback from Linden Avenue and abuts the parcel line and the sidewalk lining a private, unnamed drive to the southeast. The majority of the large, rectangular-shaped building has a continuous floor plate, while a thin section with a first-floor level that spans the full width of the primary elevation is slightly higher than the rest of the building. Both sections of the roof are flat and sheathed in rolled asphalt behind a low parapet wall. Although the rest of the building has no stylistic features, this section of the building displays modest, stripped-down elements of Modernist design. Based on the stylistic and physical hierarchy evident on the exterior, this front section of the building likely contains administrative uses, while the rest of the building is given over to production and warehouse space. *See Building/Element Attachment*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Marissa Joy Agbunag Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Marissa Joy Agbunag Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: Cenveo

Historic Name: C. & M. Envelope Co.

Present Use: Commercial Activity; Personal Services

Historic Use: Commercial Activity; Personal Services

Construction Date: 1961 **Source:** *Jersey Journal* [JJ] 13 March 1961, 15 February 1961

Alteration Date(s): **Source:**

Designer: Unknown **Physical Condition:** Good

Builder: Lawrence Construction Co. **Remaining Historic Fabric:** Low

Style: Other

Form: Other **Stories:** 1

Type: N/A **Bays:** Multiple

Roof Finish Materials: Rolled Asphalt

Exterior Finish Materials Brick, Running Bond

Exterior Description:

Continued from Base Survey

The northeast section is partially embanked, with the east corner of the building exposed below the first floor. The area below the first floor is veneered with orange brick laid in a running bond pattern. The brick extends vertically to the parapet at the northeast and southeast ends of the elevation, creating a frame for the central section of the elevation, which is covered in modern, synthetic panels below a shallow, cantilevered roof that overhangs the facade. The main entrance is located in the northeast end of this central section and consists of paired, metal-framed doors set within a wall of fixed, plate-glass windows. To the north of the entrance, the brick wall is pierced by a low, horizontally oriented ribbon window composed of 14 fixed panes. To the southeast of the main entrance, nine one-over-one windows pierce the central section of the elevation. At the east corner, a sign for the Cenveo company is mounted near the parapet (see Plates 1-3). Only a portion of the southeast elevation was clearly visible from the public right-of-way. The bottom half of the elevation is veneered in white-painted brick in a running bond pattern, while the upper half is covered in opaque, synthetic panels in a visible metal grid. Nine large, rectangular, louvered vents are irregularly spaced across the upper half of the elevation. Individual metal doors are evenly spaced along the lower half of the elevation (see Plate 4). The northwest and southwest elevations of the building were not visible from the public right-of-way.

Interior Description:

The subject property is a privately owned parcel. Access to the property by Richard Grubb & Associates, Inc. was limited to the public right-of-way and did not include interior access to the building.

Setting:

The Cenveo building is situated on a mostly rectangular-shaped parcel (Block 30305, Lot 23) located on the southwest side of Linden Avenue East in an industrial area of Jersey City, Hudson County, New Jersey. The building is oriented with its primary elevation facing northeast. It is situated approximately 95 feet southwest of Linden Avenue East. An asphalt paved road lined by sidewalks extends southwest from Linden Avenue East along the southeast elevation of the subject building to a security gate, which provides access to the adjacent parcels and the rear (southwest elevation) of the building. A large, asphalt-paved parking lot enclosed by a metal chain-link fence occupies the northeast portion of the parcel. The northwest edge of the property features dense vegetation and mature trees, which separate the subject property from the Hudson-Bergen Light Rail (formerly the Morris Canal). The New Jersey Turnpike Newark Bay Extension is located approximately 610 feet southeast from the Cenveo building. The surrounding area primarily consists of late-nineteenth- and twentieth-century industrial, commercial, and residential buildings.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
The Cenveo building at 25 Linden Avenue East is associated with broad patterns of local history in the area of industry. It was built in 1961 as part of an industrial building complex known as Lawrence Industrial Park. The formation of Lawrence Industrial Park coincided with a period of mid-twentieth-century industrial growth and development within Jersey City prompted by state and local incentives to attract economic investment to the area. During its 61-year history, the building housed multiple companies in the envelope printing industry. Architecturally, the building represents a typical example of a modest, mid-twentieth-century industrial building that displays stripped-down elements of Modernist design.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The Cenveo building at 25 Linden Avenue East is recommended not eligible for listing in the National Register of Historic Places (NRHP). Built as part of the Lawrence Industrial Park, the subject building is associated with larger historical trends of economic revitalization within Jersey City and was one of many buildings erected as part of the industrial growth within the area. However, it does not rise to the level of significance necessary to warrant individual eligibility under NRHP Criterion A. Research to date did not indicate that the developer of Lawrence Industrial Park or the subject building's occupants made historic contributions within their field to qualify as eligible under NRHP Criterion B. Under NRHP Criterion C, the building represents an unremarkable example of an industrial building that displays modest, pedestrian elements of Modernist design, a building type commonly found throughout the State of New Jersey. For these reasons, the building at 25 Linden Avenue East is not recommended eligible for listing in the NRHP under Criteria A, B, or C. The building was not evaluated under NRHP Criterion D.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non-Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: Cenveo

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

In 1957, Commissioner James F. Murray of Jersey City established the state's first municipal Bureau of Economic Development to restore deteriorated areas and wastelands in Jersey City to encourage new industrial investment (*Jersey Journal* [JJ], 30 June 1961c:3). The Bureau of Economic Development served as a central clearinghouse for new industrial development and an avenue for local government to deal with business investments for Jersey City (JJ, 24 October 1957:5). Following the formation of the Bureau of Economic Development, the organization invited experts to evaluate the city's problems at its "Operation Rebirth" symposium at Jersey City State College in October 1959 (JJ, 30 June 1961c:3). One outcome of the symposium was the creation of the Jersey City Land Sales Program, a plan designed to attract economic development and productive industrial use by selling vacant areas of land for then the bargain price of $1,000 per acre (JJ, 22 February 1961a:1). The plan prompted an industrial boom and the establishment of three industrial parks: Liberty Industrial Park, Lawrence Industrial Park, and Jersey City Industrial Park, which brought at least 50 firms to Jersey City (JJ, 30 June 1961c:3).

Prior to 1957, the area located at the east end of Linden Avenue East, including the subject property, was an unused wasteland. By 1961, it was transformed into 400,000 square feet of new construction known as the Lawrence Industrial Park (JJ, 30 June 1961c:3). Commissioner Murray worked with Fred Fishbein, the president of Lawrence Construction Co., who became the head of development for Lawrence Industrial Park. The Lawrence Construction Co. initially acquired an 18-acre parcel in the Greenville section on Linden Avenue East. The company later acquired additional land to construct more industrial buildings, including the subject property (JJ, 3 February 1964:44). In total, Fishbein and his company constructed 15 industrial buildings in all of Jersey City (JJ, 11 September 1972:8).

The subject building dates to 1961 and was the third industrial building completed by the construction company under Fishbein's leadership in Lawrence Industrial Park (JJ, 13 March 1961b:2). The 85,000 square foot building originally housed the C. and M. Envelope Co., an envelope manufacturing company previously based in Manhattan (JJ, 13 March 1961b:2). During the early 1960s, the C. & M. Envelope Co. merged with the Pavey Envelope Co., an envelope manufacturer from Newark, and together formed a large envelope firm on the east coast (JJ, 6 December 1966:5). It appears that the C. & M. Envelope Co. operated as a subsidiary under the Pavey Envelope Co. In 1979, the Pavey Envelope Co. acquired the New York based Standard Tag Co., and shortly thereafter, relocated their operations to the subject building in Lawrence Industrial Park (JJ, 4 March 1984:13). Following the merger, the envelope company began manufacturing two new products, business cards and tags. According to Sanford Gordon, the company's president, business forms were easier to manufacture than tags (JJ, 4 March 1984:13). An average of one million tags were manufactured daily by the firm, which was used by the travel industry for identification and in the clothing industry for sizing and care (JJ, 4 March 1984:13). However, its largest product continued to be envelopes, producing three million daily, with 60 percent of those envelopes being used by the banking and industrial sectors within Jersey City (JJ, 4 March 1984:13). The Pavey Company and Tag Corp were acquired and merged to form Mail-Well Co. (later known as Cenveo) during the 1990s (*The Salt Lake Tribune,* 26 February 1994:C8). Today, Cenveo is known as a prominent graphic communications company, operating out of the subject building in Lawrence Industrial Park.

Historic imagery indicates that the synthetic panels covering the center of the primary elevation are an alteration that likely dates to the late 1900s or early 2000s. When constructed, this section of the façade featured vertically oriented, rectangular plate glass windows with pronounced metal mullions (JJ, 30 June 1961:6).

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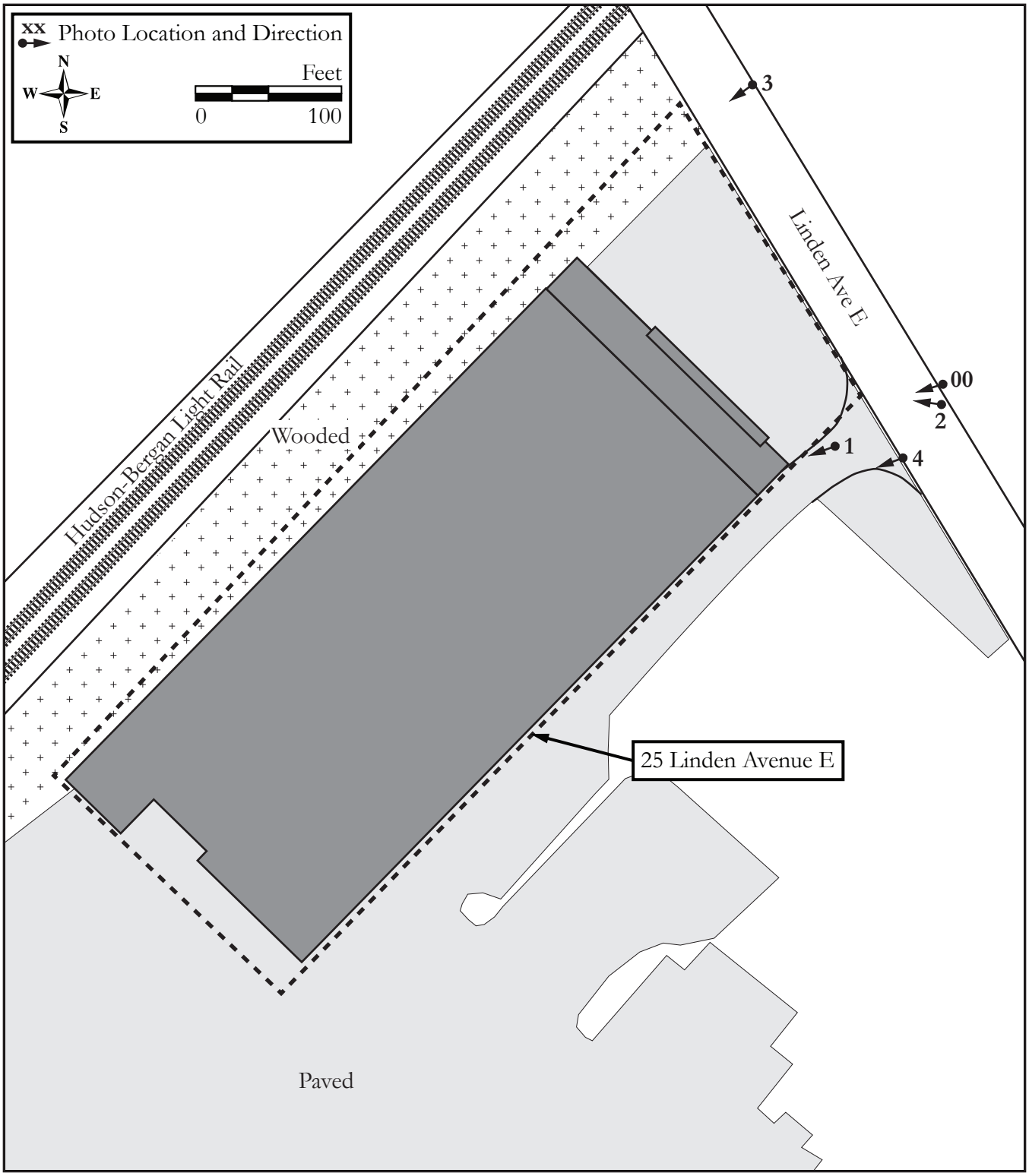

Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Marissa Joy Agbunag
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: West

Photographer: Marissa Joy Agbunag

Date: March 3, 2022

Perspective view of the northeast and southeast elevations of the subject building at 25 Linden Avenue East.

Plate: 2

Photo view: West

Photographer: Marissa Joy Agbunag

Date: March 3, 2022

View of the northeast elevation of the subject building at 25 Linden Avenue East.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Southwest

Photographer: Marissa Joy Agbunag

Date: March 3, 2022

Overview of the northeast elevation of the subject building at 25 Linden Avenue East.

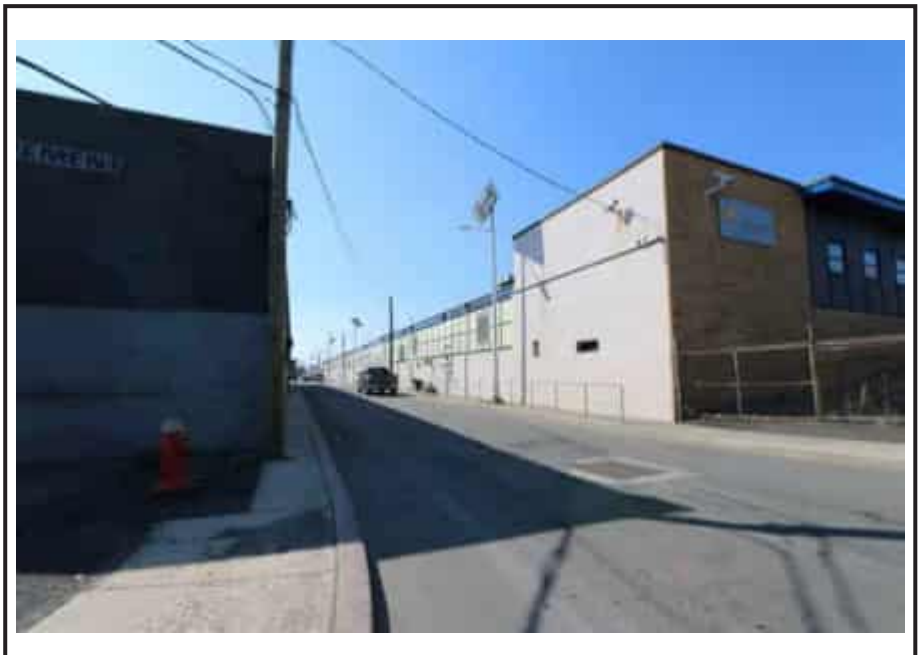

Plate: 4

Photo view: West

Photographer: Marissa Joy Agbunag

Date: March 3, 2022

Perspective view of the northeast and southeast elevations of the subject building at 25 Linden Avenue East taken from the neighboring property, 15 Linden Avenue East.

BASE SURVEY FORM

Historic Sites #:

Property Name: Jersey City Department of Public Works

Street Address: *Street #:* 15 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* Linden *Suffix:* E *Type:* AVE

County(s): Hudson **Zip Code:** 07305

Municipality(s): City of Jersey City **Block(s):** 30305

Local Place Name(s): Jersey City **Lot(s):** 24

Ownership: Public **USGS Quad(s):** Jersey City, NJ-NY

Description:

Constructed in 1960, the Jersey City Department of Public Works is a one-story, diamond-castellated, beam-framed, commercial building situated within the Jersey City Municipal Services Complex, also known as the Lawrence Industrial Park (Plates 1-3). It features a rectangular footprint that is nearly square, with a flat roof sheathed in built-up tar. The exterior walls are painted brick that is laid in a running bond pattern on all four elevations. Corrugated sheet metal siding covers the upper half of the northwest and southeast elevations. The original entrance occupied a wide, full-height recess near the center of the primary (northeast) elevation. This recess has been covered over with a solid surface that has been parged with stucco and painted with the words "JERSEY CITY DEPARTMENT OF PUBLIC WORKS." Flanking this now-covered opening are thin, horizontally oriented ribbon windows with cast concrete sills that have been in-filled and parged with stucco. The current main entrance is situated near the southeast end of the primary elevation near the east corner. It is accessible by a two-sided staircase lined with metal railings. The entry consists of a modern aluminum-framed door with a thin transom flanked by fixed window units that fill the south end of the ribbon window opening. The housing for a corrugated metal roll-up door spans the width of the main entrance and flanking windows. Corrugated metal roll-up doors enclose an additional entrance on the northwest elevation and two windows openings pierce the southeast elevation.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

Surveyor: Marissa Joy Agbunag Date: October 2022

Organization: Richard Grubb & Associates, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Marissa Joy Agbunag Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: Jersey City Department of Public Works
Historic Name: United Mills Discount Center
Present Use: Institutional Activities, Government Services
Historic Use: Commercial Activity, Standalone (Single Store)
Construction Date: 1960 **Source:** *Jersey Journal* [JJ], 9 May 1960:2, 20 December 1960:1
Alteration Date(s): **Source:**
Designer: Unknown **Physical Condition:** Good
Builder: Lawrence Construction Company **Remaining Historic Fabric:** Low
Style: Other
Form: Other **Stories:** 1
Type: N/A **Bays:** 1
Roof Finish Materials: Built-up Tar
Exterior Finish Materials Brick, Running Bond

Exterior Description:
See Base Survey Form

Interior Description:
Not Accessible.

Setting:
The Jersey City Department of Public Works is situated on a roughly rectangular-shaped parcel (Block 30305, Lot 24) on the southwest side of Linden Avenue East in an industrial area of Jersey City, Hudson County, New Jersey. The subject building is part of a larger complex comprised of modern buildings on multiple separate parcels, including Block 30305, Lot 30 to the southwest. The subject building is oriented with its primary elevation facing northeast towards Linden Avenue East, from which it is set back approximately 22 feet. A small, paved parking lot that is partially enclosed by a chain-link fence at the east corner of the property occupies the area between the building and the street. Sidewalks line Linden Avenue East, and a secondary drive runs along the northwest elevation of the subject building. The drive links Linden Avenue East to other adjacent parcels within the complex, including municipal buildings and parking lots located southwest and southeast of the building. The tracks for the Hudson-Bergen Light Rail (formerly the alignment of the Morris Canal) lies approximately 308 feet northwest of the Jersey City Department of Public Works building, and the New Jersey Turnpike Newark Bay-Hudson County Extension is approximately 385 feet southeast. The remaining surrounding area is primarily comprised of late nineteenth and twentieth-century industrial, commercial, and residential buildings.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
The Jersey City Department of Public Works building at 15 Linden Avenue East is associated with the industrial history of Jersey City. It was built in 1960 as part of an industrial building complex known as Lawrence Industrial Park. The formation of Lawrence Industrial Park coincided with a period of mid-twentieth-century industrial growth and development within Jersey City prompted by state and local incentives to attract economic investment to the area. For most of its 62-year history, the building housed multiple commercial companies and today serves as a municipal support building for the City of Jersey City. Architecturally, the building is an unremarkable example of a mid-twentieth-century, diamond-castellated, beam-framed, commercial building and reflects larger building trends of the period that continue to be utilized today in building construction.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The Jersey City Department of Public Works building at 15 Linden Avenue East is recommended not eligible for listing in the National Register of Historic Places (NRHP). Built as part of the Lawrence Industrial Park, the subject building reflects larger historical trends of economic renewal within Jersey City and is one of many buildings erected as part of the industrial growth within the area. It does not rise to the level of significance to warrant individual eligibility under NHRP Criterion A. Research to date did not indicate that the developer of Lawrence Industrial Park or the subject building's occupants made historic contributions within their field to qualify as eligible under NHRP Criterion B. The property does not embody the distinctive characteristics of a type, period, or method of construction. And it does not represent the work of a master or possess high artistic value. The use of diamond castellated beams in the building's construction reflects a common building practice of its time and does not represent an important example within the context of building construction to warrant eligibility. For these reasons, the building at 15 Linden Avenue East is not recommended eligible for listing in the NRHP under Criteria A, B, or C. The building was not evaluated under NHRP Criterion D.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: Jersey City Department of Public Works

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

In 1957, Commissioner James F. Murray of Jersey City established the state's first municipal Bureau of Economic Development to restore deteriorated and undeveloped areas within the city, as well as to encourage new industrial investment (*Jersey Journal* [JJ], 30 June 1961:3). The Bureau of Economic Development served as a central clearinghouse for new industrial development and an avenue for local government to deal with business investments for Jersey City (JJ, 24 October 1957:5). Following the formation of the Bureau of Economic Development, the organization invited experts to evaluate the city's problems at their "Operation Rebirth" symposium at Jersey City State College in October 1959 (JJ, 30 June 1961:3). One outcome of the symposium was the creation of the Jersey City Land Sales Program, a plan designed to attract economic development and productive industrial use by selling vacant areas of land for the then bargain price of $1,000 per acre (JJ, 22 February 1961:1). The plan prompted an industrial boom and the establishment of three industrial parks: Liberty Industrial Park, Lawrence Industrial Park, and Jersey City Industrial Park, which brought at least 50 firms to Jersey City (JJ, 30 June 1961:3).

Prior to 1957, the area located at the east end of Linden Avenue East, including the subject property, was undeveloped. By 1961, it was transformed into 400,000 square feet of new construction known as the Lawrence Industrial Park (JJ, 30 June 1961:3). Commissioner Murray worked with Fred Fishbein, the president of Lawrence Construction Co., who became the head of development for Lawrence Industrial Park. The Lawrence Construction Co. initially acquired an 18-acre parcel in the Greenville section of Linden Avenue East. The company later acquired additional land to construct more industrial buildings, including the subject property (JJ, 3 February 1964:44). In total, Fishbein and his company constructed 15 industrial buildings in Jersey City (JJ, 11 September 1972:8).

In July 1960, Lawrence Construction Co. completed the first building in Lawrence Industrial Park. It was constructed using a Diamond Span-R beam for its structural steelwork (Figure 1; JJ, 9 May 1960:2). A Diamond Span-R is a type of castellated beam designed as structural channels to improve the depth and strength without adding weight or material and became a common beam type used in mid-twentieth century building construction and continues to be frequently used today (The Constructor, n.d.). The new 35,000 square-foot building located at 15 Linden Avenue East was the first building constructed in Lawrence Industrial Park and housed United Mills, a discount department store that featured clothing, housewares, toiletries, toys, domestics, and a smoke shop (JJ 15 November 1960, 16 November 1960:19). The United Mills discount store operated at 15 Linden Avenue East until August 1, 1963, when it moved into a new 80,000 square-foot complex at 21 Caven Point Avenue in Jersey City, which also served as the headquarters of itsparent company, Unishops, Inc. (JJ, 13 August 1963:9).

By 1976, the Burlington Elevator Company occupied the former United Mills building. The company, a subsidiary of the Dover Corporation, signed a 20-year lease and relocated its Hoboken offices and Brooklyn warehouse operations to the subject building (JJ, 27 October 1976:17). The company vacated the subject property in 1999, following the termination of its lease (Hudson County Clerk's Office [HCCO] Deed Book 523:279). Once the Burlington Elevator Company left, the building operated as a self-storage building after Liberty Self Storage bought the subject property in 2003 (HCCO Deed Book 7123:170). Liberty Self Storage likely filled in the window openings including the large, recessed central section of the subject building by 2007 (Google Maps, Inc. 2007). Although the City of Jersey City took ownership of the subject property and adjacent parcels (Block 30305, Lots 25-30) in 2009, the former United Mills building appears to have remained operational as a Liberty Self Storage location until at least 2012 (HCCO Deed Book 8705:318; Google Maps, Inc. 2012). Images of the building from Google Map Street View dated September 2012 show a sign on the façade announcing the closing and relocation of its storage facility by this time (Google Maps, Inc. 2012).

Based on historic aerial imagery of the area, construction of the present-day Jersey City Municipal Services Complex began around 2012 and was completed by 2017 (NETR 2012, 2013, 2015, 2017). By 2013, a large irregular-shaped building southwest of the subject building, a rectangular-shaped building west of the irregular-shaped building, and a long rectangular-shaped building in the southwest corner of the complex were all completed (NETR 2013). A southwest

CONTINUATION SHEET

Historic Sites #:

History:

wing was added to the irregular-shaped building by 2015 (NETR 2015). Two additional buildings were also constructed by 2015: a large, rectangular-shaped building northwest of the southwest wing and a long, narrow rectangular-shaped building situated along the southeastern border (NETR 2015). The complex was completed in 2017 with the construction of a rectangular-shaped building along the western border of the complex (NETR 2017). The City of Jersey City renovated the subject building as a municipal building by 2016 (Google Maps, Inc. 2016). The entire exterior of the subject building was re-painted, the former canopy that sheltered the main entrance was filled in with bricks, and the signage on the façade changed to reflect is use as a municipal building (Google Maps, Inc. 2016). Today, the city continues to use the subject building at 15 Linden Avenue East for its Department of Public Works.

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1960 Steel All Up. 9 May. Jersey City, New Jersey.
1960 United Mills Discount Center AD. 15 November. Jersey City, New Jersey.
1960 Latest Arrival. 16 November. Jersey City, New Jersey.
1960 New Warehouse, Factory will go up in Jersey City. 20 December. Jersey City, New Jersey.
1961 Jersey City Leads Way in Boom. 22 February. Jersey City, New Jersey.
1961 Operation Rebirth. 30 June. Jersey City, New Jersey.
1963 United Mills to Open Men's-Boy's Discount Store Wednesday. 13 August. Jersey City, New Jersey.
1964 Kislak Sells Hudson. 3 February. Jersey City, New Jersey.
1972 Make Jersey City Better Winners Named by Realtors. 11 September. Jersey City, New Jersey.
1976 Firm will relocate in Jersey City. 27 October. Jersey City, New Jersey.

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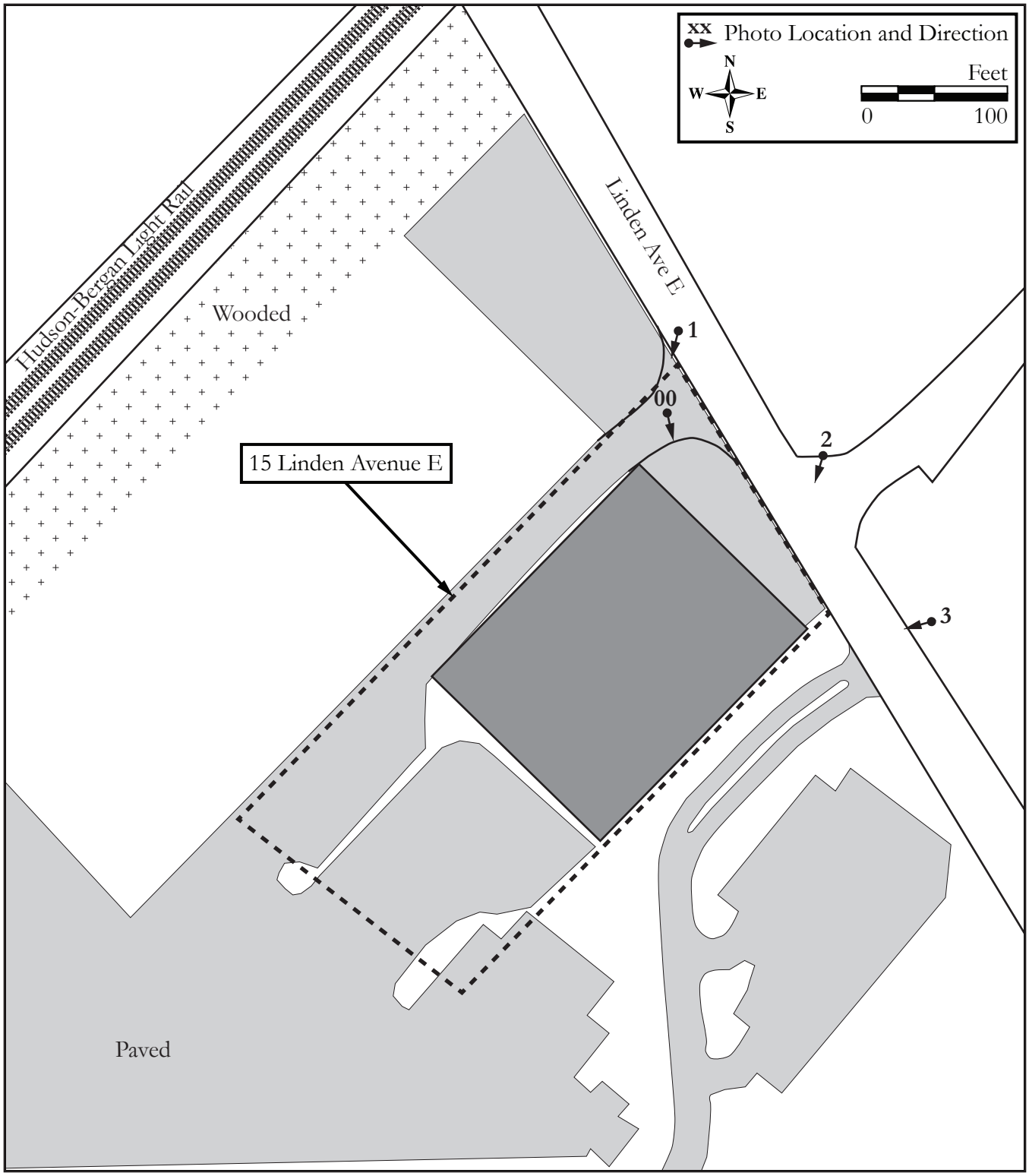
CONTINUATION SHEET

Historic Sites #:

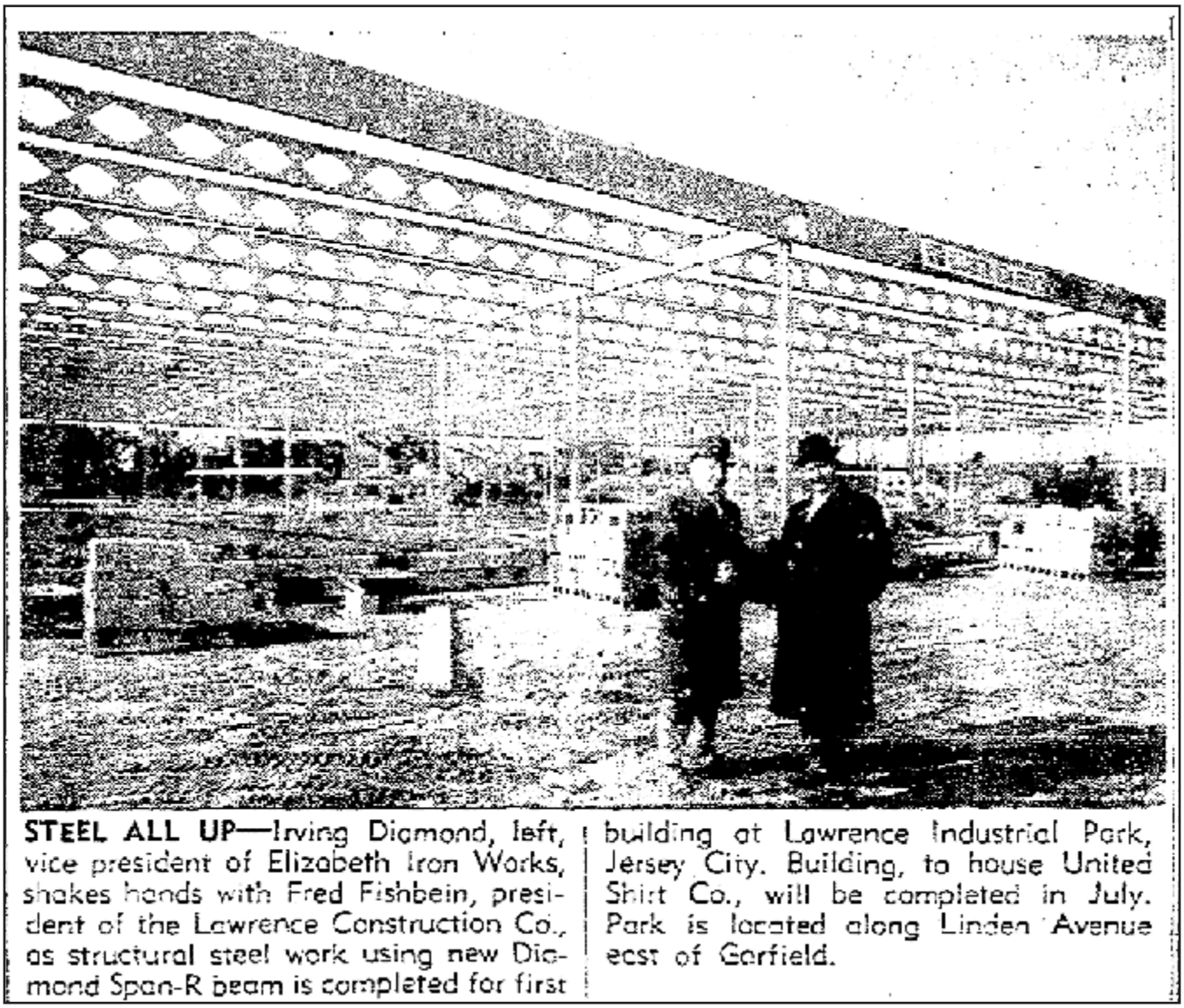


Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Marissa Joy Agbunag
Date: October 2022
Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:



STEEL ALL UP—Irving Diamond, left, vice president of Elizabeth Iron Works, shakes hands with Fred Fishbein, president of the Lawrence Construction Co., as structural steel work using new Diamond Span-R beam is completed for first building at Lawrence Industrial Park, Jersey City. Building, to house United Shirt Co., will be completed in July. Park is located along Linden Avenue east of Garfield.

Figure 1: 1960 photograph of the structural steel framing of the subject building at 15 Linden Avenue East during its construction phase (The Jersey Journal, 9 May 1960:2).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: Southwest

Photographer: Marissa Joy Agbunag

Date: March 3, 2022

View of the main entrance on the northeast (primary) elevation of the subject building at 15 Linden Avenue East.

Plate: 2

Photo view: West

Photographer: Marissa Joy Agbunag

Date: March 3, 2022

View of the southeast elevation of the subject building at 15 Linden Avenue East.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: Southwest

Photographer: Marissa Joy Agbunag

Date: March 3, 2022

Perspective view of the northeast and northwest elevations of the subject building at 15 Linden Avenue East.

BASE SURVEY FORM

Historic Sites #:

Property Name: 20 Linden Avenue East

Street Address: *Street #:* 20 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* Linden *Suffix:* E *Type:* AVE

County(s): Hudson **Zip Code:** 07305

Municipality(s): City of Jersey City **Block(s):** 27401

Local Place Name(s): Jersey City **Lot(s):** 43

Ownership: Private **USGS Quad(s):** Jersey City, NJ-NY

Description:

The industrial building at 20 Linden Avenue East is a one-story, brick warehouse constructed circa 1961 and is part of the Lawrence Industrial Park (Plates 1-4). Capped by a flat roof covered in rolled asphalt, the building has an irregular footprint comprised of three sections, the first being a large, rectangular main block with its long end parallel to Linden Avenue East. Attached to the northwest end of the northeast elevation, and projecting slightly beyond the northwest elevation of the main block, is a square block that gives the building an L-shaped footprint. A small, rectangular block is situated within the L. The northeastern and southeastern blocks were not visible from the public right-of-way. *See Building/Element Attachment*

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

BASE SURVEY FORM

Historic Sites #:

Location Map:

Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
None.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 1 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program
Surveyor: Marissa Joy Agbunag Date: October 2022
Organization: Richard Grubb & Associates, Inc.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name:	20 Linden Avenue East		
Historic Name:	Caryl Richards, Inc.		
Present Use:	Industrial Activity, Light Industrial; Commercial Activity, Personal Services		
Historic Use:	Industrial Activity, Light Industrial		
Construction Date:	1961	**Source:**	*Jersey Journal* [JJ] 15 February 1961
Alteration Date(s):	2016	**Source:**	Google Maps, Inc. 2016
Designer:	Unknown	**Physical Condition:**	Fair
Builder:	Lawrence Construction Co.	**Remaining Historic Fabric:**	Low
Style:	Other		
Form:	Other	**Stories:**	1
Type:	N/A	**Bays:**	N/A
Roof Finish Materials:	Rolled Asphalt		
Exterior Finish Materials	Brick, Running Bond		

Exterior Description:

Continued from Base Survey Form

The main block is oriented with its primary elevation facing southwest towards Linden Avenue East. Its current primary entrance consists of a single, glass-paned commercial door flanked by fixed aluminum sash windows. It is sheltered by an I-beam-framed, front-gabled portico with a standing seam metal roof supported by I-beam columns affixed to small, square, concrete pedestals. The front-gable portico entrance was added to the primary elevation circa 2016 (Google Maps, Inc. 2016). The original main entrance was previously located to the northwest of the current primary entrance and within a section of the southwest elevation that is partially clad in corrugated metal siding and flanked by brick pilasters. This original entrance has been covered and infilled with the same corrugated metal siding present on the exterior walls. A single metal door with two adjacent fixed window units remains within this central section of the southwest elevation. The southeast elevation of the main block contains four garage bays with roll-top doors near the southern corner (see Plate 4). The section of wall above the garage bays is laid with concrete blocks and exposed columns separate each bay. A former opening at the north corner of the southeast elevation has been infilled with concrete blocks overlaid with metal bars.

Interior Description:

Not Accessible.

Setting:

The industrial building at 20 Linden Avenue East is sited on a roughly rectangular-shaped parcel (Block 27401, Lot 43) located on the northeast side of Linden Avenue East in an industrial area of Jersey City, Hudson County, New Jersey. The building is oriented with its primary elevation facing southwest, it is set back approximately 10 feet from Linden Avenue East, and a small, triangular-shaped parking lot lies between the building and the street. An asphalt-paved drive runs along the southeast edge of the property from Linden Avenue East and provides access to the rear (northeast) portion of the property. Mature trees and vegetation border a portion of the northwest property line, which acts as a separator from the nearby Hudson-Bergen Light Rail (formerly the location of the Morris Canal) and the Danforth Avenue Light Rail Station. The New Jersey Turnpike Newark Bay-Hudson County Extension is located approximately 445 feet southeast of the subject property. The remaining surrounding area is primarily comprised of late nineteenth and twentieth-century industrial, commercial, and residential buildings.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
The building at 20 Linden Avenue East is associated with Jersey City's industrial history. It was built in circa 1961 as part of an industrial building complex known as Lawrence Industrial Park. The formation of Lawrence Industrial Park coincided with a period of mid-twentieth-century industrial growth and development within Jersey City prompted by state and local incentives to attract economic investment to the area. Throughout its 61-year history, the building housed multiple companies, including a cosmetics and pharmaceutical manufacturer. Architecturally, the building is an unremarkable example of a mid-twentieth-century, diamond-castellated, beam-framed, commercial building and reflects larger building trends of the period that continue to be utilized today in building construction.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The subject property at 20 Linden Avenue East is recommended not eligible for listing in the National Register of Historic Places (NRHP). Built as part of the Lawrence Industrial Park, the subject building reflects larger historical trends of economic renewal within Jersey City and was one of many buildings erected as part of the industrial growth within the area. However, it does not rise to the level of significance to warrant individual eligibility under NHRP Criterion A. Research to date did not indicate that the developer of Lawrence Industrial Park or the subject building's occupants made historic contributions within their field to qualify as eligible under NHRP Criterion B. The property does not embody the distinctive characteristics of a type, period, or method of construction. And is does not represent the work of a master or possess high artistic value. The use of diamond castellated beams in the building's construction reflects a common building practice of its time and does not represent an important example within the context of building construction to warrant eligibility. For these reasons, the building at 20 Linden Avenue East is not recommended eligible for listing in the NRHP under Criteria A, B, or C.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:
Building/Element Attachment: 20 Linden Avenue East

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

In 1957, Commissioner James F. Murray of Jersey City established the state's first municipal Bureau of Economic Development to restore deteriorated, undeveloped areas in Jersey City to encourage new industrial investment (*Jersey Journal* [JJ], 30 June 1961:3). The Bureau of Economic Development served as a central clearing-house for new industrial development and an avenue for local government to deal with business investments for Jersey City (JJ, 24 October 1957:5). Following the formation of the Bureau of Economic Development, the organization invited experts to evaluate the city's problems at their "Operation Rebirth" symposium at Jersey City State College in October 1959 (JJ, 30 June 1961:3). One outcome of the symposium was the creation of the Jersey City Land Sales Program, a plan designed to attract economic development and productive industrial use by selling vacant areas of land for the then bargain price of $1,000 per acre (JJ, 22 February 1961:1). The plan prompted an industrial boom and the establishment of three industrial parks: Liberty Industrial Park, Lawrence Industrial Park, and Jersey City Industrial Park, which brought at least 50 firms to Jersey City (JJ, 30 June 1961:3).

Prior to 1957, the area located at the east end of Linden Avenue East, including the subject property, was undeveloped. By 1961, it was transformed into 400,000 square feet of new construction known as the Lawrence Industrial Park (JJ, 30 June 1961:3). Commissioner Murray worked with Fred Fishbein, the president of Lawrence Construction Co., who became the head of development for Lawrence Industrial Park. The Lawrence Construction Co. initially acquired an 18-acre parcel in the Greenville section of Linden Avenue East. The company later acquired additional land to construct more industrial buildings, including the subject property (JJ, 3 February 1964:44). In total, Fishbein and his company constructed 15 industrial buildings in Jersey City (JJ, 11 September 1972:8).

In 1961, Lawrence Construction Co. completed the second industrial building of Lawrence Industrial Park, constructed using Diamond Span-R beams for its structural steelwork (Figure 1; JJ, 29 July 1960:4). The Diamond Span-R is a type of castellated beam designed as structural channels to improve the depth and strength without adding weight or material and became a common beam used in structural framework since the 1950s and are commonly used today (The Constructor n.d.). The subject building was first occupied by the cosmetics and pharmaceutical manufacturer, Caryl Richards, Inc., formerly the Dale Dixon Co. and Dale Richards Co (JJ, 3 October 1960:3, 15 February 1961:23, 21 February 1961:14). A local newspaper article from 1962 featured the interior space of the Caryl Richards, Inc. plant as part of its discussion on a new growing trend of industrial parks dedicating more space to office and clerical functions (JJ, 9 March 1962:9). As several firms moved into industrial parks, they discovered that relocating their administrative offices to these sites allowed them to centralize operations, which resulted in substantial financial savings (JJ, 9 March 1962:9). According to Godfrey Dallek, the president of Dallek Associates whose company designed the subject building's interior, industrial park occupants could spend more on well-designed office space since they were paying a fraction of New York rentals (JJ, 9 March 1962:9). The well-designed interior space of the Caryl Richards plant was showcased as an example that substantial use of space for administration functions was possible for industrial parks.

The subject building at 20 Linden Avenue East continued to house several companies throughout the twentieth and twenty-first centuries. By 2007, the building appeared to be vacant and remained unoccupied until 2011, when Greenville Colorants moved into the building (Google Maps, Inc. 2007, 2011). The building also housed several other companies in different sections of the industrial building. Jersey City Logistics LLC is the current owner of the building, and it appears that the building is currently unoccupied since there are "For Sale" signs on the building. A sign on the primary elevation indicates that the current owner rents out parking spaces in the parking lot along Linden Avenue East.

CONTINUATION SHEET

Historic Sites #:

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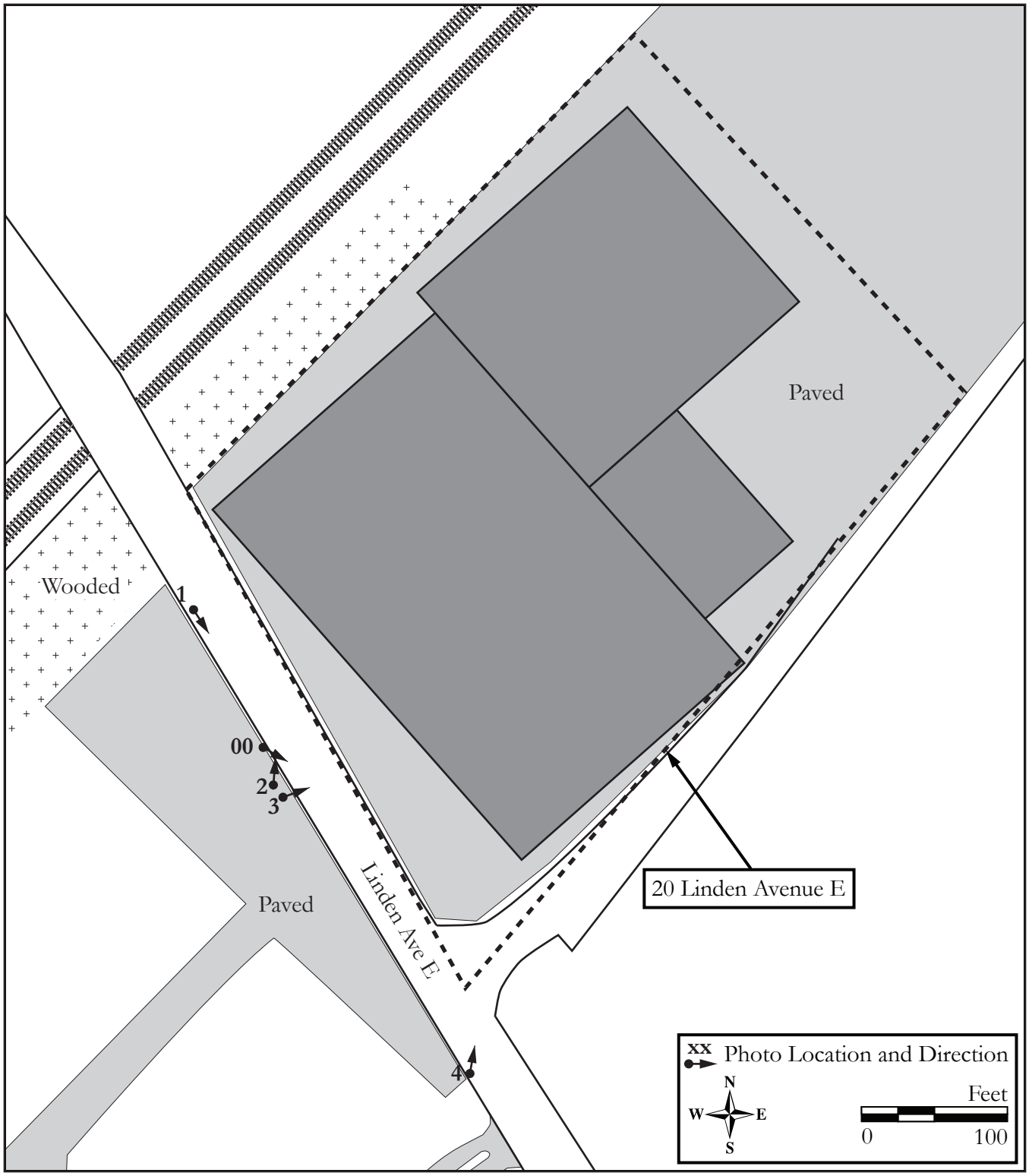
CONTINUATION SHEET

Historic Sites #:



Site Map.

Survey Name: Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program

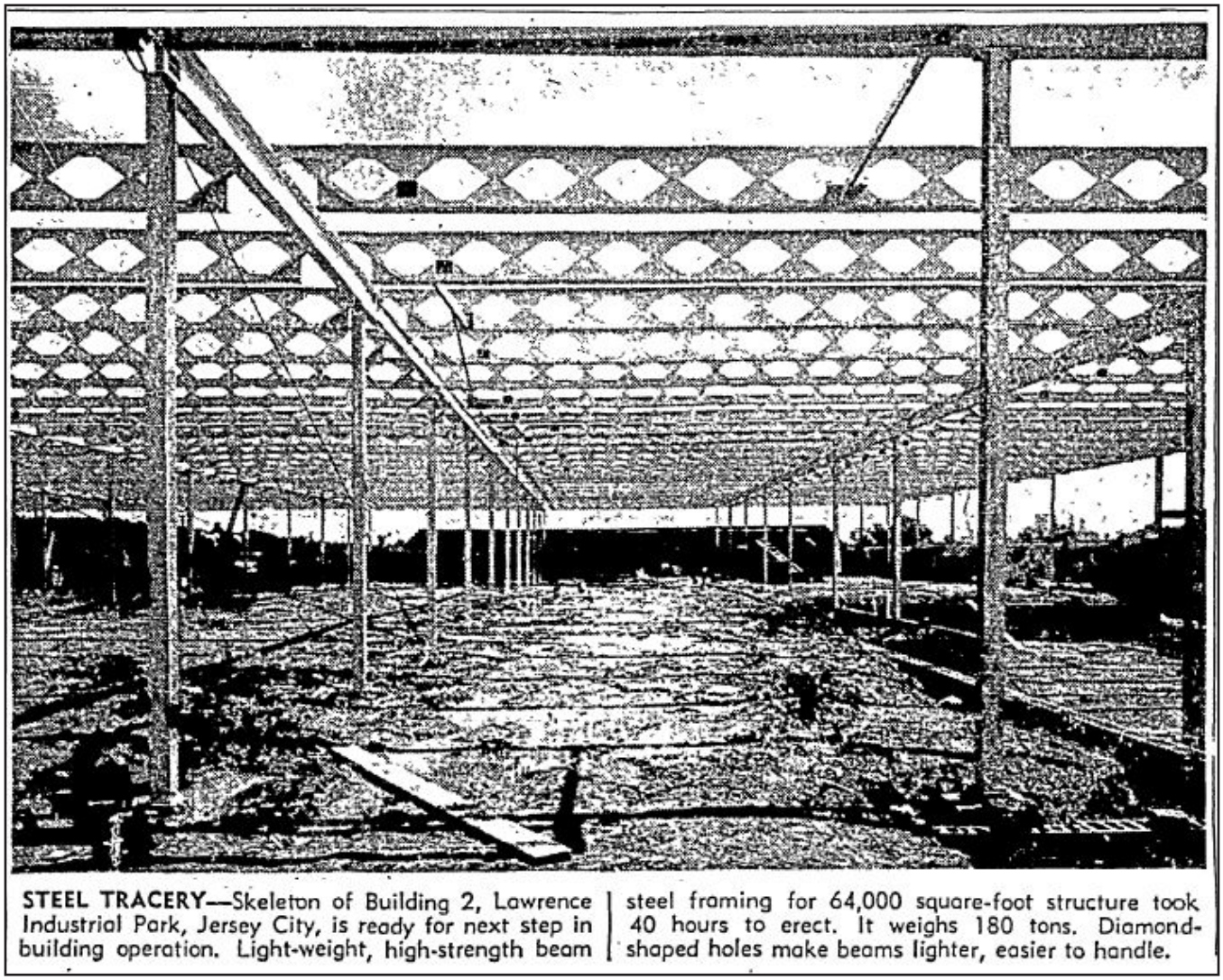
Surveyor: Marissa Joy Agbunag

Date: October 2022

Organization: Richard Grubb & Associates, Inc.

CONTINUATION SHEET

Historic Sites #:



STEEL TRACERY—Skeleton of Building 2, Lawrence Industrial Park, Jersey City, is ready for next step in building operation. Light-weight, high-strength beam steel framing for 64,000 square-foot structure took 40 hours to erect. It weighs 180 tons. Diamond-shaped holes make beams lighter, easier to handle.

Figure 1: 1960 photograph of the structural steel framing of the subject building at 20 Linden Avenue East during its construction phase (The Jersey Journal 29 July 1960).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view: East

Photographer: Marissa Joy Agbunag

Date: March 3, 2022

View of the southwest (primary) elevation of the subject building at 20 Linden Avenue East.

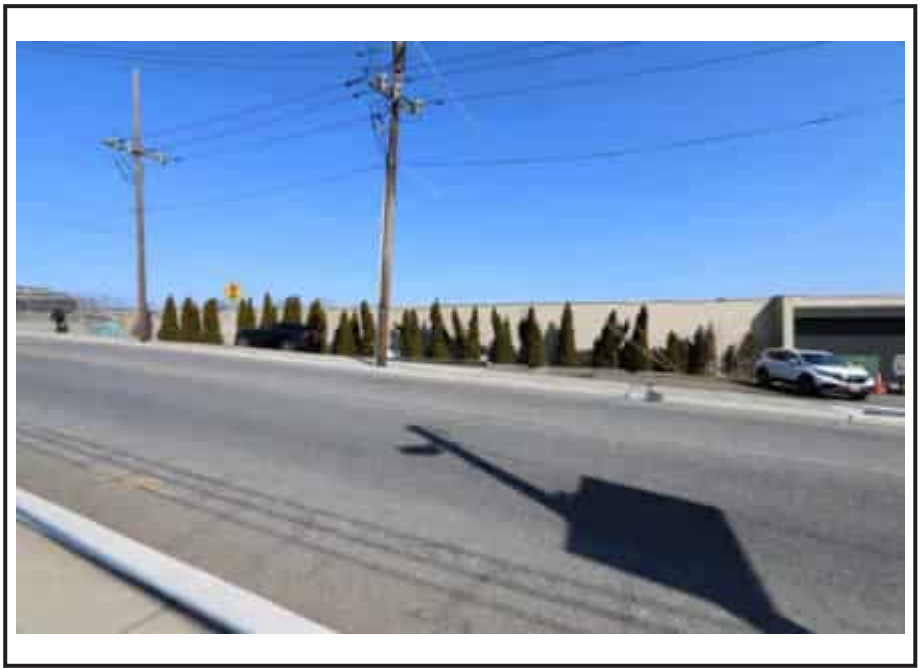


Plate: 2

Photo view: North

Photographer: Marissa Joy Agbunag

Date: March 3, 2022

View of the northwest corner of the southwest elevation of the subject building at 20 Linden Avenue East.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view: North

Photographer: Marissa Joy Agbunag

Date: March 3, 2022

Perspective view of the southwest and southeast elevations of the subject building at 20 Linden Avenue East.

Plate: 4

Photo view: Southeast

Photographer: Marissa Joy Agbunag

Date: March 3, 2022

Overview of the southwest elevation of the subject building at 20 Linden Avenue East.

APPENDIX J: GEOTECHNICAL SOIL BORING LOG

Soil boring location map

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. SWM-12(OW)
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose _____ Structure Type _____
Location _____ RDWY. NB-HCE STA. _____ OFF. _____

Rig No.	CME 55	Type	Track	Driller	Brenton Rousey	Helper	Ramen Ciancia
DATE	12/09/22						
TIME STARTED	08:35 am						
TIME FINISHED							
WEATHER							
DEPTH REACHED	15 ft						

GROUND ELEVATION 18.5 ft M.L.W. ELEVATION _____
ZERO OF BORING LOG _____ ELEVATION GROUNDWATER 12.0 ft

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-
15						0		0		

Drilling Mud Rotary Mud with Casing Casing Type: 10' of 4" Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE	12/10/22						
TIME	12:00 am						
DEPTH	6.5 ft						

GENERAL REMARKS:

Northing: 606601 Easting: 675767

All elevations refer to the NAVD 88 datum. Horizontal locations refer to the NJ State Plane coordinates system as per the NAD 83 datum.

The subsurface information shown hereon was obtained for NJTA design and estimate purposes. It is made available to authorized users only that may have access to the same information available to the NJTA. It is presented in good faith, but is not intended as a substitute for investigations, interpretation, or judgement of such authorized users.

INSPECTOR R. Mangar GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. SWM-12(OW)
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
18.5				G-1	0 - 5		Black\Brown [7.5YR, 2/2-4/3] coarse to fine SAND, some coarse to fine Gravel, little Clayey Silt.
		8	10	S-1	5 - 7		Light Gray [7.5Y, 7/2] coarse to fine SAND, little medium to
▼		7	6				fine Gravel, trace Silt. Rec=12"
		12	15	S-2	7 - 9	SAND	Olive Brown [5Y, 6/2] coarse to fine SAND, some medium to
		16	17				fine Gravel, little Silt. Rec=20"
		10	12	S-3	9 - 11		Reddish Brown [5YR, 3/2-2-2] coarse to fine SAND, little
		10	9				coarse to fine Gravel, little Silt. Rec=10"
		15	18	S-4	11 - 13		Light Gray [7.5Y, 4/2] coarse to fine SAND, little medium to
		20	19				fine Gravel, little Silt. Rec=16"
		17	21	S-5	13 - 15		Reddish Brown [2.5YR, 5/6] coarse to fine SAND, some
3.5		20	21			15.0 ft	coarse to fine Gravel, little Clayey Silt. Rec=17"
							End of Boring at 15 feet

APPENDIX K: ANNOTATED BIBLIOGRAPHY

Authors:	Allison A. Gall, Chelsea Mansky, and Michael J. Gall
Title:	Phase I Archaeological Survey and Intensive Level Historic Architectural Survey, Interchange 14 to Interchange 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program, Cities of Bayonne and Jersey City, Hudson County, and Newark, Essex County, New Jersey
Date:	April 2023
RGA Project No.:	2021-055:01
RGA Database Title:	NJTA T3820 Newark Bay Extension Final
State:	New Jersey
County:	Hudson
Municipality:	City of Jersey City
Drainage Basin:	Newark Bay, Kill van Kull, Upper New York Bay, The Narrows, Lower New York Bay, Atlantic Ocean
U.S.G.S. Quad:	Elizabeth, NJ and Jersey City, NJ
Regulation:	Section 106 of the National Historic Preservation Act, as amended; New Jersey Executive Order 215; New Jersey Register of Historic Places Act; Freshwater Wetlands (N.J.A.C. 7:7A); Waterfront Development
Project Type:	Transportation: Road Improvement, Bridge Replacement
Project Sponsor:	New Jersey Turnpike Authority
Client:	Gannett Fleming, Inc.
Level of Survey:	Phase I Archaeological Survey and Intensive-level Historic Architectural Survey
Cultural Resources:	Newark and Elizabeth Branch of the Central Railroad of New Jersey Historic District (SHPO Opinion: 8/30/2000); Pennsylvania Railroad New York Bay Branch Historic District (SHPO Opinion: 12/18/2019); Lehigh Valley Railroad Historic District (SHPO Opinion 3/15/2002); Morris Canal historic property (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 4/27/2004); Newark Bay Bridge; Port Authority Administration Building (Building 260); Jersey Eagle Site (28-Hd-45 [SHPO Opinion: 5/17/2013])

Appendix A-2

Supplemental Phase I Archaeological Survey
and Geotechnical Boring Review

SUPPLEMENTAL PHASE I ARCHAEOLOGICAL SURVEY AND GEOTECHNICAL BORING REVIEW

INTERCHANGE 14 TO 14A:

New Jersey Turnpike Newark Bay-Hudson County Extension Improvement Program, Cities of Bayonne and Jersey City, Hudson County, New Jersey

PREPARED FOR:

Gannett Fleming, Inc.

November 2023

RICHARD GRUBB & ASSOCIATES

SUPPLEMENTAL PHASE I ARCHAEOLOGICAL SURVEY AND GEOTECHNICAL BORING REVIEW

INTERCHANGE 14 TO 14A:

New Jersey Turnpike Newark Bay-Hudson County Extension Improvement Program, Cities of Bayonne and Jersey City, Hudson County, New Jersey

Principal Investigator:
Michael J. Gall, MA, RPA

Authors:
Michael J. Gall
Allison A. Gall

Prepared by:
Richard Grubb & Associates, Inc.
259 Prospect Plains Road, Building D
Cranbury, New Jersey 08512

Prepared for:
Gannett Fleming, Inc.

Date:
November 8, 2023

EXECUTIVE SUMMARY

Richard Grubb & Associates, Inc. (RGA) completed a supplemental Phase I archaeological survey for the New Jersey Turnpike Authority's (NJTA) proposed reconstruction of the Newark Bay-Hudson County Extension (NB-HCE). The proposed reconstruction of the NB-HCE will be completed in four projects, which will improve regional mobility and address critical structural needs. This reconstruction project will replace the Newark Bay Bridge between the City of Newark, Essex County and the City of Bayonne, Hudson County. The focus of the current supplemental Phase I survey falls within the segment of the NB-HCE on the east side of the Newark Bay in the cities of Bayonne and Jersey City. This portion requires a Bridge Permit from the United States Coast Guard (USCG), approving the location and plans for the proposed replacement of the Newark Bay Bridge. The USCG holds jurisdiction over the navigable waterways of the United States pursuant to the General Bridge Act of 1946, as amended (33 U.S.C. § 525-533). The USCG will serve as the lead federal agency.

Federal involvement means the undertaking is subject to Section 106 of the National Historic Preservation Act (NHPA), as amended and re-codified (54 United States Code [U.S.C.] § 306108), and its implementing regulations in 36 Code of Federal Regulations (CFR) § 800. The USCG, as lead federal agency for the undertaking, is responsible for ensuring compliance with Section 106, as well as the preparation of an Environmental Assessment (EA) under the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. § 4321 et seq.) and Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR §§ 1500-1508). The USCG will use its findings from the Section 106 process to provide the cultural resources component of NEPA. The proposed project will be funded under the NJTA's Capital Program and, thus, necessitates compliance with New Jersey Executive Order 215 (EO 215) and is expected to require a Waterfront Development permit and a Freshwater Wetlands Protection permit from the New Jersey Department of Environmental Protection's (NJDEP) Division of Land Resource Protection, which necessitates compliance with N.J.A.C. 7:7-9.34 and N.J.A.C. 7:7A, respectively. Due to the use of NJTA funding, and the presence of the Morris Canal historic property (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004), which is listed in the New Jersey Register (NJR) and National Register of Historic Places (NRHP), the portions of the project within the Morris Canal footprint require compliance with the New Jersey Register of Historic Place Act (N.J.A.C. 7:4-7.1).

A Phase I archaeological survey and intensive-level architectural survey was completed in April 2023 for the portion of the project extending along the NB-HCE from Interchange 14 in the City of Newark, Essex County to Linden Avenue in the City of Jersey City, Hudson County. The prior Phase I consisted of project-wide background research, a project-wide field reconnaissance survey, subsurface testing within a portion of the Area of Potential Effects for Archaeology (APE-Archaeology) on Block 13, Lot 1 in the City of Bayonne, and laboratory analysis of recovered artifacts. The April 2023 Phase I survey sections of the project in the City of Newark, Essex County and within Newark Bay were assessed with a low archaeological sensitivity and no further archaeological survey was recommended. The NJHPO concurred with this assessment and recommendation in an NJDEP letter dated May 22, 2023. The aforementioned sections of the APE-Archaeology are not included herein. The NJHPO determined that the APE-Archaeology in the City of Bayonne and the City of Jersey City is sensitive for pre-Contact period Native American and historic period archaeological resources. In the aforementioned May 22, 2023 letter, the NJHPO through the NJDEP specified that analysis of geotechnical data is needed to identify areas of prior grading disturbance and the thickness of fill layers from previous road construction in the APE-Archaeology. The portions of the APE-Archaeology within the cities of Bayonne and Jersey City are the focus of the current survey report and will be referred to as the Supplemental Survey Area (SSA).

The initial Phase I archaeological survey identified the Marist High School Site (28-Hd-55), a historic archaeological resource measuring 78 feet by 193 feet on Block 13, Lot 1 in the City of Bayonne. Where present, subsoil at the site was generally identified between 1.2 and 4.2 feet below ground surface (bgs). The site area was bounded to the west and south by significant grade cuts over 3.0 feet in depth. Following the submission of the initial survey report, the NJTA determined that the

site location will be avoided during construction and protected via the placement of a barrier, such as orange silt fencing or jersey barriers, between the site and the construction excavation/staging area. The avoidance measures will be detailed in an avoidance and protection plan. As the site will be avoided, no further archaeological survey is recommended at site 28-Hd-55.

This supplemental Phase I archaeological survey consisted of a review of 20 soil borings and 3 mechanical test pits excavated in 2022 for this project, as well as a review of 160 soil borings excavated in the SSA in 1954 for the initial construction of the NB-HCE. The soil boring review resulted in an updated archaeological sensitivity assessment for the City of Jersey City and City of Bayonne sections of the project. Soil boring data reveals that all proposed basin locations, except for HUC2-I on the former Marist High School property in the City of Bayonne west of John F. Kennedy Boulevard, are confined to the vertical footprint of recently imported and/or disturbed soils, resulting in a low archaeological sensitivity assessment and a recommendation for no further archaeological survey. An area of previously assessed archaeological sensitivity for a twentieth-century turntable and roundhouse at proposed Basin HUC3-C is no longer considered archaeologically sensitive based on an examination of Test Pit 10 profile, which reveals extensive disturbance caused by the New Jersey Department of Transportation's (NJDOT) construction of Route 185 and an existing basin at this location. Additionally, data reveals that the structural footprint of the Morris Canal was not situated at Basin HUC3-C and was instead below present-day Route 185. Therefore, no further archaeological survey is recommended at Basin HUC3-C. Soil boring analysis, an examination of historic aerial photographs, and the review of project plans demonstrates that significant ground disturbance exists within much of the remainder of the SSA and a recommendation of no further archaeological survey, with the exceptions listed below.

Geotechnical soil borings and historic images identified an area of assessed moderate to high pre-Contact and historic archaeological sensitivity in deeply buried natural soils at proposed Basin HUC2-I in the City of Bayonne west of John F. Kennedy Boulevard located at and north of the former Marist High School building. Soil boring SWM-35OW excavated at the proposed basin revealed a possible 2.0-foot-thick natural buried A-horizon starting 6.0 feet bgs (27.3 feet above mean sea level [amsl]) that capped subsoil. Currently, proposed Basin HUC2-I will extend to a depth of 10 feet bgs (24.3 feet amsl) into the buried A-horizon and subsoil. This proposed basin is on land not currently owned by the NJTA and is being used as a staging and construction area by the current property owner. In the event the proposed basin is not redesigned with a base termination above 27.3 feet amsl, Phase IB archaeological survey via mechanical excavation assistance is recommended once NJTA assumes control of the property. Due to the need for a backhoe to assist in deep excavation at a currently inaccessible location, Phase IB archaeological survey cannot be conducted at this time.

The deeply buried Morris Canal historic property extended through the footprint of the proposed abutments for Structure N3.24R carrying the NB-HCE over Avenue C in the City of Jersey City. There, the existing NB-HCE embankment prevents Phase IB archaeological survey from taking place. Archaeological monitoring of construction excavation of the 5-foot-deep proposed bridge abutments is recommended to record the Morris Canal and mitigate project-related adverse effects to the NJR- and NRHP-listed historic property.

Based on a review of soil boring logs from 1954, archaeological monitoring is recommended at proposed Piers 13–15, a portion of Pier 17, and the eastern abutment for Structure No. N3.73R (Southeast Viaduct) to document the deeply buried Morris Canal historic property. There, proposed piers will be excavated via a 6- to 8-foot-diameter screw auger to bedrock through very deep fills emplaced in 1954 and earlier for the construction of twentieth-century railroads and the NB-HCE's Southeast Viaduct. Due to the proximity of existing piers, limited space, the presence of notably deep 1954 fill (i.e., 7.0 to 20 feet thick), Phase IB archaeological survey is not feasible at this location and could compromise the structural integrity of the viaduct structure. Therefore, archaeological monitoring of construction excavations at the aforementioned piers and abutment is recommended to document the Morris Canal.

The multi-component NRHP-eligible pre-Contact and historic-period Jersey Eagle Site (28-Hd-45 [SHPO Opinion: 5/17/2013]) was previously identified on Block 30306, Lot 7 in and near the northern terminus of the SSA during a natural gas pipe installation project and north of proposed Basin HUC3-F. The proposed 5.0-foot-deep basin will not penetrate the natural, deeply buried soil present 7.0 feet bgs based on soil boring SWM-12(OW) and will have no effect on the Jersey Eagle Site. The proposed basin outfall pipe may be within the disturbed 16-foot-wide trench footprint for the existing natural gas pipeline. Archaeological monitoring of the Basin HUC3-F outfall stormwater pipe trench excavation is recommended if the outfall pipe trench extends below a depth of 2.3 feet bgs (i.e., the northernmost top depth of the Jersey Eagle Site closest to Linden Avenue) and be outside the existing 16-foot-wide natural gas pipeline trench to mitigate potential project related adverse effects to the archaeological historic property. The southwestern portion of the Jersey Eagle Site is more deeply buried and present at 6.6 feet bgs. No monitoring is recommended where project-related excavations will be above the top depth of the Jersey Eagle Site. Due to the presence of a high-pressure natural gas pipeline adjacent to the proposed basin outfall pipe footprint, Phase IB archaeological survey via mechanical excavation cannot be safely conducted and is not recommended. The nearby pre-Contact period Greenville Site (28-Hd-3), mapped immediately north of the SSA and identified in the early twentieth century, may represent the same archaeological deposits as those at the Jersey Eagle Site.

As currently proposed, the project will constitute an adverse effect to the Morris Canal. Archaeological monitoring to record the portions of the Morris Canal where the project extends into its vertical footprint is recommended to mitigate project-related adverse effects. Due to the use of state funding and direct impacts to the NJR-listed Morris Canal, completion of an Application for Project Authorization (APA) under the New Jersey Register of Historic Places Act (N.J.A.C. 7:4-7.1) will be required for the portions of the project within the canal footprint. The project may constitute an adverse effect to the Jersey Eagle Site if the proposed Basin HUC3-F extends outside an existing 16-foot-wide natural gas pipeline trench. Due to the proximity of the existing pipeline to the proposed outfall pipe, for safety reasons, Phase IB archaeological survey is not recommended and, instead, it is recommended that archaeological monitoring be undertaken to mitigate project-related adverse effects to the NJR- and NRHP-eligible historic property. Preparation of an archaeological monitoring protocol for review and approval by the NJHPO is recommended for all aforementioned areas of recommended archaeological monitoring.

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1.0 INTRODUCTION

Richard Grubb & Associates, Inc. (RGA) completed a supplemental Phase I archaeological survey for the New Jersey Turnpike Authority's (NJTA) proposed reconstruction of the Newark Bay-Hudson County Extension (NB-HCE). The proposed reconstruction of the NB-HCE will be completed in four projects, which will improve regional mobility and address critical structural needs. This reconstruction project includes the replacement of the Newark Bay Bridge between the City of Newark, Essex County and the City of Bayonne, Hudson County. The work proposed for the segment of the NB-HCE from Interchange 14 to Interchange 14A and to Linden Avenue in Jersey City, requires a Bridge Permit from the United States Coast Guard (USCG) and approval of the location and plans for the proposed replacement of the Newark Bay Bridge. The USCG holds jurisdiction over the navigable waterways of the United States pursuant to the General Bridge Act of 1946, as amended (33 U.S.C. § 525-533). The project discussed herein includes associated roadway improvements from the east bank of the Newark Bay, through Interchange 14, to Linden Avenue in Jersey City (Figures 1.1–1.4). Due to the use of NJTA funding, and the presence of the Morris Canal historic property (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004), which is listed in the New Jersey Register (NJR) and National Register of Historic Places (NRHP), the portions of the project within the Morris Canal footprint require compliance with the New Jersey Register of Historic Place Act (N.J.A.C. 7:4-7.1).

The purpose of the supplemental Phase I archaeological survey was to assess the archaeological sensitivity of the Area of Potential Effects (APE) for Archaeology (APE-Archaeology) in the cities of Bayonne and Jersey City based on available geotechnical soil boring log data and to identify pre-Contact or historic archaeological resources within the APE-Archaeology. The portions of the APE-Archaeology within the cities of Bayonne and Jersey City are the focus of the current survey report and will be herein referred to as the Supplemental Survey Area (SSA).

Michael J. Gall, MA, RPA served as the Principal Investigator. The professional qualifications of the Principal Investigator meet the requirements of 36 CFR 61 set forth by the National Park Service (Appendix A). Allison Gall served as the project archaeologist, conducted the background research, and coauthored the report with Mr. Gall and Chelsea Mansky. Phase I archaeological survey fieldwork was completed by Allison Gall, Evan Robinson, MA, Mr. Gall, Richard Adamczyk, MA, and Michelle Davenport, MA. Carol Weed, MA, of Matrix New World and serving as a representative of The Alessi Organization, owner of Block 13, Lot 1 in the City of Bayonne, assisted with Phase I archaeological testing on the aforementioned parcel. Artifact analysis was conducted by Alison Butchko. David C. Strohmeier and Patricia McEachen produced report graphics. Ms. Gall reviewed the geotechnical soil borings. Allee Davis, Mr. Gall, and Richard C. Grubb served as report editors, and Catherine Smyrski, Natalie Maher, and Emma Durham, PhD served as technical editors. Ms. Smyrski formatted the report. Copies of this report and all field notes, photographs, and project maps are on file at the RGA offices in Cranbury, New Jersey.

The appendices included in this report consist of the following: Resumes (Appendix A), Project Documents (Appendix B), National Register of Historic Places Criteria (Appendix C), 2022 Geotechnical Boring Log (Appendix D), Shovel Test Pit Log (Appendix E), Artifact Catalog (Appendix F), New Jersey State Museum Site Registration Form (Appendix G), 1954 Viaduct As-Built Plans (Appendix H), 1954 Hudson Boulevard to Garfield Avenue Bridge Structure As-Built Plans (Appendix I), and the Annotated Bibliography (Appendix J).

1.1 Regulatory Context

The proposed undertaking requires a Bridge Permit from the United States Coast Guard (USCG), approving the location and plans for the proposed replacement of the Newark Bay Bridge. The USCG holds jurisdiction over the navigable waterways of the United States

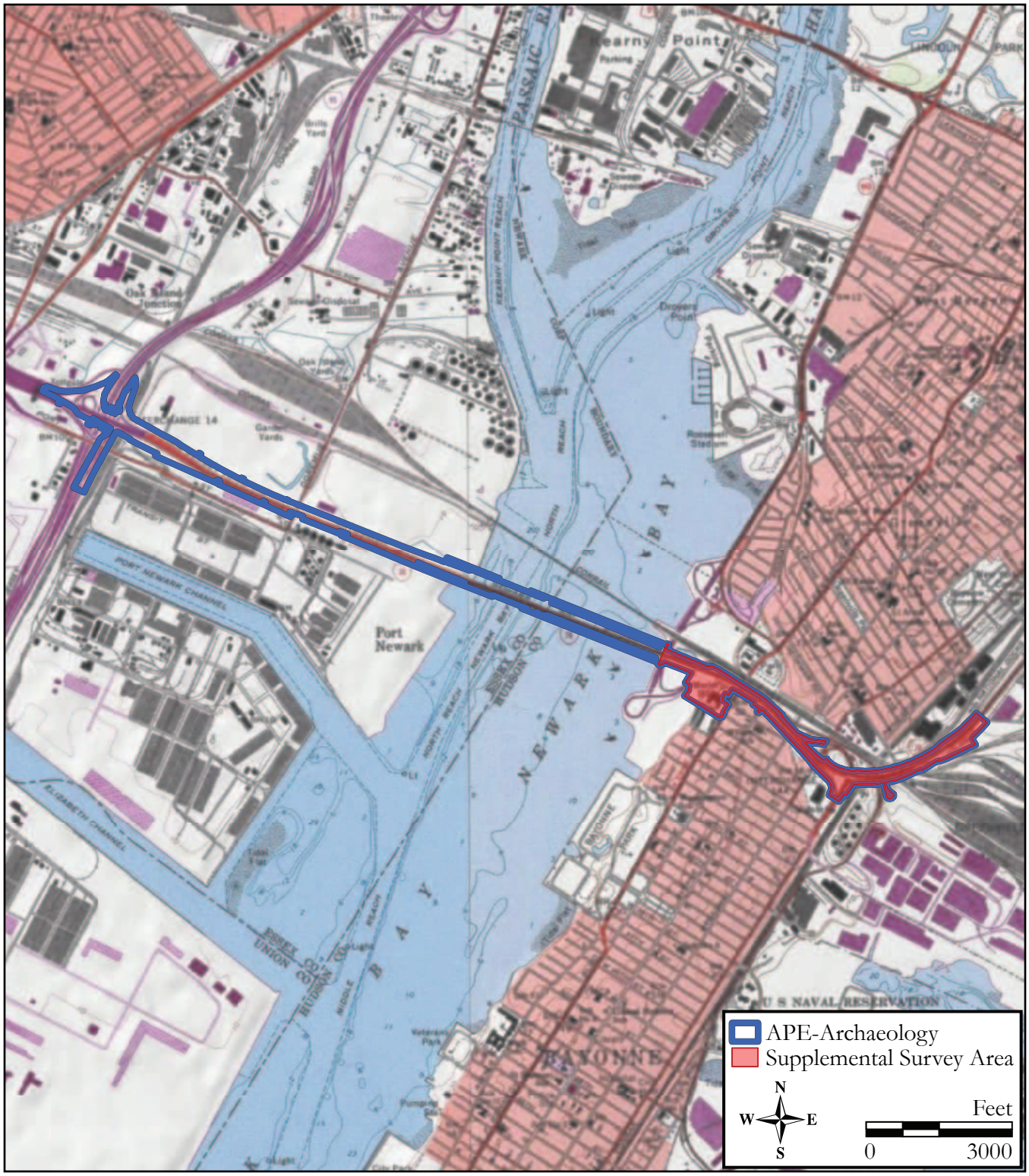

Figure 1.1: USGS map
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Figure 1.2: Road map
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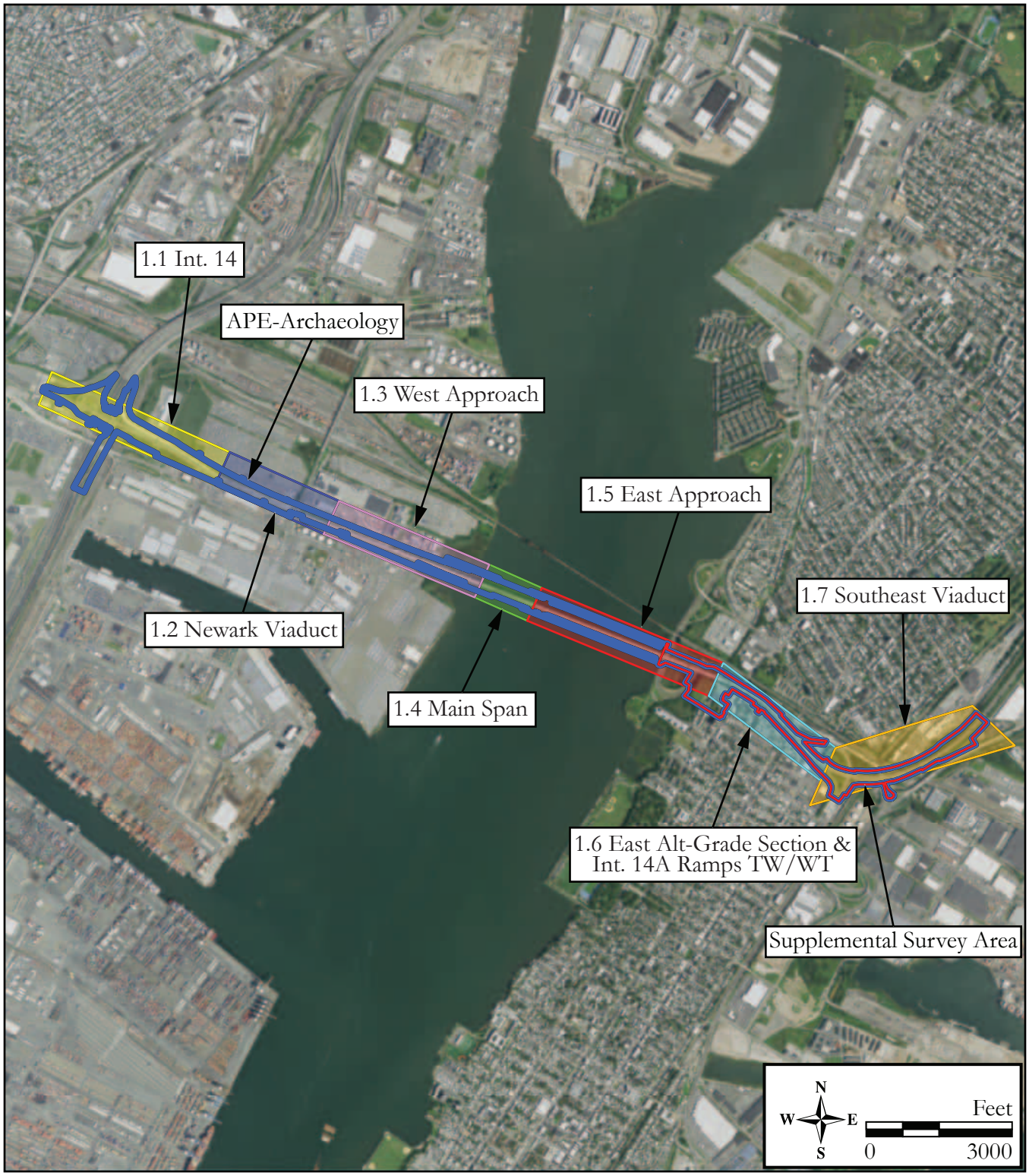

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pursuant to The General Bridge Act of 1946, as amended (33 U.S.C. § 525-533). Because of federal involvement, the undertaking is subject to Section 106 of the National Historic Preservation Act (NHPA), as amended and re-codified (54 United States Code [U.S.C.] § 306108), and its implementing regulations at 36 Code of Federal Regulations (CFR) § 800. The USCG, as lead federal agency for the undertaking, is responsible for ensuring compliance with Section 106, as well as the preparation of an Environmental Assessment (EA) under the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. § 4321 et seq.) and Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR §§ 1500-1508). The USCG will use its findings from the Section 106 process to provide the cultural resources component of NEPA.

The proposed project will be funded under the NJTA's Capital Program and, thus, necessitates compliance with New Jersey Executive Order 215 (EO 215). In addition, the project is expected to require a Waterfront Development Permit and a Freshwater Wetlands Permit from the New Jersey Department of Environmental Protection (NJDEP), Division of Land Resource Protection (DLRP). Due to the use of NJTA funding, and the presence of the Morris Canal historic property (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004), which is listed in the New Jersey Register (NJR) and National Register of Historic Places (NRHP), the portions of the project within the Morris Canal footprint require compliance with the New Jersey Register of Historic Place Act (N.J.A.C. 7:4-7.1).

An initial Phase I archaeological survey and Intensive-level architectural survey was completed in April 2022 and submitted to the NJHPO for review (Richard Grubb & Associates, Inc. 2023). In a letter issued by New Jersey Department of Environmental Protection (NJDEP) on May 22, 2023, the NJHPO determined that the APE-Archaeology in the City of Bayonne and the City of Jersey City is sensitive for pre-Contact period Native American and historic period archaeological resources. The NJHPO specified that analysis of geotechnical data is needed to identify areas of prior grading disturbance and the thickness of fill layers from previous road construction in the APE-Archaeology. Where intact buried natural soil layers are present, comparison of the depths of such stratigraphy must be made with the proposed vertical excavation base depths for project elements, to determine if hand dug or mechanically assisted Phase IB archaeological survey is needed to determine the presence or absence of archaeological resources. Geotechnical data review is necessary to also eliminate areas of archaeological sensitivity and rule out areas of potential Phase IB archaeological survey (Appendix B).

In addition, the NJDEP requested the completion of a Phase II archaeological survey at the Marist High School Site (28-Hd-55) on Block 13, Lot 1 in the City of Bayonne to evaluate the National Register of Historic Places (NRHP)-eligibility of the site. Following the NJHPO's issuance of review comments on the initial Phase I archaeological survey report, the NJTA redesigned a portion of the project to avoid project-related impacts to 28-Hd-55 to ensure the site's protection during construction through the preparation of a formal archaeological avoidance and protection plan that will be submitted to the NJHPO for review and comment under separate cover during the Final Design Phase for the proposed project.

1.2 Project Description

The following description applies to the entirety of the NB-HCE improvements extending from Newark, across the Newark Bay Bridge, into the City of Bayonne and ending at Linden Avenue in the City of Jersey City (see Figure 1.3). The focus of this supplemental survey is from the east bank of the Newark Bay to its terminus at Linden Avenue in Jersey City. The NJTA has identified a preferred alternative for Project 1 to advance to Preliminary Design, which the USCG will assess under Section 106. The preferred alternative will rebuild the NB-HCE from Interchange 14 to Interchange 14A, as well as the Southeast Viaduct up to approximately Linden Avenue, and is divided into seven distinct areas. Project elements include the following:

- Area 1 – Interchange 14 (Milepost [MP] N0.0 to MP N0.9): An interchange configuration that minimizes intrusion into the approach flight path to Newark Liberty International Airport Runway 29L while improving ramp profiling. This includes impacts to ramps and ramp bridges, as well as the bridges over the Turnpike's mainline north-south corridor.

- Area 2 – Newark Viaduct (MP N0.9 to MP N1.2): An alignment realigning the NB-HCE westbound to the north to avoid impacting an existing Colonial Pipeline facility while minimizing right-of-way (ROW) acquisition and allowing a crossover between the existing and proposed NB-HCE viaduct structures to facilitate construction sequencing. This includes replacing the Newark Viaduct with a new, wider structure expanding northward of the existing alignment and carrying four (4) travel lanes in each direction along with shoulders on both sides to facilitate response to incidents and accidents, and to provide space to maintain travel lanes during future maintenance activity.

- Area 3 – West Approach (MP N1.2 to MP N1.7): A horizontal alignment realigning the NB-HCE westbound to the north to avoid staged demolition of the NB-HCE westbound viaduct structure, provide the necessary median gap width to accommodate the long span main span bridge over the Newark Bay, and minimize ROW impacts to the existing chemical facility property to the north. This includes replacement with a wider structure expanding northward of the existing alignment carrying four (4) travel lanes in each direction along with shoulders on both sides.

- Area 4 – Main Span (MP N1.7 to MP N2.0): An alignment realigning the NB-HCE westbound to the north to provide the minimum distance between the existing and proposed bridges to accommodate a long span utilizing a cable-stay design. This includes replacement with a wider structure expanding northward of the existing alignment carrying four (4) travel lanes in each direction along with shoulders on both sides. Minimum channel clearance requirements, both horizontal and vertical, will dictate the final height of the replacement structure, which will not differ significantly from the overall maximum height of the existing bridge.

- Area 5 – East Approach (MP N2.0 to MP N2.7): An alignment realigning the NB-HCE westbound to the north that transitions gradually from the main span offset to the horizontal curve in Area 6. This includes replacement with a wider structure expanding northward of the existing alignment carrying four (4) travel lanes in each direction along with shoulders on both sides.

- Area 6 – Embankment Section and Interchange 14A Ramps (MP N2.7 to MP N3.4): The realignment improves substandard geometric elements (minimum radius, stopping sight distance, acceleration/deceleration lane length) while minimizing impacts to adjacent residences and avoiding impacting Route 440. The existing connector roadway from John F. Kennedy (JFK) Boulevard to Avenue C will be eliminated and replaced with a new ramp directly connecting JFK Boulevard to Route 440 southbound. This includes reconstructing the east at-grade section of the NB-HCE with replacement of the bridges over JFK Boulevard, Avenue C, and Garfield Avenue, and Interchange 14A Ramps WT and TW.

- Area 7 – Southeast Viaduct (MP N3.4 to MP N4.0): An alignment realigning the NB-HCE to the north and Interchange 14A Ramp TE to the south. This includes the replacement of Structure Nos. N3.73 and N3.53D.

- Construction of stormwater retention basins within portions of the Newark Bay Extension's existing and new right-of-way, including areas between ramps at Interchange 14 and 14A beneath the Newark Viaduct and east and west approaches to the Newark Bay Bridge, on the site of the former Marist High School property, and on Block 30306, Lots 2, 4, and 7; Block 30303, Lot TURN; and Block 27401, Lot 29 in the City of Jersey City; and

- Associated utility relocation, grading, and filling.

1.3 Area of Potential Effects

The APE includes locations that may be impacted by construction or that may experience effects once construction is completed. The APE was defined in accordance with the purpose and intent of 36 CFR 800.16(d), which defines the APE as "the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking." Two APEs have been designated for the current project, though only one (i.e., the APE for Archaeology or APE-Archaeology) is discussed in this supplemental survey report. The portions of the APE-Archaeology within the cities of Bayonne and Jersey City, the focus of the current survey report, are referred to as the Supplemental Survey Area (SSA).

The APE takes into account all locations where an undertaking may result in disturbance of the ground, from which elements of the undertaking may be visible, and where the activity may result in changes in traffic patterns, land use, and public access, for example. Project effects on historic resources may include both physical effects and contextual effects. Direct physical effects could include physical destruction, demolition, damage, or alteration of a historic resource. Indirect contextual effects may include isolation of a property from its surrounding environment; the introduction of visual, audible, or atmospheric elements that are out of character with a property or that alter its setting and context; or elimination of publicly accessible views to the resource.

APE-Archaeology

The APE-Archaeology encompasses any area of land disturbance required for obtaining permits or for successful completion of the project. Land disturbances include, but are not limited to, areas subject to excavation or deep grading, wetlands mitigation sites, construction staging areas, and borrow areas opened expressly for the project. The APE-Archaeology for the project includes the expected limits of disturbance for the proposed reconstruction of the NB-HCE, which includes the following: Interchange 14 and 14A improvements, Newark Viaduct, Newark Bay Bridge, east at-grade segment, stormwater management areas, temporary and permanent parking areas, and construction staging and laydown areas. The focus of the current supplemental survey consists of the NB-HCE on the east of Newark Bay, through Interchange 14A, to Linden Avenue. The project plans are in the early stages of development, thus vertical and horizontal areas of direct physical disturbance have not yet been fully identified (Figures 1.5a–1.5c, 1.6a–1.6d, 1.7a–1.7d, 1.8a–1.8d).

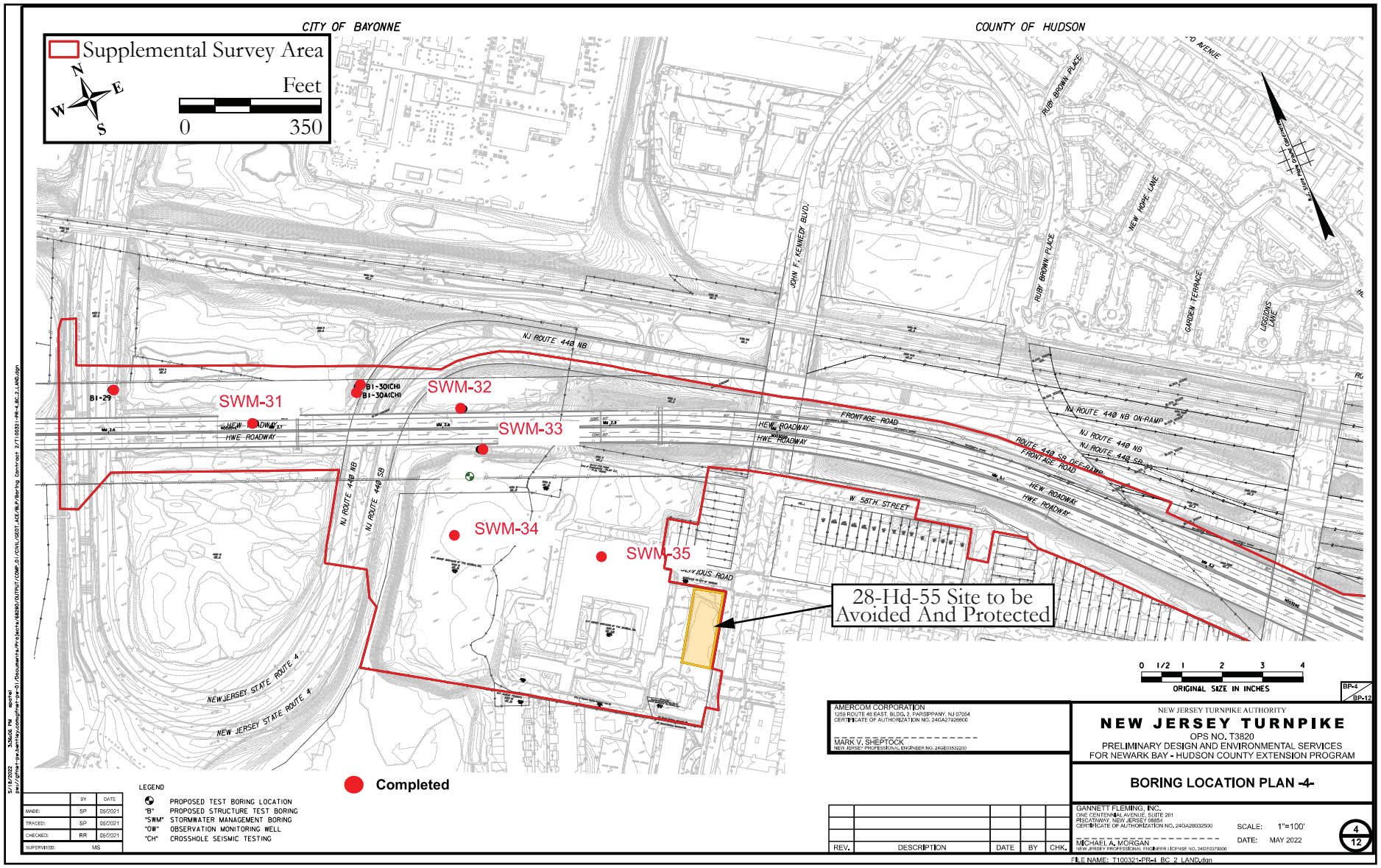

Figure 1.5a: 2022 Boring Location Plan
(Gannett Fleming, Inc. 2022a).

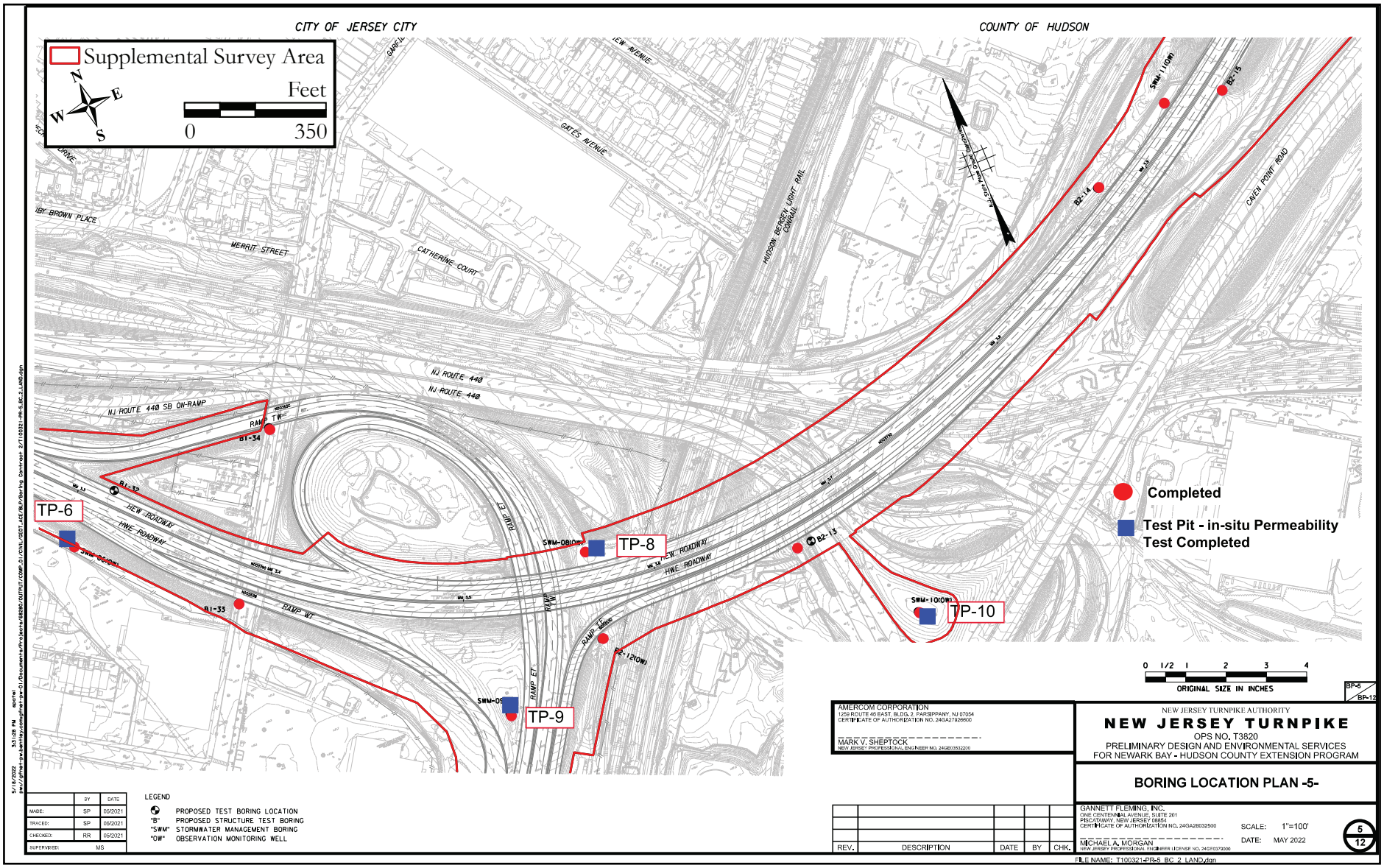

Figure 1.5b: 2022 Boring Location Plan
(Gannett Fleming, Inc. 2022a).

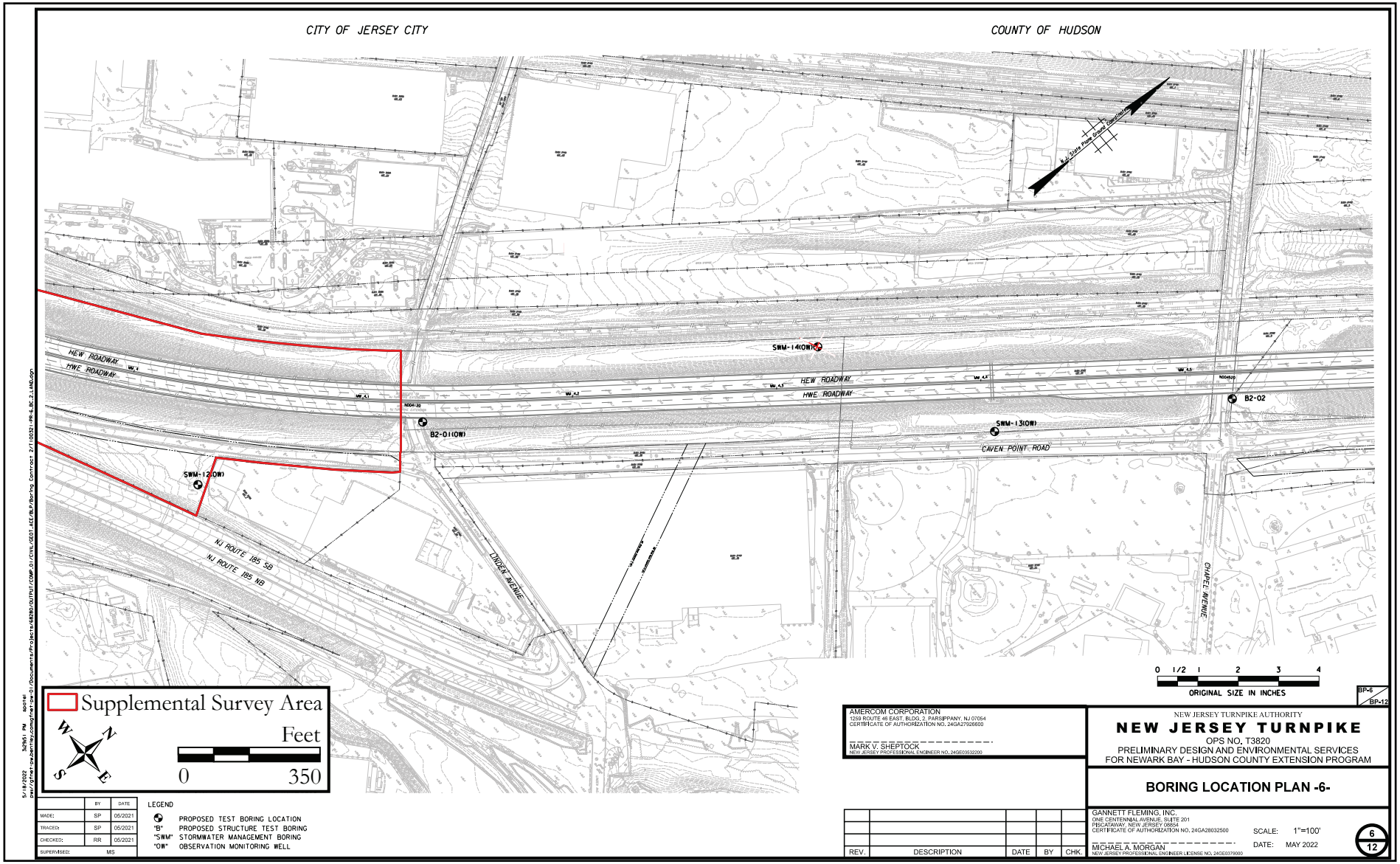

Figure 1.5c: 2022 Boring Location Plan
(Gannett Fleming, Inc. 2022a).

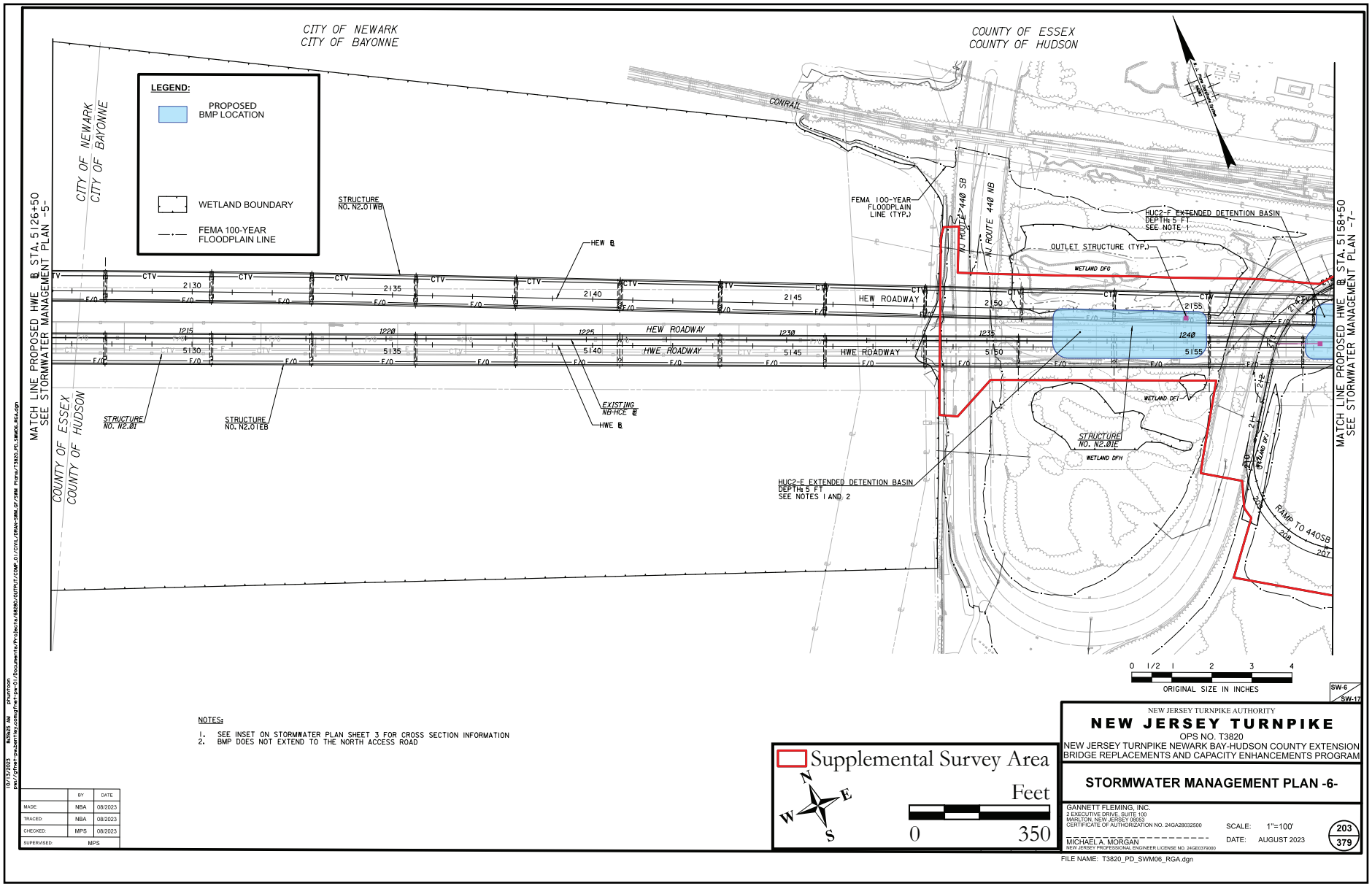

Figure 1.6a: Stormwater Management Plan showing the Supplemental Study Area (Gannett Fleming, Inc. 2022c).

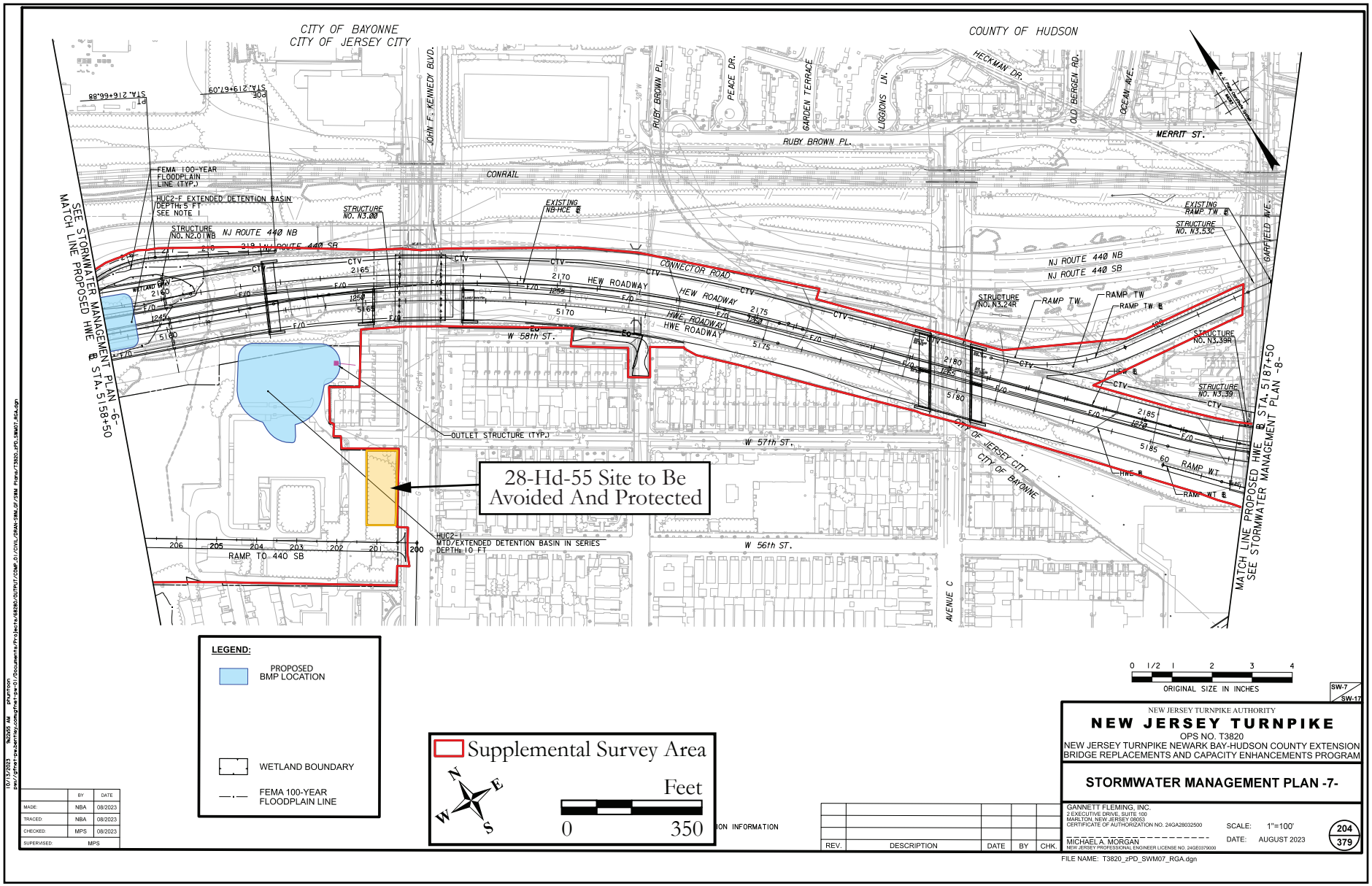

Figure 1.6b: Stormwater Management Plan showing the Supplemental Study Area (Gannett Fleming, Inc. 2022c).

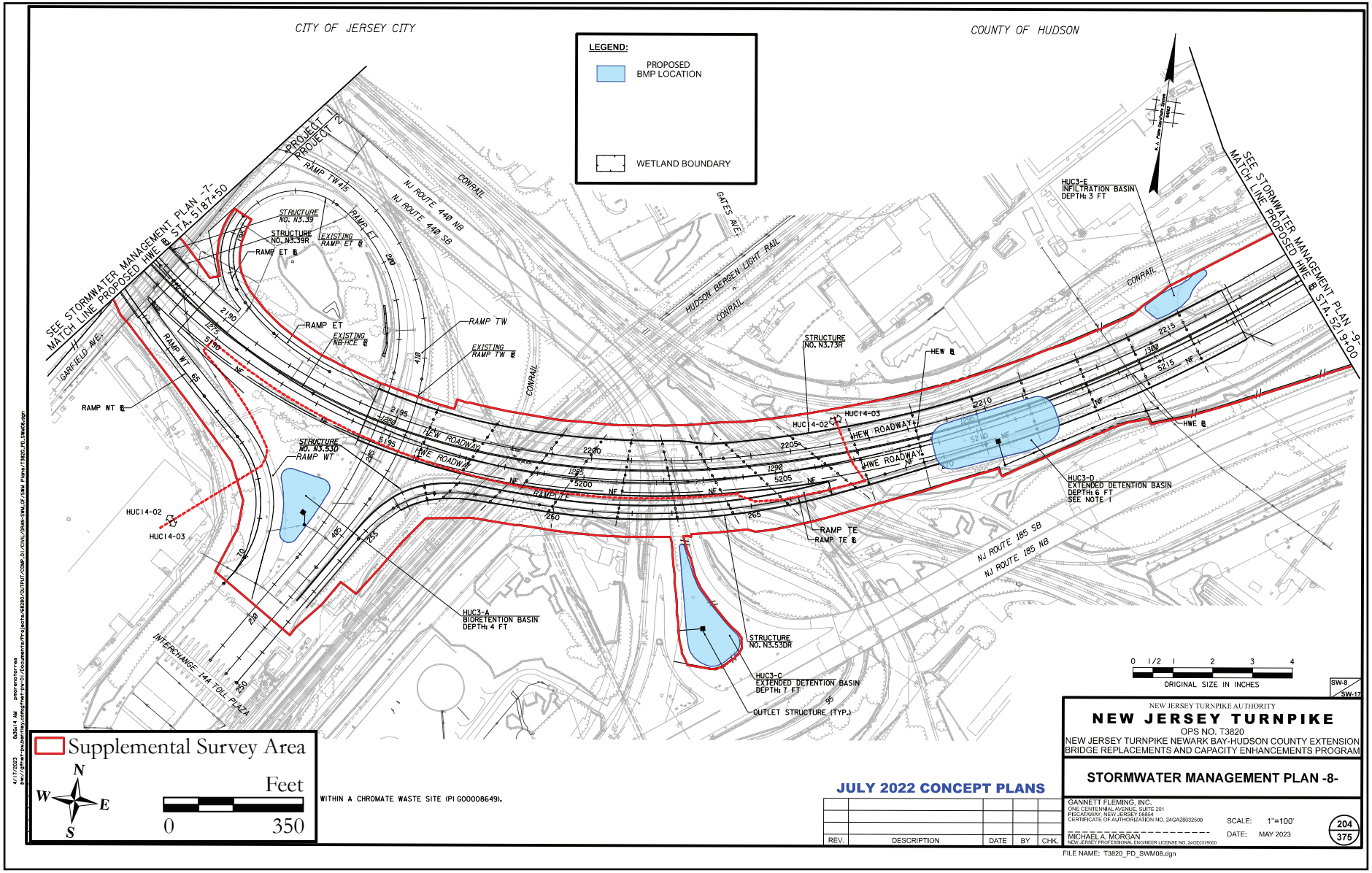

Figure 1.6c: Stormwater Management Plan showing the Supplemental Study Area (Gannett Fleming, Inc. 2022c).

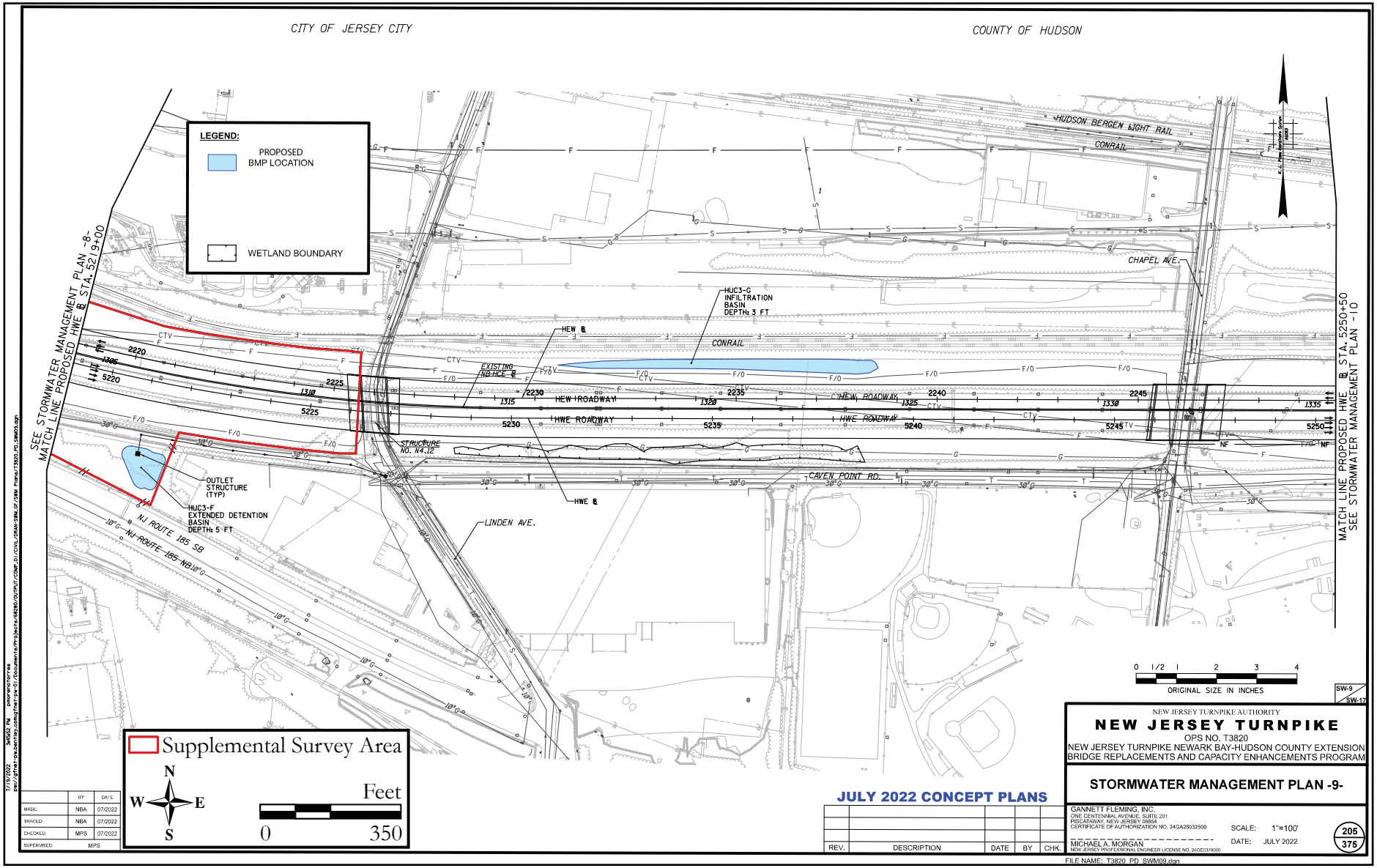

Figure 1.6d: Stormwater Management Plan showing the Supplemental Study Area (Gannett Fleming, Inc. 2022c).

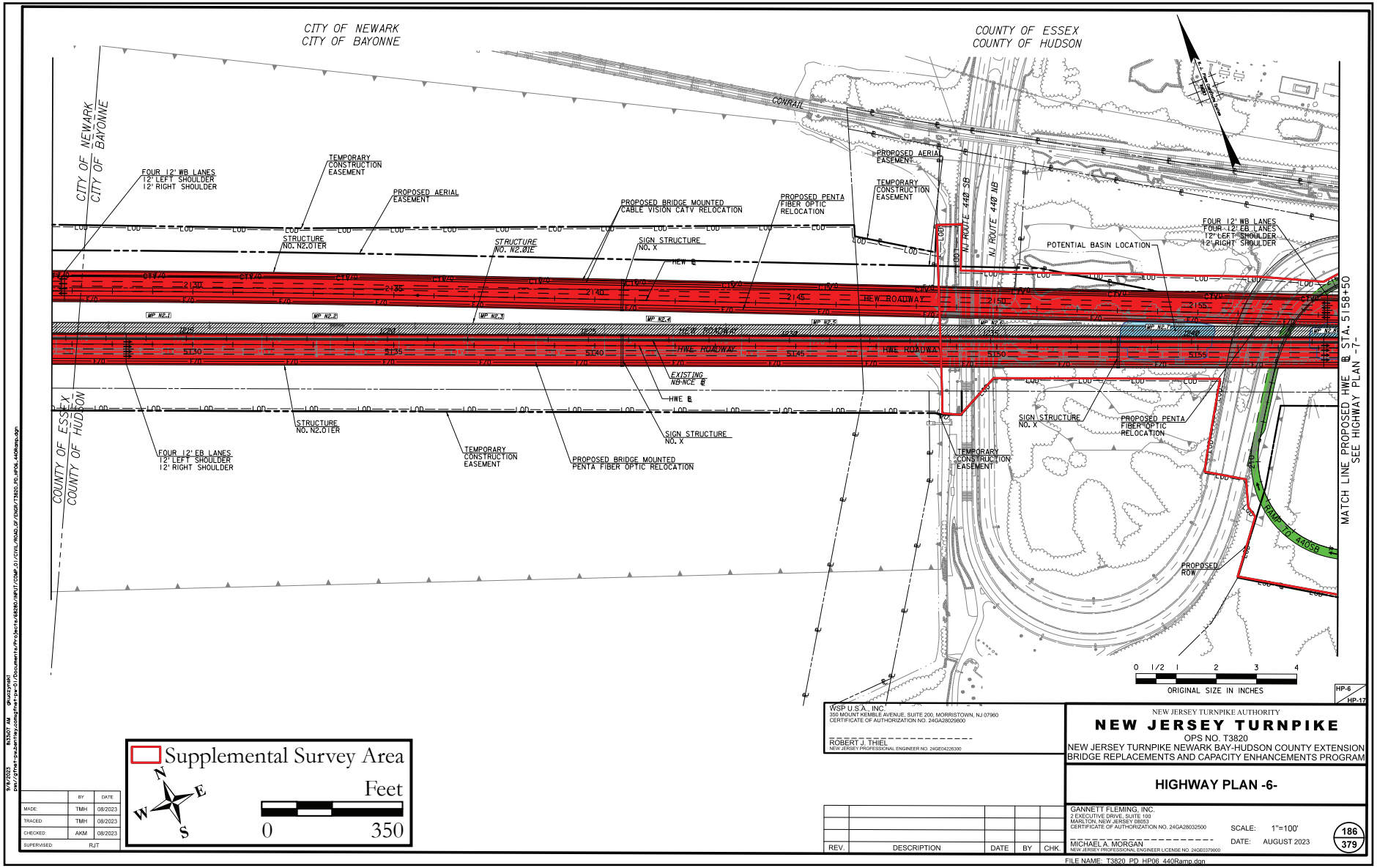

Figure 1.7a: Structure Plan, Preliminary Substructure Layout showing the Supplemental Study Area (Gannett Fleming, Inc. 2022d).

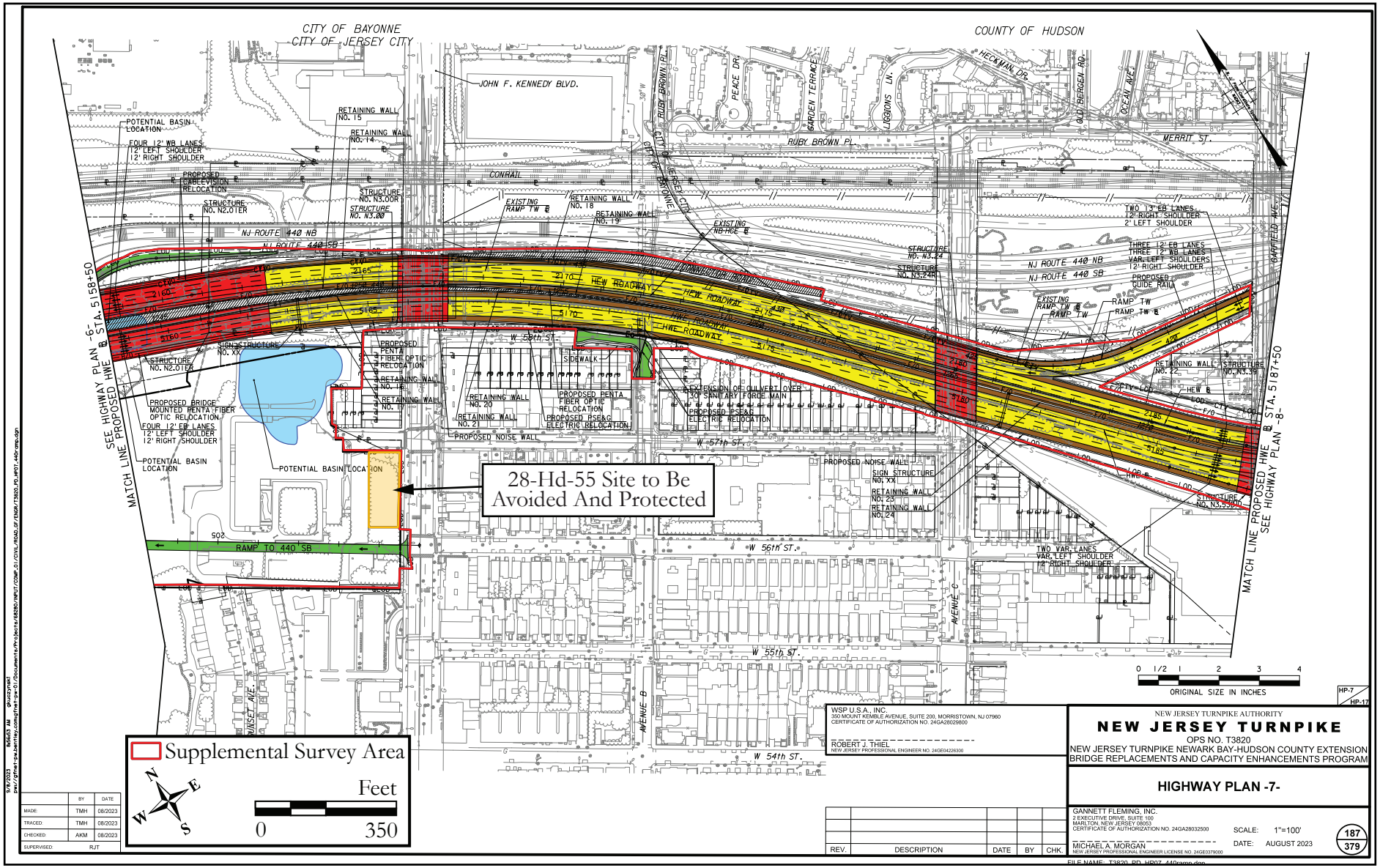

Figure 1.7b: Structure Plan, Preliminary Substructure Layout showing the Supplemental Study Area (Gannett Fleming, Inc. 2022d).

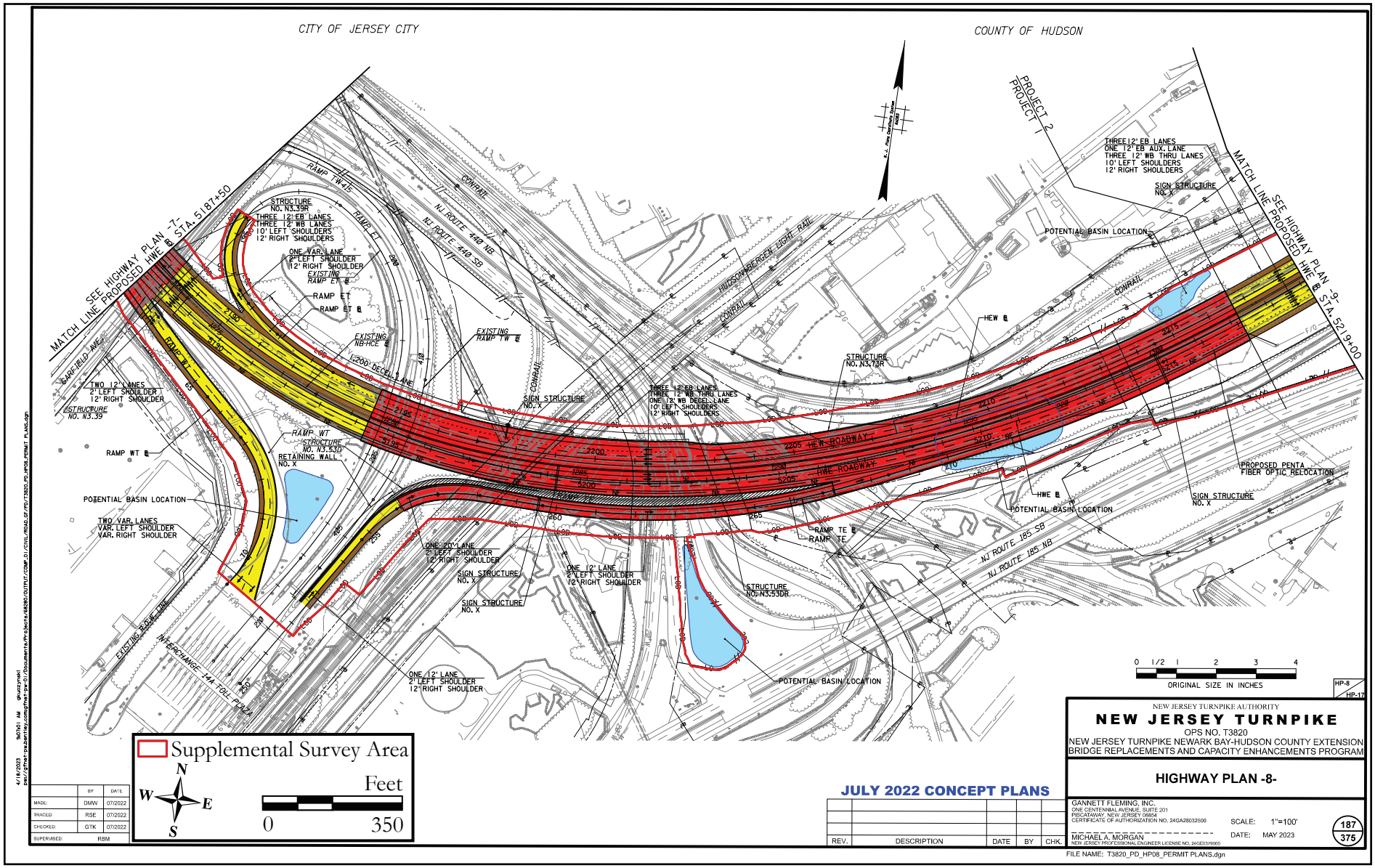

Figure 1.7c: Structure Plan, Preliminary Substructure Layout showing the Supplemental Study Area (Gannett Fleming, Inc. 2022d).

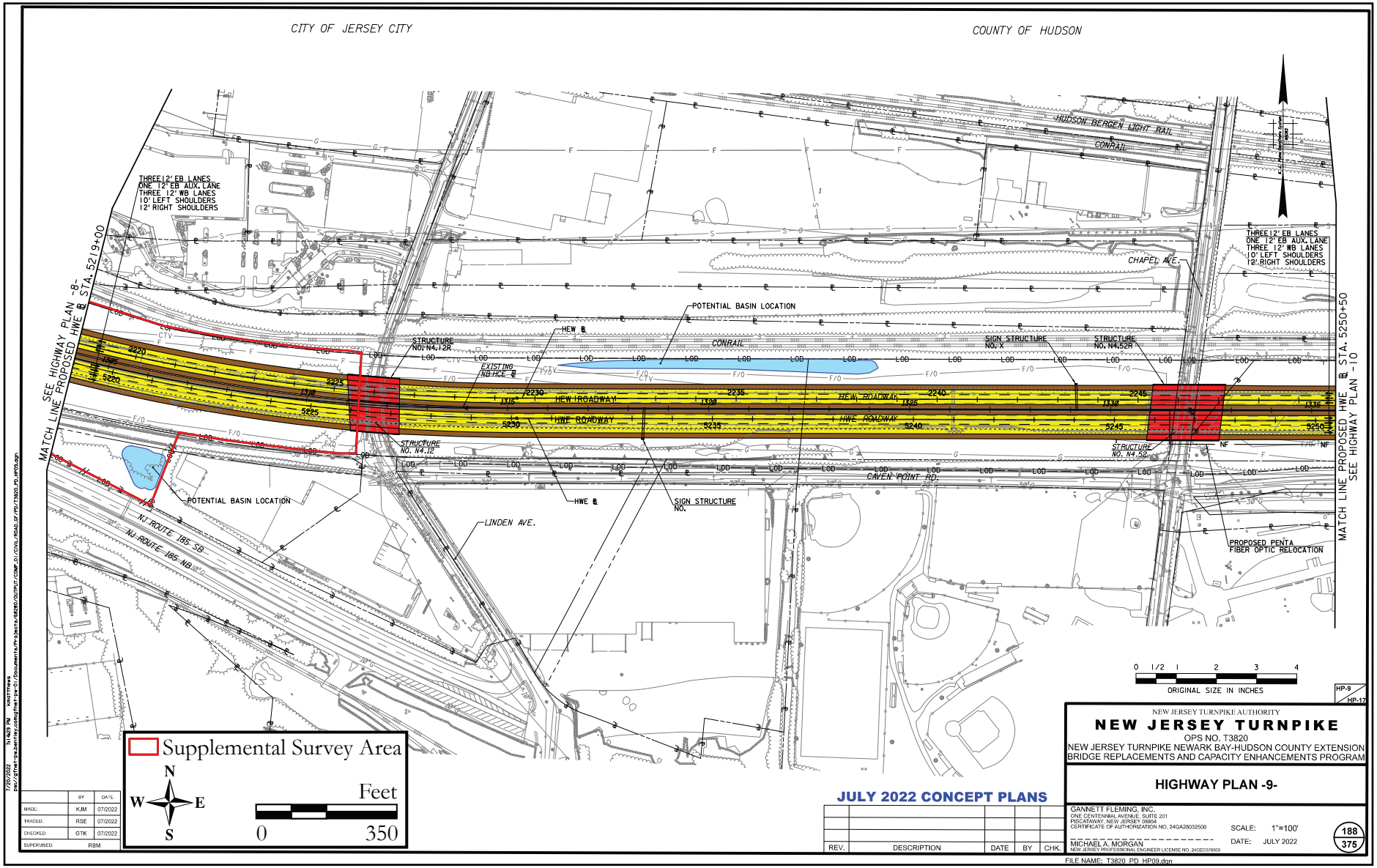

Figure 1.7d: Structure Plan, Preliminary Substructure Layout showing the Supplemental Study Area (Gannett Fleming, Inc. 2022d).

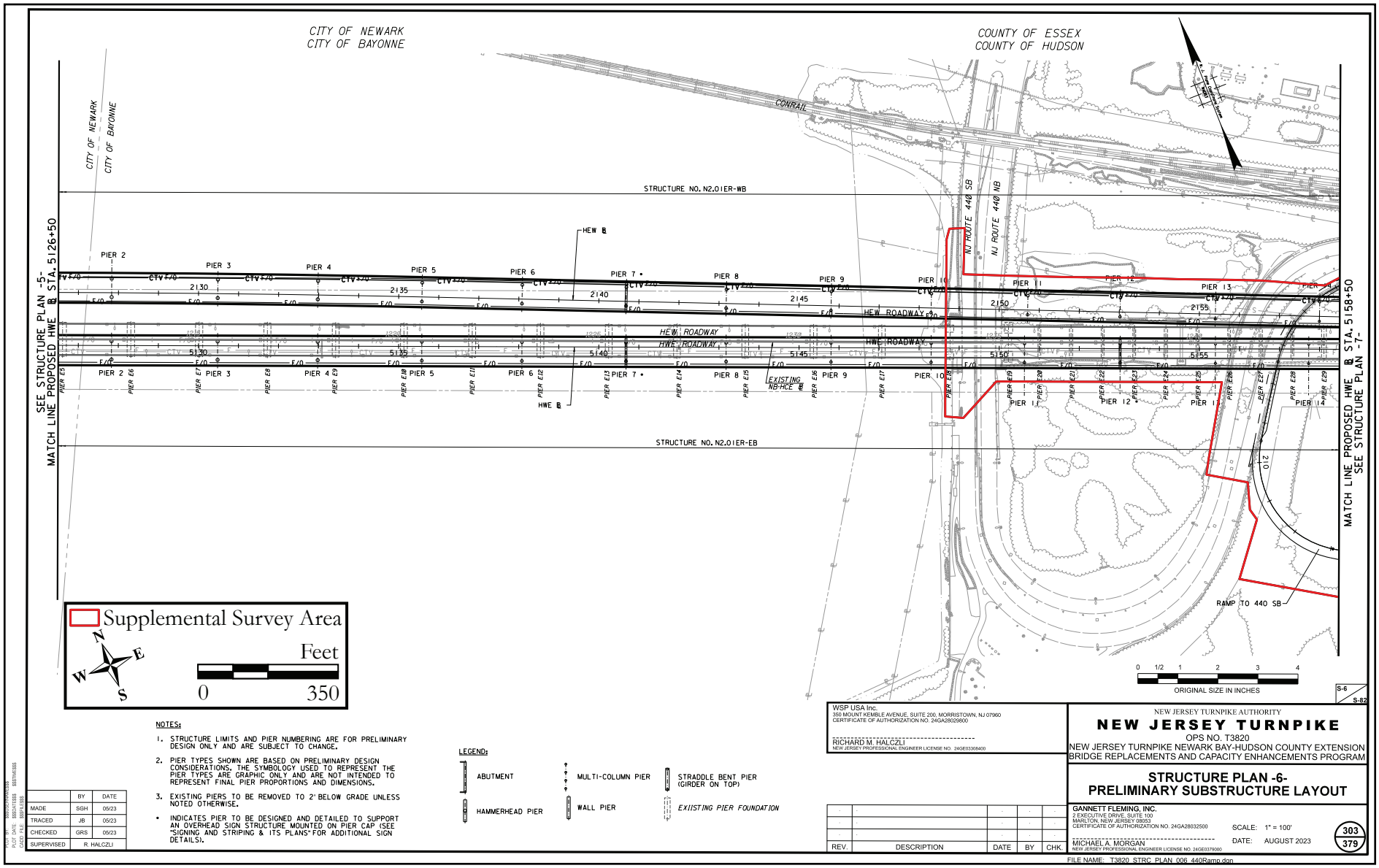

Figure 1.8a: Structure Plan, Preliminary Substructure Layout showing the Supplemental Study Area (Gannett Fleming, Inc. 2022d).

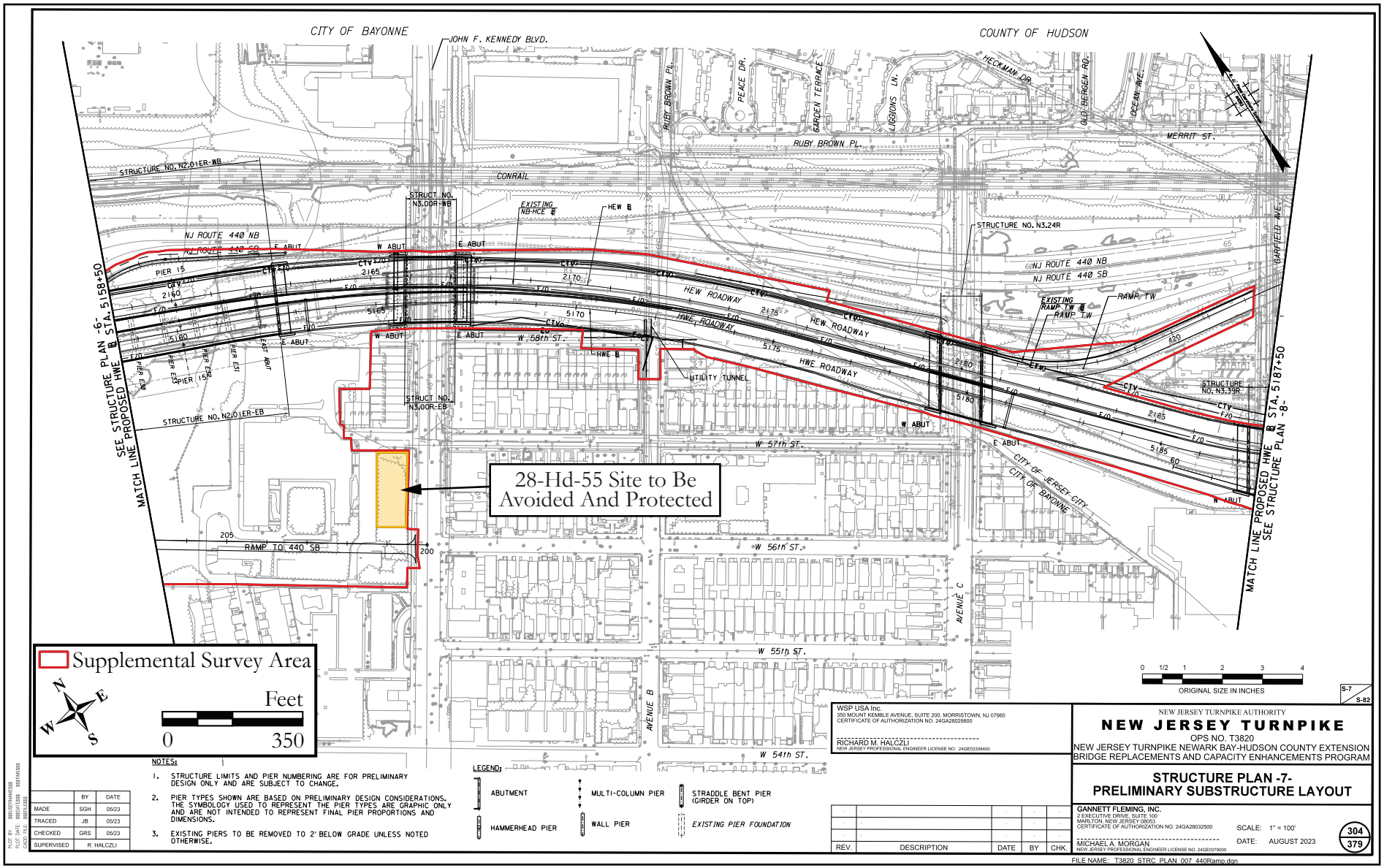

Figure 1.8b: Structure Plan, Preliminary Substructure Layout showing the Supplemental Study Area (Gannett Fleming, Inc. 2022d).

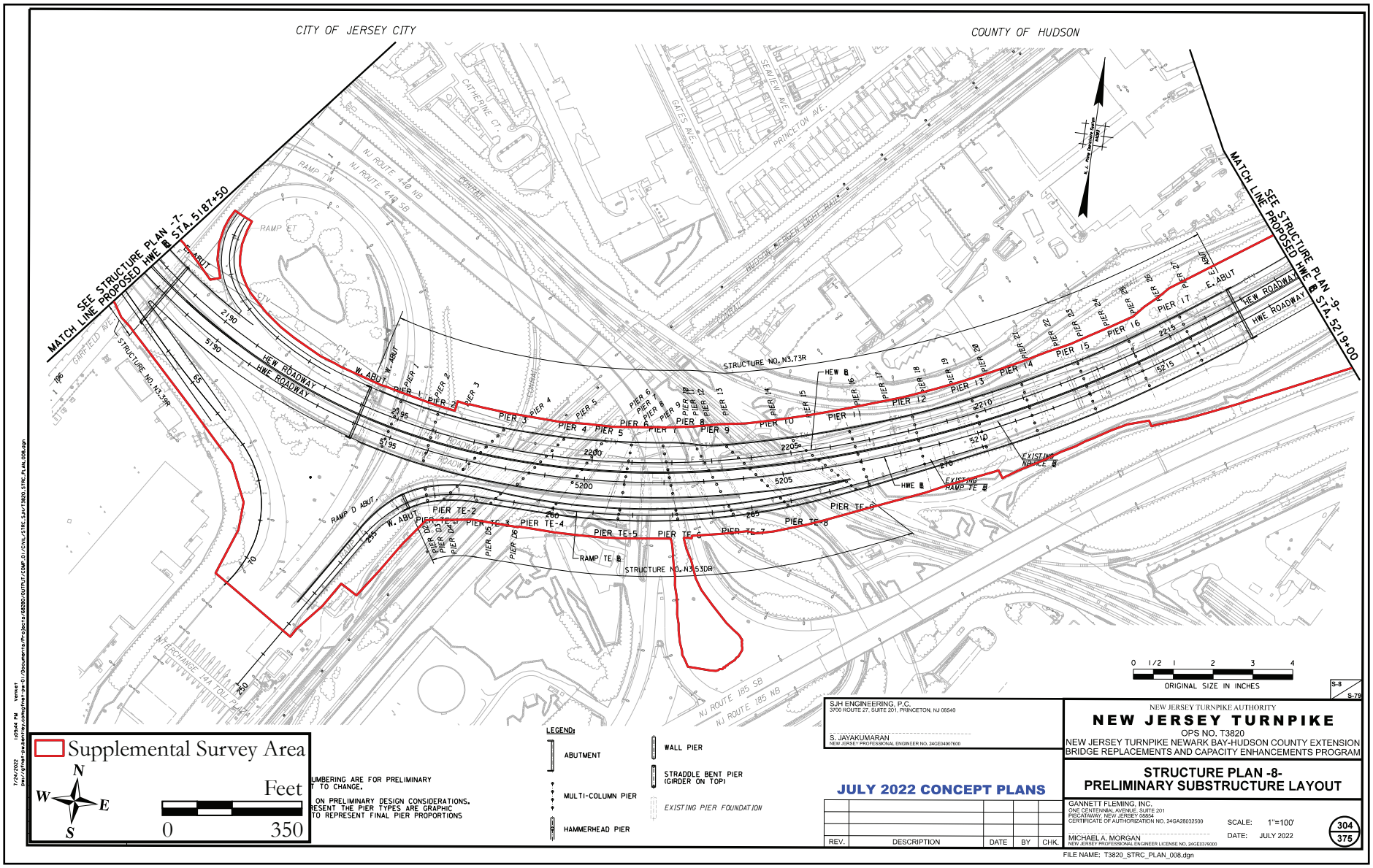

Figure 1.8c: Structure Plan, Preliminary Substructure Layout showing the Supplemental Study Area (Gannett Fleming, Inc. 2022d).

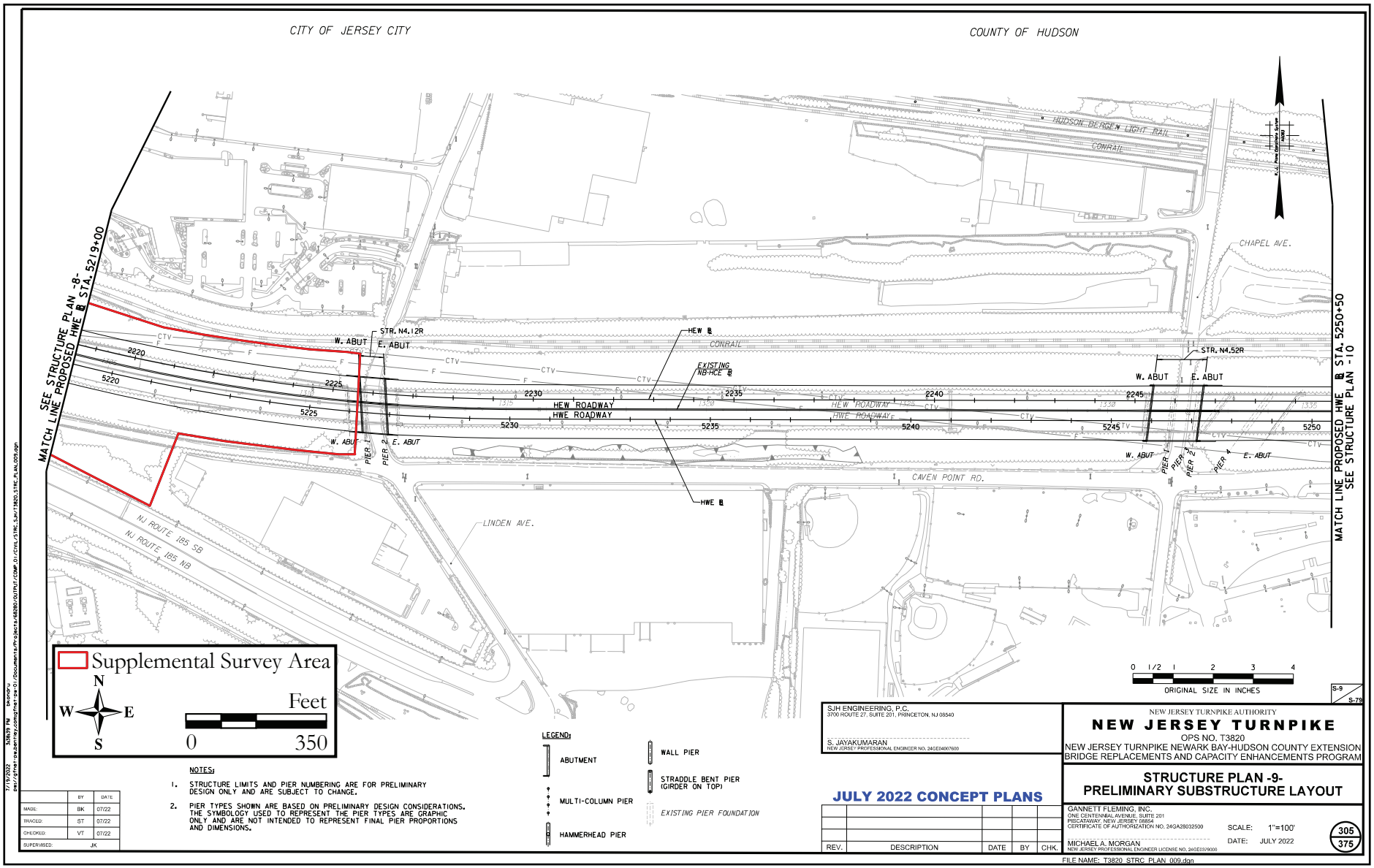

Figure 1.8d: Structure Plan, Preliminary Substructure Layout showing the Supplemental Study Area (Gannett Fleming, Inc. 2022d).

2.0 PROJECT APPROACH

This report presents the results of a supplemental Phase I archaeological survey, which was completed in compliance with Section 106, EO 215, the NJRHPA, and applicable NJDEP DLRP permits.

2.1 Research Methods

Background research and an intensive-level architectural survey were conducted during the initial Phase I archaeological to determine if any archaeological sites or historic properties have been previously identified within the SSA, to assess the potential for unidentified archaeological resources or historic properties, and to develop an appropriate historic context for the surrounding area. Research at the NJHPO's facilities in Trenton to identify listed or eligible historic properties and examine previous historic sites surveys and regulatory surveys on file at the NJHPO was not possible due to COVID-19 restrictions. However, a good faith effort was made to conduct NJHPO research by reviewing the NJ-GeoWeb database (NJDEP-GIS 2022), the updated list of historic properties and the list of cultural resources survey reports on the NJHPO's website, and surveys on file in the RGA in-house library. Files at the New Jersey State Museum (NJSM) were checked for the presence of registered archaeological sites within or near the SSA. Additional background research consisted of a review of pertinent primary and secondary sources available online.

2.2 Archaeology

The goal of the supplemental Phase I archaeological survey was to assess the sensitivity for the SSA to contain known or previously unidentified significant pre-Contact and/or historic archaeological resources or previously identified archaeological historic properties. Determinations of significance are based on the NRHP Criteria for Evaluation (Appendix C). The supplemental Phase I survey methods consisted of background research, a site reconnaissance to examine existing conditions, a review of available geotechnical boring logs and soil core photographs, and assessment of archaeological sensitivity. The previously conducted Phase I archaeological survey, results of subsurface testing, and laboratory analyses of recovered artifacts in the cities of Bayonne and Jersey City are presented herein. Field notes were recorded, and overview photographs of the SSA were taken.

3.0 BACKGROUND RESEARCH

Background research was conducted during the Phase I archaeological and intensive-level survey and reproduced below. This background research provided environmental, pre-Contact, and historic contexts for the SSA.

3.1 Environmental Setting

The SSA lies within the New Jersey Piedmont Lowlands Physiographic Province (Figure 3.1; Wolfe 1977). The Piedmont consists of lowlands and low, gently rounded hills with elevations of 200 to 400 feet above sea level as well as higher areas of volcanic basaltic ridges, such as the Sourland Mountains and Watchung Mountains (Wolfe 1977). The bedrock geology consists of sandy mudstone of the Passaic Formation Mudstone facies; siltstone and shale of the Passaic Formation; arkosic sandstone of the Lockatong Formation Arkosic Sandstone facies; argillite, mudstone, sandstone, siltstone of the Lockatong Formation; and Jurassic Diabase (Drake et al. 1996). The surficial geology of the SSA is mapped as Holocene-age salt marsh and estuarine deposits, late Pleistocene Eolian deposits, late Pleisocene, late Pleistocene and late Wisconsinan-age Rahway Till (Stone et al. 2002).

The section of the SSA within Bayonne contains: Laguardia artifactual coarse sandy loam, 0-3 percent slopes (LagA), Laguardia artifactual coarse sandy loam, 3-8 percent slopes (LagB), Greenbelt Loam, 0–3 percent slopes (GtbA), Urban land, Eolian substratum (UREOLB),Urban land, till substratum), 0–8 percent slopes (URTILB), and Westbrook mucky peat, 0–2 percent slopes, very frequently flooded (WectA) (Figure 3.2; Table 3.1; NRCS 2013, 2021). Laguardia artifactual coarse sandy loam, 3–8 percent slopes (LagB) soils and small pockets of Urban land, wet substratum, 0–8 percent slopes (URWETB) and Urban land, till substratum, 0–8 percent slopes (URTILB) are mapped within the Jersey City section of the SSA (see Figure 3.2; see Table 3.1; NRCS 2013, 2021). Soils characterized as Urban land consists of areas covered by pavement, concrete, buildings, and other structures underlain by disturbed and natural soil material and Laguardia series soils and is composed of construction debris and imported fills. Prior to the mid-twentieth century, the portion of the SSA closest to the Newark Bay was mapped as salt marsh upon which fill was placed to create made land, and this includes the area mapped as Greenbelt Loam, 0–3 percent slopes (GtbA), Laguardia artifactual coarse sandy loam, 0–3 percent slopes (LagA), and Westbrook mucky peat, 0–2 percent slopes, very frequently flooded (WectA) (USGS 1947a).

The SSA lies within a mostly flat, urban setting. This portion of the SSA lies on the east side of the Newark Bay, which drains into the Upper New York Bay via the Kill van Kull (see Figure 1.1). The Upper New York Bay flows through The Narrows into the Lower New York Bay and then into the Atlantic Ocean. The location of wetlands, lowlands, and upland topography, as well as the breadth of the Newark Bay, has altered throughout history. Historically, the eastern shoreline of the Newark Bay was mapped as wetlands and marshland well into the early twentieth century (Hills 1781; Gordon 1833; USGS 1905, 1947a, 1947b).

Generally, the natural vegetation of northern New Jersey is classified as Mixed Oak Forest, Northern Phase, a term that reflects the drastic decline in American chestnut since prehistoric times (Collins and Anderson 1994). During the early part of the twentieth century, the Asiatic fungus (*Cryphonectria parasitica*) eradicated several billion trees in the eastern woodlands, although small pockets survive in Michigan and Long Island. This void was rapidly filled by species that took advantage of the new ecological niche, and the region is now part of the Mixed Oak Forest. Red, white, and black oaks, as well as species of hickory, red and sugar maples, white ash, tulip trees, American beech, black cherry, black birch, sour gum, and American elm trees compose the Mixed Oak Forest in northern New Jersey. An understory of dogwood, hornbeam, spicebush, sassafras, ironwood, witch hazel, blueberry, black huckleberry, pinxter flower, poison ivy, Virginia creeper, Japanese honeysuckle, and wild grapes are also found

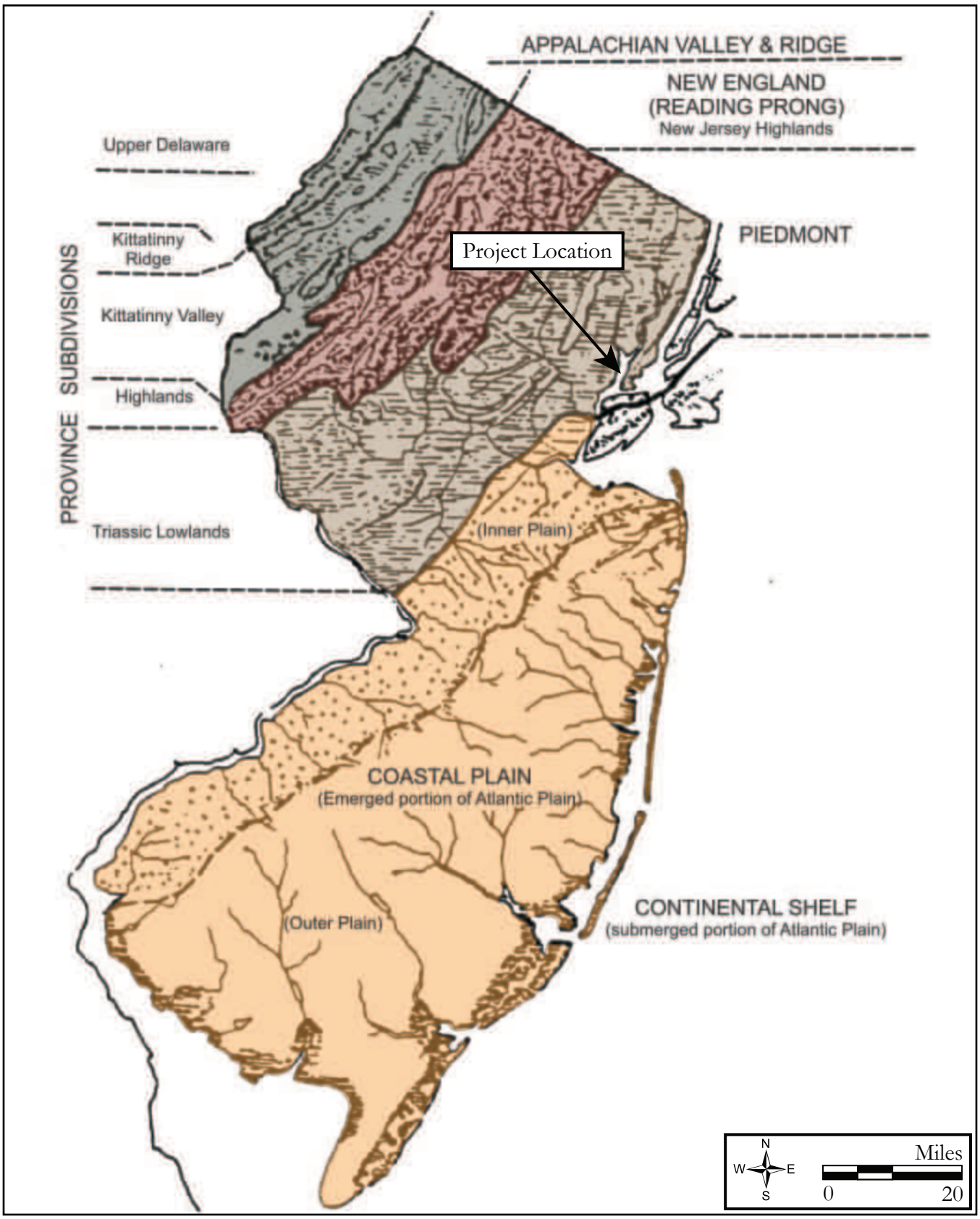

Figure 3.1: Physiographic provinces map
(adapted from Wolfe 1977).

Figure 3.2: Soils map
(2021 Soil Survey Staff, Natural Resource Conservation Service, United States Department of Agriculture. Soil Survey Geographic [SSURGO]).

Table 3.1: Characteristics of soil types mapped within the SSA.

Name	Soil Horizon Depth Inches	Color (if available), Texture, Inclusions	Slope	Drainage	Landform
Greenbelt Loam, 0 to 3 percent slopes (GtbA)	^A: 0-5 ^Bw1: 5-16 ^Bw2: 16-30 ^C1: 30-42 ^C2: 42-79	^A: Dark reddish brown (5YR 3/2) loam ^Bw1: Dark reddish brown (5YR 3/4) loam ^Bw2: Dark reddish brown (2.5YR 3/3) loam ^C1: Dark reddish brown (5YR 3/3) sandy loam ^C2: Dark reddish brown (5YR 3/3) loam	0-3%	Well drained	Summit, backslope, footslope
Laguardia artifactual coarse sandy loam, 0-3% slopes (LagA)	^Au: 0-7.9 ^BCu: 7.9-26 ^Cu: 26-78.7	^Au: Brown (10YR 4/3), artifactual coarse sandy loam ^BCu: Brown (10YR 4/3), very artifactual coarse sandy loam ^Cu: Brown (10YR 4/3), very artifactual coarse sandy loam	0-3%	Well drained	Summit, backslope, footslope
Laguardia artifactual coarse sandy loam, 3-8% slopes (LagB)	^Au: 0-7.9 ^BCu: 7.9-26 ^Cu: 26-78.7	^Au: Brown (10YR 4/3), artifactual coarse sandy loam ^BCu: Brown (10YR 4/3), very artifactual coarse sandy loam ^Cu: Brown (10YR 4/3), very artifactual coarse sandy loam	3-8%	Well drained	Summit, shoulder, backslope, footslope, toeslope
Urban land, Eolian substratum (UREOLB)	M1: 0-6 M2: 6-20 2^C: 20-79	M1: Material M2: Material 2^C: Loamy fine sand	0-8%	Varied	Summit
Urban land, till substratum, 0-8% (URTILB)	M: 0-15 2^C: 15-79	M: Material 2^C: Gravelly sandy loam	0-8%	Varied	Summit
Urban land, wet substratum, 0-8% slopes (URWETB)	M1: 0-6 in M2: 6-20 in 2^Cu: 20 -79 in	M1: Material M2: Material 2^Cu: Very artifactual coarse sandy loam	0-8%	Varied	Summit
Westbrook mucky peat, 0-2% slopes, very frequently flooded (WectA)	0e1: 0-10 0e2: 10-40 0e3: 40-48 Cg1: 48-64 Cg2: 64-99	0e1: Very dark gray (10YR 3/1), mucky peat 0e2: Very dark gray (10YR 3/1), mucky peat 0e3: Dark olive gray (5Y 3/2), mucky peat Cg1: Very dark gray (5Y 3/1), silt loam Cg2: dark gray (N 4/) , silt loam	0-2%	Very poorly drained	Tidal marshes (In Infilled Newark Bay)

in the undisturbed Mixed Oak Forest (Collins and Anderson 1994:109). Vegetation within the SSA consists of deciduous trees, manicured and unmanicured grasses, weeds, and other undergrowth. The remainder of the SSA is covered in asphalt paved roadways, driveways, parking lots, and structures.

3.2 Pre-Contact Context

Archaeologists organize chronological and cultural information about the pre-Contact period Native American occupants of New Jersey and the Middle Atlantic into three broad time periods: Paleoindian +/-9500B.C.-8000 B.C., Archaic 8000-1000 B.C., and Woodland 1000 B.C.-A.D. 1600 (Chesler 1982; Custer 1996; Grossman-Bailey 2001; Kraft 1986, 2001; Mounier 2003). These periods act as a framework in order to study the approximately 12,000 years of human occupation in the area. The Archaic and Woodland periods are subsequently subdivided into Early, Middle, and Late sub-periods. The prehistoric era is considered to have ended approximately 1550 to 1600 A.D., during the time of initial contact between Native groups and Old World populations and is followed by a period of

extensive colonization by the Dutch, Swedish, and English. More localized settlement pattern studies have helped to refine this Middle Atlantic prehistory with reference to subsistence strategies and occupational patterns in southern New Jersey and more specifically within the Lower Delaware River watershed (Fitting 1979; Mounier 1978; Pagoulatos 1998). A brief summary is presented below.

Early human populations inhabiting the Delaware River Valley during the Paleoindian period were most likely organized as small hunter-gatherer bands characterized by low population density and high mobility that occupied caves and rockshelters as well as short-term open-air camps. The lower sea levels that resulted from glacial expansion exposed a broad, flat continental shelf of marshes and meadows cut by deep river channels and branching streams (Cavallo 1981; Chesler 1982; Kraft 1977). Based on the distribution of the over 200 fluted projectiles, primarily Eastern Clovis points and Dalton points, recovered throughout New Jersey, Paleoindian groups may have preferred riverine settings along the Delaware River and its main tributaries. Mason's (1959) study of uncontrolled Paleo-Indian projectile point finds determined that more than 50 percent were collected from within 16.0 kilometers (10.0 miles) of the Delaware River, and an additional 25 percent from along its principal tributaries.

The Early Archaic period was associated with a continuing expansion of forest habitats. Floodplains and river islands were attractive locations for hunter-gatherer camps as upland areas continued to be predominated by boreal forest. However, during this period, limited use of upland lakes and bogs is evidenced by a small number of archaeological sites adjacent to these locales. Sinkhole complexes may have supported clusters of natural ponds throughout the Late Pleistocene and Early Holocene that would have been attractive locations for migratory wildlife and the human populations that exploited them. Such freshwater wetlands added to the diversity of resources available in the periods immediately following the last glaciation and made broad-spectrum foraging a successful subsistence strategy for human populations (Cavallo and Mounier 1982; Custer 1996; Meltzer and Smith 1986; Pagoulatos 1991).

By the Late Archaic, more intensive utilization of sites in preferred ecological settings characterizes Native American settlement patterns. Moreover, use of more productively marginal resource areas increases and regional exchange networks appear for the first time. Overall, climatic changes during the Late Archaic would have significantly enhanced the productivity of some habitats, such as coastal marshes and mixed interior forests, while diminishing the output of traditional resource rich areas (Carbone 1982; Custer 1996; Pagoulatos 1991). Significant increases in population density are noted in some areas as is a general decrease in mobility. Especially in proximity to riverine settings, large sites characterized by dense scatters of artifacts begin to appear. Use of swamp and marsh habitats intensifies during this period (Custer 1996:188). Finally, the far-reaching distribution of high-quality lithics may suggest the development of regional exchange networks as some groups' mobility patterns brought them into closer contact with other regional communities (Carbone 1982; Custer 1996; Pagoulatos 1991). Economic and technological changes reflect the selection of a broader range of habitats for settlements with larger encampments located near major rivers and small sites near coastal areas, estuaries, freshwater springs, lakes and drainage basin divides to take advantage of resource bases created by the formation of estuarine marshes and the development of oak-hickory forests.

The Early Woodland period (3000 to 2000 B.P./1000 B.C. to A.D. 0) marks the shift to modern climatological and environmental regimes in the Eastern United States. Vast deciduous forests dominate the landscape and temperature and rainfall patterns take on marked seasonal fluctuations. Culturally, the environmental changes of the Early Woodland favored the continued development of trends initiated during the Late Archaic. Intensification in the use of plant foods, as well as a trend toward increasing degrees of sedentism, marks the transition from the Archaic to Woodland eras. Floodplains and their surroundings continued to attract base camp settlement in an even more focused manner than the previous period. Finally, continuing trends of the Late Archaic, exchange networks and mortuary ceremonialism became further elaborated throughout the Early and Middle Woodland (Carbone 1982; Custer 1984, 1996).

The Middle Woodland period (2000 B.P. to 1100 B.P./A.D. 1 to A.D. 900) is represented by settlement patterns focused on the seasonal fission/fusion of hunter-gatherer social groups between large and small camps. Intensified use of coastal habitats is demonstrated in the large-scale exploitation of seasonal resources including shellfish at large coastal sites occupied on a semi-permanent basis. Large shell middens are reported along the estuaries and bays of the Inner Coastal Plain, located on promontories overlooking tidal marshes. Regional models for settlement systems suggest that seasonal fission/fusion of social groups occurred as people occupied different types of sites throughout the year. Large base camps where smaller extended family groups came together are often found in rich environments at mid- to upper tributary stream confluences. Smaller procurement camps and specialized work camps are found in many settings at shorelines, headwaters, and marshes (e.g., Custer 1996; Grossman-Bailey 2001; Mounier 1978; Stewart et al. 1986).

The Late Woodland period is distinguished from earlier periods largely due to the inception of maize horticulture, which originated in Central America and began to be practiced in the Middle Atlantic circa A.D. 900 and perhaps earlier. The growing of maize, and a suite of plants that included beans, pumpkins, squash, and tobacco, had significant implications for Native Americans. Horticultural activities were supplemented by hunting and gathering of food staples, such as large game, freshwater mussels and berries. During the Late Woodland, settlement patterns exhibit a shift away from estuarine settings in favor of more exclusively floodplain locations. Settlement patterns are characterized by unfortified hamlets and camps with a decrease in band territory size as seasonal economic strategies included hunting and foraging in upland areas as well as shellfishing and maize horticulture in riverine settings. Tools include small triangular arrow heads and various implements, such as bone awls, scrapers, celts and ceramic pipes, some with effigies. The prehistoric era ends at the arbitrary date of A.D. 1550 to 1600, about the time of first contact between Native groups and Old World populations, and the period of extensive colonization by the Dutch, English, Swedish and French. The territory surrounding the Holland Tunnel would have been a prime location for the procurement of estuarine resources throughout the Woodland period, and possibly during earlier periods of the Holocene (Historic Conservation & Interpretation, Inc. 1977:10). The Hudson River was an important travel route and figured prominently during the fur trade. Numerous prehistoric sites have been identified on upland and low-lying landscapes close to the Hudson River, including numerous shell midden sites (Cantwell and Wall 2001).

The early period of contact and colonization is also called the "proto-historic" period or the Contact period (Custer 1996). The first European settlements in northern New Jersey were established in the mid-seventeenth century at Bergen Neck and Paulus Hook, which are now part of Jersey City (Grossman and Associates 1992: 21; Wacker 1975: 123). In 1658, several sachems collectively associated with the Hackensack people sold lands likely including the project location on the west side of the North (Hudson) River up to an area north of Siskakes (Secaucus) Island (Wright 1988:18). The Hackensack River was an important travel route and figured prominently during the fur trade.

Edward J. Lenik's research in northern New Jersey (1985, 1989) indicates that areas including the Hackensack River drainage were used by Native Americans until the 1760s. Four Contact period sites have been documented on the Hackensack River, two situated in floodplain settings, and two on terraces (Lenik 1989: 110). One of the sites with extensive information available is the David Demarest House site, which contained both early historic and Late Woodland/Contact period components (Lenik 1985). A buried stone foundation and cobblestone floor or remains of a cellar were located. The recovery of artifacts, such as slip-decorated earthenware, creamware, delftware, scratch blue stoneware, machine cut nails, and ceramic pipe fragments, date the occupation of the Demarest House site to the eighteenth century. Late Woodland/Contact period artifacts include two wampum beads, a scraper, a thinning flake, a core, and a grit-tempered Native American ceramic fragment. Based on the stone tool assemblage, tool manufacture and food processing may have occurred at the site (Lenik 1985: 55). Despite the documentation of early historic sites in places such as Bergen, Paulus Hook and Little Ferry, no base camps or larger, more complex sites suggesting a more permanent occupation have been found for the Contact Period in northern New Jersey.

The Dutch West India Company generally maintained a hostile policy towards Native Americans in what that led to numerous uprisings and the destruction of many early settlements. After the English takeover of New Amsterdam in 1664, the area became more peaceful and settlers moved further west into previously unsettled areas (Fogarty, et al. 1985: 11; Wright 1988).

Portions of the SSA lie within former industrial areas that were filled over time during the nineteenth and twentieth centuries, portions of which were once inundated as marshland of Newark Bay. Urban settings with complex industrial land use histories such as the SSA often retain little or no prehistoric site potential due to the destruction of the original landscape. Submerged prehistoric sites could be expected in settings that were once coastal landforms during the early to middle Holocene in the absence of any historic dredging or other types of disturbance prior to filling. Although prehistoric artifacts have been discovered in dredged material from the New York Harbor area and can be recovered from fill, man-made landforms created by processes of infilling have no potential to contain intact prehistoric archaeological sites.

3.3 Historic Context

Due to the varying scales on historic maps, the SSA is referred to herein and on associated figures of historic maps as the "project location."

Seventeenth- through Early Nineteenth-Century Development

The portion of the project location along the east side of Newark Bay is situated within the City of Bayonne, Hudson County. The City of Bayonne is part of an area that was settled in the mid-seventeenth century, when a land patent was granted to Jacob J. Roy by the Dutch West India Company for the peninsular landform surrounded by Newark Bay, New York Bay, and Kill Van Kull, which became known as Constable Hook (Winfield 1874:50; Lurie and Mappen 2000:63). The present-day City of Bayonne was originally part of Bergen Township, which was incorporated by Peter Stuyvesant in 1661 and was made part of Bergen County by 1683 (Snyder 1969:145). Part of the original Bergen Township was later transferred to Hudson County, which was formed in 1840. Bayonne Township was formed from Bergen Township in 1861 and the City of Bayonne (Bayonne City) replaced Bayonne Township in 1869 (Snyder 1969:145).

The eastern terminus of the project location is situated within the City of Jersey City which was formed within Bergen Township, Bergen County in 1820 (Snyder 1969:147). Located along the Hudson River's western shore, settlement within Jersey City began shortly after the Dutch West India Company established a trading post at New Amsterdam. In 1629, the Company granted land between present-day Jersey City and Bayonne, known as the Patroonship of Pavonia, to Michael Pauw, a Hollander. Although Pauw may not have settled his land, other Dutch settlers established plantations near the Hudson River. The Dutch were encouraged to settle by the patroonship system that granted free land to those bringing other settlers with them. These settlements include Communipaw Harsimus, near present-day Harsimus Cove, the brinkdorp in Bergen (Burrow 2013) and Paulus Hook. With the exception of the fortified village at Bergen in present-day Jersey City, the other settlements were characterized by scattered farms that extended the length of the historic lower Hudson shoreline and were based economically on limited agriculture and fishing (Panamerican Consultants, Inc. 2003). A Dutch massacre of Hackensack Indians led to years of Indian Wars that resulted in the destruction of existing farmsteads, preventing further settlement. Governor Peter Stuyvesant repurchased the land south of Weehawken between the Hudson and Hackensack rivers, and in 1660 established the fortified village of Bergen northeast of the project location, generally acknowledged to be New Jersey's first permanently occupied settlement (Wacker 1975:123). The transition into English rule in 1664 passed smoothly in Bergen, as residents signed an oath of allegiance to the crown and were allowed to establish a Dutch Reformed Congregation, the first church in New Jersey (Federal Writer's Project 1939:273). In 1820, Jersey City was incorporated, and later encompassed the former municipalities of Bergen City, Hudson City, Van Vorst Township, and Greenville Township (Winfield 1874:278).

Oystering and shad fishing were some of the economic pursuits undertaken by the early occupants of Bergen Township on the east side of Newark Bay. Under British colonial rule, the peninsula that comprised the southern portion of Bergen Township developed as a trading post called Bergen Neck. Overall, settlement was light during the late eighteenth century with populations centered near Bergen Village (i.e., Bergen) and Communipaw, northeast of the project location. Early roads extended south from the settlement at Bergen towards Paulus Hook, Communipaw, and the Ferry to New York (Figure 3.3; Hills 1781).

Revolutionary War battles and skirmishes were fought throughout the northern portion of New Jersey. Two major skirmishes were fought in proximity to the project location, one within Newark Bay in 1781 and another in 1782, along the east bank of the Newark Bay (John Milner and Associates 2009). A war-related site/resource/landmark from 1777 is also mapped near the eastern terminus of the project location (John Milner and Associates 2009). Paulus Hook, northeast of the project location, contained extensive Revolutionary War-era defensive fortifications on the uplands, which were bombarded and captured by the British in 1776 (Hills 1782). The Paulus Hook fortifications were held by the British until 1783 (Alden 1945). In addition, on July 4, 1776, General Hugh Mercer was ordered to place a guard of 500 men at Bergen Neck, south of the project location, due to fear of an attack by the British from Staten Island. According to Lurie and Mappen (2000:63), British forces subsequently took over the fortifications at Bergen Neck and renamed it "Fort Delancey." According to a map depicting Bergen Neck during the Revolutionary War provided in Whitcomb (1904), Fort Delancey was located 1,500 feet south of the project location.

Throughout the eighteenth and early nineteenth century, Bergen Township's western farmlands and mudflats remained relatively unchanged (Panamerican Consultants, Inc. 2003). Oystering in the Communipaw Cove and other portions of the Hudson River was one of the area's earliest and most important industries, and farming was the dominant land use in the adjacent upland.

The industrial development of Jersey City began on a large scale in the 1820s with the opening of the Dummer Glass Works and the Jersey City Pottery Company (Van Winkle 1924). In the early nineteenth century, plans were drafted to establish a grid-system of roadways within the eastern portion of Jersey City, north of the project location near Paulus Hook extending to Hoboken (Burr 1832). The proposed expansion of the city grid also included 2,000 feet of the Hudson riverfront to be infilled as made land (Burr 1832). Early nineteenth-century maps depict the location of the eastern shoreline of Jersey City, south of Caven Point and east of the project location, running adjacent to and parallel with the route of the Morris Canal. Nearby population centers of Communipaw, Pamrepaw, and Newark were all well established by the 1830s (Figures 3.4–3.5; Gordon 1833, United States Coastal Survey 1837). Population increased upon the establishment of the Morris Canal in Bayonne and Jersey City in the 1830s as discussed below. With the exception of the Morris Canal and one road (later known as Avenue C), no other infrastructure or buildings stood within the project location at this time.

In 1834, an agreement was made to establish the border between New York and New Jersey in the middle of the Hudson River, which opened new possibilities to Jersey City (Panamerican Consultants, Inc. 2003). Prior to this agreement, New York City held rights to both sides of the river, denying Jersey City key waterfront opportunities. Upon the 1834 agreement, railroad moguls and companies competed for a spot on the western shores; Jersey City's location on one of the most important harbors in the country made it an optimal terminal for rail lines and freight shipment. Jersey City's mud flats along the Hudson River quickly became the heart of the region's industrial development (Panamerican Consultants, Inc. 2003). This industrial development led to continued settlement throughout Jersey City and Bayonne (Figures 3.6–3.8; Hassler 1846; Sidney 1849, 1850; Walling 1859, 1860; Dripps 1860). In 1846, the project location west of Avenue C in present-day Jersey City is mapped as wooded and mostly undeveloped, and the former Newark Bay shoreline was significantly further east than its present-day location (see Figure 3.6; Hassler 1846). By 1849, a building had been erected near the project location in Bayonne and several in the Jersey City portion (see Figure 3.6). In 1860, the portion of the project location east of the Newark Bay was undeveloped with the exception of Avenue C and the Morris Canal (Figures 3.7–3.8; Dripps 1860; Walling 1860).

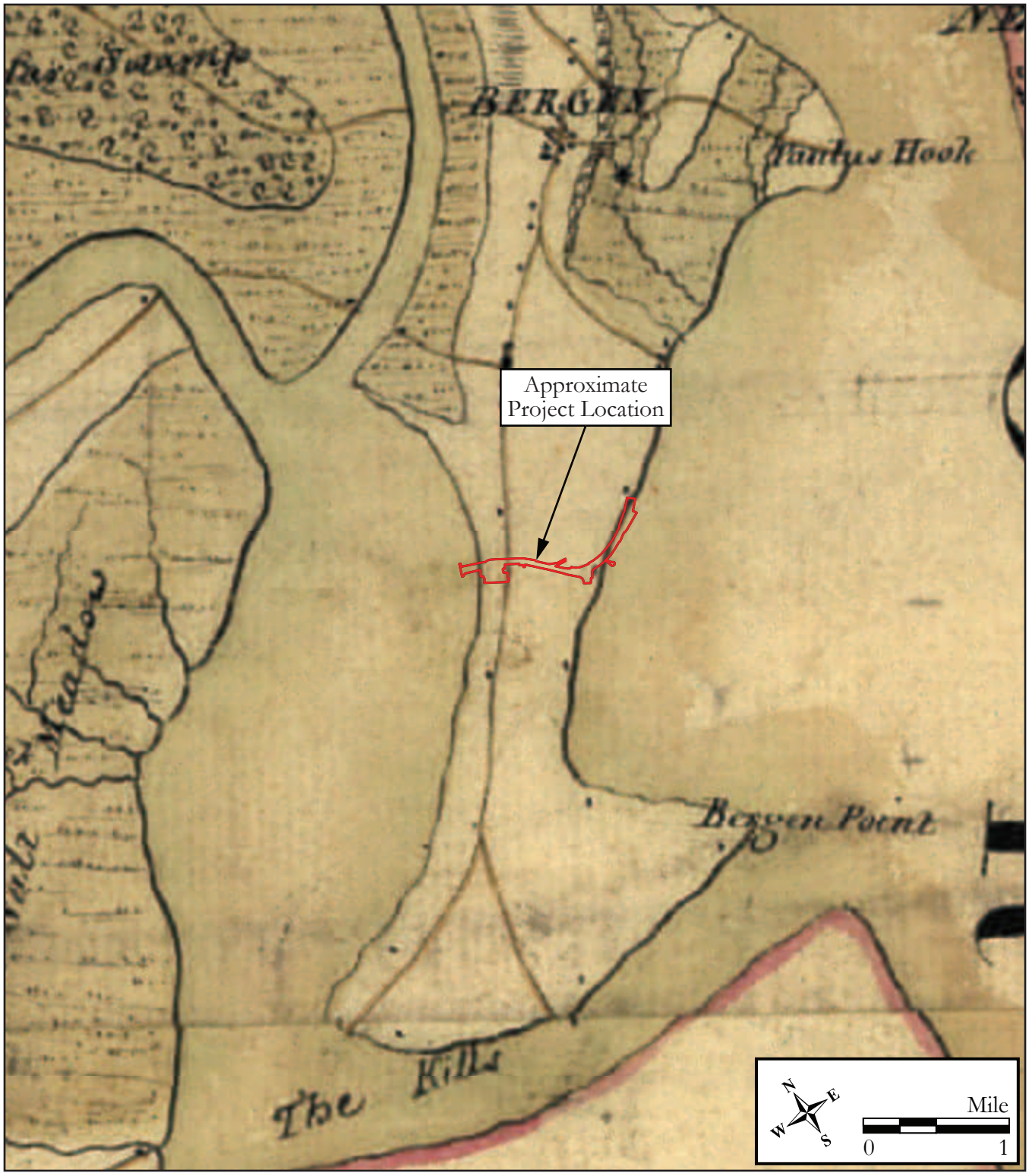

Figure 3.3: 1781 J. Hills, *A Sketch of the Northern Parts of New Jersey.*

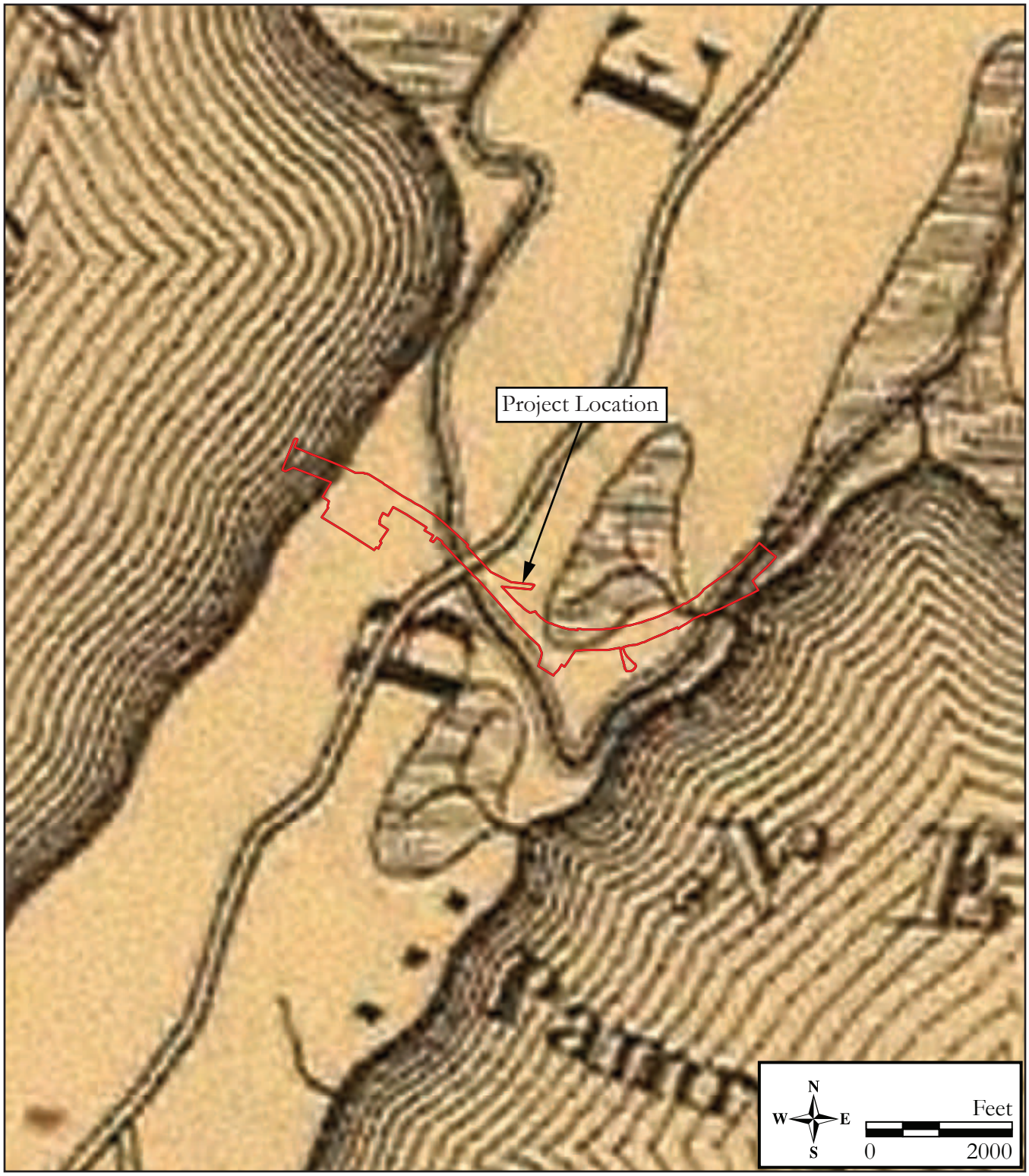

Figure 3.4: 1833 T. Gordon, *A Map of the State of New Jersey with parts of the Adjoining States.*

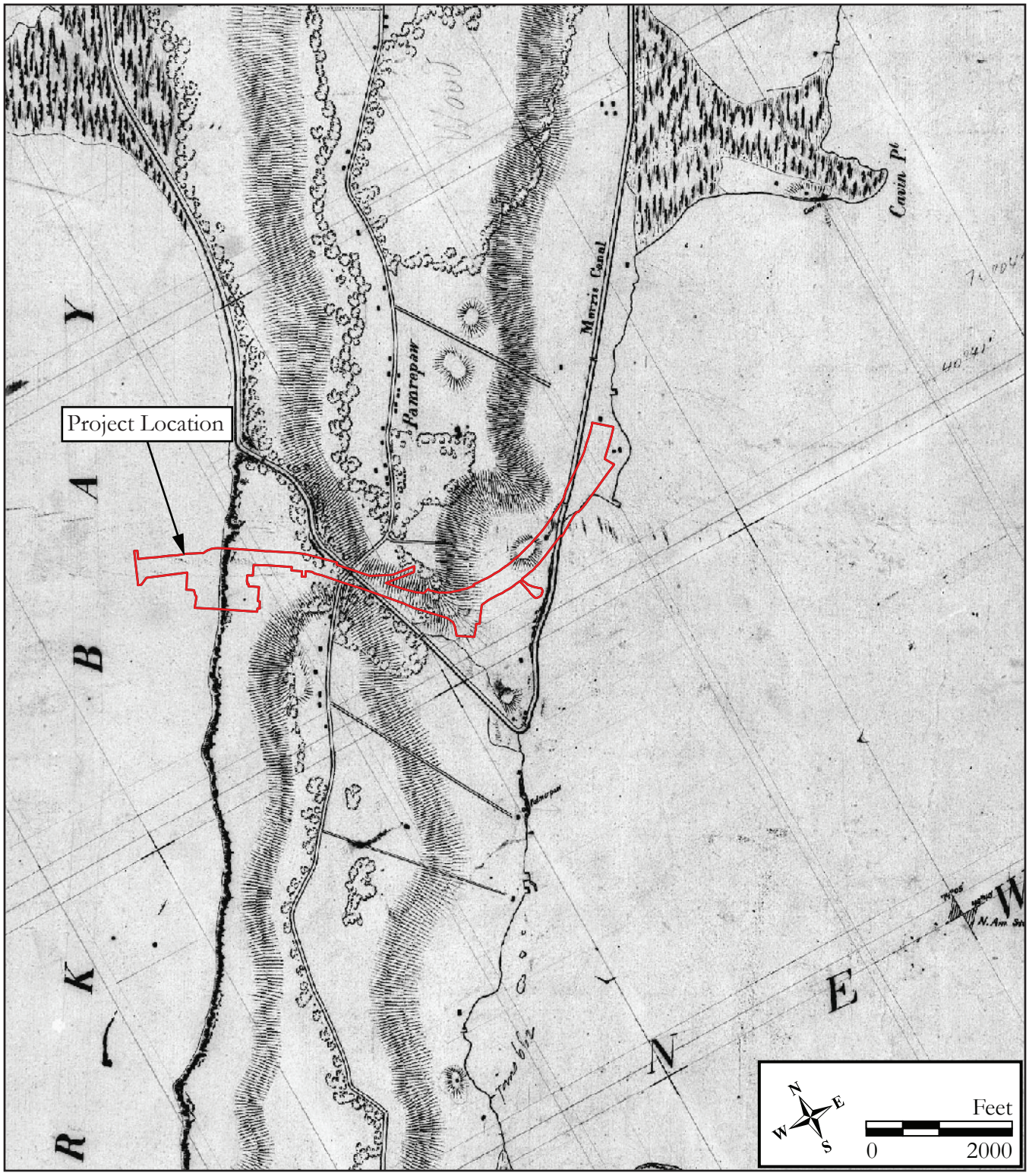

Figure 3.5: 1837 United States Coastal Survey, *U.S. Coast Survey from Jersey Pont to Constable Point, New York. Map T-18.*

Figure 3.6: 1849 J. C. Sidney, *Sidney's Map of Twelve Miles Around New-York.*

Figure 3.7: 1860 M. Dripps, *Map of the Cities of New York, Brooklyn, Jersey City, Hoboken & Hudson City.*

Figure 3.8: 1860 H. F Walling, *Map of the City of New York and Its Environs*.

By the late nineteenth century, nearly the entirety of Jersey City had been mapped out for new city streets and was subdivided into numerous house lots (Figure 3.9; Hopkins 1873). The waterfront along the Hudson River had been expanded eastward with man-made land by approximately 2,000 feet to accommodate additional residential and commercial districts, docks, and railroad depots (Hopkins 1873). Additionally, by the 1880s, a gridded street pattern had been planned along the eastern portion of Newark, along the Newark Bay, though it does not appear these roadways were ever constructed (Figure 3.10; Pidgeon 1881; Vermeule 1889; Scarlett and Scarlett 1889; USGS 1905). By 1889, present-day John F. Kennedy Boulevard had been constructed and a topographic map reveals that several gullies and knolls were present along the eastern shoreline of the Newark Bay in present-day Bayonne (see Figure 3.10). The Jersey City road network was well established by the later part of the nineteenth century and a series of railroads were constructed within the southern part of Jersey City and the northern section of Bayonne. These include the Central Railroad of New Jersey (CRRNJ), National Docks Railway, and the Lehigh Valley Terminal Railway, and the New York Bay Railroad (Figure 3.11; Fowler 1894; Hopkins 1908, 1909; USGS 1900; Sanborn Map Company 1898). Late nineteenth-century advances in transit and hauling via rails and freight canals transformed Jersey City from an agricultural settlement to a major manufacturing center and transport depot, with an exponentially growing population. Late nineteenth-century Sanborn Fire Insurance maps of Bayonne and Jersey City reveal that much of the project location was undeveloped except for the Morris Canal, a bridge carrying Avenue C over the canal, a residence known as Woodside Cottage that stood at the intersection of Fifteenth Street and Avenue D, a dwelling at the corner of West 59th Street and Hudson Boulevard (present-day John F. Kennedy Boulevard), and railroad-related structures in the northeastern part of the project location (see Figure 3.11).

Construction of the Morris Canal

The Morris Canal transects the eastern part of the project location, travels south through Fiddler's Elbow, then extends north, parallel to the eastern shoreline of Jersey City, and empties into the Morris Canal Basin. On December 31, 1824, the New Jersey Legislature issued a charter for the Morris Canal and Banking Company (MC&BCo) to build a canal across northern New Jersey, from the Delaware River on the west, through Newark, to the Passaic River on the east. This route was later extended to Jersey City through the northern-most tip of Bayonne. The purpose of the canal was to transport anthracite coal from the Lehigh Valley of Pennsylvania to the iron industry of New Jersey and beyond to the industrial and urban center of New York (Kalata 1973, 1983; Clement 1983). The MC&BCo began construction of the Morris Canal in 1825. The canal opened in 1832 with its eastern terminus in Newark. An incredible engineering feat, the Morris Canal covered a distance of 90 miles from Phillipsburg to Newark and crossed the region's hilly topography and range of elevations using a complex system of locks and inclined planes to accommodate the considerable change in elevation over a relatively short distance (Lane 1939: 224-230). In 1828, the MC&BCo was granted the right to extend the canal east from Newark to Jersey City and the harbor of New York. The "Morris Canal Little Basin" was built in 1828 near the Morris Canal's outlet at the Hudson River (Kalata 1973; NJSA 2003). Construction continued throughout this period, with the first sections opening in 1829; however, a lack of funds delayed its completion. In 1832, the canal was finally put into full service from Phillipsburg to Newark (Kalata 1973; Lane 1939:230-231). In 1838, the Morris Canal extended to Jersey City from its initial terminus in Newark. The canal opened up the eastern reaches of Newark's undeveloped farms, woodlands, and salt marshes to industrial and residential development.

In 1844, the MC&BCo announced its bankruptcy and reorganized. Soon after, the Morris Canal was widened to accommodate larger boats. The increased capacity of the Morris Canal and wider variety and types of vessels that could travel the canal led to a peak in operations in 1866, when approximately 889,220 tons of freight goods were shipped along the canal (Historic Conservation and Interpretation, Inc. 1977:112). Population increase in the vicinity of the project location was likely related to the success of the Morris Canal. The use of the canal began to dwindle with the construction of the railroads, as trains could transport coal from Phillipsburg to Jersey City in eight hours, a trip that took five days by canal (Historic Conservation and Interpretation, Inc. 1985:100). In 1870, the New Jersey legislature allowed the Morris Canal and Banking Company to lease its property, and the Lehigh Valley Railroad took over control of the canal in 1871 (Kalata 1973). The canal was abandoned and infilled during the first half of the twentieth century (USGS 1905, 1947b).

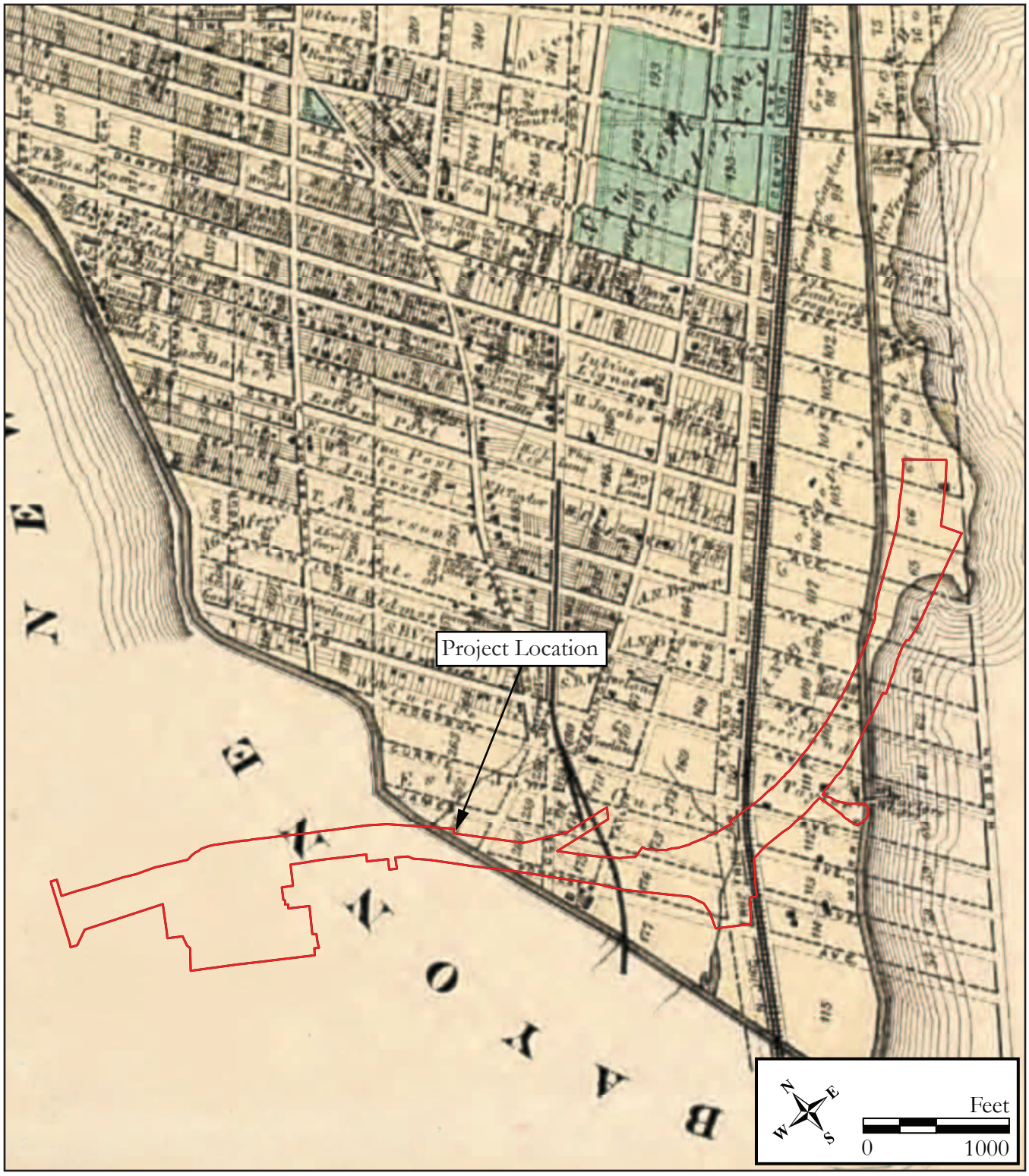

Figure 3.9: 1873 G. M. Hopkins, *Atlas of the Late Township of Greenville and the state of New Jersey, Greenville and Jersey City*.

Figure 3.10: 1889 C. C. Vermeule, *A Topographical Map of the Counties of Bergen, Hudson and Essex, with parts of Passaic and Union*, Atlas Sheet No. 7.

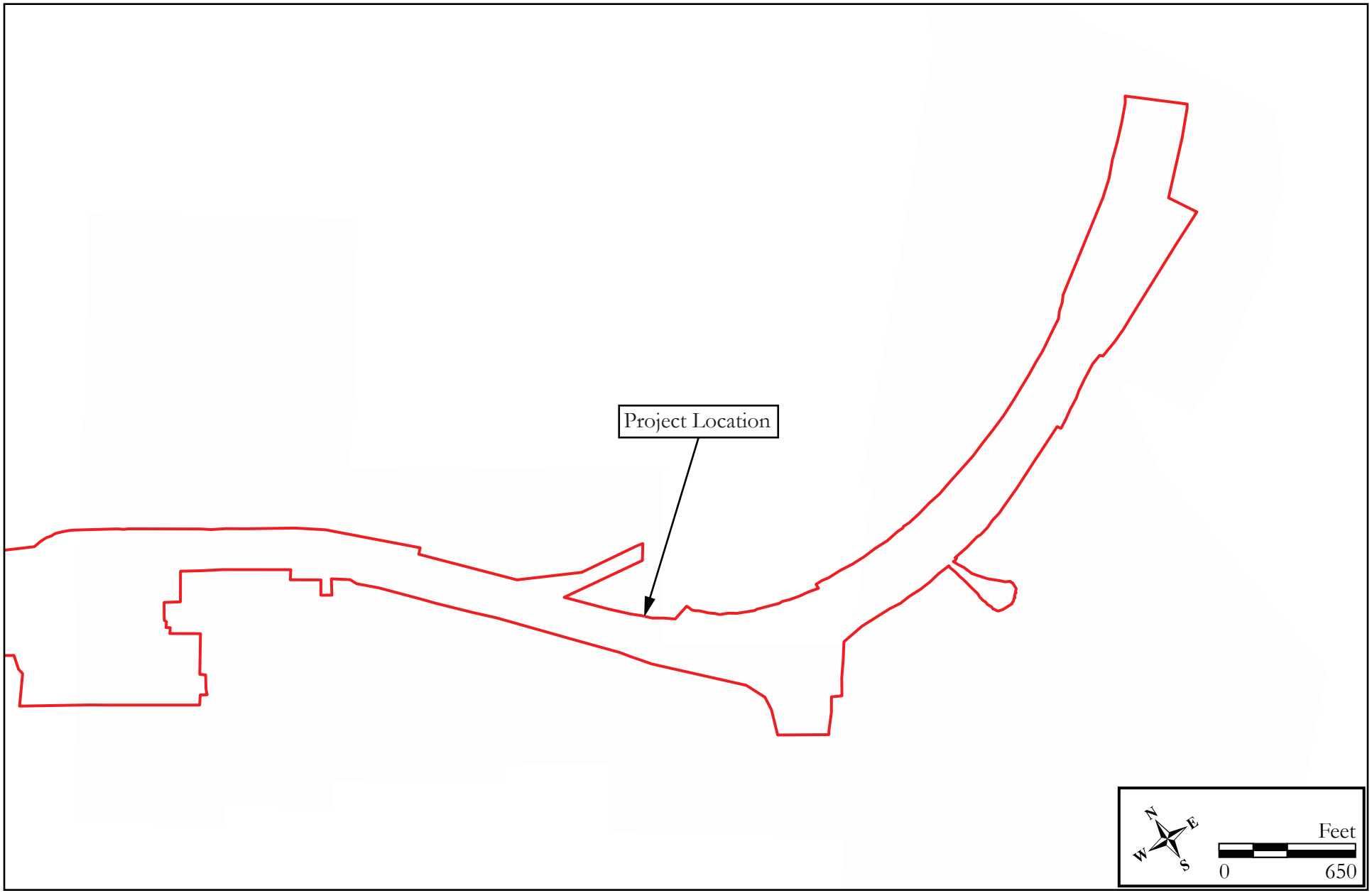

Figure 3.11: 1898 Sanborn Fire Insurance Company, *Insurance Map of Hudson County*.

Railroad Expansion in Jersey City, Bayonne, and Newark

Railroads were pivotal to the growth of the cities of Bayonne and Jersey City in the late nineteenth and early twentieth centuries. The New Jersey Railroad, the third railroad incorporated in the state, became the first to reach Jersey City in 1834. By 1836, the railroad had reached Bergen Hill and, by 1838, was cut through the traprock to arrive at the Hudson River waterfront (Lane 1939:312). As a result of the greatly improved transportation infrastructure, the Morris & Essex Railroad (M&ERR), later the Delaware, Lackawanna, & Western Railroad (DL&WRR), opened a line connecting Newark to Orange in 1837 (Richard Grubb & Associates, Inc. 2000).

The New York and Erie Railroad (NYERR) filled portions of the Jersey City shoreline and established a sprawling railroad terminal facility along the Hudson River waterfront (Hungerford 1946:132–133). By the 1870s, 14 rail lines terminated in Jersey City, redeveloping and reshaping the historically agricultural character of Jersey City's eastern shores with infill, rail line construction, and an immense increase in industrial traffic (Panamerican Consultants, Inc. 2003). While small scale shops and factories had been established in Jersey City by the early nineteenth century, the railroads brought full industrialization to the city. Industrial plants and mills manufacturing Colgate soap, Dixon pencils, steel, paper, and beer, to name a few, abutted the railroad corridors and the extensive waterfront replete with wharfs, piers, and docks serving cargo ships, merchant vessels and luxury ocean liners (Federal Writer's Project 1939:275).

The Lehigh Valley Railroad was established in 1855 and was extended into New Jersey in 1875. The passenger trains running between Newark and Jersey City were operated by the Pennsylvania Railroad. The rail line carried freight trains beginning in the 1960s and was taken over by the Consolidated Rail Corporation (Conrail) in 1976 (Lurie and Mappen 2000). Freight terminals and passenger stations were abandoned, tracks were torn up, and piers were allowed to deteriorate. By the end of the 1960s, Jersey City freight terminals had become derelict and dilapidated, due in part to the rise of the trucking industry and, more specifically, the establishment of Port Newark that could handle the new, vastly more efficient container ships (French 2002:19). In 1967, the CRRNJ filed for bankruptcy, followed by the LVRR in July of 1970 (New York Times 1970). Recent decades have witnessed an urban renaissance in Jersey City as abandoned freight terminals, warehouses, and factories have been converted into apartments and office space, and a new skyline continues to rise on the west bank of the Hudson River.

Twentieth-Century to Recent Development

Bayonne and Jersey City continued to grow into residential, commercial, and industrial centers into the twentieth century (Figures 3.12–3.14a and 3.14b; Robinson and Tenney 1901; Hopkins 1908, 1909, 1919). The project location remained mostly unchanged in 1908/1909 relative to map documentation in 1898, though additional railroad-related buildings, including a railroad turntable, were constructed in the northeastern part of the project location (see Figures 3.11–3.13). Indeed, between 1898 and 1908, the area west of the Morris Canal in the New York Bay was significantly modified and infilled to create man-made land for rail-line and dock expansion (see Figures 3.11–3.12). Between 1909 and 1919, the Hudson County Parental School was constructed in Bayonne within the project location (see Figures 3.13–3.14a and 3.14b; Hopkins 1919). The school's construction resulted in the infilling of two low-order tributaries that drained into the Newark Bay and filling land near Newark Bay to create a flat terrace. Of the former tributaries, one was in line with W 56th Street and one was in line with or just north of W 57th Street (see Figure 3.10). The brick building was set back from Hudson Boulevard in an L-shaped configuration, while several wood frame outbuildings stood nearby. Two wood frame buildings continued to stand west of present-day J.F.K. Boulevard and between W. 58th Street and W 59th Street (see Figure 3.14a).

Jersey City's pronounced growth, combined with New York City's ascendancy as the economic capital of the nation, spurred the need for a better transportation connection between the two. Among proposals for the development of Jersey City was an extensive land reclamation plan for marshland along Newark Bay (Muirhead 1910). In 1919, two wood frame buildings stood just east of the Morris Canal in the project location (see Figure 3.14b). To the east, a round table, several rail spurs, and several frame buildings associated with the New York Bay Railroad Company stood in the project location along the west side of the Morris Canal (see Figure 3.14b).

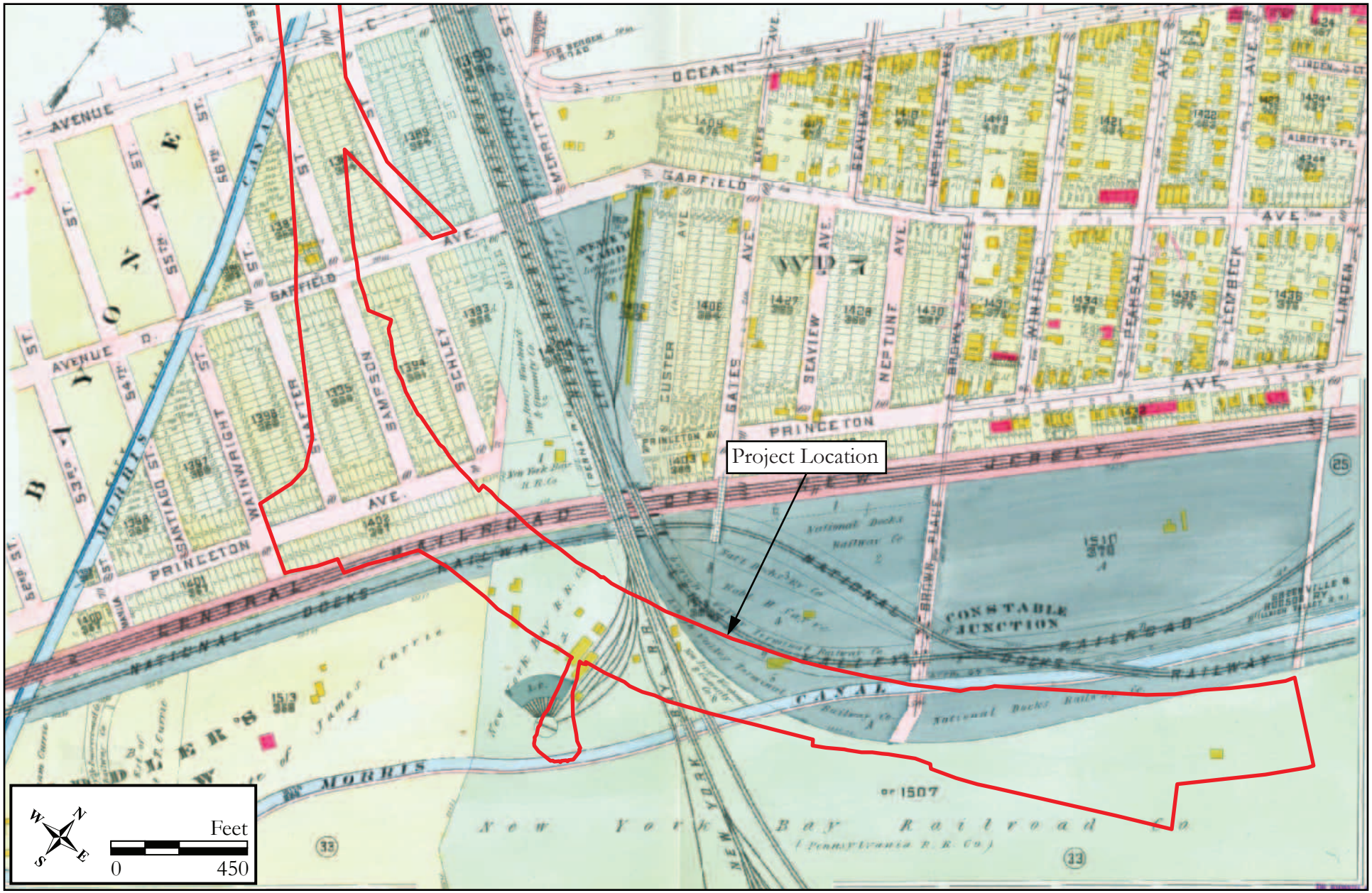

Figure 3.12: 1908 G. M. Hopkins, *Atlas of Hudson County, New Jersey*, Volume 1.

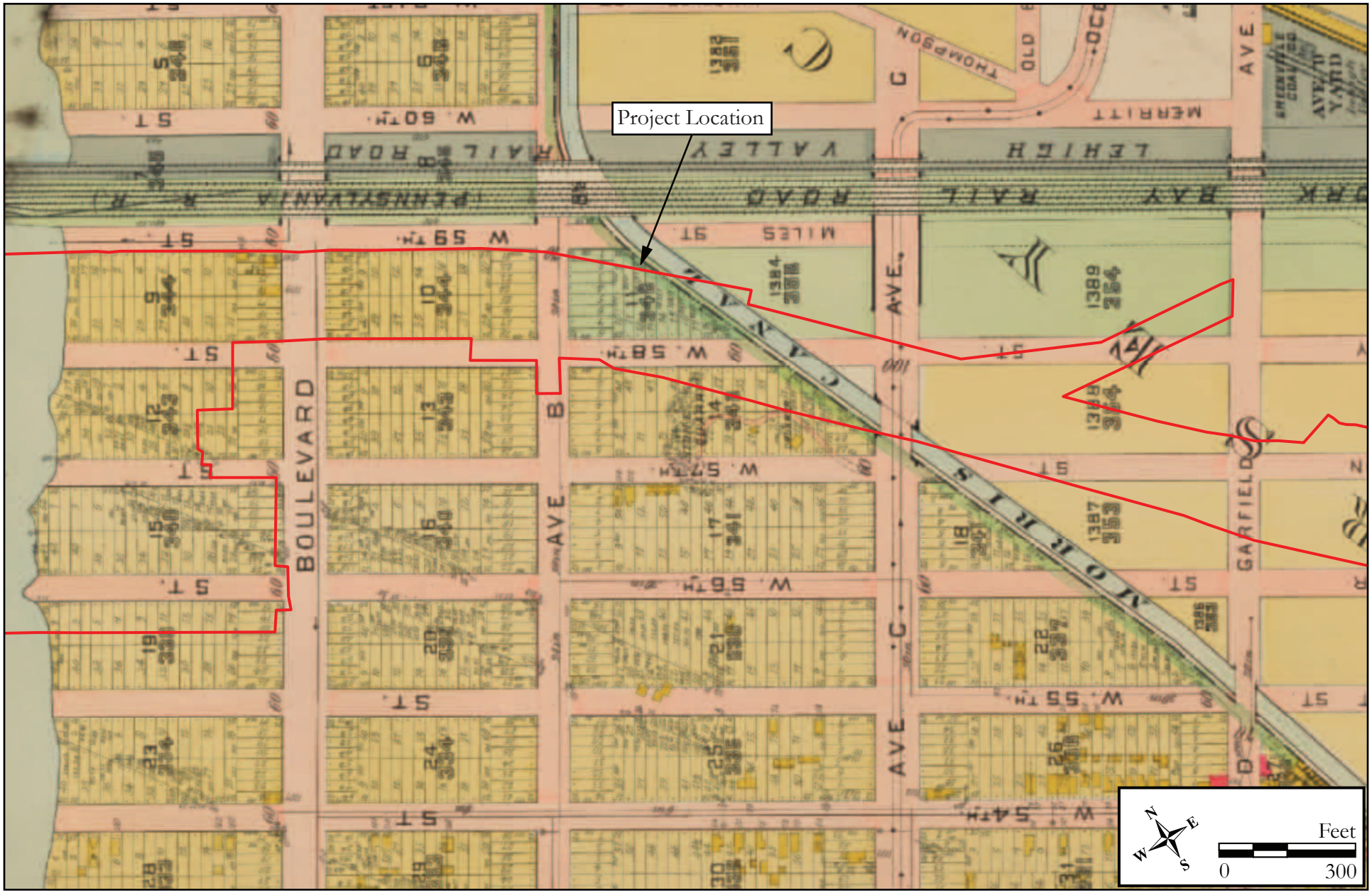

Figure 3.13: 1909 G. M. Hopkins, *Atlas of Hudson County, New Jersey*, Volume 2.

Figure 3.14a: 1919 G. M. Hopkins, *Plat Book of Jersey City and Bayonne, Hudson County, New Jersey.*

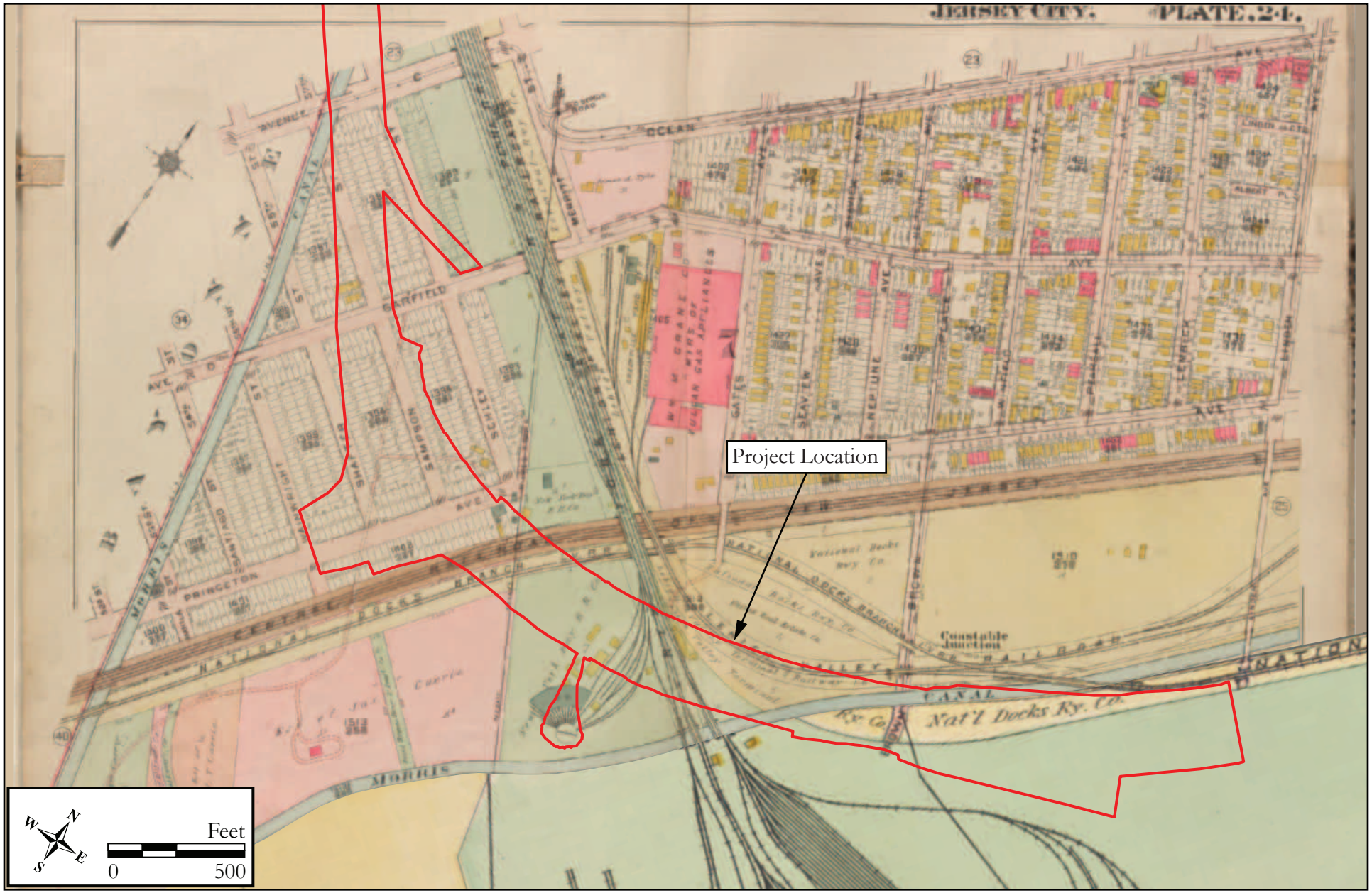

Figure 3.14b: 1919 G. M. Hopkins, *Plat Book of Jersey City and Bayonne, Hudson County, New Jersey.*

After World War I, commercial, residential, and industrial development in the vicinity of the project location was driven by plans to dismantle and repurpose portions of the Morris Canal as detailed in the Jersey City's comprehensive development plan, published in 1920 (Board of City Commissioners of Jersey City 1920). Among other things, this plan called for enhancing the eastern shoreline of Newark Bay by replacing the canal with a combination motor truck speedway and a beltline railroad. The plan also called for filling in the tidal lands surrounding Droyer's Point and constructing a massive marine waterfront development on the reclaimed land between the Newark & New York Branch Bridge on the north and the Bayonne City line on the south (Board of City Commissioners of Jersey City 1920:76–84). During the 1920s, Jersey City appropriated funds to begin the process of reclaiming lands along the Newark Bay waterfront and for transportation improvements like the Holland Tunnel. The opening of the Holland Tunnel in 1927, to the east of the project location, signaled the beginning of a complex road network in and around Jersey City to provide vehicular access to New York City. The post-World War II expansion of automobile use and highway construction came at the expense of railroads.

Construction of the New Jersey Turnpike

In 1948, Governor Alfred E. Driscoll presented a proposal in a special session of the New Jersey Legislature to create the New Jersey Turnpike Authority, an agency that would facilitate the financing of truck roads by the sale of revenue bonds to private investors. This legislation, known as the New Jersey Turnpike Act, was officially approved in August of 1948 (Jersey Journal [JJ], 28 August 1948:6). The modern, multi-lane thoroughfare would split the state lengthwise and extend 118 miles from north of the George Washington Bridge to Deepwater along the Delaware River. The new highway was designed to be the most modern in the world for safe and rapid transportation and incorporated state-of-the-art concepts in highway schematics. The northern section included six lanes and the southern section had four with adequate room for possible additions as deemed necessary. The ROW travel lanes were constructed with five- and 10-foot shoulders, "easy grades," long and sweeping curves to maintain uninterrupted speed, signage, towing services, and emergency telephones, as well as amenities including restaurants and modern service facilities (Trenton Evening Times [TET] 11 October 1949:21).

In order to finance the $230 million endeavor, a plan was developed on a "forward commitment" basis. This plan would enable the NJTA to obtain commitments for the total financing of the project, including provisions for the issuance of bonds and for a stand-by fee of one-half percent on the balance of the NJTA's total financial requirements (Noble 1951). In February of 1950, the NJTA announced the successful conclusion of negotiations with 53 institutional investors who would underwrite its financial needs. The agreement was formally signed at the Chase National Bank in New York, allowing for the immediate commencement of construction (TET 17 February 1950:1). Construction officially began on the NJT that March. The entire 118-mile length of the NJT took 25 months to construct and officially opened on January 15, 1952 (New Jersey Turnpike n.d.).

The construction of the NB-HCE began in 1953 and connected the Newark Airport to Hudson County, through Jersey City, to the Holland Tunnel and into New York City (Lapolla and Suszka 2005; Figures 3.15a–3.15d, 3.16–3.20). The NB-HCE is roughly 8.1 miles long, almost 80 percent of which was constructed on elevated columns (Higgins 2022; see Figures 3.17–3.20). It was hoped that its construction would also help to alleviate traffic on local roadways (Lapolla and Suszka 2005). In the Bayonne and Jersey City portion of the project, vegetation and buildings were cleared, there was likely grading to remove upper loam soils to reduce post-construction settling, and significant quantities of fill emplaced for road berm construction. A pier supported viaduct was also erected utilizing east and west abutments and the construction of 27 sets of piers (see Appendix H). A set of 1954 as-built plans for the viaduct's construction northeast of Interchange 14A includes 87 soil borings cored prior to the emplacement of fill deposits, the reports for which are also included in Appendix H. Piers 5 and 6 were set on bedrock that was exposed at grade. Piers 7 and 8 contained at least 4.0 feet of soil over bedrock. Pier 9 contained 4.0 to 5.0 feet of soil over bedrock. East of Pier 9, the depth of bedrock increased below ground surface (bgs). At Pier 10, bedrock was 7.0 feet bgs and bedrock was 10 feet bgs at Pier 11. East of Pier 11, the bedrock rose again and was present 5.0 feet bgs at Piers 12 and 13

Figure 3.15a: 1930 historic aerial photograph (NETR 1931).

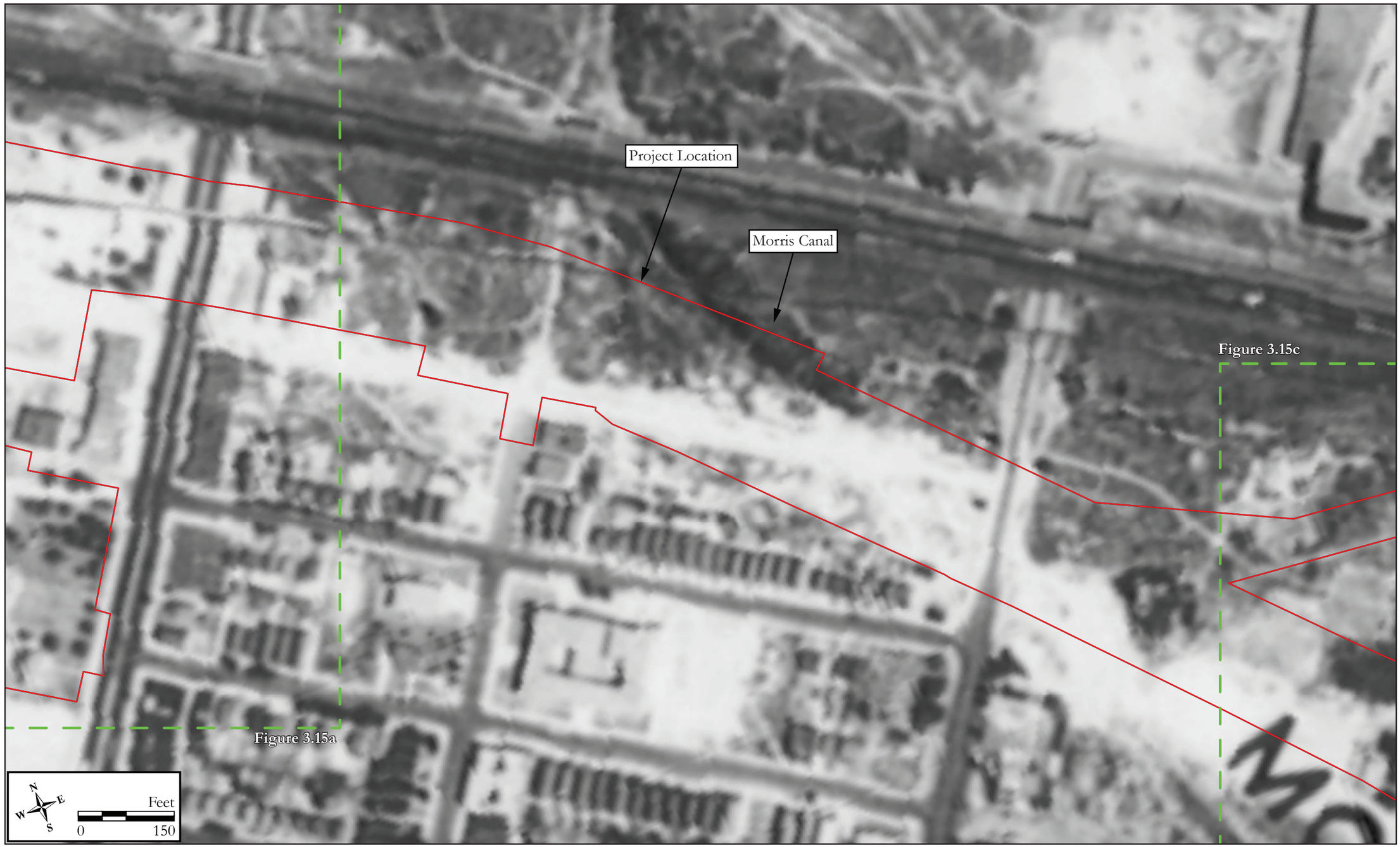

Figure 3.15b: 1930 historic aerial photograph
(NETR 1931).

Figure 3.15c: 1930 historic aerial photograph (NETR 1931).

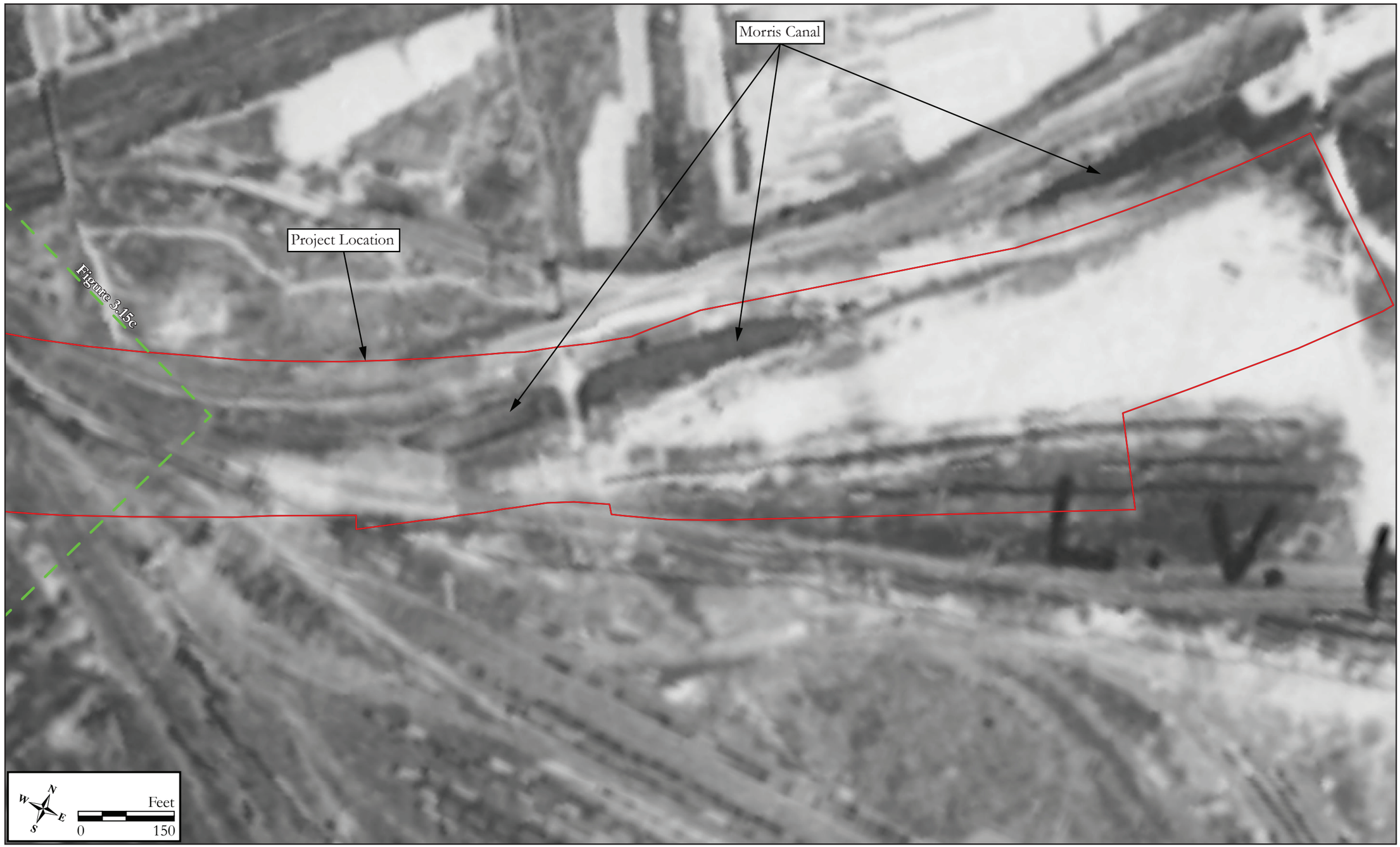

Figure 3.15d: 1930 historic aerial photograph
(NETR 1931).

Figure 3.16: 1947 USGS 7.5' Quadrangles: Elizabeth, NJ and Jersey City, NJ.

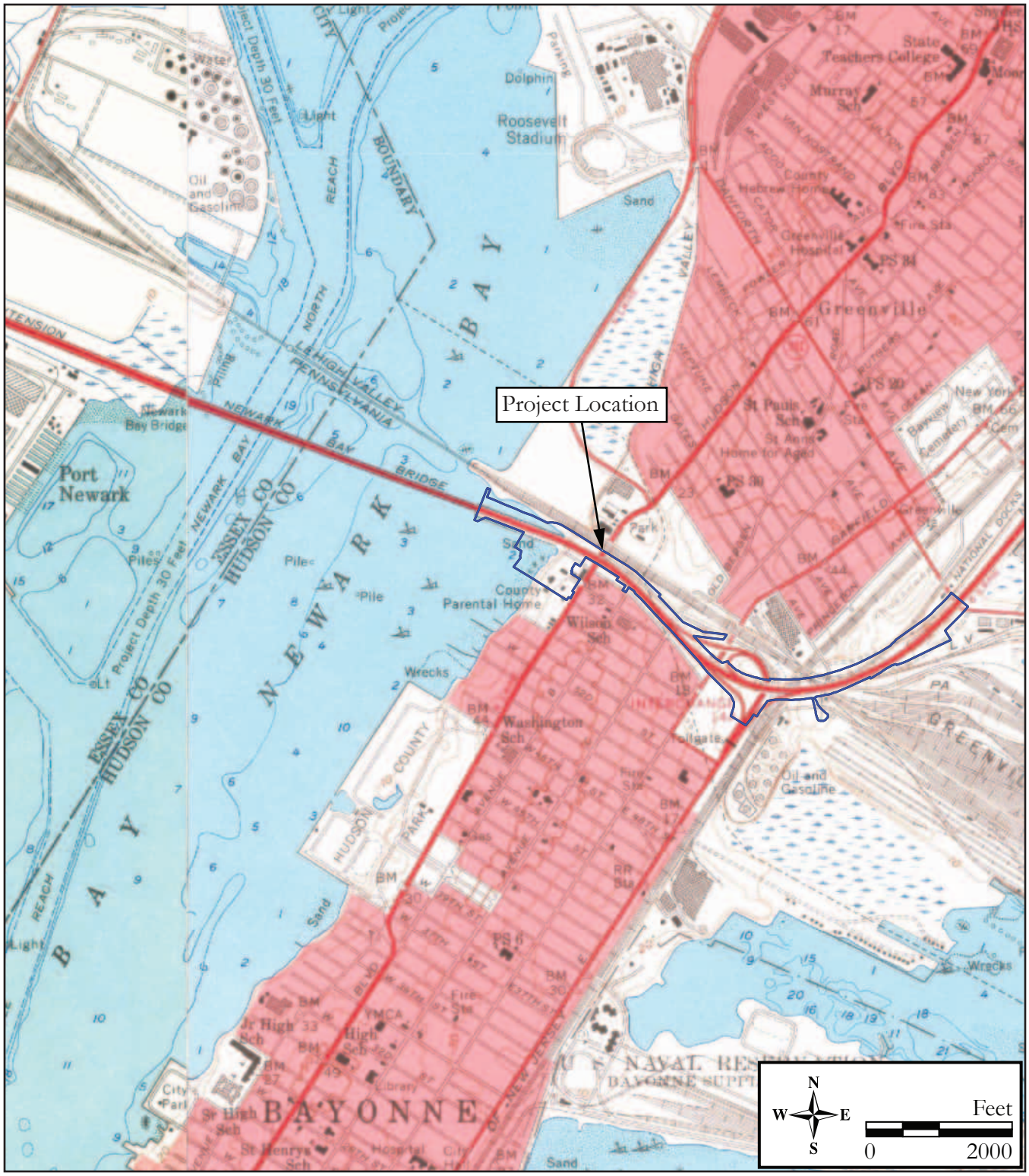

Figure 3.17: 1955 USGS 7.5' Quadrangles: Elizabeth, NJ and Jersey City, NJ.

Figure 3.18: Aerial photograph, Thruway, Jersey City, N.J.
View looking from Jersey City toward the Newark Bay showing original Piers 1 through 5 in the foreground (Fairchild Aerial Surveys, Inc. 1955).

Figure 3.19: Aerial photograph, Thruway, Jersey City, N.J.
View looking from Jersey City toward the Newark Bay showing original Piers 1 through 9 and the New York Bay Railroad Co. turntable in the foreground (Fairchild Aerial Surveys, Inc. 1955).

Figure 3.20: Aerial photograph, Thruway, Jersey City, N.J.
View looking from Jersey City toward the Newark Bay showing original Piers 1 through 9 in the mid-ground and Piers 10-17 in the foreground. Also note the elevated railroad berm (Fairchild Aerial Surveys, Inc. 1955).

and at 5.5 feet bgs at Pier 14. At Pier 15, the bedrock plunges to a depth of 10 feet bgs. Pier spread footings vary in size from 12 feet square to 21 feet square bgs. The plans reveal that 5.0 to 10 feet of fill was placed between original Piers 2 and D2. From Piers 20 to 27, between 10 and 20 feet of imported fill was deposited prior to pier installation.

Historic Map Review

Eighteenth Century
During the late eighteenth century, a roadway connecting the community of Bergen to the southern tip of the Bayonne peninsula was present near the eastern shore of the Newark Bay. It is likely that a portion of this road represents present-day Old Bergen Road. The eastern part of the project location skirted the western bank of the Upper Bay and a single structure is mapped along the shoreline in proximity to the project location (see Figure 3.3; Hill 1781). No additional structures are depicted near the project location during the late eighteenth century (Table 3.2; see Figure 3.3; Hills 1781).

Nineteenth Century
Development on the eastern side of the Newark Bay in the vicinity of the project location remained sparse in the first half of the nineteenth century. The Morris Canal is first depicted bisecting the eastern part of the project location in 1833 (see Figures 3.4; Gordon 1833). Development in Jersey City was mostly focused along Old Bergen Road to the north of the project location in the community of "Pamrepaw" (see Figures 3.4–3.5; see Table 3.2; Gordon 1833; United States Coastal Survey 1837; Hassler 1846; Sidney 1849). Between 1833 and 1837, a building was constructed in the northeastern part of the project location (see Figures 3.4–3.5; see Table 3.2; Gordon 1833; United States Coastal Survey 1837). By 1846, two additional buildings are mapped along the Morris Canal in the northeastern part of the project location (Hassler 1846).

On 1846 and 1849 maps, several buildings are shown in proximity to the project location, including on the property of the former Marist High School in Bayonne, as well as in the northeast part of the project location (see Figure 3.6; see Table 3.2; Sidney 1849, 1850). In 1858, small dirt roads or driveways crossed the wooded areas surrounding the eastern part of the project location though no new buildings are depicted in proximity to the project location (U.S. Coast Survey 1858). In 1860, new roadways are mapped on the east side of the Newark Bay but it is unclear if these roadways were ever constructed. Buildings are mapped along the former location of the roadway running from the community of Bergen to the southern tip of Bayonne and a series of five buildings are shown near the current intersection of the NB-HCE and New Jersey Route 440 (see Figures 3.7–3.8; Dripps 1860; Walling 1860). With the exception of Hudson Boulevard (present-day John F. Kennedy Boulevard), Avenue C, and the Morris Canal, the portion of the project location east of the Hudson Bay was undeveloped and the shoreline had not yet extended west to its present-day location (see Figure 3.7).

In 1873, a series of gridded roadways had been planned in the Bayonne and Jersey City sections of the project location, through it does not appear that these roads were ever constructed. Five structures are mapped in the Jersey City portion of the project location in 1873. The Central Railroad of New Jersey had also been constructed north of the project location on both sides of the Newark Bay (see Figure 3.9; Hopkins 1873). In 1889, topographic mapping of the project location east of the Newark Bay reveals that the area between the bay and Hudson Boulevard consisted of knolls that were separated by several small tributaries and gullies (see Figure 3.9). By 1894, the road network surrounding the project location had been laid in a gridded pattern and residential lots were established. Several railroads and railroad-owned properties are also mapped in proximity to the project location on an 1894 map (Fowler 1894). In 1898, Sanborn Fire Insurance maps show that parcel blocks in Jersey City, as well as Bayonne, had been divided into smaller lots. A dwelling and outbuilding are depicted at the intersection of Hudson Boulevard and West 59th Street in Bayonne. Three buildings and a shed are mapped at the intersection of Avenue D and 52nd Street just outside the project location, as are the outline of two buildings on Block 1387; a residence known as "Woodside Cottage" and two sheds are situated at the intersection of 50th Street and Avenue D in Jersey City. Structures and rail lines are depicted on railroad property in the northeastern part of the project location (see Figure 3.11; Sanborn Map Company 1898; see Table 3.2).

Table 3.2: Historic maps and resources in proximity to the project location.

Map Date	Structures/ Buildings/ Other in Proximity to Project Location	Figure Number (if applicable)	Citation
1781	Roadway (likely Old Bergen Road) and a structure present in the eastern part of the project location.	3.3	Hills 1781
1833	Roadway and Morris Canal intersect the eastern part of the project location.	3.4	Gordon 1833
1837	Road and Morris Canal intersect the eastern part of the project location. Building mapped in the northeastern part of the project location along the Morris Canal.	3.5	United States Coast Survey 1837
1846	Two buildings depicted along the east side of the Morris Canal in the northeastern portion of the project location.	N/A	Hassler 1846
1849	Building depicted within the project location north and west of the former Marist High School in Bayonne. Three buildings shown in proximity to the northeast part of project location, east of the Morris Canal.	3.6	Sidney 1849
1858	Nothing additional within the project location.	N/A	United States Coast Survey 1858
1860	Additional roadways and five buildings near the location of the present-day intersection of the NB-HCE and Route 440.	3.7	Dripps 1860
1860	New road layout and structures mapped along Old Bergen Road north of the project location.	3.8	Walling 1860
1873	Numerous planned roadways, residential blocks, and housing throughout Jersey City. Five structures mapped within or adjacent to the project location. The Central Railroad of NJ/ Lehigh Valley Railroad had been constructed north of the project location.	3.9	Hopkins 1873
1889	Streets were laid out within Bayonne and Jersey City.	3.10	Vermeule 1889
1894	Gridded road network and residential lots surrounding the project location were established.	N/A	Fowler 1894
1898	Blocks within the southwest portion of the project location had been subdivided into smaller residential parcels. A dwelling and outbuilding are depicted at the intersection of Hudson Boulevard and West 59th Street in Bayonne. Three buildings and a shed are mapped just outside of the project location at the intersection of Avenue D and 52nd Street. Two buildings are plotted on Block 1387 and a "Woodside Cottage" and two sheds are documented at the intersection of 50th Street and Avenue D in Jersey City. Buildings and rail lines are depicted on railroad property in the northeastern part of the project location.	3.11	Sanborn Map Company 1898, Volumes 9 and 10
1901	Landscape filling conducted to create stable land over the wetlands may have begun, though creeks and man-made channels still cross the project location. Gridded street plan had been established. No buildings or structures are depicted but the CRRNJ is present	N/A	E. Robinson and L.E. Tenney 1901
1905	No buildings depicted in the project location.	N/A	Westgard 1905
1908	Five frame buildings on Block 353 are plotted near the intersection of Garfield Avenue and 57th Street (Jersey City). Multiple structures on New York Bay Railroad Company and National Docks Railway properties are illustrated. One of these is the New York Bay Railroad Company turntable.	3.12	Hopkins 1908
1909	Three frame buildings and two frame sheds or stables are mapped at the intersection of 59th Street and Hudson Boulevard; and a stone quarry, frame building, driveway, and frame shed or stable are plotted on Block 342 between W. 57th and 58th streets and Avenues B and C (Bayonne).	3.13	Hopkins 1909

Table 3.2; continued.

Map Date	Structures/ Buildings/ Other in Proximity to Project Location	Figure Number (if applicable)	Citation
1919	"Parental School" had been established on the present-day Marist High School property in Bayonne. Two frame structures at the intersection of Hudson Boulevard and West 59th Street in Bayonne are depicted. Several buildings near the intersection of Garfield Avenue and West 57th Street in Jersey City are illustrated. Multiple structures on New York Bay Railroad Company and National Docks Railway properties are mapped. One of these is the New York Bay Railroad Company turntable.	3.14a-3.14b	Hopkins 1919
1934	Three frame buildings on the north side of West 58th Street between Hudson Boulevard and Avenue B are plotted and several new buildings associated with the Parental School complex are illustrated in Bayonne.	N/A	Hopkins 1934
1947	Doremus Avenue and the Central Railroad of New Jersey and the Parental School buildings are shown. After abandonment and infilling of the Morris Canal, several rail lines extend into the northeastern portion of the project location.	N/A	USGS 7.5' Quadrangle: Elizabeth, NJ and Jersey City, NJ.
1955	The NB-HCE, the Newark Bay Bridge, and the New Jersey Turnpike had been constructed. Newark had mostly been infilled to support the roadways and the Parental School buildings remained present.	3.16	USGS 7.5' Quadrangle: Elizabeth, NJ and Jersey City, NJ

Twentieth to Twenty-first Century

Development increased within Bayonne and Jersey City in the early twentieth century (see Figures 3.12–3.14a and 3.14b; Hopkins 1908, 1909, 1919; see Table 3.2). Three frame buildings and two frame sheds or stables were present at the intersection of 59th Street and Hudson Boulevard, and a stone quarry, frame building, driveway, and frame shed or stable stood on Block 342 between West 57th and 58th streets and Avenues B and C within the City of Bayonne. Five frame buildings were present on Block 353 near the intersection of Garfield Avenue and 57th Street in Jersey City. Multiple structures are mapped on New York Bay Railroad Company and National Docks Railway properties including the New York Bay Railroad Company turntable (see Figures 3.12–3.13; Hopkins 1908, 1909; see Table 3.2). Between 1909 and 1919, the Hudson County "Parental School" was erected in the Bayonne section of the project location as a large, L-shaped, brick building set back from Hudson Boulevard, along with three frame outbuildings and driveways (see Figure 3.14a; Hopkins 1919; see Table 3.2). With the exception of two frame buildings at the intersection of Hudson Boulevard and West 59th Street, multiple buildings near the intersection of Garfield Avenue and West 57th Street, and the multitude of railroad-related structures in the northeastern part, no other development had occurred within the project location by 1919 (see Figures 3.14a–3.14b; Hopkins 1919).

Early twentieth-century aerial photographs show that Bayonne/Jersey City side appeared mostly undeveloped (NETR 1931). In 1934, development within the City of Bayonne had grown substantially, though most occurred outside of, but surrounding, the project location. The only new construction within this part of the project location was three frame buildings on the north side of West 58th Street between Hudson Boulevard and Avenue B, as well as the construction of several new buildings associated with the "Parental School" complex (Hopkins 1934; see Table 3.2).

In the 1940s, no buildings are depicted in the project location with the exception of the buildings associated with the Parental School, (USGS 1947a, 1947b; see Figure 3.16). A USGS map from 1955 shows the location of the recently constructed NB-HCE and the Newark Bay Bridge within the project location after its construction. The Parental School buildings remained present south of the NB-HCE on the east side of the bay. Little new development is mapped within the project location at this time (USGS 1955a, 1955b; see Figure 3.17). The degree of filling and extensive earthmoving that occurred within the project location during the construction of the NB-HCE is visible in 1955 aerial photograph taken for the NB-HCE project (see Figures 3.18–3.20). Between 1931 and 1954,

the roundhouse for the New York Bay Railroad Company that was initially constructed between 1898 and 1908 was removed (NETR 1931, 1954). The turntable for the roundhouse is visible in a 1979 aerial photograph and was completely removed by 1987, during which time construction equipment is visible on the aerial conducting earth moving activity for the construction of Route 185 (NETR 1979, 1987; Figures 3.21–3.22).

By 1954, the "Parental School" changed hands and was operated as Marist High School, a Catholic school, and by 1966, the school complex had been expanded in size with additional buildings (NETR 1966). Prior to the mid-twentieth century, the eastern shore of the Bayonne section of the project location was situated roughly 1,000 feet east of its current location and was gradually infilled and expanded west during the 1950s and 1960s to extend the buildable land area further into the Newark Bay (NETR 1954, 1966). The current shoreline was present by 1979 (NETR 1979). Development surrounding the Newark section of the project location through the remainder of the twentieth century was mostly industrial while the area surrounding the Bayonne and Jersey City portion of the project location appeared to contain mostly residential and commercial, as well as industrial properties (NETR 1984, 1995, 2006, 2012, 2019).

3.4 National and State Register of Historic Places Eligible and Listed Properties

Background research confirmed the presence of two archaeological historic properties listed in the NJR and NRHP or eligible for listing in the NRHP within the SSA on the east side of the Newark Bay: the Morris Canal historic property (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004), and the Jersey Eagle Site (28-Hd-45 [SHPO Opinion: 5/17/2013]) (Figures 3.23–3.24).

The Morris Canal, which was completed in 1836 after little more than a decade of construction, was listed in the NJR and NRHP in the early 1970s as a linear historic district under Criteria A, B, C, and D. The canal is significant under Criterion A for its association with canal transportation, American technical education, and the demographic and industrial growth in northern New Jersey, New York City, and the Lehigh Valley. Because several inventors, engineers, and important men were associated with the construction and operation of the canal, the canal is significant under Criterion B. The Morris Canal meets Criterion C as a major technological feat of construction and operation, including the inclined plane design. The potential information relating to canal engineering and construction as well as the lifeways of nineteenth-century canal culture that archaeological investigations may yield makes the canal significant under Criterion D (Guzzo 2004). The period of significance established in the Morris Canal nomination form covered the years 1836 to the turn of the century (Guzzo 2004). In 2004, the NJHPO expanded the period of significance for the Morris Canal to 1930 when the closure of the canal was complete (Guzzo 2004).

The Jersey Eagle Site (28-Hd-45 [SHPO Opinion: 5/17/2013]) represents a below grade archaeological historic property. Located near the northern terminus of the SSA on Block 30306, Lot 7 in Jersey City, the site is a multi-component pre-Contact and historic-period archaeological site that was determined eligible for listing in the NRHP under Criterion A for its association with events that made a significant contribution to the broad patters of our history and Criterion D for the potential to yield new, important information in prehistory and history regarding the pre-Contact period occupation and early settlement of Hudson County from 0 to 1850 AD. The site is deeply buried below 2.3 feet of imported fill on its northern side and 7.9 feet of fill on its southern side.

3.5 Known Archaeological Sites and Prior Cultural Resources Investigations

Previously Identified Archaeological Sites

A review of NJSM site files and published accounts (Cross 1941; Skinner and Schrabisch 1913) indicated that there is one registered archaeological site within the SSA on the east side of the Newark Bay, one site adjacent, as well as two sites within 1,000 feet. Site 28-Hd-45 (Jersey Eagle archaeological

Figure 3.21: 1979 aerial photograph of Proposed Basin HUC3-C prior to the removal of the New York Bay Railroad Co. turntable
(NETR 1979).

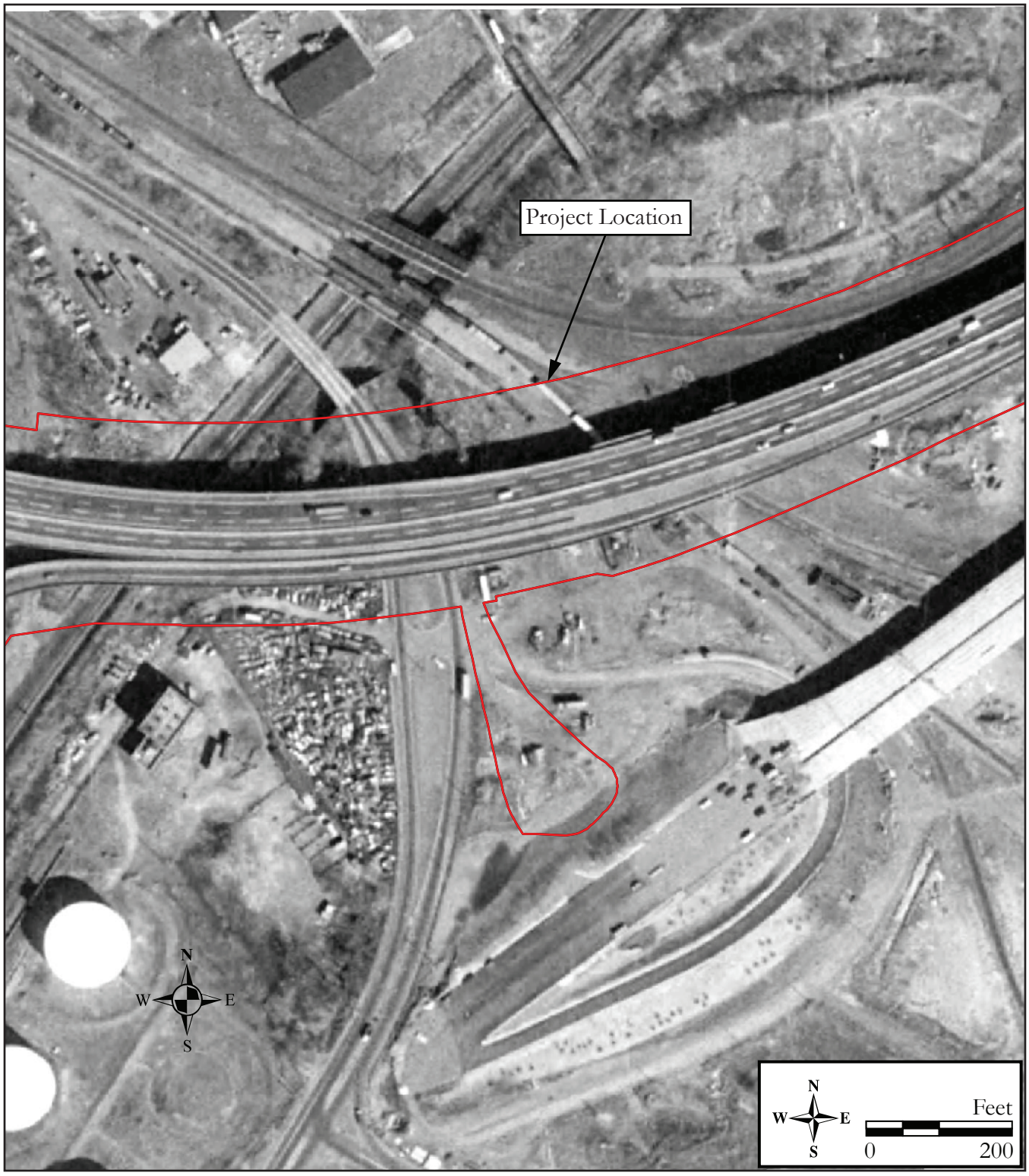

Figure 3.22: 1987 aerial photograph of Proposed Basin HUC3-C after the removal of the New York Bay Railroad Co. turntable
(NETR 1987).

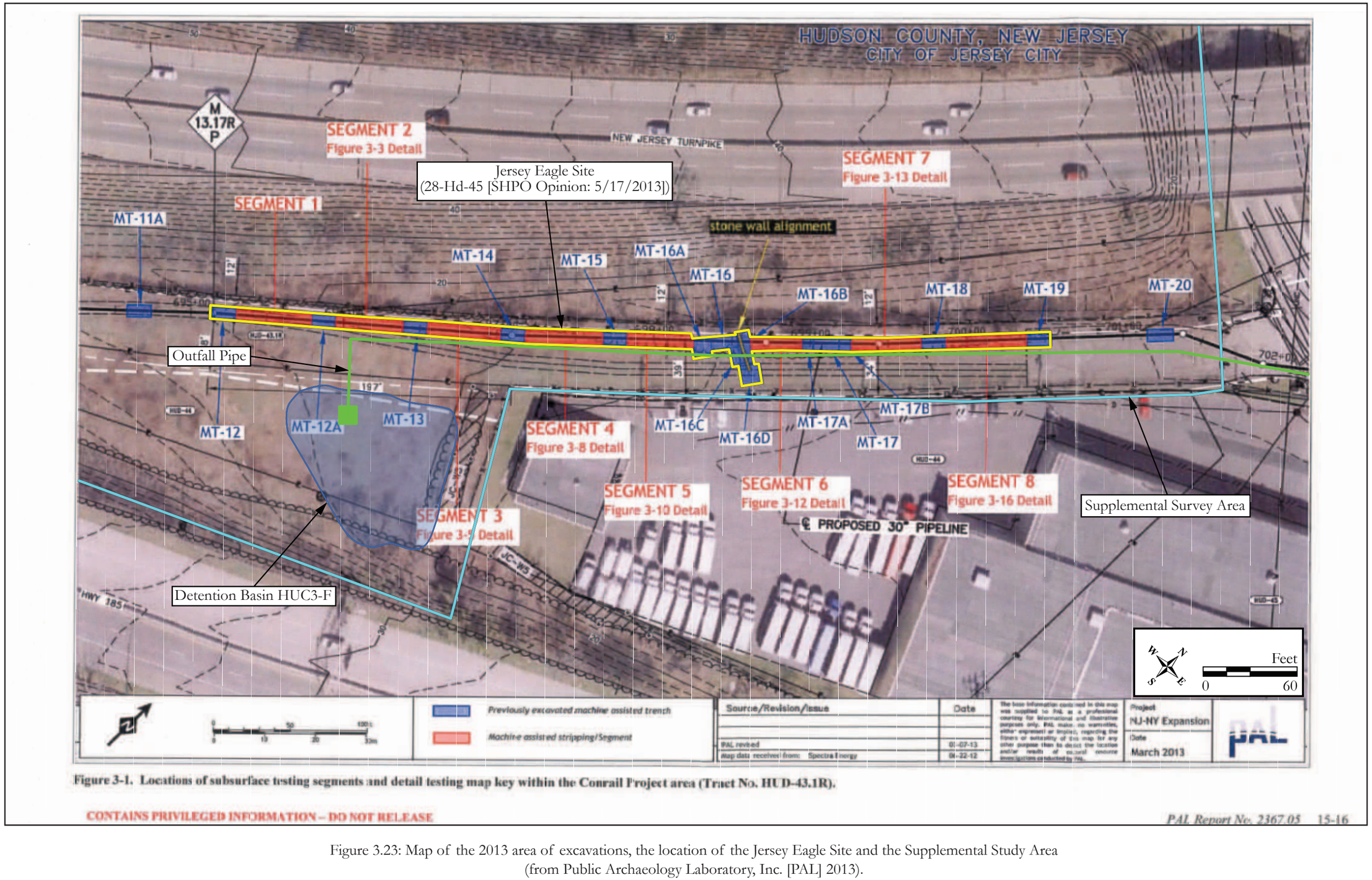

Figure 3-1. Locations of subsurface testing segments and detail testing map key within the Conrail Project area (Tract No. HUD-43.1R).

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Figure 3.23: Map of the 2013 area of excavations, the location of the Jersey Eagle Site and the Supplemental Study Area (from Public Archaeology Laboratory, Inc. [PAL] 2013).

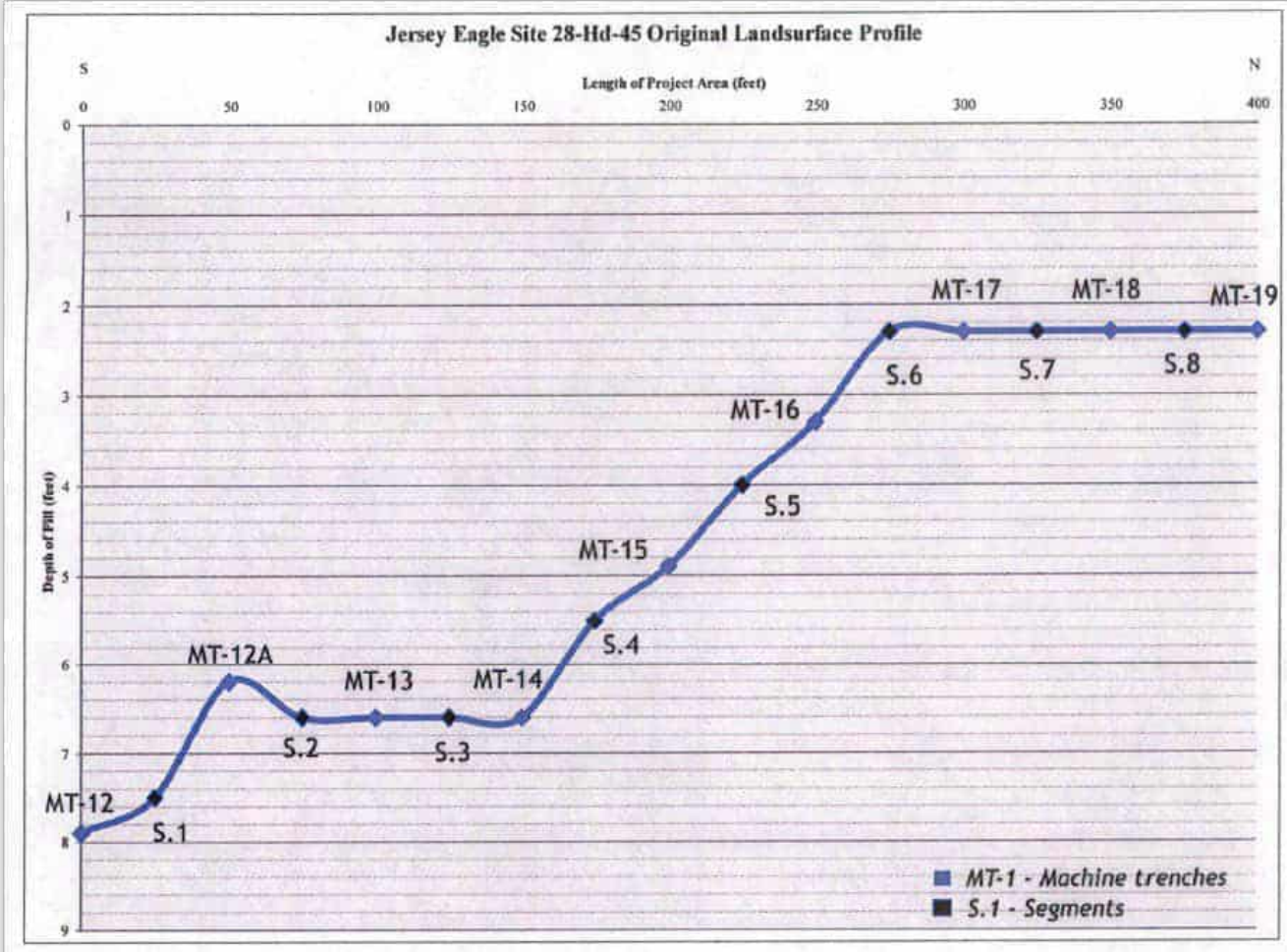


Figure 3-2. Jersey Eagle Site (28-Hd-45) hypothesized original land surface profile based on depth to fill as recorded in the Phase IB and Phase IB/II excavations.

Figure 3.24: Depth of fill within the Jersey Eagle Site
(from Public Archaeology Laboratory, Inc. [PAL] 2013).

site) (aka The Jersey Eagle Site; SHPO Opinion: 5/17/2013) is a multi-component site on the western shore of the Hudson River situated within the footprint of a Conrail railroad access road. This site is located south of Linden Avenue within the northeastern terminus of the SSA. The pre-Contact Native American component of this site was first identified during Phase IB archaeological survey mechanical trench excavations in 2012 when eight pre-Contact artifacts were recovered. The full extent and boundaries of the site have not been determined and are currently limited to the excavations performed by the Public Archaeology Laboratory (PAL) within the footprint of a natural gas pipeline trench (see Figure 3.21; PAL 2013a, 20136). Figure 3.23 depicts the identified footprint of the site in relation to a proposed nearby 5.0-foot-deep stormwater basin and a proposed stormwater outfall pipe for the current undertaking. Available geotechnical soil boring information reveals that likely modern fill over graded hydric wetlands soils is present within the stormwater basin location (Appendix D; AmerCom Corp. 2022). The Phase IB and subsequent Phase II archaeological survey completed by PAL yielded 51 pre-Contact artifacts. While no pre-Contact period features were found, the artifacts indicate stone tool manufacture and maintenance, as well as subsistence-related resource processing. The artifacts were recovered from buried plowzone layers found at top depths ranging from 2.3 in the northern part of the site to 7.9 feet below current grade in the southern part of the site (see Figure 3.22). The historic period component of the site yielded artifacts related to eighteenth- to twentieth-century domestic refuse. Only one historic feature was identified, a stone wall feature, unlikely to be associated with a structural foundation as indicated by PAL (2013a, 2013b). The site was determined eligible for listing in the NRHP under Criterion A for its association with events that made a significant contribution to the broad patters of our history and Criterion D for the potential to yield new, important information in prehistory and history regarding the pre-Contact period occupation and early settlement of Hudson County from 0 to 1850 AD.

The Greenville Site (28-Hd-3), identified in the early twentieth century, is a Woodland period Native American site on the western shore of the Hudson River adjacent to the northeast terminus of the SSA near Linden Avenue. This site was first recorded by Skinner and Schrabisch in 1913 who reported "potsherds daubed over with red paint" were said to have been collected on the point at Greenville (Skinner and Schrabisch 1913: 42). Based on the proximity of the of the Greenville and Jersey Eagle sites, it is very possible that the pre-Contact components of the two sites represent the same archeological resource.

Files indicate that two additional previously identified archaeological sites are located within 1,000 feet of the SSA. Site 28-Hd-12 is a temporally and functionally undetermined pre-Contact period Native American site located roughly 200 feet north of the SSA. The Morris Canal Fiddler's Elbow Segment Archaeological Site (28-Hd-47) is situated roughly 1,000 feet south of the SSA and is associated with the abandonment and filling of the Morris Canal, circa 1920-1940.

In addition, a review of cultural resources survey reports indicated that geoarchaeological testing east and west of the SSA in proximity to the Morris Canal identified traces of historic fill associated with the Morris Canal historic property (Geismar 1995b, PAL 2011b). The historic fill was not registered as an archaeological site.

One archaeological site (number 2) was plotted on the collector's maps on file at the NJHPO. This likely represents the previously discussed Greenville Site (28-Hd-3). The SSA is located within archaeological site blocks EV94 and EW94.

Previously Conducted Cultural Resources Surveys

Research to discover previously conducted surveys was conducted utilizing information available online and located within the RGA in-house library. This research indicated that 23 archaeological surveys have been conducted within or adjacent to the SSA (Crossroads of the American Revolution National Heritage Area 2011; E2PM 2016; Geismar 1995a, 1995b, 1997, 2002; Historic Conservation & Interpretation, Inc. 1978; Kardas and Larrabee 1978; The Louis Berger Group, Inc. 2001; Lynn Drobbin & Associates 1994; Parsons Brinkerhoff Quade & Douglas, Inc. 1991; The Public Archaeological Laboratory (PAL) 2010, 2011a, 2011b, 2011c, 2012, 2013a, 2013b; RGA, Inc. 2017;

Richard Grubb & Associates, Inc. 1998; URS Corporation 2009, 2010, 2014). A summary of these surveys is provided in Table 3.3. The majority of the surveys did not identify archaeological resources within or adjacent to the SSA (E2PM 2016; Kardas and Larrabee 1978; Lynn Drobbin & Associates 1994; PAL 2010, 2011c, 2012; Richard Grubb & Associates, Inc. 1998; URS Corporation 2009, 2010, 2014). Eight surveys note the presence of the Morris Canal in proximity to the SSA (Historic Conservation & Interpretation, Inc. 1978; The Louis Berger Group, Inc. 2001; Geismar 1995b, 1997, 2002; PAL 2013a; Parsons Brinkeroff Quade & Douglas, Inc. 1991; RGA, Inc. 2017; see Table 3.3).

A Stage IA cultural resource survey for the Hudson County Sewerage Authority notes, in addition to the Morris Canal, that the seventeenth-century Dutch settlement (Currie's Woods) was located roughly 5,550 feet north of the SAA(Historic Conservation & Interpretation, Inc. 1978; see Table 3.3). Testing for the Bayonne Extension to the Vince Lombardi Park-Ride indicated that the 1862-1872 Dummy Railroad formerly bisected the eastern part of the SAA (Geismar 1995b; see Table 3.3). Two surveys indicate the presence of the pre-Contact period Greenville Point Site (28-Hd-3) immediately northeast of the SSA (Geismar 1995b; Parsons Brinkerhoff Quade & Douglas, Inc. 1991; see Table 3.3). The pre-Contact site contained several fragments of pre-Contact ceramic. A management plan for the Crossroads of the American Revolution National Heritage Area showed that two major Revolutionary War skirmishes occurred in proximity to the SSA in 1781 and 1782 (Crossroads of the American Revolution National Heritage Area 2011; see Table 3.3). Numerous surveys determined that portions of the SSA or surrounding areas were considered to have a low potential for archaeological resources (The Louis Berger Group, Inc. 2001; Richard Grubb & Associates, Inc. 1998; Kardas and Larrabee 1978; E2PM 2016; URS 2009; see Table 3.3). Geismar (1995a) and Parsons Brinkerhoff Quade & Douglas, Inc. (1991) indicate that the southeastern terminus of the SSA is located within a potentially sensitive pre-Contact zone (see Table 3.3).

Beginning in 2010, PAL conducted a series of archaeological surveys for the New Jersey-New York Expansion Project that extended along the eastern side of the SSA. The first survey, completed in 2010, was a Phase I that did not identify any archaeological resources within or adjacent to the SSA and no or low to moderate archaeological sensitivity in the project area closest to the SSA. PAL recommended soil borings (PAL 2010a; see Table 3.3).

In 2011, PAL completed a geophysical soil borings archaeological survey south of Linden Avenue and north of Greenville Yards. PAL discovered deep fill deposits (4.7 feet below ground surface), an intact living surface, and subsoil, identified the potential remains of the Colonel Thomas Brown property, and mid to late-nineteenth-century resources. Based upon the findings, PAL recommended Phase IB trenching (PAL 2011a; see Table 3.3).

A second geophysical soil borings archaeological survey was performed by PAL in various locations in Jersey City east of the SSA in 2011. During testing, PAL discovered that the area west of Greenville Yards contained historic fill related to the Morris Canal located 8.0 feet to 14.4 below ground surface. The remaining borings showed fill 1.6 to 8.5 feet below ground surface over estuarine sequences. Based upon these results, PAL recommended Phase IB trenching near Greenville Yards, southeast of the SSA (PAL 2011b; see Table 3.3).

Two addendum reports by PAL noted most of the project area proximate to the SSA had no or low to moderate sensitivity for archaeological resources, and no identified archaeological resources. The lack of sensitivity for pre-Contact archaeological resources was due to the marshland in those areas before the infilling in the mid-twentieth century for man-made land. PAL recorded 10 to 14 feet of fill below ground surface in nearby soil borings and recommended further testing with soil borings and trenching (PAL 2011c, 2011d; see Table 3.3).

Table 3.3: Summary of archaeological surveys conducted in proximity to the SSA.

Report Number	Title	Author	Year	Phase	Location of Survey within SSA	Archaeological Resource(s) Identified In/SSA	Archaeological Sensitivity for SSA (if noted)/Comments
HUD E13	Stage IA Cultural Resource Survey for the Hudson County Sewerage Authority, 201 Wastewater Facility Plan-District II, Bayonne, Hudson County, New Jersey	Historic Conservation & Interpretation, Inc.	1978	IA	Within the Bayonne section of the SSA	Seventeenth century Dutch settlement (Currie's Woods) 550 feet north of SSA; Fiddler's Elbow part of the Morris Canal 350 feet south of the SSA	-
HUD F40	Survey for Prehistoric and Historic Archaeological Sites and Historic Sites and Structures, Route 169 and Route 440 from the Bayonne Bridge in Bayonne to the Vicinity of Bayview Avenue in Jersey City, New Jersey	Kardas and Larrabee	1978	I	Along the Newark Bay within Bayonne	Fiddler's Elbow part of the Morris Canal 350 feet south of the SSA	No subsurface testing within the SSA
HUD F858	Cross Harbor Freight Improvement Project, Greenville Yards, Jersey City, Hudson County, New Jersey, Stage IA Archaeological Assessment	The Louis Berger Group, Inc.	2001	IA	Within the southern portion of SSA near Greenville Yards	Morris Canal is located in the western part of the Greenville Yards project, through any remains of it have likely been destroyed	Low potential for archaeological deposits due to the presence of imported fills or displaced soils
HUD S28a	Supplemental Information for the Phase IA Archaeological Survey, New Jersey Transit Grid Traction Power System, City of Bayonne, Town of Kearny, City of Jersey City, City of Hoboken, Township of Weehawken, City of Union City, and Township, of North Bergen, Hudson County, New Jersey	RGA, Inc.	2017	IA	Bisects and adjacent to the southeastern part of the SSA	None	Area of historic sensitivity at the crossing of the Morris Canal near East 53rd Street, south of the SSA
HUD Y184	Stage IA Cultural Resources Survey, Combined Sewer Overflow Planning Study, City of Bayonne, Hudson County, New Jersey	Richard Grubb & Associates, Inc.	1998	IA	Along the Newark Bay within Bayonne	None	Low potential for pre-Contact or historic resources.
HUD Z21	Bayonne Extension, Archaeological Study for the Hudson-Bergen Light Rail System, Technical Report (IA Assessment)	Geismar	1995a	IA	At the southeastern terminus of the SSA and follows along the SSA alignment to the west	Greenville Point Site, Pamrapo (pre-Contact artifacts), Area of known/potential pre-Contact sites with extensive nineteenth to twentieth century filling/land alteration, Morris Canal, Home of Colonel Thomas Brown (principal slave trader).	A "potential prehistoric sensitive zone" adjacent to the SSA.

Table 3.3; continued.

Report Number	Title	Author	Year	Phase	Location of Survey within SSA	Archaeological Resource(s) Identified In/SSA	Archaeological Sensitivity for SSA (if noted)/Comments
HUD Z21b	Bayonne Extension to the Vince Lombardi Park-Ride Archaeological Testing for the Hudson –Bergen Light Rail System, Technical Report (IB Assessment)	Geismar	1995b	IB	At the eastern terminus of the SSA	Morris Canal and Dummy Railroad (1862-1872) bisect the SSA	A "potential prehistoric sensitive zone" within the SSA. No subsurface archaeological testing was conducted within/adjacent to the SSA
HUD Z21c	Archaeological Resources Technical Backup Reports, NJ Transit Hudson River Waterfront, Transportation Project AA/DEIS.	Parsons Brinkerhoff Quade & Douglas, Inc.	1991	IA	At the eastern terminus of the SSA	Greenville Point Site (28-Hd-3) roughly 3,400 feet northeast the eastern terminus of the SSA. Included several sherds of pre-Contact ceramic. The Morris Canal crosses the eastern part of the SSA. Morris Canal crosses the southern part of the SSA. Lehigh Valley Railroad trestle piers and the Chapel Avenue (concrete piers)/ Lehigh Valley Railroad bridge (surviving twentieth century steel girder bridge) at the southern part of the SSA.	Within potentially sensitive pre-Contact zone. Areas are located on an upland terraces within Jersey City marsh overlooking Upper New York Bay, which have extensive filling and land alteration during the late nineteenth and early twentieth centuries.
HUD Z21e	Memo Report Regarding Installation of an Underground Pipeline at the Morris Canal on the Bayonne-Jersey City Boundary, An Archaeological Assessment.	Geismar	1997	IA	Between East 53rd Street and the NJTP	Morris Canal	Photo documentation was recommended for the stone bridge abutments of the National Docks Branch of the Lehigh Valley Railroad and the metal truss pipeline bridge, both contributing to the Morris Canal. Archaeological monitoring was recommended to record any buried components to the Morris Canal.
HUD Z21i	Bayonne Cultural Resource Survey, The Bayonne Extension, The Hudson River Waterfront Light Tail Transit, Bayonne, Hudson County, New Jersey	Lynn Drobbin & Associates	1994	IA	Near Gates Avenue	None	-
HUD Z21q	A Compendium of Evaluations of MOA Archaeological Items for the Hudson Bergen Light Rail (HBLR) project, MOS-1 Segment from the Jersey City-Bayonne City Lone to Paulus Hook, Jersey City, Hudson County, New Jersey	Geismar	2002	IA	Southeastern portion of the SSA	Crossing of the Morris Canal	-

Table 3.3; continued.

Report Number	Title	Author	Year	Phase	Location of Survey within SSA	Archaeological Resource(s) Identified In/SSA	Archaeological Sensitivity for SSA (if noted)/Comments
MULT A351	Cultural Resources Overview for Hudson-Raritan Estuary, Comprehensive Restoration Plan	URS Corporation	2014	Background research/ data collection	Encompasses the entire SSA	None	-
MULT C1101e	Phase IA Archaeological Assessment, Bayway to Bayonne Underground Transmission Corridor Project, Elizabeth City, Union County and Bayonne City, Hudson County, New Jersey	E²PM	2016	IA	Bisects SSA between the Newark Bay and John F. Kennedy Boulevard	None	Low sensitivity for archaeological resources
MULT GB254	Crossroads of the American Revolution National Heritage Area Management Plan; Part II Implementation Plan. Crossroads of the American Revolution Association, Morristown and Trenton, New Jersey.	Crossroads of the American Revolution National Heritage Area	2011	Background research/ data collection	Encompasses the entire SSA	-	Major Revolutionary War skirmishes (1781, 1782) along the SSA
MULT R89	Phase IA Cultural Resource Assessment, Bayonne Delivery Lateral, Newark, Essex County to Bayonne, Hudson County, New Jersey	URS Corporation	2009	IA	Within the eastern part of the SSA	None	Low potential for archaeological resources based on previous disturbance
MULT R89a	Letter Report: Cultural Resources Addendum to Phase IA Cultural Resource Assessment/Bayonne Delivery Lateral Report, January, 2009	URS Corporation	2010	Addendum IA	Within the eastern part of the SSA	None	-
MULT R100	Archaeological Overview Survey, Texas Eastern Transmission , LP, New Jersey-New York Expansion Project, Linden, Bayonne, Jersey City, Hanover, and Mahwah, New Jersey	The Public Archaeological Laboratory (PAL)	2010	IA	Roughly follows along the eastern side of the SSA	None	Much of the project area closest to the SSA was considered to have no or low to moderate archaeological sensitivity. Soil borings were recommended
MULT R100c	Results of Geoarchaeological Soil Borings and Proposed Phase IB Archaeological Surveys, New Jersey-New York Expansion Project, Staten Island, New York and Linden, Bayonne and Jersey City, New Jersey	The Public Archaeological Laboratory (PAL)	2011a	Geo-archaeolo-gical soil borings	East of the SSA, south of Linden Avenue and north of Greenville Yards	Potential for remains of eighteenth century Colonel Thomas Brown property and mid to late-nineteenth century resources	Deep fill (4.7 feet bgs*) deposits noted in soil boring capping an intact living surface and subsoil. Phase IB trenching was recommended

Table 3.3; continued.

Report Number	Title	Author	Year	Phase	Location of Survey within SSA	Archaeological Resource(s) Identified In/SSA	Archaeological Sensitivity for SSA (if noted)/Comments
MULT R100f	Results of Geoarcheaological Soil Borings and Proposed Phase IB Archaeological Surveys, Report #2, New Jersey-New York Expansion Project, Bayonne and Jersey City, New Jersey	The Public Archaeological Laboratory (PAL)	2011b	Geo-archaeolo-gical soil borings	Various locations, east of the SSA	Area west of Greenville Yards contains historic fill associated with the Morris Canal (8-14.4 feet bgs*). Fill (1.6 to 8.5 feet) over estuarine sequences in the remaining borings	Phase IB trenching recommended near Greenville Yards.
MULT R100g	Archaeological Overview Survey-Addendum #3 to Technical Report, New Jersey-New York Expansion Project, Linden, Bayonne, and Jersey City, New Jersey	The Public Archaeological Laboratory (PAL)	2011c	IA	Roughly follows along the eastern side of the SSA	None	Much of the project area closest to the SSA was considered to have no or low to moderate archaeological sensitivity. Soil borings and trenching were recommended
MULT R100q	Results of Geoarchaological soil borings, Report #9, New Jersey-New York Expansion Project, Caven Point Road, Jersey City, New Jersey	The Public Archaeological Laboratory (PAL)	2012	Geo-archaeolo-gical soil borings	Various locations, east of the SSA along Caven Point Road	None	Area north of Greenville Yards contains 3 to 20 feet of fill over estuarine deposits. Areas between the US Military Reservation and south of Bayview Avenue contains 15 to twenty feet of fill
MULT R100t	Phase IB Archaeological Identification Survey, Tract Nos. HUD-43, HUD-43R, and HUD-43.1R: Jersey City Redevelopment Agency and Conrail Properties, New Jersey-New York Expansion Project, Jersey City, Hudson County, New Jersey	The Public Archaeological Laboratory (PAL)	2013a	IB	Between NJ Route 440 and Linden Avenue	Morris Canal crossing. No evidence of the prism was noted. Stone boundary marker and modern utility trench were found. Identified pre-Contact Jersey Eagle site (28-Hd-45).	28-Hd-45 consisted of seven fragments of quartz chipping debris, quartz uniface, quartz biface fragment, and pre-Contact ceramic. Middle to Late Woodland site used for tool maintenance or manufacture and resource processing
MULT R100v	Technical Report Addendum, Phase IB/II Archaeological Identification Survey, Tract No. HUD-43.1R: Conrail Property-Jersey Eagle Site (28-Hd-45), New Jersey-New York Expansion Project, Jersey City, Hudson County, New Jersey	The Public Archaeological Laboratory (PAL)	2013b	IB/II	North of Greenville Yards at 28-Hd-45	Pre-Contact ceramic (n=6), chert biface and projectile point (n=2), chert debitage (n=2), jasper scraper and biface (n=2), jasper debitage (n=16), quartz manuport (n=1), (quartz debitage n=2), FCR** (n=1)	Middle to Late Woodland site used for tool maintenance or manufacture and resource processing. No features identified, suggesting intensive site occupation was located outside the PAL project area, possibly at the Greenville Point site (28-Hd-3) located to the northeast. Boundary of site likely extends outside PAL project area

SSA - Supplemental Survey Area

In 2012, PAL completed a Geoarchaeological soil boring survey at various locations east of the SSA along Caven Point Road. PAL did not identify any archaeological resources within or adjacent to the SSA. The report documented three to 20 feet of fill below ground surface over estuarine deposits in the area north of Greenville Yards, and 15 to 20 feet of fill below ground surface in areas between the U.S. Military Reservation and south of Bayview Avenue (PAL 2012; see Table 3.3).

In 2013, PAL conducted a Phase IB archaeological identification survey within the SSA between New Jersey Route 440 and Linden Avenue. The survey recorded the Morris Canal including a stone boundary marker and modern utility trench, and the pre-Contact Jersey Eagle Site (28-Hd-45) as archaeological resources within the SSA (PAL 2013a, see Figure 3.22; Figure 3.23; see Table 3.3). PAL returned to the Jersey Eagle Site (28-Hd-45), north of Greenville Yards, to complete a Phase IB/II archaeological survey and found no features; however pre-Contact artifacts were recovered, including: six ceramic sherds, two chert bifaces/projectile points, two chert debitage fragments, two jasper scrapers and a biface, 16 jasper debitage fragments, one quartz manuport, two quartz debitage fragments, and one fire cracked rock. The site was documented as a Middle to Late Woodland site used for tool maintenance or manufacture, and resource processing (PAL 2013a, 2013b; see Table 3.3). The historical component of the site contained artifacts related to eighteenth- to twentieth-century domestic refuse, including ceramic and bottle fragments, personal items, shell, coal, and slag. Architectural material including window glass, nail, and brick were also found. A stone wall feature was identified by PAL but determined by the firm to unlikely to be associated with a structural foundation (PAL 2013). Instead, the wall was interpreted as a boundary wall. The historic component of the site was interpreted as consistent with field scatter in a former agricultural field. The artifacts in the Jersey Eagle Site were recovered from deeply buried plowzone layers with top subsurface depths ranging from roughly 7.9 feet bgs in the southern portion of the site to 2.3 feet bgs in the northern portion of the site. Excavations at 28-Hd-45 suggest the presence of deeply buried pre-Contact archaeological sites within this portion of the SSA (see Figures 3.23-3.24; PAL 2013a, 2013b).

4.0 PHASE I ARCHAEOLOGICAL SURVEY

4.1 Archaeological Field Inspection Results

A pedestrian survey of the SSA was conducted on August 30, 2021 and April 8, 2022, to document existing conditions as part of the archaeological sensitivity assessment (Figure 4.1). The SSA was examined and photographed with a digital camera, except in places of limited or restricted access (see Figure 4.1; Plates 4.1–4.13).

The SSA on the east side of Newark Bay is surrounded by residential and commercial properties. The majority of the NB-HCE within this part of the SSA is also elevated via concrete piers and earthen berms (see Figure 4.1; see Plates 4.1–4.3).

A detention basin (HUC2-1) is proposed on the property of the former Marist High School on Block 13, Lot 1 in Bayonne (see Figure 4.1). The western portion of the property, to the rear or west of the former school building, sits on roughly 20 feet of imported fill comprised of soil, brick, concrete, rock, and other refuse, which was imported during the 1950s and 1960s (see Figure 4.1; see Plates 4.5–4.6). Recent demolition activities and associated earthmoving by the current property owner have extensively disturbed much of the Marist High School property (see Figure 4.1; see Plate 4.7). Marked underground utilities such as gas, water, and sewer lines were present throughout the Marist High School property (see Figure 4.1; see Plates 4.7–4.8). A grassy area in the front (east) side of former Marist High School building within 75 feet of John F. Kennedy Boulevard appeared to lack any visible disturbance (see Figure 4.1). Based on an 1889 map, an unnamed tributary extended through the southeast corner of the Marist High School property in an area that is currently grassy and was infilled by the late nineteenth century (see Figure 3.10).

The footprint of the Morris Canal traverses the SSA in Bayonne and the City of Jersey City and is currently covered in areas of overgrown vegetation west of Avenue C and in asphalt paved parking lots and roadways between Avenue C and Broadway (see Figure 4.1; see Plate 4.4). The Morris Canal footprint then clips an existing detention basin and crosses the SSA into a lightly wooded area on the northwest side of and parallel to the NB-HCE (see Figure 4.1; see Plate 4.12). This existing basin also is the location of a former, circa-1908 New York Bay Railroad turntable and roundhouse (see Figures 3.12, 3.14b, 3.15c, 3.21–3.22). The roundhouse was removed between 1931 and 1954 (NETR 1931, 1954). The turntable was removed in 1987 during the construction of the interchange between Route 185 and 440. An aerial photograph in 1987 depicts construction machinery at the former turntable location removing the feature and creating the basin (see Figures 3.21 and 3.22). The former Morris Canal footprint is situated under present-day Route 185, outside of the SSA and the proposed HUC3-C basin footprint (see Figures 3.15c, 4.1; see Plate 4.12). As presented in the discussion of Test Pit-10 below in section 4.2.2 that was dug at proposed basin HUC3-C, the turntable appears to have been completely removed and the location infilled with demolition debris. Within the SSA, the Morris Canal was present on Block 30203, Lot 3; Block 30204, Lots 3 and 4; Block 30306, Lots 3 and 4; and Block 30303 TURN, in the City of Jersey City, as well as other parcels that lack block and lot numbers, including an area in the City of Bayonne adjacent to the south side of I-78 and the NJ Turnpike (see Figure 4.1). On Block 30306, Lot 2, the Morris Canal historic property is inaccurately plotted further west on NJHPO historic property maps than its actual former location, which was largely below Route 185 on the parcel.

The majority of the NB-HCE in the southeastern part of the SSA is carried on a viaduct over New Jersey Route 440, entrance and exit ramps, and multiple rail lines (see Figure 4.1; Plates 4.10–4.12). The NJT Toll Plaza 14A and exit and entrance ramps are located on earthen berms within the southeast part of the SSA (see Figure 4.1; Plates 4.9–4.12). Evidence of underground utilities were noted during the pedestrian survey and several pre-1954 utilities are depicted on 1954 as-built plans in the viaduct footprint (see Figure 4.1; Plates 4.8–4.9; see Appendix H; Howard, Needles, Tammen and Bergendoff 1954a). The installation of the concrete pillars to create the viaduct used to carry the southern portion of the NB-HCE

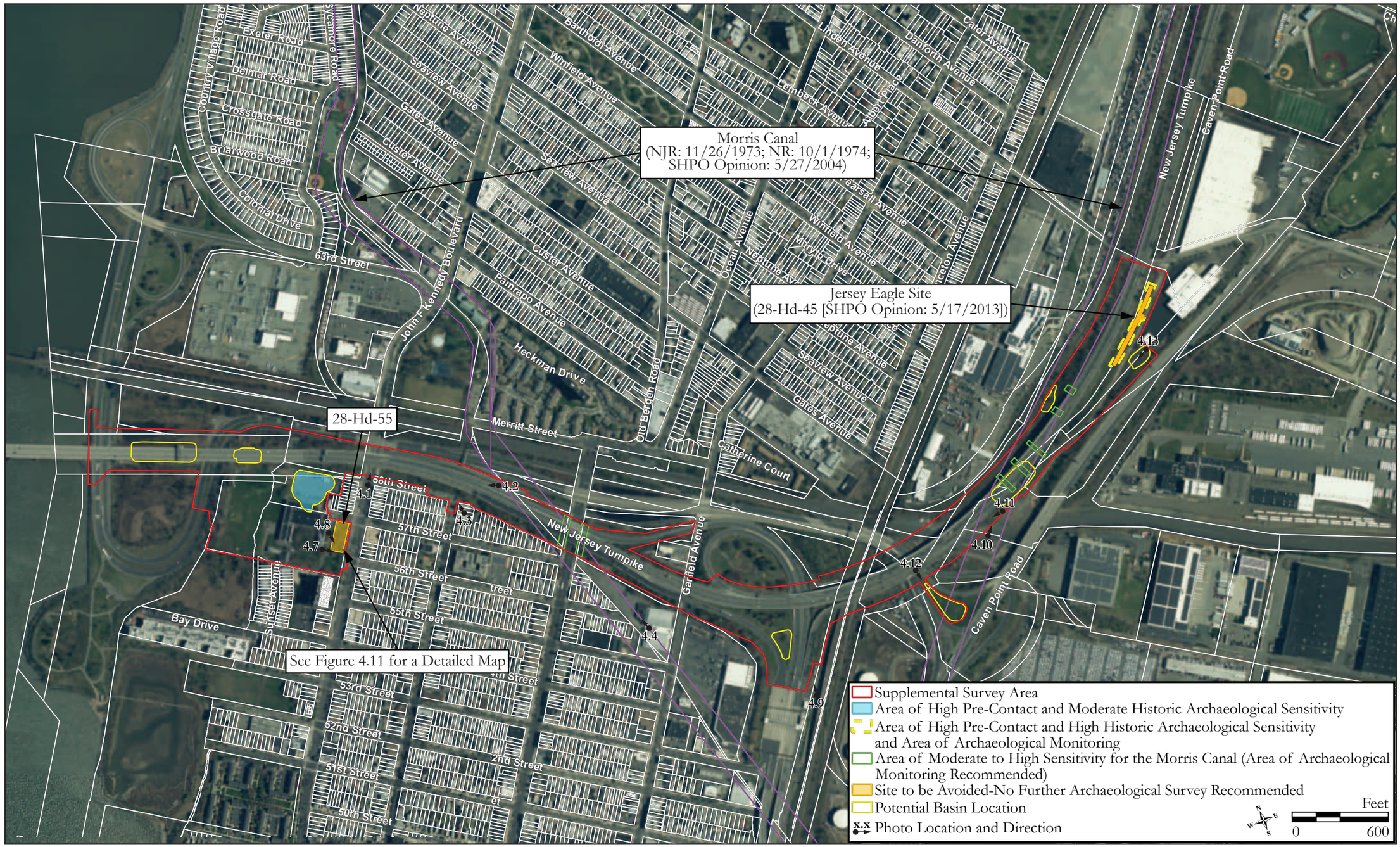


Figure 4.1: Aerial image showing photograph locations and the location of proposed basins (NJGIS Digital Orthographic Imagery 2020).

Plate 4.1: Overview of an elevated portion of the SSA within Bayonne.

Photo view: Northeast

Photographer: Evan Robinson

Date: August 30, 2021

Plate 4.2: Overview the SSA within Bayonne.

Photo view: Northwest

Photographer: Evan Robinson

Date: August 30, 2021

Plate 4.3: Overview of an elevated portion of the SSA within Jersey City.

Photo view: Northwest

Photographer: Evan Robinson

Date: August 30, 2021

Plate 4.4: Overview near the location of the former Morris Canal footprint in Jersey City.

Photo view: Northwest

Photographer: Evan Robinson

Date: August 30, 2021

Plate 4.5: Overview of fill located west of the former Marist High School.

Photo view: Southeast

Photographer: Allison A. Gall

Date: April 8, 2022

Plate 4.6: Overview of an elevated portion of the SSA within Bayonne along the north side of the former Marist High School property.

Photo view: East

Photographer: Allison A. Gall

Date: April 8, 2022

Plate 4.7: Overview of grading and a well located on the south side of the former Marist High School.

Photo view: Southeast

Photographer: Allison A. Gall

Date: April 8, 2022

Plate 4.8: Overview of grassy area on the southeast side of the former the Marist High School.

Note the marked gas line.

Photo view: South

Photographer: Allison A. Gall

Date: April 8, 2022

Plate 4.9: Overview of NJ Turnpike Toll Plaza 14A at southwestern terminus of SSA.

Photo view: North

Photographer: Evan Robinson

Date: September 13, 2021

Plate 4.10: Overview of verge between NJ Turnpike on ramps at Toll Plaza 14A and gravel road/railroad tracks.

Photo view: Northeast

Photographer: Evan Robinson

Date: September 13, 2021

Plate 4.11: Overview of verge between NJ Turnpike on ramps at Toll Plaza 14A and gravel road/railroad tracks.

Photo view: Southeast

Photographer: Evan Robinson

Date: September 13, 2021

Plate 4.12: Overview of proposed basin HUC3-C.

Photo view: Southeast

Photographer: Evan Robinson

Date: September 13, 2021

Plate 4.13: Overview of the SSA near the location of the Jersey Eagle Site.

Photo view: Southwest

Photographer: Evan Robinson

Date: September 13, 2021

within the SSA necessitated extensive excavation and earthmoving operations. Therefore, the majority of the eastern part of the SSA contains disturbance from the NB-HCE construction, as well as the construction of multiple rail lines and installation of underground utilities.

Northeast of the Toll Plaza 14A, the SSA transects several Conrail railroad tracks, parking lots, the north and south bound lanes for New Jersey Routes 185 and 440, and open land covered in refuse, weeds, shrubs, and trees (see Figure 4.1; see Plates 4.10–4.11). A detention basin (HUC3-F) is proposed north of Caven Point Road, roughly 450 feet southwest of Linden Avenue on Block 30306, Lot 7 proximate to the previously identified Jersey Eagle Site (28-Hd-45) (see Figure 4.1). The area surrounding the Jersey Eagle Site is currently covered in low-lying weeds and light vegetation and does not appear to contain any surface-visible disturbance but does contain extensive fill, ranging from 6.0 to 7.9 feet thick, based on data from nearby prior archaeological excavations (see Figures 3.22–3.23, 4.1; see Plate 4.13). The soils present below the fill at the site closest to proposed basin HUC3-F consisted of a 0.82-foot thick very dark grayish brown (10YR 3/2) buried plowzone over a 0.32-foot thick interface, followed by a 0.45-foot thick olive gray (5Y 4/2) alluvium/B1-horizon, over a 0.59-foot thick yellowish brown (10YR 5/6) clay B2-horizon, above a strong brown (7.5YR 5/6) fine sand C-horizon (PAL 2013). A sandstone regolith was present in several of the excavations in the B2-horizon that made continued excavation impossible. Immediately west of the proposed basin, excavations conducted in 2013 by PAL reveals that modern fill in Segments 1, 2, and 3 is present to depths ranging from 6.6 to 7.5 feet bgs (see Figures 3.23–3.24).

RGA reviewed soil boring SWM-12(OW) dug at proposed basin HUC3-F (AmerCon Corp. 2022) which started at ground surface 18.5 feet above mean sea level. The top 7.0 feet of the boring profile contain black/brown and light gray sandy imported fill over an olive brown coarse fine sand that appears to represent a buried topsoil at 7.0 feet below ground surface (bgs) or 11.5 feet amsl, which capped subsoil at 9.0 feet bgs or 9.5 feet amsl that consisted of a reddish-brown coarse sand. The subsoil or B-horizon capped a light gray coarse to fine sand present from 11.0-13.0 feet bgs which terminated on a reddish brown coarse to fine sand that extended to 15.0 feet bgs. Boring excavation ended at 15.0 feet bgs. The data strongly suggests a different stratigraphic profile exists at proposed basin HUC3-F than that present at the Jersey Eagle Site to the northwest and that the natural soils in the proposed basin location were partially truncated and subject to a seasonally high water table, making them hydric and olive gray in color. The proposed basin, which will be installed to a depth of 5.0 feet bgs or 13.5 feet amsl, will not extend into the buried A-horizon, present at 11.5 feet amsl as discussed below in section 4.2.2.

With the exception of the aforementioned proposed basins located within the Marist High School property, the area at the Jersey Eagle Site, and within the footprint of the Morris Canal and former circa-1908 railroad turntable, the remainder of the land on which the proposed stormwater detention basins within the SSA will be situated is within or adjacent to the footprint of the NB-HCE and is disturbed (see Figure 4.1). The proposed basin near Interchange 14A in the southern part of the SSA has likely been disturbed through the installation of underground utilities, as well as the construction of the roadway and toll plaza (see Figure 4.1; see Plate 4.9).

4.2 Geotechnical Soil Boring Core and Test Pit Analysis from 2022

In a letter issued by NJDEP on May 22, 2023, the NJHPO specified that the analysis of geotechnical data was needed to identify areas of prior grading disturbance and the thickness of fill layers from previous road construction in the SSA. Where intact buried natural soil layers are present, comparison of the depths of such stratigraphy must be made with the proposed vertical excavation base depths for project elements, to decide if hand dug or mechanically assisted Phase IB archaeological survey is needed to determine the presence or absence of archaeological resources. Geotechnical data review is necessary to also eliminate areas of archaeological sensitivity and rule out areas of potential Phase IB archaeological survey. AmerCom Corp. conducted 20 geotechnical soil borings and excavated 3

test pits within the SSA, east of Newark Bay in 2022, the results of which are summarized below. The location of the 2022 borings is presented on Figures 4.2a–4.2c. Information from the 2022 geotechnical survey was supplemented utilizing information obtained from as-built maps created prior to the 1954 construction of the existing viaducts (Figures 4.3–4.7).

4.2.1 2022 Soil Borings within the City of Bayonne

The 2022 geotechnical soil boring logs for the City of Bayonne are located in Appendix D. Notes on these soil borings are provided within Table 4.1, and sample photographs of each boring, provided by AmerCom Corp., are included as Plates 4.14–4.22.

Table 4.1: Information on 2022 geotechnical soil borings and test pits in the City of Bayonne.

Location (City and Nearest Cross Street)	Proposed Basin or Pier	Soil Boring Number	Depth to Intact Soils Based on 2022 Soil Boring (ft)	Comments	Depth of Proposed Disturbance (ft), if available	Potential to Impact Ab-Horizon Soils
Bayonne, NJ Route 440	Structure No. N2.01ER / Pier 11	B1-29	Alluvium - 23.5 bgs (-12.8 amsl)	Infilled Newark Bay	-	No
Bayonne, NJ Route 440	Basin HUC2-E	SWM-31	Alluvium - 16.0 bgs (-8.0 amsl)	Infilled Newark Bay. Groundwater encountered at 5.9 feet bgs.	5.0 bgs	No
Bayonne, NJ Route 440	Structure No. N2.01ER/ Pier 13	B1-30(CH)	Alluvium -16.0 bgs (-6.1 amsl)	Infilled Newark Bay. Water table was encountered at 5.5 feet bgs and shell fragments were noted in the top 3.0 feet of imported fill.	-	No
Bayonne, NJ Route 440	Basin HUC2-F	SWM-32(OW)	Alluvium -12.0 bgs (1.0 amsl)	Infilled Newark Bay. Water Table identified at 5 feet bgs	5.0 bgs	No
Bayonne, NJ Route 440	Basin HUC2-G	SWM-33(OW)	Alluvium -11.0 bgs (8.0 amsl)	Infilled Newark Bay. Water Table identified at 2 feet bgs	7.0 bgs	No
Bayonne, NJ Route 440	Basin HUC2-H	SWM-34(OW)	Not encountered >22.0 bgs (5 amsl)	Infilled Newark Bay. Large brick and possible mortar fragments were noted between 11 and 13 feet bgs.	7.0 bgs	No
Bayonne, Leo Slyvious Road	Basin HUC2-I	SWM-35(OW)	Buried A-horizon - 6.0 bgs (27.3 amsl) B-horizon - 8.0 bgs (25.3 amsl)	Filling and Disturbance from construction of former Marist High School over buried, possibly intact soil profile. Groundwater was encountered at 7.8 feet bgs.	10.0 bgs	Yes

bgs = Below Ground Surface; amsl = Above Mean Sea Level ; bmsl = Below Mean Sea Level
- = Information Not Available or No Comment

Boring B1-29

Boring B1-29 was located at an elevation of 10.7 feet above mean sea level (amsl) within the former footprint of Newark Bay until the mid-twentieth century when the area was infilled to create man-made land (see Figure 4.2a). The boring excavation extended to a depth of 138.8 feet bgs (-128.1 feet below mean sea level [bmsl]) (see Appendix D). Based on the results of the geotechnical boring, it appears that this location contains 1.0 foot of black peat below 22.5 feet of brown and yellowish-brown sandy, recently imported fills. Organic black and gray silt, identified at 23.5 feet bgs (-12.8 feet bmsl), below the imported fills likely corresponds to naturally occurring hydric soil deposits related to the bed of Newark Bay (see Plate 4.14).

Boring SWM-31(OW)

Boring SWM-31(OW) (shown on Figure 4.2 as SWM-31) was placed at the location of proposed Basin HUC2-E in the existing eastern bridge viaduct approach at an elevation of roughly 8.0 feet amsl (see Figure 4.2a). This boring was also within the former footprint of Newark Bay prior to the 1950s (see

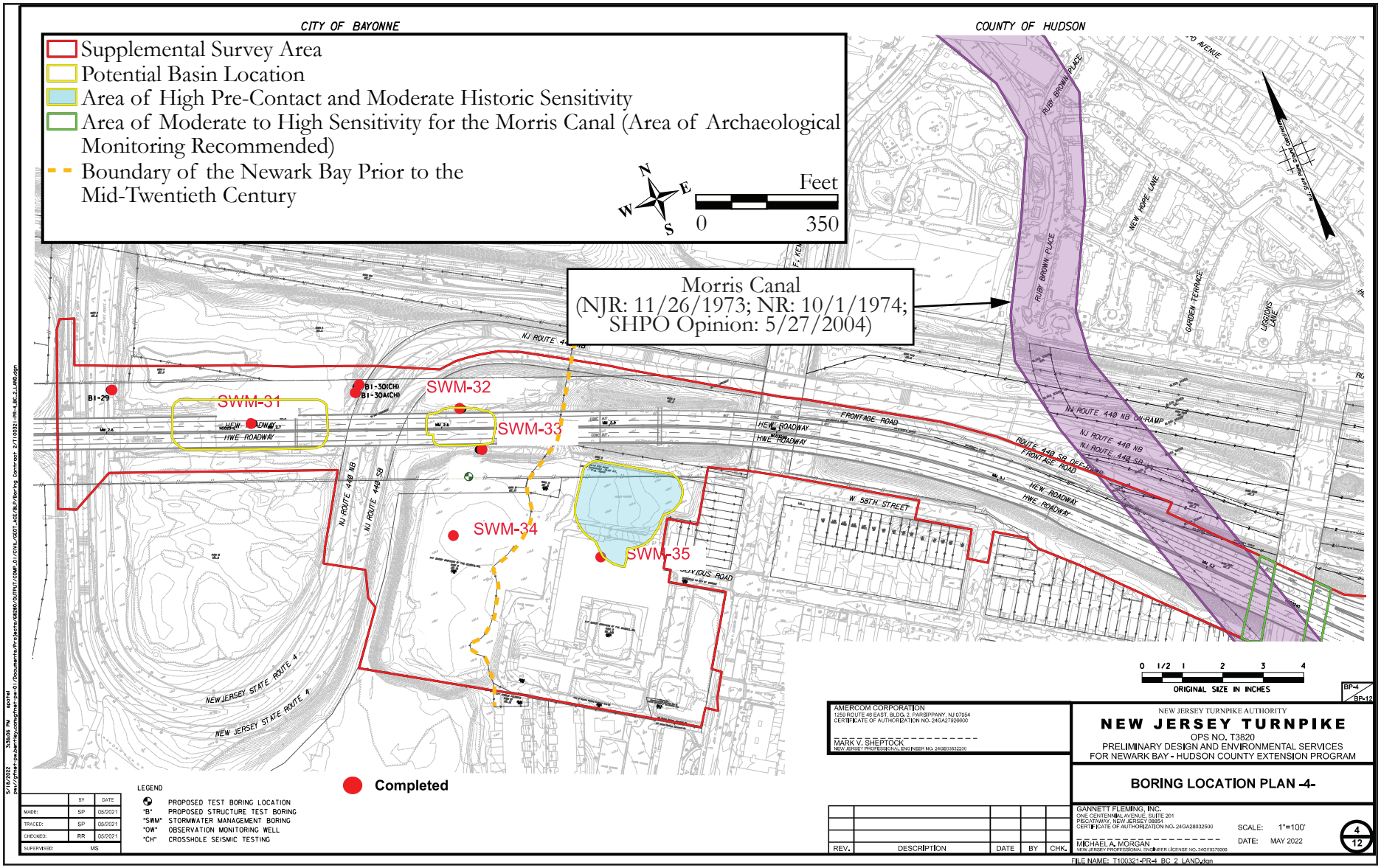


Figure 4.2a: 2022 Boring Location Plan
(Gannett Fleming, Inc. 2022a).

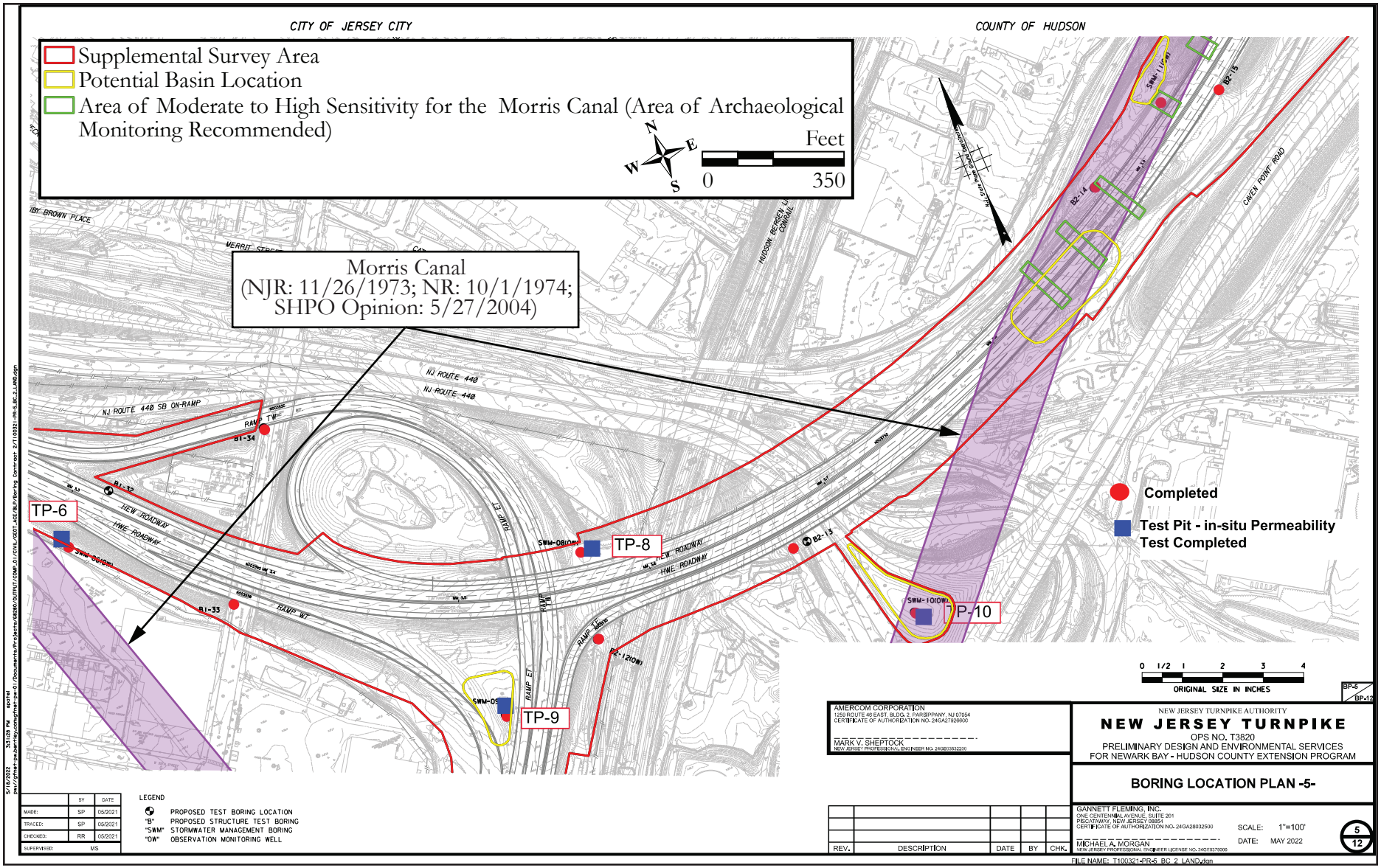


Figure 4.2b: 2022 Boring Location Plan
(Gannett Fleming, Inc. 2022a).

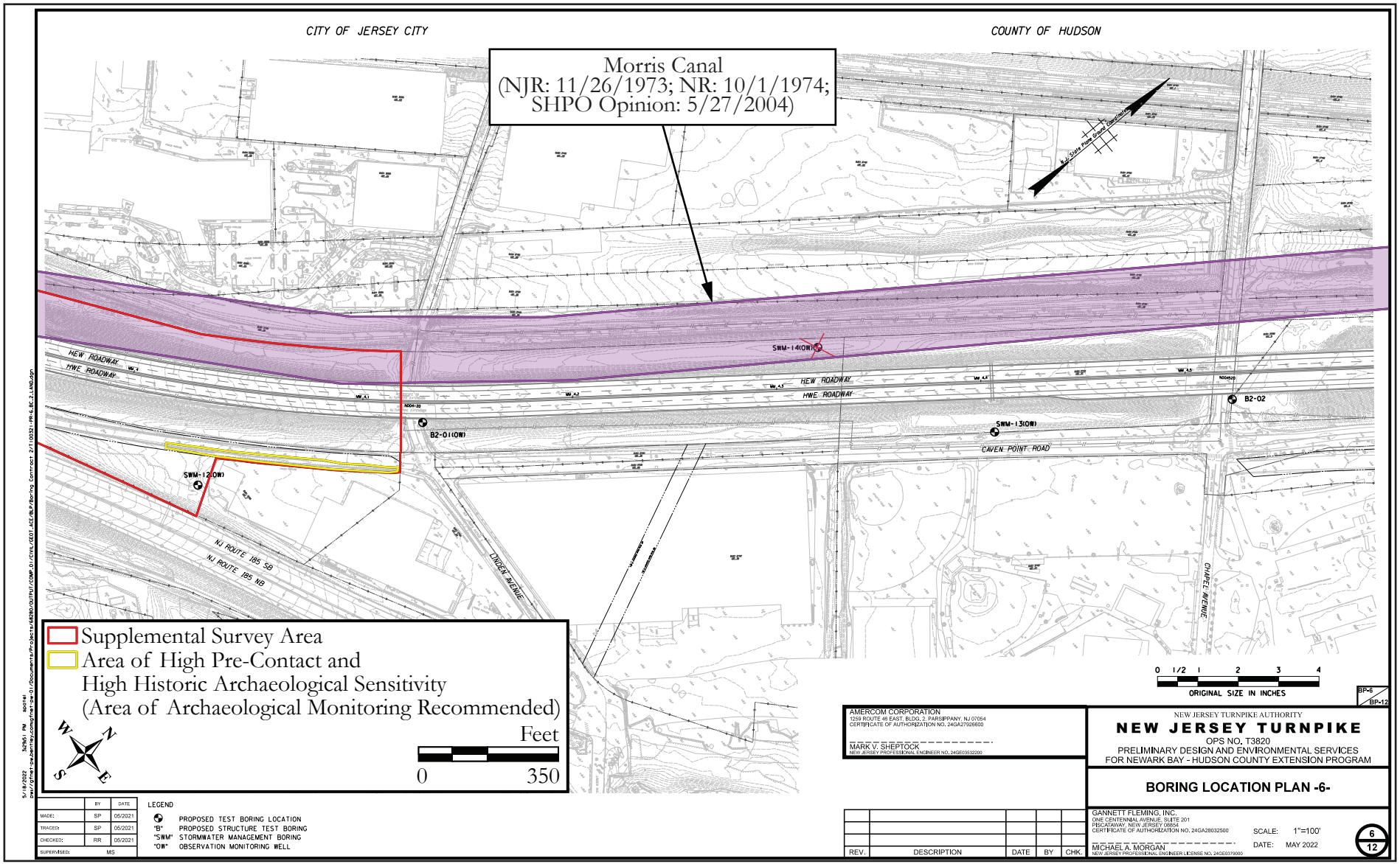


Figure 4.2c: 2022 Boring Location Plan
(Gannett Fleming, Inc. 2022a).

Plate 4.14: Geotechnical boring sample from Boring B1-29 showing soil sample at 25 to 27 feet bgs.

Image Provided by AmerCom Corp.

Plate 4.15: Geotechnical boring sample from Boring SWM-31(OW) showing soil sample at 14 to 16 feet bgs.

Image Provided by AmerCom Corp.

Plate 4.16: Geotechnical boring sample from Boring B1-30(CH) showing soil sample at 15 to 17 feet bgs.

Image Provided by AmerCom Corp.

Plate 4.17: Geotechnical boring sample from Boring SWM-32(OW) showing soil sample at 11 to 13 feet bgs.

Image Provided by AmerCom Corp.

Plate 4.18: Geotechnical boring sample from Boring SWM-34(OW) showing soil sample at 11 to 13 feet bgs.

Image Provided by AmerCom Corp.

Plate 4.19: Geotechnical boring sample from Boring SWM-34(OW) showing soil sample at 20 to 22 feet bgs.

Image Provided by AmerCom Corp.

Plate 4.20: Geotechnical boring sample from Boring SWM-35(OW) showing soil sample of fill deposits at 4 to 6 feet bgs.

Image Provided by AmerCom Corp.

Plate 4.21: Geotechnical boring sample from Boring SWM-35(OW) showing soil sample of Ab and B-horizon at 6 to 8 feet bgs.

Image Provided by AmerCom Corp.

Plate 4.22: Geotechnical boring sample from Boring SWM-35(OW) showing soil sample of subsoils at 8 to 10 feet bgs.

Image Provided by AmerCom Corp.

Figure 4.2a). The soil boring extended to a depth of 16.0 feet bgs (-8.0 bmsl) and groundwater was reached at 5.9 feet (see Appendix D). Results indicate that this area contains at least 16.0 feet of light and dark gray, black, or brown sand and gravel that was imported to infill the Newark Bay to create man-made land. No naturally occurring soils were encountered within the boring (see Plate 4.15).

Boring B1-30(CH)
Boring B1-30(CH) is within the former footprint of Newark Bay at an elevation of 9.9 feet amsl (see Figure 4.2a). The soil boring excavation extended to a depth of 115.3 feet bgs (-105.4 bmsl). The top 16 feet of the boring consisted of imported fill, mostly brown sand. The top 3.0 feet of the boring sample contained traces of shell fragments, and the water table was encountered at 4.4 and 5.5 feet bgs (see Appendix D). Naturally occurring dark gray sand and organic silt associated with the Newark Bay bed was identified at a depth of 16.0 feet bgs (-6.1 feet bmsl) (see Plate 4.16).

Boring SWM-32(OW)
Boring SWM-32(OW) (shown on Figure 4.2a as SWM-32) was located at the proposed location of Basin HUC2-F in the existing eastern bridge viaduct approach at an elevation of approximately 11.0 feet amsl. The boring excavation extended to a depth of 15.0 feet bgs (-4.0 bmsl) (see Figure 4.2a). This area is also within the footprint of the former Newark Bay and groundwater was encountered at 5.0 feet bgs. The top 12.0 feet of the boring contained imported fills of brown, dark brown, reddish-brown, and black-brown sands to create man-made land (see Appendix D). The fills capped a dark gray sand at a depth of 12.0 feet bgs (1.0 amsl), which appears to represent a natural hydric soil associated with Newark Bay (see Plate 4.17).

Boring SWM-33(OW)
Boring SWM-33(OW) (shown on Figure 4.2a as SWM-33) was placed at the location of proposed Basin HUC2-G at an elevation of approximately 19.0 feet amsl. This boring was also located within the former Newark Bay footprint (see Figure 4.2a). The boring was excavated to a depth of 15 feet bgs (-4.0 bmsl) and the water table was first encountered at 2.0 feet bgs. No photographs of this boring are available, so the interpretation of the soils relied exclusively on the soil boring log (see Appendix D). The boring demonstrates that this area contains 11.0 feet of light and dark brown sandy fill capping an organic gray silt. This gray silt likely represents the bed of Newark Bay.

Boring SWM-34(OW)
Boring SWM-34(OW) (shown on Figure 4.2a as SWM-34) was dug west of the former Marist High School at an elevation of 27 feet amsl (see Figure 4.2a). The soil boring excavation reached a depth of 22 feet bgs (5.0 amsl). It does not appear that naturally formed soil deposits were encountered as the boring was dug on a high man-made terrace created prior to the 1950s within Newark Bay. The soils within the soil boring consisted of 22.0 feet of brown, red brown, yellow brown, light brown, light gray sandy fill. Large brick fragments and possible mortar were noted at a depth between 11 and 13 feet bgs (see Plates 4.18–4.19; see Appendix D).

Boring SWM-35(OW)
Boring SWM-35(OW) (shown on Figure 4.2a as SWM-35) was placed within the footprint of the former Marist High School building near the edge of proposed Basin HUC2-I. This area is at an elevation of 33.3 feet amsl and was excavated to 15.0 feet bgs (18.3 amsl) near the edge of the natural terrace that overlooked Newark Bay (see Figure 4.2a). Groundwater was present at 7.8 feet bgs. The soil boring revealed imported fills to a depth of 6.0 bgs feet comprised of dark brown, light gray/red, brown/red sand with brick fragments noted throughout (see Plate 4.20). The fills are likely associated with the construction and demolition of the former Marist High School building and prior, early twentieth-century grade filling to create a flat land surface on Block 13, Lots 1 and 15. The fills cap a sandy, brown buried A-horizon (Ab) at roughly 6.0 feet bgs (27.3 amsl) over a B-horizon of reddish-brown sand at approximate 8.0 feet bgs (25.3 amsl) (Plates 4.21–4.22; see Appendix D).

4.2.2 2022 Soil Borings and Test Pit Excavation within Jersey City

The 2022 geotechnical soil boring logs for the City of Jersey City are located in Appendix D. Notes on these soil borings are provided within Table 4.2, and sample photographs of each boring, provided by AmerCom Corp., are included as Plates 4.23–4.42.

TP-6

Test Pit (TP)-6 was located at an elevation of 21.3 feet amsl (see Figure 4.2b). Examination of the exposed soil profile in TP-6 indicated that this area contained imported fill deposits to a depth of at least 8.5 feet (12.8 feet amsl). The fill emplacement is visible in a 1950s photograph (see Figure 3.18). These fills included dark gray sand, reddish-brown silt, and dark yellowish-brown sand. Coal ash was present at the base of the test pit (see Plate 4.23). Groundwater was encountered at 8.5 feet bgs in the coal ash (see Plate 4.23; see Appendix D). No natural soils were encountered.

Boring SWM-06(OW)

Boring SWM-06(OW) was located at an elevation of approximately 21.0 feet amsl next to Test Pit 9 and was excavated to a depth of 15.0 feet bgs (6.0 feet amsl) (see Figure 4.2b). Groundwater was encountered at a depth of 5.0 feet bgs. Boring SWM-06(OW) contained multiple imported fill deposits over hydric wetlands soils. The fills consisted of roughly 5.0 feet of a grayish brown/black sand over roughly 6.0 feet of coal ash and brick deposits (see Plate 4.24). The coal and brick fills may represent modification of the terrain for railroad purposes. Hydric soils were encountered at 11.0 feet bgs (10.0 feet amsl) (see Plate 4.25).

Boring B1-33

Boring B1-33 was excavated at an elevation of 18.0 feet amsl at Garfield Avenue and continued to a depth of 40 feet bgs (17.6 feet amsl) (see Figure 4.2b). The soil boring revealed imported fill of dark brown, grayish-brown, and reddish-brown sand to a depth of roughly 18.5 feet bgs (13.0 feet amsl) (see see Appendix D). The fill sits atop decomposing rock, likely bedrock (see Plate 4.26-4.27).

A review of soil borings 134, 136, 138, and 723 excavated in 1954 near Boring B1-33 (Figure 4.5; see Appendix I) indicate vastly varying thickness of cinder fill over truncated natural soils. At boring 134, present at an elevation of 19.3 feet amsl, cinder fill extended to a depth of 4.3 feet amsl or 15 feet bgs over sandy clay and gravel. Nearby, boring 136, dug at an elevation of 19.6 feet amsl, contained cinder fill to a depth of 11.6 feet amsl or 8.0 feet bgs over very compact brown sandy clay. Nearby boring 138 on the east side of the road, contained loose cinder and soil fill from 19.1 feet amsl to 6.1 feet amsl over brown silt. At boring 723, dug at an elevation of 19.8 feet amsl, cinder fill extended to 10.8 feet amsl or 9.0 feet bgs over gray gravel and ground water was present at 18.8 feet amsl. It appears that during construction of the NJT, roughly 1.0 to 1.5 feet of ground surface was removed at Garfield Avenue, accounting for the difference in elevation.

Boring B1-34

Boring B1-34 was placed at an elevation of 20.3 feet amsl. Excavations for this boring extended to a depth of 37 feet bgs (-16.7 bmsl) and groundwater was first encountered at 4.5 feet bgs or 15.8 feet amsl (see Figure 4.2b). This soil boring appears to contain roughly 37 feet of truncated reddish-brown sand and gravel subsoil or substratum (see Plate 4.28) (see Appendix D). A review of soil borings 732 and 735 completed for the Ramp C bridge over Garfield Avenue in 1954 (Figure 4.6; see Appendix I) dug at elevations of 20.8 feet amsl and 21.3 feet amsl, respectively, reveals the presence of red to reddish-brown soil consisting of decomposing shale and sand with clay. Groundwater was present at 19.4 feet amsl and 18.1 feet amsl, respectively. The color of the soil reveals the presence of truncated subsoil or substratum and does not correspond with the data from Boring B1-34.

TP-8

Test Pit (TP)-8 was located at an elevation of 20.0 feet amsl (see Figure 4.2b). The test pit was terminated and groundwater was encountered at a depth of 10.0 feet bgs (10.0 feet amsl). The soil profile for TP-8 demonstrated a dark reddish-brown, reddish/orangey brown sand, and dark gray clay and silt imported fills to the base of the test pit (see Plate 4.29; see Appendix D). No natural soils were encountered within TP-8.

Table 4.2: Information on 2022 geotechnical soil borings and test pits in the City of Jersey City.

Location (City and Nearest Cross Street)	Proposed Basin or Pier	Soil Boring Number	Depth to Intact Soils Based on 2022 Soil Boring (ft)	Comments	Depth of Proposed Disturbance (ft), if available	Potential to Impact Ab-Horizon Soils
Jersey City, Avenue C	-	TP-6	Not encountered >8.5 bgs (12.8 amsl)	Groundwater was encountered at 8.5 feet bgs.	-	Unknown
Jersey City, Avenue C	No proposed basin at this location	SWM-06(OW)	Alluvium -11.0 bgs (10 feet amsl)	Groundwater encountered at 5.0 feet bgs. Within the footprint of the Morris Canal. Contains roughly 6.0 feet of coal and brick deposits possibly associated with the filling of the Canal.	-	No; Possible Morris Canal deposits present
Jersey City, Garfield Avenue	Structure No. N3.39R/ West	B1-33	Bedrock- 18.5 feet (-0.5 feet amsl)	1954 boring indicate cinder fill over truncated natural soils.	-	No
Jersey City, Garfield Avenue	-	B1-34	37 feet of truncated subsoil	Groundwater was first encountered at 4.5 feet bgs	-	No
Jersey City, NJ Route 440	Structure No. N3.73R/ Pier 2	TP-8	Not encountered 10.0 bgs (10 amsl)	Groundwater was encountered at 10.0 feet bgs	-	Unknown
Jersey City, NJ Route 440	No proposed basin at this location	SWM-08(OW)	Alluvium - 9.0 bgs (11 amsl)	-	-	No
Jersey City, Interchange 14A	Basin HUC3-A	TP-9	Alluvium - 5.5 bgs (17.5 amsl)	Water table was noted at 9.0 feet bgs		No
Jersey City, Interchange 14A	Basin HUC3-A	SWM-09(OW)	Alluvium - 5.0 bgs (18 amsl)	Water table was noted at 6.5 feet bgs	4.0 feet	No
Jersey City, Interchange 14A	Structure No. N3.53DR/ Piers TE-1 and TE-2	B2-12(OW)	Alluvium - 11.0 bgs	-	-	No
Unknown	Unknown	B2-12B(OW)	Information is not complete for this boring	-	-	-
Jersey City, Route NJ 440	Structure No. N3.73R/ Piers 5 and 6	B2-13	Possible truncated subsoil a- 6.0 bgs (35 amsl)	Truncated subsoil may be present over decomposing bedrock	-	No
Jersey City, NJ Route 440 and Caven Point Road	Basin HUC3-C	TP-10	Not encountered >8.0 bgs (31.5 amsl)	Water table encountered at 8.0 feet bgs. Debris (i.e., concrete, fabric, and metal rebar) were noted in the upper fill deposits. The fills present may represent demolition fill associated with the turntable removal.	-	No

Table 4.2; continued.

Location (City and Nearest Cross Street)	Proposed Basin or Pier	Soil Boring Number	Depth to Intact Soils Based on 2022 Soil Boring (ft)	Comments	Depth of Proposed Disturbance (ft), if available	Potential to Impact Ab-Horizon Soils
Jersey City, NJ Route 440 and Caven Point Road	Basin HUC3-C	SMW-10(OW)	Not encountered >9.6 bgs (29.9 amsl)	Water table was reached at 5.5 feet bgs. Fragments of brick and possible concrete were noted at the base of the boring excavation. The fills present may represent infilled Morris Canal deposits or demolition fill associated with the turntable removal.	7.0 bgs	No
Jersey City, Linden Avenue East	Structure No. N3.73R/ Pier 15	B2-14	Organic buried wetlands at 9.0 feet bgs (10.1 feet amsl)	Groundwater encountered at 11.0 feet bgs.	-	No, but possible Morris Canal deposits may be impacted
Jersey City, Linden Avenue East	Basin HUC3-E	SWM-11(OW)	Not encountered >15 feet bgs (4.8 amsl)	Water table was noted at a depth of 6.0 feet bgs.	3.0 bgs	No
Jersey City, Linden Avenue East and Caven Point Road	Structure No. N3.73R/ East Abutment	B2-15	Ab-horizon at 11 feet bgs (15.6 amsl)	-	-	Unlikely
Jersey City, NJ Route 185 and Linden Avenue	HUC3-F	SWM-12(OW)	Alluvium or B-horizon at 5.0 bgs (13.5 amsl)	Hydric soils	5.0 bgs	Possible if excavations surpass 5.0 feet

bgs = Below Ground Surface; amsl = Above Mean Sea Level ; bmsl = Below Mean Sea Level
- = Information Not Available or No Comment

SWM-08(OW)
Boring SWM-08(OW) was placed at an elevation of 20 feet amsl adjacent to TP-8 (see Figure 4.2b). The boring information revealed that this area contained roughly 9.0 feet of brown, dark gray/black and grayish-brown sandy imported fills (see Plate 4.30; see Appendix D). The fills capped possible hydric soil at 9.0 feet bgs (11.0 feet amsl).

TP-9
Test Pit (TP)-9 was placed at proposed Basin HUC3-A at an elevation of 23 feet amsl and was excavated to a depth of 9.0 feet bgs (14.0 feet amsl) (see Figure 4.2b). The water table was also encountered at a depth of 9.0 feet bgs (14.0 amsl). Test pit excavation revealed that 5.5 feet of imported fills, consisting of dark reddish-brown, dark yellowish-brown, and yellowish/grayish brown sand were present above a truncated substratum that capped a hydric dark gray clay and silt. The hydric soils were encountered at a depth 5.5 feet bgs (17.5 feet amsl) (see Plate 4.31; see Appendix D).

SWM-09(OW)
Boring SWM-09(OW) was placed in proximity to TP-9 at proposed Basin HUC3-A at an elevation of approximately 20.0 feet amsl (see Figure 4.2b). Groundwater was noted at a depth of 6.5 feet bgs. The boring revealed that this area contained roughly 5.0 feet of light gray, dark gray, white, brown, and black sandy fill over a hydric light gray/black sand with gravel, similar to TP-9 (see Plate 4.32; see Appendix D).

Plate 4.23: Overview of TP-6 showing soil profile.

Image Provided by AmerCom Corp.

Plate 4.24: Geotechnical boring sample from Boring SWM-06(OW) showing soil sample of fills at 7 to 9 feet.

Image Provided by AmerCom Corp.

Plate 4.25: Geotechnical boring sample from Boring SWM-06(OW) showing soil sample of hydric soils at 11 to 13 feet.

Image Provided by AmerCom Corp.

Plate 4.26: Geotechnical boring sample from Boring SWM-33 showing soil sample at 5 to 7 feet.

Image Provided by AmerCom Corp.

Plate 4.27: Geotechnical boring sample from Boring SWM-33 showing a soil profile at 7 to 9 feet.

Image Provided by AmerCom Corp.

Plate 4.28: Geotechnical boring sample from Boring SWM-34 showing soil sample of truncaetd B-horizon.

Image Provided by AmerCom Corp.

Plate 4.29: Overview of TP-8 showing soil profile.

Image Provided by AmerCom Corp.

Plate 4.30: Geotechnical boring sample from Boring SWM-08(OW) showing soil sample of possible hydric soils at 9 to 11 feet bgs.

Image Provided by AmerCom Corp.

Plate 4.31: Overview of TP-9 showing soil profile.

Image Provided by AmerCom Corp.

Plate 4.32: Geotechnical boring sample from Boring SWM-09(OW) showing soil sample of possible hydric soils at 5 to 7 feet bgs.

Image Provided by AmerCom Corp.

Plate 4.33: Geotechnical boring sample from Boring B2-12(OW) showing soil sample of possible Ab-horizon at 11 to 13 feet bgs.

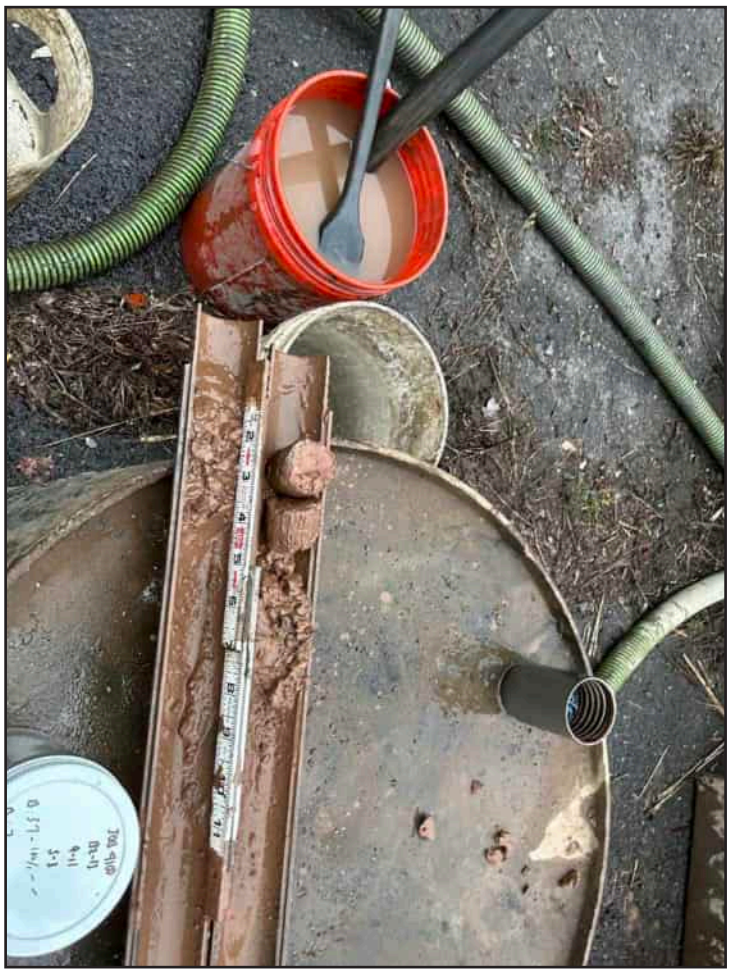
Image Provided by AmerCom Corp.

Plate 4.34: Geotechnical boring sample from Boring B2-12(OW) showing soil sample of possible subsoils at 15 to 17 feet bgs.

Image Provided by AmerCom Corp.

Plate 4.35: Geotechnical boring sample from Boring B2-13 showing soil sample of possible subsoils at 9 to 11 feet bgs.

Image Provided by AmerCom Corp.



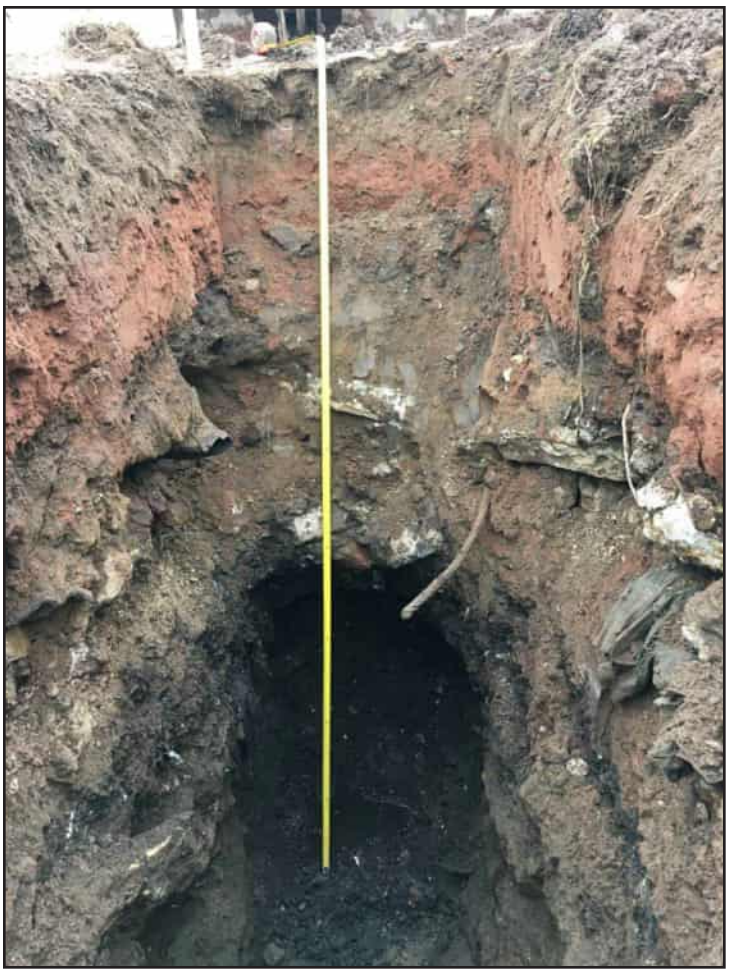


Plate 4.36: Overview of TP-10 showing soil profile.

Image Provided by AmerCom Corp.

Plate 4.37: Geotechnical boring sample from Boring SWM-10(OW) showing soil sample of fill at 9 to 11 feet bgs.

Image Provided by AmerCom Corp.

Plate 4.38: Geotechnical boring sample from Boring B2-14 showing soil sample at 9 to 11 feet bgs.

Image Provided by AmerCom Corp.

Plate 4.39: Geotechnical boring sample from Boring SWM-11(OW) showing soil sample of fill at 13 to 15 feet bgs.

Image Provided by AmerCom Corp.

Plate 4.40: Geotechnical boring sample from Boring B2-15 showing soil sample from 11 to 13 feet bgs.

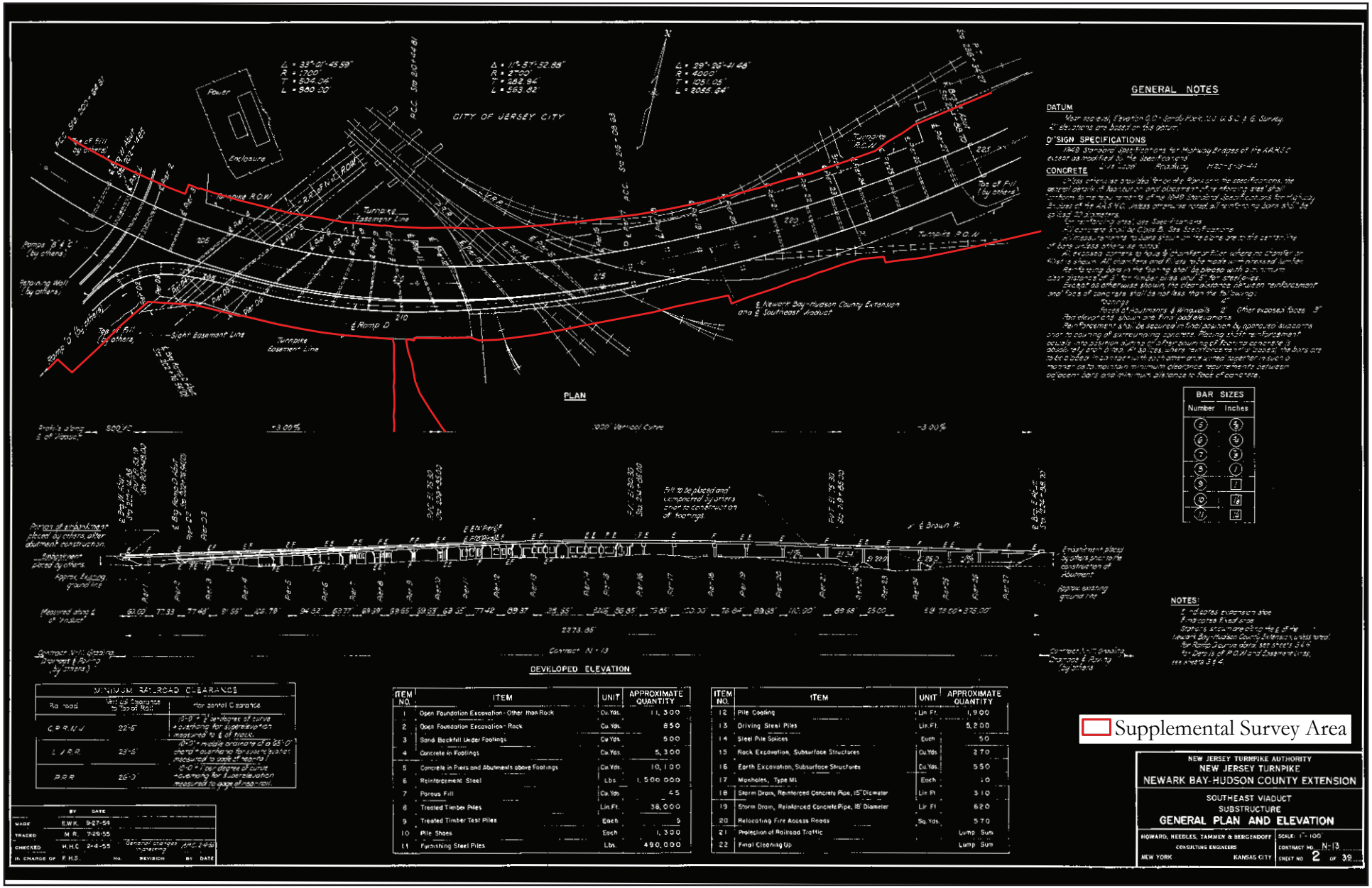
Image Provided by AmerCom Corp.

Plate 4.41: Geotechnical boring sample from Boring SWM-12(OW) showing soil sample of from 7 to 9 feet bgs.

Image Provided by AmerCom Corp.

Plate 4.42: Geotechnical boring sample from Boring SWM-12(OW) showing soil sample of from 9 to 11 feet bgs.

Image Provided by AmerCom Corp.



ITEM NO.	ITEM	UNIT	APPROXIMATE QUANTITY
1	Open Foundation Excavation - Other than Rock	Cu. Yds.	11,300
2	Open Foundation Excavation - Rock	Cu. Yds.	850
3	Sand Backfill Under Footings	Cu Yds.	500
4	Concrete in Footings	Cu. Yds.	5,300
5	Concrete in Piers and Abutments above Footings	Cu. Yds.	10,100
6	Reinforcement Steel	Lbs.	1,500,000
7	Porous Fill	Cu. Yds.	45
8	Treated Timber Piles	Lin. Ft.	38,000
9	Treated Timber Test Piles	Each	5
10	Pile Shoes	Each	1,300
11	Furnishing Steel Piles	Lbs.	490,000

ITEM NO.	ITEM	UNIT	APPROXIMATE QUANTITY
12	Pile Coating	Lin Ft.	1,900
13	Driving Steel Piles	Lin.Ft.	5,200
14	Steel Pile Splices	Each	50
15	Rock Excavation, Subsurface Structures	Cu.Yds.	270
16	Earth Excavation, Subsurface Structures	Cu.Yds.	550
17	Manholes, Type M1	Each	10
18	Storm Drain, Reinforced Concrete Pipe, 15" Diameter	Lin Ft	310
19	Storm Drain, Reinforced Concrete Pipe, 18" Diameter	Lin Ft	620
20	Relocating Fire Access Roads	Sq. Yds.	570
21	Protection of Railroad Traffic		Lump Sum
22	Final Cleaning Up		Lump Sum

Figure 4.3: Southeast Viaduct Substructure, General Plan and Elevation (Howard, Needles, Tammen and Bergendoff 1954a).

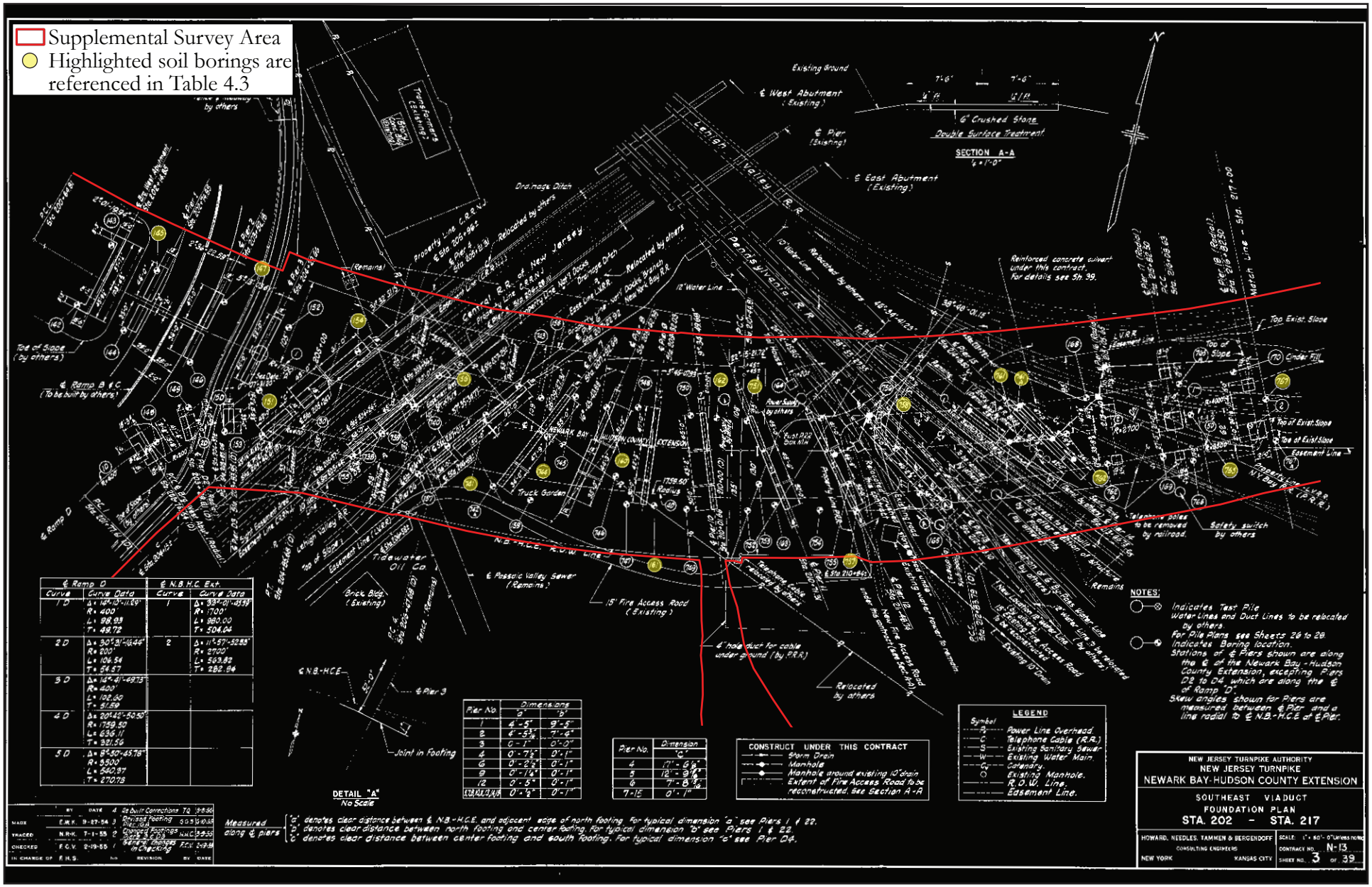


Figure 4.4a: Southeast Viaduct Foundation Plan, Station 202-Station 217, showing soil boring locations (Howard, Needles, Tammen and Bergendoff 1954a).

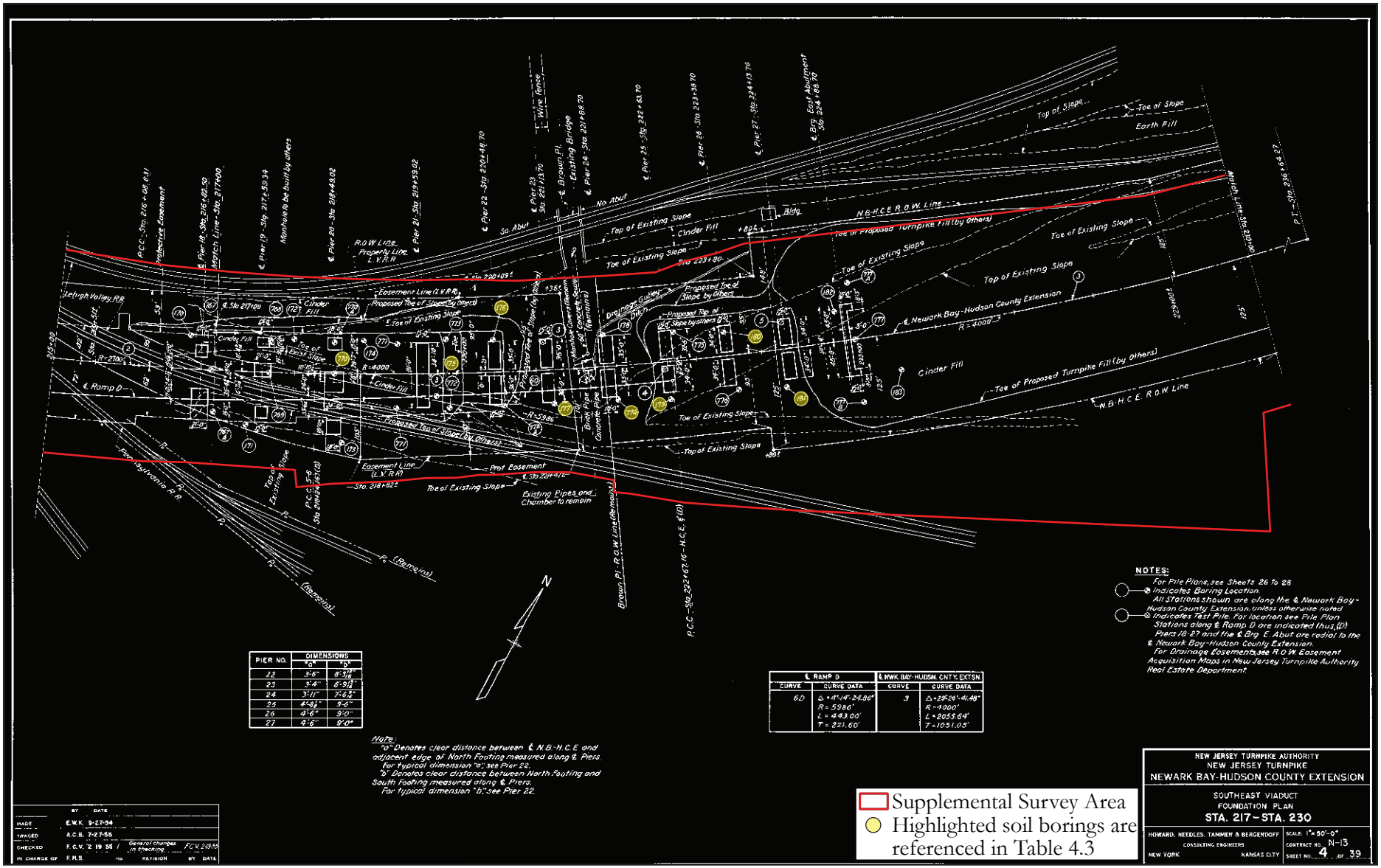


Figure 4.4b: Southeast Viaduct Foundation Plan, Station 217-Station 230, showing soil boring locations (Howard, Needles, Tammen and Bergendoff 1954a).

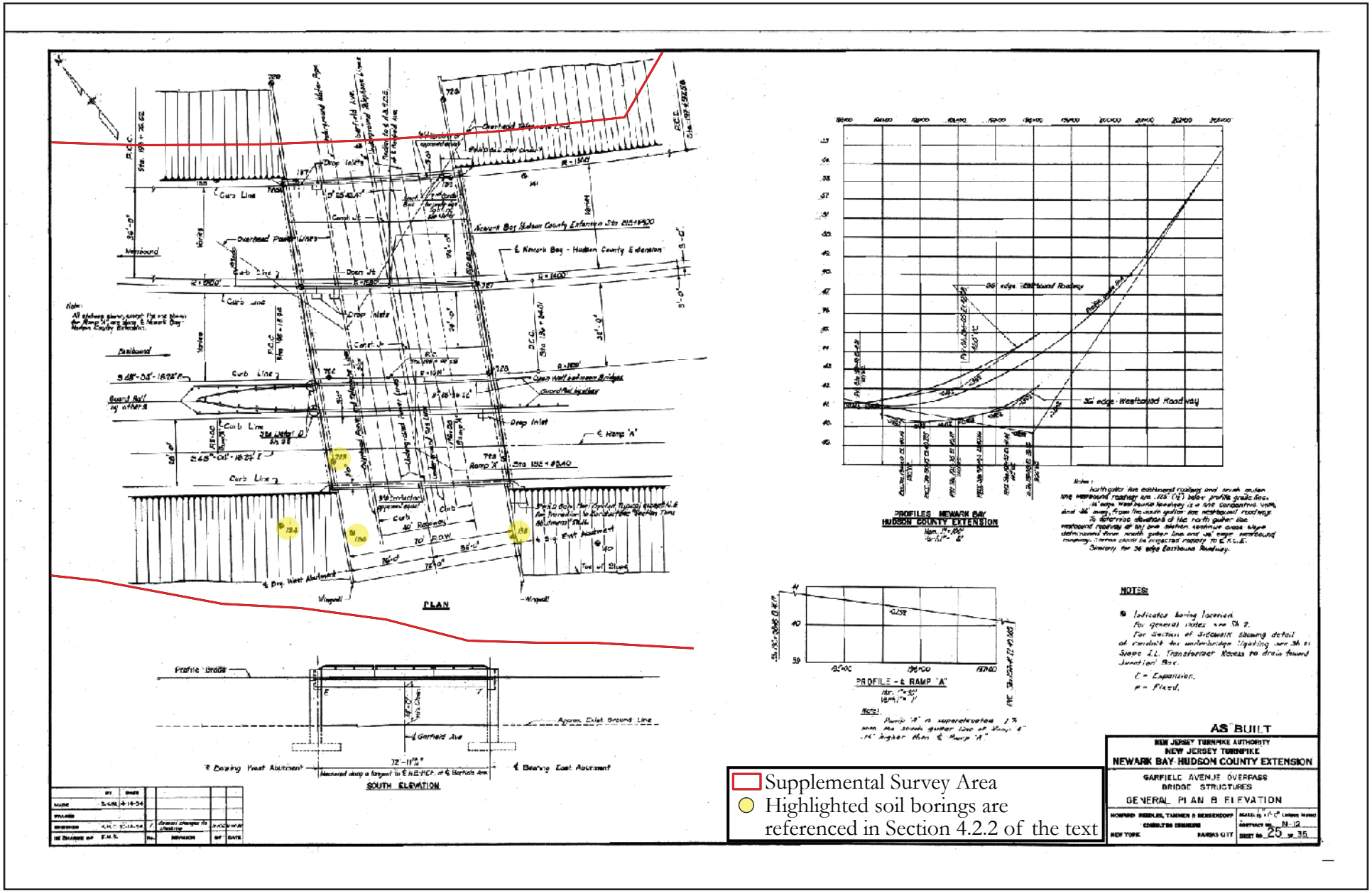


Figure 4.5: Garfield Avenue Overpass Bridge Structures, General Plan and Elevation, showing soil boring locations (Howard, Needles, Tammen and Bergendoff 1954b).

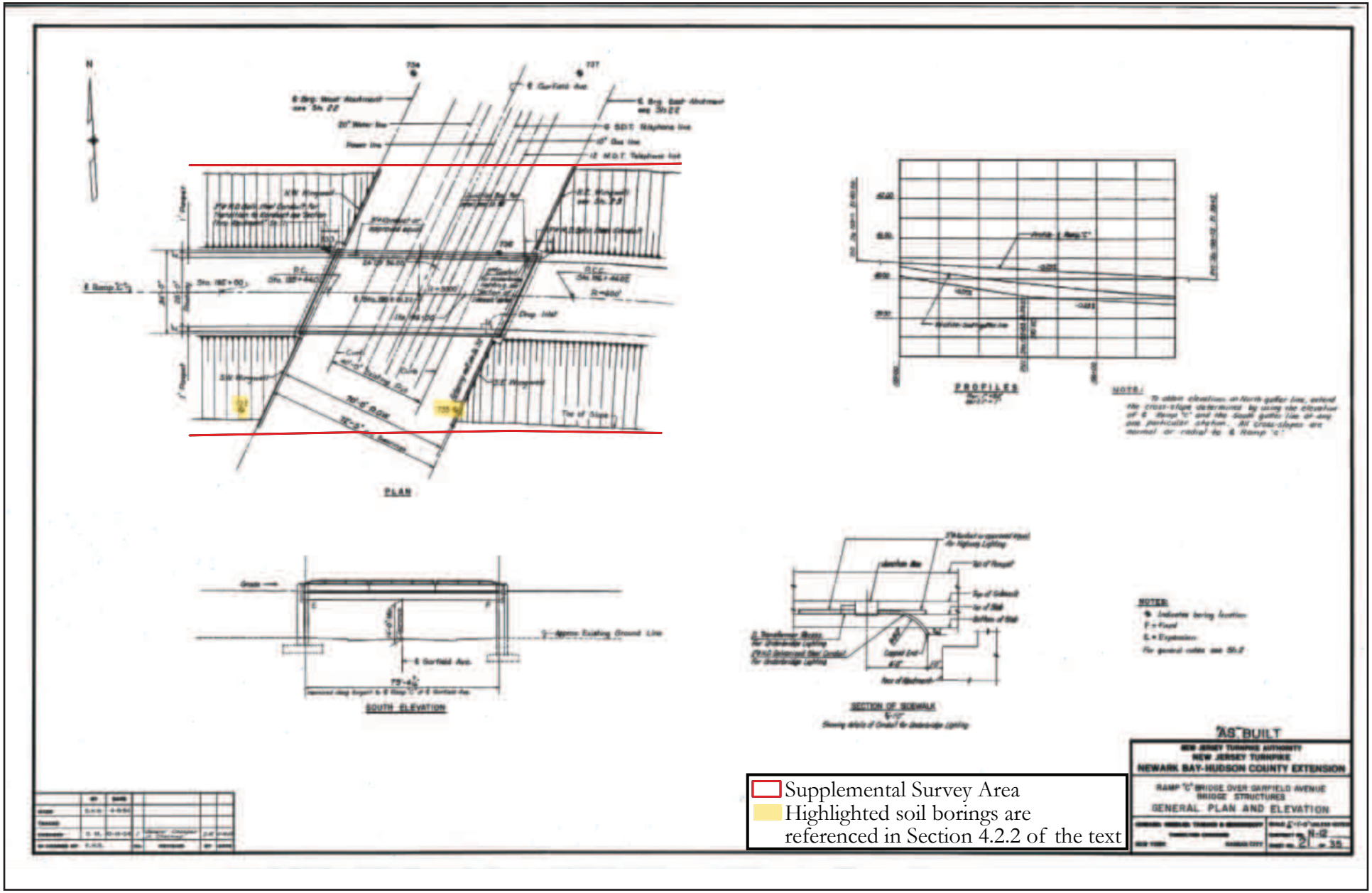


Figure 4.6: Ramp C Overpass Bridge Structures, General Plan and Elevation, showing soil boring locations (Howard, Needles, Tammen and Bergendoff 1954b).

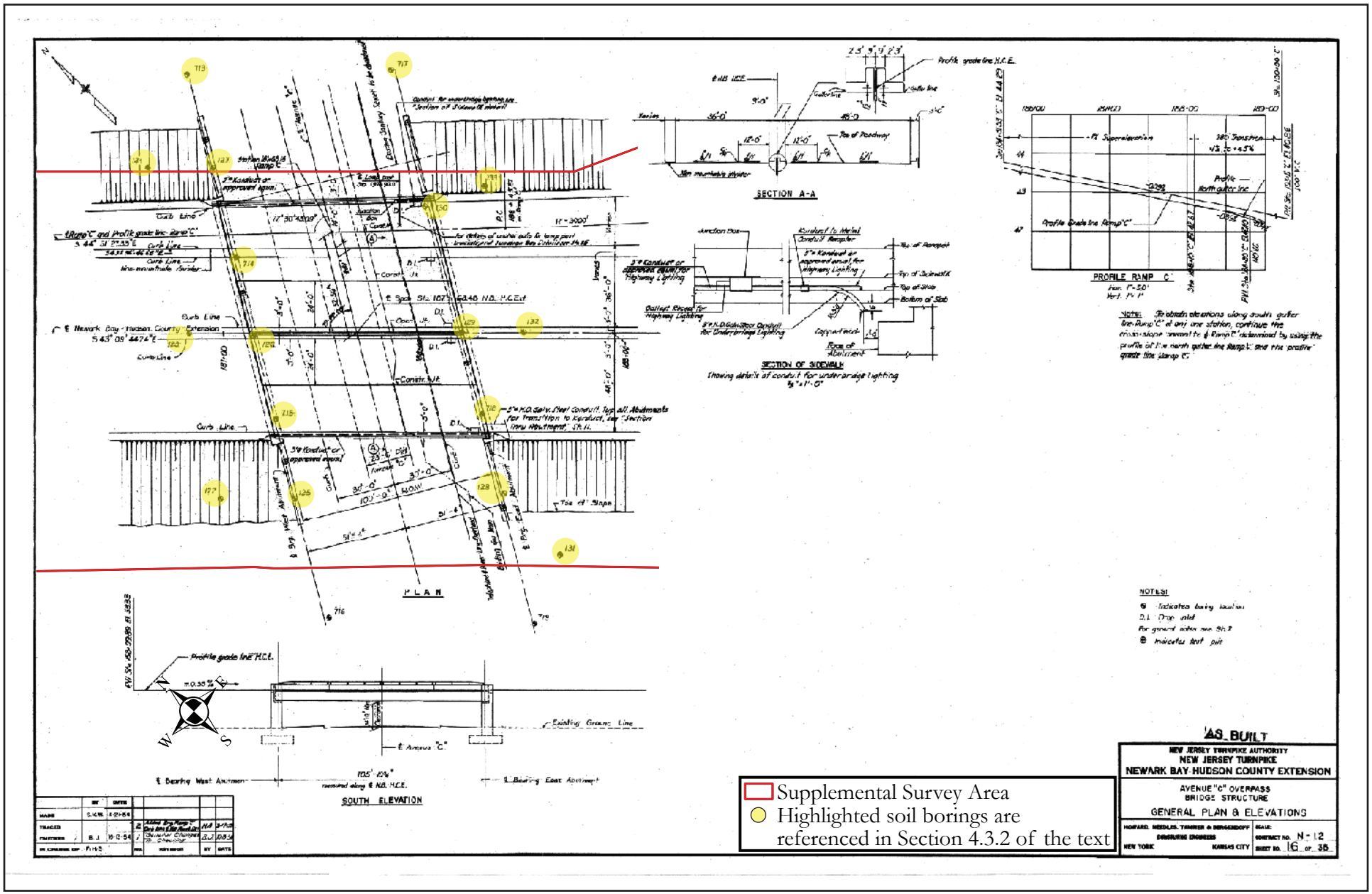


Figure 4.7: Avenue C Overpass Bridge Structures, General Plan and Elevation, showing soil boring locations (Howard, Needles, Tammen and Bergendoff 1954b).

Boring B2-12(OW)
Boring B2-12(OW) was located between the Hudson Bergen Light Rail/Conrail and Ramp TE at an elevation of 22.6 feet amsl and was excavated to a depth of 52.5 feet bgs (see Figure 4.2b). The results of this soil boring revealed that this area contains approximately 11.0 feet of dark gray, dark brown, dark gray, and gray/brown/white sandy fill over a grayish brown sand present at 11.6 feet amsl, which transitions into reddish-brown sand. These soils, underlying the fill appear to represent wetland soils (see Plates 4.33–4.34; see Appendix D).

Boring B2-12B(OW)
Information for this boring is not complete but is supplemented by 1954 geotechnical boring data near 1954 Pier 4 as described in section 4.2.3 below for boring 154 which contained 5.0 feet of fill to a depth of 15.2 feet amsl.

Boring B2-13
Boring B2-13 was positioned at an elevation of 41 feet amsl and excavation of the boing continued to a depth of 21.0 feet bgs (20.0 feet amsl) (see Figure 4.2b). Based on the soil boring, it was determined that this area contained roughly 6.0 feet of grayish-brown/black and gray/black imported fill over reddish-brown sand and decomposing rock. The latter stratum, present at 6.0 feet bgs (35.0 feet amsl), may represent a naturally occurring subsoil (see Plates 4.35; see Appendix D). This boring was drilled proximate to 1954 boring 161 dug for existing Pier 9, as described in section 4.2.3 below (see Appendix H), which was present at 38.8 feet amsl and contained cinder fill to 36.8 feet amsl, over 2.5 feet of truncated sandy clay gravel present to 34.3 feet amsl that capped gray trap rock. Data reveals that this location has been deeply graded.

TP-10
Test Pit (TP)-10 was placed at an elevation of 39.5 feet amsl at proposed basin HUC3-C (see Figure 4.2b). The boring excavation continued to a depth of 8.0 feet bgs, which was also the depth that the water table was encountered. The soils within the test pit were identified as imported fills that were represented by dark grayish-brown sand, bright reddish-brown silt, and dark grayish-brown sand to the base of excavation at 8.0 feet (31.5 amsl) (see Plate 4.36; see Appendix D). Debris (i.e., large concrete chunks, fabric, and metal rebar) were noted in the upper fill deposits (see Plate 4.35). The fills present redeposited demolition material resulting from the removal of the circa-1908 New York Bay Railroad turntable and roundhouse (see Figures 3.12, 3.14b, and 3.15c). Historic maps and aerial images reveal that the Morris Canal was located to the east of the SSA and the proposed basin in the approximate footprint of Route 185. No naturally occurring soils were encountered and no intact evidence of the turntable was present in TP-10.

Boring SMW-10(OW)
Boring SMW-10(OW) was located at an elevation of 39.5 feet amsl near TP-10 at the proposed location of Basin HUC3-C (see Figure 4.2b). Boring SMW-10(OW) contained 9.6 feet of imported/redeposited fill and demolition material consisting of brown/black, brown/black/gray and white/black gray sand and gravel. Fragments of brick and concrete were noted at the base of the boring excavation (see Plate 4.37; see Appendix D). The fills present removal of the turntable and soil relocation activities that were conducted for the construction of Route 440 interchange with Route 185. The roundhouse building was removed between 1931 and 1954 (NETR 1931, 1954) and the turntable was removed in 1987 when Route 185 was constructed. Construction equipment is visible conducting earthmoving activities at the proposed basin in 1987 (NETR 1987).

Boring B2-14
This boring was situated at an elevation of 19.1 feet amsl and continued to a depth of 55.5 feet bgs (-36.4 feet bmsl) (Figure 4.2b). Groundwater was encountered at a depth of 11.0 feet bgs (8.1 feet amsl). The results of the soil boring reveal a dark gray gravel fill over a yellowish-brown sand at roughly 9.0 feet bgs (10.1 amsl), which capped a dark gray organic buried wetland soil (see Plate 4.38; see Appendix D). The yellowish-brown sand was likely installed in 1954 with the roughly 10 feet that was imported before the pier was installed based on as-built viaduct plans (see Appendix H). Boring B2-14 was excavated near existing Pier 22 and its associated 1954 borings 176 and 772A. In 1954, the

grade at this location was at 11.4 feet amsl, 7.7 feet lower in elevation than today. Of these, Boring 176 was dug at an elevation of 11.4 feet amsl. Cinder fill was present to a depth of 3.4 feet amsl over 6.0 feet of black organic silt present to a depth of -2.6 feet bmsl, over brown silty sand to sandy clay. Groundwater was present at 8.9 feet amsl. In 1954 boring 772A, the excavation was conducted at 22.0 feet amsl with cinder and gravel fill present to a depth of 3.0 feet amsl or 19.0 feet bgs as of 1954. Groundwater was identified at 11.0 feet amsl. Gray fine sand was present to -2 feet bmsl followed by red fine sand and brown fine sand over black shale with sandstone bands at -17.6 feet bmsl. The results reveal significant presence of deep infill prior to an additional 7.7 feet of fill that was added to the ground surface in 1954.

Boring SWM-11(OW)
Boring SWM-11(OW) was placed at the location of proposed Basin HUC3-E at an elevation of 19.8 feet amsl (Figure 4.2b). The proposed basin will extend 3.0 feet bgs. Excavation for the soil boring extended to a depth of 15 feet bgs (4.8 feet amsl) and the water table was noted at a depth of 6.0 feet bgs. Based on the result of the soil borings, reddish-brown/brown, dark/light gray, dark gray/brown, dark gray sandy imported fills were present. It does not appear that natural soils were encountered (see Plate 4.39; see Appendix D). This boring was dug near existing Pier 25, where roughly 5.4 feet of fill was added to the grade in 1954 prior to the installation of the pier (see Appendix H). A drainage gully existed in 1954 near the location of Boring SWM-11(OW) (see Figure 4.4b). The 1954 boring 775 was dug at an elevation of 14.4 feet amsl and consisted of 10.0 feet of brown coarse sand to 4.4 feet amsl over brown wet silt that capped hydric gray sand and fine gravel. At adjacent 1954 boring 179, dug at an elevation of 23.4 feet amsl, cinder fill was present to a depth of 26.0 feet or to -2.6 feet bmsl over peat. Ground water was present at 5.7 feet amsl. The data strongly indicates deep and varied imported fills are present.

Boring B2-15
Boring B2-15 was placed near the viaduct's eastern abutment at an elevation of 26.6 feet amsl and was excavated to a depth of 85.0 feet bgs (-54.4 bmsl) (see Figure 4.2b). The boring contained roughly 11.0 feet of dark brown, light gray, dark gray sandy imported fills with cinders and a possible Ab-horizon of light brown sand with root matter (see Plate 4.40; see Appendix D). Nearby 1954 boring 181 near existing Pier 27 was dug at 23.9 feet amsl and contained 16 feet of material characterized as "fill" to a depth of 7.9 feet amsl over hydric former riverbed gray soil that capped peat present at -1.1 feet bmsl.

Boring SWM-12(OW)
This boring was located within proposed Basin HUC3-F at an elevation of 18.5 feet amsl (see Figure 4.2c). The boring was excavated to a depth of 15.0 feet bgs (3.5 feet amsl). The top 7.0 feet of the boring profile contain black/brown and light gray sandy imported fill over an olive brown coarse fine sand possible buried topsoil at 7.0 feet bgs or 11.5 feet amsl, which capped subsoil at 9.0 feet bgs or 9.5 feet amsl (see Plates 4.41–4.42; see Appendix D). The possible Ab-horizon was capped by imported light gray coarse sand. The depth of the topsoil or original ground surface identified nearby by PAL (2013) was present at 6.6 feet bgs, which roughly corresponds with the boring data (see Figure 3.22). The 5.0-foot-deep proposed Basin HUC3-F will not extend into the possible Ab-horizon identified in the boring.

4.3 Geotechnical Soil Boring Core and Test Pit Analysis from 1954

A section of the project not covered by the 2022 geotechnical survey was recorded via 83 geotechnical borings in 1954 prior to construction impacts and additional infill emplacement (upwards of between 10 and 20 feet of fill) in the viaduct portion of the project from Interchange 14A to the eastern abutment of the viaduct section, roughly 940 feet south of Linden Avenue. These boring profiles, mapping, and sectional profiles of the existing 27 viaduct piers are provided in Appendix H. A representative sample of the boring profile data from Pier 1 to Pier 27 is provided in Table 4.3. The borings discussed in this table are highlighted in Figures 4.4a and 4.4b. The 1954 ground surface profile at the viaduct and soil representative boring locations described in Table 4.2 are shown on Figures 4.3 and 4.4a and 4.4b (Howard, Needles, Tammen and Bergendoff 1954a).

Table 4.3: Sample of the boring profile data taken in 1954 prior to the construction of Piers 1 to Pier 27.

1954 Viaduct Pier Number (Structure No. N3.73R)	Closest Proposed Pier	Sample Soil Boring from As-Built Maps (1954)	Depth of Imported Fills in 1954 Soil Borings (bgs and amsl)	Summary of 1954 Soil Boring Profiles/ Comments
Pier 1	Structure No. N3.73R/ Pier 1	145	17.92 feet (12.98 feet amsl)	Cinder Fill to 12.98 feet amsl over brown/gray silty sand Ab to 10.98 feet amsl over red sand subsoil.
Pier 2	Structure No. N3.73R/ Pier 2	147	12.0 feet (10.6 feet amsl)	Cinder Fill to 10.6 feet amsl over gray/brown sand possible Ab to 7.6 feet amsl over red sand subsoil.
Pier 3	Structure No. N3.73R/ Pier 2	151	5.0 feet (10.9 feet amsl)	Cinder Fill to 10.9 feet amsl organic silt Ab to 8.9 feet amsl over red sand subsoil.
Pier 4	Structure No. N3.73R/ Pier 3	154	5.0 feet (15.2 feet amsl)	Cinder Fill to 15.2 feet amsl over possible Ab brown/gray sandy clay to 11.2 feet amsl over red sand subsoil.
Pier 5	Structure No. N3.73R/ Pier 4	156	5.0 feet (14.5 feet amsl)	Cinder Fill to 14.5 feet amsl over bedrock at 14.5 feet amsl.
Pier 6	Structure No. N3.73R/ Pier 5	741	-	No data available
Pier 7	Structure No. N3.73R/ Pier 5	744	-	Likely truncated subsoil or substratum at ground level (32 feet amsl).
Pier 8	Structure No. N3.73R/ Pier 6	160	-	1.0 foot of topsoil to 33.9 feet amsl over brown sand and gravel. Bedrock at 3.9 feet bgs (31.0 feet amsl).
Pier 9	Structure No. N3.73R/ Pier 6	161	2.0 feet (36.8 amsl)	Cinder Fill to 36.8 feet amsl over sand, clay and gravel that caps bedrock at 4.5 bgs (34.3 feet amsl). Likely graded.
Pier 10	Structure No. N3.73R/ Pier 7	162	5.0 feet (35.1 amsl)	Cinder Fill to 35.1 feet amsl over brown sandy clay and fine gravel that caps bedrock at 9.0 feet bgs (31.1 feet amsl).
Pier 11	Structure No. N3.73R/ Pier 8	751	9.2 feet (31.8 feet amsl)	Cinder Fill to 31.8 feet amsl. Excavation terminated at 31.8 feet amsl.
Pier 12	Structure No. N3.73R/ Pier 8	757	3.0 feet (38.9 feet amsl)	Fill over brown fine sand and gravel (5.3 feet bgs) 36.6 feet amsl.
Pier 13	Structure No. N3.73R/ Pier 9	758	4.0 feet (38.8 feet amsl)	Cinder Fill to 38.8 feet amsl over truncated reddish brown sandy subsoil with shale.
Pier 14	Structure No. N3.73R/ Pier 10	761	5.0 feet (35.3 amsl)	Cinder Fill to 35.3 feet amsl over bedrock at 5.0 feet bgs (35.3 feet amsl).
Pier 15	Structure No. N3.73R/ Pier 11	761A	8.3 feet (31.1 feet amsl)	Cinder Fill to 31.1 feet amsl over bedrock at 8.3 feet bgs (31.1 feet amsl).
Pier 16	Structure No. N3.73R/ Pier 11	762	8.4 feet (29.9 feet amsl)	Cinder Fill to 29.9 feet amsl. Excavation stopped at 29.9 feet amsl, likely at bedrock.
Pier 17	Structure No. N3.73R/ Pier 12	765	13.0 feet (21.6 feet amsl)	Miscellaneous Fill to 26.1 feet amsl over truncated reddish brown subsoil.
Pier 18	Structure No. N3.73R/ Pier 12	767	18.0 feet (18.6 feet amsl)	Cinder Fill to 18 feet bgs (18.6 feet amsl). Bedrock at 25.7 feet bgs (10.9 amsl).
Pier 19	Structure No. N3.73R/ Pier 13	769	30 feet (6.3 feet amsl)	Cinder Fill to 30 feet bgs (6.3 feet amsl). Subsoil at 6.3 feet amsl.

Table 4.3; continued.

1954 Viaduct Pier Number (Structure No. N3.73R)	Closest Proposed Pier	Sample Soil Boring from As-Built Maps (1954)	Depth of Imported Fills in 1954 Soil Borings (bgs and amsl)	Summary of 1954 Soil Boring Profiles/ Comments
Pier 20	Structure No. N3.73R/ Pier 13	770	13.6 feet (-3.2 feet bmsl)	Fill over possible Ab or fill containing wood from -3.2 to -10.2 feet amsl. An additional 5.0 feet of fill was placed during the construction of the NB-HCE in 1954.
Pier 21	Structure No. N3.73R/ Pier 14	175	18.5 feet (0.9 feet amsl)	Cinder Fill to 0.9 feet amsl over possible Ab or riverbed (black organic silt and fine sand). An additional 15.0 feet of fill was placed during the construction of the NB-HCE in 1954.
Pier 22	Structure No. N3.73R/ Pier 15	176	19.0 feet (3.0 feet amsl)	Cinder Fill to 3.0 feet amsl over possible Ab or riverbed (black organic silt). An additional 7.7 feet of fill was placed during the construction of the NB-HCE in 1954.
Pier 23	Structure No. N3.73R/ Pier 15	177	25.0 feet (-4.9 feet bmsl)	Cinder Fill to -4.9 feet bmsl over Ab or riverbed (gray organic silt and sand).
Pier 24	Structure No. N3.73R/ Pier 16	774	12.0 feet (16.3 feet amsl)	Cinder Fill to 16.3 feet amsl over red dense fine sand. An additional 20.0 feet of fill was placed during construction of the NB-HCE in 1954.
Pier 25	Structure No. N3.73R/ Pier 16	179	26.0 feet (-2.6 feet bmsl)	Cinder Fill to -2.6 feet bmsl over "meadow mat and peat" former riverbed. An additional 5.4 feet of fill was placed during the construction of the NB-HCE in 1954.
Pier 26	Structure No. N3.73R/ Pier 17	180	10.0 feet (7.0 feet amsl)	Fill to 7 feet amsl over possible alluvial deposits over black silt to 3 feet amsl followed by red sand to -1 foot bmsl over peat to -4 feet bmsl. An additional 10.0 feet of fill was placed during the construction of the NB-HCE in 1954.
Pier 27	Structure No. N3.73R/ Pier 17	181	16.0 feet (7.9 feet amsl)	Fill to 7.9 feet amsl over hydric soils (gray silt and sand) to 4.9 feet amsl over gray sand and clay to -1.1 foot bmsl, over peat to -3 feet bmsl. An additional 10.0 feet of fill was placed during the construction of the NB-HCE in 1954.

amsl = Above Mean Sea Level
bmsl = Below Mean Sea Level
bgs = Below Ground Surface

4.3.1 1954 NJT Viaduct Soil borings within Jersey City

As-built plans created in 1954 for the construction of the NB-HCE viaduct northeast of Interchange 14A were examined as part of this current project (see Table 4.3; see Figures 4.3, 4.4a, and 4.4b; Howard, Needles, Tammen and Bergendoff 1954a, 1954b; see Appendix H). These borings indicated that the location of original Pier 1 and Pier 2 contained 12.98 feet and 12.0 feet bgs of cinder fill over a possible Ab-horizon. Soils near original Piers 2 through 4 consisted of 5.0 feet of cinder fill over possible Ab-horizon and surrounding Pier 5 contained 5.0 feet of fill over bedrock. Soil borings around Pier 7 contained truncated subsoil and Pier 8, Pier 9, and Pier 10 encountered bedrock at 3.9, 4.5, and 9.0 feet bgs, respectively. Soil boring for Pier 11 contained at least 9.2 feet of fill. Soil surrounding Piers 12, 13, and 14 consisted of fills to a depth of at least 3.0, 4.0, and 5.0 feet bgs. Borings for Piers

15 and 16 contained 8.3 to 8.4 feet of fill over bedrock. Soil boring near Pier 17 contained 13.0 feet of fill over truncated subsoils while Pier 18 contained 18.0 feet of fill over bedrock. Thirty feet of fill above a truncated subsoil was noted within the soil boring near Pier 19. Soils within boring near Pier 20 show 13.6 feet of fill over possible Ab or fill. Cinder fill to 18.5, 19.0, and 25.0 feet bgs was noted in the borings near Pier 21, 22, and 23. These fills were over Ab or riverbed deposits. Twelve feet of fill was noted in boring near Pier 24, and 26 feet of fill had been placed near Pier 25. The fill in Pier 25 capped former riverbed deposits. Borings near Piers 26 and 27 contained 10 and 16 feet of fill over hydric and alluvial deposits.

Although some of the borings excavated contained a possible Ab-horizon, it should be noted that these borings were taken prior to the construction of the NB-HCE and excavations for its construction in the 1950s. Based on photographs taken during the construction of the NB-HCE the installation of the existing piers and abutments caused significant disturbance (see Figures 3.18–3.20). Additionally, an additional 5.0 to 20.0 feet of imported fill were placed on grade from Piers 20–22 and 23-27 (see Table 4.3).

4.3.2 1954 Avenue C Bridge Soil Borings

Soil borings dug in 1954 in the footprint of the proposed new Avenue C bridge abutment in or proximate to the infilled Morris Canal included the excavation of Borings 122–133 and 713–719 (Figure 4.7; see Appendix I). Boring 122 reveals the presence of fill material from 24.4 feet amsl to -0.6 feet bmsl over brown sand and clay. Fill was present from 24.0 feet amsl to 1.0 foot amsl followed by trap rock in Boring 123. Fill containing wood and broken concrete was present from 23.5 feet amsl to 0.5 feet amsl followed by brown sand and trap rock, the latter of which was at -3.7 feet bmsl in Boring 125. Fill was also present in Boring 126 from 22 feet amsl to 1.7 feet amsl over trap rock. Similarly, fill capped trap rock in Boring 127 between 22.7 and 7.5 feet amsl. Cinders were present above trap rock from 22.9 to 7.1 feet amsl in Boring 130 and from 23.8 to 7.7 feet amsl in Borings 132 and 133. Soil characterized as fill over reddish-brown to light brown soil was present in Borings 714 to 716. There, the fill soils were present between 22.5 feet and 17 feet amsl in Boring 714, from 23.8 to 15.8 feet amsl in Boring 715, and from 23.8 to 16.8 feet in Boring 716. North and south of the NJT on the east side of Avenue C, cinder fill was present in Boring 717 from 22.8 to 15 feet amsl and in Boring 719 from 23.3 to 15.3 feet amsl. These borings were all dug prior to the addition of 15 to 20 feet of fill for road berm construction. The extent of fill with cinder in this portion of the SSA is likely associated with the Morris Canal's abandonment and infilling in the 1920s and 1930s (see Figures 3.14a, 3.15b); however, the extent of circa-1954 imported fill for road berm construction strongly indicates that Morris Canal related features behind the existing bridge abutment footprints are likely notably deeply buried near the south side of the bridge.

4.4 Assessment of Archaeological Resources Sensitivity

The assessment of archaeological sensitivity considers environmental characteristics of known prehistoric sites locally and in the region and historic records to identify locations within the SSA likely to contain prehistoric and historic archaeological resources. In areas where no sites are documented, the potential presence of prehistoric resources is based primarily on topography, availability of lithic and other critical resources, proximity to water, and soil characteristics. The potential presence of historic resources is determined through analysis of historic primary and secondary records and cartographic materials. The proximity of historic transportation routes and valuable natural resources (water, building material, energy sources) also increases the potential for historic sites to be discovered. Areas of archaeological sensitivity are included on Figure 4.1, 4.8a–4.8d, 4.9a–4.9d, and 4.10a–4.10d, and the archaeological sensitivity and existing disturbance in areas of proposed ground impacts is demonstrated in Table 4.4.

Pre-Contact Period Archaeological Sensitivity

Previous archaeological investigations and regional settlement pattern studies indicate that in New Jersey, and elsewhere in the Middle Atlantic region, areas of well-drained soils within a few hundred feet of a perennial water sources are highly favored locations for pre-Contact period Native American

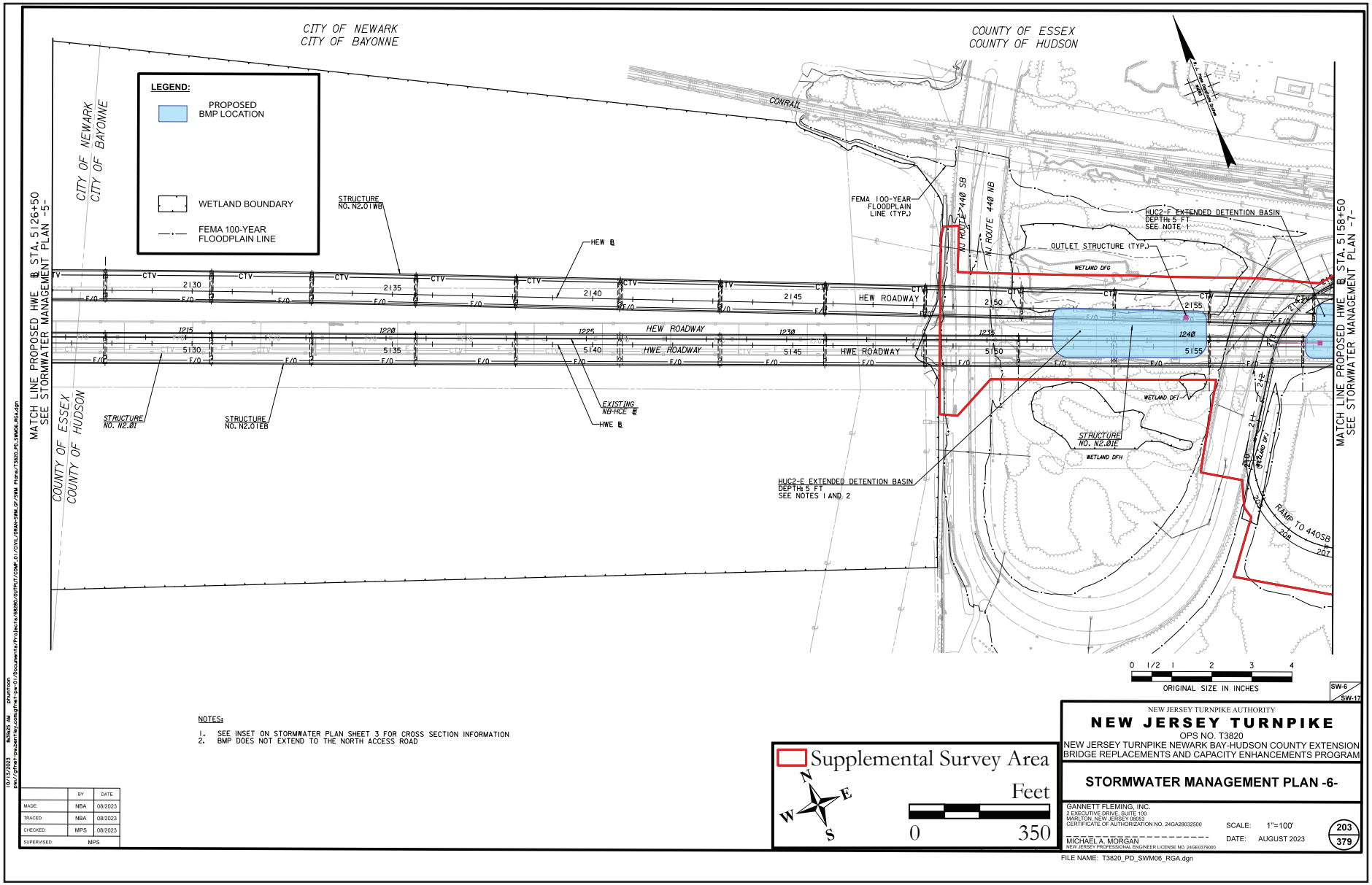


Figure 4.8a: Stormwater Management Plan showing the Supplemental Study Area and Areas of Archaeological Sensitivity (Gannett Fleming, Inc. 2022c).

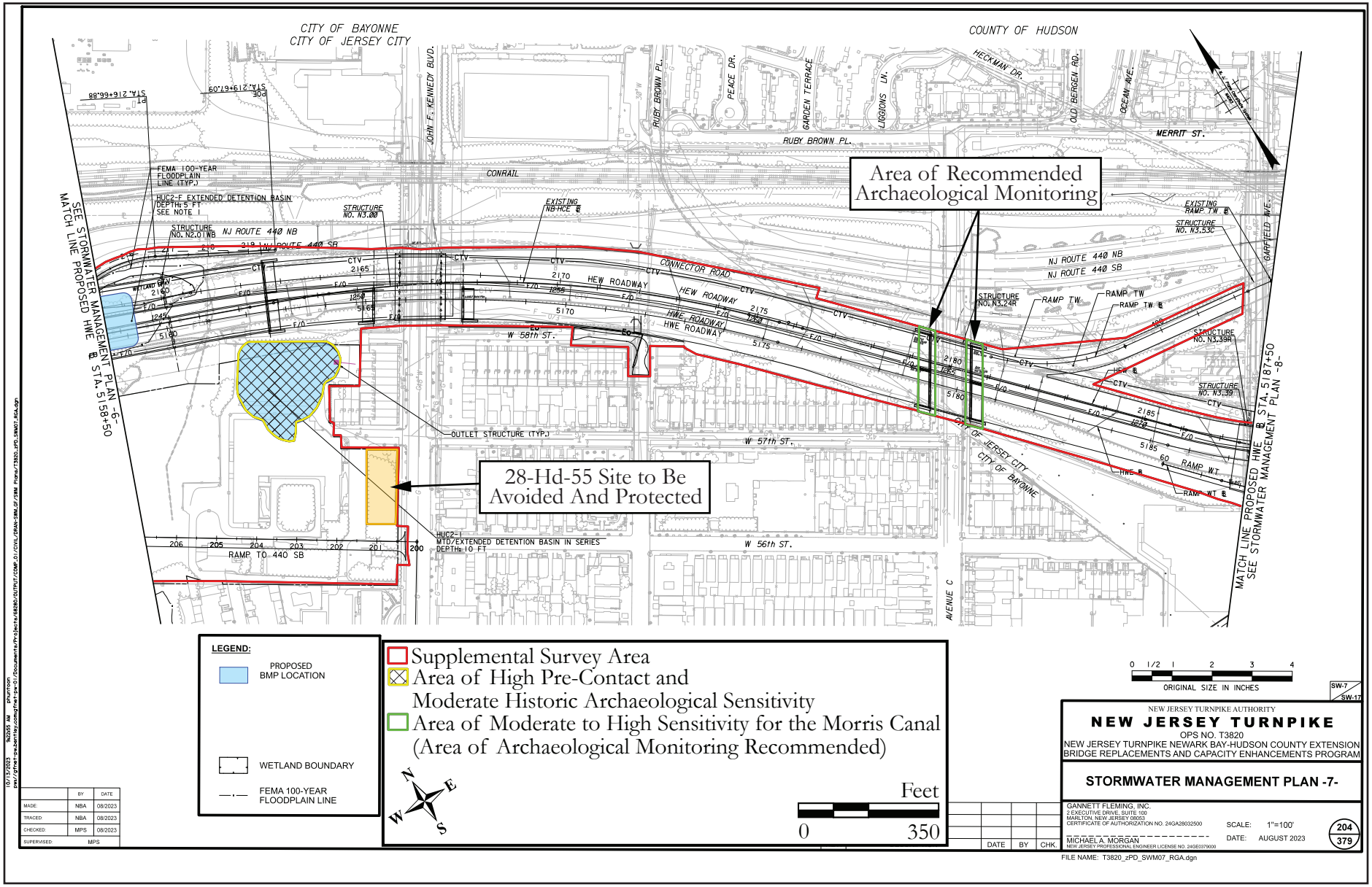


Figure 4.8b: Stormwater Management Plan showing the Supplemental Study Area and Areas of Archaeological Sensitivity (Gannett Fleming, Inc. 2022c).

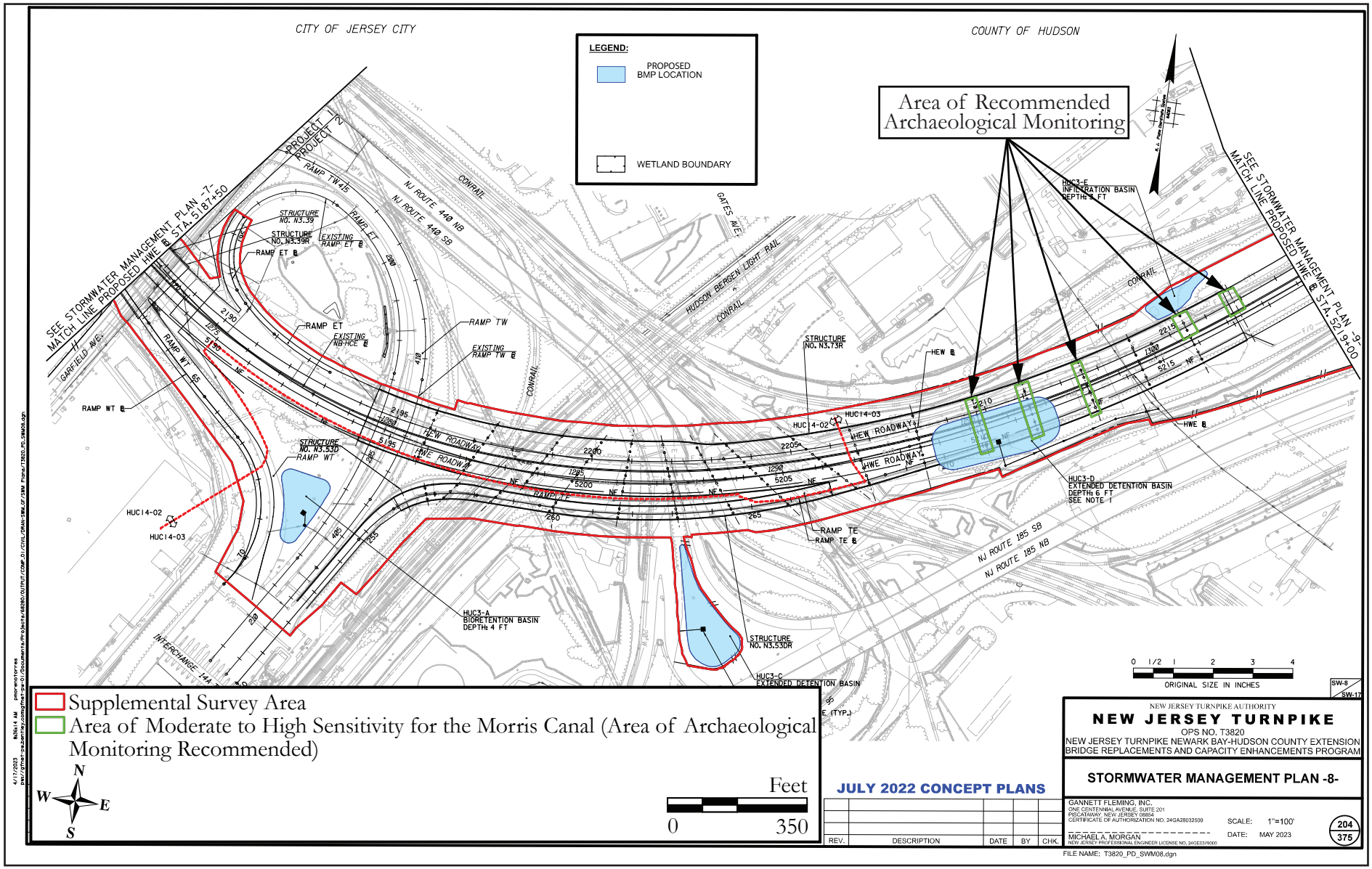


Figure 4.8c: Stormwater Management Plan showing the Supplemental Study Area and Areas of Archaeological Sensitivity (Gannett Fleming, Inc. 2022c).

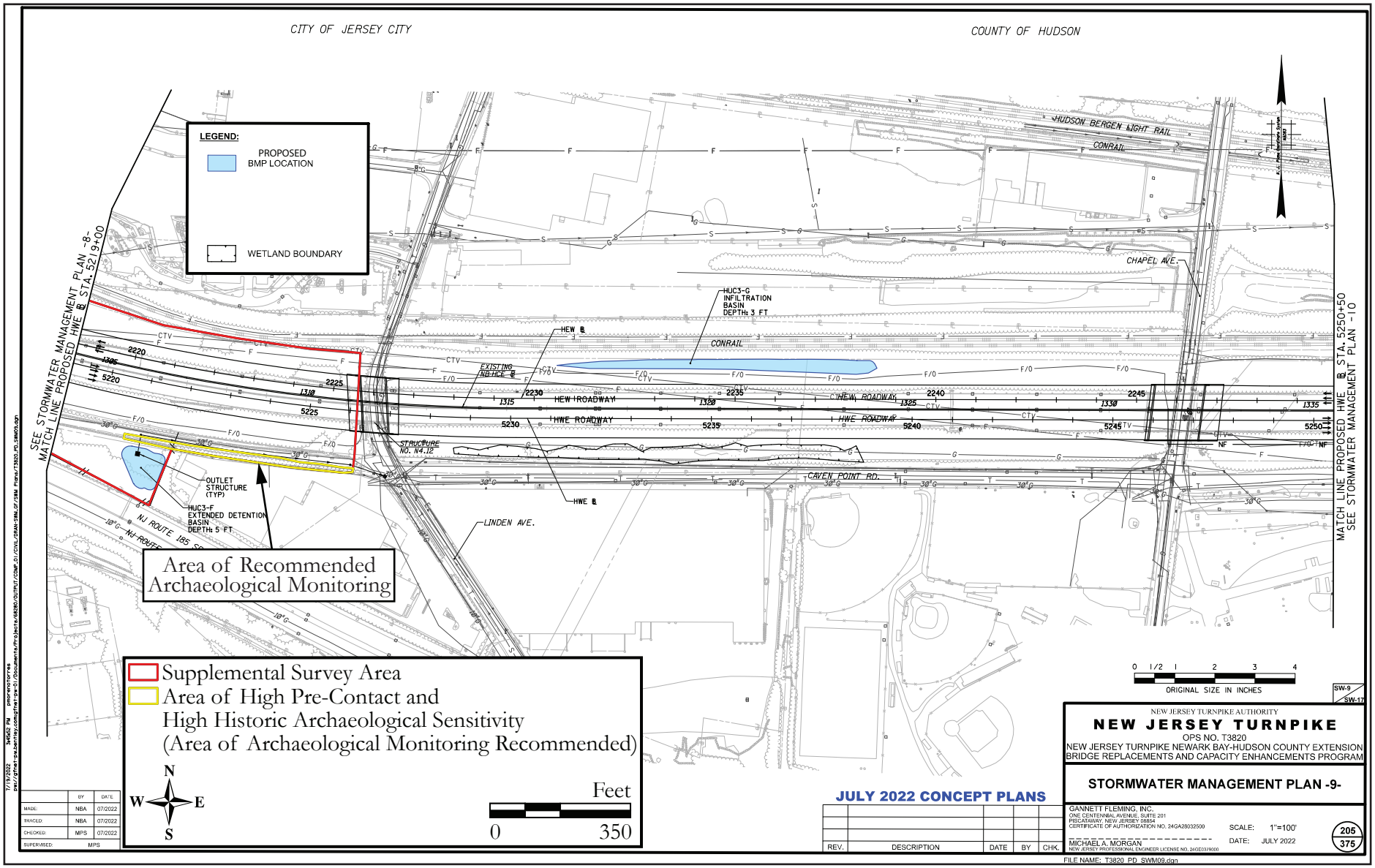


Figure 4.8d: Stormwater Management Plan showing the Supplemental Study Area and Areas of Archaeological Sensitivity (Gannett Fleming, Inc. 2022c).

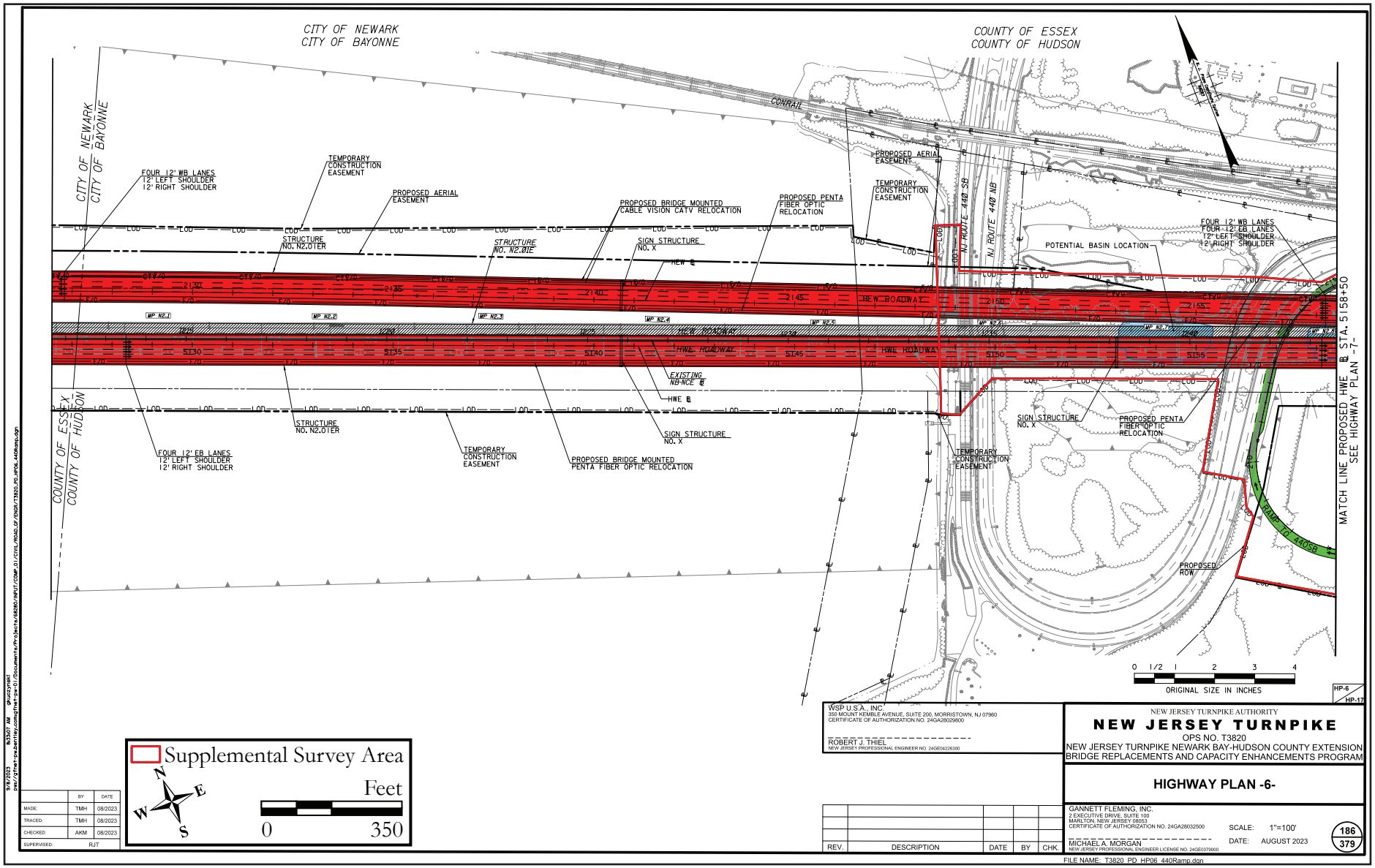


Figure 4.9a: Highway Plan showing the Supplemental Study Area and Areas of Archaeological Sensitivity (Gannett Fleming, Inc. 2022b).

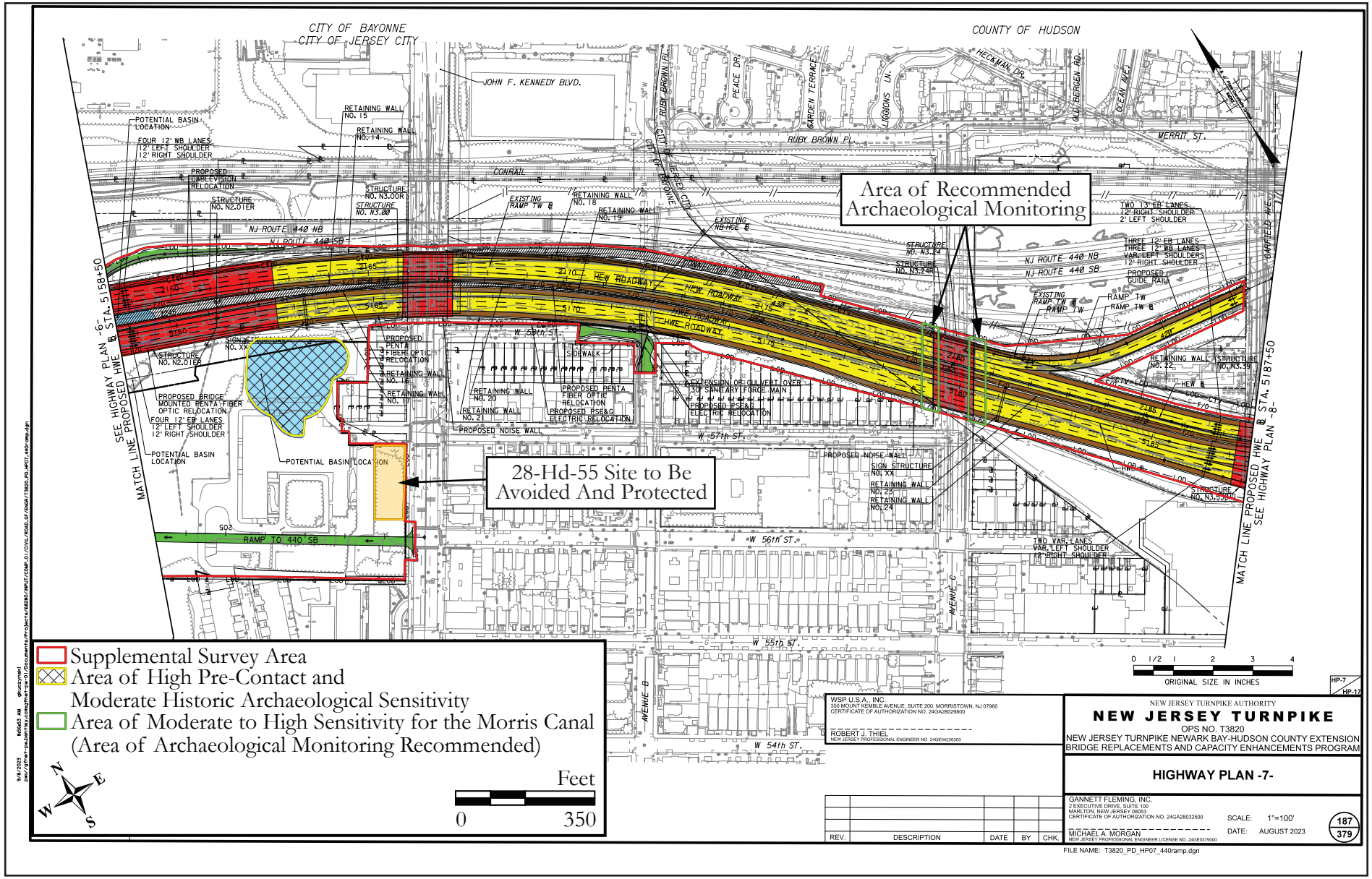


Figure 4.9b: Highway Plan showing the Supplemental Study Area and Areas of Archaeological Sensitivity (Gannett Fleming, Inc. 2022b).

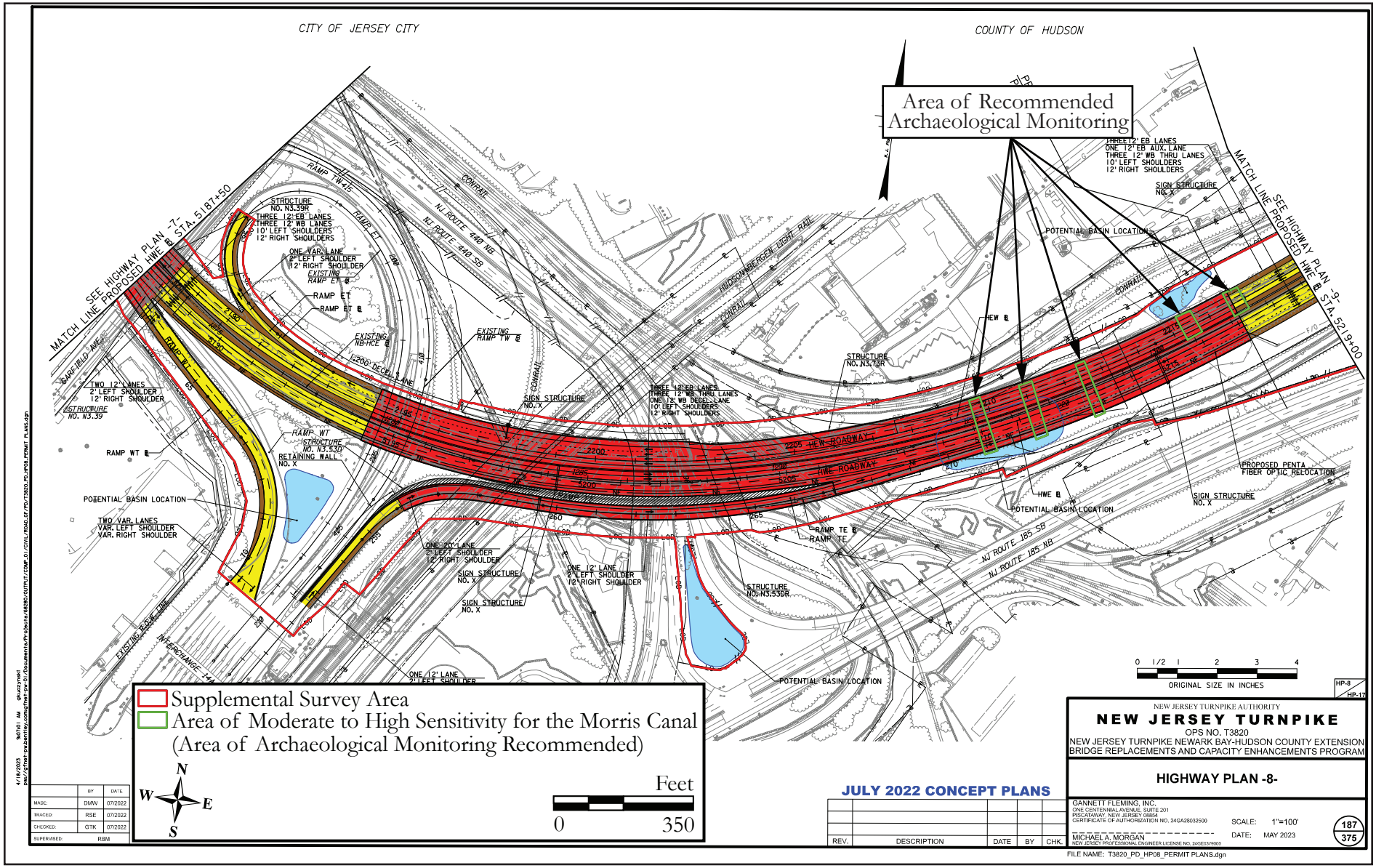


Figure 4.9c: Highway Plan showing the Supplemental Study Area and Areas of Archaeological Sensitivity (Gannett Fleming, Inc. 2022b).

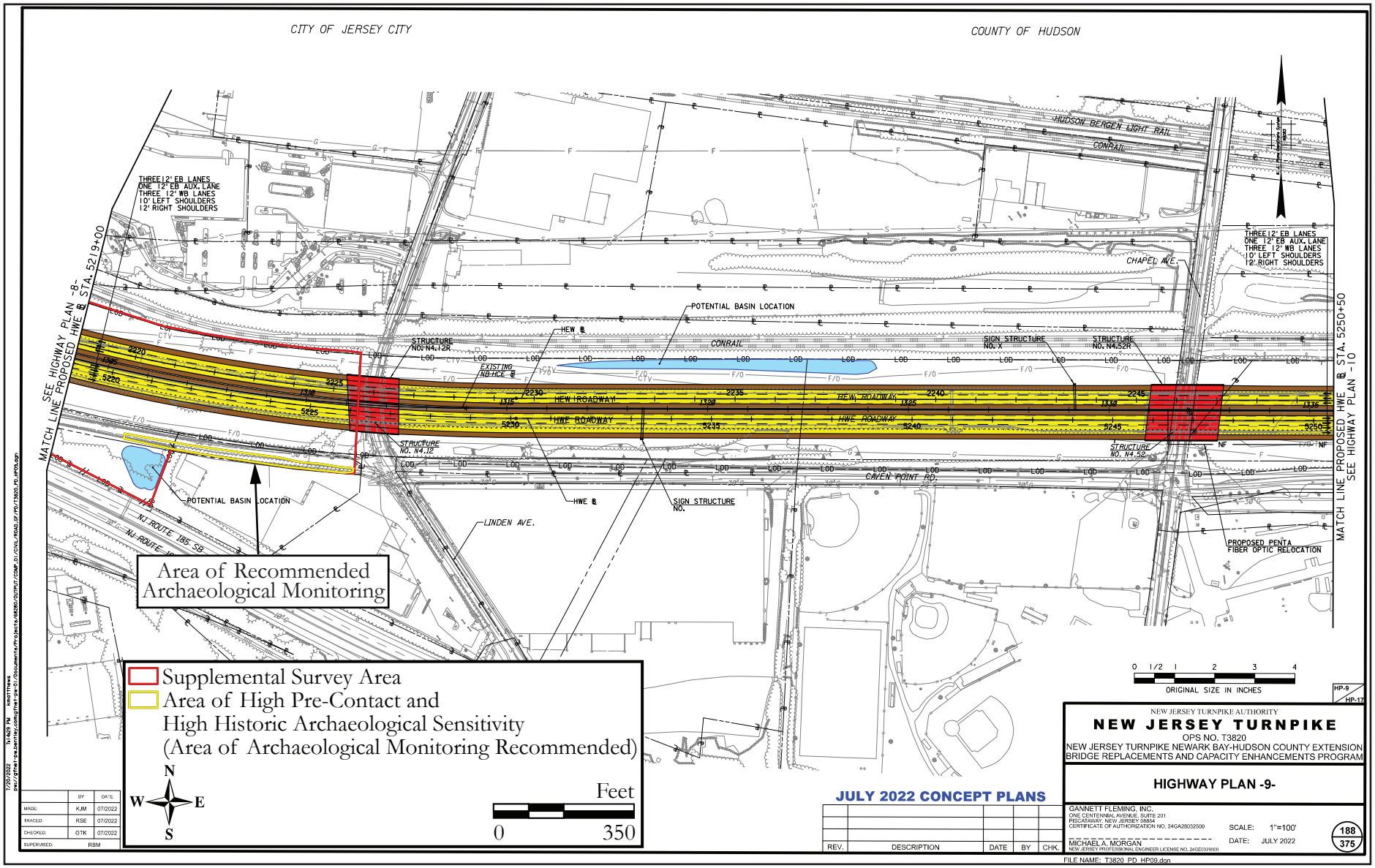


Figure 4.9d: Highway Plan showing the Supplemental Study Area and Areas of Archaeological Sensitivity (Gannett Fleming, Inc. 2022b).

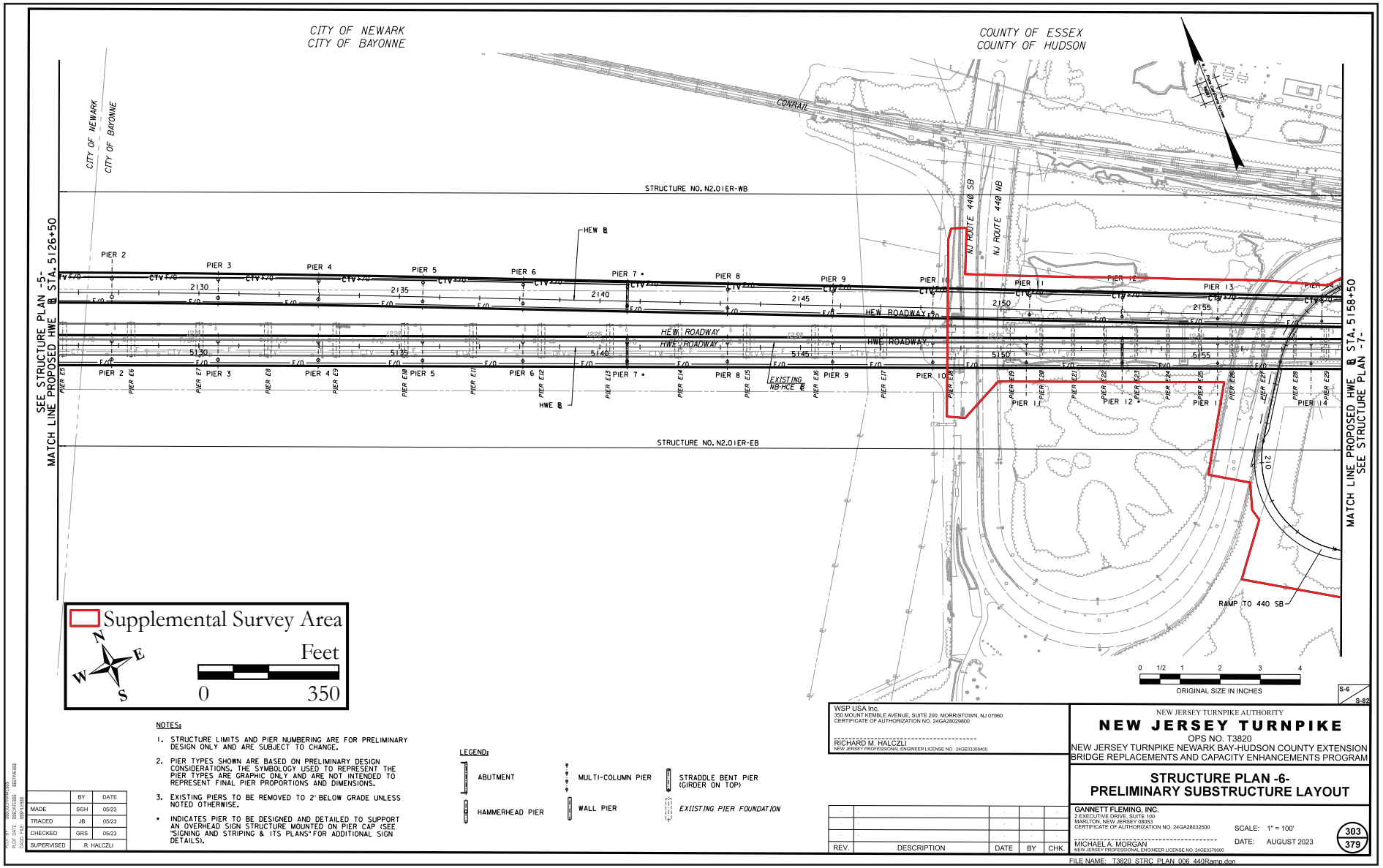


Figure 4.10a: Structure Plan, Preliminary Substructure Layout showing the Supplemental Study Area and Areas of Archaeological Sensitivity (Gannett Fleming, Inc. 2022d).

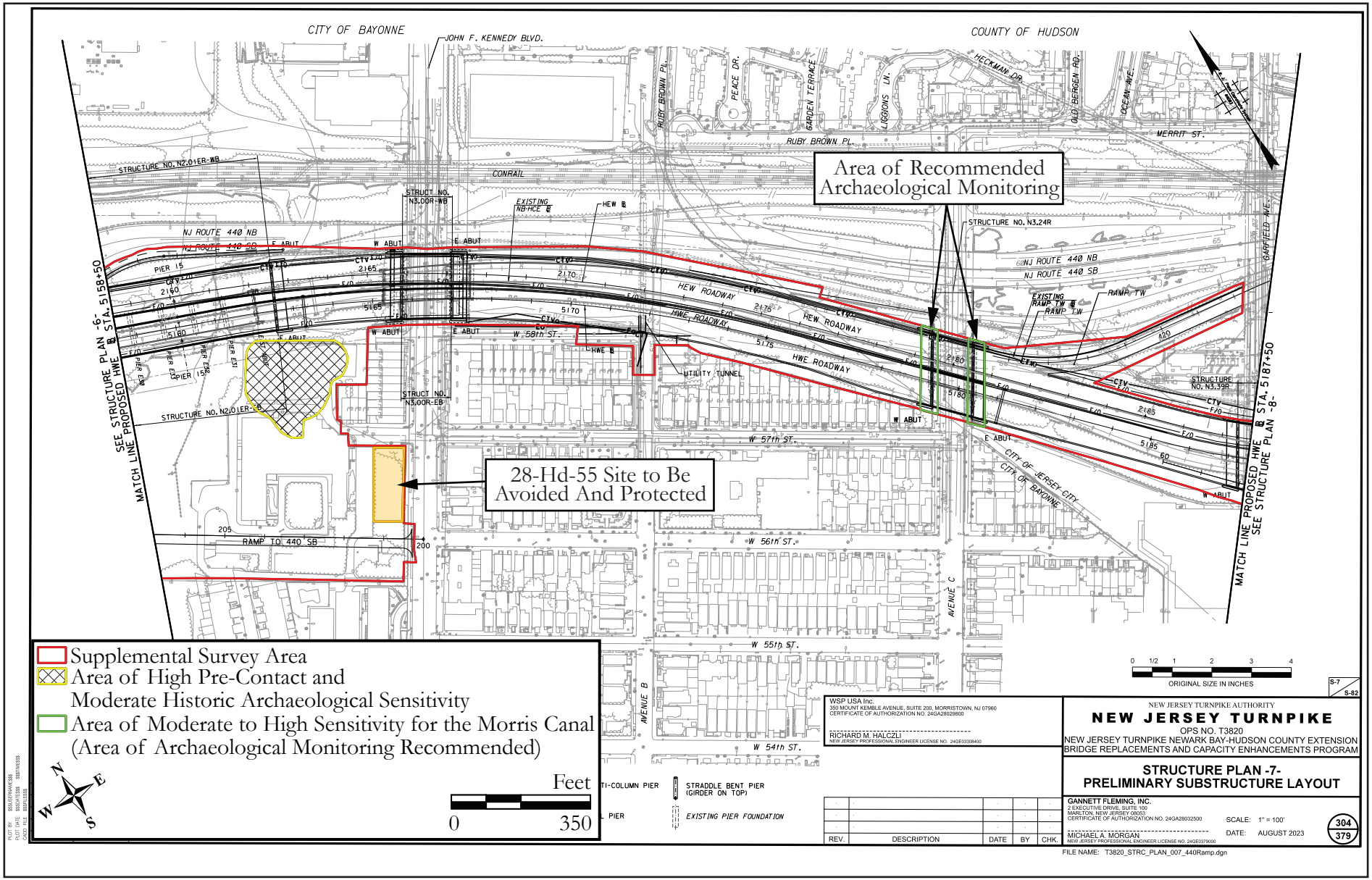


Figure 4.10b: Structure Plan, Preliminary Substructure Layout showing the Supplemental Study Area and Areas of Archaeological Sensitivity (Gannett Fleming, Inc. 2022d).

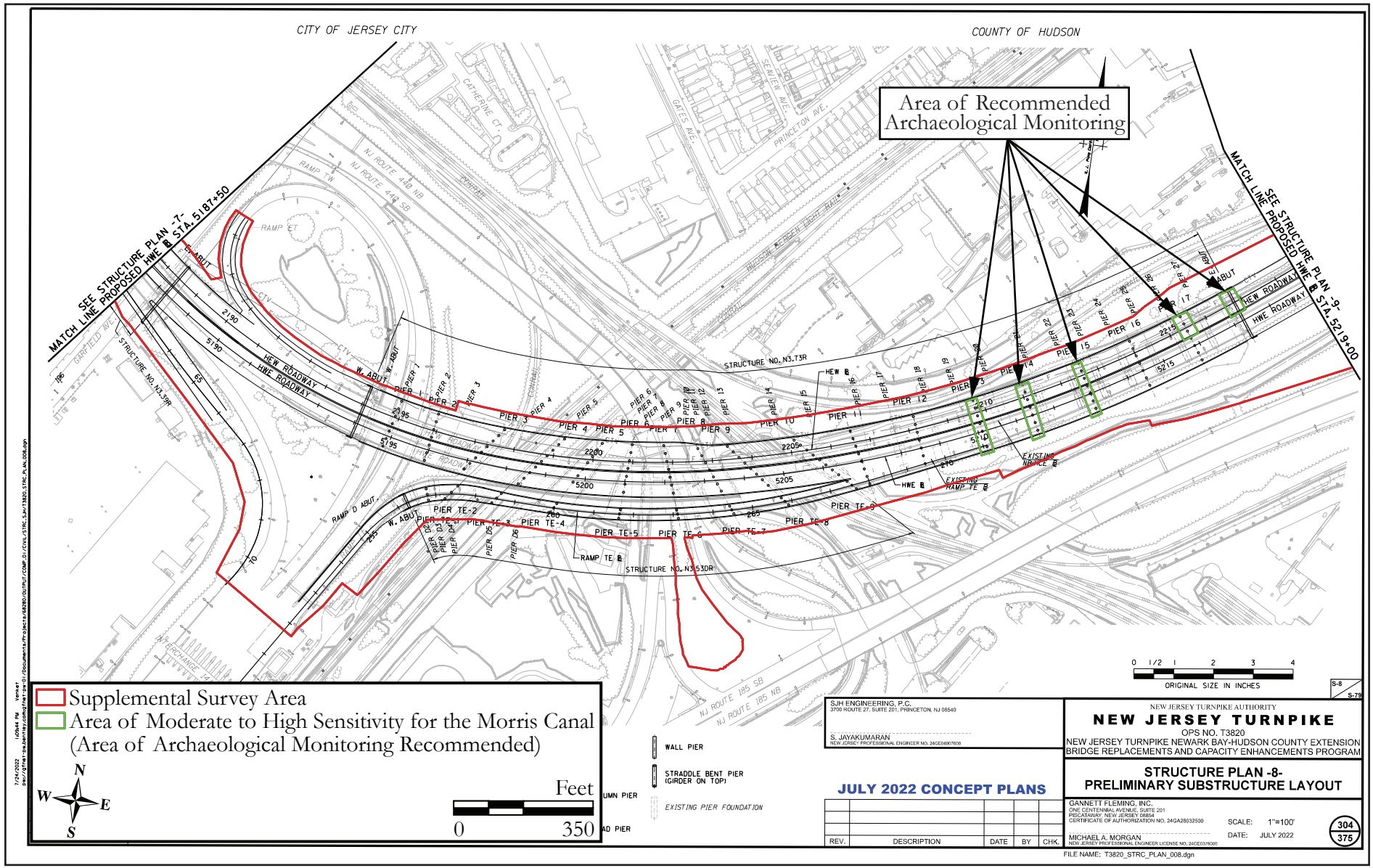


Figure 4.10c: Structure Plan, Preliminary Substructure Layout showing the Supplemental Study Area and Areas of Archaeological Sensitivity (Gannett Fleming, Inc. 2022d).

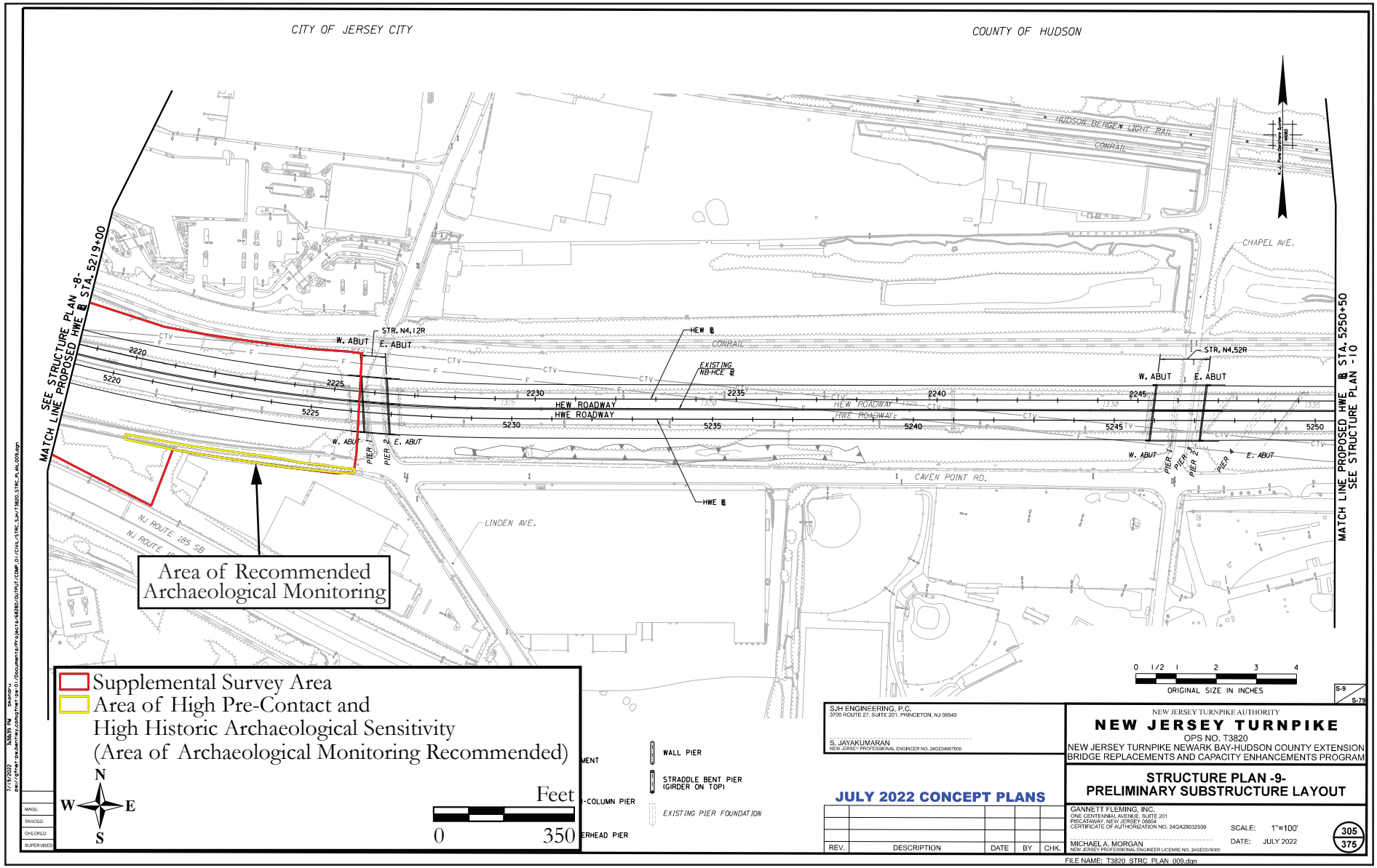


Figure 4.10d: Structure Plan, Preliminary Substructure Layout showing the Supplemental Study Area and Areas of Archaeological Sensitivity (Gannett Fleming, Inc. 2022d).

Table 4.4: Archaeological sensitivity and existing disturbance within the footprint of proposed excavations.

Proposed Excavation	Proposed Depth of Disturbance (feet bgs)	Previous Disturbance	Potential to Impact Ab-horizon Soils (if known)	Additional Archaeological Survey Recommended
Basin HUC2-E	5.0	Within Newark Bay until the mid-twentieth century	No	No
Basin HUC2-F	5.0	Within Newark Bay until the mid-twentieth century	No	No
Basin HUC2-G	7.0	Within Newark Bay until the mid-twentieth century	No	No
Basin HUC2-H	7.0	Within Newark Bay until the mid-twentieth century	No	No
Basin HUC2-I	10.0	Construction and demolition of the Former Marist High School	Yes	Yes- Phase IB
Basin HUC3-A	4.0	Soil boring (SWM-09) suggests possible grading	No	No
Basin HUC3-C	7.0	Fill (Likely from the demolition of the railroad turntable and roundhouse) present to at least 9.6 feet bgs. Test pit excavation suggest infilling with demolition debris in the late twentieth century	No	No- complete removal of the turntable in the late twentieth century
Basin HUC3-D	6.0	Seven existing piers (Piers 18-21) ranging in size from 15 feet to 40 feet square, and one 100-foot by 30-foot (Pier 21) are present within the proposed basin footprint, existing underground fiber optic line	No	No
Basin HUC3-E	3.0	Soil boring SWM-11(OW) contains over 15 feet of fill (possibly historic fill from the Morris Canal)	No	No-area was infilled with 15 feet of fill in the 1950s. Proposed basin is just 3.0 feet bgs
Basin HUC3-F	5.0	Near the location of Jersey Eagle Site. Soil boring SWM-12(OW) shows hydric and inundated soils formerly existed that were likely not conducive for human occupation. Proposed excavations for the stormwater management basin will extend to 5.0 feet below grade and will likely be contained within modern fill deposits above the depth of the nearby site	No for the basin unless proposed excavation exceeds 5.0 feet bgs	Yes-Archaeological motoring for the stormwater pipe. No for the basin unless proposed excavation exceeds 5.0 feet bgs.
Structure No. N2.01ER/ Pier 10	Unknown	Within Newark Bay until the mid-twentieth century	No	No
Structure No. N2.01ER/ Pier 11	Unknown	Within Newark Bay until the mid-twentieth century	No	No
Structure No. N2.01ER/ Pier 12	Unknown	Within Newark Bay until the mid-twentieth century	No	No
Structure No. N2.01ER/ Piers 13 to 15	Unknown	Within Newark Bay until the mid-twentieth century	No	No
Structure No. N2.01ER/ East Abutment	Unknown	Drop inlet or catch basins, underground utility lines in the southern part of abutment	Unknown	No
Structure No. N3.00R/ West Abutment	Unknown	Existing abutment, underground utility lines in the southern part of abutment	Unknown	No
Structure No. N3.00R/ East Abutment	Unknown	Existing pier foundation (90 feet by 17 feet), underground utility lines in the southern part of abutment	Unknown	No
Structure No. N3.00R/ Piers 1 and 2	Unknown	Existing John F. Kennedy Boulevard roadway	Unknown	No

Table 4.4; continued.

Proposed Excavation	Proposed Depth of Disturbance (feet bgs)	Previous Disturbance	Potential to Impact Ab-horizon Soils (if known)	Additional Archaeological Survey Recommended
Structure No. N3.24R/ East and West Abutment	5.0 feet bgs	Existing abutments/pier foundations (roughly 190 feet by 15 feet)	Unknown	Yes- Archaeological Monitoring for the Morris Canal
Structure No. N3.39R/ West and East Abutment	Unknown	Garfield Avenue, and in proximity to existing gas line, water line, an abutment/ pier foundation.	Unknown	No
Structure No. N3.73R/ West Abutment	Unknown	In proximity to existing west abutment (111 feet by 15 feet)	Unknown	No
Structure No. N3.73R/ Pier 1	Unknown	Interchange 14A ramp lanes, existing Pier 1 footings (30 feet by 10 feet and 40 feet by 10 feet), guiderails, and underground fiber optic line. Documented fill at this location in 1954 is 17.92 feet bgs (1954 Boring 145). Subsequent construction and excavations likely caused disturbance.	Unknown	No
Structure No. N3.73R/ Pier 2	Unknown	Underground fiber optic line. Documented fill at this location in 1954 is 12.0 feet bgs (1954 Boring 147). Subsequent construction and excavations likely caused disturbance.	Unknown	No
Structure No. N3.73R/ Pier 3	Unknown	Adjacent Conrail Line, existing Pier 4 (100 feet by 18 feet), underground fiber optic line and sewer line. Documented fill at this location in 1954 is 5.0 feet bgs (1954 Boring 151). Subsequent construction excavations likely caused disturbance.	Unknown	No
Structure No. N3.73R/ Pier 4	Unknown	Adjacent Hudson Bergen Light Rail, existing Pier 5 (100 feet by 10 feet), and underground sewer and fiber optic lines. Documented fill at this location in 1954 is 5.0 feet bgs (1954 Boring 154). Subsequent construction excavations likely caused disturbance.	Unknown	No
Structure No. N3.73R/ Pier 5	Unknown	Underground fiber optic line. Possibly graded subsoils (1954 Boring 744).	No	No
Structure No. N3.73R/ Pier 6	Unknown	In proximity to existing Pier 8 (70 feet by 10 feet), underground fiber optic line.	Unknown	No
Structure No. N3.73R/ Pier 7	Unknown	Existing Pier 10 (80 feet by 5 feet), underground electric line, and Route 440 roadway, underground fiber optic line. Documented fill at this location in 1954 is 5.0 feet bgs (1954 Boring 750). Subsequent construction excavations likely caused disturbance.	Unknown	No
Structure No. N3.73R/ Pier 8	Unknown	Underground fiber optic line. Documented fill at this location in 1954 is between 3.0 and 9.2 feet bgs (1954 Boring 751.and 757). Subsequent construction excavations likely caused disturbance.	Unknown	No
Structure No. N3.73R/ Pier 9	Unknown	In proximity to existing Pier 13 (90 feet by 8 feet), underground fiber optic line, and Conrail line. Documented fill at this location is 4.0 feet bgs (1954 Boring 758) over truncated subsoil.	No	No
Structure No. N3.73R/ Pier 10	Unknown	Located between and in proximity to existing Pier 14 (97 feet by 9 feet) and Pier 15 (80 feet by 9 feet), underground fiber optic line. Documented fill at this location in 1954 is 5.0 feet bgs (1954 Boring 750) over bedrock. Subsequent construction excavations likely caused disturbance.	No	No

Table 4.4; continued.

Proposed Excavation	Proposed Depth of Disturbance (feet bgs)	Previous Disturbance	Potential to Impact Ab-horizon Soils (if known)	Additional Archaeological Survey Recommended
Structure No. N3.73R/ Piers 11-12	Unknown	Possible disturbance from nearby existing pier footings of varying sizes, and underground fiber optic line. Documented fills in this area in 1954 range from 8.4 to 13.0 feet bgs. Subsequent construction excavations likely caused disturbance.	Unknown	No
Structure No. N3.73R/ Piers 13-15	Unknown	Possible disturbance from nearby existing pier footings of varying sizes, and underground fiber optic line. Documented fills in this area in 1954 range from 13.6 to 30 feet bgs. An additional 5.0 to 15 feet of fill was placed during the construction of the NB-HCE in 1954.	Unknown	Yes-Archaeological monitoring for the Morris Canal
Structure No. N3.73R/ Pier 16	Unknown	Possible disturbance from nearby existing pier footings of varying sizes, and underground fiber optic line. Documented fills in this area in 1954 is 12.0 to 26.0 feet. An additional 5.4 to 20.0 feet of fill was placed during the construction of the NB-HCE in 1954.	Unknown	No
Structure No. N3.73R/ Pier 17	Unknown	Possible disturbance from nearby existing pier footings of varying sizes, and underground fiber optic line. Documented fills in this area in 1954 range from 10 to 16 feet bgs. An additional 10.0 feet of fill was placed during the construction of the NB-HCE in 1954.	Unknown	Yes-Archaeological monitoring for the Morris Canal
Structure No. N3.73R/ East Abutment	Unknown	Adjacent to existing eastern abutment	Unknown	Yes-Archaeological monitoring for the Morris Canal
Structure No. N3.53DR/ West Abutment	5.0 bgs	Between existing Ramp D Abutment and existing Pier D2	Unknown	No
Structure No. N3.53DR/ Pier TE-1	Unknown	Adjacent to existing Pier D3	Unknown	No
Structure No. N3.53DR/ Pier TE-2 and TE-3	Unknown	Adjacent to Conrail Line and Hudson Bergen Light Rail	Unknown	No
Structure No. N3.53DR/ Pier TE-4 and TE-5	Unknown	Disturbance from historic rail lines and twentieth century road construction	Unknown	No
Structure No. N3.53DR/ Pier TE-6	Unknown	Between Route 440 ramps	Unknown	No
Structure No. N3.53DR/ Piers TE-7 and TE-8	Unknown	Disturbance from historic rail lines and twentieth century road construction	No	No
Structure No. N3.53DR/ Pier TE-9	Unknown	Disturbance from historic rail lines and twentieth century road construction	No	No
Structure N4.12R/ West Abutment (East Abutment is outside Project 1)	Unknown	Existing Pier 1 (two piers at roughly 10 feet by 30 feet)	No	No

ft –Feet
BGS – Below Ground Surface

sites (Cavallo and Mounier 1982; Chesler 1982; Grossman-Bailey 2001:136; Kinsey 1972; Kraft 1986, 2001; Ranere and Hansell 1985, 1987; Wall et al. 1996; Walwer and Pagoulatos 1990). Areas closest to wetlands are considered zones of highest sensitivity for the location of prehistoric archaeological resources (Hasenstab 1991). Other possible zones of sensitivity for pre-Contact period Native American occupation include locations with well-drained soils, level topography, historic trails, and a good vantage point, particularly on drainage divides, and upland areas farther from water that may contain key exploitable technological or subsistence resources (Cavallo and Mounier 1982; Pagoulatos and Walwer 1991).

An examination of soil boring logs and photographs provided by AmerCom Corp. (2022), as well as boring core data from 1954 geotechnical studies associated with Garfield Avenue bridges and the southeastern viaduct demonstrated that the proposed westernmost basin locations (HUC2-E through HCU2-H) and proposed piers (Structure No. N2.01ER/ Piers 10–15) were situated within the former footprint of Newark Bay until the filling of the eastern bank of the Bay in the mid-twentieth century to create man-made land (see Tables 4.1–4.3; see Figures 4.2a, 4.8a–4.8b, 4.9a–4.9b, 4.10a–4.10b). Therefore, these basins and proposed pier locations are considered to have a low pre-Contact period archaeological sensitivity and excavations. The locations will not impact soil horizons which contain cultural material.

The western part of the Marist High School property was located within the Newark Bay until the mid-twentieth century when more than 20 feet of imported fill was placed to build up the landscape and extend the buildable terrain further west (NETR 1966; see Figure 4.2a). The eastern part of the property was former uplands overlooking the shoreline, with the exception of the southeast corner of the property, which contained a tributary as of 1889 (see Figure 3.9). Some disturbance is likely present from the construction of the 1919 "Parental School" as well as the mid-1950s-1960s school complex expansion and the recent demolition activities at the Marist High School. A stormwater management basin (HUC2-I) is proposed at the location of the former Marist High School on Block 13, Lot 1 in the City of Bayonne, which recently witnessed extensive demolition by the current property owner (see Figures 4.9a and 4.9b).

Soil boring SWM-35 was placed within the footprint of the former Marist School building and demonstrated that filling and disturbance was present in the top 6.0 feet of the soil profile over a possibly intact buried A-horizon. Due to the proximity of the former footprint of Newark Bay, as well as the presence of intact soil stratigraphy, the location of Basin HUC2-I is considered to have a high sensitivity for pre-Contact Native American archaeological resources. Proposed basin excavations within the area are anticipated to be 10.0 feet bgs, therefore, if excavations extend past 6.0 feet bgs, intact soil profiles will likely be impacted; however, the extent of recent disturbance from the ongoing construction and demolition is unknown. Additionally, a roughly 75-foot-wide by 188-foot-long area immediately east of the former school and west of John F. Kennedy Boulevard was initially assessed with a moderate to high sensitivity for pre-Contact period Native American archaeological resources (see Figure 4.1; Richard Grubb & Associates, Inc. 2023). Subsurface testing was conducted in August 2022 and no pre-Contact period artifacts or features were identified. Discussion of the Phase IB testing is presented in Section 4.4.

Background research identified one previously registered multi-component pre-Contact and historic-period archaeological site, the Jersey Eagle Site (28-Hd-45), within the SSA. The site, southwest of Linden Avenue, has a pre-Contact component dating to the Middle to Late Woodland period. The Phase IB and subsequent Phase II archaeological survey yielded 51 pre-Contact artifacts. While no pre-Contact period features were found, the artifacts indicate stone tool manufacture and maintenance, as well as subsistence-related resource processing activities took place. The site was determined eligible for listing in the NRHP under Criterion A for its association with events that made a significant contribution to the broad patterns of history and Criterion D for the potential to yield new, important information in prehistory and history regarding the pre-Contact period occupation and early colonial settlement of Hudson County from 0 to 1850 AD. The artifacts in the Jersey Eagle Site were recovered from deeply buried plowzone layers with top subsurface depths ranging from 7.9 feet bgs in the

southern portion of the site to 2.3 feet bgs in the northern portion of the site. Excavations at 28-Hd-45 suggest the presence of deeply buried pre-Contact archaeological sites within this portion of the SSA. Therefore, the area at the Jersey Eagle Site is considered to have a high potential for deeply buried pre-Contact resources (see Figure 4.1c). A review of geotechnical boring log data for proposed basin HUC3-F reveals a different stratigraphic profile than that present at the nearby Jersey Eagle Site, suggesting deeper historic disturbances and the presence of a different landscape where hydric and inundated soils formerly existed that were likely not conducive for human occupation. Proposed excavations for the stormwater management basin adjacent to the location of the Jersey Eagle Site will extend to 5.0 feet bgs and will be contained within 7.0 feet of modern fill deposits above the depth of the nearby site. The stormwater outlet pipe that will extend from the proposed basin to Linden Avenue may be within the 16-foot-wide trench footprint of the adjacent natural gas pipeline that was installed in 2011 (see Figures 3.23, 4.4d).

In the remainder of the SSA, historic maps and photographs reveal that much of the natural landscape in the Bayonne and Jersey City portion of the SSA was significantly altered during the mid-twentieth century during the construction of the New Jersey Turnpike (see Figures 3.18–3.20; Fairchild Aerial Surveys, Inc. 1955). The 1955 photograph shows earthmoving and grading within the SSA between the Conrail Line and the former location of the Morris Canal in Jersey City. A large berm had been constructed to carry the NB-HCE of the NJTA over Garfield Avenue and smaller berms appear to have been created near Hudson Boulevard (present-day John F. Kennedy Boulevard) and the approach to the Newark Bay Bridge (see Figures 3.18–3.20). A high berm carrying a rail spur is also present along original Piers 10 through 17 (see Figure 3.20). The pedestrian reconnaissance, as well as highway and structure plans show additional twentieth-century disturbance from utility installation at the location of the east abutment of Structure No. N2.01ER and the west abutment of N3.00R (see Figures 4.9a–4.9b, 4.10a–4.10b; see Table 4.3). In addition to the existing utilities disturbance, the proposed location of the east abutment of Structure No. N3.00R likely contains disturbance from the installation of the existing piers (see Table 4.3; Figure 4.10b).

As-built plans created in 1954 for the construction of the NB-HCE demonstrate that much of the SSA already contained deep fill deposits, alluvial soils, or areas of shallow bedrock. Additionally, it was noted that between 5 and 20 feet of fill was placed in the area northeast of Interchange 14A during the construction of the NB-HCE viaduct (see Tables 4.3-4.4; see Appendix H). It should be noted that the 1954 borings were taken prior to the construction of the NB-HCE and excavations for its construction in the 1950s.

An in-depth analysis of soils borings taken in 2022 demonstrates that most of the SSA contains deep imported fills. The majority of proposed pier locations for the project are within areas of previous disturbance from existing roadway construction and maintenance, entrance and exit ramp construction, underground sewer and utility lines, historic railroad construction, and the installation of the existing NB-HCE piers (see Tables 4.1–4.2, 4.4; Figures 4.8a–4.8d, 4.9a–4.9d, and 4.10a–4.10d). Therefore, these areas are considered to have a low sensitivity for intact pre-Contact archaeological resources.

Historic Archaeological Sensitivity

Historic site sensitivity is assessed as high near documented historic occupation and low in areas with little record of historic land development. The presence of standing historic buildings indicates a high probability for associated historic archaeological sites. Information obtained from cartographic evidence also contributes to assessments of historic site probability. While early historic maps do not depict historic structures or roads with accuracy, nineteenth-century maps often record details of settlement pattern, ownership and occupation. From an environmental perspective, the factors contributing to prehistoric sensitivity often apply to early historic sensitivity as well.

Soil boring SWM-35 was placed within the footprint of the former Marist School building and demonstrated that filling and disturbance was present in the top 6.0 feet of the soil profile, over a possibly intact buried A-horizon (see Table 4.1). Historic buildings associated within the Parental School were present within the SSA, south of the proposed basin, as early as 1919. Additionally,

Phase IB archaeological testing recovered historic artifacts east of the proposed basin along John F. Kennedy Boulevard (see Section 4.4). Resources associated with the historic occupation of the property may exist within the buried topsoil. Basin excavations within the area are proposed to be 10.0 feet bgs; therefore, if excavations extend past 6.0 feet bgs, intact soils will be impacted. The location of SWM-35 is considered to have a moderate sensitivity for historic archaeological resources (see Tables 4.1–4.4).

The footprint of the Morris Canal (SHPO Opinion: 4/27/2004; NJR: 11/26/1973; NR: 10/1/1974), a NRHP- and NJR-listed resource, crosses the SSA at Avenue C in Jersey City and, there, its footprint extends through the central and southern portions of the existing and proposed bridge abutments (see Figures 3.14a, 4.1c). The Morris Canal is incorrectly plotted on NJHPO mapping on Block 30306, Lot 2 and should be in the footprint of Route 185 outside the SSA and proposed Basin HUC3-C (see Figures 3.14b; 3.15c). The Morris Canal does extend through proposed Piers 13, 14, and 15 and possibly a portion of Pier 17 and the east abutment for Structure No. 3.73R based on historic aerial photographs and mapping (see Figures 4.8c, 4.9c, 4.10c, and 3.15d). There, proposed piers will be excavated via a 6- to 8-foot-diameter screw auger to bedrock through very deep fills emplaced in 1954 and earlier for the construction of twentieth-century railroads and the 1954 viaduct structure. Soil boring data from 1954 for existing Viaduct Piers 19-23 reveal 13.6 to 30 feet of imported fill. From 1954 Viaduct Pier 20-23, imported mid-twentieth-century fill ranges in depth from 7.7 to 20 feet in thickness. An additional 5 to 20 feet of fill was placed on the ground surface in this area during the construction of the NB-HCE. Due to the presence of such extensive fill, machine-assisted Phase IB archaeological testing is not possible as it could undermine the structural integrity of the nearby existing pier footings.

During the early twentieth century, several railroad-related structures were present within the SSA that have been destroyed through subsequent construction and stormwater management. By 1908, a New York Bay Railroad Co. turntable was constructed within a proposed stormwater management basin (HUC3-C) southeast of the NB-HCE within the SSA (see Figure 3.12; see Figure 4.1). Remnants of the turntable were still present in aerial photographs from 1955 and 1979 (see Figure 3.19, 3.21; NETR 1979). Soil borings SWM-10(OW) and TP-10 excavated within proposed Basin HUC3-C, which will extend to a depth of 7.0 feet bgs, revealed at least 9.6 feet of imported fills and demolition debris from the removal of the railroad roundhouse and turntable in the 1950s and 1987, respectively (see Figure 4.8b; see Tables 4.2-4.4).

Historically, a building was mapped as early as 1781 within the footprint of the SSA along the route of the Morris Canal (see Figure 3.3). This building is mapped near the location of the Jersey Eagle Site (28-Hd-45). The historical component of the site contained artifacts related to eighteenth- to twentieth-century domestic refuse below 2.3 to 7.9 feet of modern fill. A stone wall feature was identified by PAL but determined by the firm to unlikely be associated with a structural foundation (PAL 2013; see Figures 3.23–3.24). Instead, the wall was interpreted as a boundary wall. As noted above, the site was determined eligible for listing in the NRHP under Criterion A and Criterion D. Therefore, the portion of the SSA containing the Jersey Eagle Site and the area surrounding it has a high sensitivity for historic-period archaeological resources. The proposed stormwater management basin, however, will only extend 5.0 feet bgs near an area of the Jersey Eagle Site that is documented to contain 6.0 to 7.9 feet of imported fill over a buried plowzone. Geotechnical soil boring information from the location of the proposed basin indicates 7.0 feet of imported fill over a possible Ab-horizon over subsoil (see Appendix D; AmerCon Corp. 2022). The natural soils are 2.0 feet below the proposed base of the basin. A proposed outfall stormwater pipe that extends from the proposed basin to Linden Avenue will parallel an existing natural gas pipeline and may fall within the disturbed 16-foot-wide trench excavation for the associated pipeline (see Figures 3.23–3.24, and 4.1c).

As previously noted, the westernmost piers and basins were situated within the former footprint of Newark Bay in areas which were not infilled until the mid-twentieth century and are unlikely to contain historic period archaeological resources. Development within the rest of the Bayonne and Jersey City portions of the SSA continued through the nineteenth and twentieth centuries; however,

historic aerial photos show that extensive grading and filling was conducted during the construction of the NB-HCE in the 1950s, along with other construction and utility-related activities (see Figures 3.18–3.20). In-depth analysis of soil borings also show deep imported fill deposits. It should be noted that the 1954 borings were taken prior to the construction of the NB-HCE and excavations for its construction in the 1950s. Due to extensive disturbance, the remainder of the SSA within Jersey City and Bayonne has an assessed low sensitivity for intact, significant historic period archaeological resources.

4.5 Subsurface Archaeological Testing Results

The following Phase IB survey text was previously submitted to the NJHPO in the archaeological survey and Intensive-level historic architectural survey completed in April 2022 and is reproduced here.

A roughly 75-foot-wide by 188-foot-long grassy area immediately east of the former Marist High School and west of John F. Kennedy Boulevard, located on Block 13, Lot 1 in the City of Bayonne, was determined to possibly remain undisturbed and was assessed with a moderate to high sensitivity for pre-Contact period Native American archaeological resources (Figure 4.11).

4.5.1 Field Methods

In total, 13 STPs were plotted and excavated within the area of moderate to high pre-Contact period sensitivity on Block 13, Lot 1 in Bayonne. This included eight STPs placed at 50-foot intervals and an additional five STPs placed at 25-foot intervals near STPs containing nineteenth-century artifacts (see Figure 4.11). Shovel test pits were placed on a rectilinear grid oriented along north-south grid lines parallel to John F. Kennedy Boulevard and were assigned sequential numerical designations. The locations of excavated STPs were mapped using measuring tapes, compasses, and referenced existing landmarks, and were plotted on maps. A utility mark-out was performed through New Jersey One Call in advance of subsurface testing.

The STPs measured approximately one foot in diameter. Round-nosed shovels and trowels were used for excavation. Each soil stratum was excavated and screened separately using ¼-inch hardware cloth to facilitate artifact recovery. Individual strata in each STP were separately excavated and screened. Shovel test pits were excavated into subsoils wherever possible unless impeded by rocks. Soil augers were utilized for the removal of deeply buried soil horizons. Soil characteristics and stratum designations were recorded on standardized forms, and the information recorded is presented in Appendix E. Munsell charts were used to record the soil color for each stratum. All excavations were backfilled, and the ground was restored to its original elevation upon completion of the testing. Photographs of field activities and general site views were taken.

Modern and non-diagnostic materials, such as modern bottle glass, decayed paper, and slag were noted and not retained. Discarded material is listed as Not Retained (NR) in the STP log (see Appendix E). Artifacts retained from subsurface testing were cataloged and analyzed to enable the production of a detailed inventory and classification. Retained artifacts were placed in re-sealable polyethylene bags along with standardized tags denoting their provenience, including coordinates, level, depth, and stratum. The artifact assemblage, project documents, and all field notes and photographs are temporarily stored at the RGA headquarters in Cranbury, New Jersey and all recovered artifacts will be provided to the current property owner of Block 13, Lot 1 in Bayonne following NJHPO review and approval of this report.

4.5.2 Laboratory Methods

Recovered cultural material was processed and cataloged at RGA's laboratory in Cranbury, New Jersey. Artifact processing consisted of cleaning and handwashing non-friable cultural material. Durable artifacts (i.e., ceramic, glass) were washed to remove residual soil and to facilitate identification. Less durable artifacts (i.e., metal, organic materials) were carefully dry brushed to remove residues prior to

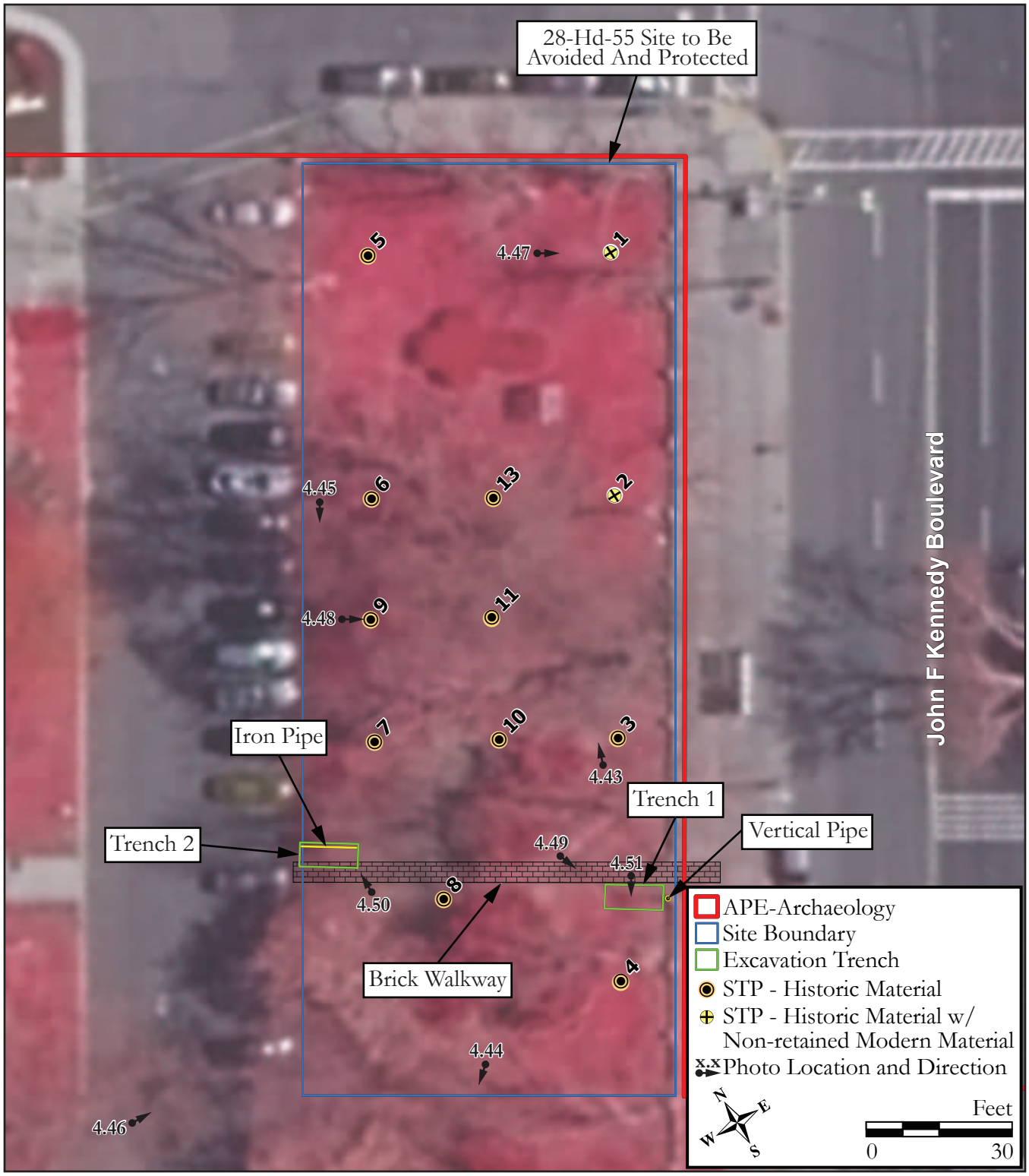


Figure 4.11: Aerial image showing photograph locations, STP locations and results, and existing trench locations (NJGIS Digital Orthographic Imagery [Infrared] 2020).

identification. Artifacts were placed in archival, 4-mil polyethylene zip lock bags. The artifact catalog is included as Appendix F. All historic artifacts were analyzed and cataloged according to provenience, artifact group similar to those defined by South (1977), material, artifact type, decorative or surface treatments(s), and an effort was made to identify and date all temporally and functionally diagnostic artifacts (see Appendix F).

4.5.3 Subsurface Archaeological Testing

Thirteen STPs were excavated on a grid at 25- and 50-foot intervals in the 75-foot wide by 188-foot portion of SSA (Block 13, Lot 1) to determine if intact archaeological deposits are present. In addition, the profiles of two trenches (designated as Trenches 1 and 2) excavated by the current property owner were observed (see Figure 4.11).

The subsurface archaeological excavations were conducted on August 17, 2022 by archaeologists: Michael J. Gall, MA, RPA (Principal Senior Archaeologist), Michelle Davenport, MA, RPA (Senior Archaeologist), and Richard Adamczyk, MA, RPA (Archaeologist). Carol Weed, RPA, assisted RGA with the STP excavations and served as a representative of the property owner during subsurface testing.

At the time of the archaeological survey, the portion of the Marist High School property subject to archaeological testing was grass covered with sparse tree cover (see Figure 4.11 Plates 4.43–4.51). The area was bounded by a parking lot to the west and a sidewalk along John F. Kennedy Boulevard to the east (see Figure 4.7; Plates 4.43–4.45). The parking lot surface is at least 3.0 feet below the elevation of the Phase IB survey area (see Plate 4.45). A brick walkway transected the southern portion of the testing area. Two trenches (Trenches 1 and 2) associated with ongoing construction of the property had been previously excavated along the walkway and contained an iron pipe at 4.5 feet below ground surface (bgs), and a vertical pipe was located east of the trench closest to John F. Kennedy Boulevard (see Figure 4.12; Plates 4.49–4.51). The profile for Trench 1, closest to John F. Kennedy Boulevard, consisted of a 1.0-foot-thick dark grayish brown (10YR 4/2) sandy loam modern topsoil, over a 1.0-foot-thick dark yellowish-brown (10YR 4/4) sand fill that capped a 0.6-foot-thick layer of asphalt followed by a dark yellowish-brown (10YR 4/6) sand truncated subsoil (Plates 4.4.31, 4.33). The profile for Trench 2 was disturbed and consisted of a 1.0-foot-thick dark grayish-brown (10YR 4/2) sandy loam modern topsoil over 3.0 feet of redeposited dark yellowish-brown (10YR 4/6) sandy loam soil that represents former pipe trench excavation material. Bricks from a partially removed brick walkway were scattered within and near Trench 2 (see Figure 4.11; see Plate 4.50). To the south of the Phase IB survey area, the property owner excavated to a minimum of 3.0 feet bgs to remove twentieth-century foundations associated with former buildings that stood at the school (see Plates 4.44 and 4.46).

Eight (8) STPs were plotted on a 50-foot interval grid within the APE and an additional five STPs were placed at 25-foot intervals to investigate areas that contained nineteenth-century artifacts (see Figure 4.11). The location of STP 8 was shifted roughly 15 feet northeast to avoid a large tree. In total, 338 artifacts were retained from the STPs. A representative sample of the artifacts found is shown in Figure 4.12.

The stratigraphy within the STPs above the subsoil or truncated subsoil varied greatly throughout the area of subsurface archaeological testing. All STPs contained one to four or five, mostly twentieth-century, redeposited and possibly imported fills that extended to depths between 1.2 and 4.5 feet below ground surface (bgs). The majority of these fills were present over truncated subsoils. The fills also varied greatly in soil characteristics, such as color and texture, indicating that soils were not uniform and artifact-rich soils may have been relocated from different locales prior to being placed within the SSA on Block 13, Lot 1 (see Appendix E).

Only one STP (STP 3) contained a buried A-horizon (Ab), consisting of a 0.8-foot-thick brown (10YR 5/3) sand that was present below a mottled twentieth-century redeposited fill. The artifacts found within the Ab consist of pearlware (n=1; 1803-1830), whiteware (n=11; 1815-1915), and coal (n=1). The material was notably small in size and may have been pushed down from overlying

Plate 4.43: Overview of the existing conditions within the grassy area between the former Marist High School and John F. Kennedy Boulevard during the Phase IB archaeological survey.

Photo view: North

Photographer: Michael Gall

Date: August 24, 2022

Plate 4.44: Overview of the existing conditions within the grassy area between the former Marist High School and John F. Kennedy Boulevard during the Phase IB archaeological survey.

Photo view: South

Photographer: Michael Gall

Date: August 24, 2022

Plate 4.45: Overview of the exiting conditions during the Phase IB archaeological survey within the grassy area along the parking lot associated with Marist High School.

Photo view: South

Photographer: Michael Gall

Date: August 24, 2022

Plate 4.46: Overview of grading to the south and west of the location of the subsurface archaeological testing.

Photo view: Northeast

Photographer: Michael Gall

Date: August 24, 2022

Plate 4.47: Overview of the excavation of STP 1.

Photo view: West

Photographer: Michael Gall

Date: August 24, 2022

Plate 4.48: Overview of the excavation of STP 9.

Photo view: West

Photographer: Michael Gall

Date: August 24, 2022

Plate 4.49: View of Trench 1 and a vertical pipe along the sidewalk near John F. Kennedy Boulevard.

Photo view: Southeast

Photographer: Michael Gall

Date: August 24, 2022

Plate 4.50: View of Trench 2 and an iron pipe adjacent to the parking lot for the former Marist High School.

Photo view: Northwest

Photographer: Michael Gall

Date: August 24, 2022

Plate 4.51: View of Trench 1 south profile.

Photo view: South

Photographer: Michael Gall

Date: August 24, 2022

Key to artifacts:

Top Row, Left to Right: Amber bottle glass (Cat. # 12), whiteware fragment (Cat. # 3), whiteware fragment (Cat. # 3), pearlware fragment (Cat. # 10), creamware fragment (Cat. # 20).

Bottom Row, Left to Right: Bottle/jar glass (Cat. # 23), refined white-bodied earthenware (Cat. # 24), plastic fragment (Cat. # 25), plastic fragments (Cat. #25).

Figure 4.12: Sample of historic artifacts found during the Phase I archaeological survey.

imported fill layers. Examples of early ceramics intermixed with twentieth-century plastic in imported fill layers was present in other STPs (e.g., Fill 1 in STP 13). Shovel Test Pit 13 also contained what may be an Ab or alternatively a fill layer (i.e., Fill 5). Encountered between 2.5 and 4.2 feet bgs, it was difficult to ascertain the exact nature of the soil due to its depth in the STP. This Fill 5/possible Ab contained window glass (n=1), bottle glass (n=1), vessel glass (n=1), and refined earthenware (n=1) (see Appendices E and F). The vessel glass found dates to either the mid- to late nineteenth century or early twentieth century given the presence of bottle glass with embossed lettering. Shovel test pits that that were excavated surrounding these STPs did not encounter an intact Ab.

Shovel Test Pit 5 contained two fill deposits to a depth of 1.4 feet bgs over truncated subsoils. Artifacts in the Fill 1 consist of window glass (n=1), bottle glass fragments (n=4), coal (n=5), coal ash (n=1), metal fragments (n=3), and concrete (n=2). No artifacts were uncovered from the second fill level. However, the underlying B1-horizon contained amber vessel glass (n=2), colorless bottle/jar glass (n=1), and slag (n=1). It is likely that the presence of historic material in subsoil is the result of bioturbation (see Appendices E and F).

In total, 310 artifacts were found within the remaining fill deposits (see Appendix F). The temporally diagnostic artifacts present within the majority of the fills suggest that the fills were re-deposited during the twentieth century, likely during maintenance and improvements to the Marist High School property. Four STPs (STPs 3, 6, 7, and 10) contained natural soil or fill with early to mid-nineteenth-century ceramics (Table 4.5). These STPs were situated in an area measuring 50 feet square and the artifacts that date to the early to mid-nineteenth century were all found in the bottom stratum above an intact or truncated subsoil layer. Among the STPs, STPs 3, 7, and 10 were spaced at 25 feet from one another. A close review of the data as presented in Table 4.1 reveals that the depth to the top of the subsoil was markedly inconsistent and the stratum that capped the subsoil in each of the four STPs was inconsistent in color. The artifacts found were all notably small in size and may have easily migrated through the fine sandy soils from upper stratigraphy via root or rodent turbation. Historic mapping from the early to mid-nineteenth century reveals that this area was wooded and undeveloped (Hassler 1846). The Coastal survey data strongly indicates a lack of development, and the irregularity in strata identified throughout the testing area implies extensive modification and import of soils, possibly during the construction of the Parental School in the early twentieth century (Hassler 1846; United States Coast Survey 1837). Preliminary and limited chain of title research does not indicate the presence of buildings within the Marist lot prior to the construction of the Parental School in the early twentieth century. In 1914, when the property was purchased for the construction of the Parental School, the lot is described as "barren" (JJ, 11 February 1914). The deposits above the aforementioned contexts generally contained some early nineteenth-century artifacts, indicating artifact-rich soils were modified and imported to Block 13, Lot 1 in the late nineteenth or twentieth century. No historic cultural features, such as foundations or pits, were identified and no pre-Contact period artifacts or cultural features were found.

Table 4.5: Profiles and artifact data for STPs with deposits of early to mid-nineteenth-century material.

STP	Depth (in Feet Below Grade)	Stratum	Soil Description	Artifacts
3	1.9-2.7	Ab*	Brown (10YR 5/3) Sand	1 Blue Printed Whiteware, 1 Very Tiny Negative Printed Pearlware
6	3.0-4.5	Fill 3*	Dark Yellowish Brown (10YR 4/4 with bands of 10YR 4/6) Fine Sand	1 Very Tiny Pearlware, 1 Very Tiny Rockingham, 3 Coal
7	1.2-1.8	Fill 2*	Yellowish Brown (10YR 5/4) Fine Sand	1 Redware Spall, 1 Negative Printed Pearlware
10	1.1-1.9	Fill 2*	Dark Yellowish Brown (10YR 4/6) Sand	1 Very Tiny Creamware

STP – Shovel Test Pit
*Capped intact or truncated subsoil.

The artifact deposits identified as part of this Phase IB archaeological survey was registered within the NJSM as the Marist High School Site (28-Hd-55) (Appendix G). In a letter issued by NJDEP on May 22, 2023, the NJHPO determined that Phase II archaeological survey is needed in the APE of Block 13, Lot 1 in the City of Bayonne to evaluate the National Register of Historic Places-eligibility of archaeological deposits on the property. Following the NJHPO's issuance of review comments on the Phase I archaeological survey report, the Authority had redesigned a portion of the project to avoid the site footprint. If the site cannot be avoided and a Phase II If still required, the results of that survey will be submitted under a separate cover.

5.0 CONCLUSIONS AND RECOMMENDATIONS

A Supplemental Phase I archaeological survey was completed for the NJTA's proposed reconstruction of the NB-HCE that is confined to the portion of the project in the upland section of the City of Bayonne and the City of Jersey City in Hudson County. Based on project design changes, the footprint of the Marist High School Site (28-Hd-55) measuring 78 feet by 193 feet in plan on Block 13, Lot 1 in the City of Bayonne will be avoided during construction activities and impacts. An avoidance and protection plan for the site location will be prepared under separate cover for review and comment by the NJHPO.

Proposed Basin HUC2-I on the former Marist High School property west of John F. Kennedy Boulevard in the City of Bayonne will extend to a depth of 23.3 feet amsl, 4.0 feet below the top of a 2.0-foot-thick buried A-horizon and underlying subsoil that have a moderate to high archaeological sensitivity. Phase IB archaeological survey is recommended at this basin, which will require the use of a backhoe to expose the deeply buried A-horizon. The area is currently privately owned and used as a staging and construction area for an ongoing private construction project, and Phase IB archaeological survey at this time is not possible. It is recommended that Phase IB archaeological survey occur at the proposed basin after the property is acquired by the NJTA if revisions to the basin's design to avoid impacts below 27.3 feet amsl are not feasible.

A review of 1954 and 2022 geotechnical boring logs and test pits found that portions of the deeply buried Morris Canal structure are present within the SSA at the proposed abutments for Structure No. N3.24R (NB-HCE bridge over Avenue C), at proposed Piers 13–15, a portion of Pier 17, and the eastern abutment of Structure No. N3.73R (Southeast Viaduct). Given the presence of structural embankments, abutments, and nearby piers at those locations, Phase IB archaeological survey is not feasible, excavations for which could undermine the structural integrity of the NB-HCE superstructure. Therefore, archaeological monitoring during construction is recommended during construction of the 5-foot-deep bridge abutments and the auger drilling for pier construction to mitigate project related adverse effects to the Morris Canal.

Due to the presence of a high-pressure natural gas pipeline in an existing 16-foot-wide construction trench that cut through the Jersey Eagle Site, an NJR- and NRHP-eligible historic property, Phase IB archaeological survey for the proposed outfall pipe associated with Basin HUC3-F is not recommended for safety reasons and the likelihood that the outfall pipe is confined to the existing gas pipeline trench footprint. Instead, archaeological monitoring during construction of the outfall pipe for Basin HUC3-F is recommended as a means of mitigating potential project-related adverse effects in the event portions of the proposed outfall pipe extend beyond the natural gas pipeline trench within the historic property footprint.

An archaeological monitoring protocol to be prepared under separate cover is recommended for the aforementioned locations. In addition, due to the use of a state authority's funding and direct impacts to the NJR-listed Morris Canal, completion of an Application for Project Authorization (APA) under the New Jersey Register of Historic Places Act (N.J.A.C. 7:4-7.1) will be required for the portions of the project within the canal footprint.

An area of previously assessed archaeological sensitivity for a twentieth-century railroad turntable and roundhouse at proposed Basin HUC3-C is no longer considered archaeologically sensitive following an examination of Test Pit 10 profile, which reveals extensive disturbance caused by the construction of Route 185 and an existing basin at this location. Additionally, data reveals that the structural footprint of the Morris Canal was not situated at Basin HUC3-C and was instead below present-day Route 185 outside the SSA for the basin. Therefore, no further archaeological survey is recommended at Basin HUC3-C. With the exception of Basin HUC2-I, soil boring data reveals that the vertical footprints of all other proposed basins are confined to recently imported and/or disturbed soils, resulting in a low archaeological sensitivity assessment and a recommendation for no further archaeological survey for the basins. Soil boring analysis, an examination of historic aerial photographs, and a review of project plans demonstrate that significant ground disturbance exists within the remainder of the SSA and no further archaeological survey is recommended.

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Appendix A-2

Supplemental Phase I Archaeological Survey
and Geotechnical Boring Review:
Appendices A-J

APPENDIX A: QUALIFICATIONS OF THE PRINCIPAL INVESTIGATOR

MICHAEL J. GALL
PRINCIPAL SENIOR ARCHAEOLOGIST (36 CFR 61)

YEARS OF EXPERIENCE

With this firm: 2001-Present
With other firms: 3

EDUCATION

EDUCATION:
MA 2004
Monmouth University
American History

BA 2001
Monmouth University
History and Anthropology

PROFESSIONAL TRAINING

40-hour Health and Safety Training for Hazardous Waste Operations and Emergency Response (OSHA 29 CFR 1910.120), (October 2004)

8-hour Health and Safety Training for Hazardous Waste Operations and Emergency Response Supervisor (June 2010)

8-hour Health and Safety Training for Hazardous Waste Operations and Emergency Response Annual Refresher (May 2020)

C.R.M. Essentials, Trenton, NJ (2007)

PROFESSIONAL AFFILIATIONS

Register of Professional Archaeologists

Council for Northeast Historical Archaeology (Board Member)

Society for Historical Archaeology

Archaeological Society of New Jersey (Bulletin Editor)

Michael J. Gall has extensive experience in applying Section 106 of the National Historic Preservation Act, as amended, the New Jersey Register of Historic Places Act, and other relevant state and municipal laws. Mr. Gall has served as a Principal Investigator on Phase I-III archaeological investigations and archaeological monitoring, and specializes in historical archaeology. He has experience working on archaeological sites in New Jersey, Pennsylvania, Connecticut, Delaware, Virginia, Maryland, Massachusetts, and New York and completing surveys in Arizona, Vermont, Maine, and North Carolina. He exceeds the qualifications set forth in the Secretary of Interior's Standards for Archaeologists [36 CFR 61].

REPRESENTATIVE PROJECT EXPERIENCE:

Phase I-III Archaeological Investigation, Great Road and Cherry Valley Road Intersection Improvement, Somerset and Mercer County, NJ (Sponsor: Somerset County Engineering) Principal Investigator for a Phase I Archaeological investigation in Montgomery Township, Somerset County and Princeton Township, Mercer County. Mr. Gall directed Phase I-III excavations for an early nineteenth-century cottager site owned by Paul Tulane. An archaeological data recovery report detailing the archaeological results at the P. Tulane site was produced presenting the results of the investigation to NJDEP standards.

Garden State Parkway Bridge Nos. 28.0S and 28.5S over Great Egg Harbor Bay and Drag Channel, City of Somers Point and Township of Egg Harbor, Atlantic County and Township of Upper, Cape May County, NJ (Sponsor: NJ Turnpike Authority) Principal Investigator, Senior Archaeologist for Phase II archaeological survey at GEHB 1 Site, a multi-component prehistoric and historic archaeological resource. The archaeological fieldwork resulted in the identification of 12 historic cultural features, and the recovery of eight prehistoric artifacts and 7,403 historic artifacts. The prehistoric component of the site was not recommended eligible for listing on the National Register of Historic Places based on the absence of intact prehistoric cultural features, and the confinement of prehistoric cultural material in historic deposits. The historic component of the site was determined to be associated with the Goldin family's occupation of the property between the 1690s/1700s and 1820s. As a result of the Phase II archaeological survey, RGA recommended GEHB 1 Site eligible for listing on the National Register of Historic Places under Criterion D for its ability to provide important new information on New Jersey's early settlement, animal husbandry, building practices, foodways, space use, and domestic economy between the 1690s/1700s and 1820s.

Phase I Archaeological Survey, Berlin-Cross Keys Road (County Route 689), Gloucester, Winslow, Pinehill and Berlin, Camden County, NJ (Sponsor: Camden County) Principal Investigator, Senior Archaeologist a Phase I archaeological survey for roadway improvements and retention basin installation to a 4.2-mile section of Berlin-Cross Keys Road (County Route [CR] 689 between New Brooklyn-Erial Road (CR 706) to North Park Drive in Gloucester and Winslow townships and Pine Hill and Berlin boroughs. Project tasks included background research at the NJ Historic Preservation Office (NJHPO), an assessment of archaeological sensitivity, field survey, and associated reporting. Fieldwork included the excavation of 522 shovel test pits and photographic documentation of existing conditions. No archaeological sites were identified. A technical report was prepared that met the reporting and survey standards of the NJHPO.

APPENDIX B: NJHPO REVIEW LETTER

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Office of Permitting and Project Navigation
401 East State Street, Mail Code 401-07J, P.O. Box 420
Trenton, New Jersey 08625-0420
Phone: (609) 292-3600 Fax: (609) 292-1921
www.nj.gov/dep/pcer

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

SHAWN M. LaTOURETTE
Commissioner

May 22, 2023

Michael Garofalo, P.E.
Chief Engineer
New Jersey Turnpike Authority
1 Turnpike Plaza – P.O. Box 5042
Woodbridge, NJ 07095

RE: Comments on the E.O. 215 Draft Environmental Impact Statement
Newark Bay – Hudson County Extension
Interchange 14 to Interchange 14A / Newark Bay Bridge and Associated Improvements
Newark, Essex County and Bayonne and Jersey City, Hudson County

Dear Mr. Garofalo,

The New Jersey Department of Environmental Protection's (Department) Office of Permitting and Project Navigation (OPPN) has distributed, for review and comment, the Executive Order #215 (E.O. 215) required Draft Environmental Impact Statement (EIS) for a proposed bridge and highway interchange infrastructure improvement project at the above location. The New Jersey Turnpike Authority (Authority) proposes a modernization of the Newark Bay – Hudson County Extension (NB-HCE) between Interchange 14 in Newark, Essex County, and Interchange 14A in Bayonne and Jersey City, Hudson County, to meet current and future needs of patrons of the NB-HCE, current design standards, and the Authority's operational and maintenance needs (the Proposed Project). A major element of the Proposed Project is the replacement of Newark Bay Bridge (NBB), officially, the Vincent R. Casciano Memorial Bridge, which comprises nearly half of the total length of the NB-HCE between Interchanges 14 and 14A. Proposed actions include replacement of all existing structures, increasing the number of travel lanes, increasing width of roadway shoulder, and improving ramp merges.

In response to your request for a determination as to whether the proposal will have any adverse impacts to land resources, historical or cultural resources, threatened and endangered species and migratory birds, contaminated sites, or whether there are any impacts to Green Acres encumbered parkland held by the State, local government units and/or nonprofit organizations, the Department offers the following comments for your consideration:

State-Owned Lands
Public Land Compliance (PLC)
Essex County
PLC confirms that there are no Green Acres encumbered parcels located within the Newark portion of the study area.

Hudson County
The following Green Acres encumbered parks were identified as being within or directly adjacent to the project's study area:

Bayonne: Mercer Park, Russell Golding Park, Rutkowski Park (The document states that the City "received funding for constructing wetland restoration, observation decks, bike trails and other amenities through NJDEP's settlement with a company over natural resources damages..." and, "is not listed on the Green Acres ROSI (NJDEP 2022)." However, it appears the City also received Green Acres funding for improvements at Rutkowski Park under Green Acres Project: 0901-00-067 resulting in the park being encumbered by Green Acres.)

Jersey City: Martiniak-Enright Park

Please note that under NJAC 7:36-25.14 any proposed temporary uses of Green Acres encumbered parkland for non-conservation/recreation use (i.e. temporary staging area) shall be no longer than two years with the possibility of a six month extension for good cause shown. Additionally, any trees removed from Green Acres encumbered parkland, even related to a temporary use, must be compensated for.

If you have any questions regarding this information, please contact Adam Taylor at Adam.Taylor@dep.nj.gov.

Public Land Administration (PLA)
If you have any questions regarding use of State-owned lands, please contact Louis Tallone at Louis.W.Tallone@dep.nj.gov.

Watershed and Land Management
Tidelands
If the proposed scope of work remains within the granted right-of-way (ROW) covered by the prior tidelands grants, then additional grants will not be required. If the proposed work/structures will extend beyond the current grant ROW boundaries, then a new grant for those portions that would extend beyond the grant boundaries will be required; an interim tidelands license would be required if work will start before the grant is delivered. If a grant is obtained prior to the start of work, however, then the license will not be required.

The mooring of a boat, barge, or raft for more than ten (10) consecutive days will require a tidelands license, unless the barge is within the grant boundary ROW.

If you have any questions regarding this information, please contact Randy Bearce at Randy.Bearce@dep.nj.gov.

Coastal Permitting
The New Jersey Turnpike Authority has initiated coordination with the Division of Land Resource Protection. The proposal will require Freshwater Wetlands, Waterfront Development and/or Flood Hazard authorizations.

If you have any questions regarding this information, please contact Matt Resnick at Matthew.Resnick@dep.nj.gov. Additionally, please include Jeff Thein at Jeff.Thein@dep.nj.gov in any correspondence involving Newark City, or Becky Mazzei at Becky.Mazzei@dep.nj.gov in any correspondence involving Bayonne City or Jersey City.

Freshwater Wetlands
If you have any questions regarding freshwater wetlands, please contact Cindy Rivera at Cindy.Rivera@dep.nj.gov involving Newark City, or Andrew Mazza at Andrew.Mazza@dep.nj.gov involving Bayonne City or Jersey City.

Flood Hazard and Stormwater Engineering
If you have any questions regarding flood hazard areas or stormwater management, please contact Dominick Cardella at Dominick.Cardella@dep.nj.gov.

New Jersey Fish and Wildlife (NJFW)
Endangered Non-game Species Program (ENSP)
The EIS addressed ENSP's main concerns to clear vegetation outside the breeding season, avoid work within a certain distance from active peregrine, osprey, and bald eagle nests, and to coordinate with ENSP when working on the bridge that contains a peregrine nest.

Marine Resource Administration (MRA)
MRA is comprised of the Bureau of Marine Fisheries and the Bureau of Marine Habitat & Shellfisheries. Both Bureaus are charged with reviewing permits within the context of the species they regulate, the habitat(s) of said species, and the user groups associated with those species and habitats. Based on the documentation that was provided, MRA recommends the following timing restrictions:

9.5 Finfish migratory pathways: Anadromous I (March 1 – June 30)

The MRA notes that the EIS for this project acknowledges the presence of various life stages of winter flounder and anadromous species in Newark Bay. Pursuant to Section 7:7-0.5 (Finfish migratory pathways), this project is a concern for fisheries resources because Newark Bay provides an important migratory pathway for several anadromous fish species that migrate towards river systems to spawn each Spring. The proposed project area is located in close proximity to confirmed American shad and river herring spawning locations. The Newark Bay drainage estuary is a vital ecosystem that provides a pathway to spawning grounds and essential nursery habitats for river herring and striped bass. Striped bass are one of the most economically and culturally important fishery resources in New Jersey, and the stock has recently been assessed as overfished and experiencing overfishing. River herring have significant ecological importance to coastal marine ecosystems coastwide, and populations are currently depleted. Any construction activities that may cause disturbance to habitats potentially used by these fish during spawning runs should be limited. Therefore, MRA recommends the Anadromous Time of Year Restriction on all proposed in-water project activities (March 1 – June 30) to avoid disruption of habitat and fish behavior during this Spring spawning migration period.

In addition, if there will be any dredging activity during this project, which would most likely occur during cofferdam installations, MRA recommends timing restrictions to protect winter flounder in the area. The Southern New England/Mid-Atlantic winter flounder stock is near historic lows and the proposed project is located within a region which has been determined to be Essential Fish Habitat for all life history stages of winter flounder. In New Jersey, winter flounder make an annual spawning migration into nearshore waters during the end of fall and beginning of winter, then return a few months later in late spring/summer to deeper cooler portions of estuaries and or offshore locations. Eggs, larvae, and juveniles are vulnerable to dredging activities during this time. Timing restrictions for winter flounder, which have been established to protect the spawning and vulnerable life history stages, in areas north of the Absecon Inlet and 20-feet or less MLLW bathymetric contour, are recommended from January 1 – May 31.

If you have any questions regarding this information, please contact Joe Corleto at Joseph.Corleto@dep.nj.gov.

Historic and Cultural Resources
The New Jersey Historic Preservation Office (HPO) concurs with the assessment of above ground resources and finds that the Newark Bay Bridge and the Port Authority Administration Building are eligible for inclusion in the New Jersey and National Registers of Historic Places.

An additional archeological survey is needed in the project area in Cities of Bayonne and Jersey City before the HPO can complete identification of historic resources. The HPO's review of this project cannot be completed until identification of historic resources is completed.

Identification of Historic Properties

Historic Architecture

The draft cultural resources report defines the area of potential effects (APE) for historic architecture as including all areas of direct construction impacts, as well as areas that may be impacted by visual changes, patterns of use, or may experience a change in historic character associated with the construction of the proposed project. The HPO concurs with the APE for historic architecture as delineated.

The APE for historic architecture includes the following properties previously listed on or determined eligible for the New Jersey and National Registers of Historic Places:

- Newark and Elizabeth Branch of the Central Railroad of New Jersey (SHPO Opinion 8/29/2000)
- Pennsylvania Railroad New York Bay Branch Historic District (SHPO Opinion 12/17/2019)
- Lehigh Valley Railroad Historic District (SHPO Opinion 3/14/2002)
- Morris Canal (SR 11/26/1973; NR 10/1/1974; SHPO Opinion 5/27/2004)

In addition to the above, 36 properties more than 50 years of age were identified within the APE for historic architecture. Five of these properties had been previously surveyed, and the remaining 31 were surveyed at the intensive level for this project. Of these, only two were recommended eligible for the New Jersey and National Registers: the Newark Bay Bridge, and the Port Authority Administration Building. *The HPO concurs with this recommendation.*

It is the opinion of the New Jersey State Historic Preservation Officer that the Newark Bay Bridge is eligible for listing on the New Jersey and National Registers of Historic Places. The Newark Bay Bridge was constructed in 1956 as a component of the New Jersey Turnpike Newark Bay-Hudson County Extension (Extension) to carry the Extension over Newark Bay between the cities of Newark and Bayonne. The main span consists of a three-part, cantilevered through-truss with east and west anchor arms and a central, shouldered tied-arch span, with a 43-span west approach and a 32-span east approach. The approaches are comprised of a combination of steel stringer beam spans and steel riveted girder spans, and the substructure includes two kinds of reinforced concrete piers. The bridge was designed by Charles M. Noble, Chief Engineer of the NJTA, with consulting engineers Howard Needles Tammen & Bergendoff.

The Newark Bay Bridge embodies the distinctive characteristics of a type, the cantilevered truss bridge. This type is no longer a favored bridge design among engineers and is an uncommon bridge type in New Jersey. The structure is one of four cantilevered truss bridges constructed in the state during the twentieth century. The other three have all been determined eligible for or listed on the New Jersey and National Registers of Historic Places: Goethals Bridge, built 1928 (SHPO Opinion 2/13/1995); Outerbridge Crossing, built 1928 (SHPO Opinion 2/20/2003); and U.S. Route 1 Extension [Pulaski Skyway], built 1931 (NR 8/11/2005; SR 6/12/2005). Of these, only the Outerbridge Crossing and Pulaski Skyway survive. The Newark Bay Bridge embodies all of the distinctive characteristics of a cantilevered through truss structure, including the cantilevered through truss span and anchor arms. The bridge also embodies the characteristics of other major bridges constructed during the development of the NJ Turnpike, including the concrete substructures, simple rolled steel girders on most spans, and built-up riveted deck plate girders on wider

spans. As such, the Newark Bay Bridge meets Criterion C as an example of a cantilevered truss bridge of the mid-twentieth century. Although the bridge has been modified in the decades since its construction, the changes have not impacted its character-defining features. The boundaries of the historic property are limited to the bridge itself, and the period of significance is limited to the year of its construction, 1956.

Additionally, **it is the opinion of the New Jersey State Historic Preservation Officer that the Port Authority Administration Building is eligible for listing on the New Jersey and National Registers of Historic Places.** Also known as Building 260, the Port Authority Administration Building was constructed in 1967. The property is eligible under Criterion C as a representative example of New Formalism Style, which characterized the architecture of many high-profile cultural, institutional and civic buildings during the 1960s. The Administration Building retains its form and many original materials, including its precast concrete vertical panels, glass and spandrel panels, glazed face brick, and the translucent, insulated fiberglass windows. The multi-story, multi-use, steel-framed building has a T-shaped footprint. The crossbar of the T-shaped building constitutes the three-story office area and is distinctive for its angular façade treatment. The combination of concrete and glass were thoughtfully positioned to provide views of the inner port area from the office area with the glass and spandrel panels facing south, and privacy from the public with the concrete panels mostly facing north. Extending from the office area's northeast elevation is the one-story garage and storage area, which features translucent insulated fiberglass windows.

John M. Kyle, the agency's chief engineer for 25 years, designed the Port Authority Administration Building and many other Port Authority facilities in New Jersey and New York. The Administration Building was part of the effort by the Port Authority to continuously invest in the expansion and improvement of its marine facilities in the Port of Newark. The interior of the building has been substantially altered, but the exterior retains a high level of integrity of location, design, materials, feeling and association. The period of significance for this property is 1967 (the date of construction). The boundaries of the Port Authority Administration Building include the entire footprint of the building and the rear parking lot and is bounded to the north by Distribution Street, to the east by industrial warehouses used by Port Newark (Compass Street), to the south by Kellogg Street, and to the west by Corbin Street. **These are new SHPO Opinions**.

<u>Archaeology</u>

The report provides information on the combined Phase IA and limited Phase IB archaeological surveys consisting of background research, a field reconnaissance survey, an archaeological sensitivity assessment, subsurface testing within a portion of the archaeological area of potential effects (APE), analysis, and reporting.

City of Newark

The report states that the Newark portion of the APE was historically salt marsh and subsequently filled during the mid-twentieth century thus possessing low archaeological sensitivity. No additional archaeological survey is recommended. *Upon review, the HPO concurs with this assessment.*

Newark Bay

The report states that the Newark Bay portion of the APE contains no known shipwrecks and that only one submerged target, likely a submerged historic piling marked the edge of the dredged navigation channel, is located within one of the temporary construction trestle pier footprint locations. The report recommends that the construction of the temporary construction trestle piers does not have the potential to affect any

maritime archaeological resources and that no further archaeological survey is recommended. *Upon review, the HPO concurs with this assessment.*

Cities of Bayonne and Jersey City

The report states that the APE is highly sensitive for intact buried structural elements for the Morris Canal (canal prism, towpath, and associated construction elements) which is listed on the New Jersey and National Registers of Historic Places (Block 30203, Lot 3; Block 30204, Lot 4; Block 30306, Lots 2 and 4; and Block 30303 TURN). The APE also contains the multi-component pre-Contact and historic-period Jersey Eagle Site (28-Hd-45) which is eligible for inclusion on the New Jersey and National Registers of Historic Places (SHPO Opinion 5/17/2013) with the general area of the site assessed with a high potential for deeply buried pre-Contact and historic archaeological resources. Finally, the report states one of the proposed basins is sensitive for a *circa* 1908 New York Bay Railroad Co. turntable and Morris Canal elements. The report recommends that the project as proposed will have an *adverse effect* on the listed Morris Canal and recommends archaeological monitoring, with an HPO-approved work plan, for the above referenced archaeological resources (Report Figures 4.1b-4.1c). The report assesses the remainder of the APE (excluding Block 13, Lot 1, see below) as low archaeological sensitivity based on filled salt marsh and/or ground disturbance from the 1953 construction of the NB-HCE, surrounding roads, former and extant rail lines, and the installation of underground utilities, and therefore, no further archaeological survey is recommended within the APE.

The report did assess a single parcel in Bayonne (Block 13, Lot 1) as holding a moderate- to high archaeological sensitivity for pre-Contact period Native American archaeological resources based on its location on former uplands bordering the Newark Bay prior to infilling of the adjacent salt marshes. The Phase IB archaeological survey effort included 13 shovel test pits (STPs) and observation of two separate construction trenches independently excavated on site. The report states that testing identified multiple historic period levels containing early to mid-nineteenth century artifacts above a truncated subsoil interpreted as modified and re-deposited soil levels developed during the property's development between 1909 and 1919. The report concludes that these soil levels lack integrity, do not represent potentially significant archaeological deposits, and no further archaeological survey of Block 13, Lot 1 is recommended.

Upon review, the HPO cannot concur with the assessment above based on the available information to date nor the recommendations for archaeological monitoring alone within the areas of known archaeological resources (Figures 4.1b-4.1c). The majority of the eastern APE is sensitive for both pre-Contact and historic period archaeological resources based on the detailed information provided within the above referenced report. While selective areas of sensitivity have been identified for monitoring based on existing, documented archaeological resources, the remainder of the APE equally holds archaeological sensitivity but the depths of historic filling and/or grading from highway construction remains unknown based on the current data in the above referenced report. Archaeological survey in urban areas confirms both deep disturbances but pockets of intact archaeological strata do survive requiring consideration as part of any undertaking. These intact deposits have the potential to provide important new information on the undocumented prehistory and early historic period development within Bayonne and Jersey City. **Therefore, Phase IB archaeological survey will be necessary for areas of ground disturbance within the APE with the potential to affect shallow and deeply buried archaeological resources. Archaeological monitoring is still necessary upon the completion of the phased archaeological surveys for this undertaking.** Machine-assisted Phase I testing methods will be required as part of the archaeological identification process. In addition, the report did not discuss if any program of geotechnical investigation has been, or will be, conducted for the undertaking and if that data can be used to identify areas of fill/disturbance within the project area that can be used to rule out areas requiring

survey. Therefore, the report's supposition that previous urbanization, road, and highway construction-related grading, filling, and utility work renders the majority of the archaeological APE as low archaeological sensitivity requires confirmation through either geotechnical evidence and/or physical archaeological testing.

In light of the information above and based on the lack of information regard depth(s) of disturbance/grading for the proposed project, a Phase IB archaeological survey is necessary within the APE, particularly all stormwater management basins unless subsequent documentation exists demonstrating the depth of disturbance within the APE and/or potential archaeological deposits are located beyond the depth of proposed ground disturbance for the project.

Regarding the Phase IB survey within Bayonne Block 13, Lot 1, a review of the shovel test logs (Appendix G) and artifact catalog (Appendix H) suggests a fairly intact soil stratigraphy was identified across the testing area typified in urban landscape development consisting of areas of disturbance but also areas of intact stratigraphy consisting of an upper twentieth century level followed by nineteenth (and possibly late eighteenth century) stratigraphy. Therefore, Block 13, Lot 1 appears to contain intact archaeological deposits developed during the historic period (possibly as early as the late eighteenth century) and developed by the early nineteenth century. In addition, STP 6 may contain an early nineteenth century feature based on the depth of the deposits identified. Based on the lack of twentieth century artifacts within the lower STP levels suggestive of post-depositional site activity, **Phase II archaeological survey within the APE for Bayonne Block 13, Lot 1 will be necessary. Phase II archaeological survey will assess the identified archaeological deposits for inclusion on the New Jersey and National Registers of Historic Places and will require an HPO-approved Phase II work plan.**

The HPO cannot fully assess the effects of this proposed project until identification of all potential historic properties is complete.

Additional Comments

The HPO looks forward to receiving the additional archeological survey in order to complete identification of historic properties within the area of potential effect and to continue the EO 215 review and DLRP review. Because of the need for United States Coast Guard permits the HPO will also have a review of this project under Section 106 of the National Historic Preservation Act. Because of the NJTA involvement and impacts to the Morris Canal, which is listed in the NJ Register of Historic Places, a review under the New Jersey Register of Historic Places Act (NJRHPA) will also be required. Please reference the HPO project number **21-1041** in any future calls, emails, submissions or written correspondence to expedite your review and response. If you have any questions, please contact Vincent Maresca regarding archaeology at Vincent.Maresca@dep.nj.gov, or Jennifer Leynes regarding historic architecture at Jennifer.Leynes@dep.nj.gov.

Bureau of Water Allocation and Well Permitting (BWAWP)

The EIS identified the need to perform construction related dewatering for this project – please see the attached copy of the BWAWP Construction Related Dewatering Guidance (Attachment A). Since the project will be covering multiple municipalities and counties, the project would need to obtain one authorization per municipality where dewatering will occur.

Depending on the quantity of water to be diverted and the duration of the activity within each municipality, either a Temporary Dewatering Permit or a Short-Term Water use Permit-by-Rule may be required. For areas where the contractor will be utilizing coffer dams, a Dewatering Permit-by-Rule should be sufficient. The applicant should contact BWAWP to discuss this matter further since the application requirements and review time varies significantly for each authorization type.

If you have any questions regarding this information, please contact Ken Komar at Ken.Komar@dep.nj.gov.

NJPDES Discharge to Surface Water

Based on a review of the EIS, a NJPDES Discharge to Surface Water General Permit will be needed for a surface water discharge from construction related dewatering.

If the discharge will be uncontaminated groundwater generated during construction activities, the appropriate NJPDES Discharge to Surface Water General Permit is the B7 - Short Term De Minimis General Permit (http://www.nj.gov/dep/dwq/gp-b7.htm). As per the B7 application checklist, analytical lab data of all the parameters specified in Attachment 1 must be submitted and the results must demonstrate that they are below the effluent standards.

If the discharge will be treated groundwater from remediations and dewaterings, the appropriate NJPDES Discharge to Surface Water General Permit is the BGR – General Groundwater Remediation Clean-up Permit (http://www.nj.gov/dep/dwq/gp_bgr.htm). As per the BGR permit application, a summary of the contaminants of concern must be submitted where the data was collected no more than 12 months prior to the submittal of the application. In addition, a Treatment Works Approval (TWA) from the Bureau of Environmental, Engineering and Permitting may be needed for the construction of the treatment system.

If you have any questions regarding this information, please contact Bennett Moss at Bennett.Moss@dep.nj.gov.

Air

Air Permitting

The applicant should review the requirements of N.J.A.C. 7:27-8.2(c) 1-22 for stationary permitting requirements. This includes but is not limited to, construction equipment-stationary construction equipment or emergency generators, may require air pollution permits if it is located on the site for longer than one year N.J.A.C. 7:27-8.2(d)15. There are general permits for boilers and emergency generators (https://www.state.nj.us/dep/aqpp/gp.html) if the units can meet the prescribed requirement in the general permits.

Idling Vehicles – any vehicles involved on the project must adhere to the idling standards (less than 3 minutes) in N.J.A.C. 7:27-14 and 15.

Air pollution, including odors that are detectable offsite that are injurious to human health or would result in citizen complaints are prohibited. N.J.A.C. 7:27-5.2.

Fugitive Dust – dust emissions either windblown or generated from construction activities should be controlled to prevent offsite impacts or material tracked onto the roadways. N.J.A.C. 7:27-5.2.

If you have any questions regarding this information, please contact Danny Wong at Danny.Wong@dep.nj.gov.

Bureau of Mobile Sources

NJTPA utilized EPA's Motor Vehicle Emission Simulator to calculate the emissions from motor vehicles used on the project. While the data computing system is outdated, the results are still an effective way of knowing how to maintain vehicle operations on-site. While the construction-related emissions were shown to have no long-term effects on air quality in the State through the year 2050, there can still be impacts of the vehicles used during the operation. It is important that all hydraulic hoses for medium and heavy-duty

construction vehicles are frequently checked for leaks, and that operators of these vehicles inspect their vehicles for oil and transmission leaks before, during, and after use of each vehicle. Considering the noise pollution would impact at minimum 181 homes in the area, it is imperative that there are minimal setbacks in this project caused by vehicle operations, so preventative checks and maintenance should be of primary concern.

To reduce pollutant emissions during the construction process, NJDEP recommends that all diesel-fueled construction equipment, vessels, and commercial vehicles involved in the process must monitor their idling in times of operation. This could include control strategies and training for equipment operators to ensure that vessel and equipment operating times are minimized and controlled. Project partners should focus on monitoring onshore construction sites and ports used for the offshore stations, as these are located within some nonattainment and maintenance areas.

Diesel exhaust contributes the highest cancer risk of all air toxics in New Jersey and is a major source of NOx within the state. Therefore, NJDEP recommends that construction projects involving non-road diesel construction equipment operating in a small geographic area over an extended period of time implement the following measures to minimize the impact of diesel exhaust:

All on-road vehicles and non-road construction equipment operating at, or visiting, the construction site shall comply with the three-minute idling limit, pursuant to N.J.A.C. 7:27-14 and N.J.A.C. 7:27-15. Consider purchasing "No Idling" signs to post at the site to remind contractors to comply with the idling limits. Signs are available for purchase from the Bureau of Mobile Sources at 609/292-7953 or http://www.stopthesoot.org/sts-no-idle-sign.htm.

All non-road diesel construction equipment greater than 100 horsepower used on the project for more than ten days should have engines that meet the USEPA Tier 4 non-road emission standards, or the best available emission control technology that is technologically feasible for that application and is verified by the USEPA or the CARB as a diesel emission control strategy for reducing particulate matter and/or NOx emissions.

All on-road diesel vehicles used to haul materials or traveling to and from the construction site should use designated truck routes that are designed to minimize impacts on residential areas and sensitive receptors such as hospitals, schools, daycare facilities, senior citizen housing, and convalescent facilities.

In accordance with N.J.A.C. 7:27-14 and 15, diesel vehicles should not idle for more than 15 consecutive minutes when the vehicle has been stopped for 3 or more hours and only if the temperature is <25 deg. F.

In accordance with N.J.A.C. 7:27-14 and 15, diesel vehicles can idle if the engine provides power for mechanical operations such as: refrigeration units for perishable goods, hydraulic lifts, "cherry pickers", or similar equipment.

If you have any questions regarding this information, please contact Kris Dahl at Kris.Dahl@dep.nj.gov.

NJPDES Stormwater

Any project which disturbs 1 or more acres of land, or less than 1 acre but is part of a larger common plan of development which is greater than 1 acre, is required to obtain a NJPDES Stormwater Construction General Permit (5G3) authorization. This authorization requires the applicant to first submit and receive certification of a soil erosion and sediment control plan from the local soil conservation district office. Once the plan has been certified the applicant must file for 5G3 permit coverage through the NJDEP online service. Once the applicant has registered for DEPonline they must navigate to the Stormwater construction general authorization service to complete and submit their application. The application requires the input

of two unique codes obtained from the soil conservation district office upon certification of their soil plan. Once the application is complete and submitted, a temporary authorization will be issued to the applicant, provided the system determines the application meets the eligibility requirements of the permit. Once the application information is migrated into our database system a final permit authorization, along with a summary of the application information submitted, will be emailed to the individual identified as the "permittee contact" during the application process.

For projects conducted by the NJDOT the online application process does not apply. NJDOT self certifies their soil erosion and sediment control plans and must file a paper permit application through standard mail.

If you have any questions regarding this information, please contact Dan Kuti at Daniel.Kuti@dep.nj.gov.

Contaminated Site Remediation and Redevelopment (CSRR)

If you have any questions regarding contaminated sites, please contact A.J. Joshi at Ashish.Joshi@dep.nj.gov.

Office of Environmental Justice

The Office of Environmental Justice is aware that the Diamond Alkali Superfund Site - Operable Unit 3 (Newark Bay) has entered into an Interim Remedy by USEPA and supported by the NJDEP's Contaminated Site Remediation & Redevelopment Program. Given the coinciding timelines for both the Newark Bay Bridge Replacement and the Newark Bay remediation, OEJ recommends that project managers consult one another to ensure that constructions do not significantly impact environmental justice communities and proper coordination occurs.

EJMAP is listed to have been reviewed, however, the report's analysis is limited to age, income, minority status, education level, and language in its identification of EJ populations. Globally, the report does not factor in any analysis of whether specific EJ/overburdened communities will be impacted from the proposed projects, or how the 26 stressors included in EJMAP will be impacted.

The former Marist High School property is identified under the proposed plan as a future stormwater treatment facility and will be a construction staging area, among the other planned project staging areas across Hudson and Essex Counties. The former Marist High School property is adjacent to residential neighborhoods. Please clarify if the MOVES3 analysis factors in proximity to residential exposures, including sensitive populations. If so, proper monitoring and engineering/institutional controls may be needed.

If you have any questions regarding this information, please contact Myla Ramirez at Myla.Ramirez@dep.nj.gov.

Thank you for giving the Department the opportunity to comment on the EIS for the Proposed Project. Please contact Elizabeth Lange at Elizabeth.Lange@dep.nj.gov or Ryan Carter at Ryan.Carter@dep.nj.gov, or contact OPPN at (609) 292-3600 if you have any questions.

Sincerely,

David Pepe, Director
Office of Permitting and Project Navigation

Attachment A

Bureau of Water Allocation and Well Permitting
Construction Related Dewatering Guidance

Revised 8/2015

Bureau of Water Allocation & Well Permitting
Construction Related Dewatering Guidance

Various permits and approvals may be required for construction related dewatering activities from the Well Permitting and Water Allocation Permitting sections in the Bureau of Water Allocation and Well Permitting. Permits required are site and project specific.

Well Permitting

An approved Well Permit is required for dewatering wells or dewatering well points which are 25 feet or more in total depth or are 6 inches or more in borehole diameter. All drilling activity shall be performed and completed by a New Jersey licensed well driller of the proper class. N.J.A.C. 7:9D – 1.11(g) 5.

Water Allocation

If construction related water use (including trench dewatering) is required at rates exceeding 70 gallons per minute or greater pumping capacity from a single source or combination of sources in the same municipality then that activity would be regulated. Potential regulatory mechanisms include:

Diversion of more than 100,000 gallons of water per day ($\geq$ 70 gpm) for less than 31 days in a consecutive 365 day period- Short Term Water Use Permit-by-Rule (BWA-003) /Short Term Water Use Report (BWA-004), N.J.A.C. 7:19 – 2.17(a).

Diversion of more than 100,000 gallons of water per day ($\geq$ 70 gpm) from a confined area/space (coffer dam) – Dewatering Permit-by-Rule (BWA-005), N.J.A.C. 7:19 – 2.17(b).

Diversion of more than 100,000 gallons of water per day ($\geq$ 70 gpm) for more than 30 days in a consecutive 365 day period – Temporary Dewatering Permit (BWA-002), N.J.A.C. 7:19 – 2.3.

Diversion of less than or equal to 100,000 gallons of water per day at pumping rates of more than 70 gpm or larger – Water Use Registration (DWR-188), N.J.A.C. 7:19 – 2.18.

In addition –

Horizontal directional drilling – as this is part of the pipeline construction it would be included within the scope of the applicable regulatory mechanism for the project.

Pipeline pressure testing – water used for pressure testing pipeline segments has historically been done under a Short Term Water Use Permit-by-Rule (BWA-003)/Short Term Water Use Report (BWA-004), N.J.A.C. 7:19 –2.17(a).

Applicability – If the project is located in close proximity to a salt water body (ocean, bay, coastal river, salt water marsh) the native ground water and water in the adjacent water body should be checked for: chlorides and salinity. Water Allocation Permitting does not apply to diversions of salt water except where the Department determines that the diversion and the resultant usage may affect utilization of fresh water in accordance with N.J.A.C. 7:19 –1.4(a)2. Salt water is defined as water containing a chloride concentration in excess of 10,000 mg/L. N.J.A.C. 7:19-1.3

For additional information see – www.nj.gov/dep/watersupply

or contact – Bureau of Water Allocation and Well Permitting
Mail Code 401-04Q
P.O. Box 420
Trenton, New Jersey 08625-0420
(609)984-6831

APPENDIX C: SUMMARY OF NATIONAL REGISTER CRITERIA

Significant historic properties include districts, structures, objects, or sites that are at least 50 years of age and meet at least one National Register criterion. Criteria used in the evaluation process are specified in the Code of Federal Regulations, Title 36, Part 60, National Register of Historic Places (36 CFR 60.4). To be eligible for inclusion in the National Register of Historic Places, a historic property(s) must possess:

> the quality of significance in American History, architecture, archaeology, engineering, and culture [that] is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

a) that are associated with events that have made a significant contribution to the broad patterns of our history, or

b) that are associated with the lives of persons significant in our past, or

c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components lack individual distinction, or

d) that have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

There are several criteria considerations. Ordinarily, cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register of Historic Places. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

a) a religious property deriving primary significance from architectural or artistic distinction or historical importance, or

b) a building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event, or

c) a birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with his/her productive life, or

d) a cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events, or

e) a reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived, or

f) a property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historic significance, or

g) a property achieving significance within the past 50 years if it is of exceptional importance. (36 CFR 60.4)

When conducting National Register evaluations, the physical characteristics and historic significance of the overall property are examined. While a property in its entirety may be considered eligible based on Criteria A, B, C, and/or D, specific data is also required for individual components therein based on date, function, history, and physical characteristics, and other information. Resources that do not relate in a significant way to the overall property may contribute if they independently meet the National Register criteria.

A contributing building, site, structure, or object adds to the historic architectural qualities, historic associations, or archeological values for which a property is significant because a) it was present during the period of significance, and possesses historic integrity reflecting its character at that time or is capable of yielding important information about the period, or b) it independently meets the National Register criteria. A non-contributing building, site, structure, or object does not add to the historic architectural qualities, historic associations, or archeological values for which a property is significant because a) it was not present during the period of significance, b) due to alterations, disturbances, additions, or other changes, it no longer possesses historic integrity reflecting its character at that time or is incapable of yielding important information about the period, or c) it does not independently meet the National Register criteria.

APPENDIX D: GEOTECHNICAL SOIL BORING LOGS

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. B1-29
Sheet No. 1 of 4

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose Geotechnical Structure Type
Location RDWY. NB-HCE STA. OFF.

Rig No. CME 75	Type Truck		Driller Brenton Rousey		Helper Ramen Ciancia			
DATE	10/18/22	10/19/22	10/20/22					
TIME STARTED	07:00 am	07:00 am	07:00 am					
TIME FINISHED	03:00 pm	02:00 pm	01:24 pm					
WEATHER	Sunny	Sunny	Sunny					
DEPTH REACHED	53 ft	125.3 ft	138.8 ft					

GROUND ELEVATION 10.7 ft M.L.W. ELEVATION
ZERO OF BORING LOG ELEVATION GROUNDWATER

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-
138.8						1		5		

Drilling Mud Rotary Mud with Casing Casing Type: 15' of 4" casing Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type Steel Length 30" O.D. 3" I.D. 2-7/8"

GROUNDWATER READINGS							
DATE							
TIME							
DEPTH							

GENERAL REMARKS:
B1-29 was moved 5' from the Roadway.

Northing: 677582 Easting: 600360

All elevations refer to the NAVD 88 datum. Horizontal locations refer to the NJ State Plane coordinates system as per the NAD 83 datum.

The subsurface information shown hereon was obtained for NJTA design and estimate purposes. It is made available to authorized users only that may have access to the same information available to the NJTA. It is presented in good faith, but is not intended as a substitute for investigations, interpretation, or judgement of such authorized users.

INSPECTOR M. Fallah GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. B1-29
Sheet No. 2 of 4

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft) 10.7	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
9.7				G-1	0 - 1	1.0 ft PEAT	Black PEAT.
				G-2	1 - 4		Yellowish Brown coarse to fine SAND, some coarse to fine
							Gravel.
				G-3	4 - 5		Yellowish Brown fine SAND.
		6	9	S-1	5 - 7		Same.
		11	12				Rec=19"
		16	18	S-2	7 - 9		Brown coarse to fine SAND, trace^{-} medium to fine Gravel.
		15	16				Rec=17"
		3	4	S-3	9 - 11		Same.
		4	2				Rec=5"
		3	3	S-4	11 - 13		Same.
		2	4			SAND	Rec=7"
		4	4	S-5	15 - 17		Same.
		4	2				Rec=6"
		3	2	S-6	20 - 22		Same.
		3	2				Rec=8"
-12.8						23.5 ft	
		WOH	1	S-7	25 - 27		*Black Clayey SILT, and^{-} coarse to fine Sand, little^{+} fine
		3	1				Gravel. Rec=7"
						ORG. SILT	
		WOH	2	S-8	30 - 32		*Gray SILT & CLAY, little^{-} medium to fine Sand.
		2	7				Rec=17"
-22.8						33.5 ft	
		6	6	S-9	35 - 37		Reddish Brown SILT & CLAY. (P.P.= 2.5 TSF)
		10	12				Rec=18"
		4	5	S-10	40 - 42		Reddish Brown CLAY & SILT, trace^{-} fine Gravel.
		4	6			SILT & CLAY	(P.P.= 2.5 TSF) Rec=14"
		3	6	S-11	45 - 47		*Reddish Brown Silty CLAY, trace^{+} coarse to fine Sand,
		7	8				trace^{-} f Gravel. (P.P.= 2.0 TSF) Rec=16"
		P	U	U-1	47 - 49		Top/Bottom: Reddish Brown CLAY & SILT. (P.P.= 2.0 TSF)
		S	H				Rec=16"
		5	5	S-12	49 - 51		Reddish Brown CLAY & SILT, trace medium to fine Gravel.

*indicates that the soil description has been verified based on laboratory test results.

AmerCom Corp.

BORING LOG

Boring No. B1-29
Sheet No. 3 of 4

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft) -39.3	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
		8	6				(P.P.= 1.5 TSF) Rec=8"
		7	6	S-13	51 - 53		Same. (P.P.= 1.5 TSF)
		7	11				Rec=4"
		2	7	S-14	55 - 57		Reddish Brown CLAY & SILT, trace fine Gravel. (P.P.= 2.5
		7	10				TSF) Rec=16"
		4	6	S-15	60 - 62		Reddish Brown CLAY & SILT, trace medium to fine Gravel.
		9	12				(P.P.= 3.0 TSF) Rec=19"
		5	5	S-16	65 - 67		Reddish Brown CLAY & SILT, trace fine Gravel.
		8	12				(P.P.= 3.0 TSF) Rec=14"
		5	6	S-17	70 - 72		Same. (P.P.= 3.0 TSF)
		13	12				Rec=19"
		8	6	S-18	75 - 77	SILT & CLAY	Reddish Brown CLAY & SILT, little fine Gravel. (P.P. = 3.0
		36	16				TSF) Rec=17"
		1	2	S-19	80 - 85		Reddish Brown CLAY & SILT. (P.P.= 2.5 TSF)
		3	4				Rec=24"
		WOH	WOH	S-20	85 - 87		*Reddish Brown Silty CLAY. (P.P.= 2.0 TSF)
		4	6				Rec=24"
		WOH	WOH	S-21	90 - 92		Same. (P.P.= 1.5 TSF)
		4	6				Rec=24"
		2	9	S-22	95 - 97		Same. (P.P.= 0.75 TSF)
		19	11				Rec=13"

*indicates that the soil description has been verified based on laboratory test results.

AmerCom Corp.

BORING LOG

Boring No. B1-29
Sheet No. 4 of 4

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
-89.3		6	19	S-23	100 - 102		Reddish Brown CLAY & SILT, little+ fine Gravel. (P.P.= 1.0
		25	30				TSF) Rec=11"
						SILT & CLAY	
		16	21	S-24	105 - 107		Reddish Brown CLAY & SILT, some+ fine Sand, trace fine
		32	49				Gravel. (P.P.= 1.0 TSF) Rec=13"
-97.8						108.5 ft	
		100/6"	-	S-25	110 - 110.5		Reddish Brown Clayey SILT, some+ medium to fine Gravel,
		-	-				little medium to fine Sand. Rec=5"
		100/6"	-	S-26	115 - 115.5		Same. (Possible Boulder or Cobble)
		-	-				Rec=5"
						DECOM. ROCK	
		100/3"	-	S-27	120 - 120.3		Reddish Brown fine SAND, some medium to fine Gravel, little
		-	-				Clay & Silt. (Possible Boulder or Cobble) Rec=2"
		100/3"	-	S-28	125 - 125.3		Reddish Brown CLAY & SILT, some medium to fine Gravel.
-116.6		-	-			127.3 ft	(Possible Boulder or Cobble) Rec=2"
				R-1	127.3 - 132.3		Brown & Gray, SANDSTONE to DOLOMITE, Hard
	1 mins						Hardness, Thinly Bedded, Moderately Weathered. Rec=26.4"
	1 mins						(Boulders)
	2 mins						
	2 mins						
	2 mins			R-2	132.3 - 136.3	BOULDERS & COBBLES	Same.
	12 mins						Rec=12"
	10 mins						
	4 mins						
	1 min	100/5"	-	S-29	136.3 - 138.8		Black to Brown coarse to fine GRAVEL, little fine Sand.
		-	-				(Possible Boulder or Cobble) Rec=5"
-128.1						138.8 ft	
							End of Boring at 138.8 feet

*indicates that the soil description has been verified based on laboratory test results.

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. B1-30(CH)
Sheet No. 1 of 4

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose Geotechnical Structure Type
Location RDWY. NB-HCE STA. OFF.

Rig No.	CME 75	Type	Truck	Driller	Brenton Rousey		Helper	Ramen Ciancia
DATE	10/21/22	10/24/22						
TIME STARTED	07:00 am	07:00 am						
TIME FINISHED	02:30 pm	02:30 pm						
WEATHER	Rainy	Rainy						
DEPTH REACHED	40 ft	115.3 ft						

GROUND ELEVATION 9.9 ft M.L.W. ELEVATION
ZERO OF BORING LOG ELEVATION GROUNDWATER 4.4 ft

PAY QUANTITIES

LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-
105.25						1		10		

Weight of Hammer (Type) Average Fall
Drilling Mud Rotary Mud with Casing Casing Type: 15' of 4" casing 140 lb 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type Steel Length 30" O.D. 3" I.D. 2-7/8"

GROUNDWATER READINGS							
DATE	10/21/22						
TIME	08:12 am						
DEPTH	5.5 ft						

GENERAL REMARKS:

Northing: 677358 Easting: 600920

All elevations refer to the NAVD 88 datum. Horizontal locations refer to the NJ State Plane coordinates system as per the NAD 83 datum.

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INSPECTOR M. Fallah GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. B1-30(CH)
Sheet No. 2 of 4

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
9.9				G-1	0 - 3		Brown medium to fine SAND, little- fine Gravel, trace Shell
							Fragments.
				G-2	3 - 5		Brown medium to fine SAND, medium to fine Gravel.
▼		7	7	S-1	5 - 7		Brown medium to fine SAND, little+ Silt & Clay, trace coarse
		5	5				to fine Gravel. Rec=16"
		4	4	S-2	7 - 9	SAND	Brown medium to fine SAND, trace fine Gravel.
		3	10				Rec=17"
		9	6	S-3	9 - 11		Brown medium to fine SAND, little- medium to fine Gravel,
		7	6				trace Shell Fragments. Rec=19"
		4	5	S-4	11 - 13		Brown to Grayish Brown coarse to fine SAND, medium to
		7	6				fine Gravel. Rec=16"
-6.1		WOH	WOH	S-5A	15 - 17	16.0 ft	7": Dark Gray fine SAND, some Organic Silt.
		WOH	WOH	S-5B		CLAY & SILT	12": Grayish Brown SILT & CLAY. Rec=19"
-8.6						18.5 ft	
		5	5	S-6	20 - 22		Light Gray medium to fine SAND.
		6	7				Rec=17"
						SAND	
		5	5	S-7	25 - 27		Brown medium to fine SAND, trace fine Gravel.
		8	9				Rec=15"
-18.6						28.5 ft	
		5	3	S-8	30 - 32		Reddish Brown CLAY & SILT. (P.P.= 2.5 TSF)
		4	5				Rec=7"
		5	7	S-9	35 - 37		Same. (P.P.= 4.5 TSF)
		7	8				Rec=17"
						CLAY & SILT	
		3	4	S-10	40 - 42		Same. (P.P.= 2.0 TSF)
		6	6				Rec=17"
		P	U	U-1	42 - 44		Top/Bottom: Reddish Brown CLAY & SILT. (P.P.= 2.0 TSF)
		S	H				Rec=17"
		4	5	S-11	44 - 46		Reddish Brown CLAY & SILT, trace- coarse to fine Gravel.
		6	6				(P.P.= 3.5 TSF) Rec=17"
		2	3	S-12	46 - 48		Reddish Brown CLAY & SILT. (P.P.= 1.5 TSF)
		5	6				Rec=11"

*indicates that the soil description has been verified based on laboratory test results.

AmerCom Corp.

BORING LOG

Boring No. B1-30(CH)
Sheet No. 3 of 4

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
-40.1		3	5	S-13	50 - 52		Reddish Brown CLAY & SILT, trace⁻ coarse Gravel.
		6	10				(P.P.= 4.0 TSF) Rec=9"
		4	6	S-14	55 - 57	CLAY & SILT	Reddish Brown CLAY & SILT, trace f Gravel. (P.P.= 2.5
		7	16				TSF) Rec=19"
		8	7	S-15	60 - 62		Reddish Brown CLAY & SILT, trace fine Gravel. (P.P.= 3.0
		8	10				TSF) Rec=15"
-53.6						63.5 ft	
		19	18	S-16	65 - 67	SAND	Reddish Brown fine SAND, little⁺ Clayey Silt.
		19	18				Rec=15"
-58.6						68.5 ft	
		3	6	S-17	70 - 72		Reddish Brown Clayey SILT, trace⁻ f Gravel. (P.P.= 4.0 TSF)
		7	6				Rec=15"
		1	4	S-18	75 - 77	CLAY & SILT	Reddish Brown Silty CLAY. (P.P.= 2.5 TSF)
		4	5				Rec=21"
		3	12	S-19	80 - 82		Reddish Brown CLAY & SILT, some⁺ coarse to fine Gravel.
		22	23				(P.P. = 4.0 TSF) Rec=13"
-73.6						83.5 ft	
		9	10	S-20	85 - 87		Reddish Brown fine SAND, trace fine Gravel, trace⁻ Silt.
		7	9				Rec=13"
		13	16	S-21	90 - 92	SAND	Reddish Brown fine SAND, coarse to fine Gravel, trace Silt.
		22	17				Rec=11"
-83.6						93.5 ft	
		100/3"	-	S-22	95 - 95.3		Reddish Brown CLAY & SILT, some medium to fine Gravel.
		-	-			DECOM. ROCK	(Decomposed Rock). Rec=3"

*indicates that the soil description has been verified based on laboratory test results.

AmerCom Corp.

BORING LOG

Boring No. B1-30(CH)
Sheet No. 4 of 4

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
-90.1		100/3"	-	S-23	100 - 100.3	DECOM. ROCK 103.5 ft	Same. (Decomposed Rock)
		-	-				Rec=3"
-93.6							
		100/3"	-	S-24	105 - 105.3	ROCK	No Recovery. (Possible Decomposed Rock)
	3 mins	-	-	R-1	105.3 - 110.3		Gray, DOLOMITE, Hard Hardness, Medium Jointed, Massive
	3 mins						to Slightly Broken, Slightly Weathered. REC=52/60=87%,
	2 mins						RQD=52/60=87%.
	2 mins						
	2 mins			R-2	110.3 - 115.3		Gray, DOLOMITE, Hard Hardness, Medium Jointed, Massive
	2 mins						to Slightly Broken, Slightly Weathered. REC=60/60=100%,
	2 mins						RQD =49.2/60=82%.
	2 mins						
-105.4	3 mins					115.3 ft	
	2 mins						End of Boring at 115.3 feet

*indicates that the soil description has been verified based on laboratory test results.

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. B1-33
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose Geotechnical Structure Type
Location RDWY. NB-HCE STA. OFF.

Rig No.	CME 75	Type	Truck	Driller	Brenton Rousey		Helper	Ramen Ciancia	
DATE	10/26/22								
TIME STARTED	07:00 am								
TIME FINISHED	03:30 pm								
WEATHER	Sunny								
DEPTH REACHED	40 ft								

GROUND ELEVATION 18.0 ft M.L.W. ELEVATION
ZERO OF BORING LOG ELEVATION GROUNDWATER

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-
40						0		10		

Drilling Mud Rotary Mud with Casing Casing Type 15' of 4" Casing Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type Steel Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE							
TIME							
DEPTH							

GENERAL REMARKS:

Northing: 675343 Easting: 603319

All elevations refer to the NAVD 88 datum. Horizontal locations refer to the NJ State Plane coordinates system as per the NAD 83 datum.

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INSPECTOR M. Fallah GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. B1-33
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
18.0							
17.6				G-1	0 - 0.4	0.4 ft	5": Concrete Sidewalk Slab.
				G-2	0.4 - 2		Dark Brown medium to fine SAND, little+ coarse to fine
				G-3	2 - 5	FILL	Gravel.
							Dark Brown medium to fine SAND, some Silt, little+ coarse
13.0						5.0 ft	to fine Gravel.
		2	1	S-1	5 - 7		*Grayish Brown coarse to fine SAND, some+ Silt, trace+ f
		WOH	WOH			SAND	Gravel. Rec=12"
		WOH	WOH	S-2	7 - 9		Grayish Brown medium to fine SAND, some- coarse to fine
9.0		2	9			9.0 ft	Gravel, little Silt. Rec=11"
		10	8	S-3	9 - 11		Reddish Brown coarse to fine GRAVEL, little- fine Sand, little
		5	8				Clayey Silt. Rec=6"
		8	19	S-4	11 - 13		Same.
		12	13				Rec=13"
						GRAVEL	
		6	9	S-5	15 - 17		*Reddish Brown coarse to fine GRAVEL, some coarse to
		33	10				fine Sand, trace+ Silt. Rec=9"
-0.5						18.5 ft	
		12	11	S-6	20 - 22		Reddish Brown coarse to fine GRAVEL, trace+ coarse to
		22	18				fine Sand. (Decomposed & Fractured Rock) Rec=12"
						DECOM. ROCK	
		19	20	S-7	25 - 27		Reddish Brown coarse to fine GRAVEL, little- fine Sand,
		22	29				trace Silt & Clay. Rec=12"
		100/3"	-	S-8	27 - 27.3		No Recovery. (Possible Decomposed Rock)
		-	-				Rec=0"
-12.0						30.0 ft	
				R-1	30 - 35		Gray, DIABASE, Hard to Very Hard Hardness, Medium to
	2 mins						Thinly Jointed, Slightly Broken, Slightly Weathered. REC=
	2 mins						60/60=100%, RQD=50.4/60=84%.
	2 mins						
	2 mins					ROCK	
	2 mins			R-2	35 - 40		Same. REC=49.2/60=82%, RQD=45/60=75%.
	3 mins						
	3 mins						
	3 mins						
-22.0	3 mins					40.0 ft	
	3 mins						End of Boring at 40 feet

*indicates that the soil description has been verified based on laboratory test results.

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. B1-34
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose Geotechnical Structure Type
Location RDWY. NB-HCE STA. OFF.

Rig No. CME 75	Type Truck	Driller Brenton Rousey	Helper Ramen Ciancia			
DATE	10/27/22					
TIME STARTED	08:30 am					
TIME FINISHED	03:00 pm					
WEATHER	Sunny					
DEPTH REACHED	37 ft					

GROUND ELEVATION 20.3 ft M.L.W. ELEVATION
ZERO OF BORING LOG ELEVATION GROUNDWATER 15.8 ft

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-
37						0		10		

Drilling Mud Rotary Mud with Casing Casing Type 15' of 4" Casing Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type Steel Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE	10/27/22						
TIME	09:18 am						
DEPTH	4.5 ft						

GENERAL REMARKS:
B1-34 relocated 3.2 feet from utility pole.

Northing: 675714 Easting: 603556

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INSPECTOR M. Fallah GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. B1-34
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
20.3							
19.9				G-1	0 - 0.5	0.4 ft	4": Concrete Sidewalk Slab, 2"Granular Base.
				G-2	0.5 - 5		Reddish Brown fine SAND, some^{+} Silt, little^{-} coarse to fine Gravel.
						SAND	
▼							
		9	5	S-1	5 - 7		Reddish Brown fine SAND, some^{-} coarse to fine Gravel,
13.3		10	11			7.0 ft	little^{-} Silt. Rec=12"
		10	16	S-2	7 - 9		*Reddish Brown coarse to fine GRAVEL, some^{-} fine Sand,
		11	14				little^{-} Silt. Rec=13"
		12	13	S-3	9 - 11		Same.
		16	15				Rec=6"
		16	19	S-4	11 - 13		Same.
		16	19				Rec=16"
						GRAVEL	
		13	12	S-5	15 - 17		*Reddish Brown coarse to fine GRAVEL, and^{-} coarse to fine
		14	13				Sand, little^{+} Silt. Rec=14"
-1.2		23	14	S-6A	20 - 21.8	21.5 ft	11": Reddish Brown fine GRAVEL, some^{+} fine Sand, trace
		50	100/3"	S-6B			Silt & Clay. Rec=14"
							3": Gray coarse to fine GRAVEL. (Possible Decomposed
						DECOM.	Rock)
						ROCK	
		100/3"	-	S-7	25 - 25.3		No Recovery. (Possible Decomposed Rock)
-6.7		-	-			27.0 ft	Rec=0"
				R-1	27 - 32		Gray, DIABASE, Hard Hardeness, Medium to Thinly Jointed,
	4 mins						Slightly Broken, Slightly Weathered. REC= 58/60=97%,
	4 mins						RQD=41/60=68%.
	3 mins						
	3 mins						
	3 mins			R-2	32 - 37	ROCK	Same. REC= 59/60=98%, RQD=40/60=67%.
	3 mins						
	3 mins						
	3 mins						
-16.7	4 mins					37.0 ft	
	4 mins						End of Boring at 37 feet

*indicates that the soil description has been verified based on laboratory test results.

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. B2-12(OW)
Sheet No. 1 of 3

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose Geotechnical Structure Type
Location RDWY. NB-HCE STA. OFF.

Rig No. CME 75	Type Truck		Driller George Raymond		Helper Chris Meyers				
DATE	11/11/22	11/14/22	11/15/22						
TIME STARTED	11:00 am	07:00 am	07:00 am						
TIME FINISHED	03:00 pm	03:00 pm	04:00 pm						
WEATHER	Sunny	Sunny	Sunny						
DEPTH REACHED	17 ft	45.5 ft	52.5 ft						

GROUND ELEVATION 22.6 ft M.L.W. ELEVATION
ZERO OF BORING LOG ELEVATION GROUNDWATER

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-
50.3						0		0		

Drilling Mud Rotary Mud with Casing Casing Type: 50' of 3" Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE							
TIME							
DEPTH							

GENERAL REMARKS:
Two Grab Samples to depth of 5ft.

Northing: 674919 Easting: 604114

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INSPECTOR M. Fallah GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. B2-12(OW)
Sheet No. 2 of 3

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft) 22.6	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
				G-1	0 - 2		Dark Gray medium to fine SAND, and+ coarse to fine Gravel.
				G-2	2 - 5		Dark Brown medium to fine SAND, and coarse to fine
							Gravel.
		9	15	S-1A	5 - 7		16": Dark Brown fine SAND, trace fine Gravel.
		17	21	S-2B			6": Dk Gr f SAND, some c-f Gravel, little Silt. Rec=22"
		11	6	S-2	7 - 9		Gray\Brown\White coarse to fine SAND, and+ fine Gravel,
		8	11				trace Silt. Rec=14"
		3	2	S-3	9 - 11		Grayish Brown coarse to fine SAND, some+ fine Gravel,
		2	48				trace Silt. Rec=10"
		6	9	S-4	11 - 13		Same.
		7	13				Rec=8"
		12	12	S-5	15 - 17		Reddish Brown fine SAND, little- coarse to fine Gravel.
		10	6				Rec=14"
		11	11	S-6	20 - 22		Reddish Brown fine SAND, some+ coarse to fine Gravel,
		16	12				trace- Silt. Rec=12"
						SAND	
		15	14	S-7	25 - 27		Reddish Brown coarse to fine SAND, some+ coarse to fine
		12	18				Gravel, trace Silt. Rec=24"
		21	15	S-8	30 - 32		Same.
		20	19				Rec=15"
		100/3"	-	S-9	35 - 35.3		No Recovery.
		-	-				Rec=0"
		11	17	S-10	40 - 42		Reddish Brown coarse to fine SAND, some+ coarse to fine
		31	20				Gravel, trace Silt. Rec=13"
-22.4						45.0 ft	
		100/7"	-	S-11	45 - 45.6	GRAVEL	Grayish Brown coarse to fine GRAVEL, little- coarse to fine
		-	-				Sand, trace- Silt. Rec=7"
						50.3 ft	

*indicates that the soil description has been verified based on laboratory test results.

AmerCom Corp.

BORING LOG

Boring No. B2-12(OW)
Sheet No. 3 of 3

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft) -27.4	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
-27.7		100/3"	O	S-12	50 - 50.3	COBBLES	Spoon Refusal.
-28.7		C	E	CBA-1	50.3 - 52.3	51.3 ft	No recovery, coring starts at 50.3'. Rec=12"
		R					Gray COBBLES, trace coarse Gravel.
							End of Boring at 52.5 feet

*indicates that the soil description has been verified based on laboratory test results.

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. B2-12B(OW)
Sheet No. 1 of 3

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose Geotechnical Structure Type
Location RDWY. NB-HCE STA. OFF.

Rig No.	CME 75	Type	Truck	Driller	George Raymond	Helper	Chris Meyers	
DATE	11/16/22	11/17/22						
TIME STARTED	10:00 am	07:00 am						
TIME FINISHED	03:00 pm	01:35 pm						
WEATHER	Sunny	Sunny						
DEPTH REACHED	47 ft	64.8 ft						

GROUND ELEVATION 23.5 ft M.L.W. ELEVATION
ZERO OF BORING LOG ELEVATION GROUNDWATER 13.0 ft

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-
64.8						0		0		

Drilling Mud Rotary Mud with Casing Casing Type 50' of 3" casing Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS								
DATE	11/16/22	11/17/22	11/17/22					
TIME	02:00 pm	08:15 am	01:32 pm					
DEPTH	10.5 ft	11.5 ft	11.5 ft					

GENERAL REMARKS:

Northing: 604116 Easting: 674913

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INSPECTOR M. Fallah GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. B2-12B(OW)
Sheet No. 2 of 3

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft) 23.5	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
▼							
▼							

AmerCom Corp.

BORING LOG

Boring No. B2-12B(OW)
Sheet No. 3 of 3

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
-26.5				CBA	50 - 52.5		1.1' of Boulder.
						BOULDER	Rec=13"
-29.0						52.5 ft	
						SAND	
-32.3		44	100/4"	S-1	55 - 55.8	55.8 ft	Brown coarse to fine SAND, and coarse to fine Gravel.
							Rec=17"
		100/5"		S-2	60 - 60.4	GRAVEL & SAND	Dark Gray coarse to fine Gravel, and coarse to medium
							Sand. Rec=5"
		32	42	S-3	63 - 64.8		Dark Gray coarse to fine Gravel, little coarse to medium
-41.3		49	100/3"			64.8 ft	Sand. Rec=12"
							End of Boring at 64.8 feet

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. B2-13
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose Geotechnical Structure Type _____
Location _____ RDWY. NB-HCE STA. _____ OFF. _____

Rig No.	CME 75	Type	Truck	Driller	Chris Peters		Helper	Chris Meyers	
DATE	01/21/23								
TIME STARTED	12:16 pm								
TIME FINISHED	12:16 pm								
WEATHER	Cloudy								
DEPTH REACHED	21 ft								

GROUND ELEVATION 41 ft M.L.W. ELEVATION _____
ZERO OF BORING LOG _____ ELEVATION GROUNDWATER _____

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-
21						0		10		

Drilling Mud Rotary Mud with Casing Casing Type: 15' casing Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE							
TIME							
DEPTH							

GENERAL REMARKS:
One Grab Sample to depth of total of 5ft.

Northing: 674931 Easting: 604660

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INSPECTOR R. Mangar GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. B2-13
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
41.0							
40.5				G-1	0 - 5	0.5 ft ASPHLT	5": Asphalt Concrete.
						FILL	Grayish Brown\Black coarse to fine SAND, some coarse to
							fine Gravel, trace Silt.
35.0		20	17	S-1A	5 - 7	6.0 ft	3": Gray\Black c-f GRAVEL, little c-f Sand, trace Silt.
		19	22	S-1B		DECOM. ROCK	3":Red Br\Br c-f SAND, little Clayey Silt. Rec=6"
		33	28	S-2	7 - 9		Light\Reddish Brown c-f GRAVEL, some c-f Sand, little Silt.
		30	29				(Decom. Rock) Rec=4"
		37	100/1"	S-3	9 - 9.6		Light\Red Br c-f SAND, some Clay & Silt, trace m-f Gravel.
30.0		-	-			11.0 ft	(Decom. Rock) Rec=6"
				R-1	11 - 16	ROCK	Light Gray SANDSTONE, Slightly Weathered, Medium to
	3 mins						Hard Hardness, Widely to Medium Bedded. Rec=57"
	3 mins						REC=57/60=95%, RQD=56/60=95%
	3 mins						
	3 mins						
	3 mins			R-2	16 - 21		Same. REC=60/60=100%, RQD=60/60=100%
	3 mins						Rec=60"
	4 mins						
	5 mins						
20.0	3 mins					21.0 ft	
	4 mins						End of Boring at 21 feet

*indicates that the soil description has been verified based on laboratory test results.

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. B2-14
Sheet No. 1 of 3

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose Geotechnical Structure Type
Location RDWY. NB-HCE STA. OFF.

Rig No.	CME 75	Type	Truck	Driller	George Raymond		Helper	Chris Meyers			
DATE	11/18/22		11/21/22		11/22/22						
TIME STARTED	12:30 pm		07:00 am		07:00 am						
TIME FINISHED	03:00 pm		03:00 pm		12:00 pm						
WEATHER	Sunny		Sunny		Sunny						
DEPTH REACHED	22 ft		46 ft		55.5 ft						

GROUND ELEVATION 19.1 ft M.L.W. ELEVATION
ZERO OF BORING LOG ELEVATION GROUNDWATER 8.1 ft

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-
55.5						0		5		

Drilling Mud Rotary Mud with Casing Casing Type: 15' 4" Casing Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE	11/18/22						
TIME	02:11 am						
DEPTH	11 ft						

GENERAL REMARKS:
One Grab Sample to depth of total of 5ft.

Northing: 675484 Easting: 605678

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INSPECTOR M. Fallah GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. B2-14
Sheet No. 2 of 3

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
19.1					0 - 1.5		Asphalt
				G-1	1.5 - 5		Dark Gray coarse to fine SAND, some+ coarse to fine
							Gravel, trace- Silt.
		5	6	S-1	5 - 7		Dark Gray coarse to fine SAND, some+ coarse to fine
		6	5				Gravel, trace- Silt. Rec=13"
		9	15	S-2A	7 - 9		10": Yellowish Brown fine SAND.
		20	18	S-2B			10": Dark Gray Organic SILT, little- fine Sand. Rec=20"
		14	17	S-3	9 - 11		Yellowish Brown coarse to fine SAND, trace coarse to fine
▼		18	15			SAND	Gravel. Rec=14"
		6	3	S-4	11 - 13		Dark Gray coarse to fine SAND, little coarse to fine Gravel.
		2	2				Rec=14"
		3	3	S-5	15 - 17		Dark Gray coarse to fine SAND, trace Silt.
		2	3				Rec=9"
-0.9						20.0 ft	
		2	1	S-6A	20 - 22		12": Dark Gray Organic SILT.
		1	2	S-6B			5": Grayish Brown fine SAND. Rec=18"
						SAND & SILT	
-5.9						25.0 ft	
		4	5	S-7	25 - 27		Reddish Brown fine SAND, some- Silt, little coarse to fine
		15	17				Gravel. Rec=11"
		22	23	S-8	30 - 32		Brown coarse to fine SAND, some- coarse to fine Gravel,
		27	31				little- Silt. Rec=19"
						SAND	
		22	48	S-9	35 - 37		Grayish Brown coarse to fine SAND, some coarse to fine
		38	44				Gravel, little- Silt. Rec=24"
-20.9						40.0 ft	
		100/6"		S-10	40 - 40.5		Grayish Brown medium to fine Gravel. (Core Barrel
							Advancement at 41.5'). Rec=12"
		C	O	CBA	41.5 - 46		Black Boulder.
		R	E				Rec=3.6"
						BOULDER	
-30.9						50.0 ft	

*indicates that the soil description has been verified based on laboratory test results.

AmerCom Corp.

BORING LOG

Boring No. B2-14
Sheet No. 3 of 3

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
-30.9		13	20	S-11	50 - 51.8	CLAY & SILT 51.8 ft	Reddish Brown CLAY & SILT, little fine Sand, trace fine
-32.7		43	100/3"				Gravel. (P.P. = 3.5 tsf). Rec=15"
				R-1	52 - 55.5	ROCK	Black SHALE, MEDIUM STRONG, Medium to Thinly
	6 mins						Bedded, Moderately Weathered. REC= 40.8/42=97%,
	6 mins						RQD=16.8/42=40%.
-36.4	13 mins					55.5 ft	
	18 mins						End of Boring at 55.5 feet

*indicates that the soil description has been verified based on laboratory test results.

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. B2-15
Sheet No. 1 of 3

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose Geotechnical Structure Type
Location RDWY. NB-HCE STA. OFF.

Rig No.	CME 55	Type	Track	Driller	Gus Sori	Helper	Chris Meyers	
DATE	12/15/22							
TIME STARTED	10:51 am							
TIME FINISHED								
WEATHER								
DEPTH REACHED	85 ft							

GROUND ELEVATION 26.6 ft M.L.W. ELEVATION
ZERO OF BORING LOG ELEVATION GROUNDWATER

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-

Drilling Mud Rotary Mud with Casing Casing Type: 15' 4" Casing Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE							
TIME							
DEPTH							

GENERAL REMARKS:
One Grab Sample to depth of total of 5ft.

Northing: 675594 Easting: 606223

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INSPECTOR R. Mangar GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. B2-15
Sheet No. 2 of 3

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
26.6				G-1	0 - 5		Dark Brown coarse to fine SAND, some coarse to fine
							Gravel, trace Silt.
		3	3	S-1	5 - 7		Light Gray coarse to fine Sand, some coarse to fine Gravel,
		3	2				trace Silt. Rec=16"
		7	9	S-2	7 - 9		Light Gray coarse to fine SAND, some coarse to fine Gravel,
		8	7				trace Silt. Rec=14"
		9	7	S-3	9 - 11	SAND	Dark Gray coarse to fine SAND, some coarse to fine Gravel,
		9	8				trace Silt. Rec=14"
		16	14	S-4	11 - 13		Light Brown coarse to fine SAND, some coarse to fine
		17	20				Gravel, trace Silt. Rec=21"
		7	6	S-5	15 - 17		Light Brown coarse to fine SAND, some coarse to fine
		8	8				Gravel, trace Silt. Rec=15"
6.6						20.0 ft	
		WOH	WOH	S-6	20 - 22		Light Gray CLAY & SILT. (PP<0.25 TSF)
		WOH	3				Rec=19"
		5	4	S-7	25 - 27	CLAY & SILT	Dark Gray CLAY & SILT. (PP=0.5 TSF)
		4	5				Rec=15"
-3.4						30.0 ft	
		3	3	S-8	30 - 32	SAND & GRAVEL	Light Gray coarse to fine SAND, some coarse to fine Gravel,
		10	11				trace Silt. Rec=15"
		-	-	S-9	35 - 37		NO RECOVERY.
		-	-				Rec=0"
		-	-	S-10	40 - 42		NO RECOVERY.
		-	-				Rec=0"
		27	25	S-11	45 - 47		Brownish Orange coarse to fine SAND, some coarse to fine
		31	29				Gravel, trace Silt. Rec=15"

*indicates that the soil description has been verified based on laboratory test results.

AmerCom Corp.

BORING LOG

Boring No. B2-15
Sheet No. 3 of 3

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
-23.4		33	35	S-12	50 - 52		Brownish Orange coarse to fine SAND, some coarse to fine
		35	31				Gravel, trace Silt. Rec=14"
		36	31	S-13	55 - 57		Brownish Oranfe coarse to fine SAND, some coarse to fine
		33	31				Gravel, trace Silt. Rec=13"
		-	-	S-14	60 - 62		REFUSAL.
		-	-				Rec=0"
		34	37	S-15	65 - 67		Light Brown coarse to fine SAND, some coarse to fine
		31	31				Gravel, trace Silt. Rec=6"
		33	100/2	S-16	70 - 72		Light Gray coarse to fine GRAVEL, some coarse to fine
-45.4		-	-			72.0 ft	Sand, trace Silt. Rec=10"
		C	O	R-1	75 - 80		Dark Gray DIABASE, HARD STRONG, Medium to Thinly
		R	E				Bedded, Moderately to Slightly Weatnered.
							REC=60/60=100% RQD=31/60=52%
		C	O	R-2	80 - 85		DarkGray DIABASE, HARD STRONG, Medium to Thin,y
		R	E				Bedded, Moderately to Slightly Weathered. REC=60/60=100
							RQD=53/60=88%%
							End of Boring at 85 feet

*indicates that the soil description has been verified based on laboratory test results.

NEW JERSEY TURNPIKE AUTHORITY

Preliminary Design and Environmental Services

Newark Bay-Hudson County Extension (NBHCE)

OPS No. T3820

PROPOSED SCHEDULE OF GEOTECHNICAL BORINGS

The estimated soil drilling and rock coring quantities are based on information obtained from the historical borings and geologic information in vicinity of the proposed structures. In general, N-SPT soil sampling shall be performed continously to a depth of 12 ft and at intervals of 5 ft thereafter, until auger refusal at top of rock. Where cohesive soils are encountered, undisturbed soil samples (thin-walled Shelby tubes) shall be obtained at approximate intervals of 10 ft within the soft layer. Where rock is cored, a minimum core length of 10 ft shall be obtained using NX- or NQ- size core barrels (2-inch I.D.). Actual drilling quantities and termination depths shall be determined in the field based on subsurface conditions encountered. Geotechnical borings are identified by prefix B, root project number, and by a hyphenated suffix boring number (i.e., B#-#). Geotechnical borings identifier with (OW) suffix shall be transformed to Observation Wells upon termination. Observation well depth will be determined in the field based on the groundwater level encountered. Geotechnical borings having (PS) suffix shall be logged using the P-S Suspension Seismic Velocity Logging method. See specifications included herein.

PROJECT 1 GEOTECHNICAL BORINGS

Structure Name - Number	Boring Identifier	Estimated Soil Drilling (ft)	Proposed Rock Coring (ft)	Estimated Total Boring Depth (ft)	Approximate NAD83 Coordinates (Lat/Lon)
Int 14 Ramp HS - No. 016A	B-1-01	85	20	105	682764.29 588332.63
Int 14 Ramp NOH - No. 016A	B1-02 (OW)	85	20	105	682458.32 588343.81
Int 14 Ramps HLT & HNO (F&H) - No. 028C	B1-03	45	20	65	682722.01 589244.32
Int 14 Ramp SH (G) - No. 028D	B1-04	40	20	60	682101.37 589165.87
Newark Viaduct - N0.75	B1-05 (OW)	60	20	80	682172.46 589838.13
Newark Viaduct - N0.75	B1-06	65	20	85	681685.12 590493.82
Newark Viaduct - N0.75	B1-07	65	20	85	681253.63 591174.54
Newark Viaduct - N0.75	B1-08	60	20	80	680921.08 591902.84
Newark Viaduct - N0.75	B1-09 (OW)	60	20	80	680604.99 592642.46
Newark Bay Bridge - N2.01W	B1-10	50	20	70	680317.4 593395.57
Newark Bay Bridge - N2.01W	B1-11 (OW)	75	20	95	680017.05 594142.09
Newark Bay Bridge - N2.01W	B1-12 (PS)	95	20	115	679738.24 594891.87
Newark Bay Bridge - N2.01W	B1-13	70	20	90	679457.29 595649.44
Newark Bay Bridge - N2.01W	B1-14	90	20	110	679314.27 596027.69

PROPOSED SCHEDULE OF GEOTECHNICAL BORINGS (CONTINUED)

PROJECT 1 GEOTECHNICAL BORINGS (CONTINUED)

Structure Name - Number	Boring Identifier	Estimated Soil Drilling (ft)	Proposed Rock Coring (ft)	Estimated Total Boring Depth (ft)	Approximate NAD83 Coordinates (Lat/Lon)
Newark Bay Bridge - N2.01	B1-15	90	30	120	679171.6 596401.78
Newark Bay Bridge - N2.01	B1-16	75	30	105	679136.21 596812.29
Newark Bay Bridge - N2.01	B1-17	80	30	110	678758.2 596675.84
Newark Bay Bridge - N2.01	B1-18	75	30	105	678982.72 596953.81
Newark Bay Bridge - N2.01	B1-19	100	30	130	678850.51 597299.31
Newark Bay Bridge - N2.01	B1-20	100	30	130	678871.38 597494.14
Newark Bay Bridge - N2.01	B1-21	100	30	130	678489.36 597354.66
Newark Bay Bridge - N2.01	B1-22	115	30	145	678604.75 597838.01
Newark Bay Bridge - N2.01	B1-23	110	30	140	678450.09 598211.62
Newark Bay Bridge - N2.01	B1-24	100	30	130	678300.53 598584.10
Newark Bay Bridge - N2.01	B1-25	90	30	120	678150.25 598958.81
Newark Bay Bridge - N2.01	B1-26	75	30	105	677998.89 599333.26
Newark Bay Bridge - N2.01	B1-27	70	30	100	677851.87 599699.09
Newark Bay Bridge - N2.01	B1-28	80	30	110	677697.59 600071.61
Newark Bay Bridge - N2.01E	B1-29	100	20	120	677593.51 600341.04
Newark Bay Bridge - N2.01E	B1-30 (PS)	90	20	110	677363.65 600916.89
Newark Bay Bridge - N2.01E	B1-31 (OW)	65	20	85	677152.61 601382.86
JFK Blvd Overpass - N3.00	B1-32	10	10	20	676942.96 601829.69

PROPOSED SCHEDULE OF GEOTECHNICAL BORINGS (CONTINUED)

PROJECT 1 GEOTECHNICAL BORINGS (CONTINUED)

Structure Name - Number	Boring Identifier	Estimated Soil Drilling (ft)	Proposed Rock Coring (ft)	Estimated Total Boring Depth (ft)	Approximate NAD83 Coordinates (Lat/Lon)
Roadway of HCE	B1-33	20	10	30	676702.11 602222.04
Roadway of HCE	B1-34	20	10	30	676423.48 602557.45
Avenue C Overpass - N3.24	B1-35	20	10	30	676106.88 602875.02
Roadway of HCE	B1-36	30	10	40	675723.03 603141.59
Int 14A Ramp WT over Garfield Ave - N3.53B	B1-37	30	10	40	675346.79 603319.96
Int 14A Ramp TW "C" over Garfield Ave - N3.53C	B1-38	30	10	40	675720.91 603555.07
Estimated Totals for Project 1		2,620	830	3,450	linear feet

PROPOSED SCHEDULE OF GEOTECHNICAL BORINGS (CONTINUED)

PROJECT 2 GEOTECHNICAL BORINGS

Structure Name - Number	Boring Identifier	Estimated Soil Drilling (ft)	Proposed Rock Coring (ft)	Estimated Total Boring Depth (ft)	Approximate NAD83 Coordinates (Lat/Lon)
Linden Avenue Overpass - N 4.12	B2-01 (OW)	40	10	50	676289.60 606828.60
N.Y.P.E. Overpass - N 4.52	B2-02	40	10	50	677870.00 608061.30
L.V.R.R. Overpass - N 5.34	B2-03	55	10	65	680327.80 611357.40
L.V.R.R. Overpass - N 5.34	B2-04	55	10	65	680594.40 611665.00
Ramp B & C Overpass - N 5.56A	B2-05 (OW)	50	10	60	681281.40 612262.30
C.R.R.N.J. Overpass - N 5.66	B2-06	65	10	75	681609.30 612459.40
C.R.R.N.J. Overpass - N 5.66	B2-07	65	10	75	681768.90 612615.70
Bayview Ave Viaduct - N5.56B	B2-08	65	10	75	681148.90 609988.70
Bayview Ave Viaduct - N5.56B	B2-09 (OW)	100	10	110	681160.80 610566.30
Bayview Ave Viaduct - N5.56B	B2-10	80	10	90	680960.20 610941.50
Bayview Ave Viaduct - N5.56B	B2-11	100	10	110	680910.30 611277.60
South-East Viaduct - N3.53D & N3.73	B2-12 (OW)	50	10	60	674922.00 604118.80
South-East Viaduct - N3.53D & N3.73	B2-13	10	10	20	674948.90 604690.30
South-East Viaduct - N3.53D & N3.73	B2-14	40	10	50	675164.40 605337.90
South-East Viaduct - N3.53D & N3.73	B2-15	90	10	100	675652.70 606108.30
Estimated Totals for Project 2		905	150	1,055	linear feet

PROPOSED SCHEDULE OF GEOTECHNICAL BORINGS (CONTINUED)

PROJECT 3 & 4 GEOTECHNICAL BORINGS

Structure Name - Number	Boring Identifier	Estimated Soil Drilling (ft)	Proposed Rock Coring (ft)	Estimated Total Boring Depth (ft)	Approximate NAD83 Coordinates (Lat/Lon)
East Viaduct Substructure - N 6.49	B3-01	50	10	60	682936.00 614307.20
East Viaduct Substructure - N 6.49	B3-02 (OW)	50	10	60	683599.70 615064.70
East Viaduct Substructure - N 6.49	B3-03	50	10	60	683990.80 615567.10
East Viaduct Substructure - N 6.49	B3-04	50	10	60	684712.60 615624.30
East Viaduct Substructure - N 6.49	B3-05	120	10	130	685050.10 615718.80
East Viaduct Substructure - N 6.49	B3-06 (OW)	120	10	130	685638.30 615379.30
East Viaduct Substructure - N 6.49 & East Viaduct Ramp N 6.80 E	B3-07	120	10	130	686255.40 614539.20
East Viaduct Substructure - N 6.49 & East Viaduct Ramp N 6.80 W	B3-08	120	10	130	686071.50 615196.20
West Viaduct Substructure N 7.13 & East Viaduct Ramp N 6.80 E	B4-01	120	10	130	686483.90 615290.30
West Viaduct Substructure N 7.13 & East Viaduct Ramp N 6.80 W	B4-02	120	10	130	687100.50 615157.90
West Viaduct Substructure - N 7.13	B4-03	120	10	130	687536.80 615381.30
West Viaduct Substructure - N 7.13	B4-04 (OW)	120	10	130	688195.10 615484.20
West Viaduct Substructure - N 7.13	B4-05	120	10	130	688797.40 615734.40
West Viaduct Substructure - N 7.13	B4-06	120	10	130	689229.50 615726.10
North Terminal Ramps Section A - N 7.52	B4-07 (OW)	120	10	130	689744.80 615962.10
North Terminal Ramps Section A - N 7.52	B4-08	120	10	130	690046.30 615958.30
North Terminal Ramps Section A - N 7.52	B4-09	120	10	130	690595.00 616195.70

PROPOSED SCHEDULE OF GEOTECHNICAL BORINGS (CONTINUED)

PROJECT 3 & 4 GEOTECHNICAL BORINGS (CONTINUED)

Structure Name - Number	Boring Identifier	Estimated Soil Drilling (ft)	Proposed Rock Coring (ft)	Estimated Total Boring Depth (ft)	Approximate NAD83 Coordinates (Lat/Lon)
North Terminal Ramps Section A - N 7.52	B4-10	120	10	130	690900.00 616272.60
North Terminal Ramps Section B - N 7.52	B4-11	90	10	100	691089.40 616310.90
North Terminal Ramps Section B - N 7.52	B4-12	90	10	100	691287.80 616503.90
North Terminal Ramps Section B - N 7.52	B4-13	40	10	50	691450.10 616384.50
North Terminal Ramps Section B - N 7.52	B4-14 (OW)	70	10	80	691423.30 616487.00
North Terminal Ramps Section B - N 7.52	B4-15	50	10	60	691647.40 616579.80
North Terminal Ramps Section B - N 7.52	B4-16	40	10	50	691844.30 616696.60
North Terminal Ramps Section B - N 7.52	B4-17	50	10	60	691857.10 616831.20
North Terminal Ramps Section B - N 7.52	B4-18	50	10	60	691918.60 616971.00
North Terminal Ramps Section B - N 7.52	B4-19	50	10	60	691880.50 617236.80
North Terminal Ramps Section B - N 7.52	B4-20	80	10	90	691492.00 616666.10
North Terminal Ramps Section B - N 7.90W	B4-21 (OW)	90	10	100	691767.80 617563.80
North Terminal Ramps Section B - N 7.90W	B4-22	90	10	100	691928.60 617930.20
North Terminal Ramps Section B - N 7.90W	B4-23	60	10	70	691855.40 618056.00
North Terminal Ramps Section B - N 7.90W	B4-24	60	10	70	691959.40 618219.40
North Terminal Ramps Section B - N 7.93E	B4-25	80	10	90	691618.90 616941.80
North Terminal Ramps Section B - N 7.93E	B4-26	80	10	90	691426.60 617144.50
North Terminal Ramps Section B - N 7.93E	B4-27	80	10	90	691494.40 617533.60

PROPOSED SCHEDULE OF GEOTECHNICAL BORINGS (CONTINUED)

PROJECT 3 & 4 GEOTECHNICAL BORINGS (CONTINUED)

Structure Name - Number	Boring Identifier	Estimated Soil Drilling (ft)	Proposed Rock Coring (ft)	Estimated Total Boring Depth (ft)	Approximate NAD83 Coordinates (Lat/Lon)
North Terminal Ramps Section B - N 7.93E	B4-28	80	10	90	691486.00 617670.70
North Terminal Ramps Section B - N 7.93E	B4-29	80	10	90	691455.80 617887.20
North Terminal Ramps Section B - N 7.93E	B4-30	80	10	90	691321.80 618202.00
Estimated Totals for Project 3 & 4		3,270	380	3,650	linear feet

PROPOSED SCHEDULE OF STORMWATER BASIN BORINGS

Stormwater basin boring names with (OW) suffix shall be transformed to Observation Wells upon termination. Readings should occur bi-weekly and after rain events exceeding 0.25" of rainfall. Use of continuous data loggers is preferable.

Boring Identifier	Estimated Soil Drilling (ft)	Approximate NAD83 Coordinates (Lat/Lon)	Boring Identifier	Estimated Soil Drilling (ft)	Approximate NAD83 Coordinates (Lat/Lon)
SWM-01 (OW)	15	682798.47 588475.21	SWM-16 (OW)	15	679614.31 610277.10
SWM-02 (OW)	15	682603.84 588191.50	SWM-17 (OW)	15	680823.30 612175.05
SWM-03 (OW)	15	681378.83 590637.07	SWM-18 (OW)	15	680964.08 612393.48
SWM-04 (OW)	15	680814.76 591807.49	SWM-19 (OW)	15	681191.90 612077.56
SWM-05	15	677053.36 601087.52	SWM-20 (OW)	15	682108.99 613287.49
SWM-06 (OW)	15	675631.72 602996.47	SWM-21 (OW)	15	682361.13 613085.91
SWM-07 (OW)	15	675289.95 603924.19	SWM-22	15	683945.42 615588.32
SWM-08 (OW)	15	675137.74 604161.99	SWM-23 (OW)	15	684965.62 615591.82
SWM-09 (OW)	15	674836.73 603837.27	SWM-24 (OW)	15	685318.04 615660.12
SWM-10 (OW)	15	674685.91 604869.00	SWM-25 (OW)	15	687059.06 615228.38
SWM-11 (OW)	15	675647.57 605890.68	SWM-26 (OW)	15	687907.36 615445.82
SWM-12 (OW)	15	675762.26 606593.71	SWM-27 (OW)	15	689125.44 615814.68
SWM-13 (OW)	15	676908.70 607376.81	SWM-28	15	689814.80 616002.00
SWM-14 (OW)	15	677161.51 607308.37	SWM-29	15	691418.93 616466.31
SWM-15 (OW)	15	679389.67 609430.45	SWM-30 (OW)	15	691846.08 617181.67

PROPOSED INFILTRATION TESTING FOR STORMWATER BASINS

All infiltrations tests shall be in accordance with Chapter 12 of the NJ Stormwater BMP Manual. Preform infliltration testing at a depth of 8 ft adjacent to stormwater basin borings SVM-01 through SWM-30. Infiltration testing can be performed in a test pit using a single ring infiltrometer or in a cased borehole.

SUMMARY OF BORINGS FOR PROJECTS 1 TRHOUGH 4

Project Number	Number of Borings	Estimated Total Soil Drilling (ft)	Estimated Total Rock Coring (ft)	Estimated Total Drilling (ft)
Project 1	38	2,620	830	3,450
Project 2	15	905	150	1,055
Project 3	38	3,270	380	3,650
Project 4				
Stormwater Basin	30	450	0	450
Total	121	7,245	1,360	8,605

P-S Suspension Seismic Velocity Logging Specifications:

Description

The work described in this section consists of the requirements for P-S Suspension Seismic Velocity Logging on selected boreholes B1-12 and B1-30, as shown on the boring location plan and as directed by the Engineer. All work under this Section shall be performed in the presence of the Engineer or their representative.

Borehole Drilling and Casing Preparation for the Logging

1. Drilling shall be done with minimal sidewall disturbance using cased or uncased boreholes. The rotary mud or rotary wash method shall be used to minimize damage to the borehole wall, and the drilling fluid coats and seals the borehole wall reducing fluid loss and wall collapse.

2. For uncased borehole, to minimize the borehole disturbance, the logging shall be performed same day of the completion of drilling of the borehole.

3. For 4-inch Diameter PVC cased hole, the drilling borehole diameter shall not exceed the outer diameter of the casing by more than 100mm (four (4) inches).

4. The borehole casing shall be PVC and properly installed and grouted.

5. Casing should be about 100mm (4 inches) diameter, Schedule 40 PVC. This thickness and strength are necessary to minimize collapse due to the pressure of the grout. Grout the casing while the casing is full of water to help minimize the differential pressure on the outside of the casing. The casing shall be inserted with spacers or centralizers to keep the casing centered in the borehole.

6. Grout the casing through a small PVC pipe inserted through the casing and connected to a one-way ball-check valve in the bottom cap of the casing. Make sure the pump is capable of pumping grout all the way down to the bottom through the small pipe and up to the top of the borehole. Grout is then pumped down through the small pipe and fills up the annulus around the casing from the bottom to the top. Once the grout has filled the annulus around the casing up to the top, pumping is stopped, and the pipe disconnected from the valve and removed. The casing can be rinsed and flushed with water. Alternatively, a small PVC pipe (1-1/2 inch, or 35mm), called a tremie tube, can be fed down the side of the casing between the casing and the borehole wall. Once the tremie tube reaches the bottom of the borehole, grout can be pumped through the tremie tube and grout filled from the bottom of the borehole. Alternatively, the borehole can be partially filled with grout, and the capped casing forced down into the grout filled borehole until it reaches the bottom. Ideally the grout volume shall be calculated so that when the casing is fully inserted the grout is at the top of the borehole. In this method it helps to have the casing full of water. All of these methods attempt to fill the annular space with grout all the way, bottom to top, with no voids, in a uniform fashion displacing the mud and debris with minimal sidewall disturbance.

7. The grout mixture shall be formulated to approximate closely the density of the surrounding in situ material after solidification. For the portion of soils, sands, or gravels, use a mixture with:
450g (1lb) bentonite
450g (1lb) Portland cement
2800g (6.25lb) of water

8. Keep the casing anchored and centered in the borehole until the grout is set. If shrinkage occurs, additional grout should be inserted from the top until the annular space is filled flush with the ground surface.

9. The grout must be set before testing. This means the grouting must take place at least 48 hours before testing.

10. Borehole fluid is required for the logging. The PVC must be filled with water prior to logging. If there is a leak, then water must be available to refill the borehole prior to and/or during logging. Major leaks cannot be allowed because the seismic noise accompanying such rapid water loss will obscure data and prevent data acquisition.

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. SWM-06(OW)
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose _____ Structure Type _____
Location _____ RDWY. NB-HCE STA. _____ OFF. _____

Rig No.	CME 55	Type	Track	Driller	Brenton Rousey	Helper	Chris Peters	
DATE	02/20/23							
TIME STARTED	08:15 am							
TIME FINISHED	11:00 am							
WEATHER	Sunny							
DEPTH REACHED	15 ft							

GROUND ELEVATION _____ M.L.W. ELEVATION _____
ZERO OF BORING LOG _____ ELEVATION GROUNDWATER _____

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-
15						0		0		

Drilling Mud Rotary Mud with Casing Casing Type: 15' of 4" Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE	02/20/23						
TIME	10:00 am						
DEPTH	5 ft						

GENERAL REMARKS:

Northing: _____ Easting: _____

All elevations refer to the NAVD 88 datum. Horizontal locations refer to the NJ State Plane coordinates system as per the NAD 83 datum.

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INSPECTOR R. Mangar GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. SWM-06(OW)
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
				G-1	0 - 5		Grayish Brown\Black [5GY, 2/1-3/2 - 5N, 4/0] coarse to fine
							SAND, some coarse to fine Gravel, trace Silt.
▼		3	2	S-1	5 - 7		Olive\Gray\Brown\Black [7.5GY, 2/1-4/1 - 5Y, 3/2-6/2] coarse
		2	3				to fine SAND, some medium to fine Gravel, trace Silt. Rec=9"
		3	5	S-2	7 - 9		Gray\Brown [10YR-2.5YR, 4/2-5/4] coarse to fine SAND,
		4	5				spme medium fine Gravel, trace Silt. Rec=14"
		3	5	S-3	9 - 11		Gray\Brown [5YR, 3/1-6/1 - 5BP, 5/2] coarse to fine SAND,
		3	2				little fine Gravel, trace Silt. Rec=9"
		9	6	S-4	11 - 13		Grayish Brown [5Y, 4/1-6/1 - 5N, 4/0] coarse to fine SAND,
		10	14				little fine Gravel, little Silt. Rec=12"
		23	21	S-5	13 - 15		Gray [5N, 6.5/0] coarse to fine SAND, little medium to fine
		19	15				Gravel, trace^{+} Silt. Rec=11"
							End of Boring at 15 feet

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. SWM-08(OW)
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose _____ Structure Type _____
Location _____ RDWY. NB-HCE STA. _____ OFF. _____

Rig No.	CME 75	Type	Truck	Driller	George Raymond	Helper	Chris Meyers
DATE	11/18/22						
TIME STARTED	07:00 am						
TIME FINISHED	11:00 am						
WEATHER							
DEPTH REACHED	15 ft						

GROUND ELEVATION 20.0 ft M.L.W. ELEVATION _____
ZERO OF BORING LOG _____ ELEVATION GROUNDWATER _____

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-
15						0		0		

Drilling Mud Rotary Mud with Casing Casing Type: 15' of 4" Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE							
TIME							
DEPTH							

GENERAL REMARKS:

Northing: 604161 Easting: 675137

All elevations refer to the NAVD 88 datum. Horizontal locations refer to the NJ State Plane coordinates system as per the NAD 83 datum.

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INSPECTOR M. Fallah GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. SWM-08(OW)
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
20.0				G-1	0 - 5		Brown [7.5R, 2/2-3/4] coarse to fine SAND, little coarse to fine Gravel.
		10	18	S-1	5 - 7		Dark Gray\Black [2.5PB-5PB, 2/1] coarse to fine SAND, little coarse to fine Gravel, trace Silt. Rec=15"
		9	4				
		4	4	S-2	7 - 9	SAND	Grayish Brown [7.5PB, 2/1] fine SAND, little Silt.
		4	5				Rec=3"
		5	14	S-3	9 - 11		Dark Gray Slightly Mottled [2.5-5PB, 2/1] fine SAND, some Silt, trace coarse to fine Gravel. Rec=12"
		11	17				
		26	27	S-4	11 - 13		Reddish Brown\Gray Mottled [7.5R, 4/1-2/1] fine SAND, some Silt, little coarse to fine Gravel. Rec=12"
		24	20				
		9	15	S-5	13 - 15		Dark Reddish Brown [2.5R, 2/2] coarse to fine SAND, and coarse to fine Gravel, trace Silt. Rec=9"
5.0		14	13			15.0 ft	
							End of Boring at 15 feet

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. SWM-09(OW)
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose _____ Structure Type _____
Location _____ RDWY. NB-HCE STA. _____ OFF. _____

Rig No.	CME 55	Type	Track	Driller	Chris Peters	Helper	Chris Meyers	
DATE	01/16/23	01/16/23						
TIME STARTED	08:55 am	11:55 am						
TIME FINISHED		11:55 am						
WEATHER		Sunny						
DEPTH REACHED	15 ft	15 ft						

GROUND ELEVATION _____ M.L.W. ELEVATION _____
ZERO OF BORING LOG _____ ELEVATION GROUNDWATER _____

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-

Drilling Mud Rotary Mud Casing Type: 15' of 4" Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE	01/16/23						
TIME	01:47 pm						
DEPTH	6.5 ft						

GENERAL REMARKS:

Northing: _____ Easting: _____

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INSPECTOR R. Mangar GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. SWM-09(OW)
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
				G-1	0 - 5		Brown\Black [5YR, 4/1 - 5N, 4/0] coarse to fine SAND, some Silt, little fine Gravel, trace Fibrous Roots.
		2	6	S-1	5 - 7		Light Gray\Black [5B, 5/1 - 5N, 5/0] coarse to fine SAND,
▼		9	8			SAND	some coarse to fine Gravel, trace Silt. Rec=13"
		12	9	S-2	7 - 9		Same.
		10	8				Rec=24"
		7	5	S-3	9 - 11		Dark Gray\White\Black [5N, 3/0 - 10B, 4/2 - 2.5PB, 8/2]
		5	8				coarse to fine SAND, little coarse to fine Gravel, little Clayey Rec=12"
		6	2	S-4	11 - 13		Silt to Silt.
		4	8				Dark Gray\Black [5N, 2/0 - 10B, 2/1-6/2] medium to fine Rec=12"
		7	11	S-5A	13 - 15	14.0 ft	GRAVEL, some medium to fine Sand, little Clayey Silt.
		8	8	S-5B		15.0 ft	6":Same. Rec=16"
						CLAY & SILT	10":Dark Gray SILTY CLAY, little fine Gravel, little medium to fine Sand. (P.P.=0.2TSF)
							End of Boring at 15 feet.

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. SWM-10(OW)
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose _____ Structure Type _____
Location _____ RDWY. NB-HCE STA. _____ OFF. _____

Rig No.	CME 55	Type	Track	Driller	George Raymond	Helper	Brandon Robles	
DATE	02/16/23							
TIME STARTED	09:00 am							
TIME FINISHED	09:45 am							
WEATHER								
DEPTH REACHED	9.6 ft							

GROUND ELEVATION _____ M.L.W. ELEVATION _____
ZERO OF BORING LOG _____ ELEVATION GROUNDWATER _____

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-
9.6						0		0		

Drilling Mud Rotary Mud with Casing Casing Type: 10' of 4" Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE	02/16/23						
TIME	09:00 am						
DEPTH	5.5 ft						

GENERAL REMARKS:

Northing: _____ Easting: _____

All elevations refer to the NAVD 88 datum. Horizontal locations refer to the NJ State Plane coordinates system as per the NAD 83 datum.

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INSPECTOR R. Mangar GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. SWM-10(OW)
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
				G-1	0 - 5		Brown\Black [5YR, 2/1 - 5N, 3/0] coarse to fine SAND, some Silt, little coarse to fine Gravel.
▼		3	2	S-1	5 - 7	SAND & GRAVEL	Brown\Black\Gray [5YR, 3/1 - 5N, 2/0] medium to fine SAND, little medium to fine Gravel, little Silt. Rec=5"
		1	1				
		33	100/2"	S-2	7 - 7.7		Brown\Black\Gray [7.5YR, 2/1 - 5N, 3/0] medium to fine SAND, little Clayey Silt, little fine Gravel. Rec=6"
		-	-				
		53	100/1"	S-3	9 - 9.6	9.6 ft	White\Black\Gray [7.5YR, 8/2 - 5N, 2/0] coarse to fine GRAVEL, trace to some fine Sand. Rec=4"
		-	-				End of Boring at 9.8 feet

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. SWM-11(OW)
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose _____ Structure Type _____
Location _____ RDWY. NB-HCE STA. _____ OFF. _____

Rig No.	CME 55	Type	Track	Driller	Brenton Rousey	Helper	Ramen Ciancia
DATE	12/06/22						
TIME STARTED	09:00 am						
TIME FINISHED							
WEATHER							
DEPTH REACHED	15 ft						

GROUND ELEVATION 19.8 ft M.L.W. ELEVATION _____
ZERO OF BORING LOG _____ ELEVATION GROUNDWATER 13.8 ft

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-
15						0		0		

Drilling Mud Rotary Mud with Casing Casing Type: 15' of 4" Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety ---
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS								
DATE	12/06/22	12/08/22						
TIME	11:52 am	12:00 am						
DEPTH	6 ft	6 ft						

GENERAL REMARKS:

Northing: 605900 Easting: 675606

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INSPECTOR R. Mangar GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. SWM-11(OW)
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft) 19.8	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
				G-1	0 - 5		Reddish Brown\Brown [5YR, 2/2] coarse to fine SAND, some coarse to fine Gravel, trace Silt.
▼		WOH	4	S-1	5 - 7		Dark\Light Gray [5N, 5/0 - 5B, 7/1] coarse to fine SAND, little medium to fine Gravel, little Silt. Rec=10"
		10	16				
		14	8	S-2	7 - 9		Dark Gray\Brown [10YR-5YR, 6/1] coarse to fine SAND, some coarse to fine Gravel, trace Silt. Rec=20"
		10	20				
		6	11	S-3	9 - 11		Dark Gray coarse to fine SAND, some coarse to fine Gravel, trace Silt. Rec=12"
		12	14				
		10	9	S-4	11 - 13		Dark Gray [5GY, 5/1 - 5N, 4/0] medium to fine SAND, little Silt, trace fine Gravel. Rec=18"
		5	18				
		4	12	S-5	13 - 15		Same.
		16	18				Rec=12"
							End of Boring at 15 feet

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. SWM-12(OW)
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose _____ Structure Type _____
Location _____ RDWY. NB-HCE STA. _____ OFF. _____

Rig No.	CME 55	Type	Track	Driller	Brenton Rousey	Helper	Ramen Ciancia	
DATE	12/09/22							
TIME STARTED	08:35 am							
TIME FINISHED								
WEATHER								
DEPTH REACHED	15 ft							

GROUND ELEVATION 18.5 ft M.L.W. ELEVATION _____
ZERO OF BORING LOG _____ ELEVATION GROUNDWATER 12.0 ft

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-
15						0		0		

Drilling Mud Rotary Mud with Casing Casing Type: 10' of 4" Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE	12/10/22						
TIME	12:00 am						
DEPTH	6.5 ft						

GENERAL REMARKS:

Northing: 606601 Easting: 675767

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INSPECTOR R. Mangar GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. SWM-12(OW)
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
18.5				G-1	0 - 5		Black\Brown [7.5YR, 2/2-4/3] coarse to fine SAND, some coarse to fine Gravel, little Clayey Silt.
		8	10	S-1	5 - 7		Light Gray [7.5Y, 7/2] coarse to fine SAND, little medium to fine Gravel, trace Silt. Rec=12"
▼		7	6				
		12	15	S-2	7 - 9	SAND	Olive Brown [5Y, 6/2] coarse to fine SAND, some medium to fine Gravel, little Silt. Rec=20"
		16	17				
		10	12	S-3	9 - 11		Reddish Brown [5YR, 3/2-2-2] coarse to fine SAND, little coarse to fine Gravel, little Silt. Rec=10"
		10	9				
		15	18	S-4	11 - 13		Light Gray [7.5Y, 4/2] coarse to fine SAND, little medium to fine Gravel, little Silt. Rec=16"
		20	19				
		17	21	S-5	13 - 15		Reddish Brown [2.5YR, 5/6] coarse to fine SAND, some coarse to fine Gravel, little Clayey Silt. Rec=17"
3.5		20	21			15.0 ft	
							End of Boring at 15 feet

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. SWM-31(OW)
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose _____ Structure Type _____
Location _____ RDWY. NB-HCE STA. _____ OFF. _____

Rig No.	CME 55	Type	Track	Driller	George Raymond	Helper	Chris Meyers
DATE	01/26/23						
TIME STARTED	01:30 pm						
TIME FINISHED							
WEATHER							
DEPTH REACHED	16 ft						

GROUND ELEVATION _____ M.L.W. ELEVATION _____
ZERO OF BORING LOG _____ ELEVATION GROUNDWATER _____

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-
16						0		0		

Drilling Mud N/A Casing Type: 15' of 4" Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE	01/26/23						
TIME	02:30 pm						
DEPTH	5.9 ft						

GENERAL REMARKS:

Northing: _____ Easting: _____

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INSPECTOR M. Fallah GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. SWM-31(OW)
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
		20	55	S-1A	0 - 2		16":Lt Gry [5Y,3/2] c-f GRAVEL, some c-f Sand, trace Silt.
		32	18	S-1B			8":Blck [5N] c-f GRAVEL, sme c-f Sand, trce Silt. Rec=24"
		16	10	S-2	2 - 4		Brwn\Gry\Blck [2.5Y, 1/1-3/2] c-f SAND, some m-f Gravel,
		6	4				trace Silt. Rec=9"
		7	12	S-3	4 - 6		Drk Gry\Blck\Brwn [5Y, 2/1-4/2] coarse to fine SAND, some
▼		17	12				medium to fine Gravel, little Silt. Rec=14"
		14	9	S-4	6 - 8		Dark Gray\Black\Brown [5N-5Y, 2/1-5/1] coarse to fine
		6	6			SAND & GRAVEL	SAND, some medium to fine Gravel, little Silt. Rec=13"
		4	4	S-5	8 - 10		Dark Gray\Black\Brown [5N-5Y, 2/1-4/1] coarse to fine
		3	8				GRAVEL, and coarse to fine Sand, trace Silt. Rec=9"
		8	14	S-6	10 - 12		Dark Gray\Black [5N, 4/0 - 5Y, 2/1-4/1] coarse to fine SAND,
		8	5				some coarse to fine Gravel, trace Silt. Rec=12"
		2	6	S-7	12 - 14		Dark Gray [5N, 3/0 - 5GY, 2/2-3/2]coarse to fine GRAVEL,
		4	4				some coarse to fine Sand, trace Silt. Rec=4"
		3	3	S-8	14 - 16		Dark Gray\Brown [5YR, 2/1 - 2.5YR,3/2] coarse to fine
		7	11			16.0 ft	SAND, little+ medium to fine Gravel, trace Silt. Rec=8"
							End of Boring at 16 feet

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. SWM-32(OW)
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose _____ Structure Type _____
Location _____ RDWY. NB-HCE STA. _____ OFF. _____

Rig No.	CME 55	Type	Track	Driller	George Raymond	Helper	Chris Meyers	
DATE	01/30/23							
TIME STARTED	10:00 am							
TIME FINISHED	11:30 am							
WEATHER								
DEPTH REACHED	15 ft							

GROUND ELEVATION _____ M.L.W. ELEVATION _____
ZERO OF BORING LOG _____ ELEVATION GROUNDWATER _____

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-
15						0		0		

Drilling Mud N/A Casing Type: 15' of 4" Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE	01/30/23						
TIME	10:30 am						
DEPTH	5 ft						

GENERAL REMARKS:
Water level at 5'

Northing: _____ Easting: _____

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INSPECTOR R. Mangar GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. SWM-32(OW)
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
				G-1	0 - 5		Dark Brown [7.5YR,5/3] coarse to fine SAND, some coarse to fine Gravel, trace Silt.
▼		4	4	S-1	5 - 7	SAND	Reddish Brown\Brown [7.5YR,5/3] coarse to fine SAND, little coarse to fine Gravel, trace Silt. Rec=20"
		4	3				
		3	2	S-2	7 - 9		Brown [7.5YR,4/3] coarse to fine SAND, some medium to fine Gravel, trace Silt. Rec=20"
		3	3				
		4	4	S-3	9 - 11		Black\Brown [7.5YR,7/1] coarse to fine SAND, some medium to fine Gravel, trace Silt. Rec=8"
		2	1				
		3	3	S-4A	11 - 13	12.0 ft	7":Drk Gry [7.5YR,7/1] m-f SAND, little m-f Gravel, little Silt.
		3	2	S-4B		CLAY & SILT 15.0 ft	2":Drk Gry [7.5YR,4/2] Organic CLAY & SILT, little fine Sand. Rec=9"
		4	2	S-5	13 - 15		
		3	1				Dark Gray [7.5YR,7/1] Organic CLAY & SILT, trace fine Sand. Rec=14"
							End of Boring at 15 feet

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. SWM-33(OW)
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose _____ Structure Type _____
Location _____ RDWY. NB-HCE STA. _____ OFF. _____

Rig No.	CME 55	Type	Track	Driller	George Raymond	Helper	Chris Meyers	
DATE	01/31/23	01/31/23						
TIME STARTED	11:00 am	11:56 am						
TIME FINISHED								
WEATHER								
DEPTH REACHED	15 ft	15 ft						

GROUND ELEVATION _____ M.L.W. ELEVATION _____
ZERO OF BORING LOG _____ ELEVATION GROUNDWATER _____

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-

Drilling Mud N/A Casing Type: 15' of 4" Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS								
DATE	01/31/23	01/31/23						
TIME	02:08 pm	02:50 pm						
DEPTH	2 ft	4.8 ft						

GENERAL REMARKS:

Northing: _____ Easting: _____

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INSPECTOR R. Mangar GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. SWM-33(OW)
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
				G-1	0 - 5		Dark Brown [7.5YR,5/3] coarse to fine SAND, some coarse
▼							to fine Gravel, trace Silt.
▼							
		5	5	S-1	5 - 7	SAND	Light Brown [7.5YR,6/3] coarse to fine SAND, little coarse to
		6	4				fine Gravel, trace Silt. Rec=5"
		3	4	S-2	7 - 9		Light Brown [7.5YR,6/3] coarse to fine SAND, trace Silt.
		4	3				Rec=2"
		1	3	S-3	9 - 11		Dark Brown [7.5YR,5/4] coarse to fine SAND, some coarse
		3	5			11.0 ft	to fine Gravel, trace Silt. Rec=10"
		5	1	S-4	11 - 13		Dark Gray [7.5YR,7/1] Organic SILT, some fine Sand.
		1	2			ORGANIC SILT 14.0 ft	Rec=11"
		2	2	S-5	13 - 15		12": Same. [7.5YR,7/1]
		8	10			15.0 ft	8": Light Gray m-f SAND, little^{+} Silt. Rec=20"
						SAND	End of Boring at 15 feet

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. SWM-34(OW)
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose _____ Structure Type _____
Location _____ RDWY. NB-HCE STA. _____ OFF. _____

Rig No.	CME 55	Type	Track	Driller	Chris Peters	Helper	Rashid Malyukov	
DATE	01/17/23							
TIME STARTED	07:07 am							
TIME FINISHED	11:57 am							
WEATHER	Cloudy							
DEPTH REACHED	22 ft							

GROUND ELEVATION 27 ft M.L.W. ELEVATION _____
ZERO OF BORING LOG _____ ELEVATION GROUNDWATER _____

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-
22						0		0		

Drilling Mud N/A Casing Type: 20' ft of 4" Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE	01/17/30						
TIME	12:00 am						
DEPTH							

GENERAL REMARKS:

Northing: 600973 Easting: 676962

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INSPECTOR J. Tello GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. SWM-34(OW)
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
27.0				G-1	0 - 5		Brown [7.5 YR, 5/3] coase to fine SAND, and coarse to fine
							Gravel, trace Silt.
		5	7	S-1	5 - 7		Same. [7.5 YR, 5/3]
		4	6				
		8	8	S-2	7 - 9		Same. [10 YR, 4/3]
		16	20				
		20	16	S-3A	9 - 11		13": Rd\Brn [10R, 4/3] c-f SAND, some c-f Gravel, trce Silt.
		19	18	S-3B			8": Yl Br [5YR, 4/6] c-f SAND, and c-f Gravel, trce Silt Rec=21"
		17	20	S-4	11 - 13	SAND	Light Brown [7.5 YR, 6/3] c-f SAND, and c-f Gravel, trace
		13	10				Silt. (Brick Frg.) Rec=9"
		12	10	S-5	13 - 15		Same. [7.5 YR,6/3]
		6	6				Rec=10"
		1	5	S-6	15 - 17		Light Brown [7.5 YR, 6/3] coarse to fine SAND, little coarse
		8	10				to fine Gravel, trace Silt. Rec=6"
		14	6	S-7	20 - 22		Light Gray [7.5 YR, 7/1] coarse to fine SAND, little fine
5.0		5	4			22.0 ft	Gravel, trace Silt. Rec=9"
							End of Boring at 22 feet

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. SWM-35(OW)
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose _____ Structure Type _____
Location _____ RDWY. NB-HCE STA. _____ OFF. _____

Rig No.	CME 55	Type	Track	Driller	Chris Peters	Helper	Rashid Malyukov	
DATE	01/17/23							
TIME STARTED	12:11 pm							
TIME FINISHED								
WEATHER								
DEPTH REACHED	0 ft							

GROUND ELEVATION 33.3 ft M.L.W. ELEVATION _____
ZERO OF BORING LOG _____ ELEVATION GROUNDWATER 25.5 ft

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-
15						0		0		

Drilling Mud N/A Casing Type: 10' ft of 4" Weight of Hammer (Type) 140 lb Average Fall 30"
Ordinary Dry Samples O.D. 2" I.D. 1-3/8" Auto. Safety 30"
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE	01/17/23						
TIME	12:00 am						
DEPTH	7.8 ft						

GENERAL REMARKS:

Northing: 601355 Easting: 676717

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INSPECTOR J. Tello GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. SWM-35(OW)
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
33.3							
		17	31	S-1	0 - 2		Dark Brown [7.5 YR, 4/3] coarse to fine SAND, some coarse
		24	23				to fine Gravel, trace Silt. Rec=18"
		35	33	S-2	2 - 4		Light Gray/Red [7.5 YR,7/1] coarse to fine SAND, some
		34	39				coarse to fine Gravel, trace Silt. (Brick Fragments) Rec=18"
		31	26	S-3	4 - 6		Brown/Red [7.5 YR, 5/4] coarse to fine SAND, some coarse
		33	31				to fine Gravel, trace Silt. (Brick Fragments) Rec=14"
		8	25	S-4	6 - 8		Brown [7.5 YR, 5/6] medium to fine Sand, little Silt.
▼		22	17			SAND	Rec=12"
		18	14	S-5	8 - 10		Reddish Brown [5 YR, 6/6] coarse to fine SAND, little coarse
		10	15				to fine Gravel, little Clayey Silt. Rec=13"
		8	10	S-6	10 - 12		Reddish Brown [5 YR, 6/6] coarse to fine SAND, some Silt to
		13	15				Clayey Silt, little coarse to fine Gravel. Rec=10"
		5	7	S-7	13 - 15		Same. [5YR, 6/6]
18.3		8	11			15.0 ft	Rec=10"
							End of Boring at 15 feet

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. TP-6
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose _____ Structure Type _____
Location _____ RDWY. NB-HCE STA. _____ OFF. _____

Rig No. BOBCAT 325	Type Mini Excavator		Driller George Raymond		Helper Scott Odwyer		
DATE	02/21/23						
TIME STARTED	07:00 am						
TIME FINISHED	11:40 am						
WEATHER	Sunny						
DEPTH REACHED	8.5 ft						

GROUND ELEVATION 21.3 ft M.L.W. ELEVATION _____
ZERO OF BORING LOG _____ ELEVATION GROUNDWATER 12.8 ft

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-

Drilling Mud _____ Casing Type: _____ Weight of Hammer (Type) --- Average Fall ---
Ordinary Dry Samples O.D. --- I.D. --- --- ---
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE	02/21/23						
TIME	10:00 am						
DEPTH	8.5 ft						

GENERAL REMARKS:
Single Ring Test conducted at 6.5' below ground surface (Hydraulic Conductivity = 2.75 in/hr)

Northing: 675637 Easting: 602991

All elevations refer to the NAVD 88 datum. Horizontal locations refer to the NJ State Plane coordinates system as per the NAD 83 datum.

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INSPECTOR M. Fallah GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. TP-6
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft) 21.3	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
20.3					0 - 1	1.0 ft SAND	Dark Gray [7.5YR, 3/1] coarse to fine SAND, some Silt, little
					1 - 5		Fibrous Roots, trace fine Gravel.
						SILT	Reddish Brown [5YR, 4/4] SILT, little coarse to fine Gravel,
							trace coarse to fine Sand.
16.3						5.0 ft	
					5 - 8.5		Dark Yellowish Brown [10YR, 4/6] coarse to fine SAND,
						SAND	some coarse to fine Gravel, little Silt.
▼2.8						8.5 ft	
							End of Boring at 8.5 feet

*indicates that the soil description has been verified based on laboratory test results.

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. TP-8
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose _____ Structure Type _____
Location _____ RDWY. NB-HCE STA. _____ OFF. _____

Rig No. BOBCAT 325	Type Mini Excavator	Driller George Raymond			Helper Scott Odwyer		
DATE	02/21/23						
TIME STARTED	01:30 pm						
TIME FINISHED	05:00 pm						
WEATHER	Cloudy, Drizzling						
DEPTH REACHED	10 ft						

GROUND ELEVATION 20.0 ft M.L.W. ELEVATION _____
ZERO OF BORING LOG _____ ELEVATION GROUNDWATER 10.0 ft

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-

Weight of Hammer (Type) Average Fall

Drilling Mud _____ Casing Type: _____ --- ---
Ordinary Dry Samples O.D. --- I.D. --- --- ---
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE	02/21/23						
TIME	02:05 pm						
DEPTH	10 ft						

GENERAL REMARKS:
Single Ring Test conducted at 8' below ground surface (Hydraulic Conductivity < 1.0 in/hr)

Northing: 675136 Easting: 604155

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INSPECTOR M. Fallah GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. TP-8
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
20.0					0 - 1.5	SAND	Dark Reddish Brown [5YR, 3/2] coarse to fine SAND, some coarse to fine Gravel, trace Silt.
					1.5 - 4		Reddish\Orangy Brown [5YR, 3/2-6/4] coarse to fine SAND, little coarse to fine Gravel, little Silt.
16.0						4.0 ft	
					4 - 10	CLAY & SILT	Dark Gray [2.5GY, 2/1 - 5N, 2.5/0] SILT & CLAY, some medium to fine Sand.
▼10.0						10.0 ft	
							End of Boring at 10 feet

*indicates that the soil description has been verified based on laboratory test results.

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. TP-9
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose _____ Structure Type _____
Location _____ RDWY. NB-HCE STA. _____ OFF. _____

Rig No. BOBCAT 325	Type Mini Excavator		Driller GEORGE RAYMOND		Helper CHRIS PETERS		
DATE	02/22/23						
TIME STARTED	07:15 am						
TIME FINISHED	11:44 am						
WEATHER	Cloudy						
DEPTH REACHED	9 ft						

GROUND ELEVATION 23 ft M.L.W. ELEVATION _____
ZERO OF BORING LOG _____ ELEVATION GROUNDWATER 14.0 ft

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-

Weight of Hammer (Type) Average Fall

Drilling Mud _____ Casing Type: _____ --- ---
Ordinary Dry Samples O.D. --- I.D. --- _____ ---
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE	02/22/23						
TIME	08:30 am						
DEPTH	9 ft						

GENERAL REMARKS:
Single Ring Test conducted at 3.0' below ground surface (Hydraulic Conductivity = 0.7 in/hr)

Northing: 603847 Easting: 674840

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INSPECTOR M. Fallah GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. TP-9
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft) 23.0	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
					0 - 0.8		Dark Reddish Brown [5YR, 3/2] coarse to fine SAND, some
					0.8 - 4		Silt, little fine Gravel, trace Fibrous Roots.
						SAND	Dark Yellowish Brown [5YR-10YR, 3/4-4/6] coarse to fine
							SAND, little coarse to fine Gravel, little Silt.
					4 - 5.5		Yellowish\Grayish Brown [2.5YR-10YR, 3/4-4/5] coarse to
17.5						5.5 ft	fine SAND, little coarse to fine Gravel, trace Silt.
					5.5 - 9	CLAY & SILT	Dark Gray [5GY, 2/3 - 7.5GY, 2/1] SILT & CLAY, little
							medium to fine Sand, trace fine Gravel. (P.P.=1.0TSF)
▼4.0						9.0 ft	
							End of Boring at 9 feet

*indicates that the soil description has been verified based on laboratory test results.

New Jersey Turnpike Authority

New Jersey Turnpike

Boring No. TP-10
Sheet No. 1 of 2

GEOTECHNICAL BORING LOGS FOR

Preliminary Design & Environmental Services for Newark Bay-Hudson County Extension
(Project)

Aquifer Drilling & Testing Inc
(Contractor)

Contract No. OPS T3820 Purpose _____ Structure Type _____
Location _____ RDWY. NB-HCE STA. _____ OFF. _____

Rig No. BOBCAT 325	Type Mini Excavator		Driller George Raymond		Helper Chris Peters		
DATE	02/22/23	02/23/23					
TIME STARTED	09:41 pm	07:00 am					
TIME FINISHED	02:20 pm	01:06 pm					
WEATHER	Couldy	Cloudy					
DEPTH REACHED	4 ft	8 ft					

GROUND ELEVATION 39.5 ft M.L.W. ELEVATION _____
ZERO OF BORING LOG _____ ELEVATION GROUNDWATER 31.5 ft

PAY QUANTITIES										
LINEAL FEET OF BORING					SAMPLES			LINEAL FEET OF ROCK CORE		
3-½ in	3-½ in (DECON)	-			EXTRA SPOON	UNDIST. SAMPLE		2-1/8 in	-	
ITEM 2a	ITEM 3	-	-	-	ITEM 5a	ITEM 4a	-	ITEM 6a	-	-

Weight of Hammer (Type) Average Fall
Drilling Mud _____ Casing Type: _____ --- ---
Ordinary Dry Samples O.D. --- I.D. --- _____ ---
Undisturbed Samples Type --- Length --- O.D. --- I.D. ---

GROUNDWATER READINGS							
DATE	02/23/23	02/23/23					
TIME	08:00 am	10:40 am					
DEPTH	8 ft	8 ft					

GENERAL REMARKS:
Single Ring Test conducted at 6.0' below ground surface (Hydraulic Conductivity = 1.5 in/hr)

Northing: 604860 Easting: 674687

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INSPECTOR M. Fallah GEOTECHNICAL ENGINEER Shivang Patel

AmerCom Corp.

BORING LOG

Boring No. TP-10
Sheet No. 2 of 2

CONTRACT NO. OPS T3820 RDWY. NB-HCE STA. OFF.

Elev. (ft)	Blows on Casing	Blows on Spoon For 6-in Penetration		Sample No.	Sample Depth (ft)	Log	Material & Remarks
39.5							
38.5					0 - 1	1.0 ft SAND	Dark Grayish Brown [10YR,4/2] medium to fine SAND, some
37.5					1 - 2		Clayey Silt, trace medium to fine Gravel.
					2 - 8	2.0 ft SILT	Reddish Brown [5YR, 4/4] SILT, little medium to fine Sand.
							Dark Grayish Brown [10YR, 4/2] coarse to fine SAND, some
						SAND	coarse to fine Gravel, trace Silt.
▼31.5						8.0 ft	
							End of Boring at 8 feet

*indicates that the soil description has been verified based on laboratory test results.

APPENDIX E: SHOVEL TEST PIT LOG

APPENDIX E: SHOVEL TEST PIT LOG

STP	Depth*	Stratum	Munsell	Soil Type	Comments/Artifacts
1	0.0-1.6	Fill 1	10YR 5/2 m/w 10YR 5/3	Silty Sand w/ Roots and 10% Gravels	HM
	1.6-3.4	Fill 2	7.5YR 4/6	Sand w/ 5% Gravels	NR: Slag (n=2)
	3.4-4.6	B1	10YR 5/6	Sand	NCM
	4.6-5.2	B2	10YR 7/3 w/w 10YR 6/8	Sand	NCM
2	0.0-1.4	Fill 1	10YR 4/3 m/w 10YR 5/4	Silty Sand w/ Roots and 10% Rocks	HM
	1.4-3.5	Fill 2	10YR 4/6	Silty Sand w/ Roots and 25% Rocks	NR: Modern Bottle Glass
3	0.0-1.9	Fill 1	10YR 4/3 m/w 10YR 5/6	Sandy Loam w/ Roots and 10% Rocks	HM
	1.9-2.7	Ab	10YR 5/3	Sand w/ Roots	HM
	2.7-4.0	B1	10YR 7/4	Sand w/ Roots	NCM
	4.0-5.0	B2	10YR 6/8	Sand w/ Roots	NCM
4	0.0-1.9	Fill 1	10YR 4/3 m/w 10YR 5/3	Sandy Loam w/ Roots and 10% Rocks	HM
	1.9-3.4	Fill 2	10YR 4/6	Sand	HM
	3.4-5.0	B	10YR 7/4	Sand	NCM
5	0.0-0.9	Fill 1	10YR 5/2	Sandy Loam	HM
	0.9-1.4	Fill 2	10YR 6/3	Sand	NCM
	1.4-4.7	B1	10YR 7/6	Sand	HM
	4.7-4.8	B2	10YR 7/3 m/w 10YR 6/8	Sand	NCM
6	0.-0.9	Fill 1	10YR 5/2	Sandy Loam	HM
	0.9-3.0	Fill 2	10YR 4/4 w/ 10YR 4/6 banding	Fine Sand	HM
	3.0-4.5	Fill 3	10YR 5/3	Fine Sand	HM
7	0.0-1.2	Fill 1	10YR 5/2	Fine Sandy Loam w/ Small Roots	HM
	1.2-1.8	Fill 2	10YR 5/4	Fine Sand	HM
	1.8-3.9	B	7.5YR 5/8	Fine Sand	NCM
8	0.0-1.0	Fill 1	10YR 5/2	Fine Sand w/ Roots	HM
	1.0-1.2	Fill 2		Coal Ash Lens	HM
	1.2-4.5	B	7.5YR 5/8	Fine Sand	NCM
9	0.0-1.2	Fill 1	10YR 5/3	Fine Sand	HM
	1.2-2.5	Fill 2	7.5YR 6/6 m/w 10YR 4/2	Fine Sand	HM
	2.5-3.5	Fill 3	10YR 2/2	Sandy Loam	HM
	3.5-4.3	B	7.5 YR 6/6	Sand	NCM
10	0.0-1.1	Fill 1	10YR 4/3 m/w 10YR 5/3	Sandy Loam w/ Roots and Rocks	HM
	1.1-1.9	Fill 2	10YR 4/6	Sand	HM
	1.9-5.2	B	10YR 6/4	Sand	NCM
11	0.0-0.9	Fill 1	10YR 4/3	Sandy Silt w/ Roots and 10% Rocks	HM
	0.9-1.9	Fill 2	10YR 3/3 m/w 7.5YR 5/6	Sand w/ Roots and 10% Rocks	HM
	1.9-2.6	Fill 3	10YR 5/4	Sand	NCM
	2.6-3.0	Fill 4	10YR 4/3	Sand w/ Coal Ash and Large Roots	CM
12	0.0-0.7	Fill 1	10YR 5/2	Sandy Loam	HM; NR: Decayed Paper
	0.7-1.2	Fill 2	5YR 6/4	Fine Sand	NCM
	1.2-2.4	Fill 3	10YR 5/4 w/ 7.5YR 6/6	Sand	NCM
	2.4-4.5	B	7.5YR 6/6	Sand	NCM
13	0.0-0.8	Fill 1	10YR 4/2	Sandy Loam	HM
	0.8-1.1	Fill 2	10YR 7/3	Silty Sand Loam	NCM
	1.1-2.4	Fill 3	10YR 5/4	Sandy Loam	HM
	2.4-2.5	Fill 4	10YR 3/3	Sandy Loam	NCM
	2.5-4.2	Fill 5/ Possible Ab	10YR 4/3	Sandy Loam	HM
	4.2-4.8	B1	10YR 5/4	Sandy Loam	NCM
	4.8-5.0	B2	10YR 7/3 m/w 10YR 7/8	Sandy Loam	NCM

Key:
* Depth in feet below ground surface
HM - Historic Cultural Material (see Appendix F)
NCM - No Cultural Material
NR - Not Retained
m/w - mottled with

APPENDIX F: ARTIFACT CATALOG

APPENDIX F: ARTIFACT CATALOG

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Measurements/ Dates	Wt. (g)
1	STP 1	1	0.00-1.60	Fill 1	1	ARCH	Glass	Flat	Window	Aqua, small shard		
1	STP 1	1	0.00-1.60	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, slightly curved, too small to determine manufacture technique		
1	STP 1	1	0.00-1.60	Fill 1	2	DOM	Glass	Vessel	Bottle/Jar	Colorless, body shards, slightly curved, too small to determine manufacture technique, multiple vessels represented		
1	STP 1	1	0.00-1.60	Fill 1	1	DOM	Glass	Vessel	Bottle/Jar	Colorless, body shard, mold blown indeterminate, visible mold seams, slightly curved, small		
1	STP 1	1	0.00-1.60	Fill 1	1	BIO	Faunal	Shell	Bivalve	Unidentified, fragment, weathered		0.5
1	STP 1	1	0.00-1.60	Fill 1	3	FUEL	Coal	Coal	Coal	Fragments		2.9
1	STP 1	1	0.00-1.60	Fill 1	1	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragment		1.9
1	STP 1	1	0.00-1.60	Fill 1	1	FUEL	Slag	Slag	Slag	Fragment		2.1
1	STP 1	1	0.00-1.60	Fill 1	1	ACT	Synthetic	Writing Tool	Mechanical Pen	Complete, dark grey plastic with black finger rest and pocket clip, on main body of pen in white is written, "PROFILE ® 1.4B", on pocket clip is written in white, "PAPERMATE ®", only a little weathered, looks to still have ink. but mechanism will not go down. Modern	2005-present (Paper Mate 2022)	
2	STP 2	1	0.00-1.40	Fill 1	6	ARCH	Glass	Flat	Window	Aqua, various sized small shards		
2	STP 2	1	0.00-1.40	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, slightly curved, too tiny to determine manufacture technique		
2	STP 2	1	0.00-1.40	Fill 1	2	DOM	Glass	Vessel	Bottle	Emerald green, body shards, slightly curved, too small to determine manufacture technique, possibly multiple vessels represented		
2	STP 2	1	0.00-1.40	Fill 1	1	DOM	Glass	Vessel	Bottle	Emerald green, body shard, machine made, horizontal ribs across body, slightly curved, small	Early 20th Century-present (Lindsey 2022b)	
2	STP 2	1	0.00-1.40	Fill 1	1	DOM	Glass	Vessel	Bottle	Emerald green, rim/body shard, machine made, external small mouth continuous thread finish, small	1908-present (Lindsey 2020c)	
2	STP 2	1	0.00-1.40	Fill 1	1	DOM	Glass	Vessel	Bottle/Jar	Colorless, body shard, slightly curved, too tiny to determine manufacture technique		
2	STP 2	1	0.00-1.40	Fill 1	1	DOM	Glass	Vessel	Bottle/Jar	Colorless, body shard, mold blown indeterminate, visible mold seam, slightly curved, tiny		
2	STP 2	1	0.00-1.40	Fill 1	1	DOM	Ceramic	Whiteware	Indeterminate Form	Body sherd, no visible decorations, slightly curved, tiny	1820-present (Miller et al 2000:13)	
2	STP 2	1	0.00-1.40	Fill 1	1	FUEL	Coal	Coal	Coal	Fragment		0.5
2	STP 2	1	0.00-1.40	Fill 1	1	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragment		2.8
2	STP 2	1	0.00-1.40	Fill 1	1	MISC	Synthetic	Miscellaneous Plastic	Indeterminate Plastic Item	White, fragment, straight raised vertical line on the interior, horizontal raised lines on half of the exterior, slightly curved, probably modern	20th century	
2	STP 2	1	0.00-1.40	Fill 1	2	ARCH	Ferreous Metal	Nail	Indeterminate Nail	Head and shaft fragments, heavily corroded over		
2	STP 2	1	0.00-1.40	Fill 1	1	CUR	White Metal	Coin	Quarter	Complete, Washington bust on one side, eagle on the other, 1995 date, somewhat corroded	1995-1998 (US Mint 2022)	
3	STP 3	1	0.00-1.90	Fill 1	1	ARCH	Glass	Flat	Window	Aqua, tiny shard		
3	STP 3	1	0.00-1.90	Fill 1	2	DOM	Glass	Vessel	Bottle/Jar	Aqua, body shards, slightly curved, too tiny to determine manufacture technique, probably multiple vessels represented		
3	STP 3	1	0.00-1.90	Fill 1	1	DOM	Glass	Vessel	Bottle	Olive, body shard, slightly curved, too small to determine manufacture technique		
3	STP 3	1	0.00-1.90	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, slightly curved, too small to determine manufacture technique		
3	STP 3	1	0.00-1.90	Fill 1	5	DOM	Glass	Vessel	Indeterminate Vessel	Colorless, body shards, slightly curved, too tiny to determine manufacture technique, multiple vessels represented, could be DOM or LIGHT items		

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Measurements/ Dates	Wt. (g)
3	STP 3	1	0.00-1.90	Fill 1	3	DOM	Ceramic	Whiteware	Indeterminate Form	Body sherds, one side spalled, the other side no visible decorations, tiny, multiple vessels represented	1820-present (Miller et al 2000:13)	
3	STP 3	1	0.00-1.90	Fill 1	3	DOM	Ceramic	Whiteware	Hollowware	Body sherds, brown transfer printed decoration, nothing discernible of pattern, two are spalled on one side, the other has printed decoration on both, tiny, do not mend but probably go to the same vessel	1818-1915 (MACL 2015b)	
3	STP 3	1	0.00-1.90	Fill 1	15	FUEL	Coal	Coal	Coal	Fragments		28.9
3	STP 3	1	0.00-1.90	Fill 1	2	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragments		1.1
3	STP 3	1	0.00-1.90	Fill 1	6	FUEL	Slag	Slag	Slag	Fragments		9.9
3	STP 3	1	0.00-1.90	Fill 1	2	ARCH	Red Clay	Fired Clay	Brick	Orange, fragments		2.2
3	STP 3	1	0.00-1.90	Fill 1	1	ARCH	Ferreous Metal	Nail	Indeterminate Nail	Shaft fragment, heavily corroded over		
3	STP 3	1	0.00-1.90	Fill 1	1	TOOL	Ferreous Metal	Hand Tool	Cutting Pliers	Large, fragment, plier portion and part of the handle, heavily corroded	20th century	
4	STP 3	2	1.90-2.70	Ab	1	DOM	Ceramic	Pearlware	Indeterminate Form	Body sherd, blue transfer printed decoration on one side, only dark solid color visible, nothing discernible of pattern, possibly negative printed but cannot confirm, tiny	1803-1860 (MACL 2015b; Miller et al 2000:13)	
4	STP 3	2	1.90-2.70	Ab	1	DOM	Ceramic	Whiteware	Indeterminate Form	Body sherd, blue transfer printed decoration on the interior, no visible decorations on the exterior, nothing discernible of pattern, tiny, possibly a flatware	1815-1915 (Azizi et al 1996)	
4	STP 3	2	1.90-2.70	Ab	2	FUEL	Coal	Coal	Coal	Fragments		1.9
4	STP 3	2	1.90-2.70	Ab	0	NAT				Discard, 1 natural lithic		3.0
5	STP 4	1	0.00-1.90	Fill 1	6	ARCH	Glass	Flat	Window	Aqua, various sized small shards		
5	STP 4	1	0.00-1.90	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, slightly curved, too tiny to determine manufacture technique		
5	STP 4	1	0.00-1.90	Fill 1	3	DOM	Glass	Vessel	Indeterminate Vessel	Colorless, body shards, slightly curved, too tiny to determine manufacture technique, multiple vessels represented, could be DOM or LIGHT items		
5	STP 4	1	0.00-1.90	Fill 1	4	FUEL	Coal	Coal	Coal	Fragments		3.4
5	STP 4	1	0.00-1.90	Fill 1	1	ARCH	Ferreous Metal	Nail	Indeterminate Nail	Shaft fragment, heavily corroded over		
5	STP 4	1	0.00-1.90	Fill 1	1	ARCH	Ferreous Metal	Nail	Indeterminate Nail	Head and shaft fragment, heavily corroded over		
5	STP 4	1	0.00-1.90	Fill 1	1	MISC	Synthetic	Miscellaneous Plastic	Indeterminate Plastic Item	Clear, flat fragment, probably part of a wrapper, Modern		
6	STP 4	2	1.90-3.40	Fill 2	1	DOM	Glass	Vessel	Bottle	Olive, base shard, mold blown indeterminate, part of a kick up, small, probably a wine or liquor bottle		
6	STP 4	2	1.90-3.40	Fill 2	1	FUEL	Coal	Coal	Coal	Fragment		0.7
7	STP 5	1	0.00-0.90	Fill 1	1	ARCH	Glass	Flat	Window	Aqua, tiny shard		
7	STP 5	1	0.00-0.90	Fill 1	2	DOM	Glass	Vessel	Bottle	Amber, body shards, slightly curved, too tiny to determine manufacture technique, possibly multiple vessels represented		
7	STP 5	1	0.00-0.90	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, mold blown indeterminate, visible mold seam, maybe an embossed honeycomb pattern visible, slightly curved, small		
7	STP 5	1	0.00-0.90	Fill 1	1	DOM	Glass	Vessel	Bottle	Emerald green, body shard, slightly curved, too tiny to determine manufacture technique	20th century	
7	STP 5	1	0.00-0.90	Fill 1	5	FUEL	Coal	Coal	Coal	Fragments		3.0
7	STP 5	1	0.00-0.90	Fill 1	1	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragment		0.4
7	STP 5	1	0.00-0.90	Fill 1	2	MISC	Ferreous Metal	Miscellaneous Metal	Indeterminate Metal Item	Heavily corroded over blobs of metal, small		
7	STP 5	1	0.00-0.90	Fill 1	1	MISC	Ferreous Metal	Miscellaneous Metal	Indeterminate Metal Item	Flat, round with a hole in the middle, edges uneven, heavily corroded		
7	STP 5	1	0.00-0.90	Fill 1	2	MISC	Composite	Concrete	Paving or Building Material	Fragment, coarse grit		63.6

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Measurements/ Dates	Wt. (g)
8	STP 5	3	1.40-4.70	B1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, slightly curved, too tiny to determine manufacture technique		
8	STP 5	3	1.40-4.70	B1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, mold blown indeterminate, visible mold seam, slightly curved, tiny		
8	STP 5	3	1.40-4.70	B1	1	DOM	Glass	Vessel	Bottle/Jar	Colorless, body shard, slightly curved, too tiny to determine manufacture technique		
8	STP 5	3	1.40-4.70	B1	1	FUEL	Slag	Slag	Slag	Fragment		0.6
9	STP 6	1	0.00-0.90	Fill 1	4	ARCH	Glass	Flat	Window	Aqua, various sized small shards		
9	STP 6	1	0.00-0.90	Fill 1	2	DOM	Glass	Vessel	Bottle	Amber, body shards, slightly curved, too tiny to determine manufacture technique, possibly multiple vessels represented		
9	STP 6	1	0.00-0.90	Fill 1	1	DOM	Glass	Vessel	Indeterminate Vessel	Colorless, body shards, slightly curved, too tiny to determine manufacture technique, could be DOM or LIGHT items		
9	STP 6	1	0.00-0.90	Fill 1	1	DOM	Ceramic	Whiteware	Indeterminate Form	Base sherd, no visible decorations, small	1820-present (Miller et al 2000:13)	
9	STP 6	1	0.00-0.90	Fill 1	1	DOM	Ceramic	Hard Paste Porcelain	Indeterminate Form	Body sherd, no visible decorations, slightly curved, very tiny		
9	STP 6	1	0.00-0.90	Fill 1	1	TOB	White Clay	Tobacco Pipe	Pipe Stem	Small fragment, broken off on either end	5/64" Bore D.	
9	STP 6	1	0.00-0.90	Fill 1	1	FUEL	Slag	Slag	Slag	Fragment		1.6
9	STP 6	1	0.00-0.90	Fill 1	8	FUEL	Coal	Coal	Coal	Fragments		10.0
9	STP 6	1	0.00-0.90	Fill 1	1	ELEC	Carbon	Battery	Dry-Cell Rod	Broken off on both ends and cut in half	1880-present (Ginsberg 2005)	
9	STP 6	1	0.00-0.90	Fill 1	1	BIO	Faunal	Shell	Bivalve	Unidentified, fragment, weathered		0.6
9	STP 6	1	0.00-0.90	Fill 1	1	MISC	Aluminum	Miscellaneous Metal	Indeterminate Metal Item	Crumpled up foil fragment, small, Modern	20th century	
10	STP 6	2	0.90-3.00	Fill 2	1	DOM	Ceramic	Pearlware	Hollowware	Body sherd, the portion on the handle that attaches to the body, molded fan decoration, interior spalled, small	1775-1830 (Miller et al 2000:12)	
10	STP 6	2	0.90-3.00	Fill 2	8	FUEL	Slag	Slag	Slag	Fragments		9.3
11	STP 6	3	3.00-4.50	Fill 3	1	DOM	Ceramic	Pearlware	Hollowware	Body sherd, the portion on the handle that attaches to the body, molded fan decoration, interior spalled, tiny	1775-1830 (Miller et al 2000:12)	
11	STP 6	3	3.00-4.50	Fill 3	1	DOM	Ceramic	Rockingham	Indeterminate Form	Body sherd, no visible decorations, slightly curved, tiny	1830-1940 (MACL 2015c)	
11	STP 6	3	3.00-4.50	Fill 3	3	FUEL	Coal	Coal	Coal	Fragments		0.5
12	STP 7	1	0.00-1.20	Fill 1	1	ARCH	Glass	Flat	Window	Aqua, tiny shard		
12	STP 7	1	0.00-1.20	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, rim shard, blob finish, small	1840-1925 (Lindsey 2020c)	
12	STP 7	1	0.00-1.20	Fill 1	1	DOM	Glass	Vessel	Indeterminate Vessel	Milk glass, body shard, slightly curved, too small to determine manufacture technique, could be DOM or LIGHT item		
12	STP 7	1	0.00-1.20	Fill 1	3	FUEL	Coal	Coal	Coal	Fragments		5.7
12	STP 7	1	0.00-1.20	Fill 1	3	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragments		1.5
12	STP 7	1	0.00-1.20	Fill 1	1	FUEL	Charcoal	Charcoal	Charcoal	Unidentified fragment		1.2
12	STP 7	1	0.00-1.20	Fill 1	1	ARCH	Lime	Lime	Mortar	Fragment		2.9
13	STP 7	2	1.20-1.80	Fill 2	1	DOM	Ceramic	Redware	Hollowware	Body sherd, remanent trailed slip decoration, all glaze almost completely spalled off the interior, exterior spalled, tiny	Pre-1870 (Denker & Denker 1985)	
13	STP 7	2	1.20-1.80	Fill 2	1	DOM	Ceramic	Pearlware	Flatware	Body sherd, blue transfer printed decoration on one side, nothing discernible of pattern except maybe a flower, possibly negative printed but cannot confirm, small	1803-1860 (MACL 2015b; Miller et al 2000:13)	
13	STP 7	2	1.20-1.80	Fill 2	2	FUEL	Coal	Coal	Coal	Fragments		1.8
13	STP 7	2	1.20-1.80	Fill 2	2	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragments		0.5
13	STP 7	2	1.20-1.80	Fill 2	1	ARCH	Red Clay	Fired Clay	Brick	Red, fragment		0.4
13	STP 7	2	1.20-1.80	Fill 2	0	NAT				Discard, 1 natural lithic		7.0

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Measurements/ Dates	Wt. (g)
14	STP 8	1	0.00-1.00	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, base shard, machine made, base has three tight concentric circles and then a small inner circle with embossed, "35", small	Early 20th Century-present (Lindsey 2022b)	
14	STP 8	1	0.00-1.00	Fill 1	3	FUEL	Coal	Coal	Coal	Fragments		9.1
14	STP 8	1	0.00-1.00	Fill 1	1	MISC	Synthetic	Miscellaneous Plastic	Indeterminate Plastic Item	Flat, tiny fragment, blue bands on one side, black writing on the other, "… : INFO…/W…/10-3(in computer type)…", probably some type of label. Modern	20th century	
14	STP 8	1	0.00-1.00	Fill 1	0	NAT				Discard, 2 natural lithic		6.4
15	STP 8	2	1.00-1.20	Fill 2	1	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragment, Sampled		7.1
16	STP 9	1	0.00-1.20	Fill 1	2	ARCH	Glass	Flat	Window	Aqua, various sized small shards		
16	STP 9	1	0.00-1.20	Fill 1	1	DOM	Glass	Vessel	Indeterminate Vessel	Aqua, body shard, slightly curved, thin, too tiny to determine manufacture technique, possibly a bottle or a vial		
16	STP 9	1	0.00-1.20	Fill 1	6	DOM	Glass	Vessel	Bottle/Jar	Colorless, body shards, slightly curved, too small to determine manufacture technique, multiple vessels represented		
16	STP 9	1	0.00-1.20	Fill 1	1	DOM	Glass	Vessel	Bottle/Jar	Colorless, body shard, mold blown indeterminate, visible mold seam, slightly curved, interior spalled, small		
16	STP 9	1	0.00-1.20	Fill 1	1	LIGHT	Glass	Vessel	Lamp Chimney	Colorless, body shard, slightly curved, too small to determine manufacture technique		
16	STP 9	1	0.00-1.20	Fill 1	5	DOM	Ceramic	Redware	Hollowware	Body sherds, interior spalled, exterior unglazed, slightly curved, small to tiny, possibly multiple vessels represented		
16	STP 9	1	0.00-1.20	Fill 1	7	DOM	Ceramic	Whiteware	Indeterminate Form	Body sherds, one side spalled, the other side no visible decorations, small, multiple vessels represented, a couple look a little charred, possibly due to burning	1820-present (Miller et al 2000:13)	
16	STP 9	1	0.00-1.20	Fill 1	8	FUEL	Coal	Coal	Coal	Fragments		13.0
16	STP 9	1	0.00-1.20	Fill 1	1	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragment		1.1
16	STP 9	1	0.00-1.20	Fill 1	2	BIO	Faunal	Shell	Hard Clam	Fragments		6.8
16	STP 9	1	0.00-1.20	Fill 1	2	ARCH	Red Clay	Fired Clay	Brick	Red, fragments		0.7
16	STP 9	1	0.00-1.20	Fill 1	2	ARCH	Composite	Mortar	Mortar	Fragments		5.9
16	STP 9	1	0.00-1.20	Fill 1	1	ARCH	Lime	Lime	Mortar	Fragment		2.7
16	STP 9	1	0.00-1.20	Fill 1	0	NAT				Discard, 7 natural lithic		53.8
17	STP 9	2	1.20-2.50	Fill 2	1	DOM	Glass	Vessel	Tableware	Colorless, body/rim shard, slightly curved, too small to determine manufacture technique, possibly part of a tumbler		
17	STP 9	2	1.20-2.50	Fill 2	1	DOM	Glass	Vessel	Indeterminate Vessel	Colorless, body shard, molded or pressed, ribs and the start of a diamond visible, possibly a tableware or bottle/jar, slightly curved, too tiny to confirm		
17	STP 9	2	1.20-2.50	Fill 2	1	DOM	Ceramic	Whiteware	Indeterminate Form	Base sherd, one side spalled, the other side no visible decorations, tiny	1820-present (Miller et al 2000:13)	
17	STP 9	2	1.20-2.50	Fill 2	2	FUEL	Coal	Coal	Coal	Fragments		0.6
17	STP 9	2	1.20-2.50	Fill 2	1	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragment		0.1
17	STP 9	2	1.20-2.50	Fill 2	3	BIO	Faunal	Shell	Hard Clam	Fragments, weathered		5.1
17	STP 9	2	1.20-2.50	Fill 2	0	NAT				Discard, 4 natural lithic		86.4
18	STP 9	3	2.50-3.50	Fill 3	1	DOM	Ceramic	Refined White-Bodied Earthenware	Indeterminate Form	Body sherd, one side spalled, the other side has blue transfer printed decoration, completely covered in dark blue background with white dots, possibly negative printed, too tiny to determine full pattern, could be pearlware or whiteware, widest date given	1803-1915(MACL 2015b; Azizi et al 1996)	
19	STP 10	1	0.00-1.10	Fill 1	1	ARCH	Glass	Flat	Window	Aqua, small shard		
19	STP 10	1	0.00-1.10	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, mold blown indeterminate, visible mold seam, slightly curved, tiny		
19	STP 10	1	0.00-1.10	Fill 1	1	DOM	Glass	Vessel	Bottle	Olive, body shard, curved then flattens, possibly part of a square/rectangular or oval bottle, too small to determine manufacture technique		

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Measurements/ Dates	Wt. (g)
19	STP 10	1	0.00-1.10	Fill 1	1	DOM	Glass	Vessel	Bottle	Emerald green, body shard, mold blown indeterminate, embossed, "…PO…", slightly curved, small	19th or 20th century	
19	STP 10	1	0.00-1.10	Fill 1	4	DOM	Glass	Vessel	Bottle	Emerald green, body shards, mended, machine made, start of s stippled area visible, slightly curved, small	Early 20th Century-present (Lindsey 2022b)	
19	STP 10	1	0.00-1.10	Fill 1	4	DOM	Glass	Vessel	Bottle/Jar	Colorless, body shards, slightly curved, too tiny to determine manufacture technique, multiple vessels represented		
19	STP 10	1	0.00-1.10	Fill 1	4	FUEL	Coal	Coal	Coal	Fragments		1.9
19	STP 10	1	0.00-1.10	Fill 1	4	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragments		3.6
19	STP 10	1	0.00-1.10	Fill 1	2	FUEL	Slag	Slag	Slag	Fragments		4.6
19	STP 10	1	0.00-1.10	Fill 1	1	MISC	Synthetic	Miscellaneous Plastic	Indeterminate Plastic Item	Tubular blue plastic with a hollow black tube that comes to a slightly point, maybe part of a pen or pencil but not enough to confirm, Modern	20th Century	
19	STP 10	1	0.00-1.10	Fill 1	2	MISC	Ferreous Metal	Miscellaneous Metal	Indeterminate Metal Item	Blobs of metal, heavily corroded over, tiny		
19	STP 10	1	0.00-1.10	Fill 1	1	ARCH	Red Clay	Fired Clay	Brick	Orange, fragment		0.2
19	STP 10	1	0.00-1.10	Fill 1	3	ARCH	Ferreous Metal	Nail	Indeterminate Nail	Shaft fragments, heavily corroded over		
19	STP 10	1	0.00-1.10	Fill 1	2	ARCH	Ferreous Metal	Nail	Indeterminate Nail	Head and shaft fragments, heavily corroded over		
20	STP 10	2	1.10-1.90	Fill 2	1	DOM	Ceramic	Creamware	Indeterminate Form	Body sherd, one side spalled, the other side no visible decorations, very tiny	1762-1820 (Miller et al 2000: 12)	
21	STP 11	1	0.00-0.90	Fill 1	1	ARCH	Glass	Flat	Window	Aqua, small shard		
21	STP 11	1	0.00-0.90	Fill 1	1	DOM	Ceramic	Whiteware	Indeterminate Form	Body sherd, no visible decorations, slightly curved, tiny	1820-present (Miller et al 2000:13)	
21	STP 11	1	0.00-0.90	Fill 1	1	DOM	Ceramic	Stoneware	Hollowware	Body sherd, buff-bodied, Bristol slip on both sides, slightly curved, small	1880-1960 (Cheek 1996:89)	
21	STP 11	1	0.00-0.90	Fill 1	1	MISC	Synthetic	Miscellaneous Plastic	Indeterminate Plastic Item	White, slightly curved, long skinny triangle shaped fragment, broken on either side	20th Century	
21	STP 11	1	0.00-0.90	Fill 1	1	FUEL	Coal	Coal	Coal	Fragment		0.7
21	STP 11	1	0.00-0.90	Fill 1	13	FUEL	Slag	Slag	Slag	Fragments		59.9
22	STP 11	2	0.90-1.90	Fill 2	2	DOM	Glass	Vessel	Bottle/Jar	Light blue, body shards, slightly curved, too tiny to determine manufacture technique, possibly multiple vessels represented		
22	STP 11	2	0.90-1.90	Fill 2	1	DOM	Ceramic	Whiteware	Indeterminate Form	Body sherds, blue transfer printed decoration on one side, no other visible decorations on the other, nothing discernible of pattern, slight curved, very tiny	1815-1915 (Azizi et al 1996)	
22	STP 11	2	0.90-1.90	Fill 2	1	MISC	Ferreous Metal	Miscellaneous Metal	Indeterminate Metal Item	Blob of metal, heavily corroded over, small		
22	STP 11	2	0.90-1.90	Fill 2	4	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragments		3.1
22	STP 11	2	0.90-1.90	Fill 2	5	BIO	Faunal	Shell	Oyster	Fragments, weathered		9.7
22	STP 11	2	0.90-1.90	Fill 2	1	BIO	Faunal	Shell	Hard Clam	Hinge fragment, weathered		7.9
23	STP 11	4	2.60-3.00	Fill 4	6	FUEL	Coal Ash	Coal Ash	Coal Ash			43.3
24	STP 12	1	0.00-0.70	Fill 1	1	ARCH	Glass	Flat	Window	Aqua, tiny shard		
24	STP 12	1	0.00-0.70	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, mold blown indeterminate, visible mold seam, slightly curved, small		
24	STP 12	1	0.00-0.70	Fill 1	1	DOM	Glass	Vessel	Bottle/Jar	Aqua, body shard, mold blown indeterminate, embossed, "…S", slightly curved, small	Mid-19th to 20th Century	
24	STP 12	1	0.00-0.70	Fill 1	1	DOM	Glass	Vessel	Bottle/Jar	Colorless, body shard, slightly curved, too small to determine manufacture technique		
24	STP 12	1	0.00-0.70	Fill 1	1	DOM	Ceramic	Pearlware	Indeterminate Form	Body sherd, one side spalled, the other side no visible decorations, small	1775-1830 (Miller et al 2000:12)	

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Measurements/ Dates	Wt. (g)
24	STP 12	1	0.00-0.70	Fill 1	2	DOM	Ceramic	Pearlware	Hollowware	Body sherds, mended, dipt, partial band of blue visible on the exterior and a partial band of brown, very slightly curved, tiny	1775-1860 (MACL 2015a)	
24	STP 12	1	0.00-0.70	Fill 1	1	DOM	Ceramic	Refined White-Bodied Earthenware	Indeterminate Form	Base sherd, one side spalled, the other side has blue transfer printed decoration, maybe some bushes visible, too tiny to determine full pattern		
24	STP 12	1	0.00-0.70	Fill 1	1	DOM	Ceramic	Hard Paste Porcelain	Flatware	Body sherd, no visible decorations, slightly curved, small		
24	STP 12	1	0.00-0.70	Fill 1	5	FUEL	Coal	Coal	Coal	Fragments		9.3
24	STP 12	1	0.00-0.70	Fill 1	2	BIO	Faunal	Shell	Hard Clam	Fragments, weathered		2.8
25	STP 13	1	0.00-0.80	Fill 1	3	ARCH	Glass	Flat	Window	Aqua, tiny shards		
25	STP 13	1	0.00-0.80	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, body shard, slightly curved, too small to determine manufacture technique		
25	STP 13	1	0.00-0.80	Fill 1	1	DOM	Glass	Vessel	Bottle/Jar	Aqua, body shard, slightly curved, too small to determine manufacture technique		
25	STP 13	1	0.00-0.80	Fill 1	1	DOM	Glass	Vessel	Indeterminate Vessel	Colorless, body shard, slightly curved, too tiny to determine manufacture technique, could be DOM or LIGHT item		
25	STP 13	1	0.00-0.80	Fill 1	1	DOM	Ceramic	Pearlware	Flatware	Body sherd, blue transfer printed decoration on interior, only dark color visible, nothing discernible of pattern, possibly negative printed but cannot confirm, tiny	1803-1830 (MACL 2015b; Miller et al 2000:13)	
25	STP 13	1	0.00-0.80	Fill 1	2	FUEL	Slag	Slag	Slag	Fragments		2.5
25	STP 13	1	0.00-0.80	Fill 1	1	MISC	Synthetic	Miscellaneous Plastic	Indeterminate Plastic Item	White, fragment, slightly curved, small, Modern	20th Century	
25	STP 13	1	0.00-0.80	Fill 1	1	MISC	Synthetic	Miscellaneous Plastic	Indeterminate Plastic Item	Light blue/grey, slightly translucent, flat, thick, rounded end, with ribs or broken off tines on the other, maybe a comb but not enough to confirm, Modern	20th Century	
25	STP 13	1	0.00-0.80	Fill 1	2	MISC	Synthetic	Miscellaneous Plastic	Indeterminate Plastic Item	Orange, mended, vertical ribbed exterior, threads or wide horizontal ribs on the interior, possibly the side of cap, slightly curved, tiny, Modern	20th Century	
26	STP 13	3	1.10-2.40	Fill 3	1	DOM	Glass	Vessel	Bottle	Aqua, rim shard, mold blown indeterminate, blob finish, tiny	1840-1925 (Lindsey 2020c)	
26	STP 13	3	1.10-2.40	Fill 3	1	DOM	Ceramic	Whiteware	Flatware	Body/rim sherd, blue transfer printed decoration on the interior, nothing discernible of pattern, slightly curved, small	1815-1915 (Azizi et al 1996)	
26	STP 13	3	1.10-2.40	Fill 3	1	BIO	Faunal	Shell	Bivalve	Unidentified, fragment, weathered		1.6
26	STP 13	3	1.10-2.40	Fill 3	5	ARCH	Red Clay	Fired Clay	Brick	Red, fragments		40.3
27	STP 13	5	2.50-4.20	Fill 5/Ab	1	ARCH	Glass	Flat	Window	Aqua, very tiny shard		
27	STP 13	5	2.50-4.20	Fill 5/Ab	1	DOM	Glass	Vessel	Bottle/Jar	Aqua, body shard, mold blown indeterminate, embossed, "…O...", slightly curved, small	Mid-19th to 20th Century	
27	STP 13	5	2.50-4.20	Fill 5/Ab	1	DOM	Glass	Vessel	Indeterminate Vessel	Colorless, body shard, slightly curved, too small to determine manufacture technique, could be a tableware or bottle/jar, small		
27	STP 13	5	2.50-4.20	Fill 5/Ab	1	DOM	Ceramic	Refined White-Bodied Earthenware	Indeterminate Form	Body sherd, blue possibly printed or painted on one side, spalled on the other, a dark blue splotch and a lighter blue background visible, nothing discernible of pattern, too tiny to confirm full decoration or form		
Total Artifacts:					***338***							

Key:

* in decimalized feet below ground surface

ACT = activity
ARCH = architectural
BIO = biological
CUR = currency
DOM = domestic
ELEC = electrical
FUEL = fuel
LIGHT = lighting
MISC = miscellaneous
NAT= natural
TOB = tobacco
TOOL = tool
STP = shovel test pit
g = grams
D = diameter

APPENDIX F: ARTIFACT CATALOG REFERENCES

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APPENDIX G: NJSM SITE REGISTRATION FORM

NEW JERSEY STATE MUSEUM
ARCHAEOLOGICAL SITE REGISTRATION PROGRAM
BUREAU OF ARCHAEOLOGY AND ETHNOLOGY
P.O. BOX 530, TRENTON, N.J. 08625-0530
Phone (609) 292-8594; Fax (609) 292-7636

Site Name: Marist High School Site
SITE #: 28-Hd-55
Date: 6/14/2023

☒ Check this box if you prefer to have this site information restricted to professional archaeologists, academics and environmental researchers conducting project background research. If so, this form will be considered donated information according to New Jersey State Law.

NJ State Plane Coordinates:

USGS 7.5 Minute Series Quad.: Adelphia, NJ
State Plane Coordinates:
UTM Coordinates (required): 18T 575565.91E 4504720.12N

County: Hudson **Township:** City of Bayonne

Location (descriptive): Grassy area roughly 45 feet west of John F. Kennedy Boulevard and Leo Slyvious Road

Survey Methodology (Phase IA) Phase II (Phase IB) Phase III

Period of Site: Historic

Cultural Affiliation(s) (if known): Euro-American

Owner's (Tenant's) Name:
Address
Phone:
Attitude Toward Preservation:

Surface Features: Open grassy area with mature trees.

Prominent Landmarks:

Vegetation Cover: Manicured grass with mature trees.

Nearest Water Source: Newark Bay **Distance:** 1,500 feet (Historically was less they 500 feet)

Soil Type: Urban land, eolian substratum, 0 to 8 percent slopes (UREOLB) **Erosion:** None

Stratified (if known): Yes

Threat of Destruction (if known): Possible

Previous Work and References (list below):

	Name	Date	Reference (n/a if unpublished)
1.	Richard Grubb & Associates, Inc.	2023	Phase I Archaeological Survey and Intensive-level Historic Architectural Survey, Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program, Cities of Bayonne and Jersey City, Hudson County, and Newark, Essex County, New Jersey.

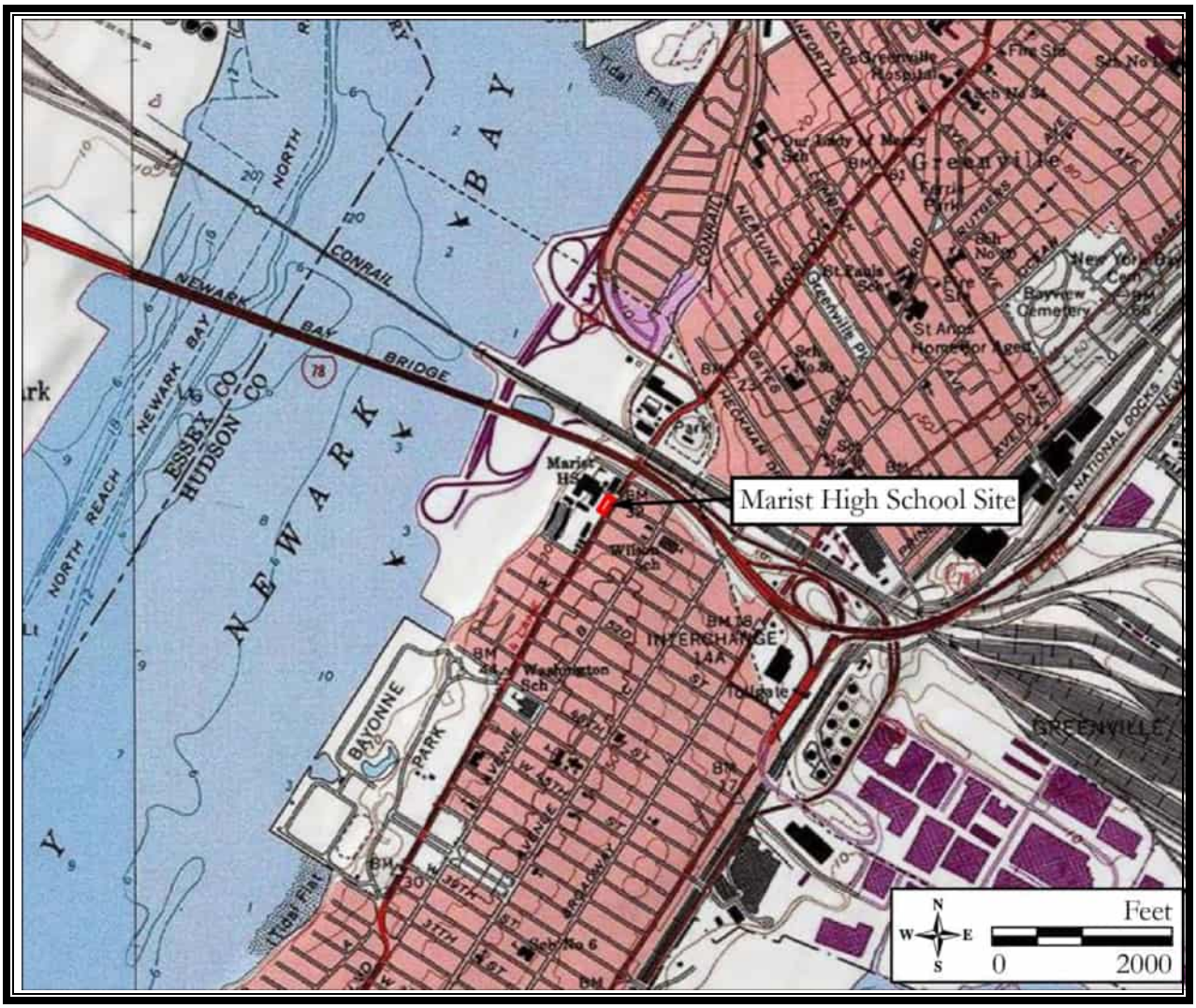
Collections:

	Name	Date	Collection Stored	Previous Designation
1.	Richard Grubb & Associates, Inc.	2023	Currently stored at Richard Grubb & Associates, Inc. Headquarters; 259 Prospect Plains Road, Building D, Cranbury New Jersey	

Sketch Map of the Site:

Indicate the chief topological features, such as streams, swamps, shorelines, and elevations (approximate). Also show buildings and roads. Indicate the site location by enclosing the site area with a dotted line. Use a scale (approximate) to indicate distance and dimensions.

North



Scale: 1" = 2,000'

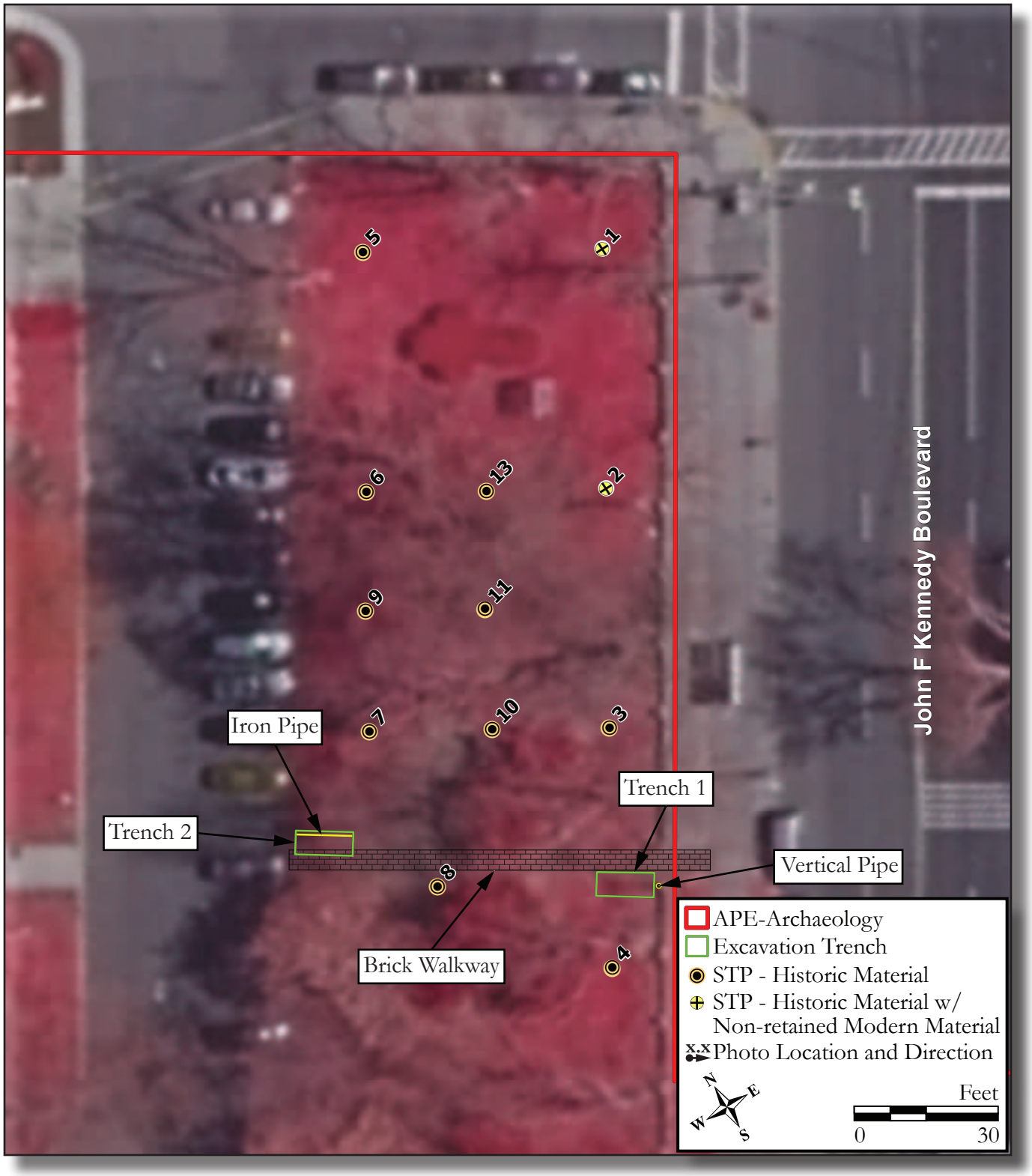
Observations, Remarks, or Recommendations:

Eight (8) STPs were placed on a 50-foot interval grid within the rectangular site and an additional five STPs were placed at 25-foot intervals to investigate locations containing early ceramics. In total, 338 artifacts were retained from redeposited fill deposits and a possible buried A-horizon. Artifacts found consist of possible late eighteenth through twentieth-century material and include: bottle glass, window glass, coal, shell, plastic, indeterminate nails, slag, brick, whiteware, pearlware, concrete, a tobacco pipe stem, carbon battery, Rockingham, redware, stoneware, and porcelain. No cultural features were identified. The site area measures 78 feet by 193 feet and is located south of Leo Silvious Road and west of John F. Kennedy Boulevard.

Recorder's Name (Company): Allison Gall (Richard Grubb & Associates, Inc.)
Address: 259 Prospect Plains Road, Cranbury, NJ
Phone: 609-655-0692

Date Recorder at Site: August 17, 2022

Revised 2007



Aerial image showing photograph locations, STP locations and results, and existing trench locations (NJGIS Digital Orthographic Imagery (Infrared), 2020).

APPENDIX H: 1954 VIADUCT AS-BUILT PLANS

NEW JERSEY TURNPIKE AUTHORITY

PAUL L. TROAST, CHAIRMAN — MAXWELL LESTER, JR., TREASURER — JOSEPH MORECRAFT, JR.

NEW JERSEY TURNPIKE
NEWARK BAY–
HUDSON COUNTY EXTENSION

SOUTHEAST VIADUCT

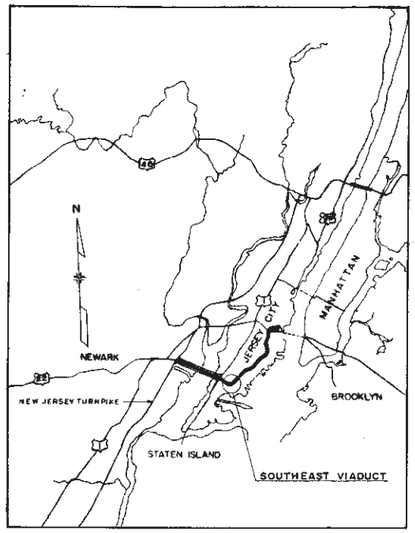
SUBSTRUCTURE

CONTRACT NO. N-13

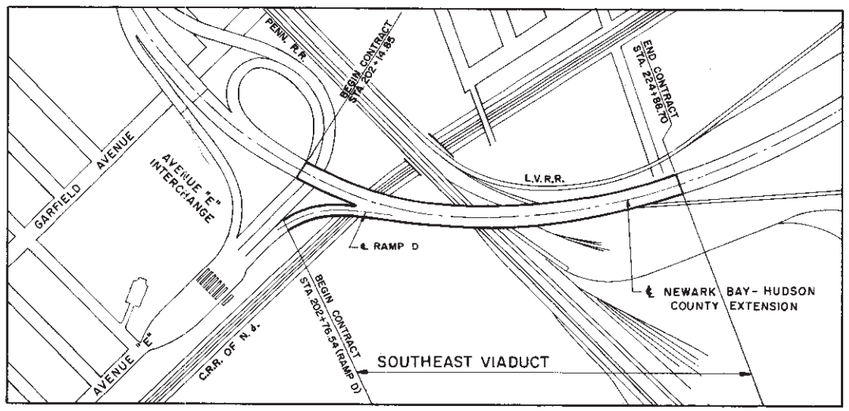
INDEX OF DRAWINGS

DWG. NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL PLAN & ELEVATION
3 & 4	FOUNDATION PLANS
5 - 13	LOG OF BORINGS
14	EAST & WEST ABUTMENTS
15	ABUTMENT DETAILS
16	RAMP D ABUTMENT
17-25	PIER ELEVATIONS
26-28	PILE PLANS
29-33	PAD DATA
34-38	PIER DETAILS
39	DRAINAGE DETAILS

AS BUILT DRAWINGS



KEY PLAN



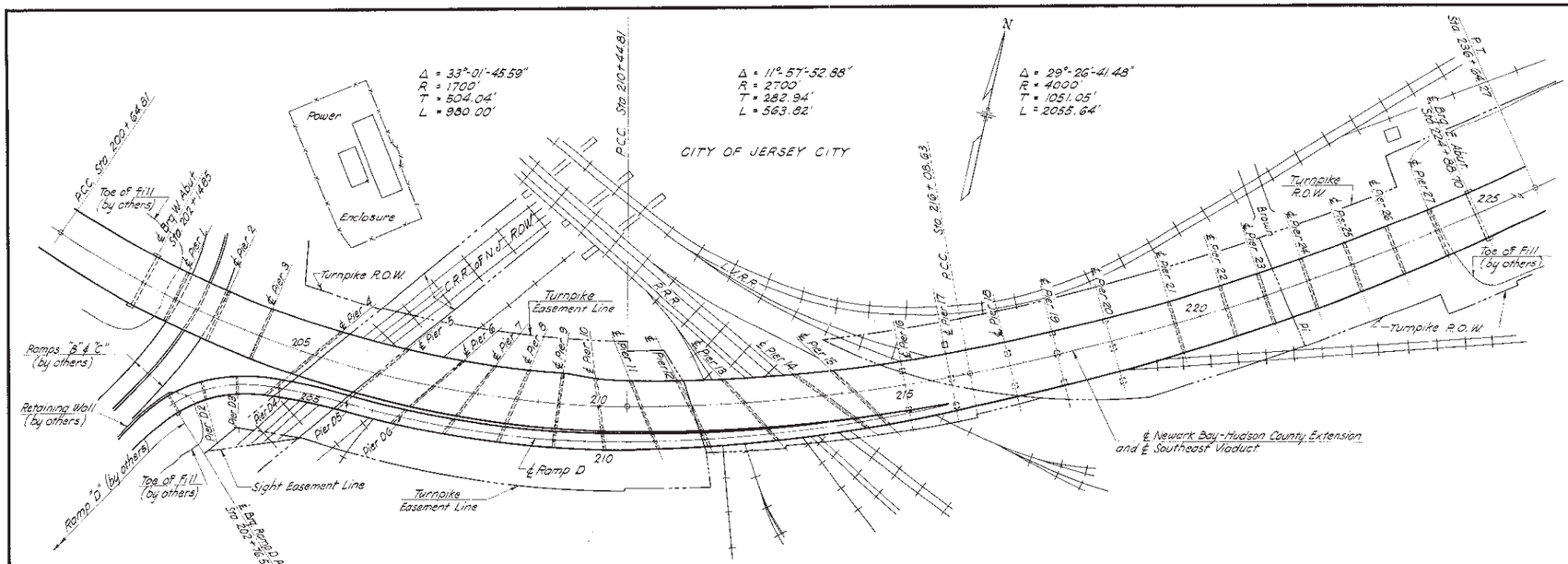
PROJECT PLAN

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

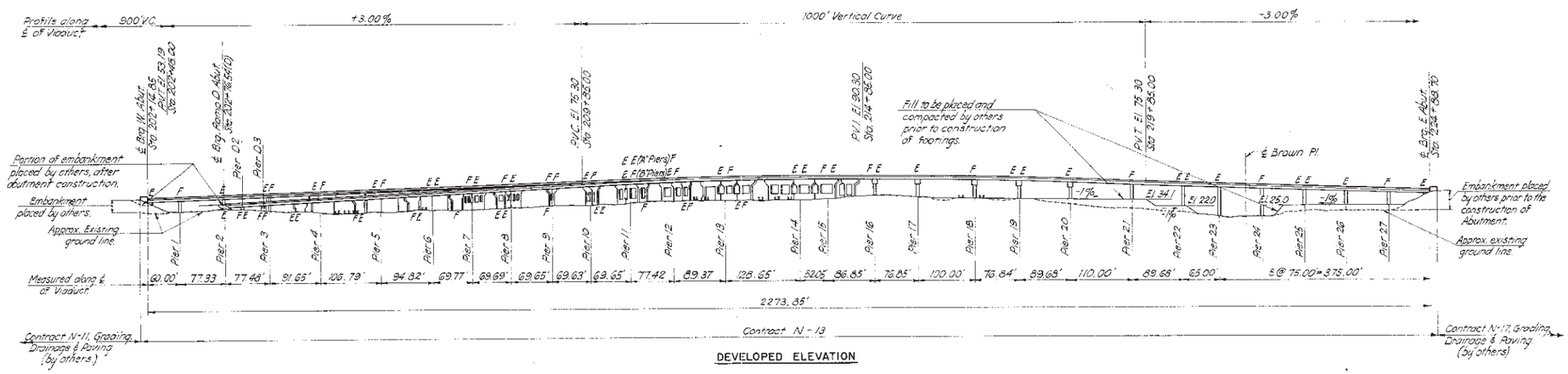
RECOMMENDED Evans E Howard DATE 11-24-54
HOWARD, NEEDLES, TAMMEN & BERGENDOFF

APPROVED A M Wallace DATE 11-24-54
CHIEF ENGINEER
NEW JERSEY TURNPIKE AUTHORITY

SHEET NO. 1 OF 39



PLAN



DEVELOPED ELEVATION

GENERAL NOTES

DATUM

Mean sea level, Elevation 0.0 - Sandy Hook, N.J. U.S.C. & G. Survey. All elevations are based on this datum.

DESIGN SPECIFICATIONS

1949 Standard Specifications for Highway Bridges of the A.A.S.H.O. except as modified by the Specifications.

Live Load Roadway H20-S-16-44

CONCRETE

Unless otherwise provided for on the Plans or in the specifications, the general details of fabrication and placement of reinforcing steel shall conform to the requirements of the 1949 Standard Specifications for Highway Bridges of the A.A.S.H.O. Unless otherwise noted, all reinforcing bars shall be spliced 20 diameters.

For reinforcing steel, see Specifications.

All concrete shall be Class B. See Specifications.

All measurements to bars shown on the plans are to the center line of bars unless otherwise noted.

All exposed corners to have ¾" chamfer or fillet where no chamfer or fillet is shown. All chamfers and fillets to be made with dressed lumber.

Reinforcing bars in the footing shall be placed with a minimum clear distance of 3" for timber piles and 5" for steel piles.

Except as otherwise shown, the clear distance between reinforcement and face of concrete shall be not less than the following:

Footings 4"

Faces of Abutments & Wingwalls 2" Other exposed faces 3"

Pad elevations shown are final pad elevations.

Reinforcement shall be secured in final position by approved supports prior to pouring of surrounding concrete. Placing of bar reinforcement dowels into position during or after pouring of footing concrete is absolutely prohibited. At splices, where reinforcement is lapped, the bars are to be placed in contact with each other and wired together in such a manner as to maintain minimum clearance requirements between adjacent bars and minimum distance to face of concrete.

BAR SIZES	
Number	Inches
(5)	⅝
(6)	¾
(7)	⅞
(8)	1
(9)	1
(10)	1⅛
(11)	1¼

NOTES:

E indicates expansion shoe.
F indicates fixed shoe.
Stations shown are along the ℄ of the Newark Bay-Hudson County Extension, unless noted.
For Ramp D curve data, see sheets 3 & 4.
For Details of R.O.W. and Easement Lines, see sheets 3 & 4.

MINIMUM RAILROAD CLEARANCE		
Railroad	Vertical Clearance to Top of Rail	Horizontal Clearance
C.R.R.N.J.	22'-6"	10'-0" + ½" per degree of curve + overhang for superelevation measured to ℄ of track.
L.V.R.R.	23'-6"	10'-0" + middle ordinate of a 65'-0" chord + overhang for superelevation measured to gage of near rail
P.R.R.	26'-0"	10'-0" + 1" per degree of curve + overhang for superelevation measured to gage of near rail.

	BY	DATE			
MADE	E.W.K.	9-27-54			
TRACED	M.R.	7-29-55			
CHECKED	H.H.C	12-4-55	1	General changes in checking	H.H.C. 12-4-55
IN CHARGE OF	F.H.S.		No.	REVISION	BY DATE

ITEM NO.	ITEM	UNIT	APPROXIMATE QUANTITY
1	Open Foundation Excavation - Other than Rock	Cu.Yds.	11,300
2	Open Foundation Excavation - Rock	Cu.Yds.	850
3	Sand Backfill Under Footings	Cu.Yds.	500
4	Concrete in Footings	Cu.Yds.	5,300
5	Concrete in Piers and Abutments above Footings	Cu.Yds.	10,100
6	Reinforcement Steel	Lbs.	1,500 000
7	Porous Fill	Cu.Yds.	45
8	Treated Timber Piles	Lin.Ft.	38,000
9	Treated Timber Test Piles	Each	5
10	Pile Shoes	Each	1,300
11	Furnishing Steel Piles	Lbs.	490,000

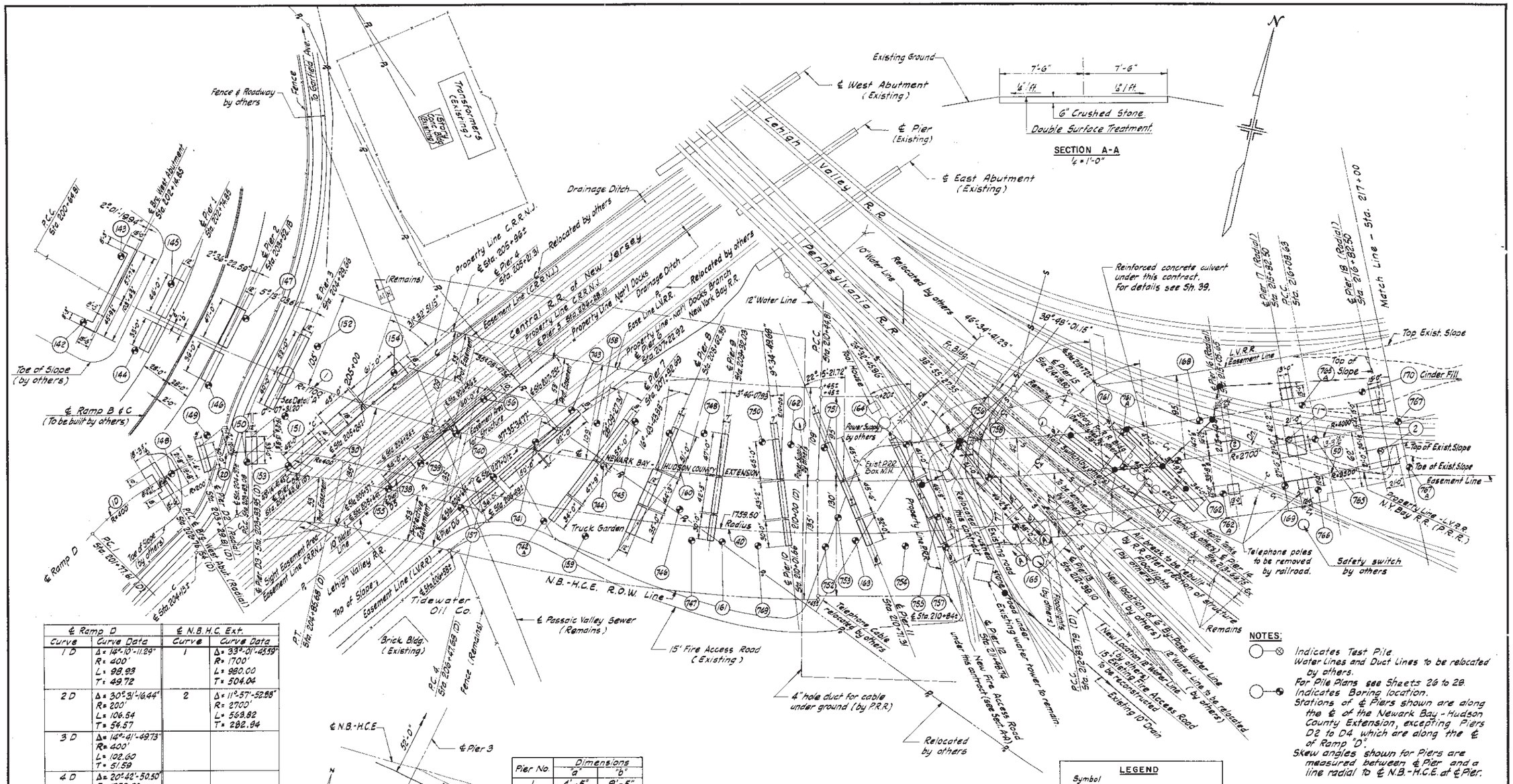
ITEM NO.	ITEM	UNIT	APPROXIMATE QUANTITY
12	Pile Coating	Lin.Ft.	1,900
13	Driving Steel Piles	Lin.Ft.	5,200
14	Steel Pile Splices	Each	50
15	Rock Excavation, Subsurface Structures	Cu.Yds.	270
16	Earth Excavation, Subsurface Structures	Cu.Yds.	550
17	Manholes, Type MI	Each	10
18	Storm Drain, Reinforced Concrete Pipe, 15" Diameter	Lin.Ft.	310
19	Storm Drain, Reinforced Concrete Pipe, 18" Diameter	Lin.Ft	620
20	Relocating Fire Access Roads	Sq.Yds.	570
21	Protection of Railroad Traffic		Lump Sum
22	Final Cleaning Up		Lump Sum

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

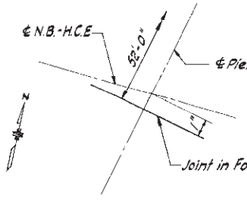
SOUTHEAST VIADUCT
SUBSTRUCTURE
GENERAL PLAN AND ELEVATION

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1" = 100'
CONTRACT NO. N-13
SHEET NO. 2 OF 39



℄ Ramp D		℄ N.B.H.C. Ext.	
Curve	Curve Data	Curve	Curve Data
1 D	Δ = 14°-10'-11.29" R = 400' L = 98.93 T = 49.72	1	Δ = 33°-01'-45.59" R = 1700' L = 980.00 T = 504.04
2 D	Δ = 30°-31'-16.44" R = 200' L = 106.54 T = 54.57	2	Δ = 11°-57'-52.88" R = 2700' L = 563.82 T = 282.94
3 D	Δ = 14°-41'-49.73" R = 400' L = 102.60 T = 51.59		
4 D	Δ = 20°-42'-50.50" R = 1759.50 L = 636.11 T = 321.56		
5 D	Δ = 8°-50'-45.78" R = 3500' L = 540.37 T = 270.73		



DETAIL "A"
No Scale

Pier No.	Dimensions "a"	Dimensions "b"
1	4'-5"	9'-5"
2	4'-5 3/16"	7'-4"
3	0'-1"	0'-0"
4	0'-7½"	0'-1"
6	0'-2 9/16"	0'-1"
9	0'-1¼"	0'-1"
12	0'-5"	0'-1"
5,7,8,10,11,13,14,15	0'-½"	0'-1"

Pier No.	Dimension "c"
4	17'-6⅛"
5	12'-9 15/16"
6	7'-8 15/16"
7-15	0'-1"

CONSTRUCT UNDER THIS CONTRACT
- Storm Drain
- Manhole
- Manhole around existing 10" drain
- Extent of Fire Access Road to be reconstructed. See Section A-A

LEGEND

Symbol	
P_e	Power Line Overhead.
C	Telephone Cable (R.R.)
S	Existing Sanitary Sewer.
W	Existing Water Main.
C_y	Catenary.
○	Existing Manhole.
———	R.O.W. Line.
- - - - -	Easement Line.

NOTES:
- ⊗ Indicates Test Pile. Water Lines and Duct Lines to be relocated by others. For Pile Plans see Sheets 26 to 28.
- ⊗ Indicates Boring location.

Stations of ℄ Piers shown are along the ℄ of the Newark Bay - Hudson County Extension, excepting Piers D2 to D4 which are along the ℄ of Ramp "D".

Skew angles shown for Piers are measured between ℄ Pier and a line radial to ℄ N.B.-H.C.E. at ℄ Pier.

Measured along ℄ piers
- "a" denotes clear distance between ℄ N.B.-H.C.E. and adjacent edge of north footing. For typical dimension "a" see Piers 1 & 22.
- "b" denotes clear distance between north footing and center footing. For typical dimension "b" see Piers 1 & 22.
- "c" denotes clear distance between center footing and south footing. For typical dimension "c" see Pier D4.

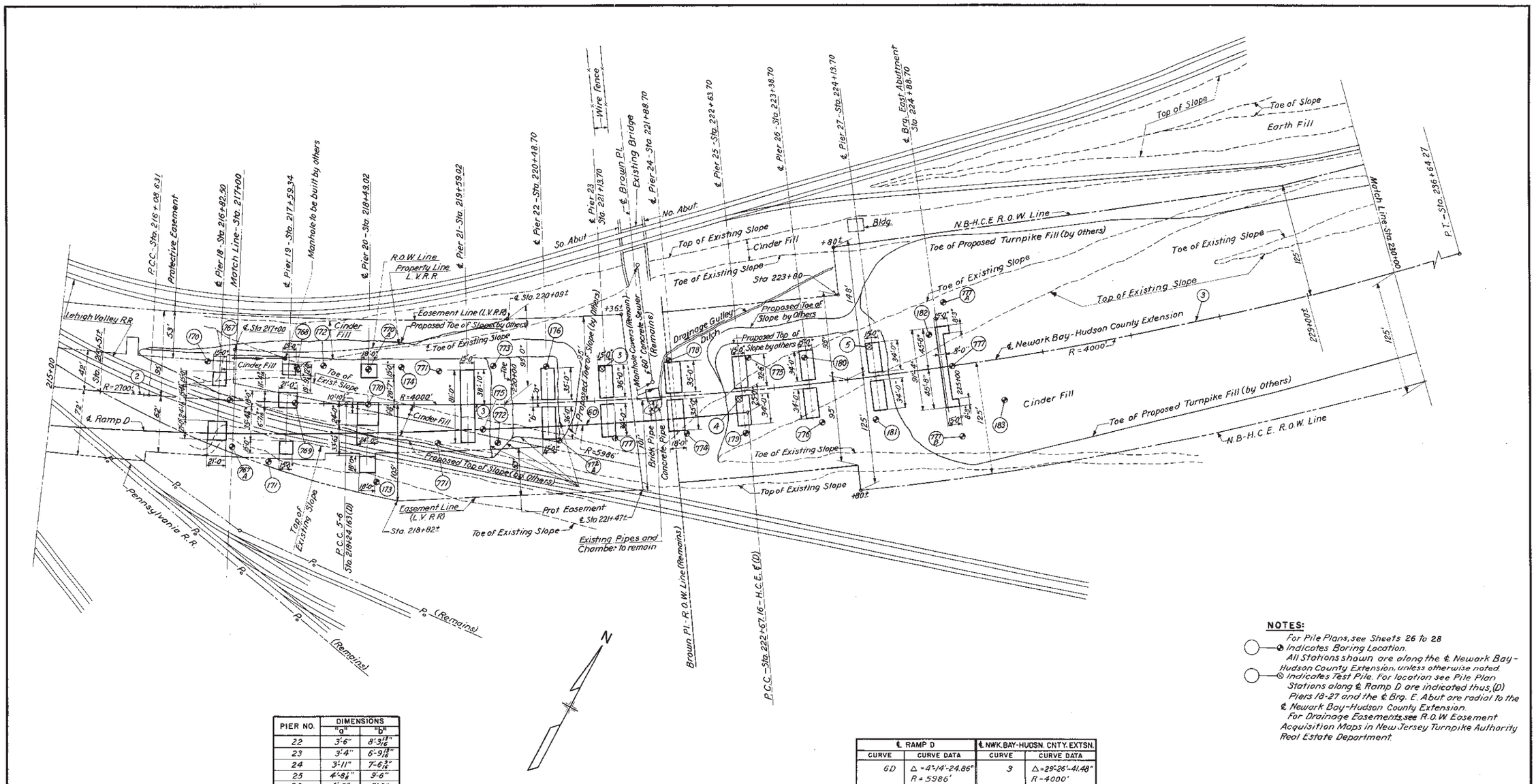
	BY	DATE	No.	REVISION	BY	DATE
MADE	E.W.K.	9-27-54	4	As Built Corrections	T.Q.	8-8-56
TRACED	N.R-K.	7-1-55	3	Revised Footing Pier 19A	G.G.S.	6-10-55
CHECKED	F.C.V.	2-19-55	2	Changed Footings Piers 3 & D3	H.H.C.	3-8-55
IN CHARGE OF	F.H.S.		1	General Changes in Check'ing	F.C.V.	2-19-55

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

SOUTHEAST VIADUCT
FOUNDATION PLAN
STA. 202 - STA. 217

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1" = 50'-0" Unless noted
CONTRACT NO. N-13
SHEET NO. 3 OF 39



PIER NO.	DIMENSIONS "a"	DIMENSIONS "b"
22	3'-6"	8'-3 13/16"
23	3'-4"	6'-9 13/16"
24	3'-11"	7'-6 3/16"
25	4'-8 1/4"	9'-6"
26	4'-6"	9'-0"
27	4'-6"	9'-0"

Note:
"a" Denotes clear distance between ℄ N.B.-H.C.E. and adjacent edge of North Footing measured along ℄ Piers.
For typical dimension "a", see Pier 22.
"b" Denotes clear distance between North Footing and South Footing measured along ℄ Piers.
For typical dimension "b", see Pier 22.

℄ RAMP D		℄ NWK. BAY-HUDSN. CNTY. EXTSN.	
CURVE	CURVE DATA	CURVE	CURVE DATA
6D	△ = 4°-14'-24.86" R = 5986' L = 443.00' T = 221.60'	3	△ = 29°-26'-41.48" R = 4000' L = 2055.64' T = 1051.05'

NOTES:

- For Pile Plans, see Sheets 26 to 28
- ⊕ Indicates Boring Location.
- All Stations shown are along the ℄ Newark Bay-Hudson County Extension, unless otherwise noted.
- ⊗ Indicates Test Pile. For location see Pile Plan
- Stations along ℄ Ramp D are indicated thus (D)
- Piers 18-27 and the ℄ Brg. E. Abut are radial to the ℄ Newark Bay-Hudson County Extension.
- For Drainage Easements, see R.O.W. Easement Acquisition Maps in New Jersey Turnpike Authority Real Estate Department.

	BY	DATE		
MADE	E.W.K.	9-27-54		
TRACED	A.C.B.	7-27-55		
CHECKED	F.C.V.	2 19 55	1 General changes in checking	F.C.V. 2-19-55
IN CHARGE OF	F.H.S.		No. REVISION	BY DATE

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

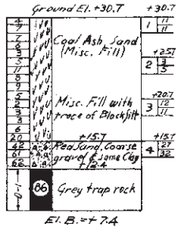
SOUTHEAST VIADUCT
FOUNDATION PLAN
STA. 217 - STA. 230

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

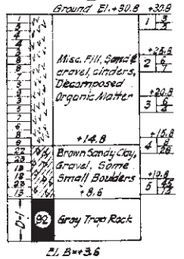
SCALE: 1" = 50'-0"
CONTRACT NO. N-13
SHEET NO. 4 OF 39

(143)

Ground Water El. +20.9



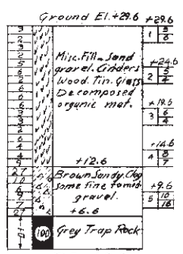
(142)



* Chopped & washed

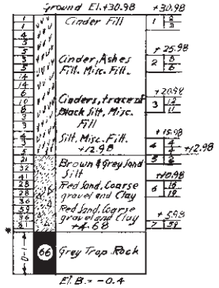
(144)

Ground Water El. +13.8



(145)

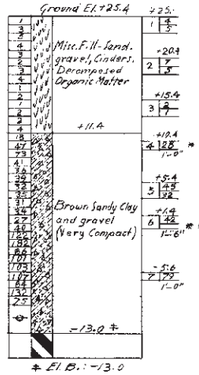
Ground Water El. +15.9



* Struck Rock at El. +4.68

(146)

Ground Water El. +11.6



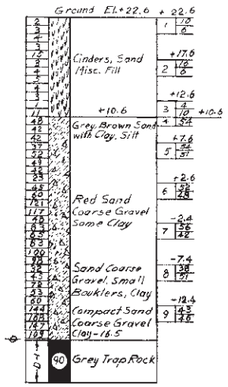
* Spoon struck a small Boulder at El. +9.4

** 31 Blows for 6"

⊖ 1" pipe Struck Refusal at El. -13.0

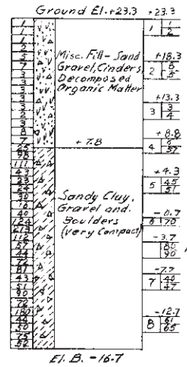
(147)

Ground Water El. +13.8



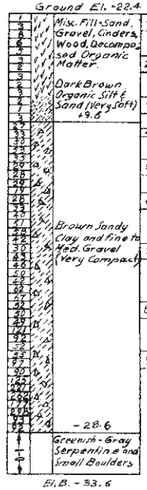
62 Blows for 0.1'

(148)



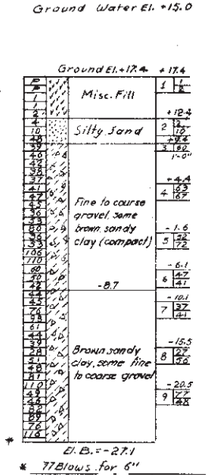
No Sample

(149)



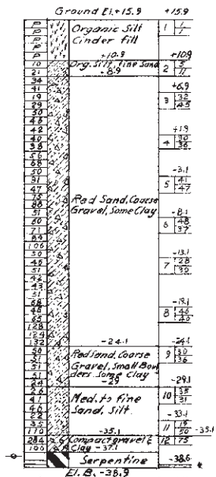
(150)

Ground Water El. +15.0



* 77 Blows for 6"

(151)

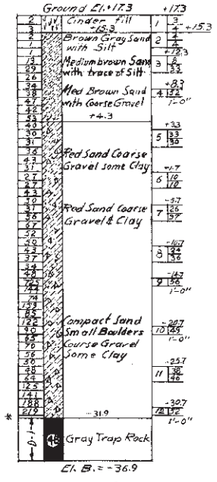


* Sample 13, 120 Blows for 3"

⊖ Chopped & Washed from El. 37.1 to 38.6
Drove Open end pipe to refusal from El. 38.6 to El. 38.9

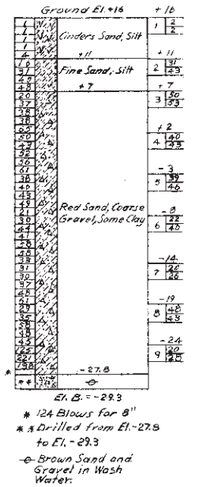
(152)

Ground Water El. +15.9



* 50 Blows for 2"

(153)

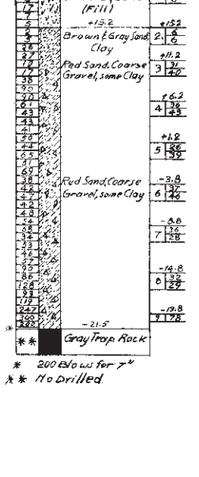


* 124 Blows for 8"

** Drilled from El. -27.8 to El. -29.3

⊖ Brown Sand and Gravel in Wash Water.

(154)

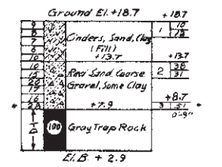


* 200 Blows for 7"

** No Drilled

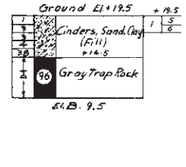
(155)

Ground Water El. 14.7



* Blows for 9"

(156)

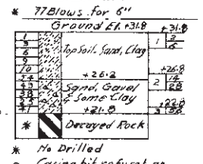


(157)

* No Drilled

⊖ Bed Rock at El. +20.8

(158)



* No Drilled

⊖ Casing hit refusal at El. +21.8

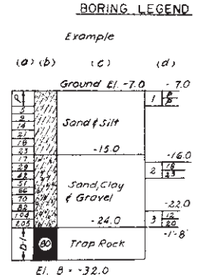
GENERAL NOTES

SOIL LEGEND

- Cinder Fill
- Sand
- Silt
- Clay & Gravel
- Organic Silt & Sand
- Serpentine
- Rock

BORING LEGEND

Example



With reference to the example:

1. In column (a) the Figures 5,9 etc. are the hammer blows required to penetrate the casing one foot. The letter "D" indicates penetration by drilling, and "D-1" represent the number of drill lifts.
2. Column (b) shows the legend of soil types and the figure "80" represents the percentage of rock recovery.
3. Column (c) shows soil classification of obtained samples. Elevation -7.0 is Ground Elevation; Elevation -32.0 is bottom of the boring. Intermediate elevations -15.0 and -24.0 denote the limits of different soil layers. All elevations refer to Mean Sea Level.
4. Column (d) pertains to samples. The Figures "1" "2" & "3" within the boxes are the sample numbers. The Figures -7.0, -16.0 -22.0 etc. are elevations of the top of the samples. Unless otherwise noted Figures 18, 23 etc. represent the number of hammer blows required to penetrate sample spoon one foot. The letter "P" indicates sample spoon was pushed. The Figure "1'-8" at the bottom of the box shows depth of sample other than 2'-0".

Casings: All casings 2½" steel pipe unless noted.

Sampling: All dry samples taken with 1⅜" I.D. standard split spoon, except as otherwise noted. All Undisturbed samples taken with 3" I.D. Thin wall Shelby Type sampler, except as noted, length of sample 2'-0" except as noted.

Hammer: Wt. of hammer 295# on casing, unless otherwise noted: 295# on spoon.

Average fall 24"

For location of borings see sheets No. 3 & 4.

Mean sea level taken as 0.0 elev. Mean low water at -2.3 elev.

NOTE A:
All borings have been taken for the use of the authority and are not guaranteed as to accuracy and correctness.

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

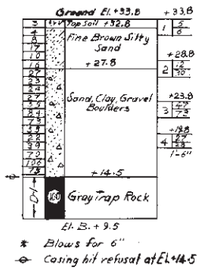
LOG OF BORINGS
142 TO 158

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

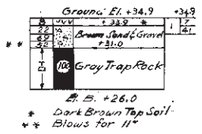
SCALE: 8'-1"-0"
CONTRACT NO. N-13
SHEET NO. 5 OF 39

159

Ground Water El. +24.1



160



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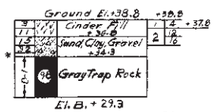
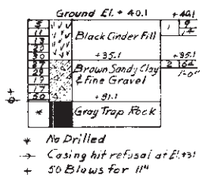


162



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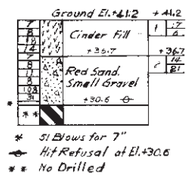
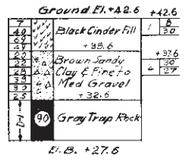


164

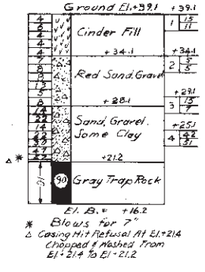


165

166

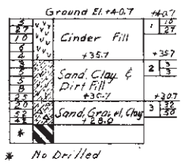
167

Ground Water El. +28.6



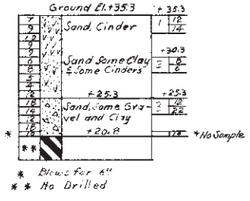
168

Ground Water El. +32.1

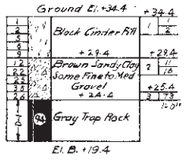


169

Ground Water El. +26.3

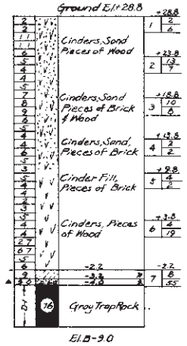


170



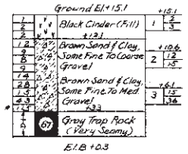
171

Ground Water El. +9.2



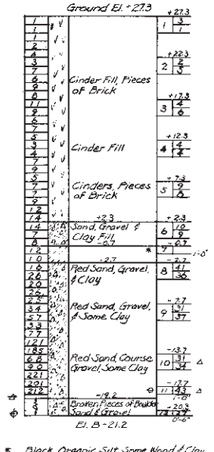
172

Ground Water El. +11.8



173

Ground Water El. +5.6



NOTES:
For legend & general notes see Sh. 5.
See Note A Sh. 5.

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

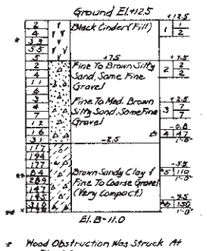
LOG OF BORINGS
159 TO 173

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1" = 1'-0"
CONTRACT NO. N-13
SHEET NO. 6 OF 39

(174)

Ground Water El.+9.7



El. B-11.0

* Wood Obstruction Was Struck At El.+10.0

△ Sample Taken With Open-End Pipe (I.D. 1.25", O.D.1.5")

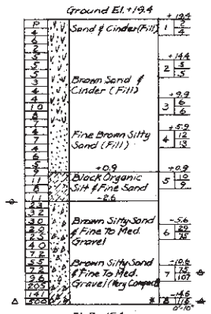
** From El.-4.5 To El.-11.0 Casing Would Not Penetrate Material Without Rod Chopping & Washing Ahead

x Blows For 6" Only

+ Fine To Med. Brown Silty Sand & Fine To Coarse Gravel

(175)

Ground Water El.+7.5



El. B-15.4

* Brown Sandy Clay & Fine To Coarse Gravel (Very Compact)

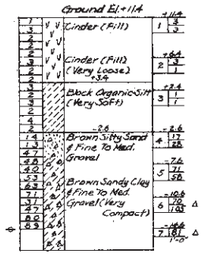
△ Blows For 18"

-o- Change In Stratum Observed In Wash Water

+ Sample Taken With Open-End Pipe (I.D. 1.25" O.D.1.5")

(176)

Ground Water El.+ 8.9



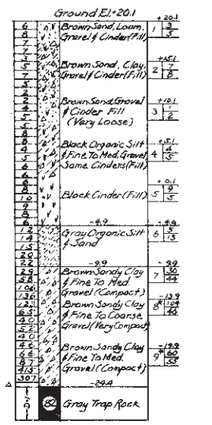
El. B-17.1

△ Sample Taken With Open-End Pipe (I.D.1.25" O.D.1.5")

+ Casing Hit Refusal At El.-14.6 Open-End Pipe Was Then Driven To Refusal At El.-17.1

(177)

Ground Water El.+6.9

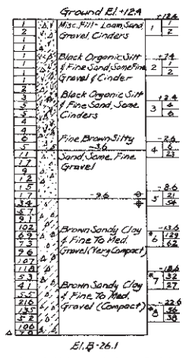


El. B-28.4

* Sample Taken With Open-End Pipe (I.D.1.25" O.D.1.5") Casing Hit Refusal At El.-23.9, Chopped, Washed & Seated From El.-23.9 To El.-24.9

(178)

Ground Water El.+5.6



El. B-26.1

* Sample Taken With Open-End Pipe (I.D. 1.25" O.D.1.5")

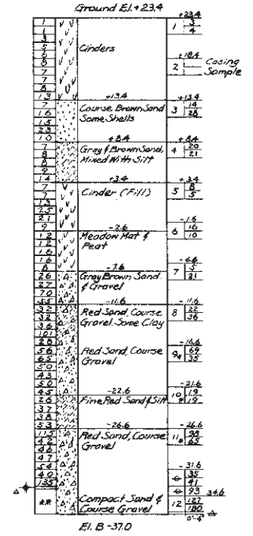
△ Blows For 0.5' Only

-o- Brown Silty Sand

+ Brown Sandy Clay & Fine To Med. Gravel

Ground Water El.+5.7

(179)



El. B-37.0

* Sample Taken With Open-End Pipe.

-o- No Sample With Open End Pipe

+ 103 Blows From El.-33.6 To El.-34.0

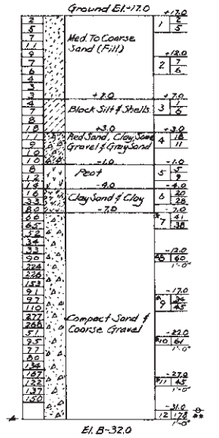
△ Drilled Through Boulder From El.-34 To El.-34.6

x 112 Spoons For 0.4'

** Drove Open End Pipe To El.-37.0 To Refusal

(180)

Ground Water El.+12.0



El. B-32.0

* Sample Taken With Open-End Pipe.

△ Sample Taken With Spoon

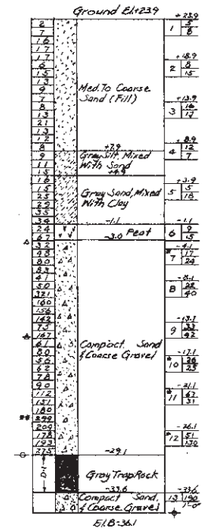
-o- Sample Sediment Drilling At El.-31.0

+ Drill Rod Broken Off In Boring At El.-32.0

** Drove With Open-End Pipe.

(181)

Ground Water El.+4.0



El. B-36.1

△ Drove Open-End Pipe To Refusal At El.-2.8, At El.-2.8 Drilled Through Boulde To El.-3.8

* Sample Taken With Open-End Pipe.

-o- Open End Pipe Hit Refusal At El.-14.7, Drilled With Steel Bit Through Small Boulders

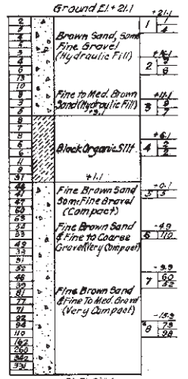
** Drilled Through Small Boulders

+ Casing Hit Refusal At El.-29.1 Cored From El.-29.1 To El.-33.6 Through Boulder Then Drove Open-End Pipe To Refusal At El.-36.1

‡ 245 Blows For 1" Open End Pipe, Hit Refusal At El.-36.1. No Sample Obtained.

(182)

Ground Water El.+8.3



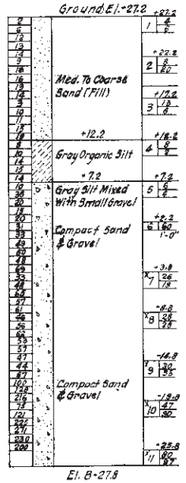
El. B-22.4

* Sample Taken With Open-End Pipe (I.D. 1.25" O.D. 1.25")

△ Casing Hit Refusal At El. 21.9 Chopped & Washed Ahead of Casing From El.21.9 To El.-22.4 Through Extremely Compacted Fine Sand & Gravel "Then attempted To Penetrate Material By Drilling Open-End Pipe But Made No Progress.

(183)

Ground Water El.+ 10.0



El. B-27.8

* From El.+7.2 To El.+6.2 Gray Silt & Small Gravel.

△ From El.+6.2 To El.+5.2 Compact Sand & Gravel

x Sample Taken with Open-End Pipe.

NOTES:

For legend & general notes see Sh. 5.

See Note A Sh. 5.

	BY	DATE				
MADE	G.D.C. F.D.R.	11-8-54				
TRACED			2	Pad elev. Pier 14	H.H.C.	5-18-55
CHECKED	H.H.C.	2-28-55	1	General Changes in checking	H.H.C.	2-28-55
IN CHARGE OF	F.H.S.		No.	REVISION	BY	DATE

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

LOG OF BORINGS
174 TO 183

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1"=5'-0"
CONTRACT NO. N-13
SHEET NO. 7 OF 39

738

Ground Water +10.3

Ground Elev. +18.3

8			
6			
4			
2	Red, moist, medium silt with trace of fine gravel.		+14.3
17		1	7/12 6/6
28			5/6 5/6
19			
29	+10.3		+10.3
35		2	Cas. Sample
50	White, hard disintegrated rock, brown fine sand.		
73			
40			
104			
138			+4.3
140		3	1/6 5/6 1
140			

Bottom Elev. +3.7

* Blows for 8", casing struck refusal at El. +3.7

† Sample spoon refused at El. +4.1

739

Ground Water **

Ground Elev. +18.4

12	Black organic soil.		
19			
32	+16.4		
11m			
16m	Trap Rock *		
16m			
16m			
16m			

Bottom Elev. +11.4

* Casing struck refusal at El. +16.4

* 20 pieces plus fragments; vertical jointing at El. +15.4, El. +13.9 and El. +12.4 (approximately)

** Hole cored in so it was impossible to take ground water elevations.

740

Ground Elev. +28.7

Sounding rod driven to refusal at Elev. +25.0

741

Ground Elev. +31.5

Sounding rod driven to refusal at Elev. +25.2

NOTE: About 4' of topsoil, then boulder fill and topsoil to Elev. +26±. This boring is on top of the bank of a railroad cut.

742

Ground Elev. +33.7

Sounding rod driven to refusal at Elev. +30.7

742A

Ground Water +31.7

Ground Elev. +33.7

3			
7	Brown fine sand and fill.		+31.7
12		1	Cas. Sample
32	+29.5		
13m			
15m	Trap Rock - little grey and blue sandstone.		
16m			
16m			
17m			

Bottom Elev. +24.5

* Casing struck refusal at El. +29.5

* Cored from El. +29.5 to El. +26.5, recovered 48".

GENERAL NOTES

SOIL LEGEND

- Cinder Fill
- Sand
- Silt
- Sand & Silt
- Sand & Gravel
- Sandstone & Shale
- Dense sand, Shale & Gravel
- Clay, Sand & Gravel
- Silt, Clay & Gravel
- Meadow Mat.
- Trap Rock

BORING LEGEND

Example

(a) (b) (c) (d)

9	Ground Elev.		-7.0
5		1	P/6 6/6
9			P/6 6/6
14	Sand & Silt.		
21			
18	-15.0		
23			-16.0
17		2	8/6 6/6
29			11/6 5/6
22			
51	Sand, Gravel & Silt.		
66			
70			-22.0
82		3	5/6 6/6
104	-24.0		9/6 5/6
203	Bottom Elev.		-24.3

With reference to the above example

1. In column (a) the Figures 5, 9 etc. are the hammer blows required to penetrate the casing one foot.
2. Column (b) shows the legend of soil types.
3. Column (c) shows soil classification of obtained samples. Intermediate elevations -15.0, -24.0 denote the limits of different soil layers.
4. Column (d) pertains to samples. The Figures "1", "2" & "3" within the box are the sample numbers. The Figures -7.0, -16.0, -22.0 etc. are elevations of the top of the samples. Unless otherwise noted Figures 9, 11, 13 etc. represent the number of hammer blows required to penetrate sample spoon 6 inches. The letter "P" indicates sample spoon was pushed. The Figure 6 denotes depth of sample.

Casings: All casings 2½" O.D. Steel pipe.

Sampling: All samples taken with 1½" I.D. split spoon. Length of sample 2'-0".

Hammer: Wt. of hammer = 300# on casing.
" " " = 140# on samples spoon.
Average fall = 24" on casing, 30" on spoon.

For location of borings see Sheets No. 3-4.
Mean sea level taken at 0.0' elev.
Mean low water at -2.3 elev.

Note A:

All borings have been taken for the use of the Authority and are not guaranteed as to accuracy and correctness.

	BY	DATE			
MADE	J.P.M.	4/15/54			
TRACED					
CHECKED	A.W.K.	4/15/54			
IN CHARGE OF	N.P.		NO.	REVISION	BY	DATE

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

LOG OF BORINGS
738 TO 742A

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 3/16" = 1'-0" (VERTICAL)
CONTRACT NO. N-13
SHEET NO. 8 OF 39

743

Ground Elev. +26.2

Sounding rod driven to refusal at El. +19.7.

NOTE:- About 4" of topsoil then boulder fill and topsoil to El. +21±. This boring is halfway up bank of railroad cut.

744

Ground Water +28.5

Ground Elev. +32.0

3	2	23	58	Reddish brown m-f gravel and fine sand. +28.0
28	27	27	22	22	Reddish soft silt. +23.0
42	38	85	Disintegrated rock and red fine sand +19.2
94m	84m	7m	7m	100	Trap Rock

+28.0 — Cas. Sample 1 — 1¾"/24" — +27.0 — 2 — 19"/24" — +22.0 — 3 — 24"/24" — 24"/24"

Bottom Elev. +14.3

Drilled from El. +19.2 to El. +14.3; first 2" required 1¾ m. of drilling.

Drill turned without penetrating below El. +14.3.

745

Ground Elev. +32.2

Sounding rod driven to refusal at El. +27.2.

746

Ground Elev. +37.5

12	43	83	Cinders +34.2
13m	13m	13m	100	Light bluish grey very hard solid rock.

Bottom Elev. +30.0

34 blows for 3", casing struck refusal at El. +34.2.

Drilled from El. +34.2 to El. +30.0; first 9" required 8m. of drilling.

22½ m. required for last 6" drilling; drill turned without penetrating below El. +30.0.

747

Dry Hole

Ground Elev. +38.4

15	34	48	75	104	131	133	Cinders +34.4 — Reddish brown moist stiff clayey silt, trace gravel. — Cas. Sample 1

Bottom Elev. +31.5

Blows for 11", casing struck refusal at El. +31.5.

748

Ground Elev. +35.3

Sounding rod driven to refusal at El. +32.3.

749

Dry Hole

Ground Elev. +41.1

5	10	31	19	33	29	26	12	Black cinder and gravel Fill. +37.1 — Cas. Sample 1

Bottom Elev. +33.8

Blows for 3", casing struck refusal at El. +33.8.

750

Ground Elev. +38.7

Sounding rod driven to refusal at El. +33.6.

751

Dry Hole

Ground Elev. +41.0

20	29	10	13	19	49	25	33	60	13	Black cinders and sand Fill. +36.0 — Cas. Sample 1

Bottom Elev. +31.8

Blows for 2", casing struck refusal at El. +31.8.

752

Dry Hole

Ground Elev. +41.6

49	30	24	19	12	20	18	28	61	Black cinder and gravel Fill, trace red sand. +37.6 — Cas. Sample 1

Bottom Elev. +32.6

Casing struck refusal at El. +32.6.

753

Dry Hole

Ground Elev. +41.4

28	28	14	12	12	13	18	24	129	28	21	Cinder Fill. +37.4 — Cas. Sample 1 — Red Pine sand. — Red fine sand, grey fine gravel. +31.4 — 2 †

Bottom Elev. +31.1

Blows for 4"; casing struck refusal at El. +31.1.

† Sample wet indicating possibility of water flow at rock-soil interface, casing sample.

754

Dry Hole

Ground Elev. +41.3

24	97	77	64	42	39	37	134	66	40	Misc. dry cinder fill. +37.3 — Cas. Sample 1 — +33.8 — *

Bottom Elev. +31.8

* Reddish brown moist dense silty sand and gravel.

Blows for 6"; casing struck refusal at El. +31.8.

755

Dry Hole

Ground Elev. +42.2

26	37	93	75	300	Grayish green soft disintegrated diabase. +38.6 — Cas. Sample 1

Bottom Elev. +37.6

Blows for 7"; casing struck refusal at El. +37.6.

756

Ground Water +39.0

Ground Elev. +46.6

14	73	26	37	29	25	52	54	Fill. +41.6 — 1 †

Bottom Elev. +38.0

Blows for 7"; casing struck refusal at El. +38.0.

† 24" spoon sample obtained no blows recorded.

NOTE:

For legend and general notes see sheet 8.
See Note A sheet 8.

	BY	DATE				
MADE	S.H.	4-16-54				
TRACED						
CHECKED	A.W.K.	4-16-54				
IN CHARGE OF	N.P.		No.	REVISION	BY	DATE

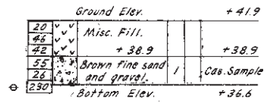
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

LOG OF BORINGS 743 TO 756

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

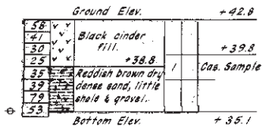
SCALE: 1/16" = 1'-0" (VERTICAL)
CONTRACT NO. N-13
SHEET NO. 9 OF 39

757



⊖ Blows for 9½"; casing struck refusal at El. +36.6.

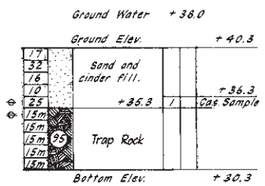
758



⊖ Blows for 8"; casing struck refusal at El. +35.1.

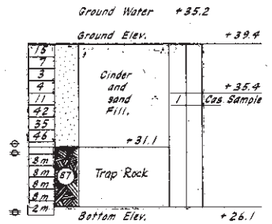
Nos. 759 & 760 omitted from contract

761



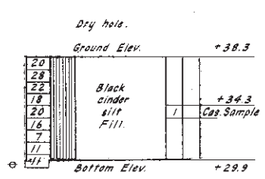
⊖ Casing struck refusal at El. +35.3.
⊕ Cored from El. +35.3 to El. +30.3.

761A



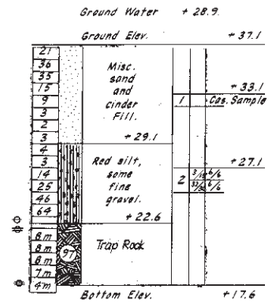
⊖ 13 blows for 4"; casing struck refusal at El. +31.1.
⊕ Cored from El. +31.1 to El. +26.1; first 8" of coring required 5 minutes.
⊕ Coring for last 4".

762



⊖ Blows for 5"; casing struck refusal at El. +29.9.

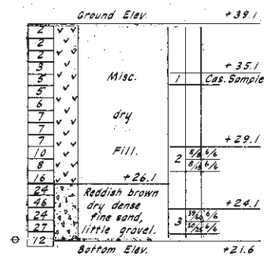
762A



⊖ 13 blows for 6"; casing struck refusal at El. +22.6.
⊕ Cored from El. +22.6 to El. +17.6; first 6" of coring required 4 min.
⊕ Coring for last 6", recovered 18 pieces.

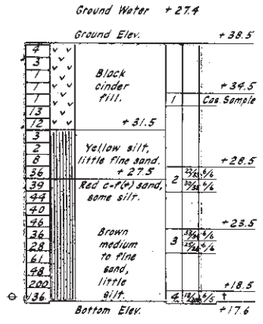
Nos. 763 & 764 omitted from contract

765



⊖ Blows for 6"; casing struck refusal at El. +21.6.

765A



⊖ Blows for 11"; casing struck refusal at El. +17.6.
† Spoon struck refusal at El. +17.6.

NOTE:

For legend and general notes see sheet 8.
See Note A sheet 8.

	BY	DATE
MADE	S.H.	5-10-54
TRACED		
CHECKED	A.W.K.	5-10-54
IN CHARGE OF	N.P.	

No.	REVISION	BY	DATE

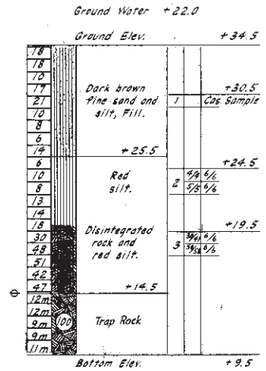
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

LOG OF BORINGS
757 TO 765A

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

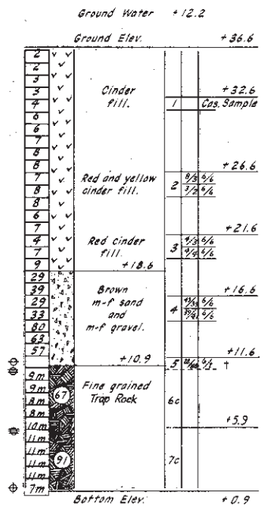
SCALE: 3/16" = 1'-0" (VERTICAL)
CONTRACT NO. N-13
SHEET NO. 10 OF 39

766



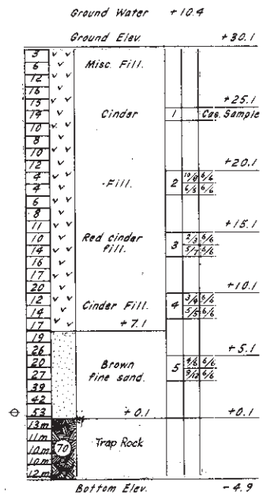
⊖ Casing struck refusal at El. +14.5

767



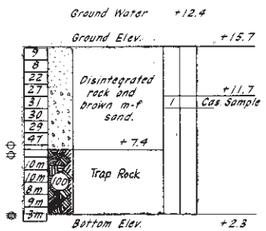
⊖ 134 blows for 11"; casing struck refusal at El. +10.7.
⊖ Drilled from El. +10.9 to El. +5.9, first 9" of drilling required 5 min., 18 pcs. recovered.
⊖ Drilled from El. +5.9 to El. +0.9, recovered 13 pcs.
⊖ Drilling for last 8".
† Spoon struck refusal at +10.9.

767A



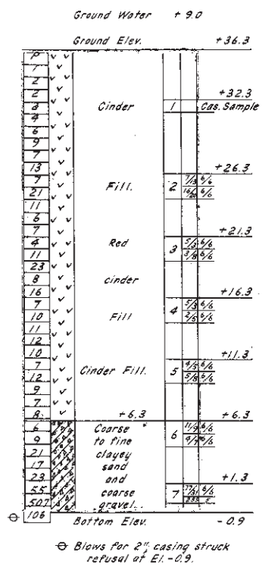
⊖ Casing struck refusal at El. +0.1.

768



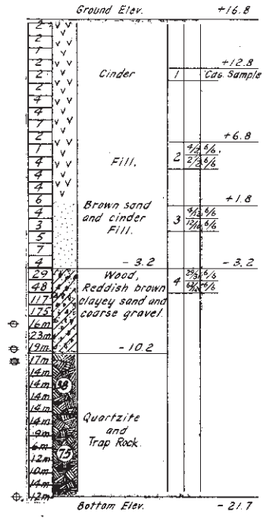
⊖ 101 blows for 3"; casing struck refusal at El. +7.4.
⊖ Drilled from El. +7.4 to El. +2.3, first 9" of drilling required 9 min. recovered 13 pcs.
⊖ Drilling for last 5".

769



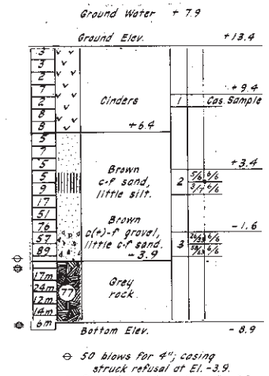
⊖ Blows for 2" casing struck refusal at El. -0.9.

770



⊖ Drilled thru boulder from El. -7.2 to El. -10.2.
⊖ Casing driven to refusal at El. -10.2; blows not recorded from El. -7.2 to El. -10.2
⊖ Drilled from El. -10.2 to El. -21.7.
⊖ Drilling for last 6".

770A



⊖ 50 blows for 4"; casing struck refusal at El. -3.9.
⊖ Drilled from El. -3.9 to El. -8.9; First 8" of drilling required 13 min.
⊖ Drilling for last 4".

NOTE:

For legend and general notes see sheet 8.
See Note A sheet 8.

	BY	DATE			
MADE	S.H.	5/21/54			
TRACED					
CHECKED	A.W.K	5/21/54			
IN CHARGE OF N. P			No.	REVISION	BY DATE

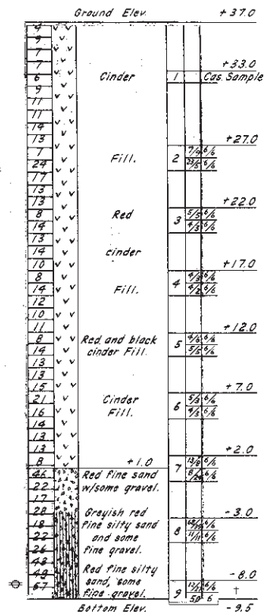
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

LOG OF BORINGS
766 TO 770A

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1" = 1'-0" (VERTICAL)
CONTRACT NO. N-13
SHEET NO. 11 OF 39

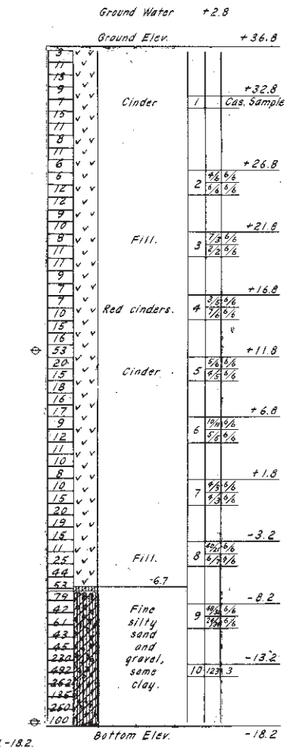
771



† Spoon struck refusal at El - 9.5.

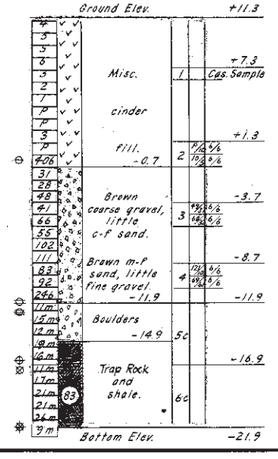
⊖ Casing struck refusal at El. - 8.7 ; Blows for 8"

772

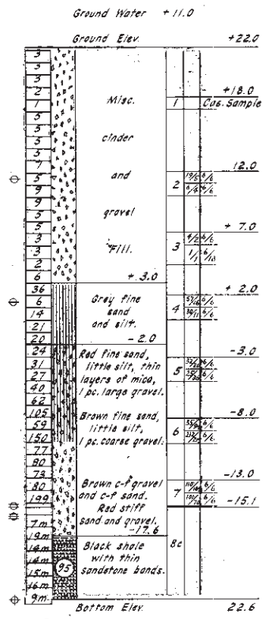


⊖ Subsurface obstruction.
⊖ Casing struck refusal at El - 18.2.

771A

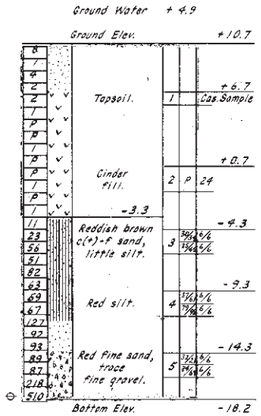


772A



⊖ Casing dropped 3" with spoon.
⊖ 122 blows for 1"; casing struck refusal at El - 15.1.
⊕ Drilled from El - 15.1 to El - 22.6, first 11" of drilling required 10 min.; recovered 25 pieces.
⊕ Drilling for 7".

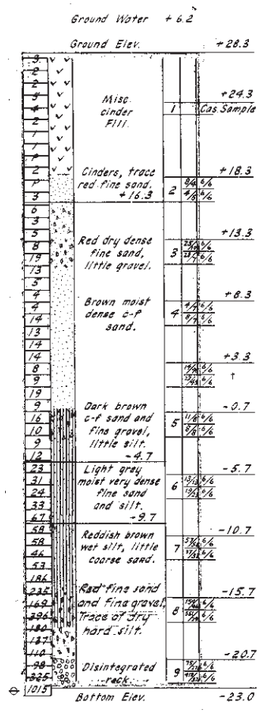
773



⊖ Blows for 10"; casing struck refusal at El. - 18.2

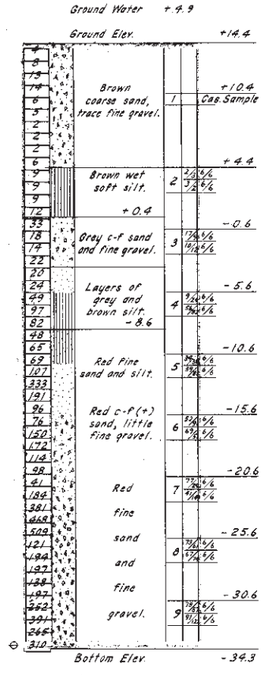
⊖ Casing struck boulder.
⊖ 78 blows for 2½" casing struck refusal at El - 11.9.
⊕ Drilled from El - 11.9 to El - 16.9, first 10" of drilling required 11 min.
⊕ 2" of drilling required 4 min.
⊗ Drilling from El - 16.9 to El - 21.9, first 10" of drilling required 11 min.
⊛ Drilling for 2".

774



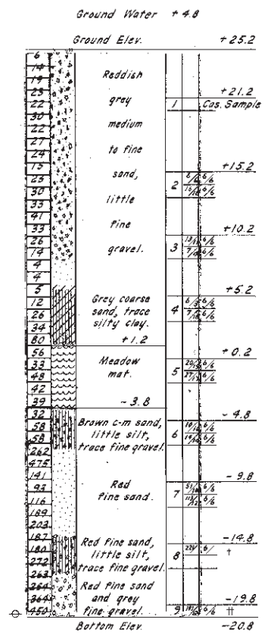
⊖ Blows for 3½", casing struck refusal at El - 23.0.
† No sample recovered, sampler broke.

775



⊖ Blows for 8½" casing struck refusal at El. - 34.3.

776



⊖ Casing struck refusal at El - 20.8.
† Spoon refused at El - 15.3, sample obtained with open end rod.
‡‡ Spoon and open end rod refused at El. - 20.8.

NOTE:

For legend and general notes see sheet B.
See Note A sheet B

	BY	DATE				
MADE	S.H.	6-16-54				
TRACED						
CHECKED	A.W.K.	6-16-54				
IN CHARGE OF N.P.			No.	REVISION	BY	DATE

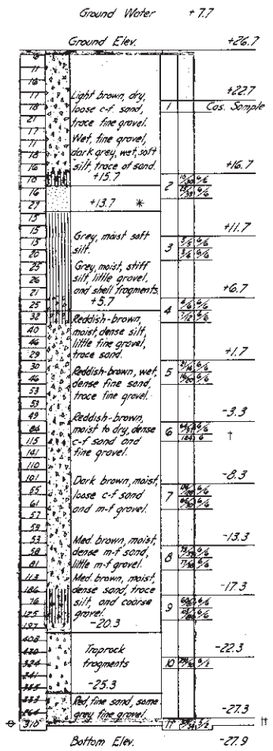
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

LOG OF BORINGS
771 TO 776

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

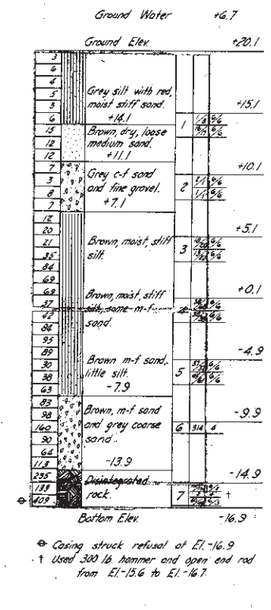
SCALE: 3/16" = 1'-0 (VERTICAL)
CONTRACT NO. N-13
SHEET NO. 12 OF 39

777



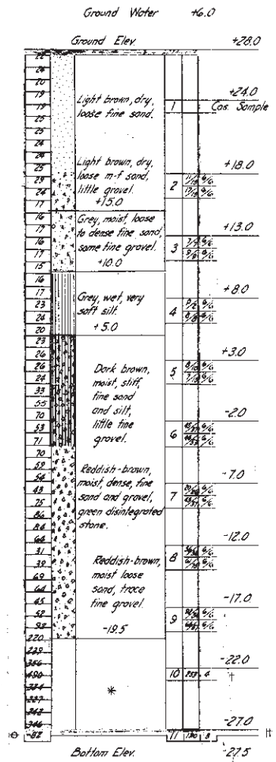
◈ Blows for 7", casing struck refusal at El. -27.9
† Spoon refused at El. -4.8
†† Spoon refused at El. -21.7, used open end rod and 300 lb hammer to get complete sample. Open end rod struck refusal at El. -27.9
* Grey, moist, loose fine sand

777A



◈ Casing struck refusal at El. -16.9
† Used 300 lb hammer and open end rod from El. -13.6 to El. -16.7

777B



◈ Blows for 2", casing struck refusal at El. -27.2
† No sample recovered.
†† Spoon struck refusal at El. -27.2, no sample recovered, open end rod struck refusal at El. -27.5
* Disintegrated rock (assumed)

NOTE:

For legend and general notes see sheet 8.
See Note A sheet 8.

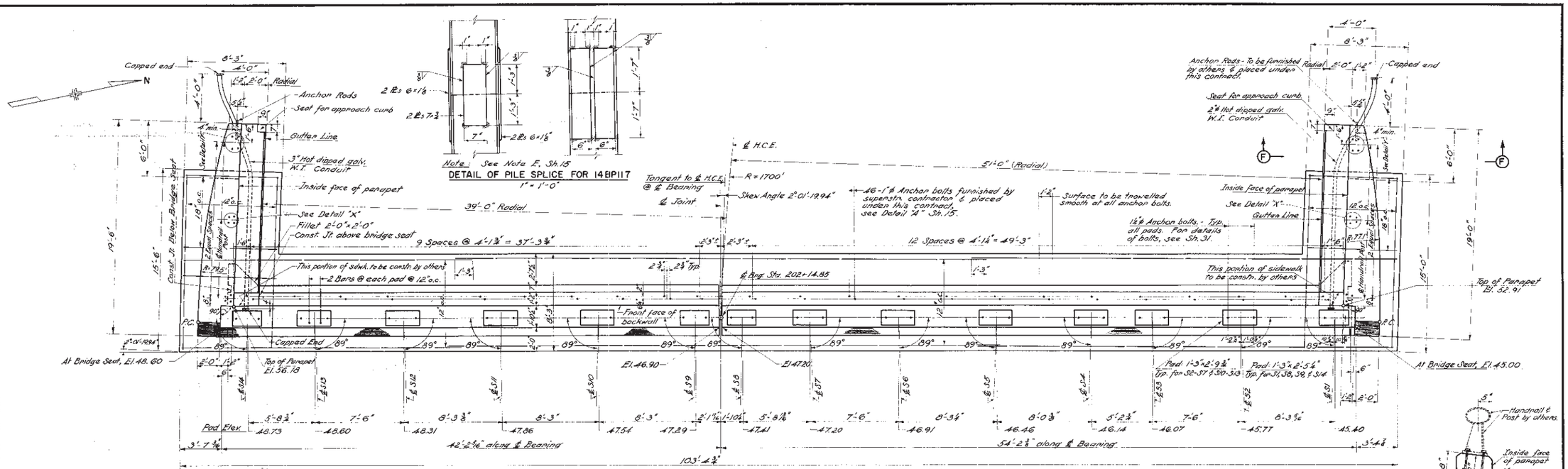
	BY	DATE				
MADE	J.P.M.	4/29/54				
TRACED						
CHECKED	A.W.K.	4/29/54				
IN CHARGE OF N.P.			No.	REVISION	BY	DATE

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

LOG OF BORINGS 777, 777A & 777B

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 3/16" = 1'-0" (VERTICAL)
CONTRACT NO. N-13
SHEET NO. 13 OF 39



	BY	DATE	No.	REVISION	BY	DATE
MADE	M.P.	10-1-54	3	Pad Elevs. & Anchor Bolts Spces. revised	B.J.	3-30-55
TRACED	G.S.	7-20-55	2	Expansion dam anchor bolts at East Abut.	M.S.	2-15-55
CHECKED	J. A. F.	2-4-55	1	General Changes in Checking	J.A.F.	2-4-55
IN CHARGE OF	F.H.S.					

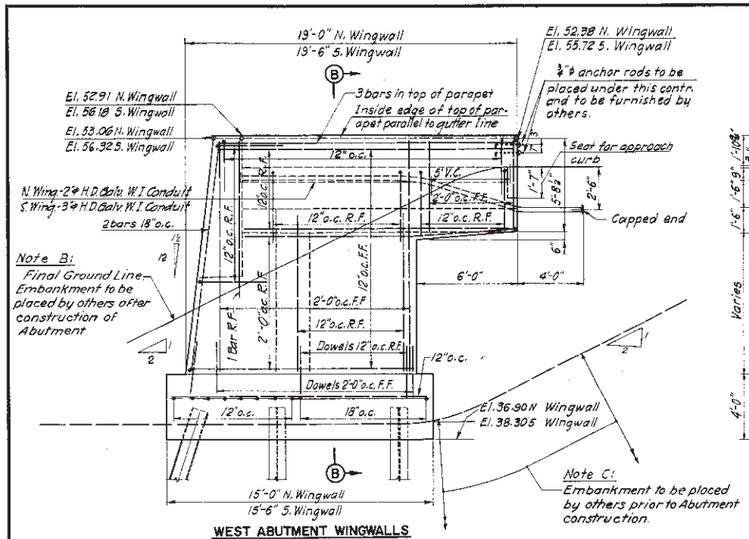
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

SOUTHEAST VIADUCT
SUBSTRUCTURE

EAST & WEST ABUTMENTS

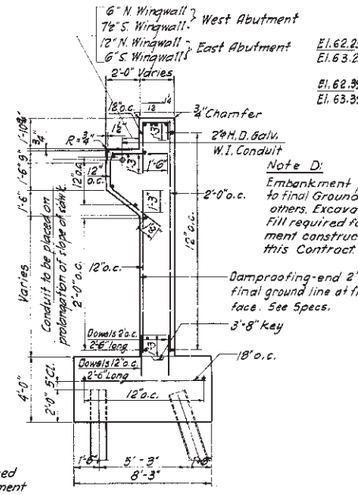
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1" = 1'-0" Unless Noted
CONTRACT NO. N-13
SHEET NO. 14 OF 39



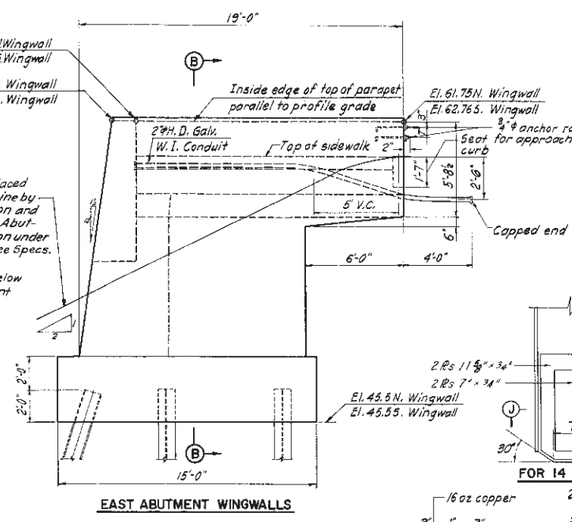
WEST ABUTMENT WINGWALLS

N. Wingwall as shown
S. Wingwall similar except as noted



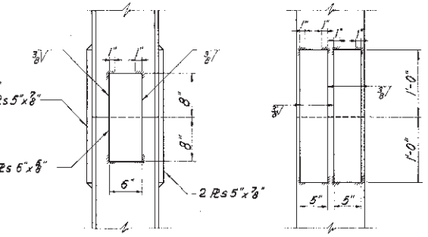
SECTION B-B

Typical for all Wingwalls

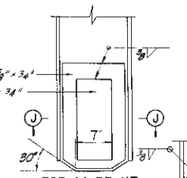


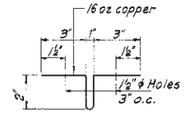
EAST ABUTMENT WINGWALLS

S. Wingwall as shown
N. Wingwall similar except as noted
For reinforcement see West abutment wingwalls

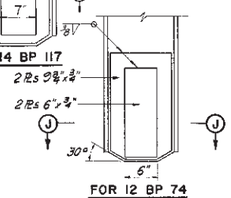


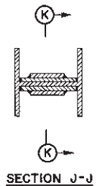
DETAIL OF STEEL PILE SPLICE FOR 12 BP 74
1" = 1'-0"

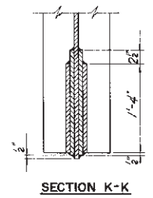




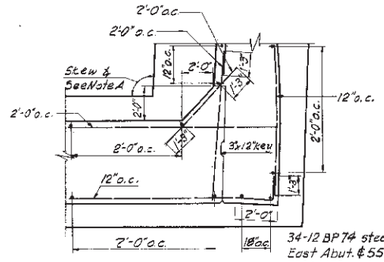
DETAIL OF WATERSTOP
No Scale





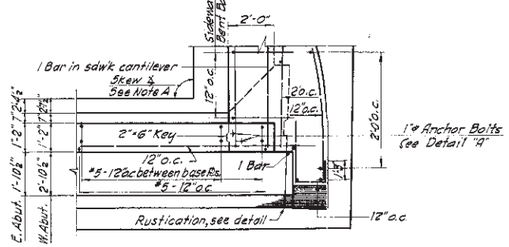


DETAIL OF PILE POINTS
1" = 1'-0"

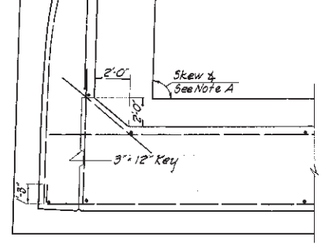


SECTION C-C

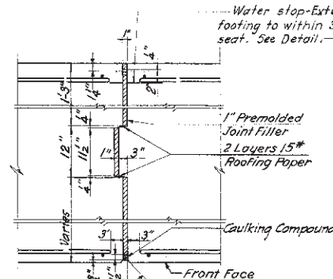
34-12 BP 74 steel H Piles for East Abut. & 55-14 BP 117 steel H Piles for West Abut.
Estimated average length:
West Abut: North half: 27'
" South half: 32.5'
East Abut: 67.5'



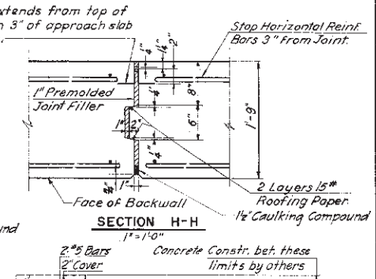
SECTION D-D



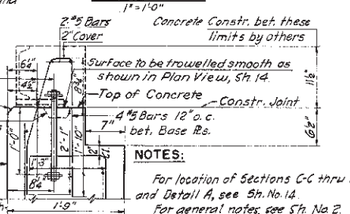
SECTION E-E
(For reinforcement, see Sect C-C)



SECTION G-G
¾"=1'-0"

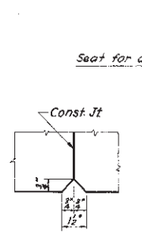


SECTION H-H
1"=1'-0"

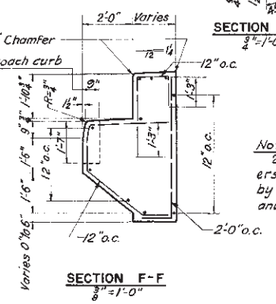


DETAIL "A"
1"=1'-0"

NOTES:
For location of Sections C-C thru H-H and Detail A, see Sh. No. 14.
For general notes, see Sh. No. 2.

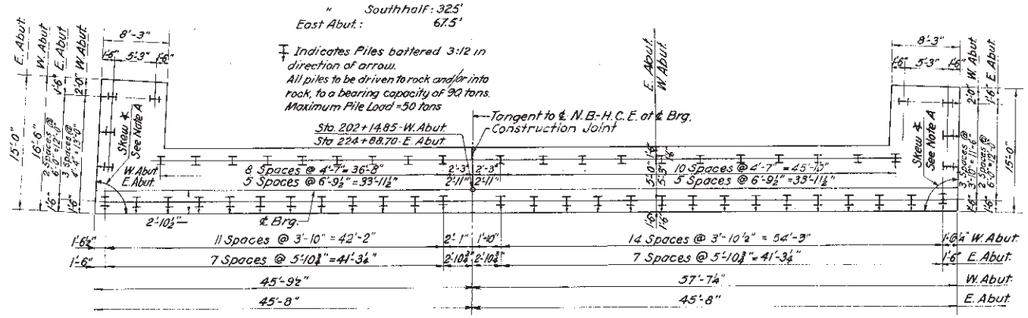


RUSTICATION DETAIL
3"=1'-0"



SECTION F-F
¾"=1'-0"

Note F:
2-1¼ø Anchor Bolts with washers and nuts to be furnished by superstructure contractor and placed under this contract.



PILE PLAN
1"=1'-0"

W. Abutment as shown, E. Abutment similar except as noted, and rotated 180° about ℄ Brg.

Note A:- Skew ∢
W. Abut, N. Wingwall, 92°-01'
W. Abut., S. Wingwall 87°-59'
E. Abut., N & S. Wingwalls 90°

Pile lengths are estimated average vertical lengths below cut off.
Pile spacing given at bottom of Footing.
Piles at W. Abut. are to be coated with bituminastic below bottom of footing, see Specs.

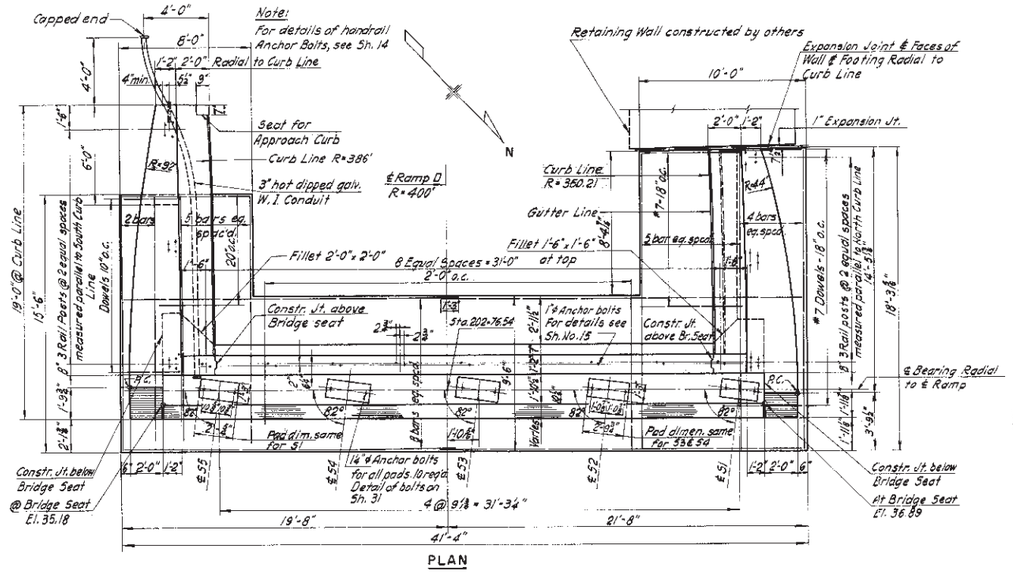
	BY	DATE			
MADE	M.P.	10-12-54			
TRACED	A.B.-M.S.II	12-12-54			
CHECKED	J. A. F.	2-4-55	1	General changes in checking	J.A.F. 2-4-55
IN CHARGE OF	F.H.S.		No.	REVISION	BY DATE

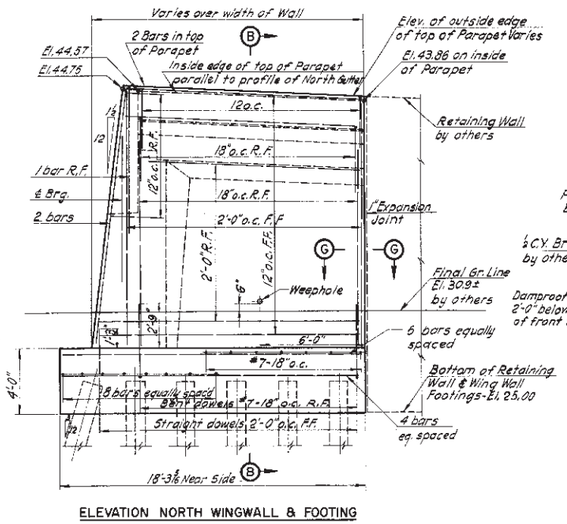
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

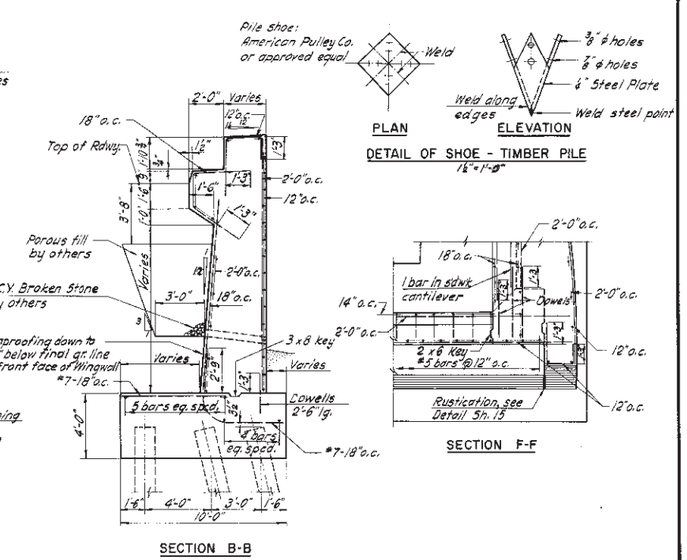
SOUTHEAST VIADUCT
SUBSTRUCTURE
ABUTMENT DETAILS

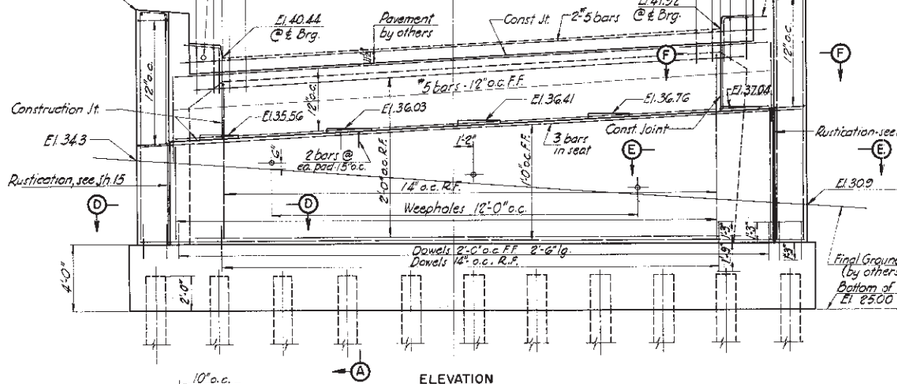
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

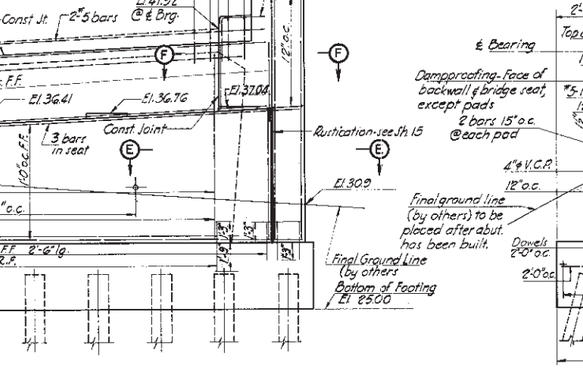
SCALE: 1/4"=1'-0" Unless Noted
CONTRACT NO. N-13
SHEET NO. 15 OF 39

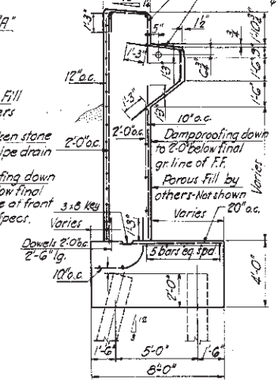


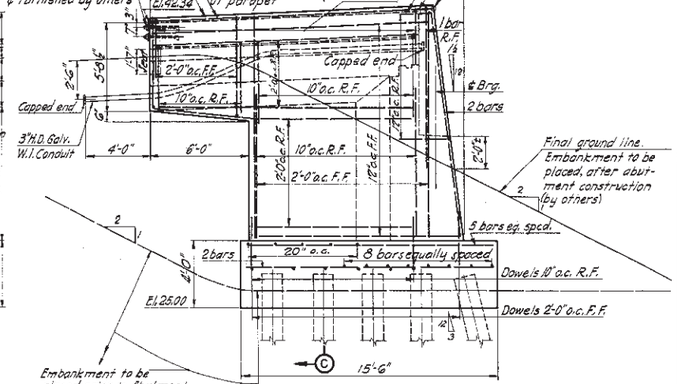




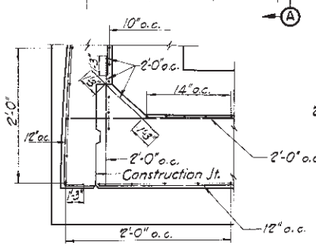


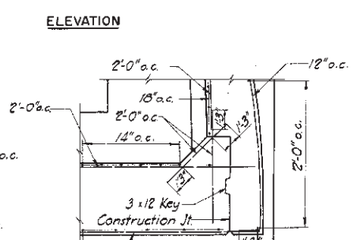


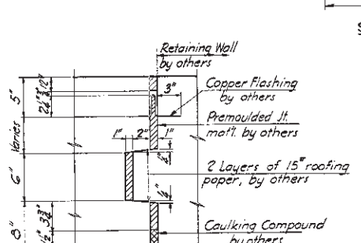


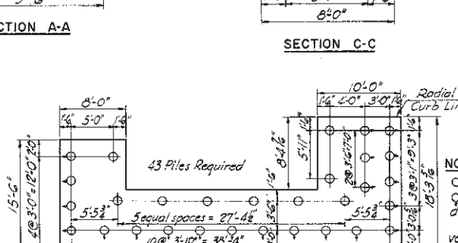


NOTES:
¾" Chamfer on all exposed edges.
Minimum radius of bends for galv. W.I. conduit is 3'-0".
All reinforcing bars to be #6 except as noted.
Angles shown for intersection of ℄ stringers with ℄ Brgs. are approximate and are only to be used for setting anchor bolts in pads.
For rustication detail see Sh. 15.
For cover of reinforcement, see Gen. Notes, Sh. 2.









NOTES:
O Denotes vertical pile.
Q Denotes pile battered 3:12 in direction of arrow.
22'-0" is the estimated average vertical pile length below cut off.
All piles shall be treated timber.
Max. D.L. + L.L. = 20 tons.
Piles shall be driven to practical refusal as determined by the engineer.
Pile spacing is given at bottom of footing.

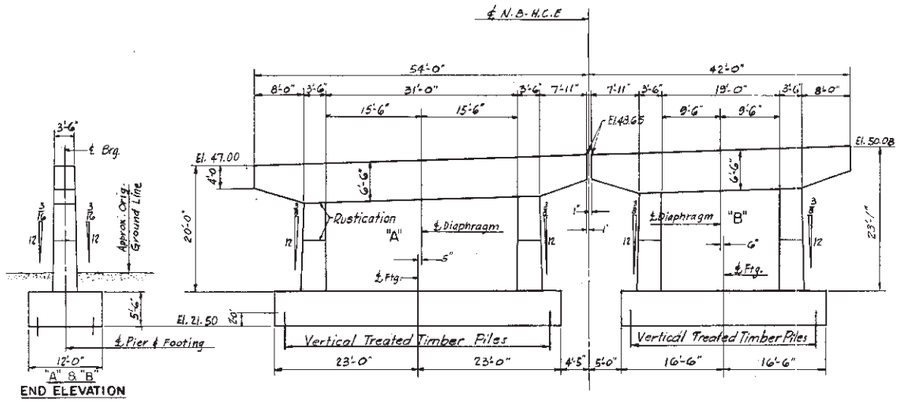
	BY	DATE			
MADE	Q.C.	10-8-54			
TRACED	J.T.	8-1-55			
CHECKED	N.C.M.	2-10-55	/ General Changes in Checking	N.C.M.	2-10-55
IN CHARGE OF F.H.S.			No. REVISION	BY	DATE

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

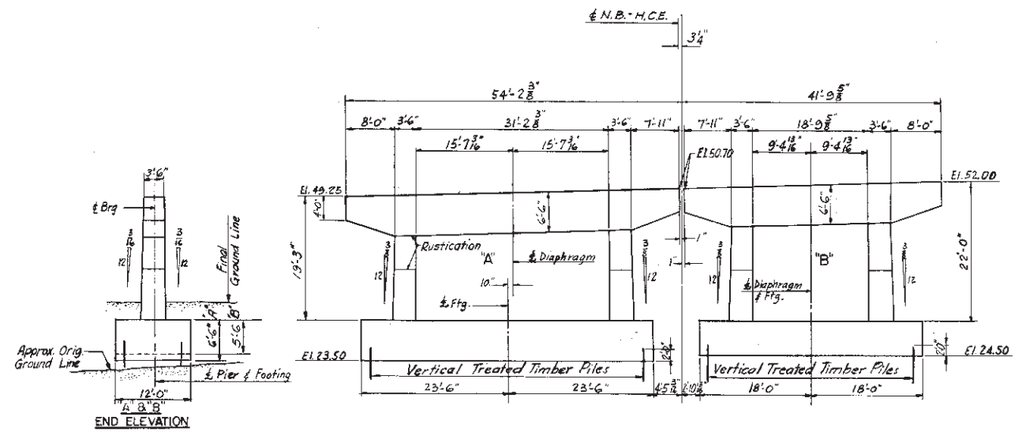
SOUTHEAST VIADUCT
SUBSTRUCTURE
RAMP D ABUTMENT

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

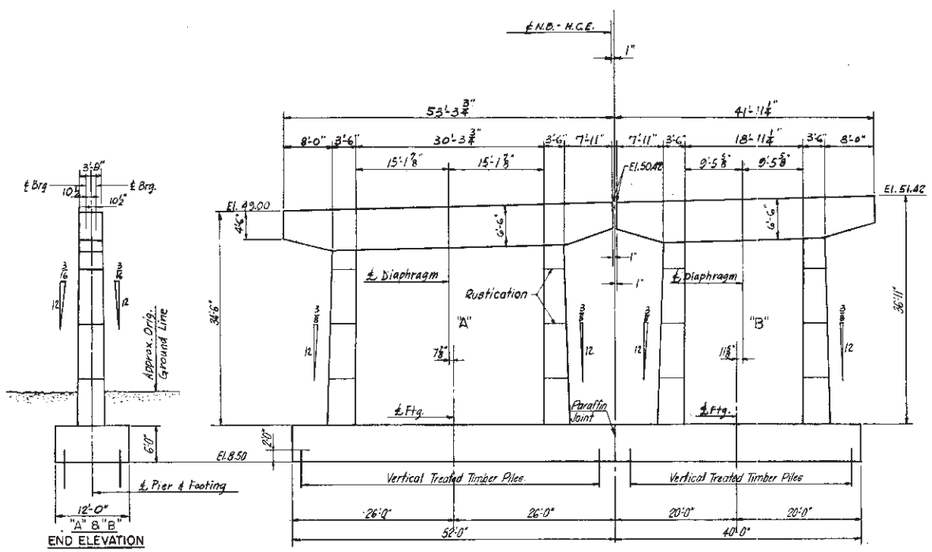
SCALE: ¼" = 1'-0" Unless Noted
CONTRACT NO. N-13
SHEET NO. 16 OF 39



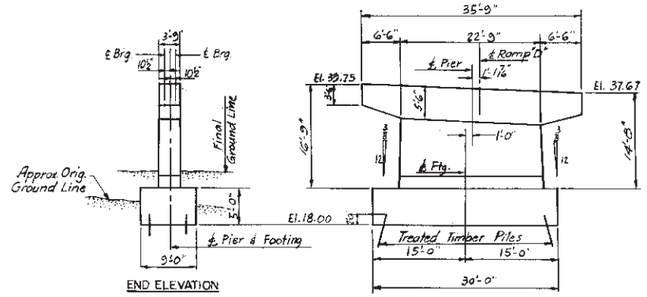
PIER 1

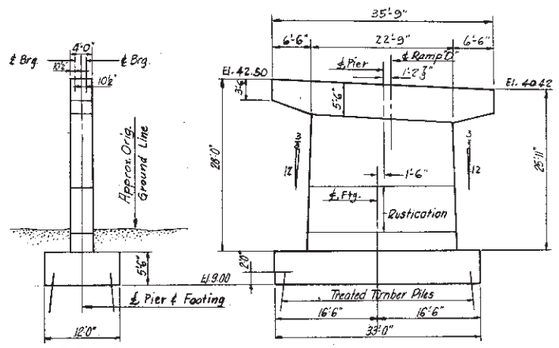


PIER 2



PIER 3





NOTES:

Pier elevations are shown looking in direction of increasing stations.
For Pile Plans, see Sh. 26.
For form board details, see Sh. 19.
For locations and elevations of pads, see Shts 29 & 30.

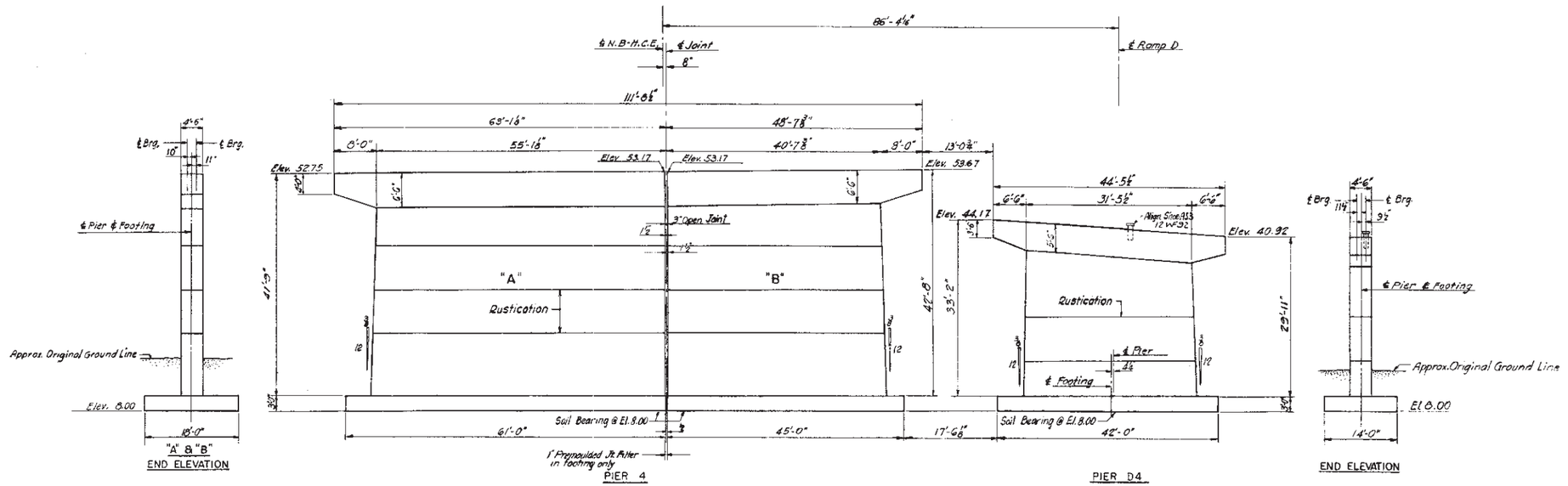
	BY	DATE				
MADE	T. N.	9-27-54	3	As Built Corrections	T.Q.	6-6-56
TRACED			2	Changed Footings of Piers 3 & D3	H.H.C.	3-9-55
CHECKED	H.H.C.	2-4-55	1	General Changes in checking	H.H.C.	2-4-55
IN CHARGE OF F.H.S.			No.	REVISION	BY	DATE

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

SOUTHEAST VIADUCT
SUBSTRUCTURE
PIER ELEVATIONS- PIERS 1, 2, 3, D2 & D3

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 3/32" = 1'-0"
CONTRACT NO. N-13
SHEET NO. 17 OF 39



	BY	DATE	No.	REVISION	BY	DATE
MADE	E.D.R.	9-27-54	4	As Built Correction	T.Q.	6-8-56
TRACED			3	Completed checking	H.H.C.	3-2-55
CHECKED	H.H.C.	2-7-55	2	Added Dist. ENBHCE to ℄ Ramp D	H.H.C.	2-11-55
IN CHARGE OF	F.H.S.		1	General Changes in checking	H.H.C.	2-7-55

NOTES:

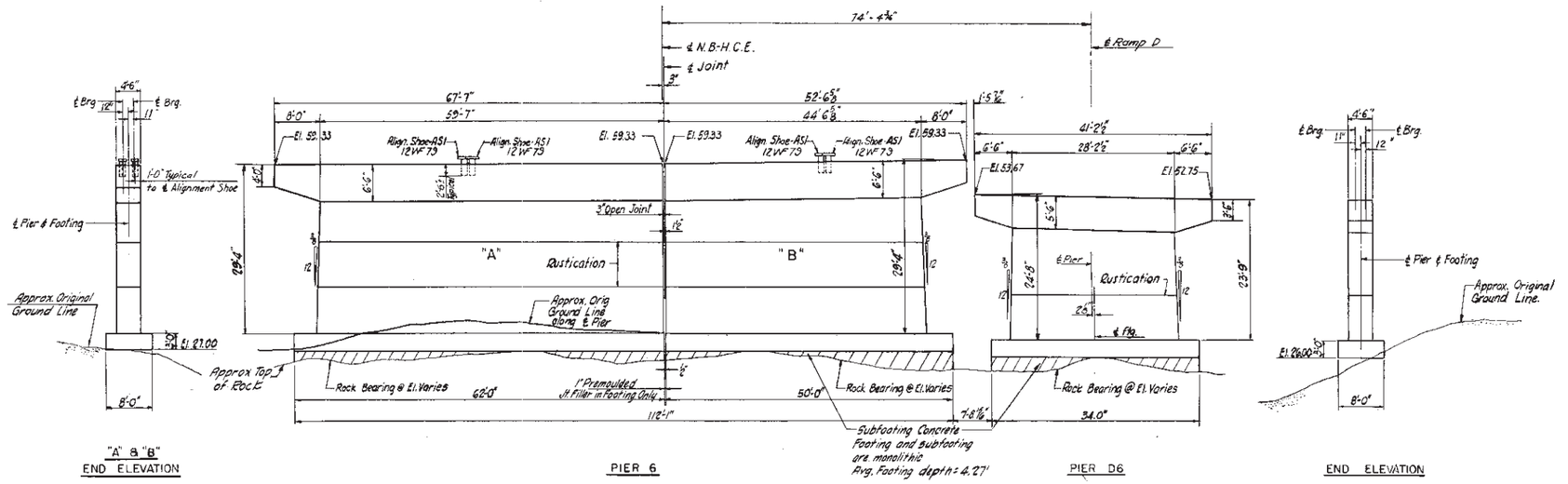
Pier elevations are shown looking in direction of increasing stations.
Maximum dead load and live load soil pressure = 2 T/s'
Maximum soil pressure = 3 T/s'
Maximum dead load and live load rock pressure = 5 T/s'
Maximum rock pressure = 7.5 T/s'
Alignment Shoes furnished under N-14 and placed under this Contract. For location see Shs. 29 & 30.
For locations and elevations of pads, see Shs. 29 & 30.
For form board details, see Sh. 19.

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

SOUTHEAST VIADUCT
SUBSTRUCTURE
PIER ELEVATIONS - PIERS 4, D4, 5 & D5

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 3/32" = 1'-0"
CONTRACT NO. N-13
SHEET NO. 18 OF 39



NOTES:

Pier elevations are shown looking in direction of increasing stations.

Maximum dead load + live load rock pressure = 5⅝

Maximum rock pressure = 7.5⅝

Alignment Shoes furnished under Contract N-14 and placed under this Contract. For location See Shs. 29 & 30

For locations and elevations of pads. See Shs. 29 & 30

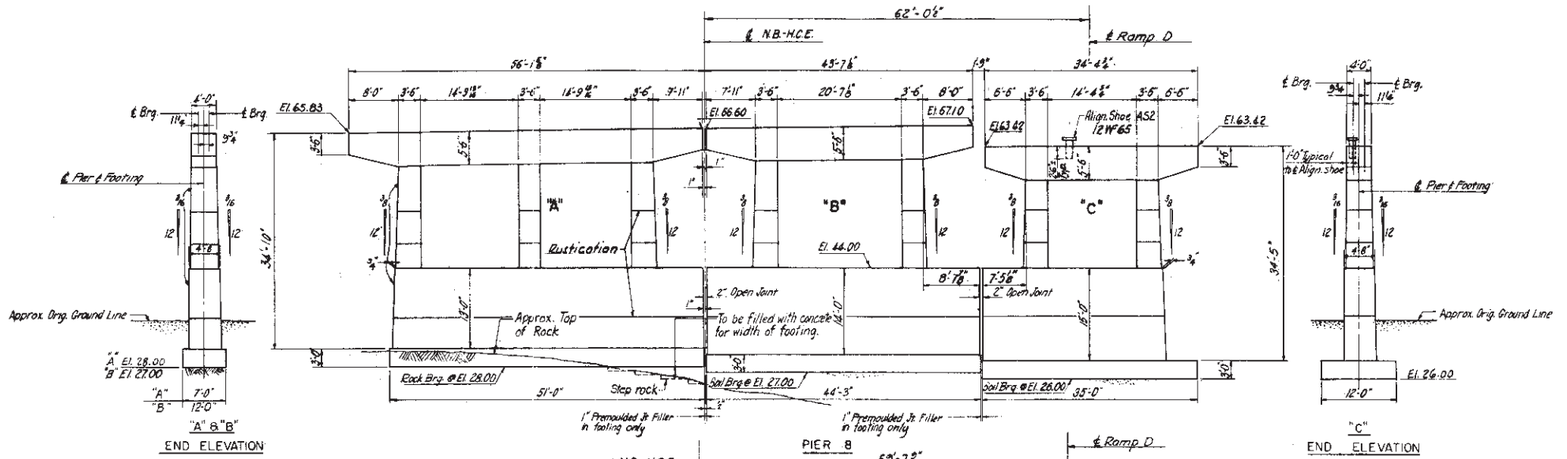
	BY	DATE				
MADE	J.R.	9-29-54	3	As Built Corrections	T.G.	8-8-56
TRACED			2	Added Dis. ABUTMENT 2 to ℄ Ramp D	H.H.C.	2-11-55
CHECKED	H.H.C.	2-8-55	1	General changes in checking	H.H.C.	2-8-55
IN CHARGE OF	F.H.S.		NO.	REVISION	BY	DATE

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

SOUTHEAST VIADUCT
SUBSTRUCTURE
PIER ELEVATIONS- PIERS 6, D6 & 7

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 3/32" = 1'-0" Unless Noted
CONTRACT NO. N-13
SHEET NO. 19 OF 39



NOTES:

Per elevations are shown looking in direction of increasing stations.
Maximum dead load and live load soil pressure = 2 T/sf.
Maximum soil pressure = 3 T/sf.
Maximum dead load and live load rock pressure = 5 T/sf.
Maximum rock pressure = 7.5 T/sf.
Alignment shoes furnished under Contract N-14 and placed under this contract. For location see Sts. 30 & 31.
For locations and elevations of pads, see Sts. 30 & 31.
For form board details see Sh. 19.

	BY	DATE
MADE	E.D.R.	9-30-54
TRACED		
CHECKED	H.H.C.	2-11-55
IN CHARGE OF	F.H.S.	

No.	REVISION	BY	DATE
5	As Built Corrections	T.Q.	8-9-56
4	Revised pedestal dimensions	M.A.	5-3-55
3	Completed checking	H.H.C.	3-2-55
2	Checked Pier Top Elev.	H.H.C.	2-15-55
1	General Changes in checking	H.H.C.	2-11-55

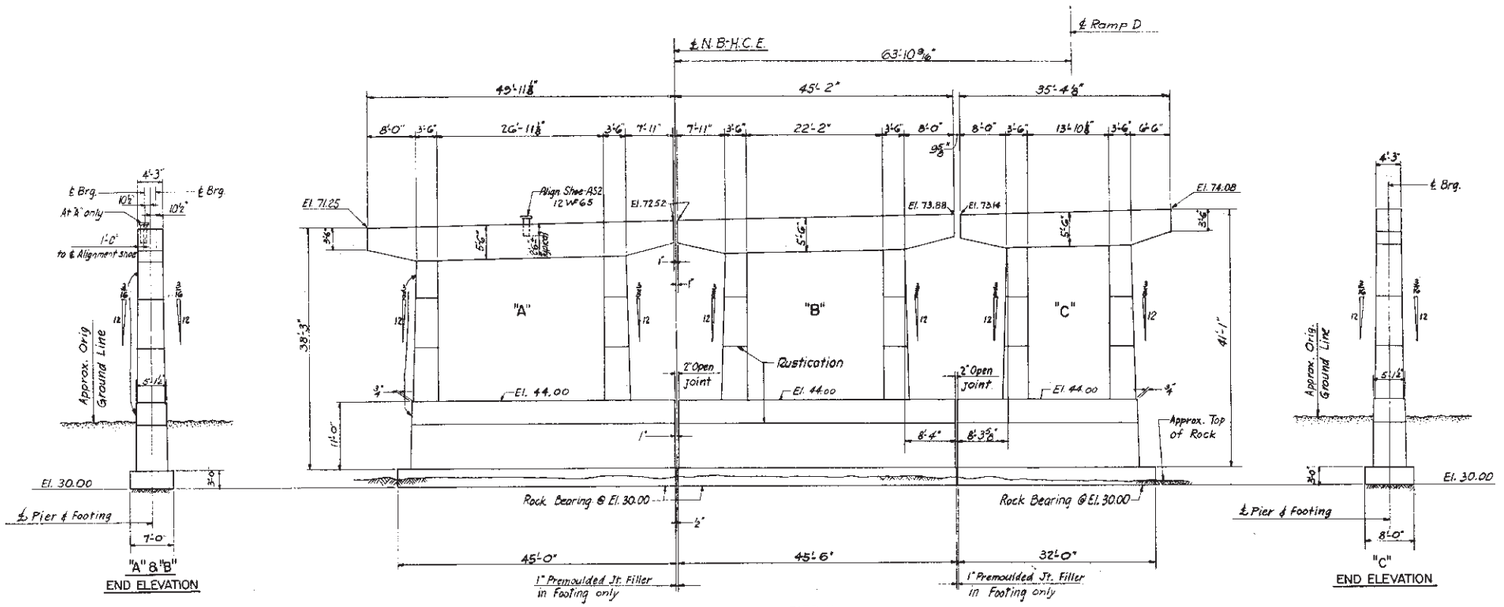
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

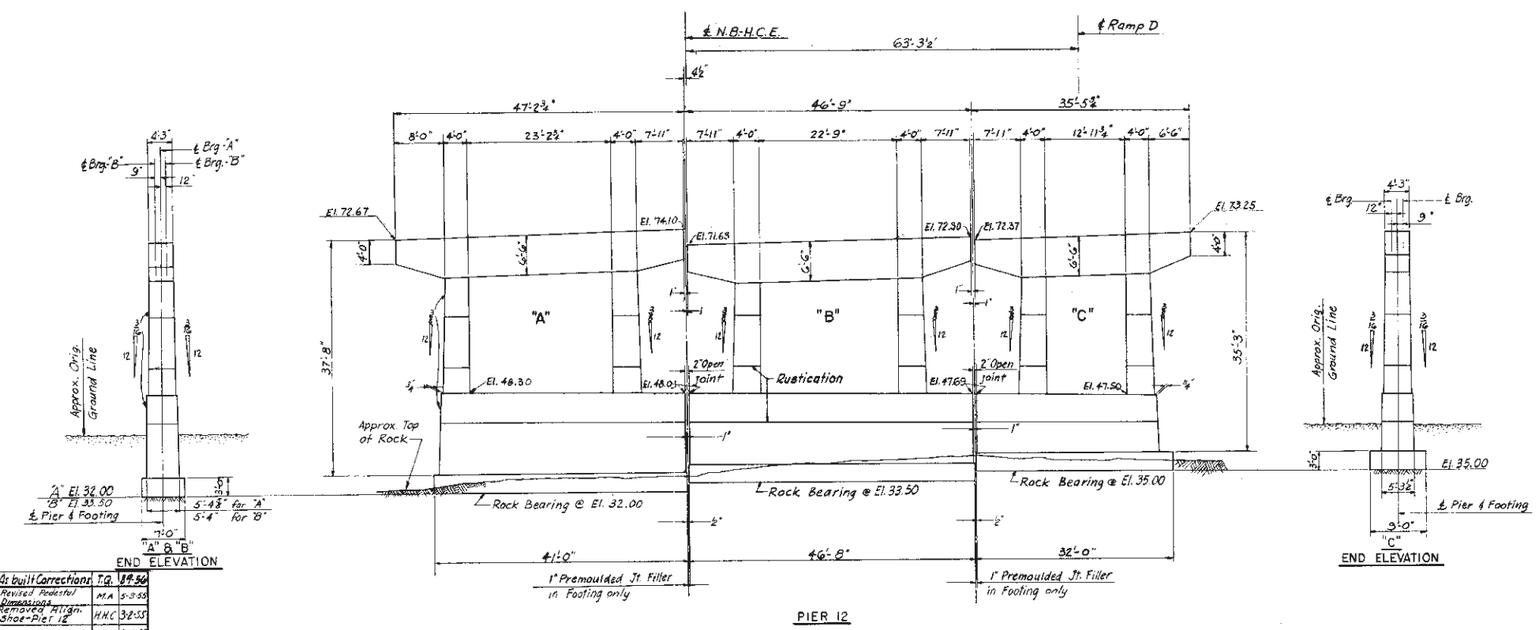
SOUTHEAST VIADUCT
SUBSTRUCTURE

PIER ELEVATIONS - PIERS 8, 9, & 10

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 3/32" = 1'-0"
CONTRACT NO. N-13
SHEET NO. 20 OF 39





NOTES:

Pier elevations are shown looking in direction of increasing stations.
Maximum dead load & live load rock pressure - 5 T/□'
Maximum rock pressure - 7.5 T/□'
Alignment shoes furnished under Contract N-14 and placed under this contract. For location, see Sh. 31.
For locations & elevations of pads, see Sh. 31.
For form board details see Sh. 19.

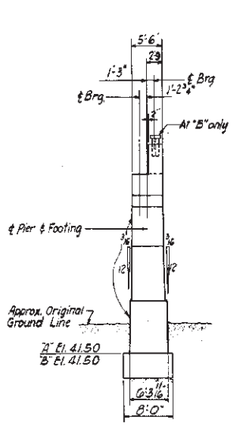
	BY	DATE	No.	REVISION	BY	DATE
			5	As built Corrections	T.Q.	8-9-56
			4	Revised Pedestal Dimensions	M.A.	5-3-55
MADE	T.N.	9-30-54	3	Removed Align. Shoe-Pier 12	H.H.C.	3-2-55
TRACED	J.T.	12-17-56	2	Chk'd per top elevations	H.H.C.	2-16-55
CHECKED	H.H.C.	2-11-55	1	General changes in checking	H.H.C.	2-11-55
IN CHARGE OF	F.H.S.					

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

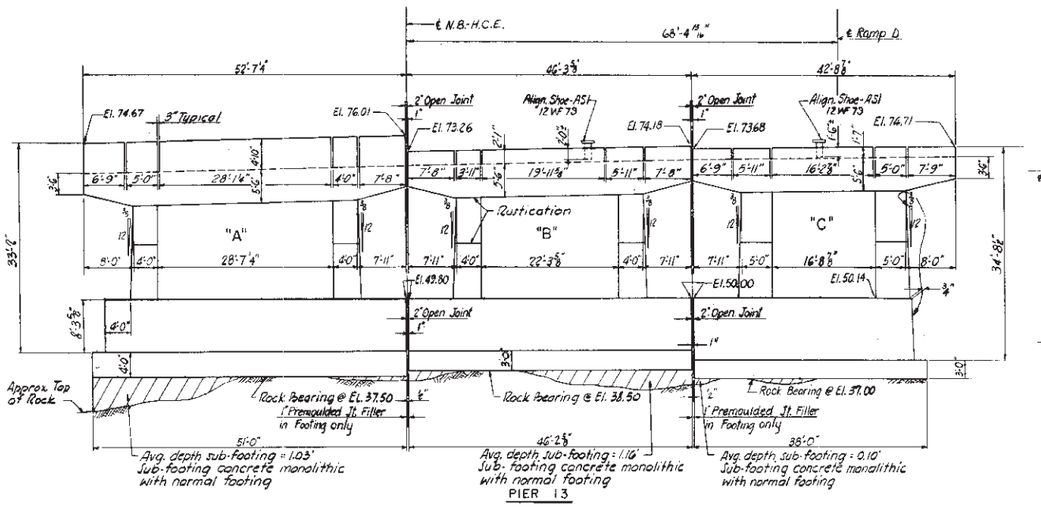
SOUTHEAST VIADUCT
SUBSTRUCTURE
PIER ELEVATIONS- PIERS 11 & 12

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

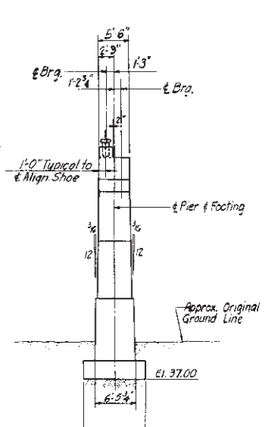
SCALE: 3/32" = 1'-0"
CONTRACT NO. N-13
SHEET NO. 21 OF 39



"A" & "B"
END ELEVATION

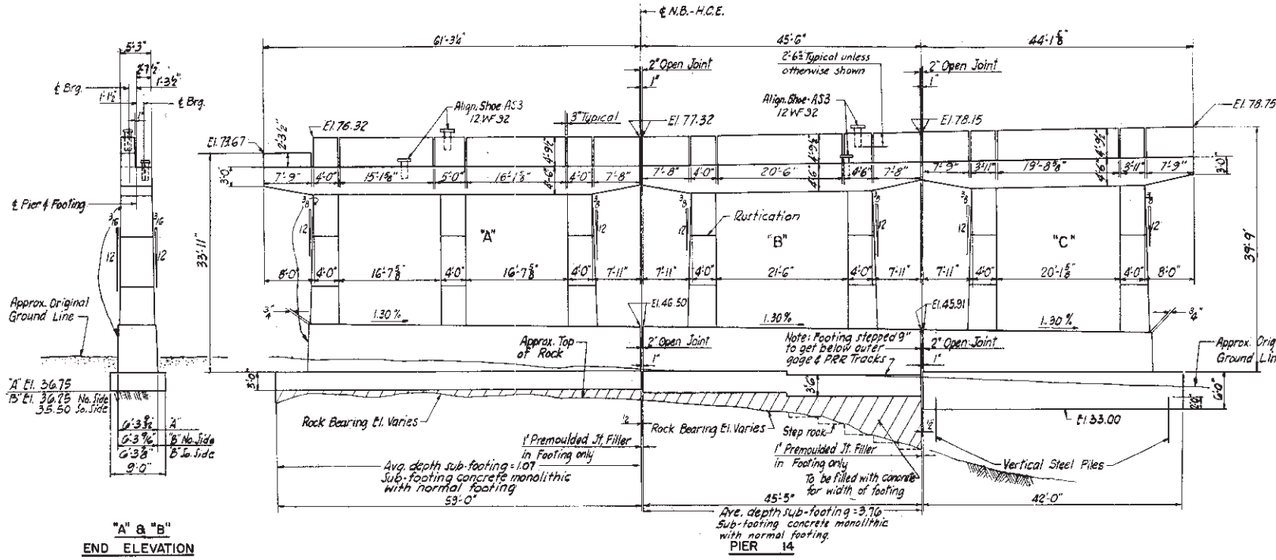


PIER 13

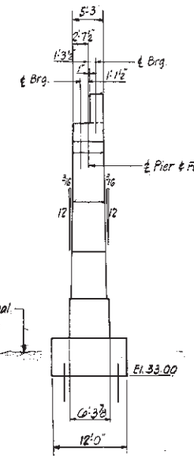


"C"
END ELEVATION

"A" & "B"
END ELEVATION



PIER 14



"C"
END ELEVATION

NOTES:
Pier elevations are shown looking in direction of increasing stations.
Maximum dead & live load rock pressure = 5 T/sf.
Maximum rock pressure = 7.5 T/sf.
Alignment shoes furnished under Contract N-14 and placed under this contract. For location, see Sh. 32.
For locations & elevations of pads, see Sh. 32.
For form board details, see Sh. 19.
For Pile Plan of Pier 14C, see Sh. 26

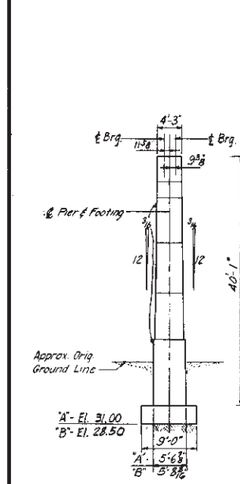
	BY	DATE
MADE	J.R.	10-2-54
TRACED		
CHECKED	H.H.C.	2-11-55
IN CHARGE OF	F.H.S.	

No.	REVISION	BY	DATE
6	As Built Corrections	T.Q.	8-9-56
5	Revised Collision Strut for Pier 13A	M.A.	8-16-55
4	Revised Pedestal Dimensions	M.A.	5-3-55
3	Completed checking	H.H.C.	3-2-55
2	Checked Pier Top Elevs. & Dimensions	H.H.C.	2-19-55
1	Corrects changes in checking	H.H.C.	2-11-55

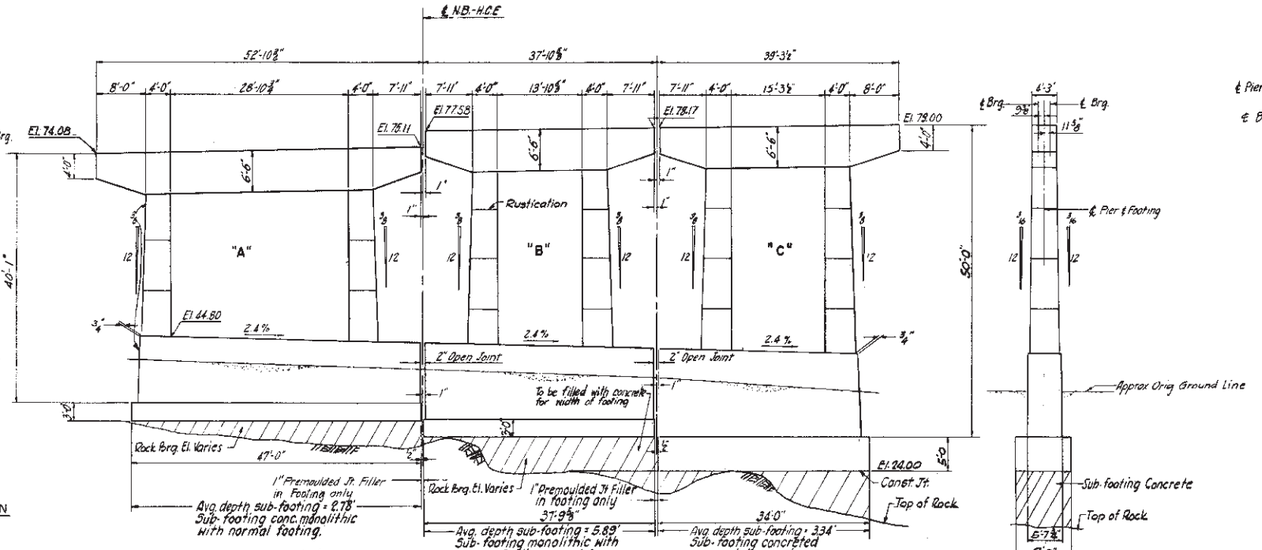
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
SOUTHEAST VIADUCT
SUBSTRUCTURE
PIER ELEVATIONS PIERS 13 & 14

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 3/32" = 1'-0"
CONTRACT NO. N 13
SHEET NO. 22 OF 39

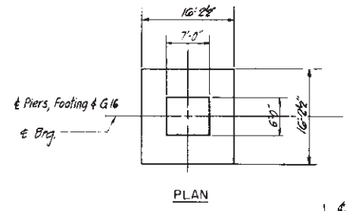


END ELEVATION

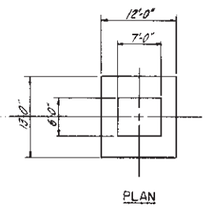


PIER 15

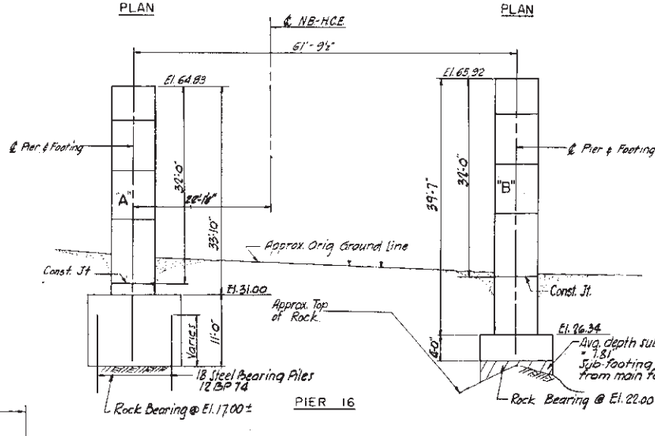
"C" END ELEVATION



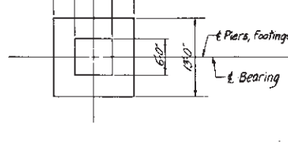
PLAN



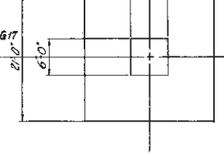
PLAN



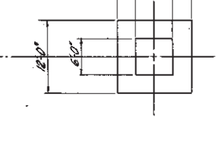
PIER 16



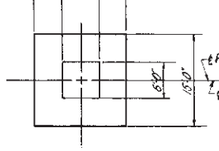
PLAN



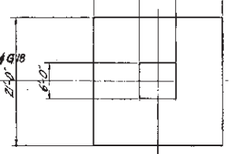
PLAN



PLAN



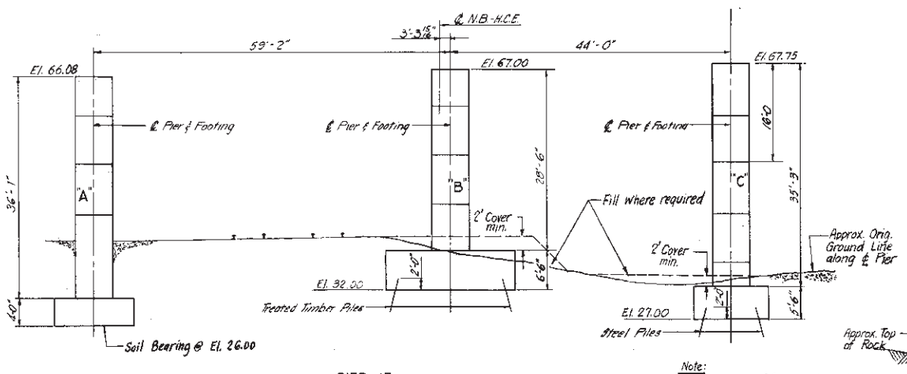
PLAN



PLAN

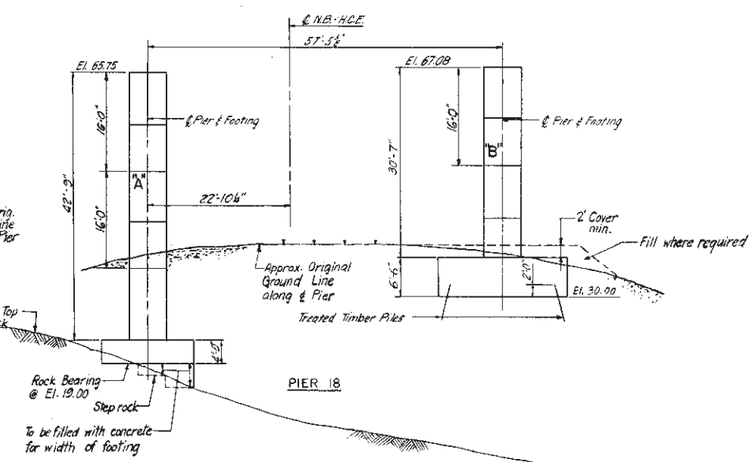
NOTES:

Pier elevations are shown looking in direction of increasing stations.
For Pile Plans see Sh. 26.
Maximum dead load and live load soil pressure = 2 T/s.
Maximum soil pressure = 3 T/s.
Maximum dead load and live load rock pressure = 5 T/s.
Maximum rock pressure = 7.5 T/s.
For form board details see Sh. 19.
For locations and elevations of pads, see Shs. 32 & 33.



PIER 17

Note:
At Pier 17C excavate material containing cinders before driving piles.
Approx. bottom of cinders at Elev. 25.0



PIER 18

	BY	DATE
MADE	E.D.R.	10-2-54
TRACED		
CHECKED	H.H.C.	1-27-55
IN CHARGE OF	F.H.S.	

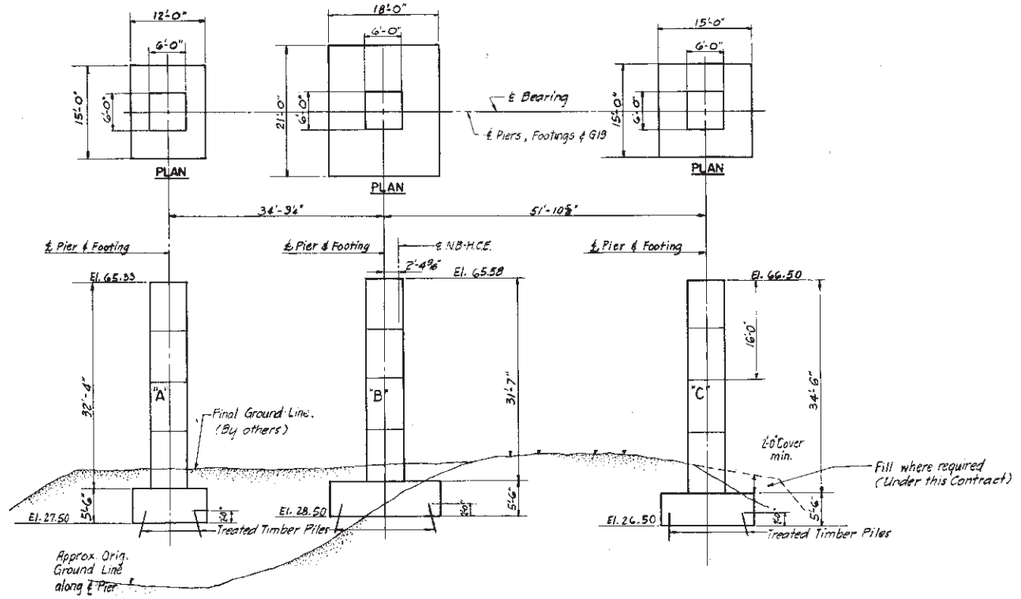
No.	REVISION	BY	DATE
6	As Built Corrections	T.Q.	3-10-56
5	Revised Pier 16A	M.A.	8-16-55
4	Revised Footing Pier 16A	G.G.S.	6-10-55
3	Revised Pedestal Dimensions Pier 15	M.A.	5-3-55
2	Checked Pier 15	H.H.C.	2-12-55
1	General changes in checking	H.H.C.	1-27-55

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

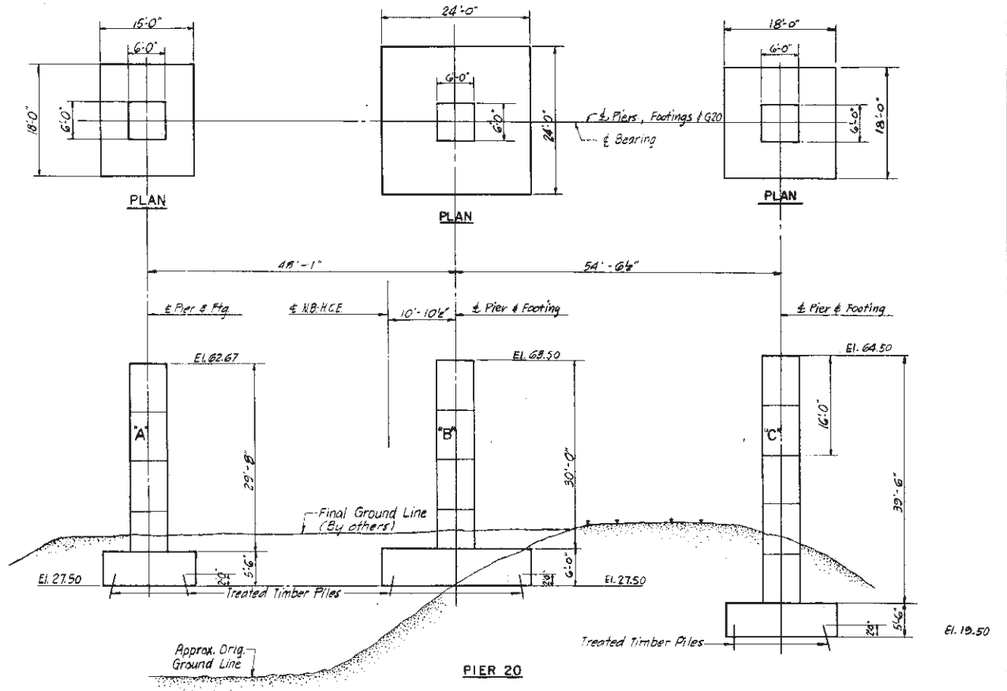
SOUTHEAST VIADUCT
SUBSTRUCTURE
PIER ELEVATIONS -- PIERS 15, 16, 17, & 18

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

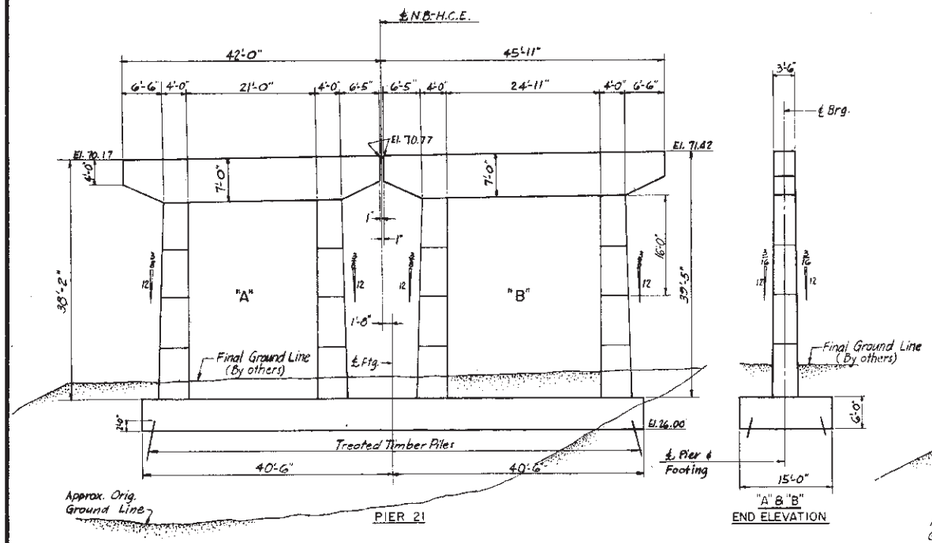
SCALE: 3/32" = 1'-0"
CONTRACT NO. N-13
SHEET NO. 23 OF 39



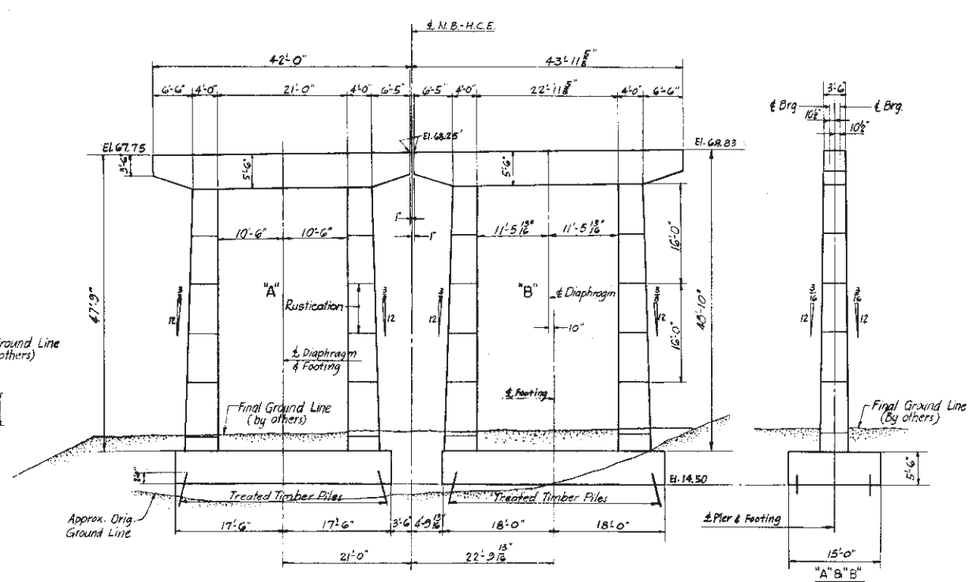
PIER 19



PIER 20



PIER 21



PIER 22

NOTES

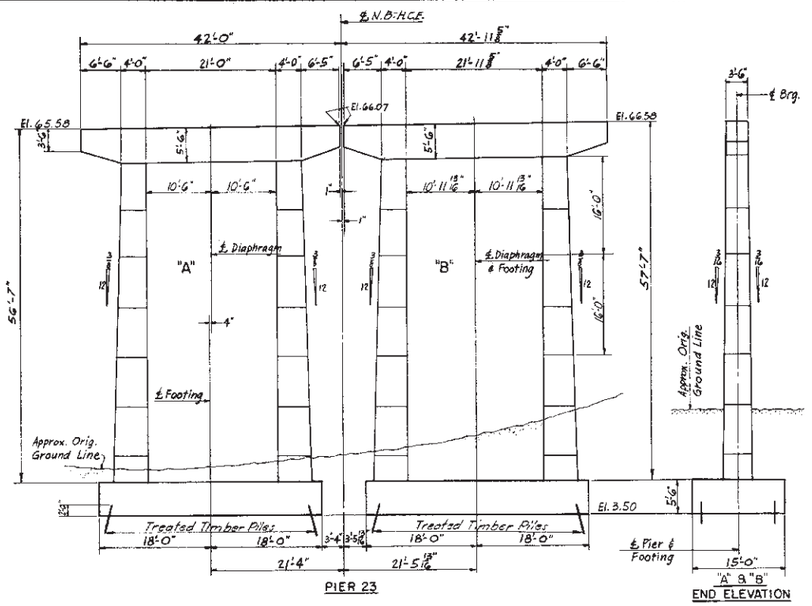
Pier elevations are shown looking in direction of increasing stations.
Fill to be placed by others prior to construction of footings.
Construction Joints in Pier Shafts to be at the same elevation as the joint in the shaft at the high end.
For form board details, see sh. 19
For pile plans, see Sh. 27
For locations and elevations of pads, see Shs. 32 & 33.

	BY	DATE	No.	REVISION	BY	DATE
MADE	T. N.	10-1-54	3	As Built Corrections	T.G.	8-9-56
TRACED			2	Checked Piers 21 & 22	H.H.C.	2-4-55
CHECKED	H.H.C.	1-27-55	1	General changes in checking	H.H.C.	1-27-55
IN CHARGE OF	F.H.S.					

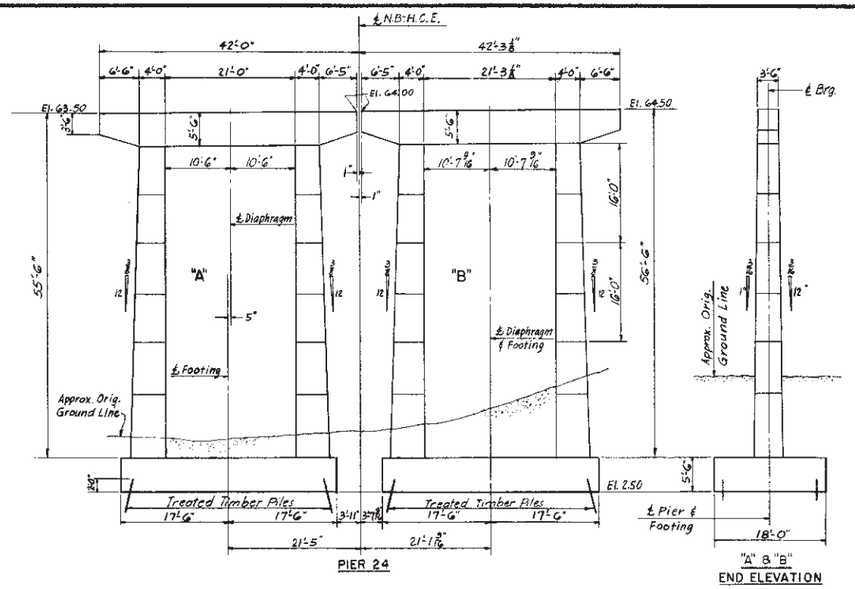
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
SOUTHEAST VIADUCT
SUBSTRUCTURE
PIER ELEVATIONS — PIERS 19, 20, 21 & 22

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

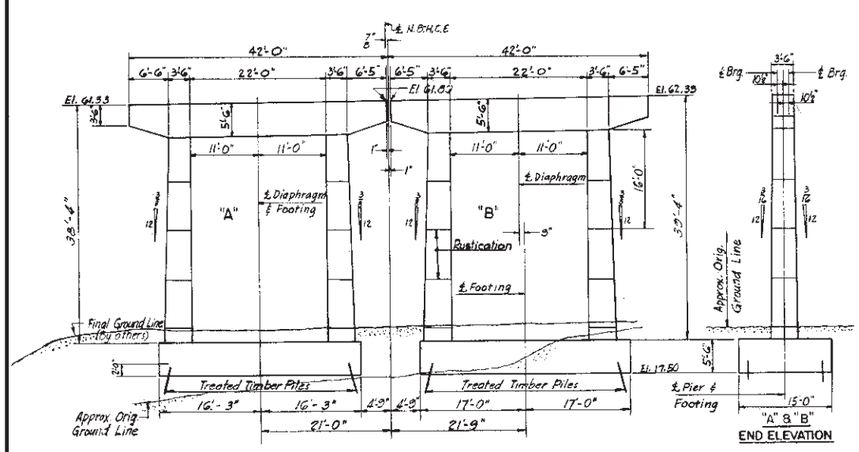
SCALE: 3/32"-1'-0"
CONTRACT NO. N-13
SHEET NO. 24 OF 39



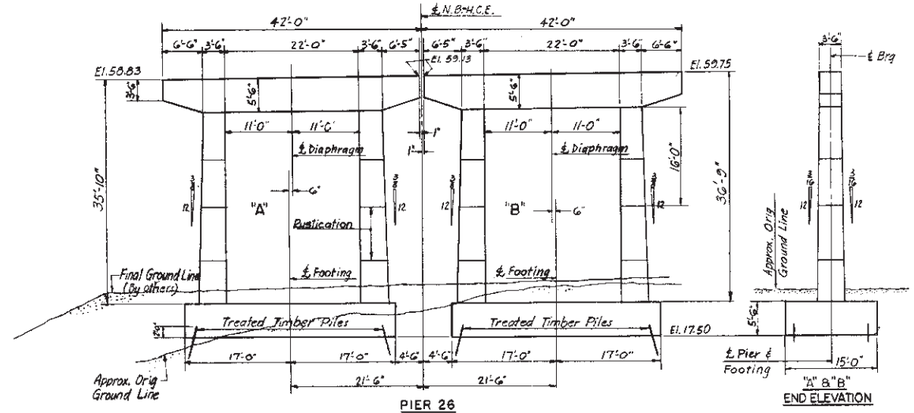
PIER 23



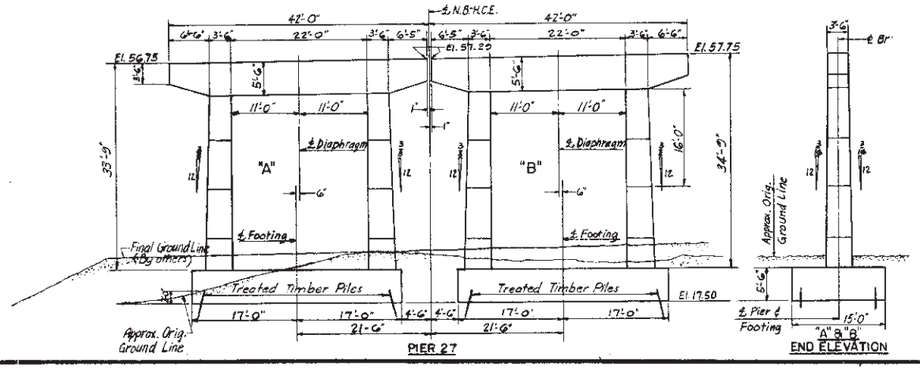
PIER 24



PIER 25



PIER 26



PIER 27

NOTES

Pier elevations are shown looking in direction of increasing stations.

Fill to be placed by others prior to construction of footings.

Construction Joints in Pier Shafts to be at the same elevation as the joint in the shaft of the high end.

For form board details. see Sh.19

For pile plans see Shs. 27 & 28.

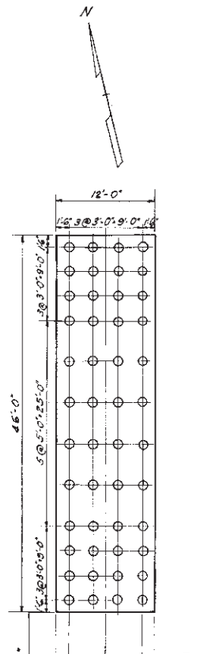
For locations and elevations of pads see Sh.33.

	BY	DATE				
MADE	T. N.	10-2-54				
TRACED			2	As Built Corrections	T.Q.	8-8-56
CHECKED	H.H.C.	2-4-55	1	General changes in shielding	H.H.C.	2-8-55
IN CHARGE OF	F.H.S.		No.	REVISION	BY	DATE

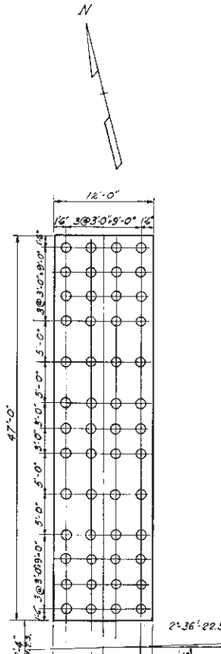
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
SOUTHEAST VIADUCT
SUBSTRUCTURE
PIER ELEVATIONS — PIERS 23, 24, 25, 26 & 27

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

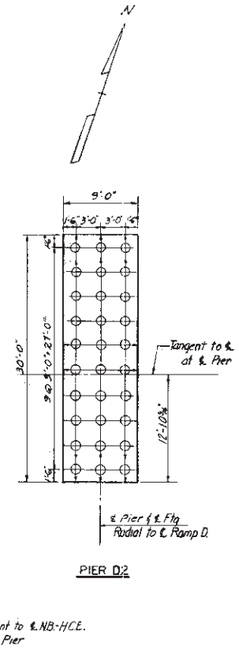
SCALE: 3/32"-1'-0"
CONTRACT NO. N-13
SHEET NO. 25 OF 39



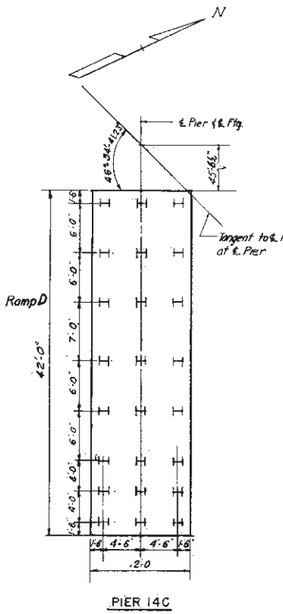
PIER 1A & 1B



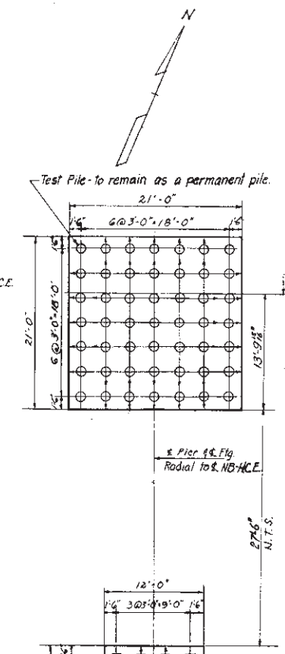
PIER 2A & 2B



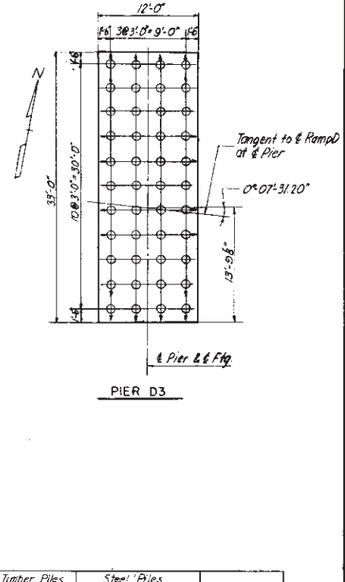
PIER D2



PIER 14C



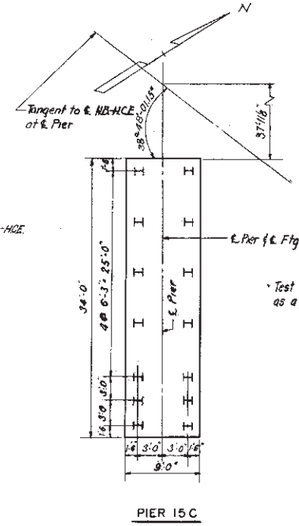
PIER 17 B & 17 C



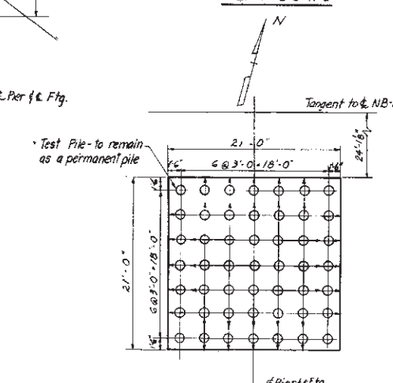
PIER D3

PIER 3A & 3B

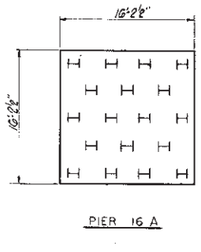
1/8" = 1'-0"



PIER 15C



PIER 18 B



PIER 16 A

Pier No.	Station ℄ Pier	Treated Timber Piles No.	Treated Timber Piles Estm. Avg. Length N. End	Treated Timber Piles Estm. Avg. Length S. End	Steel Piles No.	Steel Piles Estm. Avg. Length N. End	Steel Piles Estm. Avg. Length S. End	Pile Tip Elev. N. End	Pile Tip Elev. S. End
1A & 1B	202 + 74.85	84	19.0'	17.0'				+4.5	+6.8
2A & 2B	203 + 52.18	90	21.5'	21.5'				+5.0	+5.0
D2	203 + 29.81 *	30	15.0'	15.0'				+5.0	+5.0
14C	213 + 66.75				24	6.0	12.0'	+25.0	+19.0
15C	213 + 18.80				14	6.0'	11.0'	+25.0	+20.0
17B	215 + 82.50	49	9.0'	9.0'				+25.0	+25.0
17C					16	14.0'	14.0'	+15.0	+15.0
18B	216 + 82.50	49	32.0'	32.0'				0	0
3A & 3B	204 + 29.66	112	25.5'	25.5'				-15.0	-15.0
D3	203 + 83.95 *	44	26.0'	26.0'				-15.0	-15.0
16A	215 + 05.65				18	12.0			

* Ramp D Stationing.

NOTES:

○ Indicates vertical timber pile.

○← Indicates timber pile battered out 3:12 in direction of arrow for Piers D2, D3, 17B & 18B

Station ℄ Pier is at intersection with ℄ N.B.-H.C.E. except Piers D2 & D3

⊢⊷ Indicates steel pile battered 3:12 in direction of arrow for Pier 17C

H Indicates 12BP74 steel pile.

Max. D.L. + L.L. on timber piles = 20 tons

Max. load on timber piles = 30 tons

Max. D.L. + L.L. on steel piles = 50 tons

Max. load on steel piles = 75 tons

Pile lengths shown are estimated average vertical lengths below cutoff.

Piles are to be driven to at least elevation shown in table. Where pile lengths vary between North and South End they are considered to vary uniformly.

Steel piles shall be driven to and/or into rock to a capacity of 90 tons.

Timber piles shall be driven to practical refusal.

N.T.S. = Not to Scale.

	BY	DATE
MADE	M.H.H.	10-2-54
TRACED	J.T.	12-13-56
CHECKED	H.H.C.	1-21-55
IN CHARGE OF	F.H.S.	

No.	REVISION	BY	DATE
6	As Built Corrections	T.G.	8-10-59
5	Removed Pile Plan Pier 16A	MA	8-18-59
4	Added pile plan Pier 16A	G.G.S.	6-10-59
3	Added pile plans Piers 3A, 3B & D3	H.H.C.	3-9-59
2	Completed checking	H.H.C.	2-13-59
1	General changes on checking	H.H.C.	1-21-59

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

NEWARK BAY-HUDSON COUNTY EXTENSION

SOUTHEAST VIADUCT

SUBSTRUCTURE

PILE PLANS PIERS 1, 2, 3, D2, D3, 14C, 15C, 17B, 17C & 18B

HOWARD, NEEDLES, TAMMEN & BERGENDOFF

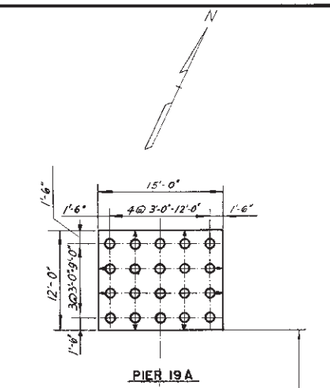
CONSULTING ENGINEERS

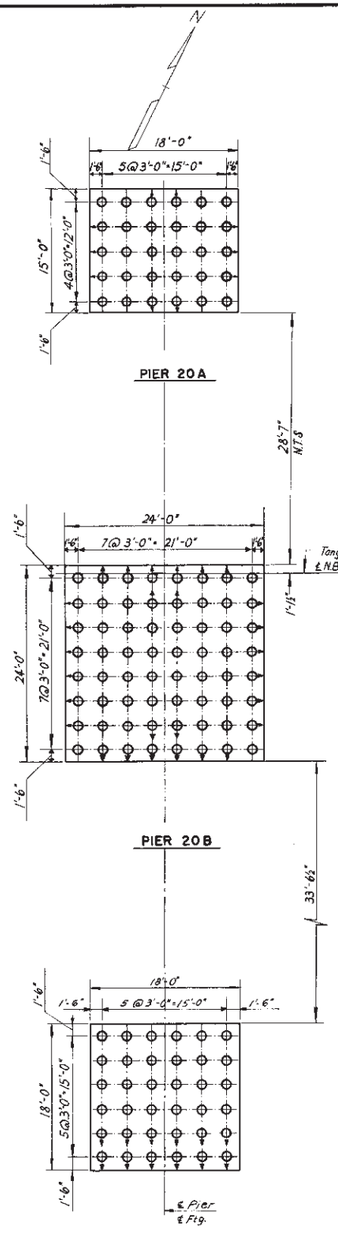
NEW YORK KANSAS CITY

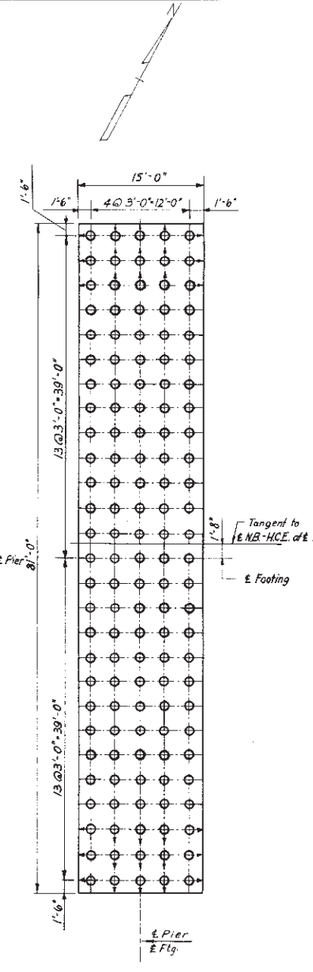
SCALE: 1/8" = 1'-0" Unless Noted

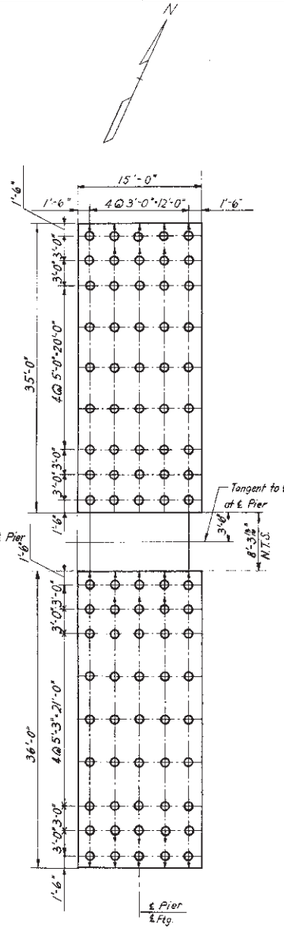
CONTRACT NO. N-13

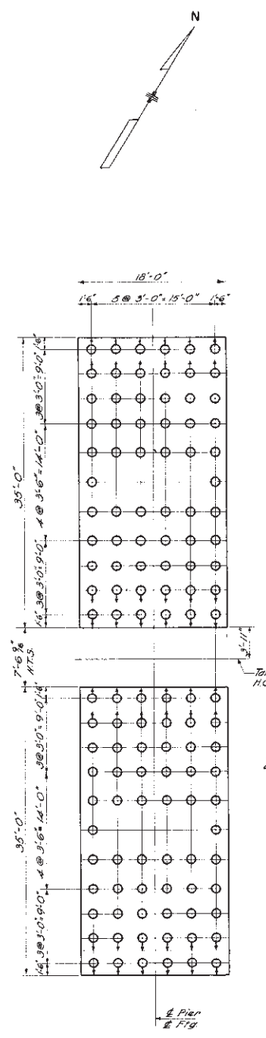
SHEET NO. 26 OF 39



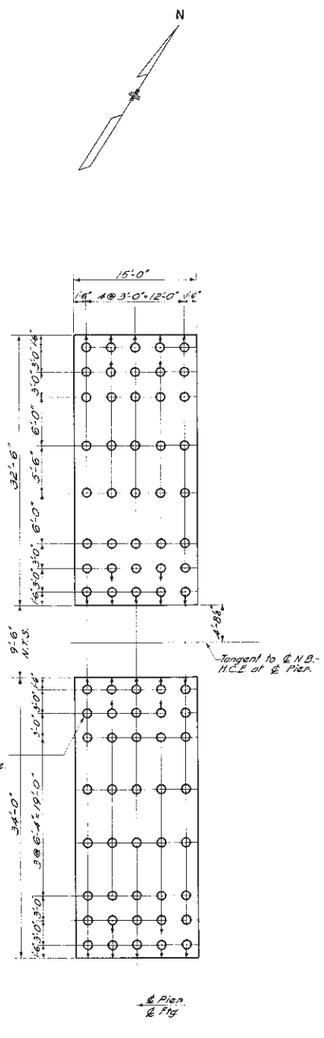




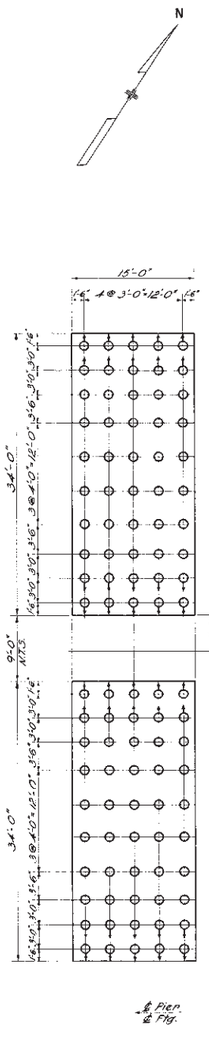

N
15'-0"
4@3'-0"=12'-0"
3'-0"
4@5'-0"=20'-0"
3'-0"
3'-0"
3



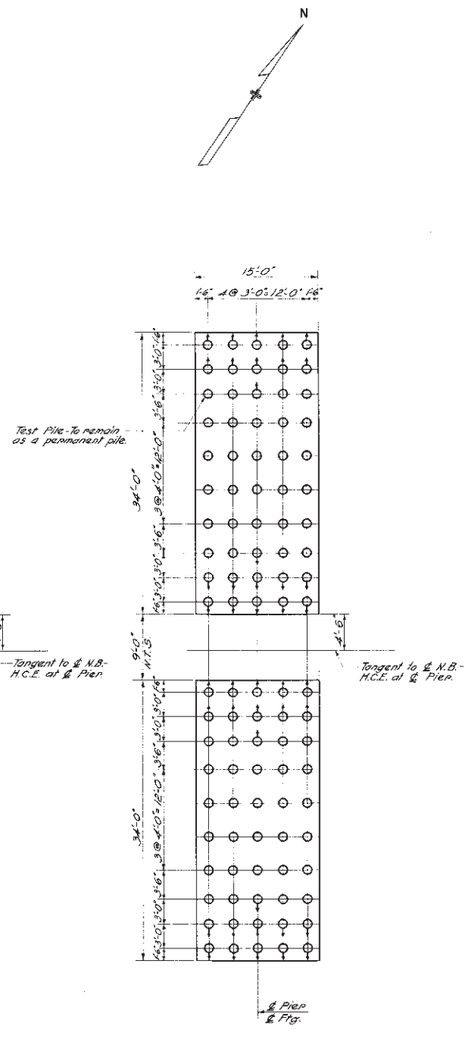
PIER 24



PIER 25



PIER 26



PIER 27

Pier No.	Station ℄ Pier	Treated Timber Piles			Pile Tip Elev.	
		No.	Estim. Avg. Length N. End	Estim. Avg. Length S. End	N. End	S. End
24	221+88.70	124	14.5'	14.5'	-10	-10
25	222+63.70	80	30.5'	36.5'	-11	-17
26	223+38.70	100	29.5'	29.5'	-10	-10
27	224+13.70	100	29.5'	29.5'	-10	-10

NOTES:

○ Indicates vertical pile.

○→ Indicates pile battered at 2:12 in direction of arrow.

Station ℄ Pier is at intersection with ℄ N.B.-H.C.E.

Pile lengths shown are estimated average vertical lengths below cut off.

Max. D.L. + L.L. on timber piles = 20 tons.

Max. load on timber piles = 30 tons.

Piles are to be driven to at least elevation shown in table.

Timber piles to be driven to practical refusal.

Where pile lengths vary between North and South End, they are considered to vary uniformly.

℄ Pier and ℄ Ftg. are radial to ℄ N.B.-H.C.E.

N.T.S. = Not to scale.

	BY	DATE	No.	REVISION	BY	DATE
MADE	M.H.H.	10-2-54	3	Checked Stc. Pier 24	H.H.C.	2-4-55
TRACED	G.S.	6-15-55	2	No. of Battered Piles and Pile Batter	F.C.G.	12-8-55
CHECKED	H.H.C.	1-21-55	1	General Changes in Checking	H.H.C.	1-21-55
IN CHARGE OF	F.H.S.					

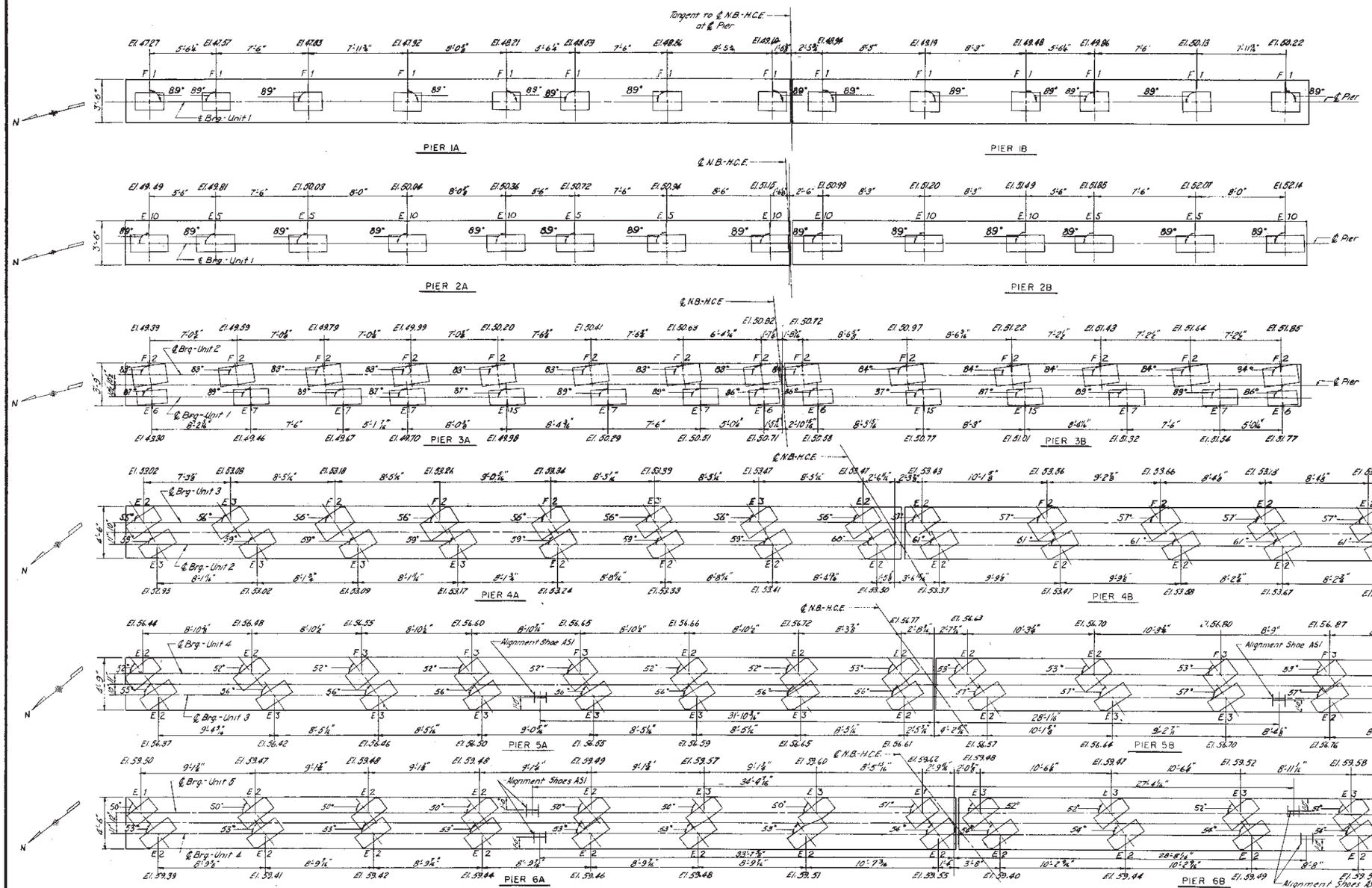
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

SOUTHEAST VIADUCT
SUBSTRUCTURE

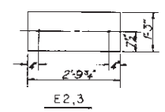
PILE PLANS - PIERS 24 TO 27

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1" = 1'-0"
CONTRACT NO. N-13
SHEET NO. 28 OF 39

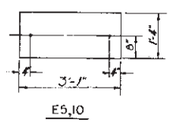


E1,6



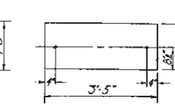
E2,3

E4,7,8,9,14,15



E5,10

E11



E13,17

EXPANSION SHOE PADS

NOTES

Pad elevations given are final pad elevations. Tops of pads shall be dressed down to true level surfaces of the required elevation by grinding, tooling or rubbing. See specifications

For other expansion shoe pad details see Sh.30.

For fixed shoe pad details see Sh.31.

Alignment shoes furnished under Contract N-14 and placed under this contract. For alignment shoe details see Sh.35.

For anchor bolt detail See Sh 31.

All pads 6" ℄ over in height shall be reinf. For details of reinf. see Sh.31

	BY	DATE	No.	REVISION	BY	DATE
MADE	Q.A.C.	11-3-54				
TRACED			2	Revised pad spacing	H.H.C.	5-18-55
CHECKED	H.H.C.	12-28-55	1	General change in Checking	H.H.C.	12-28-55
IN CHARGE OF	F.H.S.					

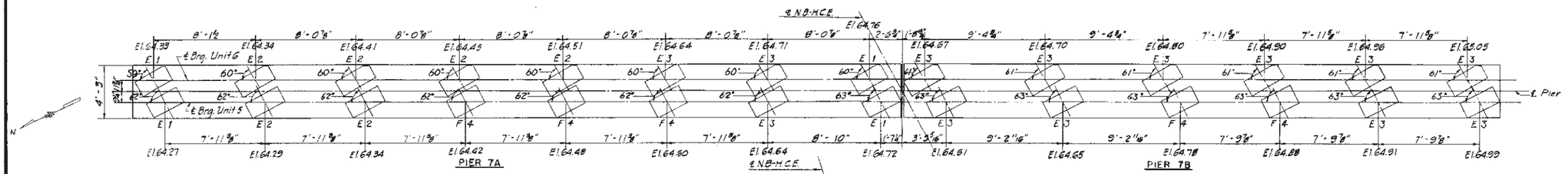
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

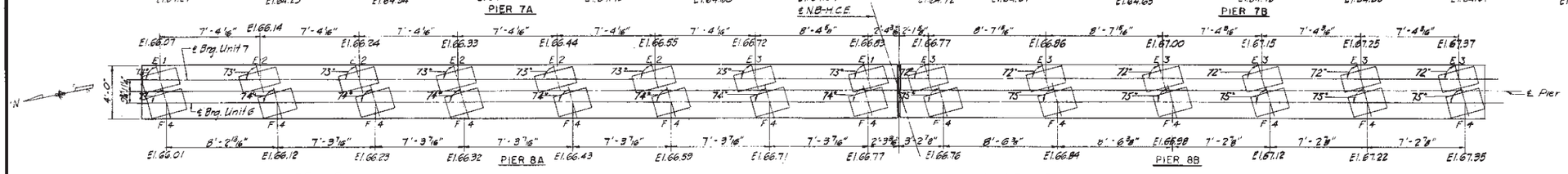
SOUTHEAST VIADUCT
SUBSTRUCTURE

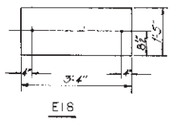
PAD DATA - PIERS 1 THRU 6

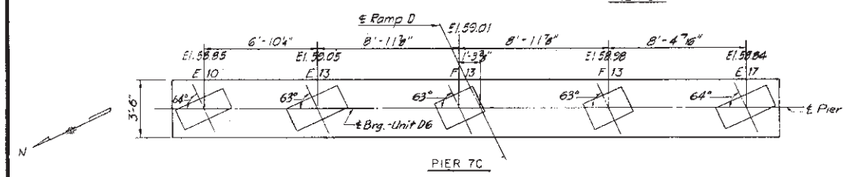
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

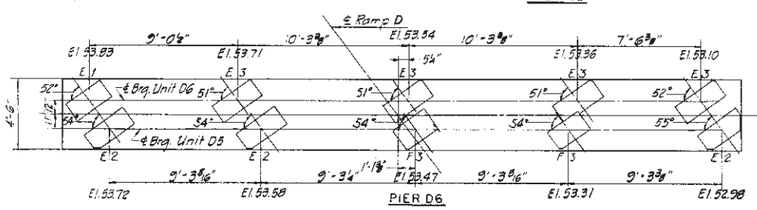
SCALE: 1/4"=1'-0" UNLESS NOTED
CONTRACT NO. N-13
SHEET NO. 29 OF 39

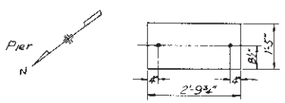


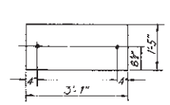


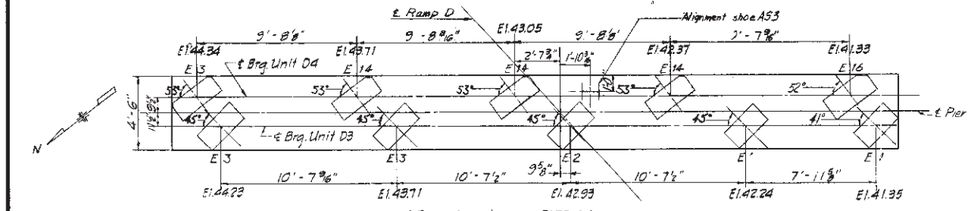


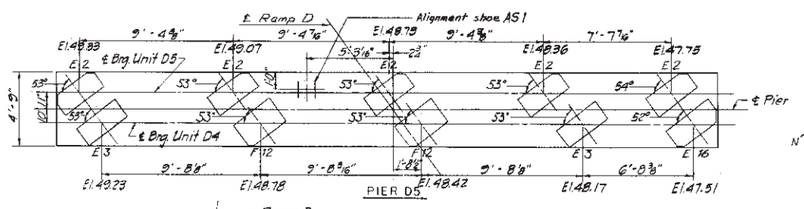


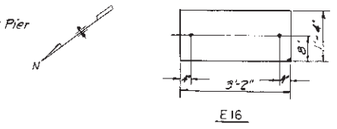




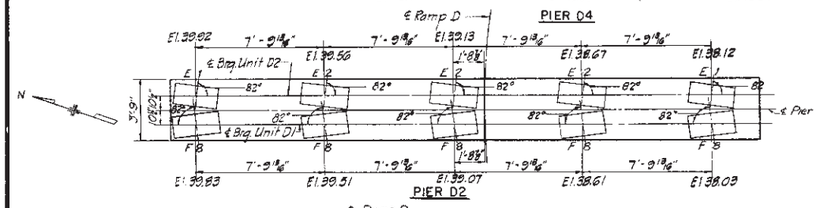


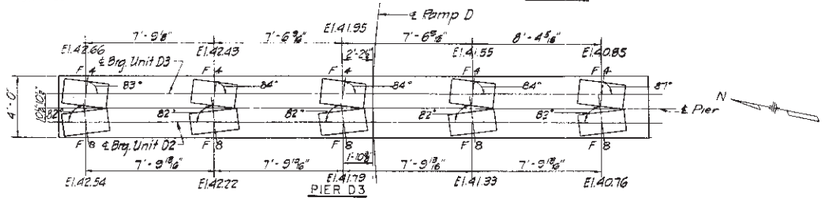


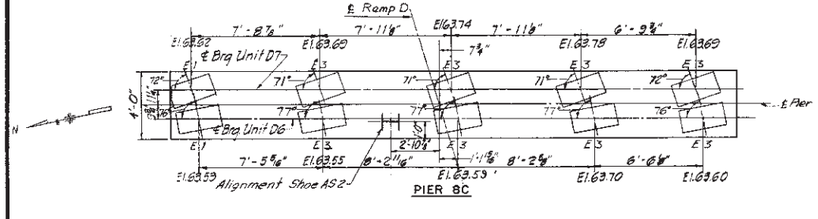


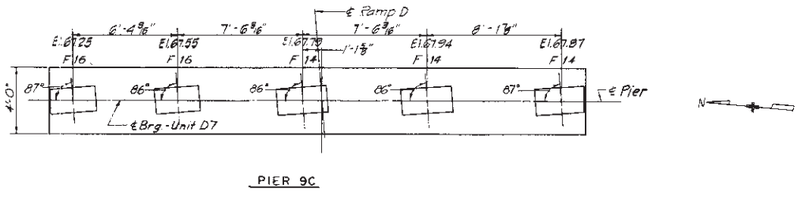


EXPANSION SHOE PADS
½" = 1'-0"









NOTES

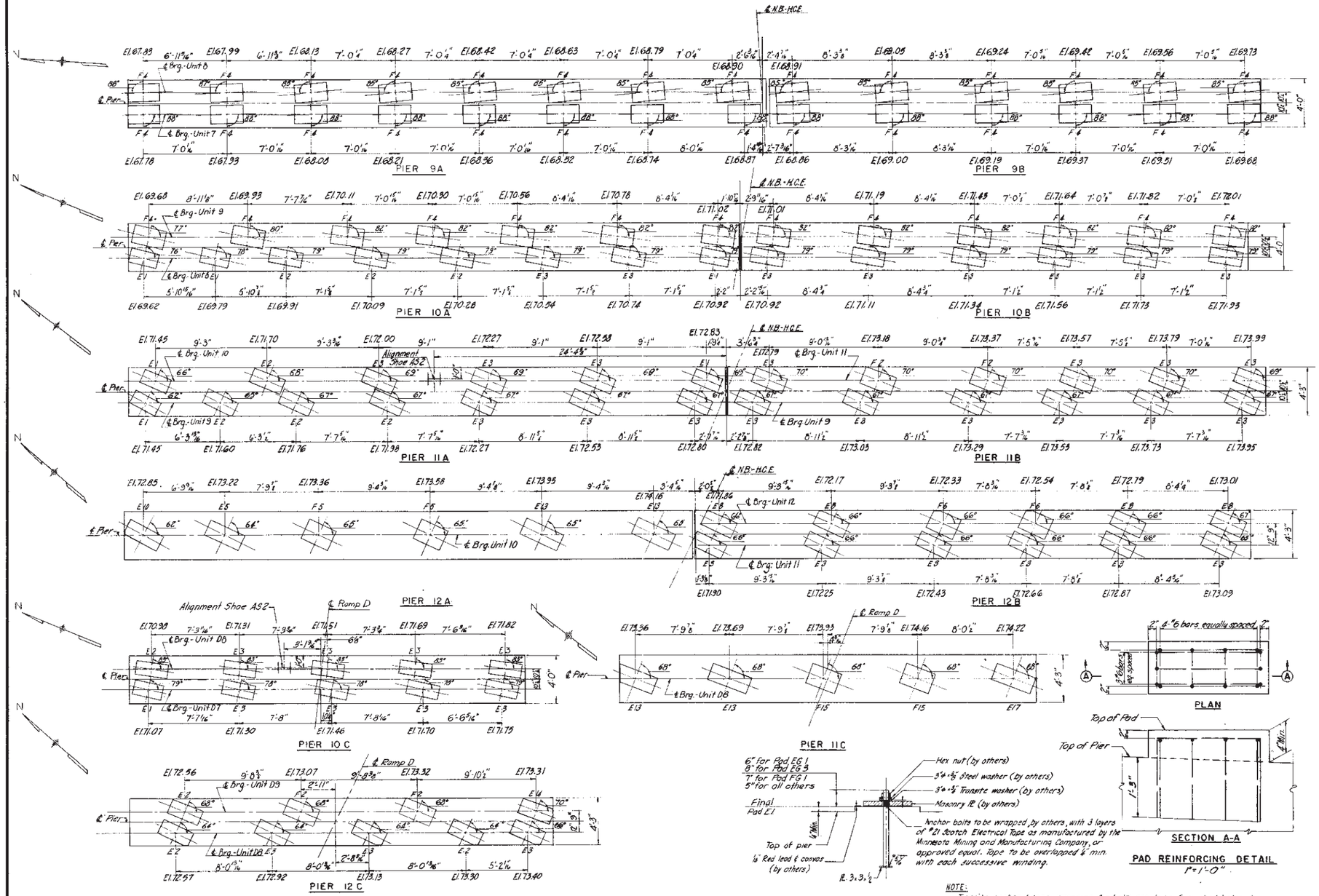
Pad elevations given are final pad elevations. Top of pads shall be dressed down to true level surfaces at the required elevation by grinding, tooling or rubbing. See specifications.
For other expansion shoe pad details see Sh. 29
For fixed shoe pad details see Sh. 31
Alignment shoes furnished under Contract N-14 and placed under this contract. For alignment shoe details see Sh. 35
For anchor bolt detail see Sh. 31.
All pads 6" and over in height shall be reinforced. For detail of reinforcing, see Sh. 31.

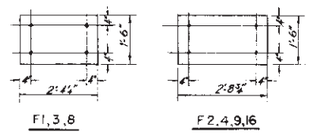
	BY	DATE	No.	REVISION	BY	DATE
MADE	Q.A.C.	11-1-54	3	Changed pad elev. Pier 8C	H.H.C.	5-26-55
TRACED			2	Changed pad elev. Pier 13	H.H.C.	5-18-55
CHECKED	H.H.C.	2-28-55	1	General changes in elevations	H.H.C.	2-28-55
IN CHARGE OF	F. H. S.					

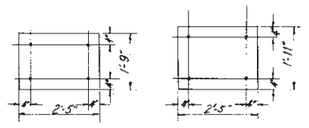
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
SOUTHEAST VIADUCT
SUBSTRUCTURE
PAD DATA - PIERS 7,8,D2,D3 D4,D5,D6 AND 9C

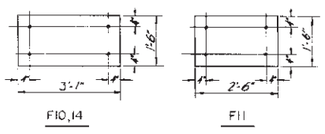
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

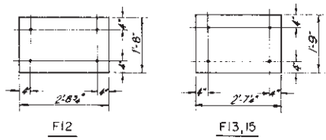
SCALE: 1" = 1'-0" Unless Noted
CONTRACT NO. N-13
SHEET NO. 30 OF 39











FIXED SHOE PADS
1"=1'-0"

PAD REINFORCING DETAIL
1"=1'-0"

ANCHOR BOLT DETAIL
1"=1'-0"

NOTES:
Pad elevations given are final pad elevations. Top of pads shall be dressed down to true level surfaces at the required elevation by grinding, tooling or rubbing. See specifications.
For expansion shoe pad details see Sh. 29 & 30.
Alignment shoes furnished under Contract N-14 and placed under this contract. For alignment shoe details see Sh. 35.
All pads 4" and over in height shall be reinforced. See Detail.

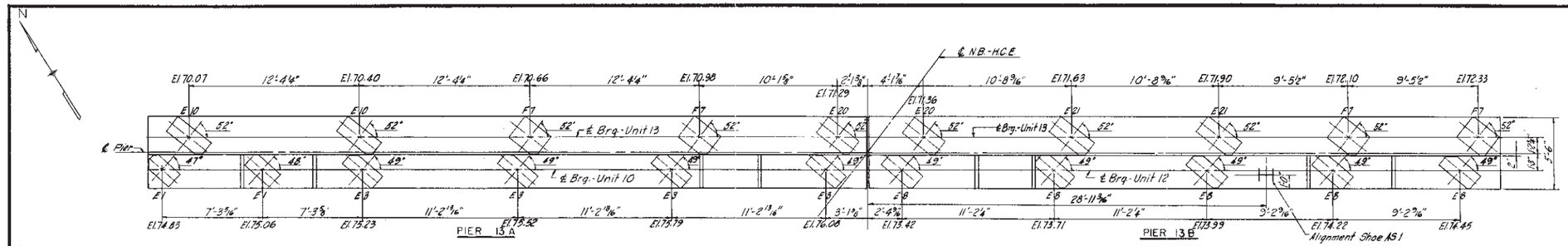
NOTE:
Transite washer & tape wrapping for bolts are to be furnished & placed under superstructure contract.
Anchor bolts are to be furnished by the superstructure contractor, and set in place under this contract.

	BY	DATE				
MADE	E.D.R.	10-5-54				
TRACED	J.T.	12-11-56	2	Pad elevs. Piers 11 & 12	H.H.C.	5-18-55
CHECKED	H.H.C.	2-28-55	1	General changes in Checking	H.H.C.	2-28-55
IN CHARGE OF	F.H.S.		No.	REVISION	BY	DATE

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
SOUTHEAST VIADUCT
SUBSTRUCTURE
PAD DATA - PIERS 9A & B, 10, 11 AND 12

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: ¼" = 1'-0" UNLESS NOTED
CONTRACT NO. N-13
SHEET NO. 31 OF 39



NOTES

Pad elevations given are final pad elevations. Top of pads shall be dressed to true level surfaces at the required elevation by grinding, tooling or rubbing. See Specs.

For pad details see Sh's. 29, 30, 31 & 33

Alignment shoes furnished under Contract 17-14 and placed under this contract. For alignment shoe details see Sh. 35.

For anchor bolt detail, see Sh. 31

All pads 4" and over in height shall be reinforced. For detail of reinforcing, see Sh. 31.

	BY	DATE				
MADE	G.A.S. E.D.R.	11-8-54				
TRACED			2	Pad elev. Pier 14	H.H.C.	5-18-55
CHECKED	H.H.C.	2-28-55	1	General changes in checking.	H.H.C.	2-28-55
IN CHARGE OF	F.H.S.		No.	REVISION	BY	DATE

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

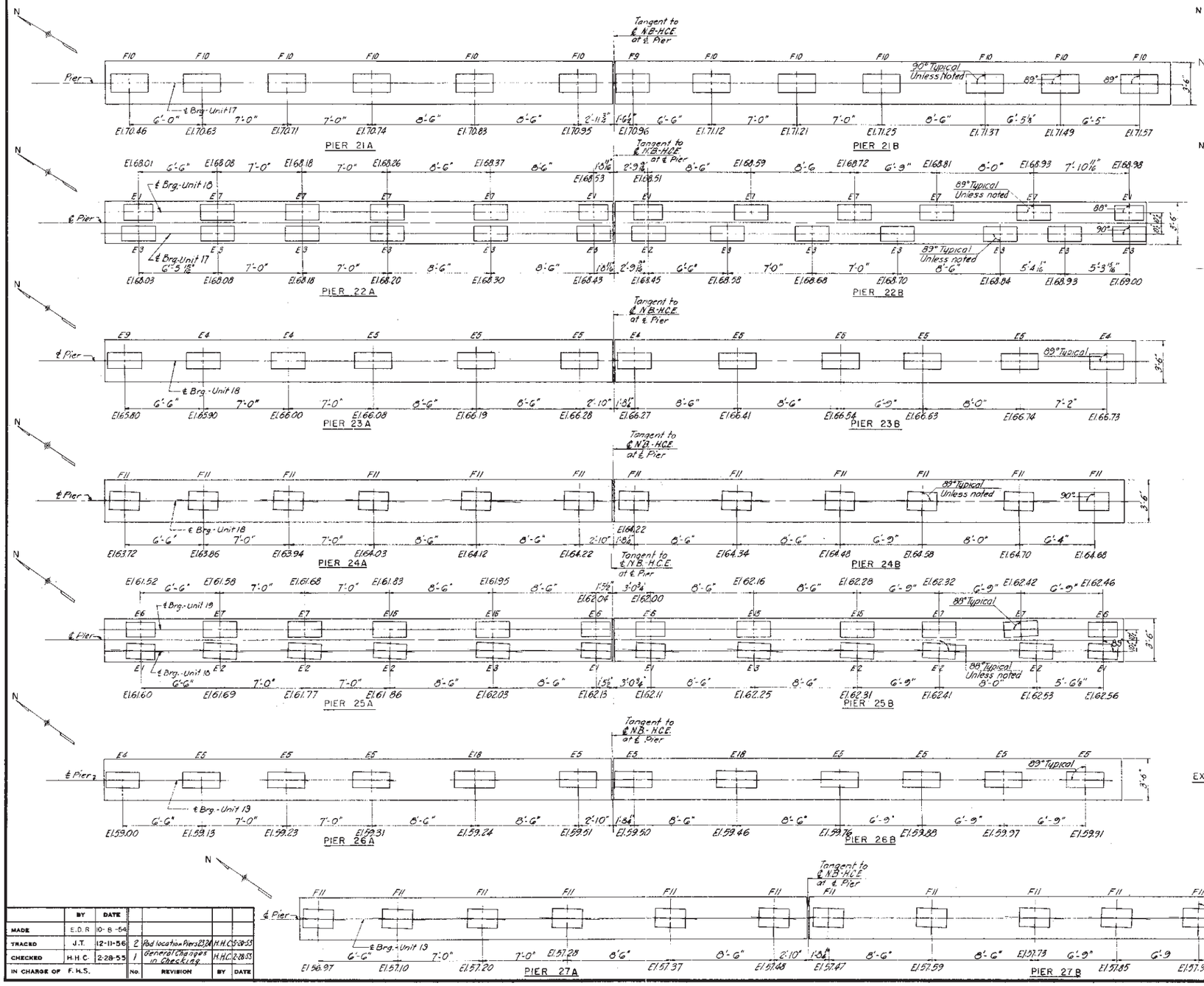
NEWARK BAY-HUDSON COUNTY EXTENSION

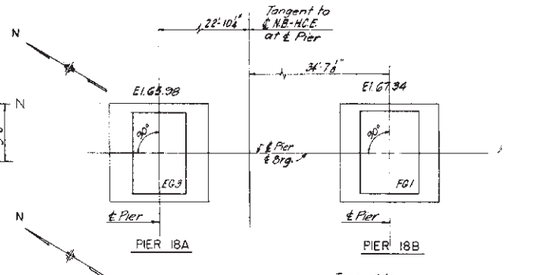
SOUTHEAST VIADUCT
SUBSTRUCTURE

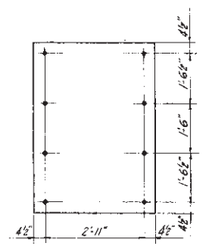
PAD DATA - PIERS 13, 14, 15, 16, 17 AND 20

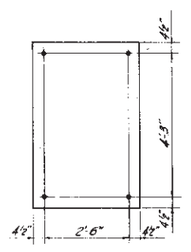
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

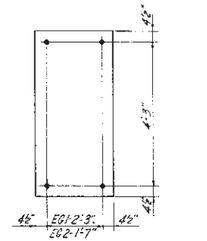
SCALE: ¼"-1'-0"
CONTRACT NO. N-13
SHEET NO. 32 OF 39











NOTES:

Pad elevations given are final pad elevations
Top of pads shall be dressed down to true level surfaces at the required elevation by grinding, tooling or rubbing. See Specs.
For pad details see sheets 29, 30 & 31.
For anchor bolt detail, see Sh. 31.
All pads 4" and over in height shall be reinforced.
For details of reinforcing, see Sh. 31

	BY	DATE
MADE	E.D.R	10-8-54
TRACED	J.T.	12-11-56
CHECKED	H.H.C.	2-28-55
IN CHARGE OF	F.H.S.	

No.	REVISION	BY	DATE
2	Pad location Piers 23A & 24A	H.H.C.	5-28-55
1	General Changes in Checking	H.H.C.	2-28-55

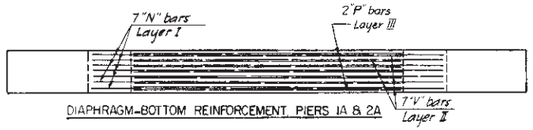
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

SOUTHEAST VIADUCT
SUBSTRUCTURE

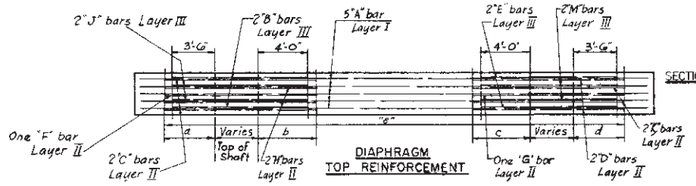
PAD DATA - PIERS 18, 19, AND 21 THROUGH 27

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

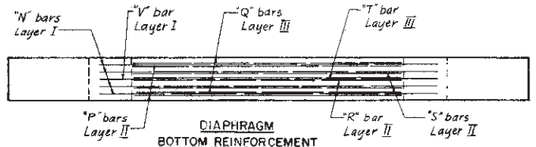
SCALE: 1"=1'-0" UNLESS NOTED
CONTRACT NO. N-13
SHEET NO. 33 OF 39



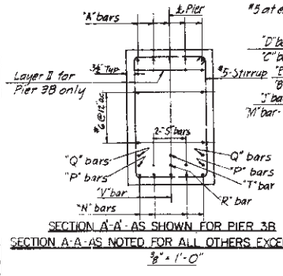
DIAPHRAGM-BOTTOM REINFORCEMENT, PIERS 1A & 2A



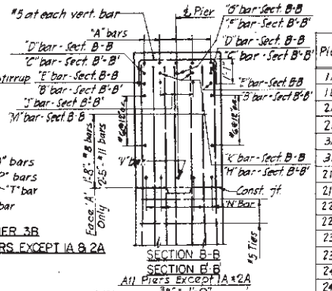
DIAPHRAGM TOP REINFORCEMENT



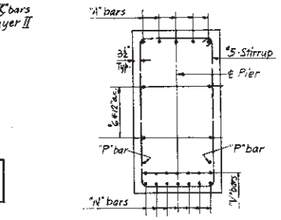
DIAPHRAGM BOTTOM REINFORCEMENT All Piers Except 1A & 2A



SECTION A'-A' AS SHOWN FOR PIER 3B
SECTION A-A AS NOTED FOR ALL OTHERS EXCEPT 1A & 2A
½" = 1'-0"



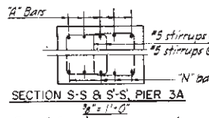
SECTION B-B
SECTION E-E
All Piers Except 1A & 2A
½" = 1'-0"



SECTION C-C - PIERS 1A & 2A
½" = 1'-0"

"N" bars
SECTION b-b, PIERS 1A & 2A
SECTION b'-b', PIERS 1A & 2A
½" = 1'-0"

Parts not shown for Sect. b-b same as for Sect. B-B
Parts not shown for Sect. b'-b' same as for Sect. B'-B'

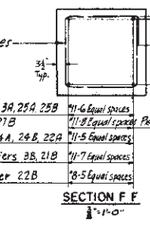


SECTION S-S & S'-S', PIER 3A
½" = 1'-0"

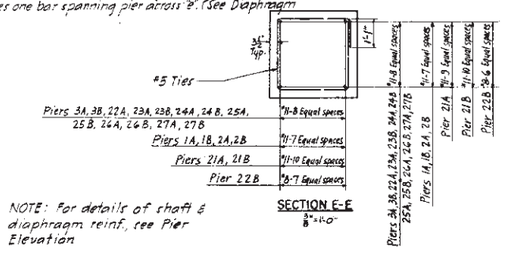
Except for stirrups parts not shown same as Section A-A

Pier	Diaphragm Top Bars - #11 A	B	C	D	E	F	G	H	M	J	K	Cut off dimensions a	b	c	d	Bottom Bars - #11 H	V	P	Q	R	S	T	Vert. Shaft Reinf. Cut off dimensions f	Bottom Bars	Top Bars	Footing Reinf. Bottom Bars W	Y	Top Bars Z
1A	x	x	x	x	x	x	x	x		x	x	Cont.	9'-3"	8'-0"	4'-0"	x	x	x					7'-3"	28"#11	–	24"#11	4"@12"	19"#11	22"#11
1B	x		x	x				x			x	3'-6"	7'-0"	6'-0"	3'-6"	x	x	x					9'-0"	28"#11	–	24"#11	5"@10"	16"#11	9"#11
2A	x	x	x	x	x	x	x	x		x	x	Cont.	9'-3"	8'-0"	4'-0"	x	x	x					6'-9"	28"#11	–	24"#11	5"@10"	20"#11	30"#11
2B	x		x	x				x			x	3'-6"	7'-0"	6'-0"	3'-6"	x	x	x					8'-3"	28"#11	–	24"#11	5"@10"	20"#11	9"#11
3A	x	x	x	x	x	x	x	x	x	x	x	3'-6"	7'-0"	7'-0"	3'-6"	x	x	x	x	x	x	x		32"#11	–	28"#11	See Footing Elevation, Piers 3A & 3B		
3B	x		x	x				x			x	3'-6"	Cont.	Cont.	3'-6"	x								32"#11	–	28"#11			
21A	x		x	x		x		x			x	3'-6"	6'-6"	6'-0"	3'-6"	x	x	x						38"#11	–	30"#11	See Fig. Elev. Pier 21		
21B	x		x	x				x			x	3'-6"	5'-6"	5'-6"	3'-6"	x	x	x	x	x	x			46"#11	–	28"#11			
22A	x		x	x		x	x	x			x	3'-6"	7'-0"	7'-0"	3'-6"	x	x	x						32"#11	28"#11	20"#11	4"@8	17"#11	16"#11
22B	x		x	x								3'-6"	3'-6"	5'-6"	3'-6"	x	x	x						30"#8	22"#8	18"#8	4"@8	17"#11	15"#11
23A	x		x	x		x	x	x			x	3'-6"	7'-0"	7'-0"	3'-6"	x	x	x						36"#11	26"#11	20"#11	4"@8½	18"#11	28"#11
23B	x		x	x		x	x	x			x	3'-6"	7'-0"	7'-0"	3'-6"	x	x	x						32"#11	26"#11	20"#11	4"@8½	16"#11	28"#11
24A	x		x	x		x	x	x			x	3'-6"	7'-0"	7'-0"	3'-6"	x	x	x						32"#11	24"#11	20"#11	4"@11	19"#11	22"#11
24B	x		x	x		x	x	x			x	3'-6"	7'-0"	7'-0"	3'-6"	x	x	x						32"#11	24"#11	20"#11	4"@11	19"#11	22"#11
25A	x		x	x				x			x	3'-6"	6'-0"	6'-0"	3'-6"	x	x	x						32"#11	–	24"#11	4"@8	10"#11	21"#11
25B	x		x	x				x			x	3'-6"	6'-0"	6'-0"	3'-6"	x	x	x						32"#11	–	24"#11	4"@8½	10"#11	17"#11
26A	x		x	x				x			x	3'-6"	6'-0"	6'-0"	3'-6"	x	x	x						32"#11	–	24"#11	5"@8½	15"#11	22"#11
26B	x		x	x				x			x	3'-6"	6'-0"	6'-0"	3'-6"	x	x	x						32"#11	–	24"#11	5"@8½	15"#11	22"#11
27A	x		x	x				x			x	3'-6"	6'-0"	6'-0"	3'-6"	x	x	x						32"#11	–	24"#11	5"@8½	15"#11	22"#11
27B	x		x	x				x			x	3'-6"	6'-0"	6'-0"	3'-6"	x	x	x						32"#11	–	24"#11	5"@8½	15"#11	22"#11

LEGEND:
Cross (x) in bars of type indicated are required in designated pier.
In piers 1A & 2A, "cont" signifies that dimension 'a' extends to outside edge of diaphragm.
In pier 3B, "cont" signifies that bars C & D becomes one bar spanning pier across 'B'. (See Diaphragm "top Reinforcement"). Bars H & K likewise.

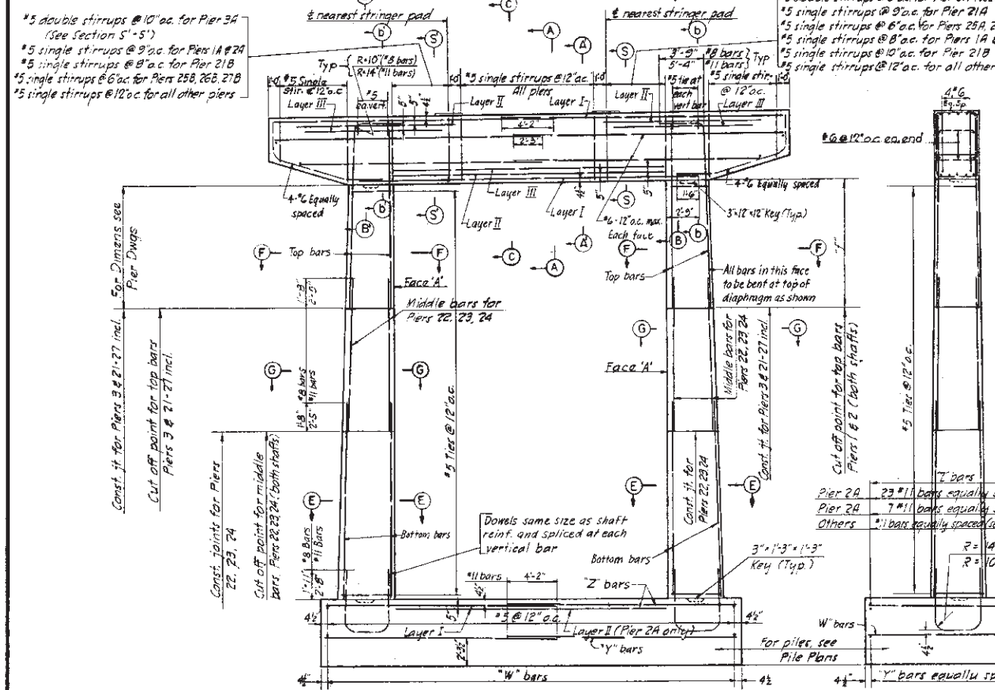


SECTION F-F
1" = 1'-0"



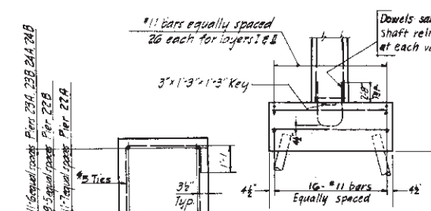
SECTION E-E
3/8" = 1'-0"

NOTE: For details of shaft & diaphragm reinf, see Pier Elevation



PIER ELEVATION
(Looking in direction of increasing stations)
As shown & noted for all piers with exception of footings for Piers 3A, 3B & 21.

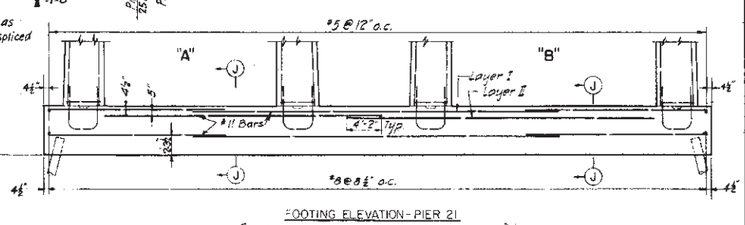
END ELEVATION



SECTION J-J
1" = 1'-0"

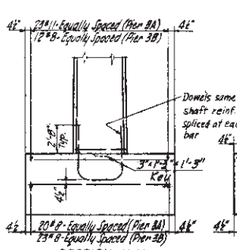
SECTION G-G
½" = 1'-0"

Note:
Layer II steel for top bars in footings (Piers 2A, 3A & 21) to be cut off at face of shaft, as shown in Pier & Footing Elevs.

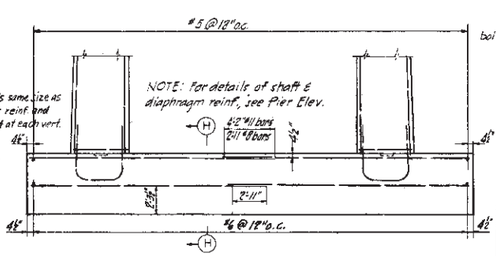


FOOTING ELEVATION - PIER 21
(Looking in direction of increasing stations)
1" = 1'-0"

NOTES
For General Notes, see Sh. No. 2.
For pier dimensions, see Sh. Nos. 17, 24, 25
For pile plans, see Sh. Nos. 26, 27, 28.
For pad locations, details & anchor bolts, see Sh. Nos. 29, 31, 33.
Except for pads, dampproof top of piers 3, 22, 25
Reinforcing in top of diaphragms shall be spaced to pass anchor bolts, maintaining minimum spacing requirements.



SECTION H-H



FOOTING ELEVATION PIERS 3A & 3B
(Looking in direction of increasing stations)

	BY	DATE
MADE	T.N.	11-6-54
TRACED		
CHECKED	J. B.	2-8-55
IN CHARGE OF	F.H.S.	

No.	REVISION	BY	DATE
2	Changed footings Piers 3A & 3B	H.M.C.	8-10-55
1	General changes in checking	J.B.	7-8-55

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
SOUTHEAST VIADUCT
SUBSTRUCTURE
PIER DETAILS - PIERS 1 TO 3 & 21 TO 27

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1/4"=1'-0" Unless Noted
CONTRACT NO. N-13
SHEET NO. 34 OF 39

Pier	W	BRACKET A* No. Req'd	BRACKET B* No. Req'd	BRACKET C* No. Req'd	BRACKET Stirrup Spacing	FOOTING Dimensions Lgth, Width, Depth	FOOTING D bars Size	FOOTING D bars No. Req'd	FOOTING E bars Size	FOOTING E bars Spacing	FOOTING F bars Size	FOOTING F bars Spacing	WIDTH OF KEYS
D2	3'-9"	5	2	-	12" o.c.	36'-0", 9'-0", 5'-0"	#6	11	#6	10" o.c.	-	-	15"
D3	4'-0"	5	2	-	"	35'-0", 12'-0", 5'-6"	#8	14	#8	10" o.c.	-	-	6"
4A	4'-6"	6	2	2	"	64'-0", 18'-0", 3'-0"	#8	21	#11	9½" o.c.	#11	9½" o.c.	18"
4B	"	6	2	2	"	45'-0", 18'-0", 3'-0"	#8	21	#11	9½" o.c.	#11	9½" o.c.	18"
D4	"	6	2	-	"	42'-0", 16'-0", 3'-0"	#8	13	#8	10" o.c.	-	-	18"
5A	4'-8"	6	2	2	"	60'-0", 10'-0", 3'-0"	#6	11	#8	7" o.c.	#8	7" o.c.	19"
5B	"	6	2	2	"	45'-0", 10'-0", 3'-0"	#6	11	#8	7" o.c.	#8	7" o.c.	19"
D5	"	6	2	2	9" o.c.	34'-0", 10'-0", 3'-0"	#6	10	#8	7" o.c.	-	-	19"
6A	4'-6"	6	2	-	12" o.c.	62'-0", 8'-0", 3'-0"	#8	13	#8	12" o.c.	#8	16" o.c.	18"
6B	"	6	2	-	"	50'-0", 8'-0", 3'-0"	#8	13	#8	12" o.c.	#8	16" o.c.	18"
D6	"	6	-	-	"	34'-0", 8'-0", 3'-0"	#6	9	#6	8" o.c.	-	-	18"
7C	3'-6"	5	2	3	8" o.c.	34'-0", 8'-0", 3'-0"	#6	8	#6	9" o.c.	-	-	See Detail

* A, B & C are #11 bars

SECTION A-A

END ELEVATION
Pier 7C

END DETAIL
Pier 7C

ELEVATION OF FOOTING
- Piers D2 & D3

ELEVATION
Piers D2, D3, D4, D5, D6 & 7C

SECTION B-B

SECTION C-C
Piers D2, D3 & 7C
For no. of A, B & C bars, see Table.

SECTION C-C
Piers D4, D5 & D6

SECTION D-D

DETAIL A
Half Scale

SECTION E-E
For details not shown see Section F-F

ELEVATION
Piers 4A, 5A & 6A as shown.
Piers 4B, 5B & 6B opp. hand except for slope of top of pier.

SECTION F-F

PLAN

PLAN

DETAILS AT ALIGNMENT SHOE
½" = 1'-0"

Piers D4, D5, 5A, 5B, 6A, 6B, 8C, 10C, 11A, 14A & 14B

Piers 13B, 13C, 14A & 14B

Note:
Alignment shoes to be insulated from adjacent reinforcing steel. Contractor to furnish details for approval.

Note:
12 WF Alignment shoes furnished by others, and installed under this contract to elevation specified by Superstructure Contractor.

NOTES

For General Notes see Sh. 2.
Pier elevations shown are in direction of increasing stations.
For pier dimensions see Shs. 17, 18 & 19
For pile plan of D2 see Sh No. 26
For location of pads, alignment shoes & anchor bolts, see Shs. 30.
Dampproof, except pads, the tops of Piers D2 to D6, & 4 to 6
Reinforcing in top of diaphragm shall be spaced to pass anchor bolts, maintaining minimum spacing requirements.

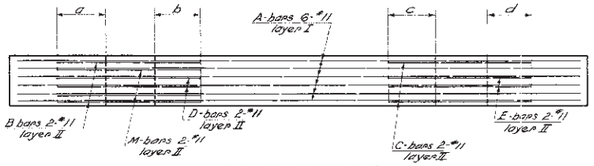
	BY	DATE
MADE	J.R.	10-22-54
TRACED		
CHECKED	N.C.M.	2-7-55
IN CHARGE OF	F.H.S.	

No.	REVISION	BY	DATE
3	Changed Pier D3 Fty.	H.H.C.	3-3-55
2	Checked alignment, show details	H.H.C.	3-2-55
1	General changes in checking	V.C.M.	2-7-55

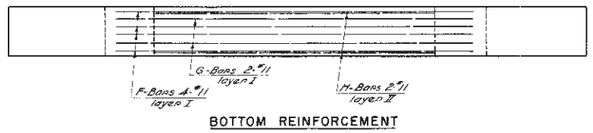
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
SOUTHEAST VIADUCT
SUBSTRUCTURE
PIER DETAILS PIERS D2 TO DC 4 TO 6 & 7C

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1/8" = 1'-0" Unless Noted
CONTRACT NO. N-13
SHEET NO. 35 OF 39

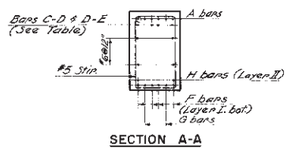


TOP REINFORCEMENT

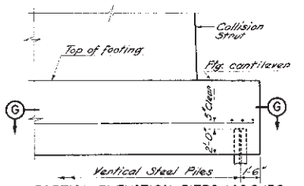


BOTTOM REINFORCEMENT

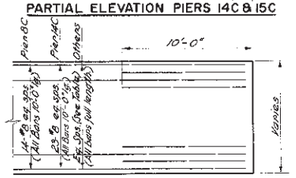
Note:
One Splice will be permitted in Bars over 30 ft. long.



SECTION A-A

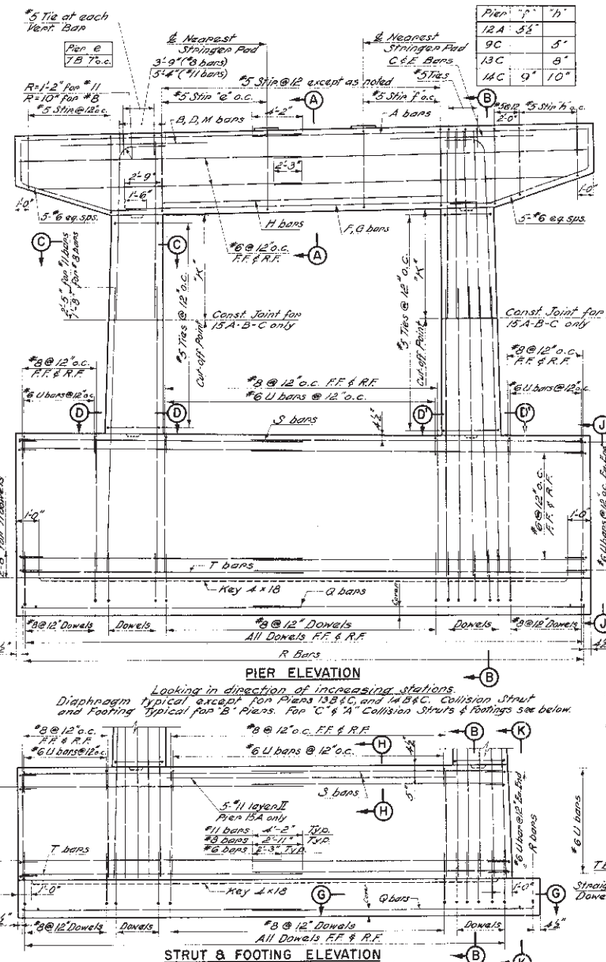


PARTIAL ELEVATION PIERS 14C & 15C



SECTION G-G

Type of Ftg.	Reinf. Cover on Conc.	Pile Emb.
Soil Brg.	4"	-
Rock Brg.	6"	-
Steel Piles	5"	2'-0"

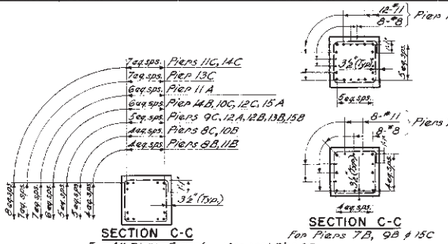


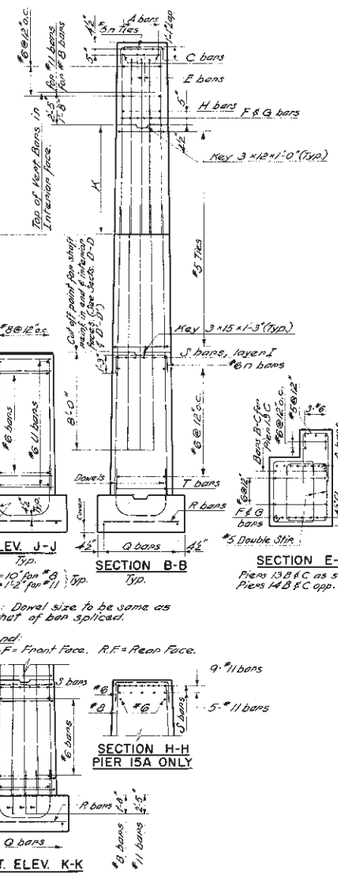
PIER ELEVATION

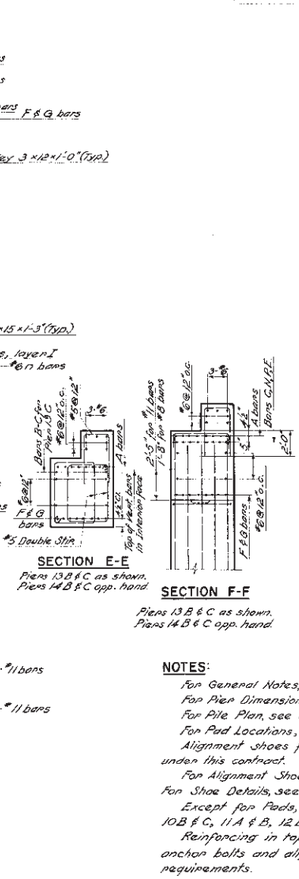
Diaphragm typical except for Piers 13B & C, and 14B & C. Collision Strut and Footing typical for "B" Piers. For "C" & "A" Collision Struts & Footings see below.

STRUT & FOOTING ELEVATION

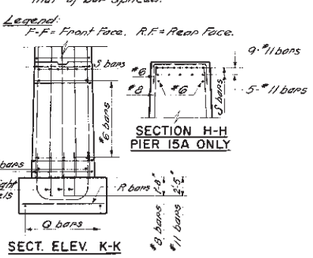
"C" Piers 8 to 13 incl. as shown. Piers 11A, 12A & 15A opp. hand. Piers 14 C & 15 C as shown, except as modified by Piles. (See Partial Elevation Piers 14C & 15C.)

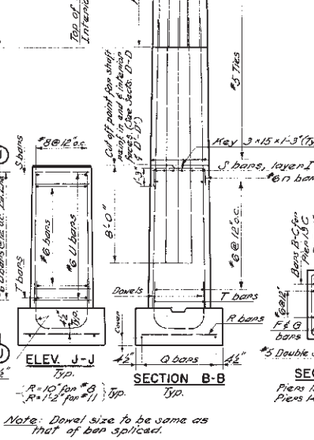






Note: Dowel size to be same as that of bar spliced.





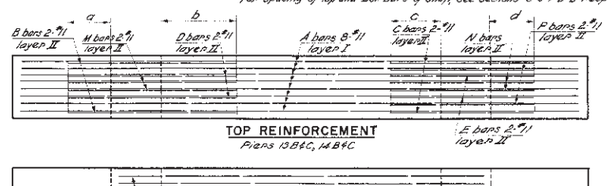
Notes:
In Piers 9C, 10C, 11C, 12C & 13C (Cont.) signifies that bars B & C become one bar.
Spanning Pier Bars D & E likewise for Piers 9C & 11C.
In Pier 14C (Cont.) signifies that dimension 'd' extend to outside edge of diaphragm.
"X" = Bars of type indicated are required in designated Pier.

DIAPHRAGM

Pier	Top bars A	Top bars B&C	Top bars D&E	Top bars M,N,P	Cut off dimensions a	b	c	d	Bottom bars F	G	H
7B	x	x	E only		3'-6"	3'-6"	4'-6"	4'-0"	x	x	x
8B	x	x	E only		3'-6"	3'-6"	4'-6"	3'-6"	x	x	
8C	x								x		
9B	x	x	E only		3'-6"	4'-0"	5'-6"	4'-0"	x	x	
9C	x	x	x		3'-6"	Cont.	Cont.	4'-0"	x		
10B	x	x	E only		3'-6"	3'-6"	4'-0"	4'-0"	x		
10C	x	x	D only		3'-6"	5'-0"	Cont.	3'-6"	x		
11A	x	x			3'-6"	5'-0"	3'-6"	3'-6"	x	x	x
11B	x	x	E only		3'-6"	3'-6"	4'-0"	4'-0"	x	x	
11C	x	x	x	M only	5'-0"	4'-0"	Cont.	3'-6"	x		
12A	x	x	x		4'-0"	4'-0"	4'-0"	3'-6"	x	x	
12B	x	x			3'-6"	3'-6"	4'-0"	3'-6"	x	x	
12C	x	x	E only		3'-6"	Cont.	3'-6"	3'-6"	x		
13B	x	x	x		3'-6"	4'-0"	4'-0"	3'-6"	x	x	
13C	x	x	E only	N & P	3'-6"	Cont.	6'-0"	4'-0"	x	x	
14B	x	Body			3'-6"	4'-0"			x	x	
14C	x	x	E only	N & P	3'-6"	4'-0"	5'-0"	Cont.	x	x	
15A	x	x	x	M only	3'-6"	6'-0"	4'-0"	3'-6"	x	x	x
15B	x								x		
15C	x								x		

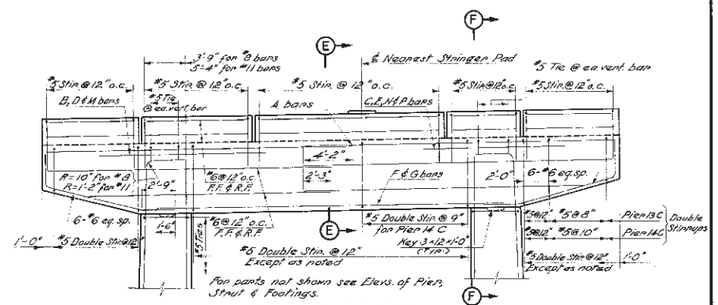
SHAFT Bot.*	FOOTING Top*	k	Bottom	COLLISION STRUT Top	Bot
			Cut off Dimen. Q bars	R bars	S bars	T bars
16-#11	8-#11 / 8-#8	7'-9"	8-#6	@12	6-#8	6-#8
16-#8	16-#8	9'-0"	12-#6	@10	5-#8	7-#8
18-#8	18-#8	6'-0"	14-#6	@9½	6-#8	5-#8
32-#8	8-#11 / 8-#8	10'-0"	7-#6	@12	7-#8	7-#11
20-#11	20-#11	10'-6"	10-#6	@12	7-#8	6-#11
22-#8	18-#8	12'-9"	7-#6	@12	5-#8	5-#11
24-#8	24-#8	14'-0"	7-#6	@12	6-#8	9-#8
34-#8	26-#8	15'-6"	7-#6	@12	9-#11	7-#8
16-#8	16-#8	16'-6"	7-#6	@12	8-#8	8-#8
34-#11	30-#11	16'-0"	9-#6	@11	7-#8	5-#11
24-#8	20-#8	9'-9"	7-#6	@12	8-#11	6-#8
20-#8	20-#8	10'-0"	9-#6	@12	5-#11	5-#11
28-#11	24-#11	11'-0"	9-#6	@9½	7-#8	5-#11
28-#11	20-#11	9'-6"	8-#6	@12	6-#11	6-#11
44-#11	28-#11	5'-9"	13-#6	@6	6-#11	6-#11
28-#8	24-#8	11'-9"	9-#6	@12	5-#11	5-#11
38-#11	30-#11	16'-0"	23-#6	@8½	9-#11	5-#8
40-#11	24-#11	11'-6"	9-#6	@9	14-#11	5-#8
24-#8	20-#8	15'-0"	9-#6	@12	5-#8	5-#8
20-#11	12-#11 / 8-#8	15'-6"	9-#6	@12	6-#11	5-#8

Note:
* Fan spacing of Top and Bot bars of shaft see Sections C-C & D-D respectively



TOP REINFORCEMENT
Piers 13B&C, 14B&C

BOTTOM REINFORCEMENT
Piers 13B & C, 14B&C



DIAPHRAGM ELEVATION
Piers 13B & C - As Shown
Piers 14B & C - Opp. Hand.
Looking in Direction of Increasing Stations.

NOTES:
For General Notes, see Sh. 2.
For Pier Dimensions, see Shts. 17 to 25.
For Pile Plan, see Shts. 26 to 28.
For Pad Locations, Details & Anchor Bolts, see Shts. 29 to 33.
Alignment shoes furnished under Contract N-14 to be placed under this contract.
For Alignment Shoe Locations, see Pad Data Shts. 29 to 33.
For Shoe Details, see Sh. 30 Contract N-14.
Except for Pads, damp proof top of Piers 7B, 8B & C, 10B & C, 11A & B, 12B & C, 13B & C, 14B & C, 15A, B & C.
Reinforcing in top of diaphragms shall be spaced to pass anchor bolts and alignment shoes, maintaining min. spacing requirements.

BY	DATE				
MADE	F. C. V.	11-12-54			
TRACED	G. S.	8-4-55	2	Completed Checking Key Dowels in Footings	J. B. 2-15-55
CHECKED	J. B.	2-11-55	1	General Changes in Checking	J. B. 2-11-55
IN CHARGE OF	F. H. S.		No.	REVISION	BY DATE

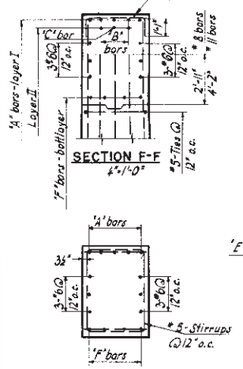
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
SOUTHEAST VIADUCT
SUBSTRUCTURE
PIER DETAILS - PIERS 7B, 8B & C, 9B & C, 10B & C, 11A, B & C, 12A, B & C, 13B & C, 14B & C, 15A, B & C

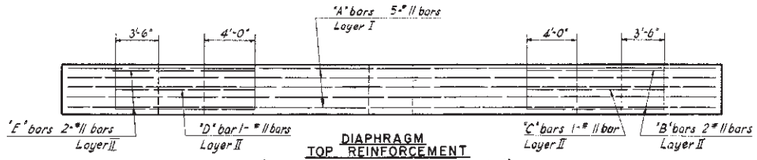
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

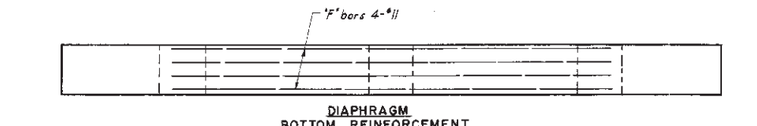
SCALE: 3/16" = 1'-0"
CONTRACT NO. N-13
SHEET NO. 36 OF 39

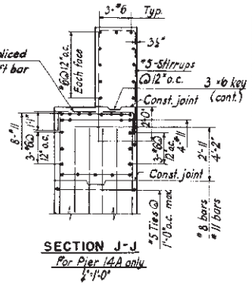
DIAPHRAGM							SHAFT			FOOTING		COLLISION STRUT		
	Top bars					Bottom bar	Bottom bars		Top bars			Top bars		Bot. bars
PIER	A	B	C	D	E	F	No. bars	No. bars	No. bars	No. bars	No. bars	Bottom bars		
							Shaft 1	Shaft 2	Shaft 3	Shaft 1	Shaft 3	G	H	J	K	M
7A	x	x			x	x	28-#11	16-#8	28-#11	28-#11	16-#8	28-#11	8-#6	55-#6	5-#11	5-#11
8A	x	x			x	x	28-#11	16-#8	28-#11	28-#11	16-#8	28-#11	7-#6	51-#6	6-#11	5-#11
9A	x	x	x	x	x	x	28-#11	14-#8	28-#11	24-#11	14-#8	24-#11	7-#6	47-#6	9-#11	2-#11	11-#11
10A	x	x			x	x	16-#8	14-#8	16-#8	16-#8	14-#8	16-#8	7-#6	45-#6	7-#11		7-#8
14A	Diaphragm reinf. noted in details for Pier 14A						26-#11	18-#8	26-#11	18-#11	18-#8	18-#11	14-#8	40-#8	9-#11	4-#11	7-#11

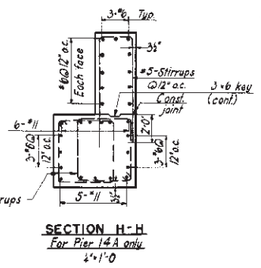
Note:-
Cross (x) indicates where bars are used in diaphragm.
For spacing of bottom Shaft reinf. see section B-B.
" " " top " " " " C-C.
" " " shaft 2 reinf. see Section D-D.

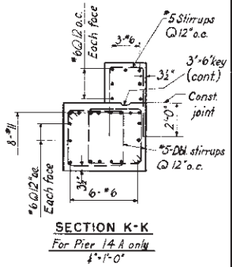


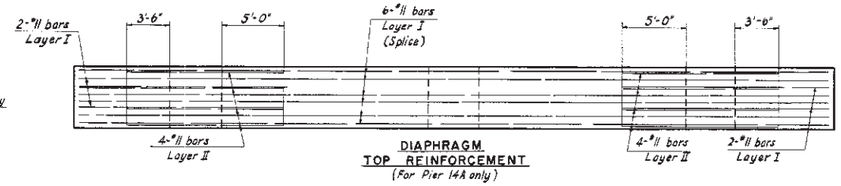


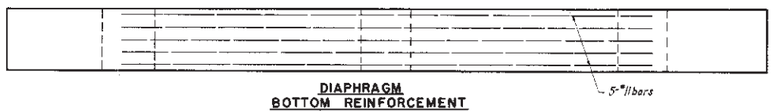


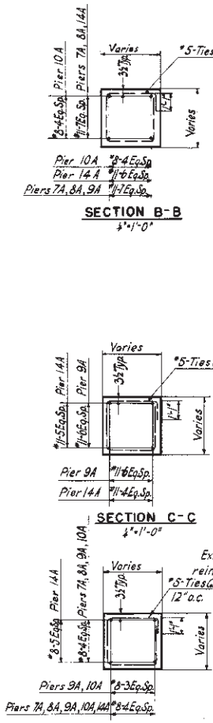


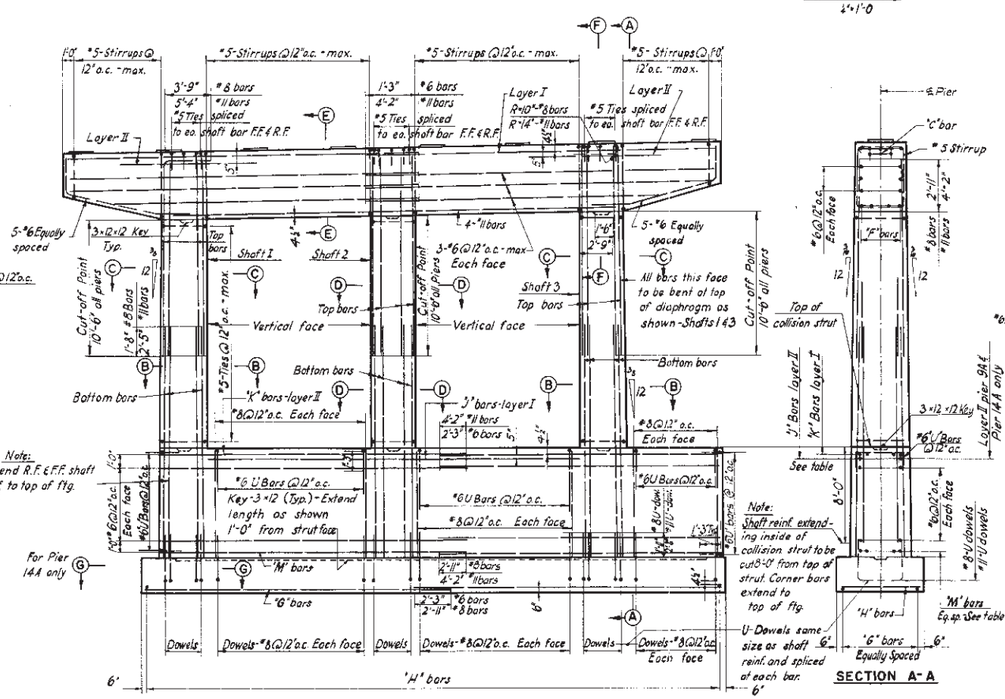


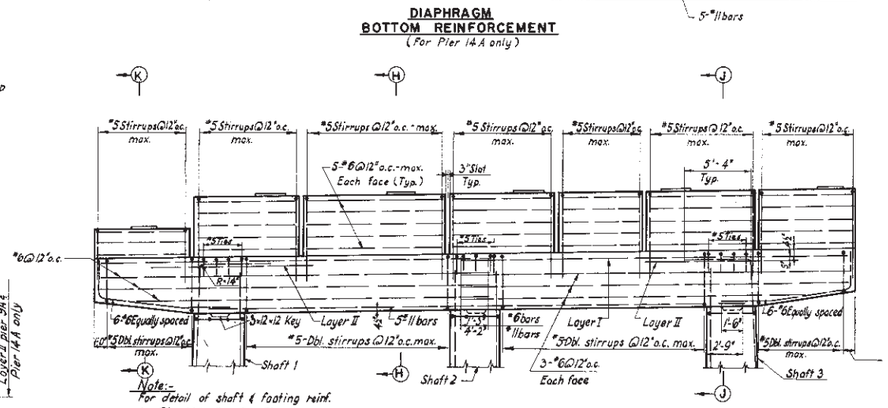


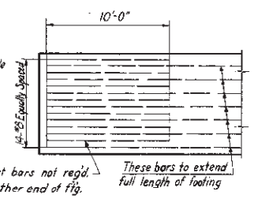












NOTES:
For General Notes see Sh. 2.
For pier dimensions see Shs. 19, 20 & 22.
For pad locations, details & anchor bolts see Shs. 30, 31, 32.
Reinforcing in top of diaphragm shall be spaced to pass anchor bolts, maintaining minimum spacing requirements.
Dampproof top of piers that have expansion joints in deck, except pads.

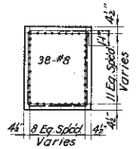
	BY	DATE			
MADE	T.N.	10-29-54			
TRACED	R.A.	7-22-55			
CHECKED	T.W.L.	2-8-55	1	General changes in checking	T.W.L. 2-8-55
IN CHARGE OF F.H.S.			No.	REVISION	BY DATE

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
SOUTHEAST VIADUCT
SUBSTRUCTURE
PIER DETAILS
PIERS 7A, 8A, 9A, 10A & 14A

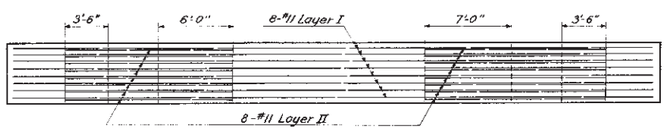
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 3/16" = 1'-0" & As Noted
CONTRACT NO. N-13
SHEET NO. 37 OF 39

Pier & Ftg.	Clearance c_1	Clearance c_2	Ftg. Reinforcement N	Ftg. Reinforcement M	Shaft f	Shaft s	Shaft Reinforcement Top	Shaft Reinforcement Middle	Shaft Reinforcement Bottom	Cut-off a	Cut-off b
16A	2'-5"		#8 @ 7½" o.c.	#8 @ 8½" o.c.	7'-0"	6'-0"	22-#8	28-#11	40-#11	10'-0"	22'-0"
16B		7½"	#8 @ 18" "	#8 @ 11½" "	7'-0"	6'-0"	22-#8	36-#8	36-#8	16'-0"	32'-0"
17A		6½"	#5 @ 12" "	#6 @ 12" "	6'-0"	6'-0"	20-#8	—	20-#8	16'-0"	
17B		2'-3½"	#8 @ 6½" "	#8 @ 6" "	6'-0"	6'-0"	20-#8	—	36-#8	16'-0"	
17C	2'-5½"		#8 @ 10½" "	#8 @ 6½" "	6'-0"	6'-0"	20-#8	—	20-#8	16'-0"	
18A		7½"	#8 @ 8" "	#8 @ 7" "	6'-0"	6'-0"	20-#8	36-#8	36-#8	16'-0"	32'-0"
18B		2'-3½"	#11 @ 10½" "	#11 @ 10½" "	6'-0"	6'-0"	20-#8	28-#11	36-#11	9'-0"	20'-0"
19A		2'-3½"	#6 @ 16" "	#6 @ 9⅝" "	6'-0"	6'-0"	20-#8	—	20-#8	16'-0"	—
19B		2'-3½"	#11 @ 12" "	#11 @ 8½" "	6'-0"	6'-0"	20-#8	—	36-#8	16'-0"	
19C		2'-3½"	#5 @ 6½" "	#5 @ 7⅛" "	6'-0"	6'-0"	20-#8	—	20-#8	16'-0"	
20A		2'-3½"	#8 @ 12" "	#9 @ 6½" "	6'-0"	6'-0"	20-#8	—	20-#8	16'-0"	
20B	2'-3½"		#11 @ 6" "	#11 @ 6" "	6'-0"	6'-0"	20-#8	36-#11	48-#11	7'-0"	19'-0"
20C		2'-3½"	#8 @ 7½" "	#9 @ 11" "	6'-0"	6'-0"	20-#8	—	20-#8	16'-0"	

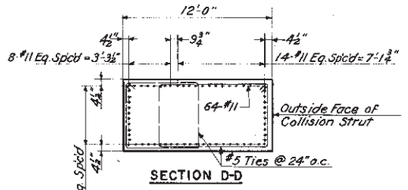


SECTION E E
1" = 1'-0"

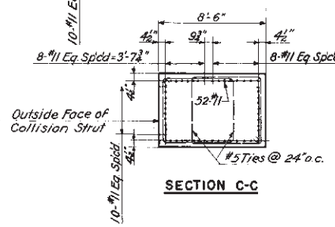


DIAPHRAGM - TOP REINFORCEMENT

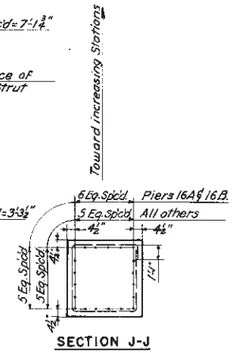
DIAPHRAGM - BOTTOM REINFORCEMENT



SECTION D-D



SECTION C-C



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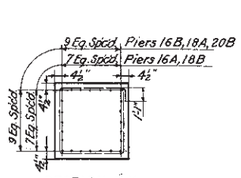
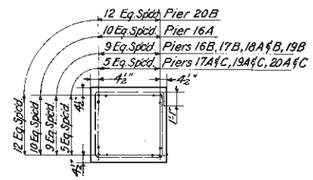
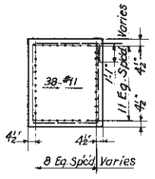


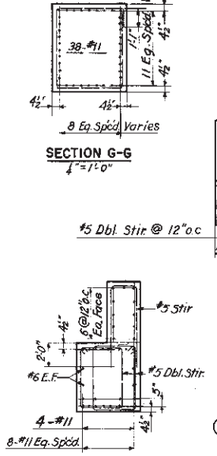
SECTION K-K



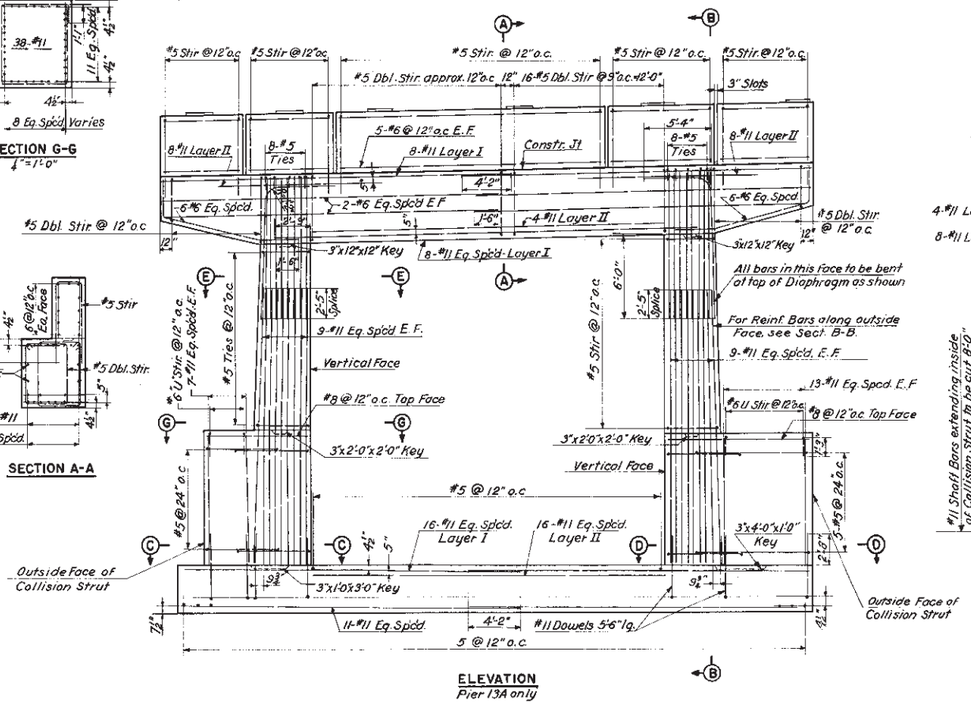
SECTION L-L



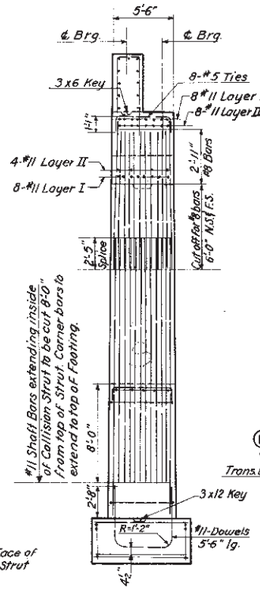
SECTION G-G
1" = 1'-0"



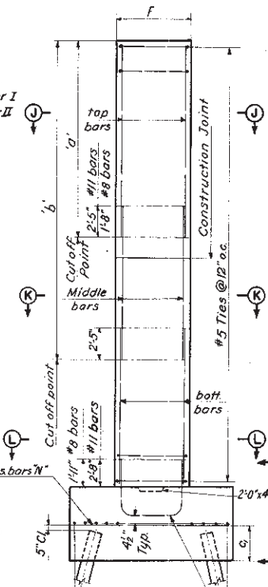
SECTION A-A



ELEVATION
Pier 13A only

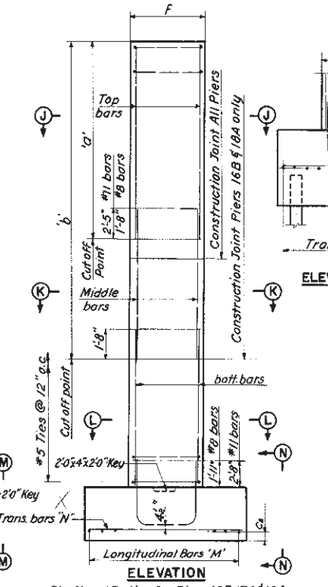


SECTION B-B

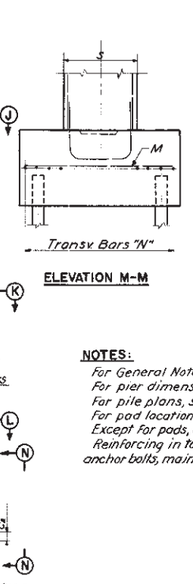


ELEVATION
Shaft and Footing for Piers 16A, 17C & 20B

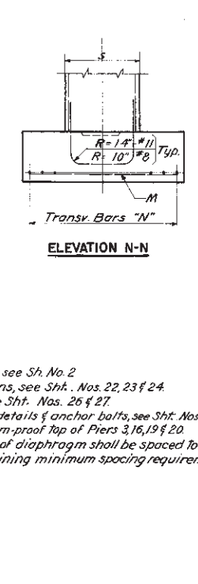
Note: U dowels same size as shaft reinf & spliced to each vertical bar



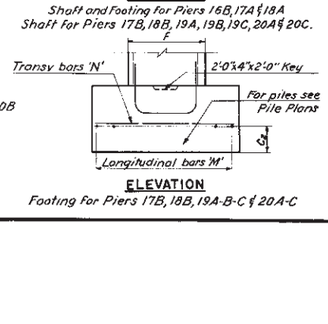
ELEVATION
Shaft and Footing for Piers 16B, 17A & 18A
Shaft for Piers 17B, 18B, 19A, 19B, 19C, 20A & 20C.



ELEVATION M-M



ELEVATION N-N



ELEVATION
Footing for Piers 17B, 18B, 19A-B-C & 20A-C

NOTES:

For General Notes, see Sh. No. 2
For pier dimensions, see Sht. Nos. 22, 23 & 24.
For pile plans, see Sht. Nos. 26 & 27.
For pad locations, details & anchor bolts, see Sht. Nos. 32 & 33.
Except for pads, dam-proof Top of Piers 3, 16, 19 & 20.
Reinforcing in top of diaphragm shall be spaced to pass anchor bolts, maintaining minimum spacing requirements.

	BY	DATE	No.	REVISION	BY	DATE
MADE	F.C.V.	10-22-54	3	Rev. Dowels in Footing Pier 13A	J.B.	2-15-55
TRACED	A.C.B.	7-5-55	2	Checked Pier 13A	T.W.L.	2-9-55
CHECKED	J.B.	1-26-55	1	General changes in checking	J.B.	1-27-55
IN CHARGE OF	F.H.S.					

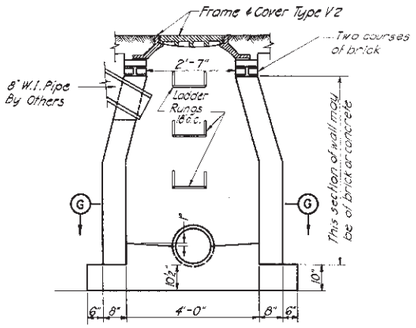
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

SOUTHEAST VIADUCT
SUBSTRUCTURE

PIER DETAILS - PIERS 13A & 16 TO 20

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

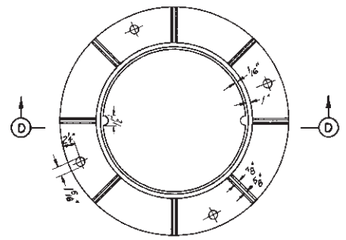
SCALE 3/16" = 1'-0" Unless Noted
CONTRACT NO. N-13
SHEET NO. 38 OF 39

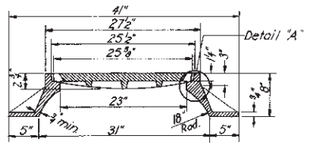


SECTION G-G

MANHOLE TYPE MI

½"=1'-0"





SECTION D-D

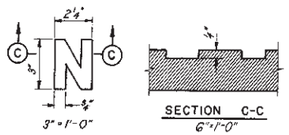
Weight of Frame 312#
Weight of Cover 186#

MANHOLE FRAME AND COVER TYPE V2

1"=1'-0"

Notes:

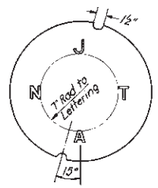
Insertion of 8" W.I. downspout and grouting of hole to be done by others.
Manhole frame and cover Type V2 to be cast iron ASTM A48-48, Class No. 30.



DETAIL OF LETTERING

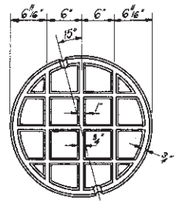
SECTION C-C

6"=1'-0"



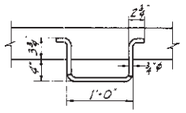
MARKING OF COVER FOR TYPE V2

1"=1'-0"

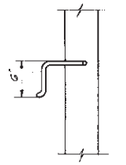


UNDERSIDE OF COVER TYPE V2

1"=1'-0"



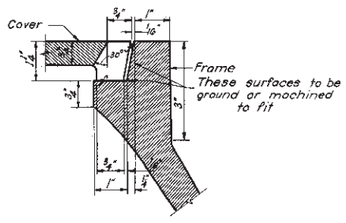
PLAN



SIDE ELEVATION

LADDER RUNG DETAILS

1"=1'-0"



DETAIL "A"

6"=1'-0"

STRUCTURE			INV. ELEV.			DESCRIPTION				CONNECTED TO			PIPE LENGTH								REMARKS
Sheet	Station	Offset	MH	D.I.	Other	Apx. of Pav't.	Depth of Struct.	Type of Struct.	Type of Head	Station	Offset	Inv. Elev.	15"	18"	24"						
3	H.C.E. 212+06	46L	39.30			43.0±	3.7±	M1	V2	H.C.E. 211+60	6R	38.60	70								
	H.C.E. 211+60	6R	38.35			42.3±	4.0±	M1	V2	H.C.E. 212+19	128.8R	37.67		136							
	H.C.E. 212+19	128.8R	37.67			42.2±	4.5±	M1	V2	H.C.E. 212+49	135R			31							Build M.H. around existing 10" Drain. Invert to be determined by field condition
	H.C.E. 212+49	135R						M1	V2												
	H.C.E. 213+79	1R	35.50			39.5±	4.0±	M1	V2	H.C.E. 213+34	42L	35.09	63								
	H.C.E. 213+34	42L	35.09			41.6±	6.5±	M1	V2	H.C.E. 213+95	43L	34.69	61								
	H.C.E. 214+54	32R	34.13			38.0±	3.3±	M1	V2	H.C.E. 214+31	2R	34.48	38								
	H.C.E. 214+31	2R	34.48			39.0±	4.5±	M1	V2	H.C.E. 213+95	43L	34.11	57								
	H.C.E. 213+95	43L	33.86			41.0±	7.1±	M1	V2	H.C.E. 215+09	34L	33.28		115							
4	H.C.E. 215+09	34L	33.28			33.0±	5.7±	M1	V2	H.C.E. 217+47	45L	32.08		239							Connect to M.H. to be built by others.

GENERAL NOTES:

Offsets are to the right (R) or to the left (L) from the ℄ of Roadway in the direction of the stationing.

All pipes to be Standard Strength Reinforced Concrete Pipe, unless otherwise noted.

Galvanized W.I. Ladder Rungs will be provided in all Manholes over 4 Ft. deep.

All joints to be pointed full and flush.

Pipes may run at right angles to direction shown for all types. Consult plans for actual direction.

Manhole frames to be set in a full bed of stiff mortar.

Those portions of manhole frames which are to be in contact with earth shall receive a heavy coat of asphalt paint immediately after erection.

	BY	DATE			
MADE	I. M.	10-22-54			
TRACED	J. T.	10-25-54			
CHECKED	S.R.S.	11-3-54	1 General Revisions	R.L.G	2-17-55
IN CHARGE OF	F.H.S.		No. REVISION	BY	DATE

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

SOUTHEAST VIADUCT
SUBSTRUCTURE
DRAINAGE DETAILS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: As Noted
CONTRACT NO. N-13
SHEET NO. 39 OF 39

APPENDIX I: 1954 HUDSON BOULEVARD TO GARFIELD AVENUE BRIDGE STRUCTURE AS-BUILT PLANS

NEW JERSEY TURNPIKE AUTHORITY

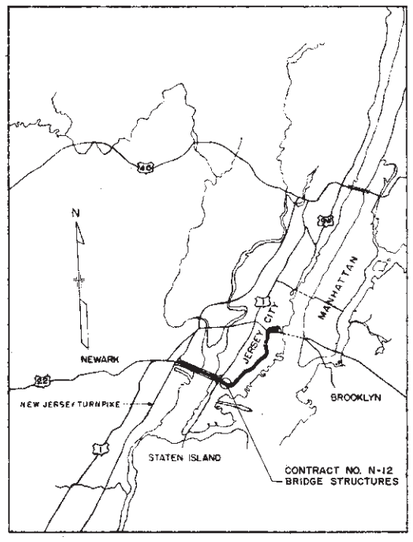
PAUL L. TROAST, CHAIRMAN — MAXWELL LESTER, JR., TREASURER — JOSEPH MORECRAFT, JR.

NEW JERSEY TURNPIKE
NEWARK BAY–
HUDSON COUNTY EXTENSION

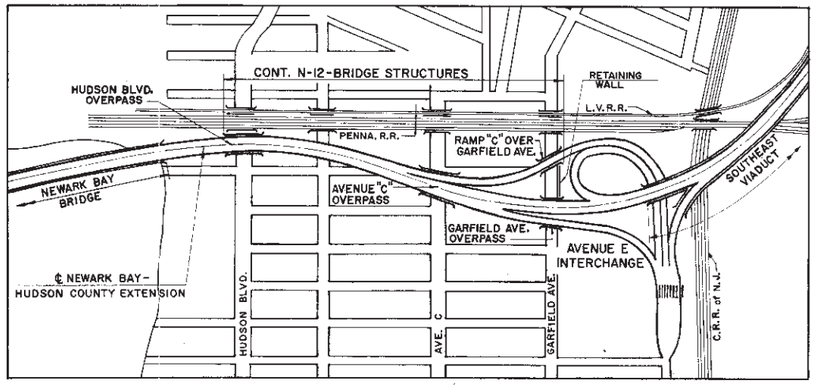
HUDSON BOULEVARD TO GARFIELD AVENUE

BRIDGE STRUCTURES

CONTRACT NO. N-12



KEY PLAN



PROJECT PLAN

INDEX OF DRAWINGS

DWG. NO.	DESCRIPTION
1	TITLE SHEET
2	LOCATION PLAN
3-8	LOG OF BORINGS
	HUDSON BOULEVARD OVERPASS
9	GENERAL PLAN AND ELEVATION
10; 10A;10B	EAST AND WEST ABUTMENTS
11	ABUTMENT DETAILS
12	PIERS 1 AND 2
13	FRAMING PLAN AND CROSS SECTIONS
14	EXPANSION JOINTS
15	DRAINAGE DETAILS AT EAST ABUTMENT
	AVENUE "C" OVERPASS
16	GENERAL PLAN AND ELEVATION
17	ABUTMENTS
18	WINGWALLS & PILE PLANS
19	FRAMING PLAN AND CROSS SECTION
20	EXPANSION JOINTS
	RAMP "C" BRIDGE OVER GARFIELD AVENUE
21	GENERAL PLAN AND ELEVATION
22	EAST & WEST ABUTMENTS
23	WINGWALLS
24	FRAMING PLAN AND CROSS SECTION
	GARFIELD AVENUE OVERPASS
25	GENERAL PLAN AND ELEVATION
26;26R	WEST ABUTMENT
27;27R	EAST ABUTMENT
28;28R	WINGWALLS
29	FRAMING PLAN AND CROSS SECTION
30	EXPANSION JOINTS
31	DRAINAGE DETAILS AT ABUTMENTS
32	RETAINING WALL - EAST SIDE OF GARFIELD AVE.
33	SPLICES
34	SHOES
35	HANDRAIL & ELECTRICAL DETAILS

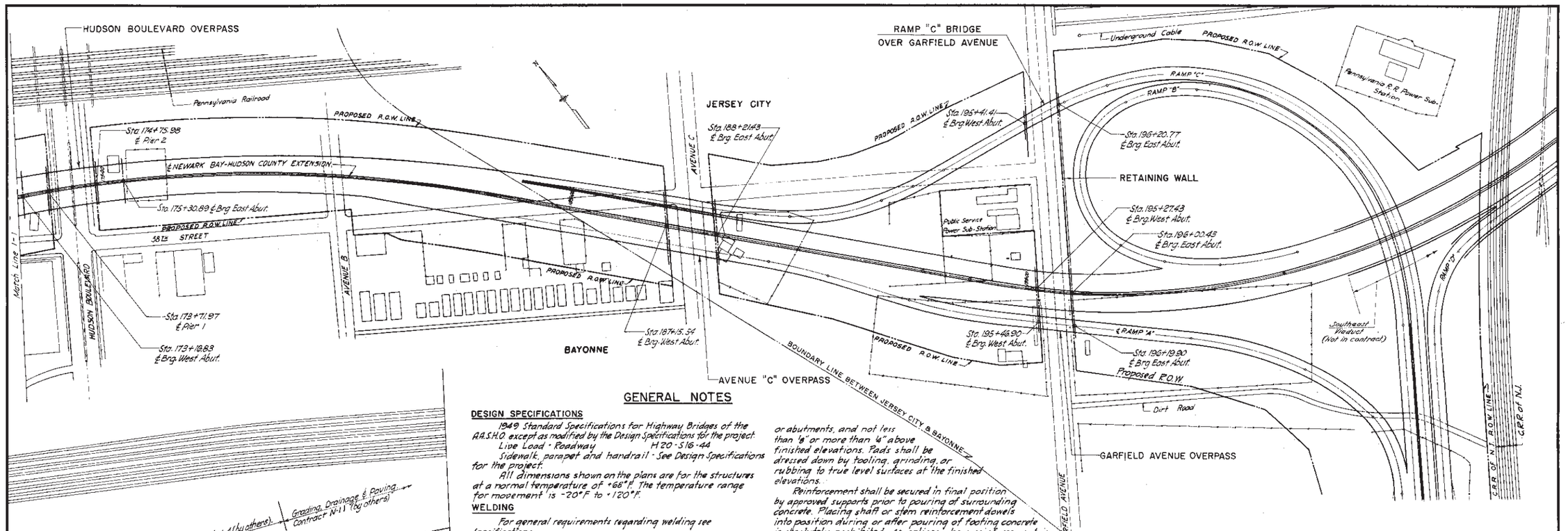
AS BUILT DRAWINGS

HOWARD NEEDLES TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK — KANSAS CITY

RECOMMENDED _____ DATE 7-12-84
HOWARD, NEEDLES, TAMMEN & BERGENDOFF

APPROVED _____ DATE _____
CHIEF ENGINEER
NEW JERSEY TURNPIKE AUTHORITY

SHEET NO. 1 OF 35



GENERAL NOTES

DESIGN SPECIFICATIONS

1949 Standard Specifications for Highway Bridges of the A.A.S.H.O. except as modified by the Design Specifications for the project.

Live Load - Roadway H 20 - S 16 - 44

Sidewalk, parapet and handrail - See Design Specifications for the project.

All dimensions shown on the plans are for the structures at a normal temperature of "68°F. The temperature range for movement is -20°F to +120°F.

WELDING

For general requirements regarding welding see Specifications.

The welding symbols used are those recommended in the 1946 editions of the Standard Code for Arc and Gas Welding in Building Construction of the American Welding Society. To avoid oversight, shop drawings shall show clearly the nature, dimensions and location of each weld.

STEELWORK

Unless otherwise provided for on the Plans or the Specifications, details of the steelwork, in general, shall conform to the requirements of the 1949 Standard Specifications for Highway Bridges of the A.A.S.H.O.

All rivets shall be "8" diameter unless otherwise indicated. Open holes for "8" diameter rivets shall be "16" diameter; open holes for 1" diameter rivets shall be 1 1/16" diameter. Bolts shall be of the size shown in holes of the size indicated.

All field connections shall be riveted unless otherwise noted.

All dimensions are measured horizontally or vertically unless otherwise indicated.

For general requirements regarding reaming, punching, drilling, painting and shop practice, see Specifications. In order to avoid oversight, these shall be clearly noted on shop drawings.

CONCRETE

Unless otherwise provided for on the Plans or the Specifications, the general details of fabrication and placement of reinforcement steel shall conform to the requirements of the 1949 Standard Specifications for Highway Bridges of the A.A.S.H.O. Unless otherwise noted, all reinforcing bars shall be lapped 20 diameters.

For reinforcing steel, see Specifications.

All concrete shall be Class B, see Specifications.

All measurements to bars shown on the Plans are to the center line of bars unless otherwise noted.

All exposed corners to have ¾" chamfer or Fillet where no chamfer or Fillet is shown. All chamfers and fillets to be made with dressed lumber.

Except as otherwise shown, the clear distance between reinforcement and face of concrete shall be not less than the following:

Footings 4" Exposed faces of abutments and wingwalls 2"

Other exposed faces 3" Rear faces of abutments and wingwalls 2"

Pad elevations shown are finished pad elevations. Pads shall be poured integrally with piers or abutments, and not less than "8" or more than "4" above finished elevations. Pads shall be dressed down by tooling, grinding, or rubbing to true level surfaces at the finished elevations.

Reinforcement shall be secured in final position by approved supports prior to pouring of surrounding concrete. Placing shaft or stem reinforcement dowels into position during or after pouring of footing concrete is absolutely prohibited. At splices, where reinforcement is lapped, the bars are to be placed in contact with each other and wired together in such a manner as to maintain minimum clearance requirements between adjacent bars and minimum distance to face of concrete.

For the vertical curb faces of the safety walks, the concrete median and the non-mountable divider, and the vertical faces of the Barrier of the concrete median, metal forms shall be used unless otherwise approved by the Engineer. The metal forms shall be lubricated with an approved material that will not cause stains. All surfaces of the safety walks, concrete median and non-mountable divider shall be finished in accordance with the requirements of Article 4.1.3. Subarticle (e) of the Standard Specifications.

CAMBER NOTES

The deck is to be constructed so that the top of the slab will assume its normal outline under full dead load.

Deflections shown for "Deck Only" are due to all dead loads except weight of structural steel. The forms and longitudinal supporting rods for transverse deck reinforcing shall be placed cambered above their theoretical final elevations by the amount shown for "Deck Only."

Attention is called to the fact that the cambers shown are for Dead Load only. Camber for vertical curvature, if any, is to be added.

The dimensions from top of slab to top of stringers are theoretical, and between bearings may be increased by not more than 1" or decreased as required to care for variation in camber or stringer depth, except that no portion of stringer flange or splice plate may fall within the thickness shown for the slab.

The surface of the concrete slab over stringers under the median strip and sidewalk shall be finished to a profile cambered above its theoretical elevation by the amount shown for "Median" & "Sidewalk, Parapet & Railing" respectively.

Mean Sea Level: Elevation 0.0, Sandy Hook, N.J., U.S.C.&G. Survey. All elevations based on this datum.

BAR SIZES	
Number	Inches
(5)	5/8
(6)	3/4
(7)	7/8
(8)	1
(9)	1
(10)	1 1/8
(11)	1 1/4

	BY	DATE			
MADE	I.E.C.	5-15-54			
TRACED	I.E.C.	5-15-54			
CHECKED	B. J.	9-23-54	1	General Changes in Checking	B. J. 9-23-54
IN CHARGE OF	F.H.S.		No.	REVISION	BY DATE

ITEM NO.	ITEM	UNIT	APPROXIMATE QUANTITY					
			Hudson Blvd. Overpass	Ramp "C" Overpass	Garfield Ave. Overpass	Avenue "C" Overpass	Retaining Wall	Total
1	Open Foundation Excavation	Cu. yd.	350	950	3,400	1,700	1,400	7,800
2	Concrete in Footings	Cu. yd.	380	245	950	905	270	2,750
3	Concrete in Piers, Abutments and Walls above Footings	Cu. yd.	515	505	1,500	1,080	350	3,950
4	Concrete in Superstructures	Cu. yd.	555	90	290	385	–	1,320
5	Reinforcement Steel	Lbs.	220,000	65,000	250,000	170,000	55,000	760,000
6	Treated Timber Piles	Lin. ft.	–	–	–	9,400	–	9,400
7	Treated Timber Test Piles	Each	–	–	–	5	–	5
8	Pile Shoes	Each	–	–	–	490	–	490
9	Furnishing Steel Piles	Lbs.	130,000	–	–	–	–	130,000
10	Driving Steel Piles	Lin. ft.	1,600	–	–	–	–	1,600
11	Steel Pile Splices	Each	5	–	–	–	–	5
12	Metal Railing	Lin. ft.	500	160	300	240	–	1200
13	Structural Steel	Lbs.	780,000	170,000	500,000	700,000	–	2,150,000
14	Final Cleaning Up	L. S.						

AS BUILT

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

HUDSON BOULEVARD TO GARFIELD AVENUE
BRIDGE STRUCTURES

LOCATION PLAN

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1" = 100'
CONTRACT NO. N-12
SHEET NO. 2 OF 35

(103)

Ground El.+29.6

4/6	V.S.	Cinders, Sand & Gravel (Misc. Fill)	+29.6	1 3/3
1/2	V.S.			
1/1	V.S.			
1/1	V.S.			
1/1	V.S.	Red Sand & Gravel (Misc. Fill)	+24.6	2
2/2	A.S.			
2/1	A.		+19.6	
1/2		Fine To Med. Brown Sand (Fill)		3 2/3 6/9
2/2				
4/6				
5/6				
7/7		Brown Sand, Clay & Silt (Fill)	+14.6	4 4/6 7/11
7/7				
7/7				
7/7				
7/8			+8.6	
7/7		Fine To Med. Grey Sand (Fill)		5 7/10 12/22
7/8				
9/7			+3.6	
3/4				6 4/5
5/6		Fine To Med. Brown Sand, Some Marine Shells		
7/8				
8/8			-1.4	7 7/7
10/10				
8/8		Fine To Med. Gray-Brown Sand	-5.4	8 4/5
3/4				
5/6			-11.4	
8/8		Gray Organic Silt, Sand Mixed w/ Marine Shells		9 5/5
7/8				
7/8			-15.4	
8/8		Fine To Med. Gray-Brown Sand Some Organic Silt		10 15/25
7/7			-20.4	
6/6				
6/6				11 18/31
5/6				
5/6		Red Brown Varved Clay, With Thin Layers of Fine Sand	-25.4	12 10/32
5/6				
5/6				
5/6				
5/6			-30.4	13 17/30
5/6				
5/6				
5/6			-35.4	
5/6				14 23/28
5/6				
5/6				
5/6		Red-Brown Silty Clay	-40.4	15 26/30
5/6				
5/6				
5/6			-45.4	
5/6				16 27 -45.4
5/6				
5/6				
5/6			-50.4	
5/6		Red-Brown Silty Clay, Some Fine Gravel		17 26/32
5/6				
5/6				
5/6			-55.4	
5/6				18 28/32
5/6				
5/6				
5/6		Red-Brown Silty Clay, Some Fine To Coarse Gravel	-60.4	19 44/32
5/6				
5/6				
5/6				
5/6			-70.4	
5/6		Red Brown Silty Clay		20 2/3
5/6				
5/6			-76.4	
5/6				21 18/19
5/6				
5/6				
5/6			-83.4	
5/6		Red-Brown Varved Silty Clay		22 12/16
5/6				
5/6				
5/6			-88.4	
5/6		Red-Brown Silty Clay		23 5/5
5/6				
5/6				
5/6			-91.4	
5/6				24 32 1'-0"
5/6		Red-Brown Silty Clay & Fine To Coarse Gravel, Some Fine Sand		
5/6				
5/6				
5/6			-97.4	25 28 1'-0"
5/6				
5/6				
5/6			-100.4	
5/6		Brown Clay, Sand Gravel & Boulder Fragments		26 44 1'-0"
5/6				
5/6				

El.B-103.4

(104)

Ground El. + 17.4

2/2		Cinder fill	+17.4	1 3/3
3/3			+12.4	
3/3				2 12/15
3/3		Fine to medium brown Sand fill	+7.4	
3/3				3 6/13
3/3			+2.4	
3/3				4 9/10
3/3			-3.6	
3/3		Fine to medium brown & grey Sand Fill		5 16/19
3/3			-8.6	
3/3		Fine to medium grey Sand some Inorganic Silt		6 6/7
3/3			-13.6	
3/3		Grey organic Silt & Peat		7 18/36
3/3			-18.6	
3/3		Fine brown Sand & Silt		8 22/36
3/3			-23.6	
3/3		Brown Clay, trace Silt		9 15/18
3/3			-28.6	
3/3		Brown Clay, Silt & fine Sand		10 25/34
3/3			-33.6	
3/3				11 42/46
3/3		Brown Silty Clay	-38.6	12 11/13
3/3				
3/3			-43.6	
3/3		Brown Clay & fine to medium Gravel		13 14/35
3/3			-48.6	
3/3				14 34/46
3/3			-53.6	
3/3				15 42/46
3/3			-58.6	
3/3				16 15/18
3/3			-63.6	
3/3		Brown Clay & fine to coarse Gravel some Sand		17 39/50
3/3			-68.6	
3/3				18 31/31
3/3			-73.6	
3/3		Brown Clay		19 37/28
3/3			-78.6	
3/3				20 14/14
3/3			-83.6	
3/3				21 15/16
3/3			-88.6	
3/3		Brown Clay, Sand Gravel & rock fragments		22 50/50
3/3			-93.6	
3/3		Brown Sand, Clay Gravel & rock fragments		23 120/120
3/3			-98.6	

Elev. of bottom -98.6

* Chopped & washed

(105)

Ground El. +30.0

P	V.S.	Cinders, Sand, Gravel (Fill)	+30.0	1 3/3
3/3	V.S.			
5/5	V.S.		+25.0	
7/7	V.S.			2 53/100
2/2	V.S.			
1/1	V.S.		+20.0	
1/2	V.S.	Sand & Gravel (Fill)		3 28/32
2/2	V.S.			
2/2	V.S.			
2/2	V.S.		+15.0	
2/3				4 32/50
3/3			+10.0	
3/3				5 50/50
3/3				
3/3				
3/3		Sand (Fill)		
3/3				
3/3				
3/3				
3/3			-1.0	
3/3				7 16/32
3/3				
3/3			-6.0	
3/3		Grey Sand & Silt		8 43/50
3/3			-11.0	
3/3		Grey Organic Silt Mix-ture of Peat & Clay, Some Marine Shells		9 110/110
3/3			-16.0	
3/3				10 14/38
3/3		Fine Brown Silty Sand	-21.0	11 41/73
3/3				
3/3			-26.0	
3/3				12 21/48
3/3			-31.0	
3/3				13 32/39
3/3		Dark Brown Silty Clay	-36.0	14 35/48
3/3				
3/3			-41.0	
3/3				15 28/50
3/3			-46.0	
3/3		Red Clay Mod. Gravel		16 32/32
3/3			-50.0	
3/3				17 32/32
3/3			-55.0	
3/3		Red Clay, Med. To Coarse Gravel		18 29/29
3/3			-60.0	
3/3				19 27/27
3/3			-65.0	
3/3		Red Clay		20 33/42
3/3			-70.0	
3/3				21 18/36
3/3			-75.0	
3/3		Mud Clay, Med Gravel		22 23/22
3/3			-80.0	
3/3				23 8/11
3/3		Red Clay	-85.0	No Sample.
3/3				24 14/12
3/3			-88.0	
3/3		Brown Silt & Clay, some Sand & Gravel		25 34/50
3/3			-91.0	
3/3				26 49/50
3/3		Brown Sand, Clay, Silt, Gravel & Boulder Fragments	-96.0	No Sample
3/3				27 21/50
3/3			-98.0	
3/3				28 120/120
3/3				

El.B-100.0

(106)

Ground El. + 8.9

2/2		Fill - Brown Sand	+8.9	1 3/3
3/3				
4/5			+3.9	
6/6				2 8/7
7/7				
8/8			-1.1	
10/10				3 8/8
8/8				
7/7			-6.1	
2/2				4 4/7
1/1				
1/1			-8.1	
1/1				5 14/17
1/1		Grey org. Silt + Tr. Pt.	-12.1	
2/2				
3/3			-16.1	
3/3		Grey & Brown Sand - trace Silt		6 35/47
3/3			-21.1	
3/3				7 17/47
3/3			-27.1	
3/3				8 16/25
3/3		Brown Clay, trace of fine Sand & Silt		
3/3			-32.1	
3/3				9 19/20
3/3			-37.1	
3/3				10 13/36
3/3			-41.1	
3/3				11 42/46
3/3		Brown Clay & fine to coarse Gravel	-46.1	12 16/29
3/3				
3/3			-52.1	
3/3				13 32/43
3/3			-57.1	
3/3				14 21/32
3/3		Brown Clay, some fine to med. Gravel	-62.1	
3/3				15 11/70
3/3			-67.1	
3/3				16 16/26
3/3			-71.1	
3/3				17 13/18
3/3			-77.1	
3/3		Brown Clay		18 11/13
3/3			-82.1	
3/3				19 6/9
3/3			-87.1	
3/3				20 55/72
3/3			-92.1	
3/3		Brown Sand, Clay & Gravel, some boulder fragments		21 26/42
3/3				

El. bottom: -99.1

(107)

El. + 26.1 +26.1

27		Fine brown Sand, some fine to med. Gravel.		1 1/8
20				
7/4/4			+22.1	
2/5/5				2 1/8
9/7			+20.6	
D-1				
	30	Grey Trap Rock		
D-2				

El. B. = 15.6

← Chopped & washed to El. + 20.6

(108)

El. + 24.1 +24.1

12		Sand, Gravel, Clay & Cinders		1 1/8
3/3			+22.1	
6/2				2 1/8
2/5/5			+21.1	
9/7				
D-1				
	40	Grey Trap Rock		
D-2				

El. B. = +16.1

(109)

El. + 22.2 +22.2

14				1 1/8
6/2			+20.2	
2/5/5				
9/7				
D-1				
	32	Grey Trap Rock		
D-2				

El. B. = +15.2

* Brown Sandy Clay, Some fine to med. Gravel.

(110)

El. + 25.5

15		Sand & Gravel		

El. Bed. + 5.5 *

* Grey Trap Rock at El. + 24.5

Ground El. + 7.0

6/6			-7.0	1 15/25
5/5		Sand & silt		
9/9			-15.0	
16/16				
23/23		Sand, clay & gravel		2 12/25
24/24			-24.0	
37/37				3 10/20
106/106		Red shale	-28.0	
2.0'/2.0'	15			
D-1				
	80	Trap rock		
D-2				

El. B. = -32

BORING LEGEND

Example

(a) (b) (c) (d)

SOIL LEGEND

- Meadow mat / Cinder fill
- Silt or clay
- Sand & silt / Sand & clay
- Sand, gravel & silt / Sand, gravel & clay
- Silt & gravel / Clay & gravel
- Granite, Igneous
- Slate shale or very hard clay or silt.
- Sandstone or very firmly cemented sand
- Limestone
- Other type of rock

GENERAL NOTES

With reference to example,

1. In column (a) the figures 5, 9 etc. are the hammer blows required to penetrate the casing one foot. The letter "D" indicates penetration by drilling, and D-1, D-2, represent the Nº of drill lifts
2. Column (b) shows the legend of soil types and the figures "15" and "80" represent the percentage of rock recovery.
3. Column (c) shows soil classification of obtained samples. Elevation -7.0 is ground Elevation; Elevation -32.0 is bottom "B" of the boring. Intermediate elevations -15.0, -24.0, etc. denote the limits of different soil layers. All elevations refer to Mean Sea Level.
4. Column (d) pertains to samples. The figures "1", "2", "3" within the boxes are the sample numbers. The figures -7, -16, -22 etc. are elevations of the top of the samples, unless otherwise noted. Figures 18, 23, etc. represent the number of hammer blows required to penetrate sample spoon one foot. The letter "P" indicates sample spoon was pushed. Figure "1'-8" at the bottom of the box shows depth of sample other than 2'-0"

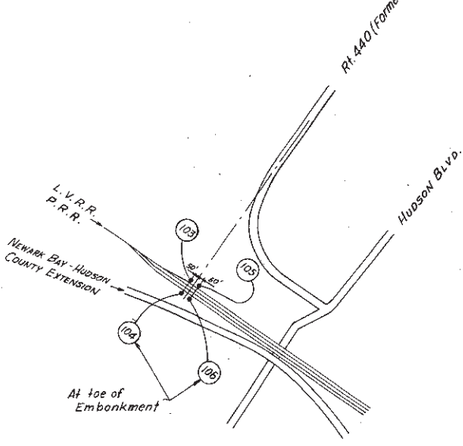
Casing: All casing 2½" O.D. steel pipe unless noted.

Sampling: All samples taken with 1⅜" I.D. split spoon. Length of sample 2'-0".

Hammer: Wt. of hammer = 300 # on casing. = 140 # on sample spoon. Average fall = 24" on casing, 30" on spoon.

Scale: Vertical scale of boring profile, ⅛" = 1'-0". For location of borings see Sheets 9, 16 & 25.

Note "A":
All borings have been taken for the use of the Authority, and are not guaranteed as to accuracy and correctness.



LOCATION OF LOGS 103-106
per H.N.T.&B. 5-6-59

* Sample Taken With Open End Pipe.
† Drilled Through Boulders Sand & Clay From El-98.5 To El-100.0
Δ Blows For 6"
Blows For 4"

* Driving of casing discontinued at -62.1
** Open end pipe driven at -94.1 to -99.1

Δ Washed 1' Below Casing Before Taking Sample.
† Drilled Through Boulder From El-93.9 To El-95.1
* Sample Taken With Open End Pipe.
# Blows For 6"
Drilled Through Stratum
⊖ Lost Sample.

AS-BUILT

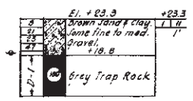
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
HUDSON BOULEVARD TO GARFIELD AVENUE
BRIDGE STRUCTURES
LOG BORINGS 103 to 110

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: ⅛" = 1'-0" (Vertical)
CONTRACT NO. N-12
SHEET NO. 3 OF 35

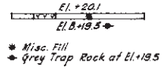
NO.	DATE	REVISION
1	11-27-68	Add. Location Plan Of Logs 103-106

(111)



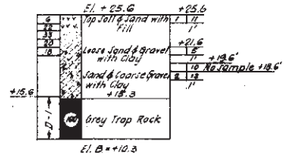
◆ 43 blows for 6"

(112)

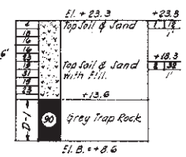


✱ Misc. Fill
◆ Grey Trap Rock at El. +19.5

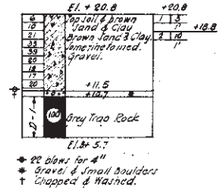
(113)



(114)

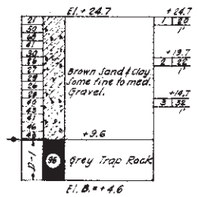


(115)



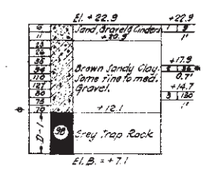
◆ 92 blows for 4"
✱ Gravel & Small Boulders
† Chopped & Washed.

(116)



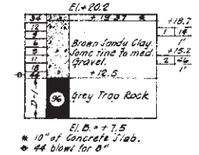
◆ Chopped & Washed.

(117)



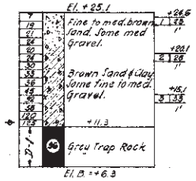
◆ 70 blows for 0.8'
✱ Boulder was struck at El. +17.2. Boring was moved 5' to right at 6 to bypass boulder.

(118)



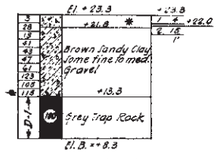
✱ 10" of Concrete Slab.
◆ 44 blows for 6"

(119)



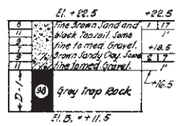
◆ 125 blows for 10"

(120)

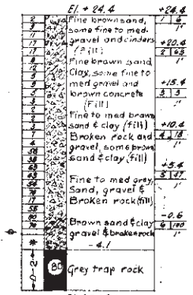


✱ Sand, Gravel & Cinders
◆ Hit obstruction at El. +13.5

(121)

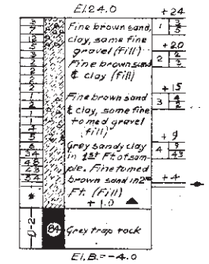


(122)



◆ D-1 Boulder was drilled for 8"
✱ Chopped and washed from El. -2.4 to El. -4.1

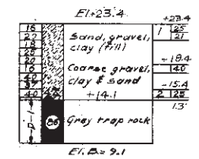
(123)



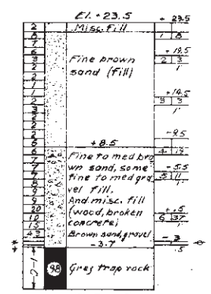
▲ Fine to med brown sand & clay, some fine to med gravel very hard
✱ D-1 Boulder was drilled for 7"
◆ 43 Blows for 6"

(124)

Ground Water El. +17.1

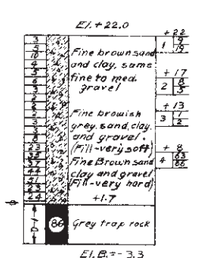


(125)



◆ 136 Blows for 6"
✱ 63 Blows for 6"
+ Chopped and washed from El. -3.5 to -3.7

(126)



◆ Chopped and Washed from El. +2 to El. 1.7

Note:
For general notes and soil legend see Sh. 3.
See Note "A", Sheet 3

AS BUILT

	BY	DATE				
MADE						
TRACED						
CHECKED						
IN CHARGE OF F. H. S.			No.	REVISION	BY	DATE

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

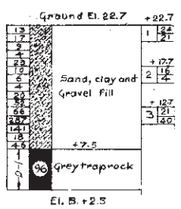
HUDSON BOULEVARD TO GARFIELD AVENUE
BRIDGE STRUCTURES
LOG BORINGS 111 to 126

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1" = 1'-0" (Vertical)
CONTRACT NO. N-12
SHEET NO. 4 OF 35

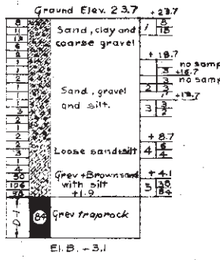
(127)

Ground water: El. +16.7



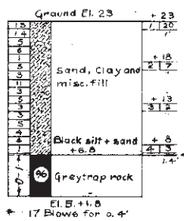
El. B. +2.5

(128)



El. B. - 3.1

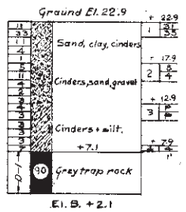
(129)



El. B. +1.8

* 17 Blows for 0.4'

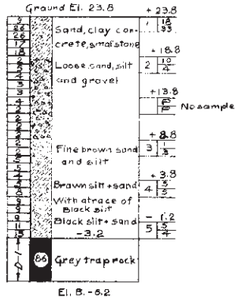
(130)



El. B. +2.1

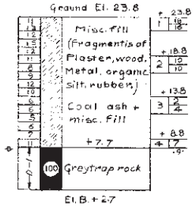
(131)

Ground water: El. +19.8



El. B. - 6.2

(132)

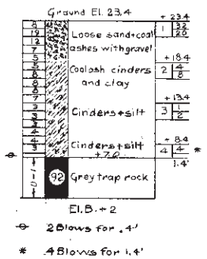


El. B. +2.7

* 26 Blows for 0.1'

(133)

Ground water: El. +18.9

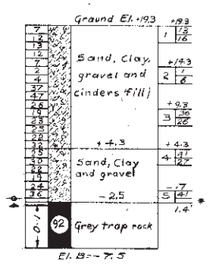


El. B. +2

⊖ 28 Blows for .4'

* 48 Blows for 1.4'

(134)



El. B. - 7.5

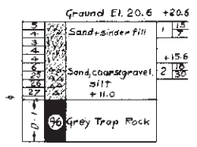
⊖ 60 Blows for 5"

* 24 Blows for 10"

▲ Chopped and washed ahead and drove casing from El. -2.1 to El. -2.5

(135)

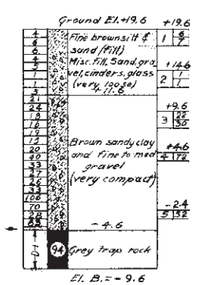
Ground water: El. +16.0



El. B. +6.0

⊖ 20 Blows for .6'

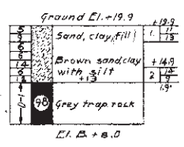
(136)



El. B. = - 9.6

⊖ Chopped & Washed from El. -4.8 to El. -4.6

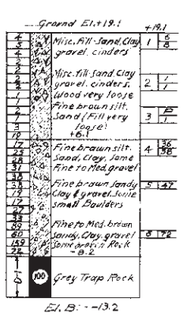
(137)



El. B. + 8.0

(138)

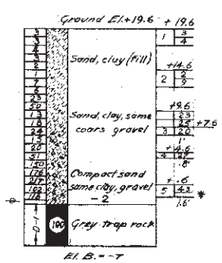
Ground water: El. +14.9



El. B. = -13.2

* Casing hit refusal at El. -8.2

(139)



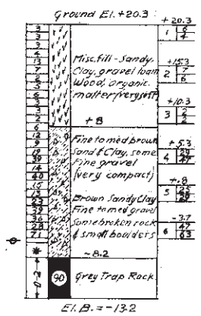
El. B. = -7

⊖ 139 Blows for 6"

* 50 Blows for 6"

(140)

Ground Water El. 13.9

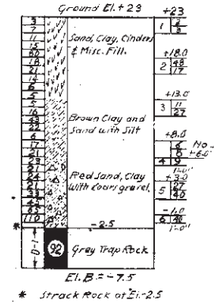


El. B. = -13.2

⊖ Boulder was struck at El. -6.2. Drilled 6" through.

* D-1 Chopped & Washed through Sand, gravel & Clay To El. -8.2

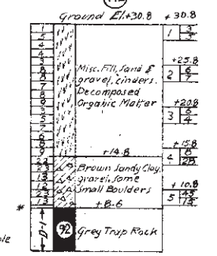
(141)



El. B. = -7.5

* Struck Rock at El. -2.5

(142)



El. B. = + 8.6

* Chopped & Washed

Note:
See Note "A", Sh. 3
For general notes and soil legend, see Sh. 3.

AS BUILT

	BY	DATE				
MADE						
TRACED						
CHECKED						
IN CHARGE OF F. H. S.			No.	REVISION	BY	DATE

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

HUDSON BOULEVARD TO GARFIELD AVENUE
BRIDGE STRUCTURES
LOG BORINGS 127 to 142

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1" = 1'-0" (Vertical)
CONTRACT NO. N-12
SHEET NO. 5 OF 35

701

Ground Elev. +27.0

Open end drill driven to refusal at El. +23.2

702

Ground Elev. +21.5

Open end drill driven to refusal at El. +17.4

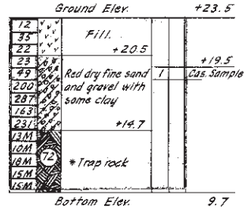
703

Ground Elev. +23.4

Open end drill driven to refusal at El. +19.8

704

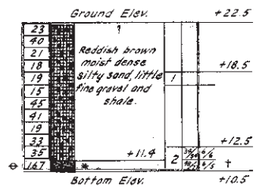
Ground Water +16.8



* 28 pieces of core present; core greatly jointed throughout and fractured into small fragments below El. +10.5.

704A

Ground Water +17.5



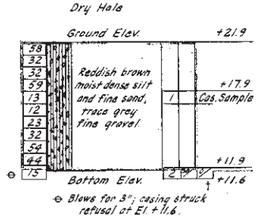
* Rock fragments trace brown sand.

⊖ Casing struck refusal at El. +10.5.

† Spoon struck refusal at El. +10.6.

704B

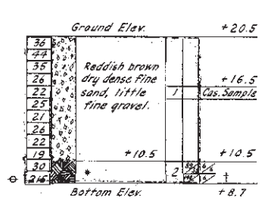
Dry Hole



⊖ Blows for 3"; casing struck refusal at El. +11.6.

† Spoon struck refusal at El. +11.9; no sample recovered; reddish brown dry hard sand and gravel on end of spoon.

704C



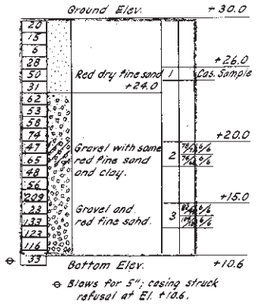
⊖ Blows for 9"; casing struck refusal at El. +8.7.

† 18" sample obtained; spoon struck refusal at El. +9.0.

* Dark grey rock fragments, trace sand.

705

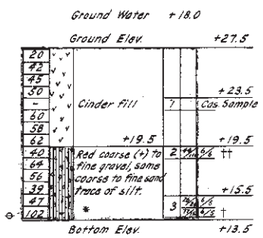
Ground Water +16.4



⊖ Blows for 5"; casing struck refusal at El. +10.6.

705A

Ground Water +18.0



* Gray moist stiff fine gravel and red medium to fine sand, trace silt.

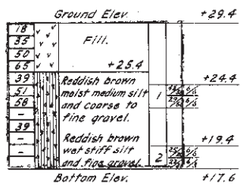
⊖ Casing struck refusal at El. +13.5.

†† Spoon met extreme resistance at El. + 18.5.

† Spoon struck refusal at El. + 13.6.

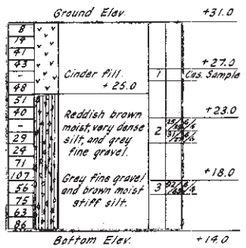
705B

Ground Water +20.7



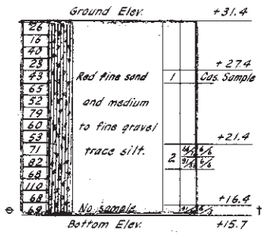
705C

Ground Water +23.5



706

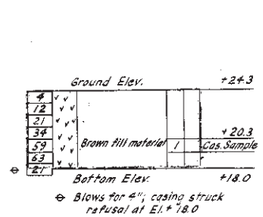
Ground Water +24.6



⊖ Blows for 8"; casing struck refusal at El. +15.7.

† Spoon struck refusal at El. + 15.6.

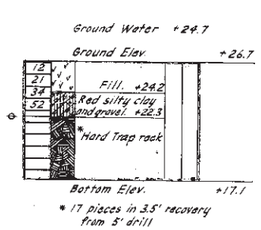
707



⊖ Blows for 4", casing struck refusal at El. + 18.0

708

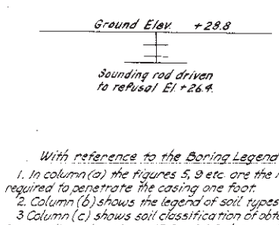
Ground Water +24.7



* 17 pieces in 3.5' recovery from 5' drill

⊖ 60 blows for 6".

709



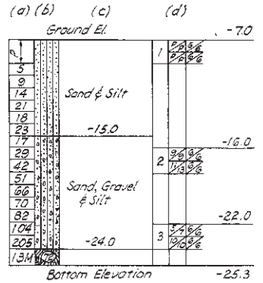
GENERAL NOTES

SOIL LEGEND

- Fill
- Sand
- Sand & Silt
- Clay & Sand
- Sand & Gravel
- Clay, Sand & Gravel
- Silt, Sand & Gravel
- Gravel
- Rock
- Clay & Gravel
- Silt & Gravel

BORING LEGEND

Example:



With reference to the Boring Legend:

1. In column (a) the figures 5, 9 etc. are the hammer blows required to penetrate the casing one foot.
2. Column (b) shows the legend of soil types.
3. Column (c) shows soil classification of obtained samples. Intermediate elevations -15.0, -24.0 denote the limits of different soil layers.
4. Column (d) pertains to samples. The figures 1", 2", & 3" within the boxes are the sample numbers. The figures -7.0, -16.0, -22.0 etc. are elevations of the top of the samples. Unless otherwise noted figures 9, 11, 13 etc. represent the number of hammer blows required to penetrate sample spoon 6 inches. The letter "P" indicates sample spoon was pushed. The figure 6 denotes depth of sample.

Casing: All casings 2½" O.D. steel pipe.

Sampling: All samples taken with 1⅜" I.D. split spoon. Length of sample 2'-0".

Hammer: Wt. of hammer = 300# on casing. = 140# on sample spoon.

Average fall = 24" on casing, 30" on spoon.

scale: Vertical scale of boring profile, 1" = 1'-0".

For location of borings see Sheets 9, 16, 21 & 25.

The figure (72) in the rock legend represents the percentage of rock recovery.

The figure 13 M in column (c) represents 13 minutes of drilling to penetrate the rock one foot.

See Note "A", Sheet 3.

AS BUILT

	BY	DATE
MADE	S.H.	4-7-54
TRACED		
CHECKED	A.W.K.	4-8-54
IN CHARGE OF	F.H.S.	

No.	REVISION	BY	DATE
1	General Changes in Checking	A.W.K.	4-8-54

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

HUDSON BOULEVARD TO GARFIELD AVENUE
BRIDGE STRUCTURES

LOG BORINGS 701 to 709

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1" = 1'-0" (VERTICAL)
CONTRACT NO. N-12
SHEET NO. 6 OF 35

710

Ground Elev. +24.8

Sounding rod driven to refusal El. +23.0

711

Ground Elev. +27.2

58		Red dry m-f sand some silt, little fine gravel.		+24.9
67			1	Cas. Sample
84				
35		Bottom Elev.		+23.9

⊖ Blows for 3" Casing struck refusal at El. +23.9

712

Ground Elev. +28.9

Sounding rod driven to refusal El. +28.6

713

Ground Elev. +24.4

20		Brown c-f gravel and m-f sand-Fill.		+20.4
68			1	Cas. Sample
33				
33				
52				
38				
27				
35				
65		Bottom Elev.		+15.9

714

Ground Elev. +22.5

75		Misc. & cinder fill.		+17.5
28		+17.0	1	13/24 5/24
26				
16				
23				
18		Reddish brown moist dense m-f sand & fine gravel.		+12.5
12		* +10.5	2	33/24 5/24
12				50/24 4/24
14				
50				
74				
97		Brown moist dense fine sand, some silt little fine gravel.		+7.5
88		+5.5	3	33/24 5/24
87				50/24 4/24
48				
142				
122				
12m				
12m	71	Traprock		
12m				
12m				
8m		Bottom Elev.		+1.1

⊖ Drilling for 5"; drilling stopped at El +1.1.

* Light reddish brown moist stiff m-f sand and c-f gravel.

715

Ground Water +7.5

Ground Elev. +23.8

6		Wood cinders, sand and gravel fill.		+19.8
12			1	Cas. Sample
13				
9				
6		+15.8		
9		Brown moist dense m-f sand some silt.		+12.5
5		+10.8	2	2
13				2
5				36
3				
2				
3				
2		Light grey moist dense silt w/ layers m-f sand.		+6.8
P		+5.8	3	5/24 5/24
P				5/24 5/24
P				
P				
7				
5		Reddish brown wet dense m-f sand.		+3.8
25			4	21/24 5/24
49				50/24 5/24
35				
67				
83		Bottom Elev.		+ 1.3

⊖ Blows for 6"; casing struck refusal at El +1.3.

* 716

Ground Elev. + 23.8

11		Reddish brown gray moist dense misc. fill.		+19.8
14			1	Cas. Sample
27		+16.8		
25				
27				
13				
3		Light brown wet soft silt & fine sand trace fine gravel.		+13.8
2			2	5/24 5/24
1				9/24 5/24
2				
6				
5				
20				
11				+8.8
4			3	5/24 5/24
7				7/24 5/24
8		-5.8		
85				+4.8
61		Gravel.		19/24 5/24
+100				22/24 5/24
		Bottom Elev.		+ 2.8

* 3 attempts made on hole.

717

Ground Elev. +22.8

26		Cinder fill.		+18.8
60			1	Cas Sample
13				
7				
85				
118				
113				
170		Bottom Elev.		+15.0

⊖ Blows for 9"; casing struck refusal at El +15.0.

718

Ground Water +18.1

Ground Elev. +23.0

P		Reddish grey very wet soft silt and fine sand		+17.5
25			1	11/24 5/24
9				13/24 5/24
7				
2				
4				
1		Greenish light grey wet silt and fine sand		+14.0
7			2	5/24 5/24
6				13/24 5/24
P				
8				
30				
19		Grey wet soft silt and fine sand.		+8.0
3			3	7/24 5/24
4				12/24 5/24
19		+6.0		
31				+5.0
42		* +4.0	4	31/24 5/24
11m		Light grey hard rock.		
71m	100			
7m				
74m		Bottom Elev.		-1.0

* Reddish brown moist dense fine sand, (pc. large gravel.

⊖ 49 blows from El. +7.5 to El. +7.0.

719

Ground Water +16.6

Ground Elev. +23.3

P		Misc. moist sand, cinder, brick fill.		+20.3
7			1	Cas. Sample
3				
6				
8				
3				
1				
7		+15.3		+14.3
2			2	7/24 5/24
2				13/24 5/24 †
2				
P				
P				
4		Brown wet dense fine sand, little silt, trace fine gravel.		+10.3
22			2	7/24 5/24
24				14/24 5/24
17		+6.3		+6.3
11				
31		Greyish green wet dense c-f(+) sand, little silt	3	31/24 5/24
59				50/24 4/24
50		Bottom Elev.		+3.1

⊖ Casing struck refusal at El. +3.1.

† No sample, inserted flap valve.

720

Ground Water +19.2

Ground Elev. +20.5

14		Cinders and brown sand fill.		+16.5
13			1	Cas Sample
14				
18				
23				
57				
47		+13.5		
20		Grey coarse gravel & red m-f sand, trace silt		+10.5
35			2	13/24 5/24
30				50/24 5/24
105				
85		Bottom Elev.		+ 9.2

⊖ Blows for 3"; casing struck refusal at El. +9.2

† Spoon struck refusal at El. +9.2.

720A

Dry Hole

Ground Elev. +19.9

75		Dark brown moist dense "silty sand and cinder fill.		+14.9
14			1	6/24 5/24
6				50/24 5/24 †
4				
4				
9				
40				
		Bottom Elev.		+13.1

⊖ Blows for 9"; casing struck refusal at El +13.1.

† Spoon struck refusal at El. +13.4; 18" sample obtained.

721

Ground Water +14.5

Ground Elev. +19.3

30		Cinders & brown sand fill.		+15.3
23			1	Cas Sample
10				
8				
14				
10		+11.3		
39		Red moist m-f sand and m-f gravel.		+9.3
120			2	50/24 5/24
77				50/24 5/24
60				
26				
62				
80				
50		Bottom Elev.		+ 5.1

⊖ Blows for 2"; casing struck refusal at El. +5.1.

722

Ground Water +17.5

Ground Elev. +19.8

18		Brown m-f sand		+15.8
37			1	Cas Sample
52				
73				
3				
10				
3				
4		+11.8		
14		Grey coarse (+) to fine gravel, little m-f sand.		+9.8
28			2	50/24 5/24
36				50/24 5/24
41				
75				
86		+5.8		
41		Red fine sand some clayey silt little c-f gravel.		+4.8
30			3	50/24 5/24
36				31/24 5/24
51				
60				
+100		Bottom Elev.		+0.3

⊖ Blows for 6", casing struck refusal at El. +0.3

Note:
For Soil Legend and Boring Legend, see Sh. 6.
See Note "A" Sh. 5.

"AS BUILT"

	BY	DATE			
MADE	S.H.	4-9-54			
TRACED					
CHECKED	A.W.K.	4-9-54	1	General Changes in Checking	A.W.K. 4-9-54
IN CHARGE OF F. H. S.			No.	REVISION	BY DATE

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
HUDSON BOULEVARD TO GARFIELD AVENUE
BRIDGE STRUCTURES

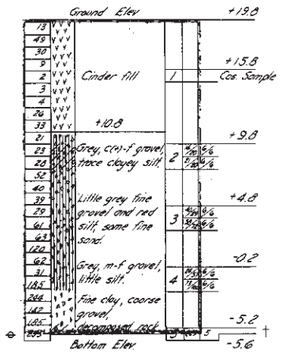
LOG BORINGS 710 to 722

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 3/16" = 1'-0" (VERTICAL)
CONTRACT NO. N-12
SHEET NO. 7 OF 35

723

Ground Water +18.8

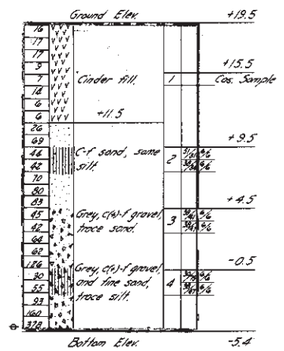


◈ Blows for 5", casing struck refusal at El. -5.6

† Spoon struck refusal at El. -5.6

724

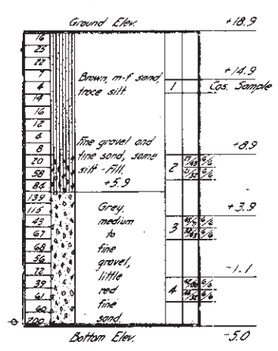
Ground Water +15.0



◈ Blows for 11", casing struck refusal at El. -5.4

725

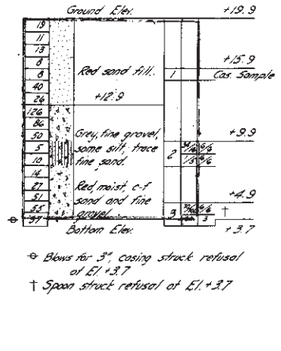
Ground Water +14.1



◈ Blows for 11", casing struck refusal at El. -5.0

726

Ground Water +14.6

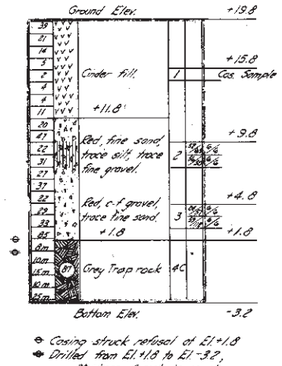


◈ Blows for 3", casing struck refusal at El +3.7

† Spoon struck refusal at El. +3.7

727

Ground Water +15.6

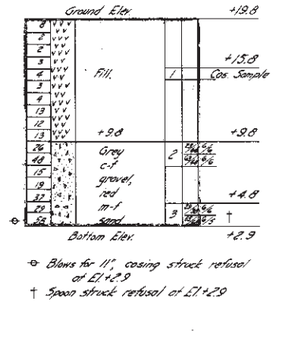


◈ Casing struck refusal at El.+1.8

◈ Drilled from El.+1.8 to El. -3.2, 20 pieces of rock in sample.

728

Ground Water +11.0

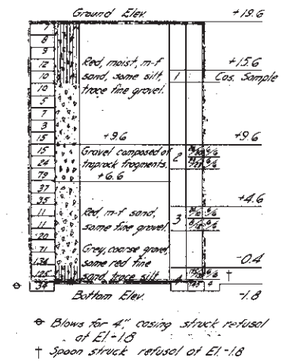


◈ Blows for 11" casing struck refusal at El +2.9

† Spoon struck refusal at El +2.9

729

Ground Water +9.1

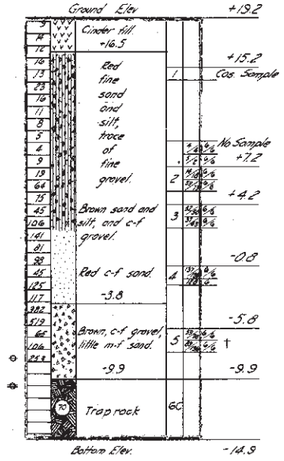


◈ Blows for 4" casing struck refusal at El -1.8

† Spoon struck refusal at El -1.8

730

Ground Water +12.7



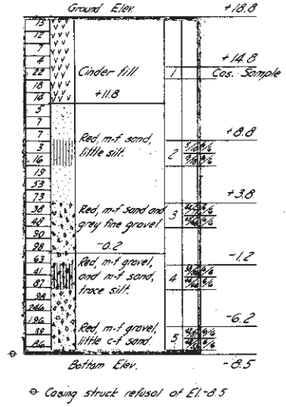
◈ Drilled casing down to El. -8.8

◈ Cored from El -9.9 to El. -14.9, 17 pieces recovered, badly jointed below El. -13.3

† Used open barrel instead of spoon.

731

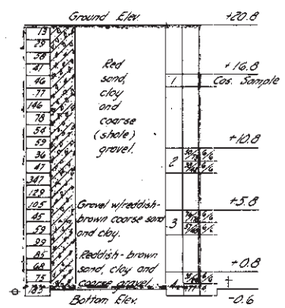
Ground Water +12.7



◈ Casing struck refusal at El.-8.5

732

Ground Water +19.4

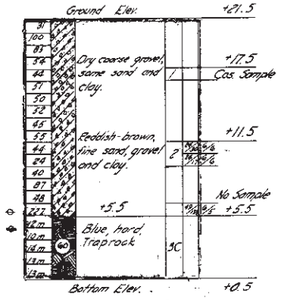


◈ Blows for 4", casing struck refusal at El. -0.6

† Spoon struck refusal at El -0.6

◈ Blows for 3" casing struck refusal at El.+7.3

733

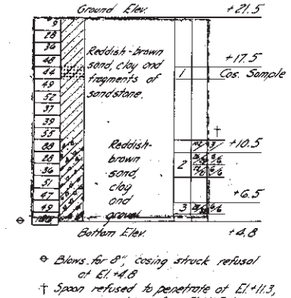


◈ Blows for 11," casing struck refusal at El.+5.5

◈ Drilled from El.+5.5 to El.+0.5, recovered 3'-2" in 8 pieces, first foot seemed to be full of seams.

734

Ground Water +20.2

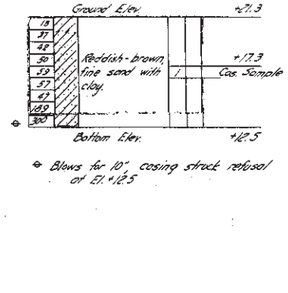


◈ Blows for 8", casing struck refusal at El. +4.8

† Spoon refused to penetrate at El.+11.3, casing driven from El.+11.5 to El.+10.5, 24" sample was obtained.

735

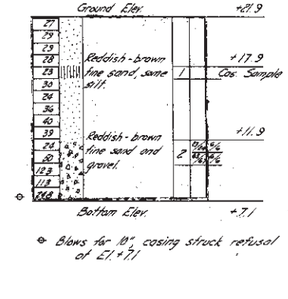
Ground Water +18.1



◈ Blows for 10", casing struck refusal at El.+18.5

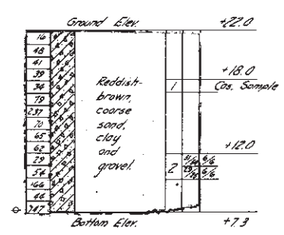
736

Ground Water +20.7



◈ Blows for 10", casing struck refusal at El.+7.1

737



◈ Blows for 9" casing struck refusal at El.+7.3

Note:
For Soil Legend and Boring Legend, see Sh. 6.
See Note 14, Sheet 3

	BY	DATE				
MADE	J.P.M.	4-20-54				
TRACED						
CHECKED	A.W.K.	4-20-54	1	General Changes in Cheeking	A.N.K.	4-20-54
IN CHARGE OF	F.H.S.		No.	REVISION	BY	DATE

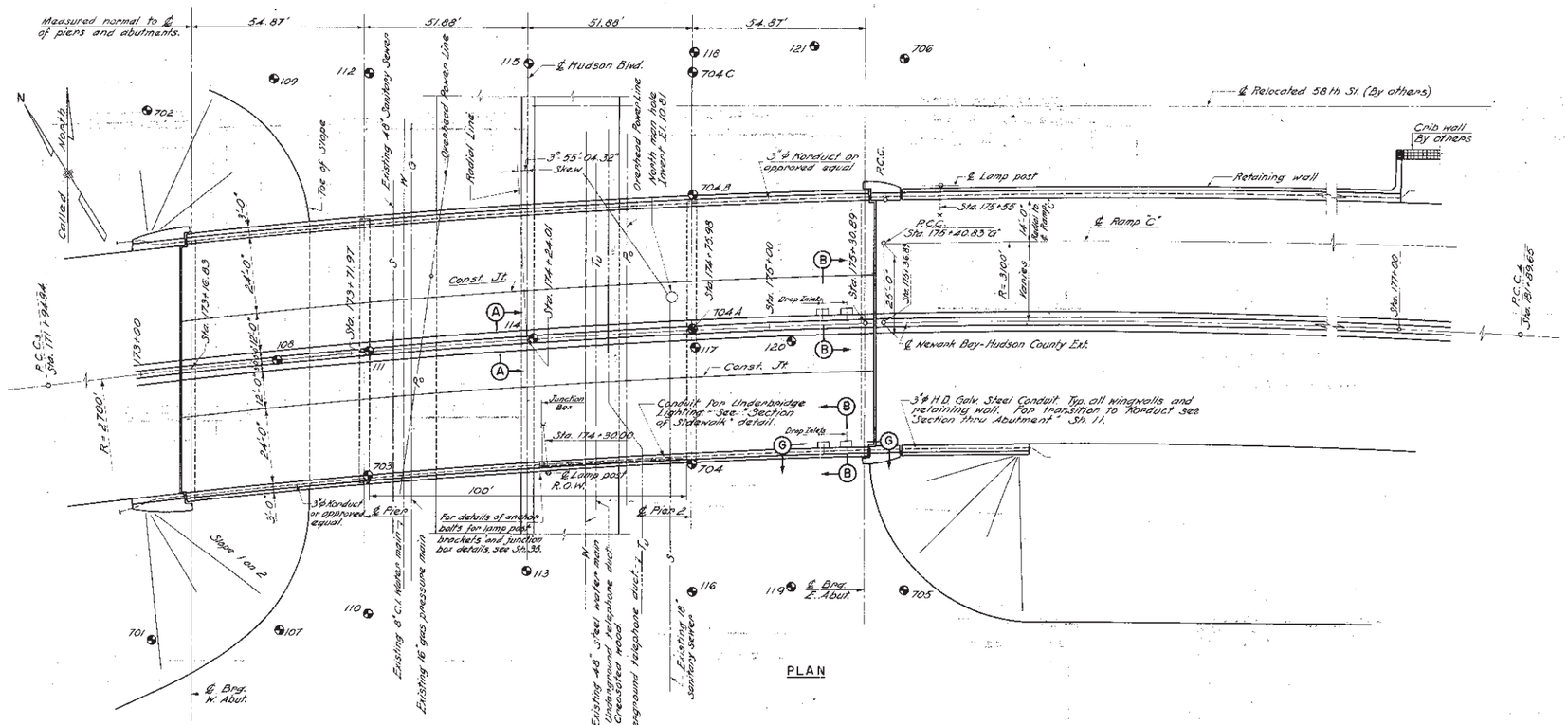
AS BUILT

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
HUDSON BOULEVARD TO GARFIELD AVENUE
BRIDGE STRUCTURES

LOG BORINGS 723 to 737

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1" = 1'-0" (VERTICAL)
CONTRACT NO. N-12
SHEET NO. 8 OF 35



NOTES:

● Indicates location of boring.
For details of Sections B-B and G-G see Sh. 15.

"AS BUILT"

	BY	DATE			
MADE	H. C.	4-8-54			
TRACED	G. S.	6-13-55	2 Revised East Abutment	G.G.S.	3-24-55
CHECKED	J. J. R.	10-8-54	1 General Changes in Checking	J.J.R.	10-8-54
IN CHARGE OF	F.H.S.		No. REVISION	BY	DATE

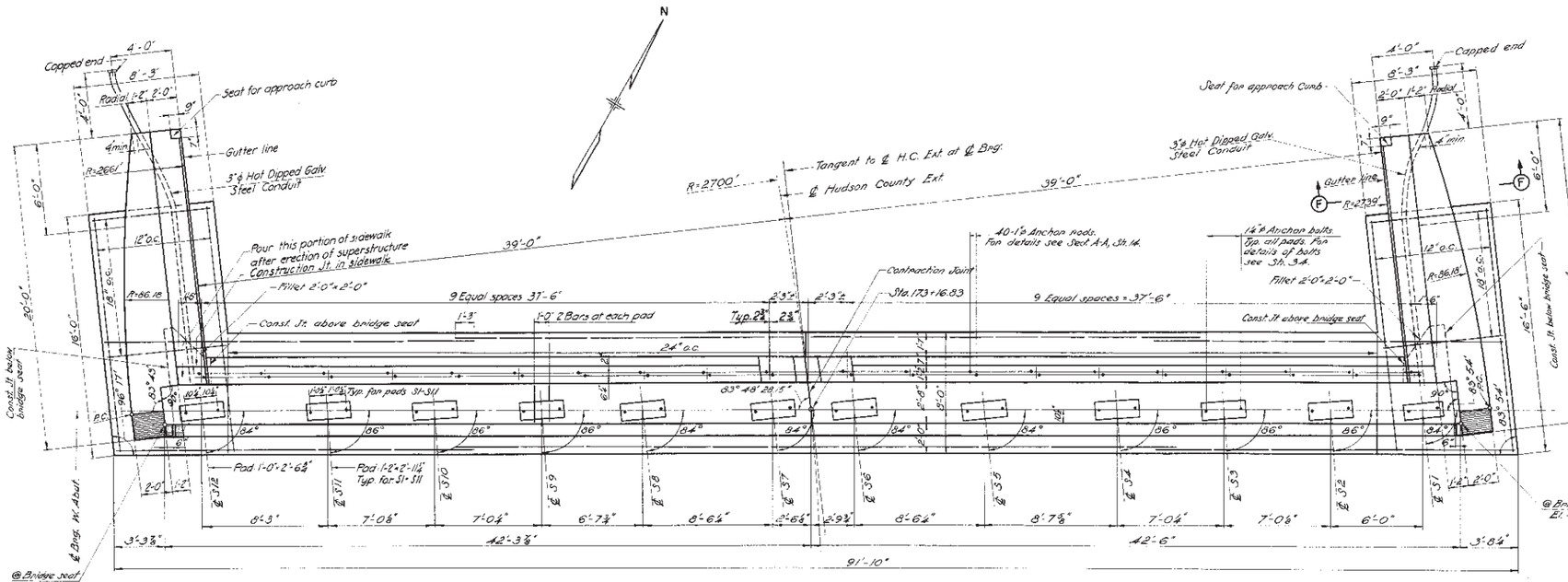
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

HUDSON BOULEVARD OVERPASS
BRIDGE STRUCTURES

GENERAL PLAN AND ELEVATION

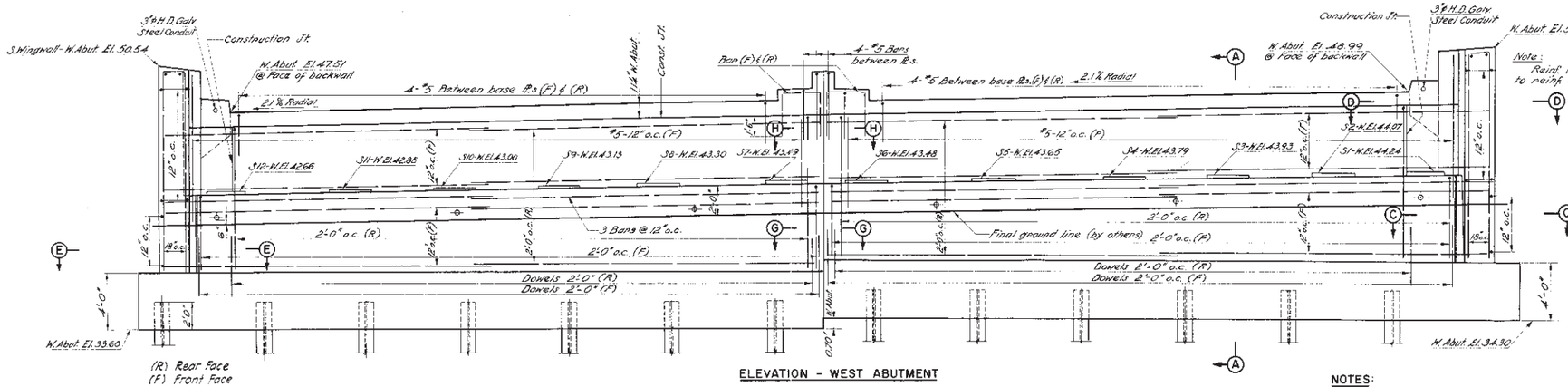
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1" = 20' Unless Noted
CONTRACT NO. N-12
SHEET NO. 9 OF 35



PLAN - WEST ABUTMENT

Note:
All references regarding East Abutment are void.
For East Abutment "Plan" & "Elevation", see Sh. 10A.



(R) Rear Face
(F) Front Face

ELEVATION - WEST ABUTMENT

NOTES:

All reinforcing bars to be #6 bars except as noted.
¾" Chamfer on all exposed edges.
For pile plan and pile details see Sh. 11.
For cover of reinforcement see Gen. Notes, Sh. 2.
For Sections C-C, D-D, E-E, F-F, G-G, H-H, see Sh. 11.
W. indicates West Abutment.
Minimum radius of bends for Steel Conduit is 3'-0".
Angles shown for intersection of ℄ Stringers with ℄ Bearings are approximate and are only to be used for setting anchor bolts in pads.

	BY	DATE	No.	REVISION	BY	DATE
			5	Revised East Abut.	G.O.S.	3-23-55
			4	Changes in Pad, Anchor Bolt Spacing	H.H.C.	1-28-55
MADE	Z. S.	6-3-54	3	Changes in Prof. & Bridge Seat Elev.	J.Y.Z.	10-14-54
TRACED	I.E.C. S.S.	9-23-55	2	Remove reinf. bar from top slab; Add det. A & B.	M. S.	11-15-54
CHECKED	J. J. R.	10-9-54	1	General Changes in Checking	J.J.R.	10-9-54
IN CHARGE OF						

AS BUILT

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

HUDSON BOULEVARD OVERPASS
BRIDGE STRUCTURES
WEST ABUTMENT

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: ¼" = 1'-0" Unless Noted
CONTRACT NO. N-12
SHEET NO. 10 OF 35

PLAN

SECTION A-A

SECTION C-C

REAR FACE REINFORCEMENT

ELEVATION

SECTION B-B

SECTION D-D
3/8"=1'-0"

SECTION F-F
3/8"=1'-0"

RUSTICATION DETAIL
3"=1'-0"

SECTION E-E
3/8"=1'-0"

NOTES:
For General Notes, see Sh. 2
All reinforcing bars to be #6 bars except as noted.
¾" Chamfer on all exposed edges.
For cover of reinforcement, see Gen. Notes Sh. 2
For Section G-G & H-H, see Sh. 11
Angles shown for intersection of ℄ stringers with ℄ Bea. are approx. and are only to be used for setting anchor bolts in pads.
Maximum Rock bearing pressure 4.4 tons/sq.ft.

	BY	DATE				
MADE	G.G.S.	3-16-65				
TRACED						
CHECKED	B.J.	3-23-65				
IN CHARGE OF	F.H.S.		No.	REVISION	BY	DATE

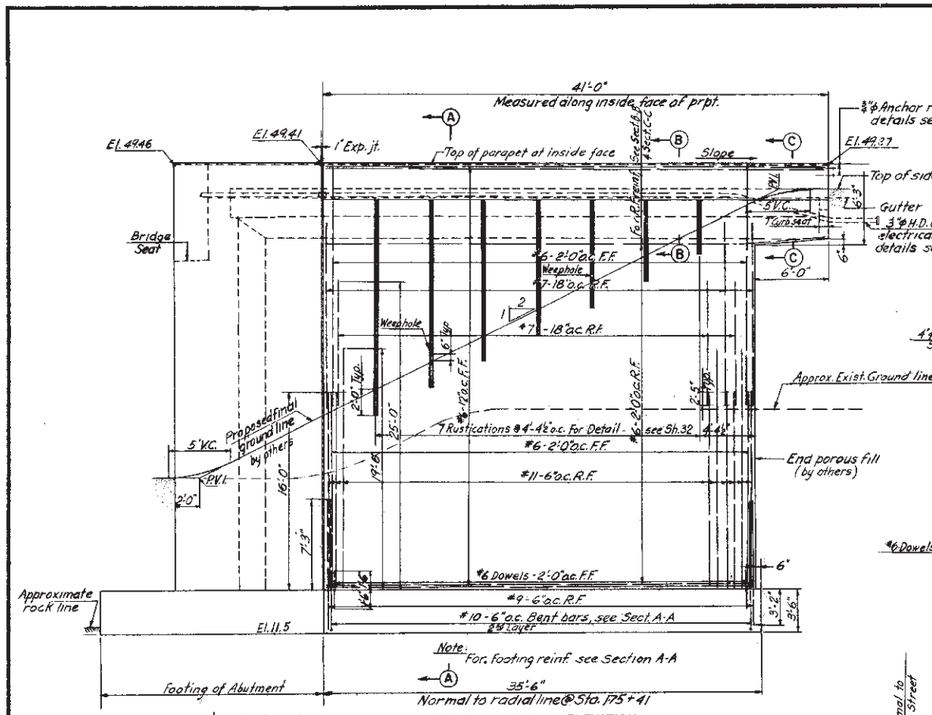
AS BUILT

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

HUDSON BOULEVARD OVERPASS
BRIDGE STRUCTURES
EAST ABUTMENT

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1/8" = 1'-0" Unless Noted
CONTRACT NO. N-12
SHEET NO. 10A OF 35



	BY	DATE
MADE	E.W.K	3-14-55
TRACED		
CHECKED	B.J.	3-29-55
IN CHARGE OF	F.H.S.	

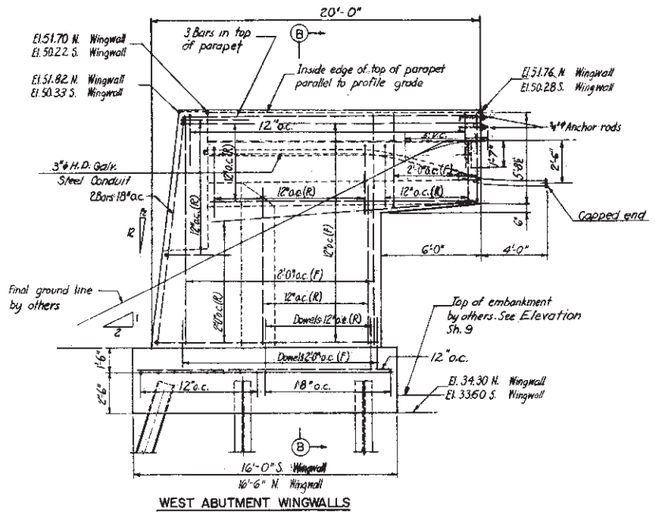
No.	REVISION	BY	DATE
3	Revised North. Retaining Wall	G.G.B.	6-30-55
2	Revised opening in North. Ret. Wall	M.A.	5-23-55
1	Added reinf. at for opening in N. Ret. Wall	M.A.	4-29-55

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

HUDSON BOULEVARD OVERPASS
BRIDGE STRUCTURES
EAST ABUTMENT WALLS

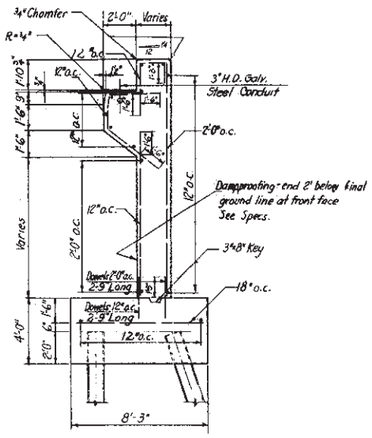
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1/8" = 1'-0" Unless noted
CONTRACT NO. N-12
SHEET NO. 10B OF 35

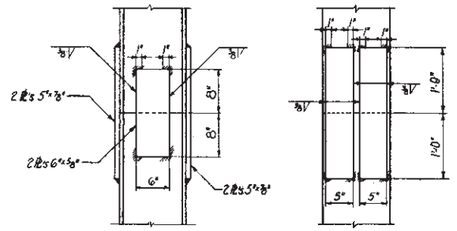


WEST ABUTMENT WINGWALLS

N Wingwall as shown.
S. Wingwall similar except as noted.

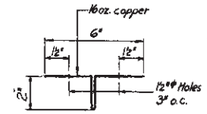


SECTION B-B

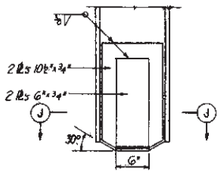


Note: The upper pile section with splice plates attached shall be set in place on top of the driven pile section and tapped several times with a hammer to improve the bearing contact after which the welding shall be completed.

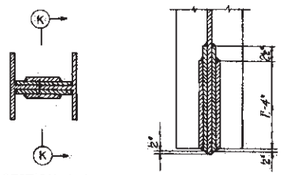
DETAIL OF STEEL PILE SPLICE
1"=1'-0"



DETAIL OF WATERSTOP

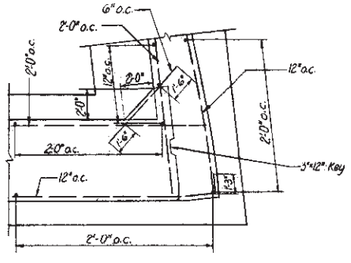


SECTION J-J

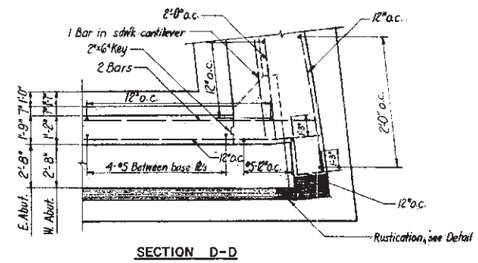


SECTION K-K

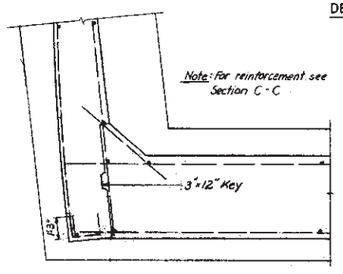
DETAIL OF PILE POINTS FOR 12 BP 74
1"=1'-0"



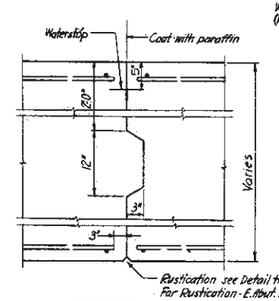
SECTION C-C



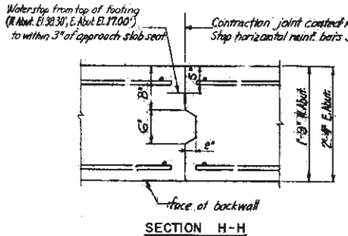
SECTION D-D



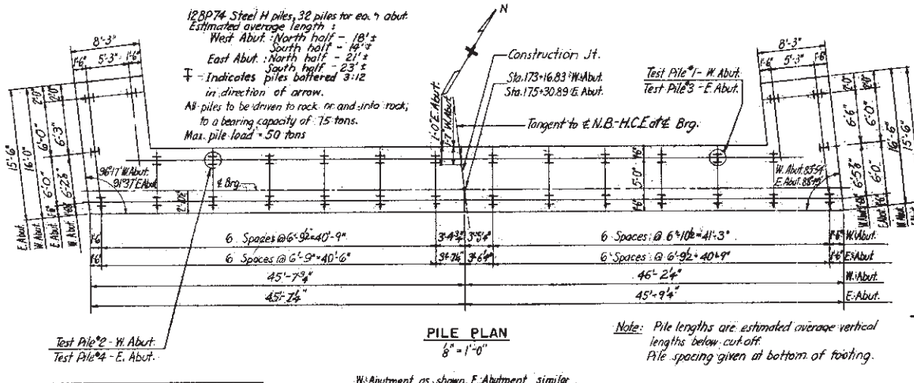
SECTION E-E



SECTION G-G
1"=1'-0"



SECTION H-H
1"=1'-0"

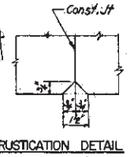


PILE PLAN
⅛" = 1'-0"

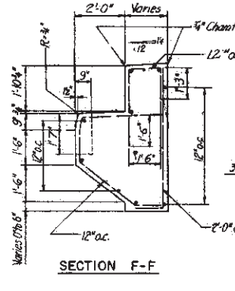
Note: Pile lengths are estimated average vertical lengths below cut-off. Pile spacing given at bottom of footing.

W. Abutment as shown. E. Abutment similar except as noted, and rotated 180° about ℄ Brg.

Note: All references regarding East Abutment are void. For East Abutment "Plan" & "Elevation", see Sh. 10A

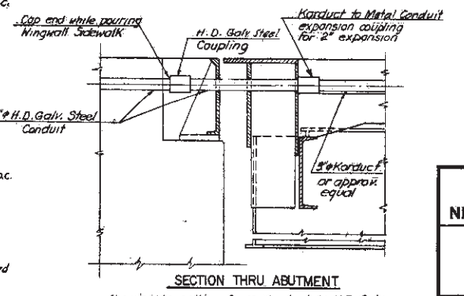


RUSTICATION DETAIL
3" = 1'-0"



SECTION F-F

*When width of parapet does not permit full dimensions bend bar downward
⅜" = 1'-0"



SECTION THRU ABUTMENT
Showing transition from Korduct to H.D. Galv. Steel Conduit.
¾" = 1'-0"

NOTES:

For location of Sections C-C, D-D, E-E, F-F, G-G, H-H, see Sh. 10.
For details of ¾" ø anchor rods for guardrail, see Sh. 35
For additional notes, see Sh. 10

	BY	DATE				
MADE	Z.S.	6-9-54				
TRACED			2	Revised East Abutment	G.G.	8-30-55
CHECKED	J. J. R.	10-9-54	1	General Changes in Checking	J.J.R.	10-9-54
IN CHARGE OF	F.H.S.		No.	REVISION	BY	DATE

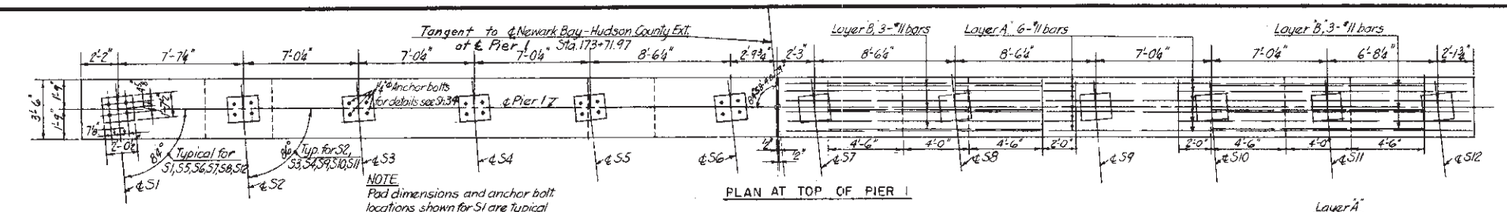
'AS BUILT'

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

HUDSON BOULEVARD OVERPASS
BRIDGE STRUCTURES
ABUTMENT DETAILS

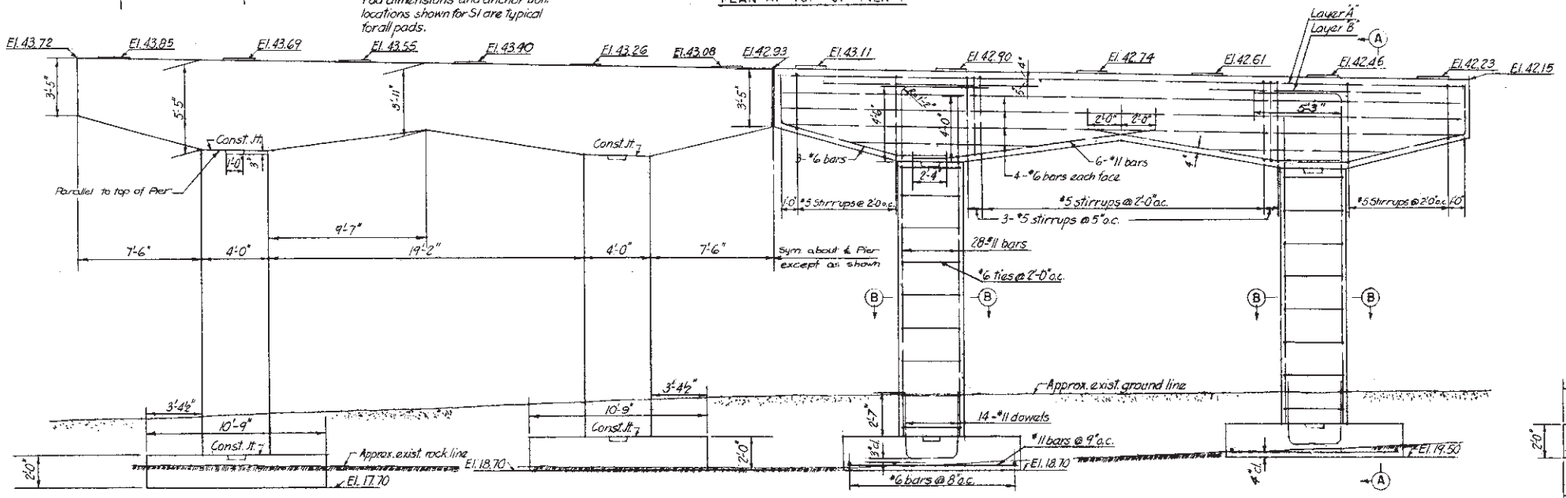
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: ¼"=1'-0" UNLESS NOTED
CONTRACT NO. N-12
SHEET NO. 11 OF 35

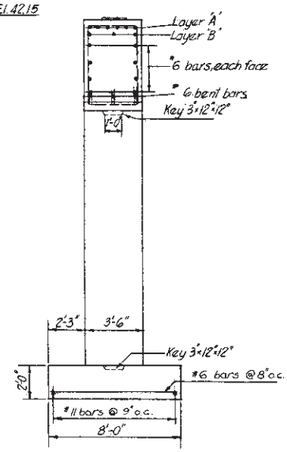


NOTE
Pad dimensions and anchor bolt locations shown for S1 are typical for all pads.

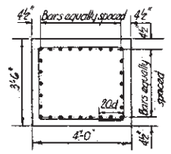
PLAN AT TOP OF PIER 1



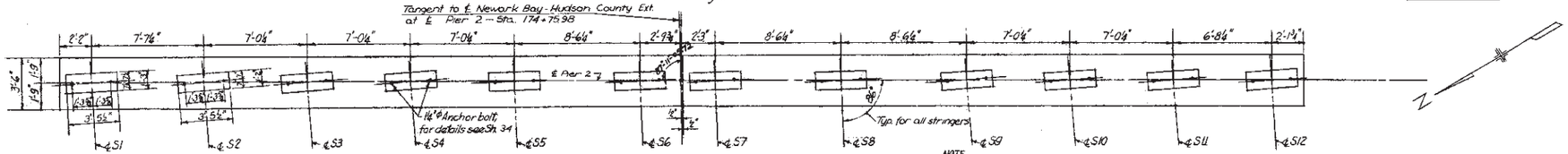
ELEVATION - PIER 1
(Looking East)



SECTION A-A

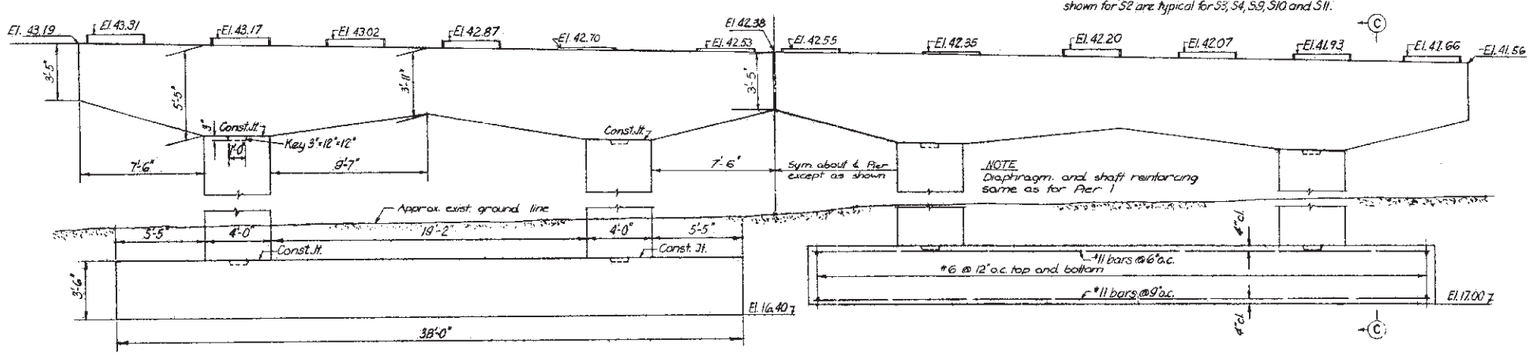


SECTION B-B
¾" = 1'-0"



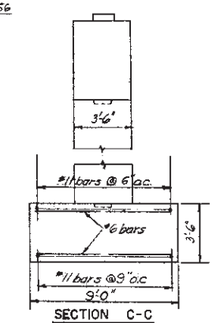
PLAN AT TOP OF PIER 2

NOTE
Pad dimensions and anchor bolt locations shown for S1 are typical for S5, S6, S7, S8 and S12, the dimensions shown for S2 are typical for S3, S4, S9, S10 and S11.



NOTE
Diaphragm and shaft reinforcing same as for Pier 1

ELEVATION - PIER 2
(Looking East)



SECTION C-C

NOTES:
For general notes see Sh. 2
Max. soil bearing pressure - Pier 2 = 2½ T/sq. ft.
Max. rock bearing pressure - Pier 1 = 7½ T/sq. ft.
Angles shown for intersection of ℄ Stringers with ℄ Brgs. are approximate and are to be used only for setting anchor bolts in piers.

	BY	DATE
MADE	M.R.	5-16-54
TRACED		
CHECKED	J. J. R	10-9-54
IN CHARGE OF	F.M.S.	

No.	REVISION	BY	DATE
2	Top of Piers and Pad Elevations changed	H.G.	3-21-55
1	General Changes in Checking	J.J.R	10-9-54

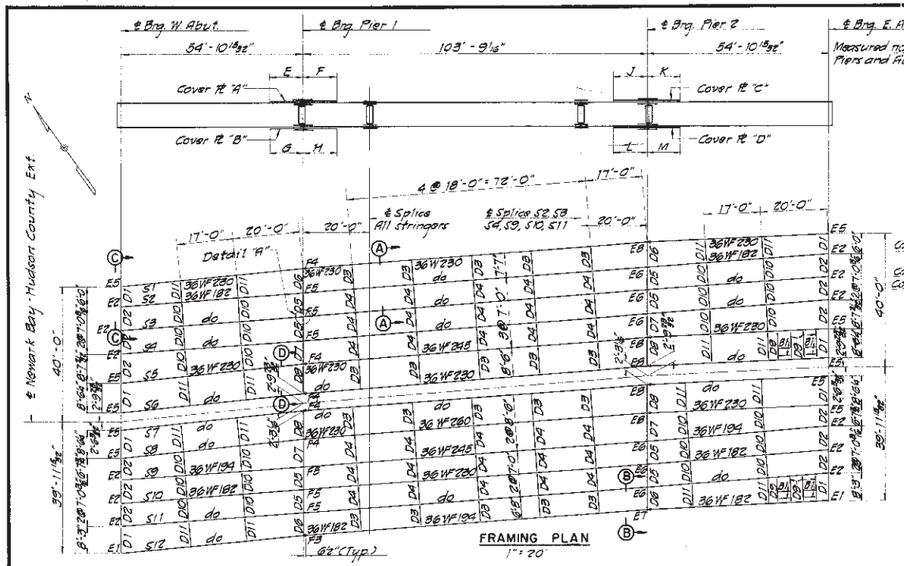
'AS BUILT'

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

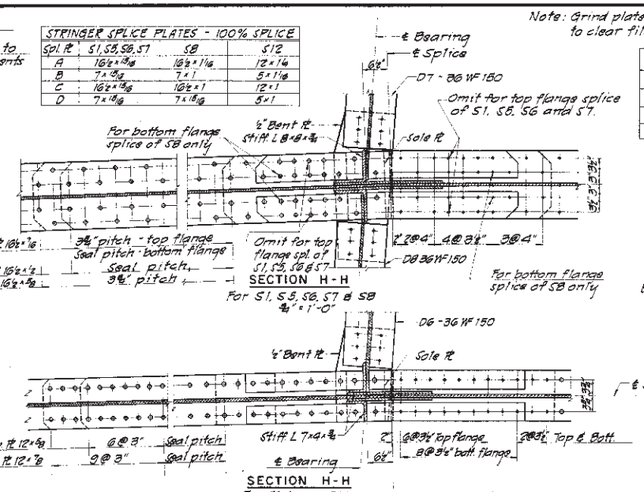
HUDSON BOULEVARD OVERPASS
BRIDGE STRUCTURES
PIERS 1 AND 2

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1" = 1'-0" UNLESS NOTED
CONTRACT NO. N-12
SHEET NO. 12 OF 35

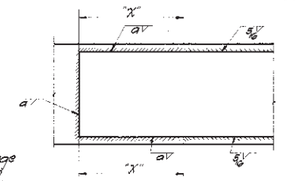


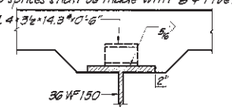
STRINGER SPLICE PLATES - 100% SPLICE			
Spl Pl	S1, S5, S6, S7	S8	S12
A	16½ x 13/16	16½ x 1¼	12 x 1/16
B	7 x 13/16	7 x 1	5 x 1/16
C	16½ x 13/16	16½ x 1	12 x 1
D	7 x 13/16	7 x 13/16	5 x 1

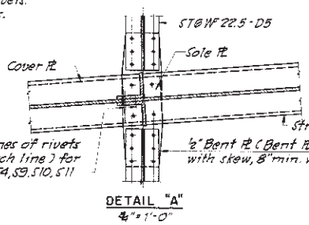


END COVER PLATE WELDING		
a	"x"	Cover Plate Sizes
5/16	Cont	10½ x 5/16, 10½ x 3/8
7/16	18"	10½ x 5/16
½	16"	10½ x 1

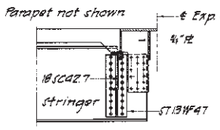
Note:
Cover plates which are used at change of direction splices shall be riveted to stringers. All other cover plates shall be welded.
Cover plates at these change of direction splices shall be riveted with ¾" ø rivets except through flange splices which shall be 1" rivets. Web splices shall be made with ¾" ø rivets.



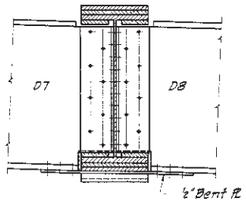


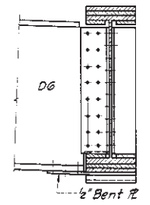


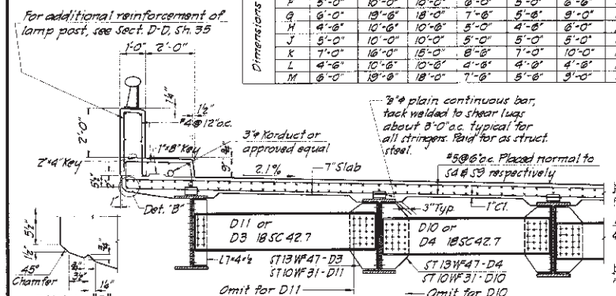
STRINGERS		S1	S2	S3, S4 S10, S11	S5	S6, S7	S8	S9	S12
Cover Plates	A	16½ x 7/8	10½ x 5/8	10½ x 5/8	12½ x 7/8	16½ x 5/8	16½ x 5/8	10½ x 5/8	12 x 7/8
	B	16½ x 7/8	10½ x 13/16	10½ x 13/16	16½ x 7/8	16½ x 7/8	16½ x 1	16½ x 1	12 x 3/4
	C	16½ x 1	10½ x 5/8	10½ x 5/8	10½ x 3/4	16½ x 7/8	16½ x 7/8	10½ x 5/8	12 x 5/8
	D	16½ x 7/8	10½ x 7/8	10½ x 7/8	16½ x 7/8	16½ x 7/8	16½ x 1	10½ x 1	12 x 5/8
Dimensions	E	17'-0"	16'-0"	15'-0"	8'-6"	7'-0"	10'-0"	18'-0"	10'-0"
	F	5'-0"	10'-0"	10'-0"	6'-0"	5'-0"	6'-6"	10'-0"	7'-6"
	G	6'-0"	19'-6"	18'-0"	7'-6"	5'-6"	9'-0"	19'-0"	9'-0"
	H	4'-6"	10'-6"	10'-6"	5'-0"	4'-6"	6'-0"	10'-0"	6'-6"
	J	5'-0"	10'-0"	10'-0"	5'-0"	5'-0"	5'-0"	10'-0"	6'-6"
	K	7'-0"	16'-0"	15'-0"	8'-6"	7'-0"	10'-0"	16'-0"	10'-0"
	L	4'-6"	10'-6"	10'-6"	4'-6"	4'-6"	4'-6"	10'-6"	6'-6"
	M	6'-0"	19'-6"	18'-0"	7'-6"	5'-6"	9'-0"	19'-0"	9'-0"

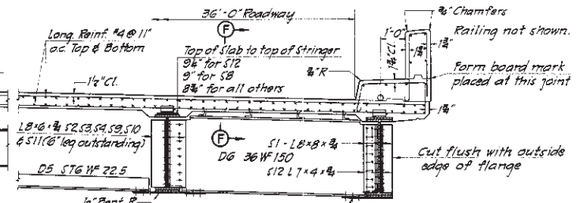


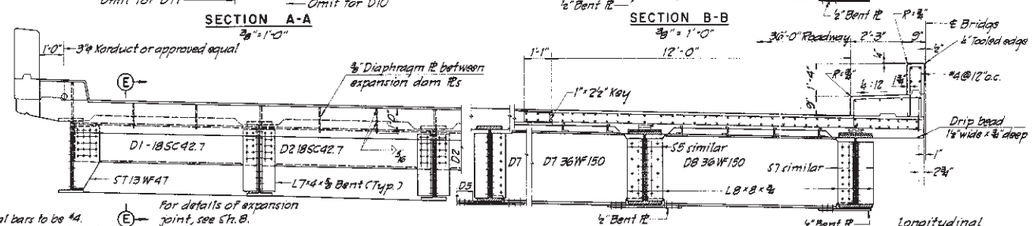
NOTE: Details not shown or noted same as Section A-A, Sh. 14. Detail at 14" Pl at ℄ bridge to be similar to that shown above.

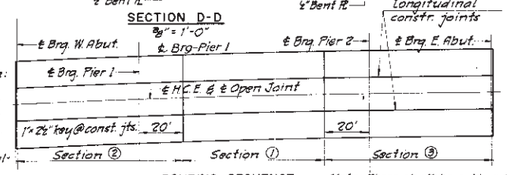












Note: There shall be a time interval of 24 hours between section pours.

Note:
All longitudinal bars to be #4.
Bars marked thus are #4 25'-0" long placed over piers and extending 15'-0" from ℄ pier towards abutment.

Note:
Sections are to be poured in the order given: Section ① then ②, and ③.
Section ① may be poured working in either direction. Section ② shall be poured working from the West Abut eastward, and Section ③ shall be poured working from the East Abut westward. Sections need not be poured simultaneously on each side of the longitudinal construction joint or ℄ Newark Bay-Hudson County Extension.

Note:
Stringer Splices at Pier 1 (For directional changes only) splices at Pier 2 to be similar to that shown above, except for the addition of fill plates where necessary. Fills ¼" ℄ thicker are to be developed as per specifications.

Strgrs.	Loads	Deflections								
S1	Full dead load	.05	.14	.22	1.57	2.48	1.57	.22	.14	.05
	Deck only	.04	.11	.17	1.23	1.94	1.23	.17	.11	.04
	Sidewalk, Parapet & Railing	.01	.03	.06	.41	.65	.41	.06	.03	.01
S2	Full dead load	.08	.13	.17	1.23	1.92	1.23	.17	.13	.09
	Deck only	.02	.09	.12	.88	1.37	.88	.12	.09	.02
S3, S4	Full dead load	.01	.09	.15	1.14	1.82	1.14	.15	.09	.01
S10	Deck only	.01	.07	.11	.82	1.30	.82	.11	.07	.01
S5	Full dead load	.01	.09	.15	1.19	1.90	1.18	.15	.09	.01
	Deck only	.01	.07	.11	.84	1.34	.83	.11	.07	.01
S6, S7	Full dead load	.01	.12	.18	1.52	2.36	1.52	.18	.12	.01
	Deck only	.01	.10	.14	1.17	1.83	1.17	.14	.10	.01
	Median	0	.03	.04	.32	.50	.32	.04	.03	0
S8	Full dead load	.04	.13	.19	1.24	1.96	1.23	.19	.13	.04
	Deck only	.03	.09	.14	.80	1.41	.88	.14	.09	.03
S9	Full dead load	.09	.13	.17	1.21	1.93	1.21	.17	.13	.08
	Deck only	.02	.09	.12	.87	1.38	.87	.12	.09	.02
S11	Full dead load	.01	.09	.15	1.12	1.79	1.42	.15	.09	.01
	Deck only	.01	.07	.11	.80	1.27	1.10	.11	.07	.01
S12	Full dead load	.01	.09	.17	1.62	2.57	1.62	.17	.09	.01
	Deck only	.01	.08	.14	1.28	2.03	1.28	.14	.08	.01
	Sidewalk, Parapet & Railing	.01	.04	.05	.51	.80	.51	.05	.04	.01

Note:
All deflections shown are in inches "Deck only" includes all dead load except structural steel.

NOTES:

The beams in the interior spans shall be cambered for full dead load. Beams in the exterior spans need not be cambered but only mill tolerance deviation from straightness shall be in that direction of the required camber indicated by the camber diagram.
For General Notes, see Sh. 2.
Bearing stiffeners are required over piers only and shall be milled to bear on bottom flange of stringer.
All bearing stiffeners & diaphragms shall be normal to stringer flanges.
○ Indicates stringer changes direction ℄ is spliced for 100% capacity of the lighter member. See details on this sheet.
Splices located 20 feet from ℄ of Piers 1 & 2 are spliced for 75% capacity of the lighter member. For details, see Sh. 33.
For details of B1 & D9, see Sh. 15.
For Camber Notes, see Sh. 2.
For shear lug spacing, see Sh. 14.
For shoe details, see Sh. 34.

'AS BUILT'

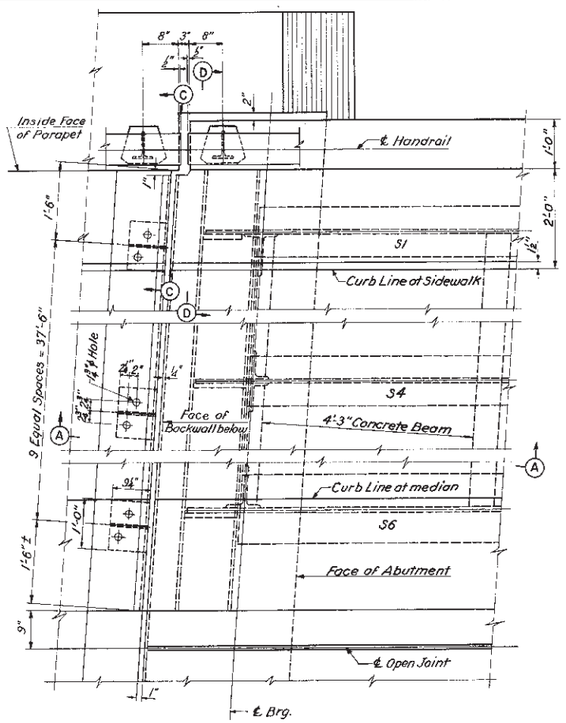
	BY	DATE
MADE	S. J. D.	4-9-54
TRACED	L. Y. L.	8-9-55
CHECKED	J. J. R.	10-13-54
IN CHARGE OF	F. H. S.	

No.	REVISION	BY	DATE
1	General changes in checking	J.J.R.	10-15-54

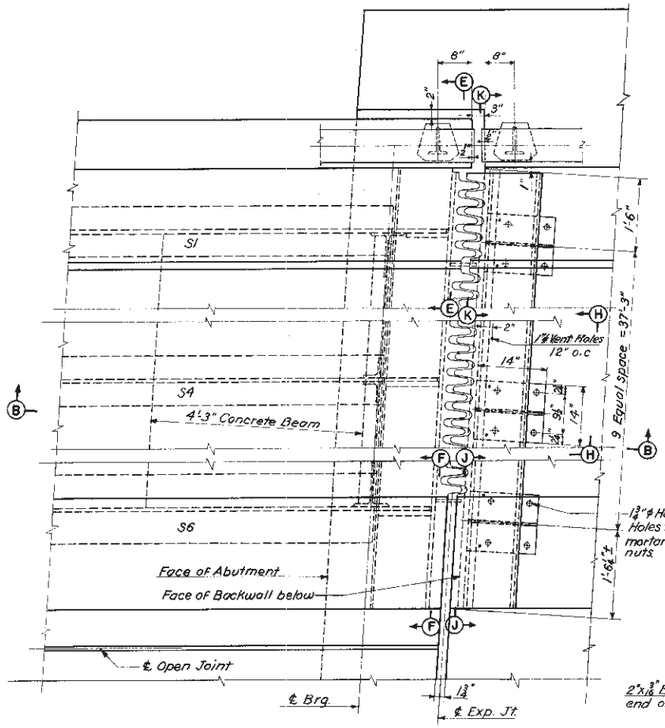
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
HUDSON BOULEVARD OVERPASS
BRIDGE STRUCTURES
FRAMING PLAN AND CROSS SECTIONS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: As Noted
CONTRACT NO. N-12
SHEET NO. 13 OF 35



PLAN AT WEST ABUTMENT



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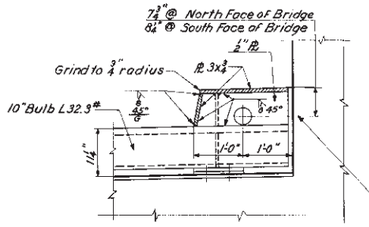
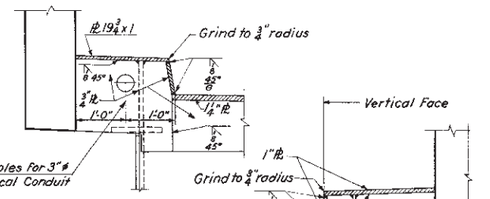
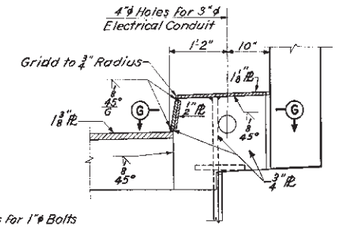


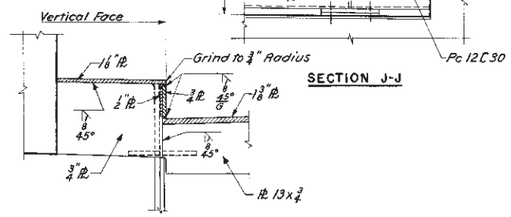
SECTION C-C



SECTION D D

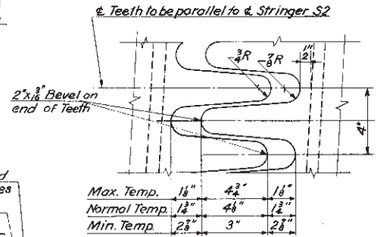


SECTION E-E

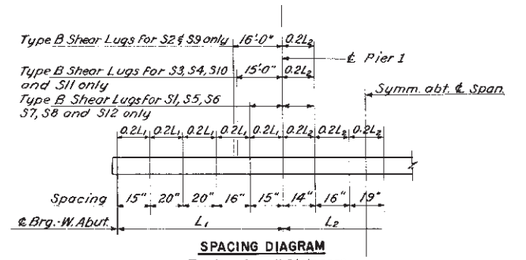


SECTION J-J

SECTION F-F

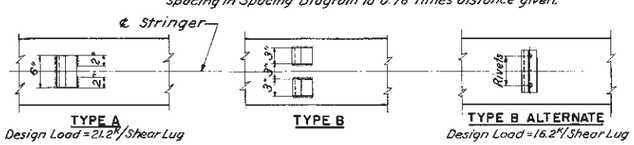


TOOTH DETAIL
3"=1'-0"

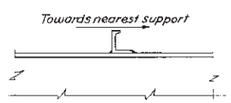


SPACING DIAGRAM
Typical for all Stringers

Note: Where Type B Shear Lugs are required in Spacing Diagram & Shear Lugs Fall on riveted splice or cover plates, countersink rivets if top plate is 3/4" or thicker. If top plate is less than 3/4" thick, use Type B Alternate Shear Lugs and reduce spacing in Spacing Diagram to 0.76 times distance given.

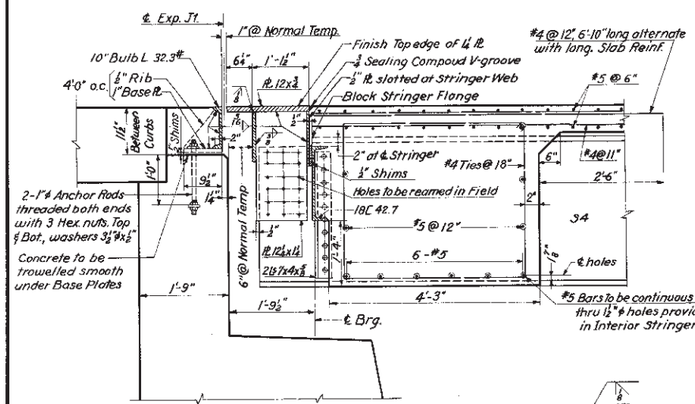


Note: Shear Lugs to be bulb Is 4x3 1/2 @ 14.3# For Type A & Type B as shown

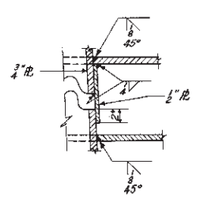


SHEAR LUGS

NOTES:
For General Notes, see Sh. 2.
Teeth to be flame cut from one plate.
Dimensions shown are for a normal temperature of 68° F.

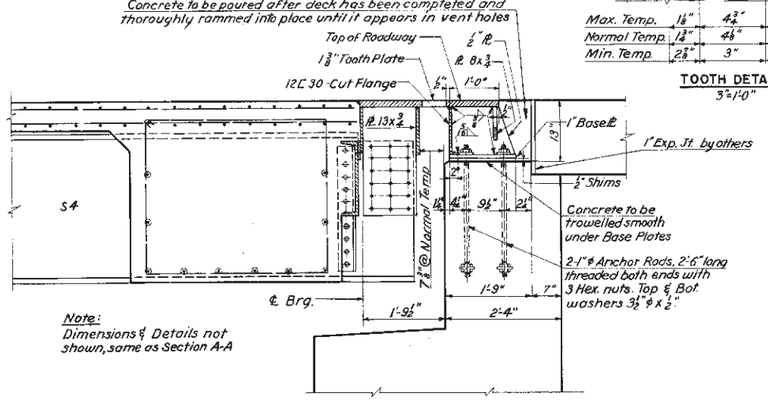


SECTION A-A



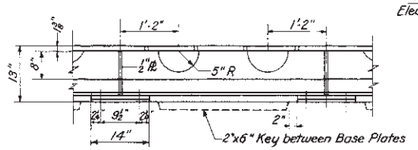
SECTION G-G
1 1/2"=1'-0"

Concrete to be poured after deck has been completed and thoroughly rammed into place until it appears in vent holes

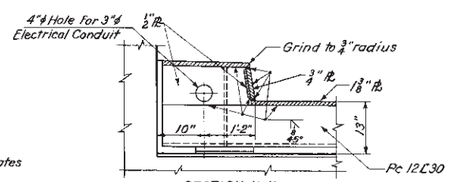


SECTION B-B

Note:
Dimensions & Details not shown, same as Section A-A



VIEW H-H



SECTION K K

	BY	DATE				
MADE	H. C.	2-27-54	3	Revised East Abutment	GGS	32355
TRACED	A.C.B.	9-5-55	2	Revised details of plates at abutment	J.T	12655
CHECKED	J. J. R.	10-11-54	1	General changes in Checking	J.J.R.	10-11-54
IN CHARGE OF	F. H. S.		NO.	REVISION	BY	DATE

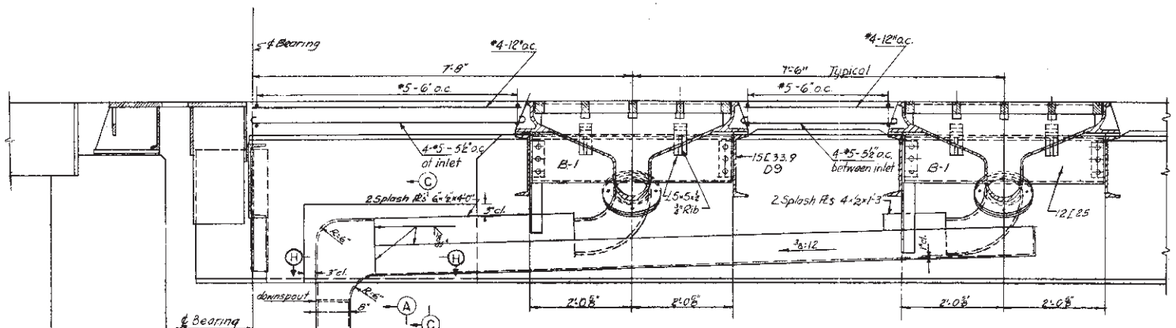
"AS BUILT"

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

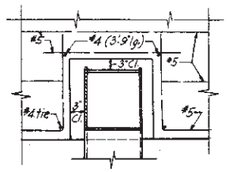
HUDSON BOULEVARD OVERPASS
BRIDGE STRUCTURES
EXPANSION JOINTS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

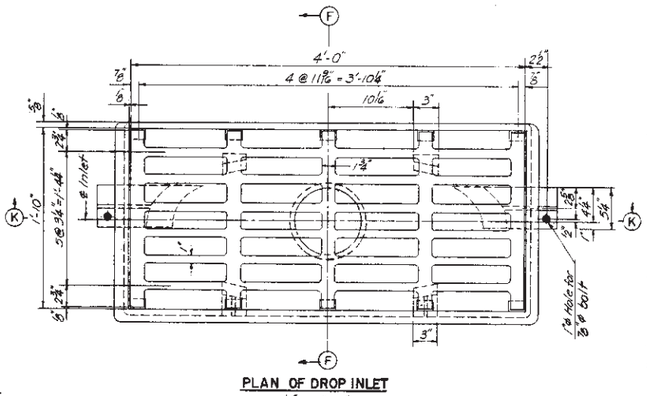
SCALE: 3/4"=1'-0" UNLESS NOTED
CONTRACT NO. N-12
SHEET NO. 14 OF 35



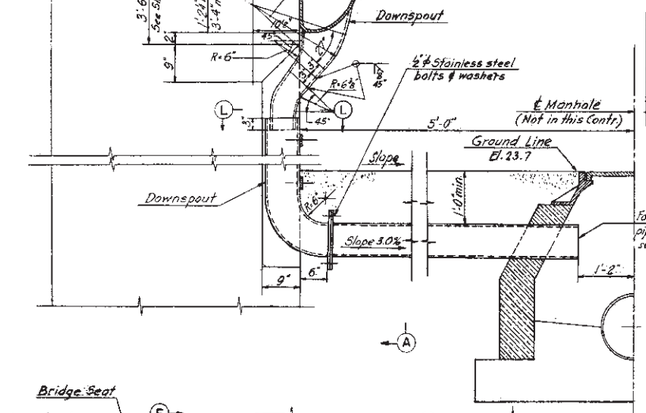
SECTION AT EAST ABUTMENT
SECTION G – G

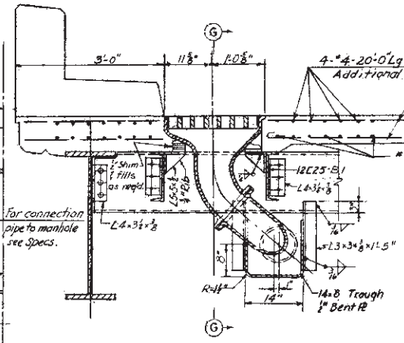


SECTION C-C

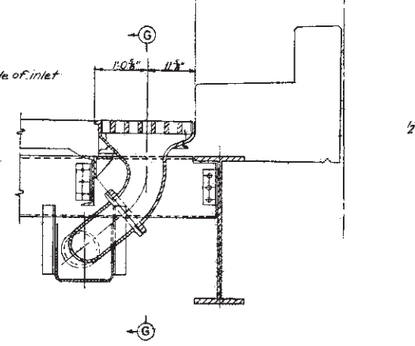


PLAN OF DROP INLET
1½" = 1'-0"

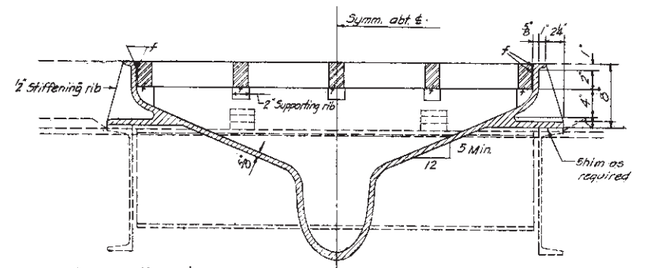




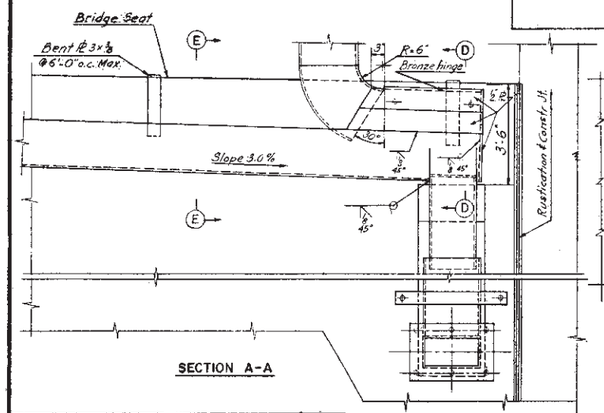
SECTION B-B AT PARAPET



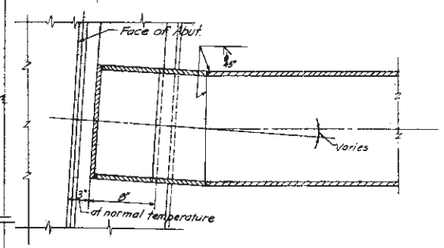
SECTION B-B AT MEDIAN



SECTION K-K
12" = 1'-0"

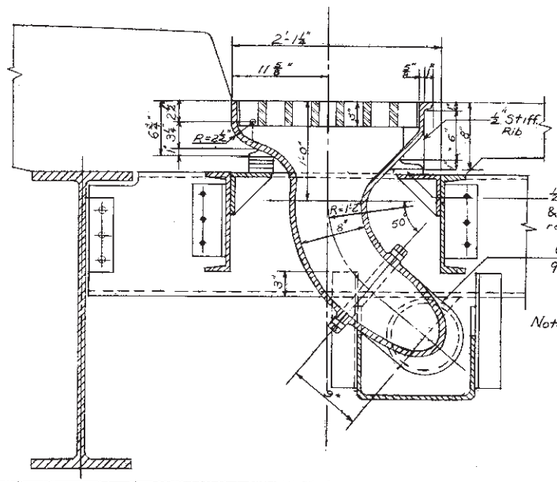


SECTION A-A



SECTION H-H
1½" = 1'-0"

TYPICAL FLANGE CONNECTION
No Scale



Note: Details & dimensions not shown same as Section B-B at parapet.

SECTION F-F
1½" = 1'-0"

NOTES:

Inlet grating to be galv. cast steel;
Inlet frame to be galv. cast iron;
All ℄'s ½" thick to be galv. low alloy steel
Hudson Boulevard Overpass - 4 Inlets required
Ave. C Overpass - 5 inlets required
Ramp C Bridge over Garfield Ave. - 1 inlet required
Garfield Ave. Overpass - 5 inlets required
For location of Sections B-B and G-G, see Sh. 9
Troughs, downspouts, splash plates and straps to be galvanized low alloy steel.
For Sections L-L, D-D & E-E, see Sh. 31

	BY	DAT				
MADE	S.J.D.	3-29-54				
TRACED			2	Revised drainage East Abutment	G.G.B.	3-29-55
CHECKED	J. J. R.	10-15-54	1	General Changes for Checking	T.J.R.	10-15-54
IN CHARGE OF	F.H.S.		No.	REVISION	BY	DATE

'AS BUILT'

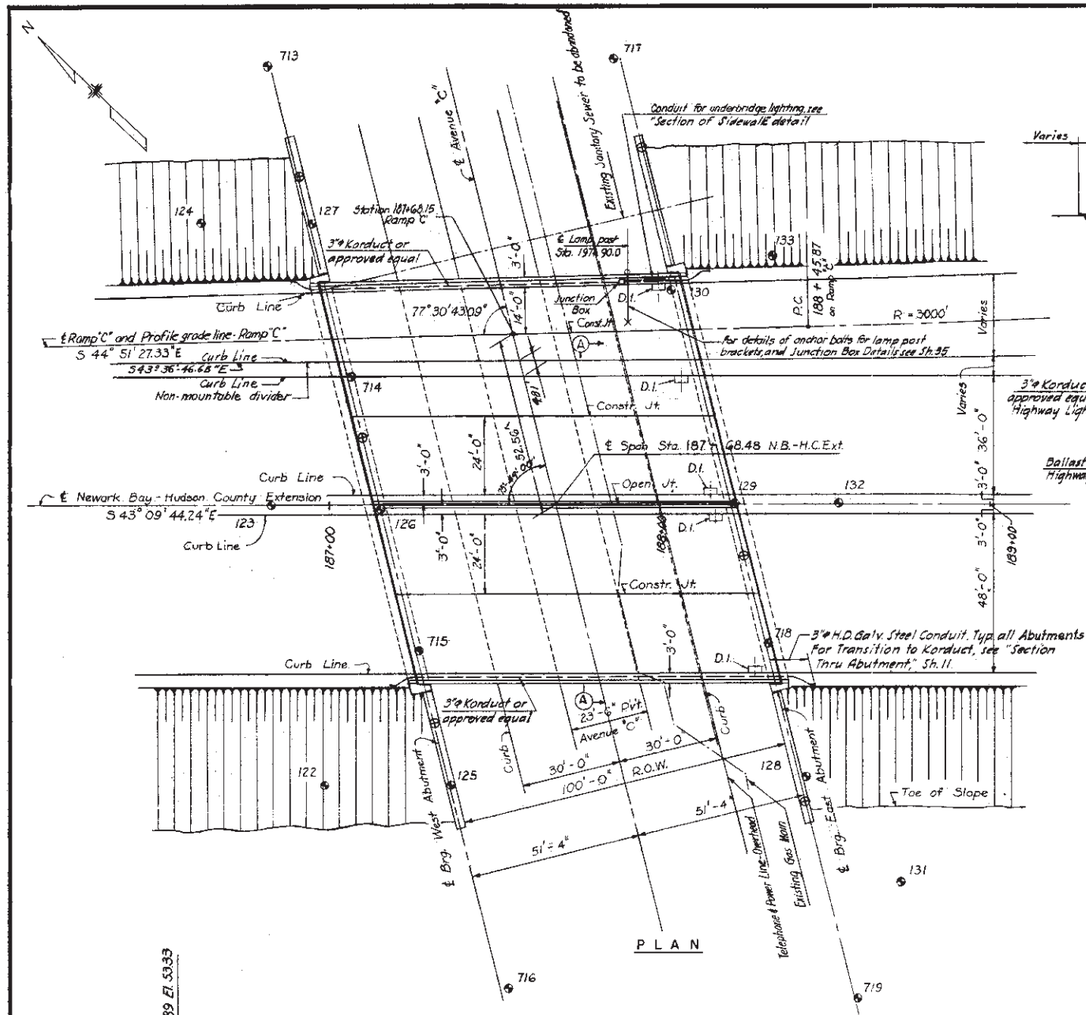
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

HUDSON BOULEVARD OVERPASS
BRIDGE STRUCTURES

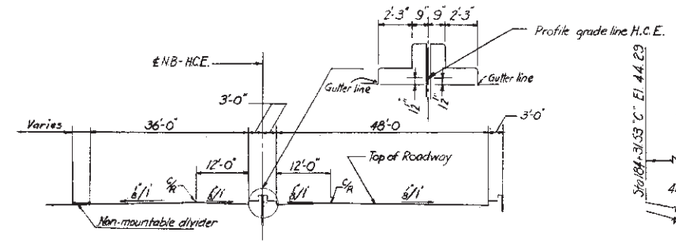
DRAINAGE DETAILS AT EAST ABUTMENT

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

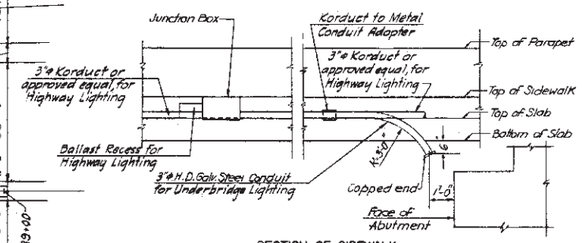
SCALE: ¾"=1'-0" Unless Noted
CONTRACT NO. N-12
SHEET NO. 15 OF 35



PLAN

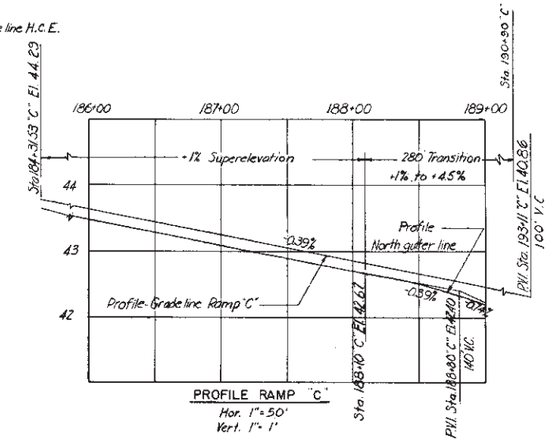


SECTION A-A



SECTION OF SIDEWALK

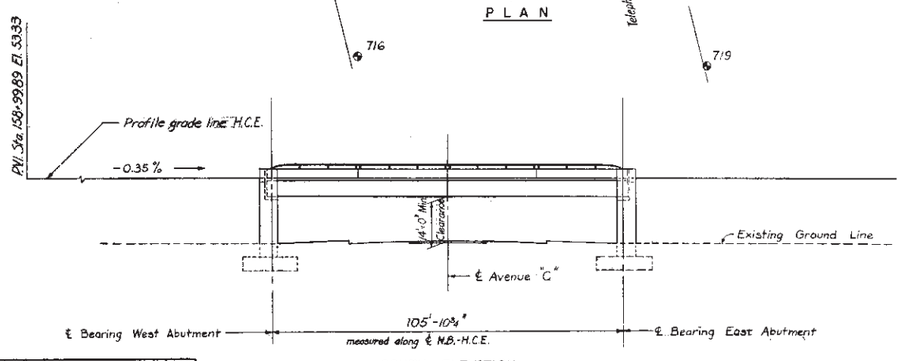
Showing details of conduit for underbridge lighting
3/8" = 1'-0"



PROFILE RAMP "C"

Hor. 1" = 50'
Vert. 1" = 1'

Note: To obtain elevations along south gutter line Ramp "C" at any one station, continue the cross-slope normal to ℄ Ramp "C" determined by using the profile of the north gutter line Ramp "C" and the profile grade line Ramp "C".



SOUTH ELEVATION

NOTES:

- ⊕ Indicates boring location
- D.I. Drop Inlet
- For general notes see Sh. 2
- ⊕ Indicates test pile

AS BUILT

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

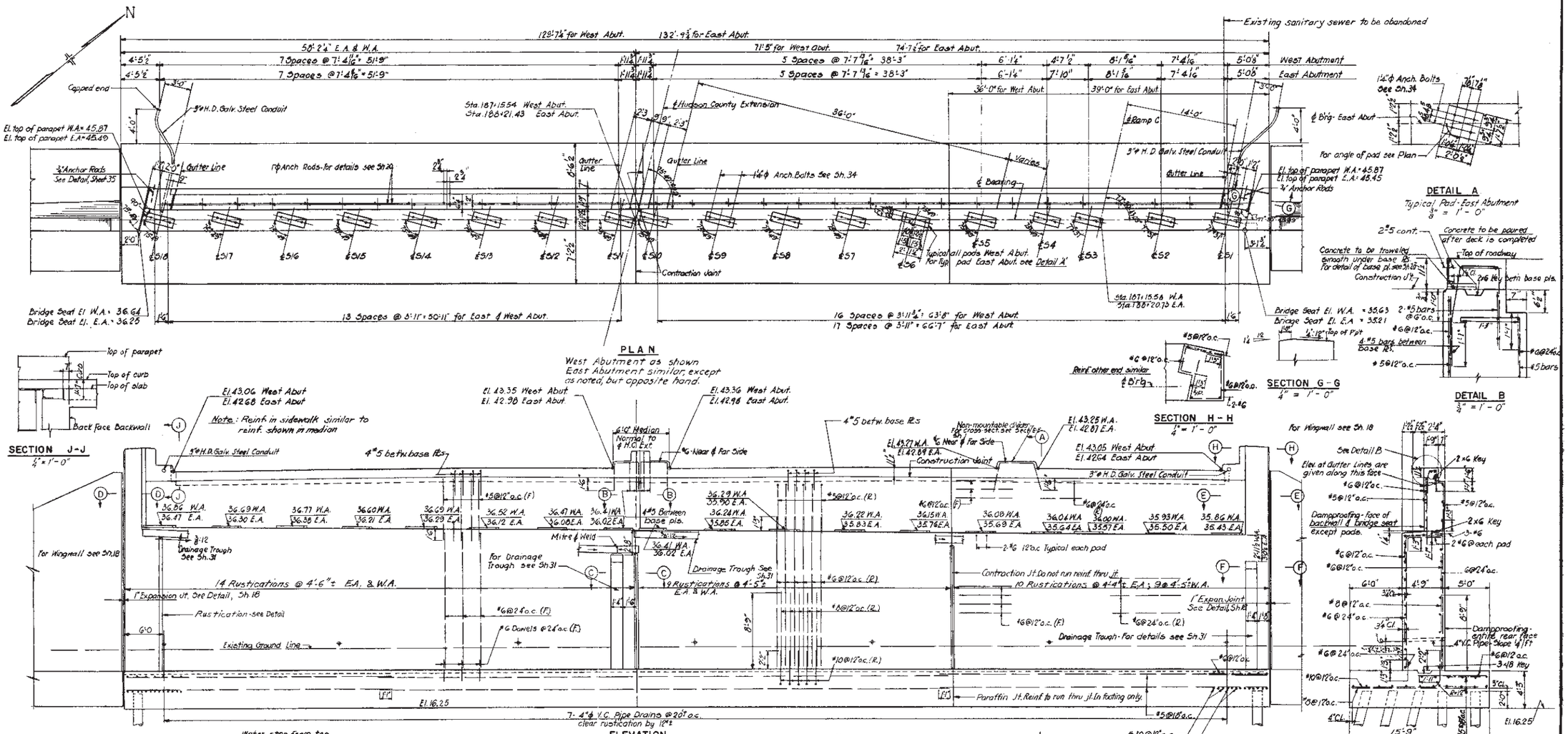
AVENUE "C" OVERPASS
BRIDGE STRUCTURE

GENERAL PLAN & ELEVATIONS

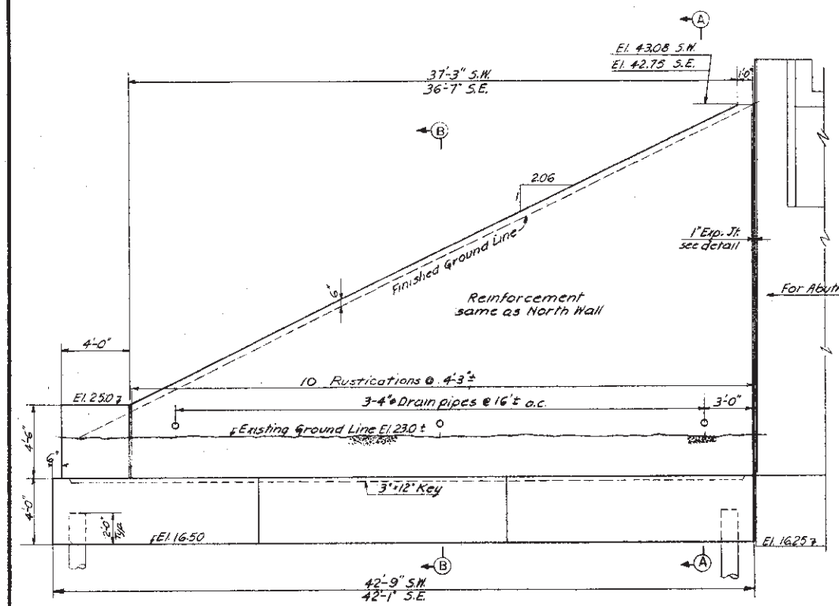
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE:
CONTRACT NO. N-12
SHEET NO. 16 OF 35

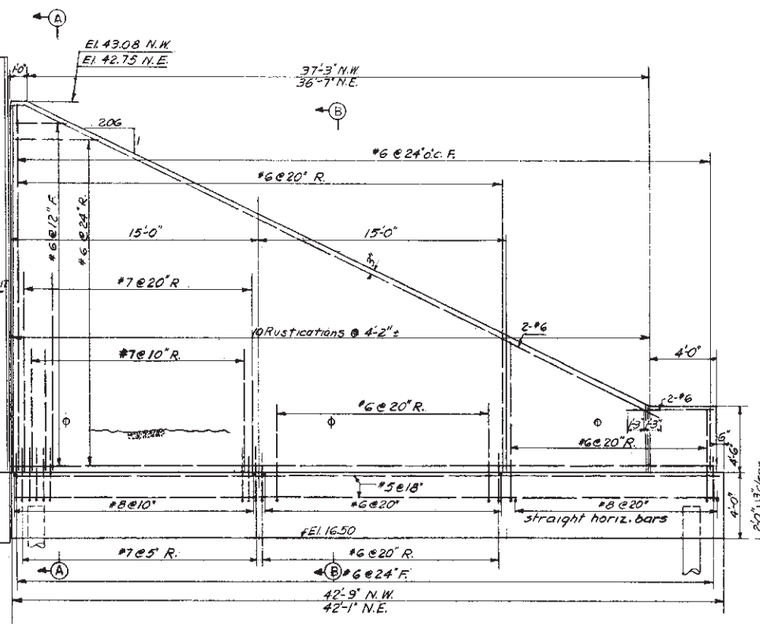
	BY	DATE	No.	REVISION	BY	DATE
MADE	S.K.W.	4-21-54				
TRACED			2	Added Brg. Ramp "C" Curb Line & Non Mount. Div.	MA	2-17-55
CHECKED	B.J.	10-13-54	1	General Changes in Checking	B.J.	10-13-54
IN CHARGE OF	F.H.S.					



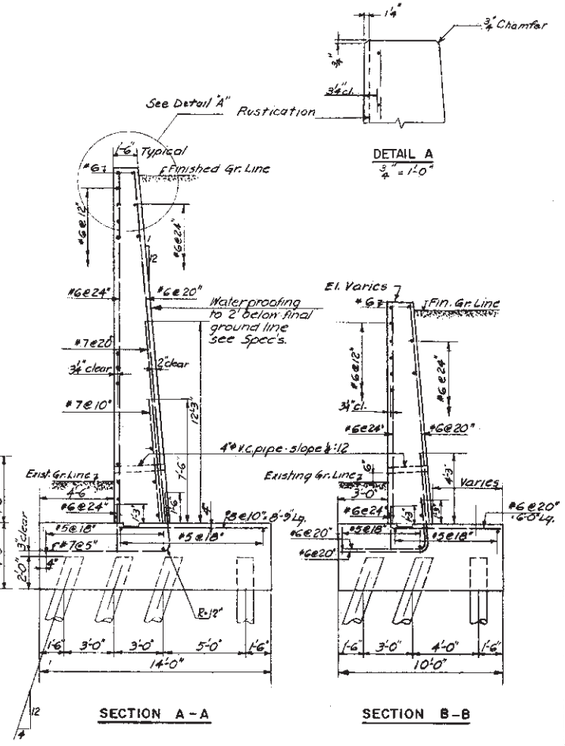
	BY	DATE	No.	REVISION	BY	DATE
MADE	S. S.	6-27-54	4	Corrected Mod. El. at East Abut. Sh.	MA	2-17-55
TRACED			3	Corrected ℄ of Abut. Stringer Spacing	I Y Z	12-14-54
CHECKED	B. J.	10-9-54	2	Remove Reinf Bar from Approach Slab	M.S.	11-15-54
IN CHARGE OF	F. H. S.		1	Quantities Changed in Checking	B.J.	10-9-54



ELEVATION - SOUTHWEST WINGWALL
Southeast Wingwall similar except as noted, but opposite hand



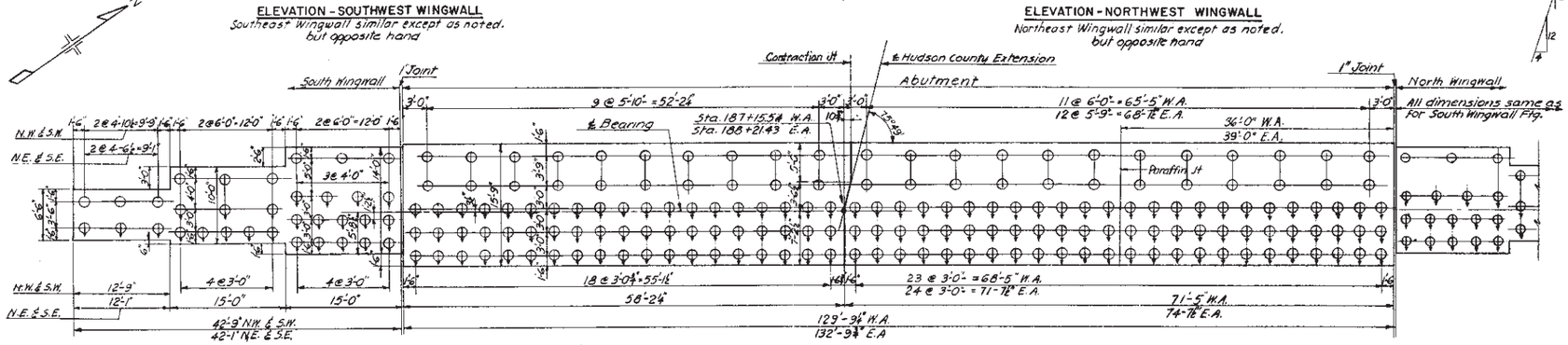
ELEVATION - NORTHWEST WINGWALL
Northeast Wingwall similar except as noted, but opposite hand



DETAIL A
3/4" = 1'-0"

SECTION A - A

SECTION B - B



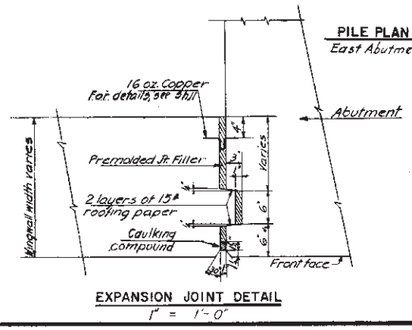
NOTES:
For General Notes see Sh. 2
#87 Treated timber piles.
Maximum pile load 20 Tons
Piles shown by this symbol, battered 4:12 in direction of arrow.
Pile spacing given is at bottom of footing
N.E. = North East Wingwall
S.E. = South East "
N.W. = North West "
S.W. = South West "
E.A. = East Abutment
W.A. = West Abutment
F. = Front Face
R. = Rear Face
For rustication detail see sheet 17.

Estimated Pile Tip Elevations

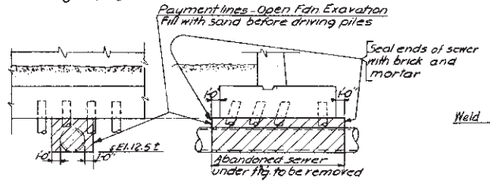
	West Abut.	East Abut.
North End	El. +8	El. +8
South End	El. -4	El. +1

Piles shall be driven to rock

PILE PLAN - WEST ABUTMENT & WEST WINGWALL FOOTINGS
East Abutment & East Wingwall similar, except as noted, but opposite hand
⅛" = 1'-0"

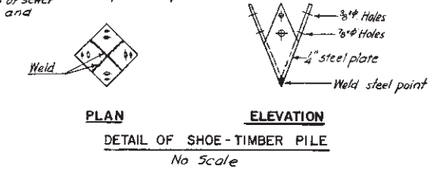


EXPANSION JOINT DETAIL
1" = 1'-0"



PAYMENT LINES FOR REMOVAL OF ABANDONED SEWER
⅛" = 1'-0"

Pile Shoe
The American Pulley Co. or equal. See Spec's.



PLAN ELEVATION

DETAIL OF SHOE - TIMBER PILE
No Scale

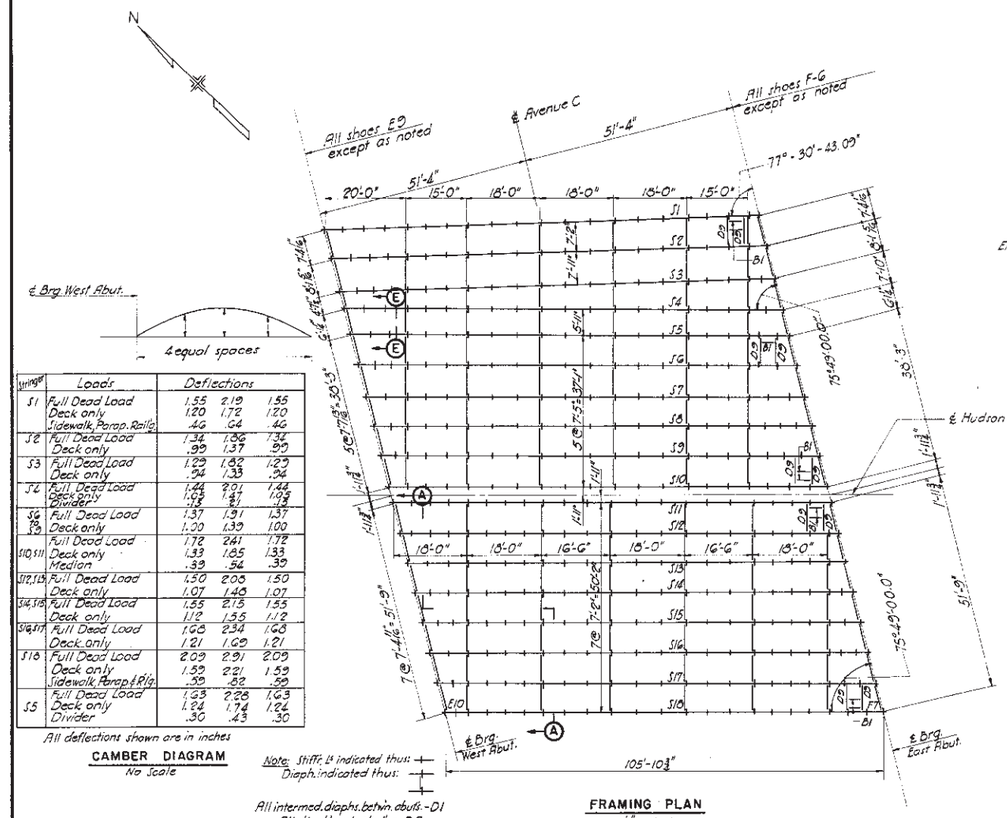
	BY	DATE				
MADE	J. L. K.	6-28-54				
TRACED						
CHECKED	B. J.	10-13-54	1	General Changes in Checking	B. J.	10-19-54
IN CHARGE OF	F. H. S.		No.	REVISION	BY	DATE

AS BUILT

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
AVENUE "C" OVERPASS
BRIDGE STRUCTURES
WINGWALLS & PILE PLANS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1" = 1'-0" Unless noted
CONTRACT NO. N-12
SHEET NO. 18 OF 35



FRAMING PLAN
1/16" = 1'-0"

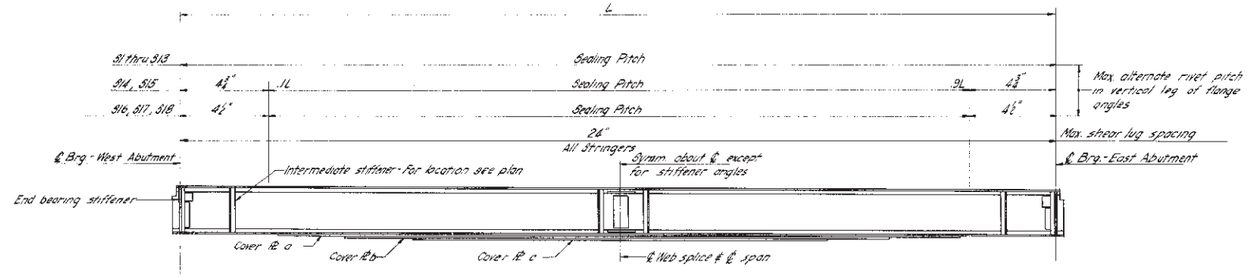
Note: Stiffr. ℄ indicated thus: —+—
Diaph. indicated thus: —+—

All intermed. diaphs. betwn. abuts. - D1
All diaphs. at abuts. - D2

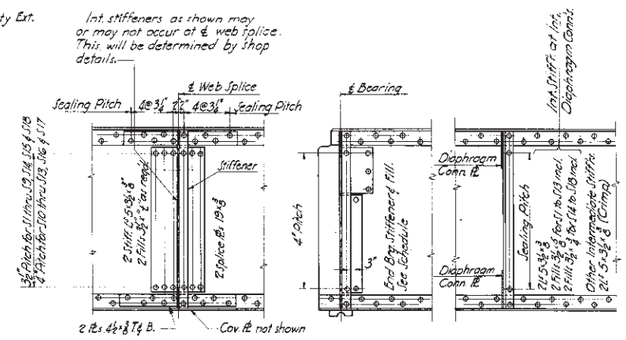
Stringer	Loads	Deflections		
S1	Full Dead Load	1.55	2.19	1.55
	Deck only	1.20	1.72	1.20
	Sidewalk, Parap. Rail℄	.46	.64	.46
S2	Full Dead Load	1.34	1.86	1.32
	Deck only	.95	1.37	.95
S3	Full Dead Load	1.29	1.82	1.29
	Deck only	.94	1.33	.94
S4	Full Dead Load	1.44	2.01	1.44
	Deck only	1.05	1.47	1.05
	Divider	.13	.21	.13
S6 S9	Full Dead Load	1.37	1.91	1.37
	Deck only	1.00	1.39	1.00
S10, S11	Full Dead Load	1.72	2.41	1.72
	Deck only	1.33	1.85	1.33
	Median	.39	.56	.39
S12, S13	Full Dead Load	1.50	2.06	1.50
	Deck only	1.07	1.46	1.07
S14, S15	Full Dead Load	1.55	2.15	1.55
	Deck only	1.12	1.55	1.12
S16, S17	Full Dead Load	1.68	2.34	1.68
	Deck only	1.21	1.69	1.21
S18	Full Dead Load	2.09	2.91	2.09
	Deck only	1.59	2.21	1.59
	Sidewalk, Parap. & Rlg.	.39	.82	.59
S5	Full Dead Load	1.63	2.28	1.63
	Deck only	1.24	1.74	1.24
	Divider	.30	.43	.30

All deflections shown are in inches

CAMBER DIAGRAM
No Scale



STRINGER ELEVATION
⅛" = 1'-0"



WEB SPLICE
½" = 1'-0"

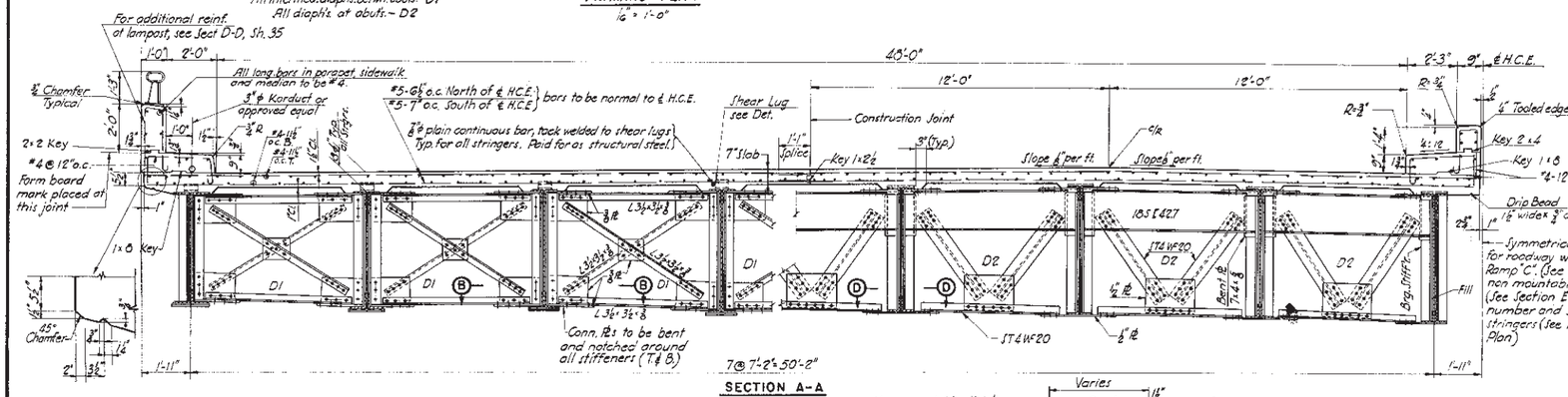
STIFFENERS
½" = 1'-0"

COVER PLATE DEVELOPMENT
3/4" = 1'-0"

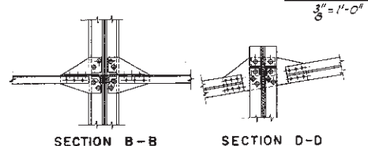
SCHEDULE OF MATERIALS

STR. NO.	WEB PL	FLANGE L's	BOT. COVER PLATE a	BOT. COVER PLATE b	BOT. COVER PLATE c	END BEARING STIFF'R L's
S1	66"x⅜"	6"x6"x⅝"	14"x 15/16"x78'-6"	14"x 9/16"x37'-6"		2 L's 5"x3½"x 7/16" 2 Fills 7"x⅝"
S2	66"x⅜"	6"x6"x⅝"	14"x 1/16"x81'-6"	14"x 7/16"x67'-6"	14"x 7/16"x49'-6"	2 L's 5"x3½"x 7/16" 2 Fills 7"x⅝"
S3	66"x⅜"	6"x6"x⅝"	14"x 9/16"x80'-6"	14"x 9/16"x59'-6"		2 L's 5"x3½"x 7/16" 2 Fills 7"x⅝"
S4	66"x⅜"	6"x6"x⅝"	14"x 1/16"x73'-6"	14"x 1/16"x53'-6"		2 L's 5"x3½"x ½" 2 Fills 7"x⅝"
S5	66"x⅜"	6"x6"x⅝"	14"x ½"x76'-0"	14"x ½"x55'-6"		2 L's 5"x3½"x ½" 2 Fills 7"x⅝"
S6-S9	66"x⅜"	6"x6"x⅝"	14"x ½"x81'-0"	14"x ½"x59'-0"		2 L's 5"x3½"x ½" 2 Fills 7"x⅝"
S10-S11	63"x⅜"	6"x6"x⅝"	14"x 9/16"x78'-0"	14"x ½"x55'-6"		2 L's 5"x3½"x 7/16" 2 Fills 7"x⅝"
S12-S13	63"x⅜"	6"x6"x⅝"	14"x ½"x83'-0"	14"x 7/16"x67'-6"	14"x 7/16"x49'-6"	2 L's 5"x3½"x ½" 2 Fills 7"x⅝"
S14-S15	60"x⅜"	6"x6"x⅝"	14"x 1/16"x80'-6"	14"x 1/16"x58'-6"		2 L's 5"x3½"x ½" 2 Fills 7"x⅝"
S16-S17	57"x⅜"	6"x6"x⅝"	12"x ⅝"x82'-0"	14"x ¾"x60'-0"		2 L's 5"x3½"x ½" 2 Fills 7"x⅝"
S18	54"x⅜"	8"x6"x½"	18"x ½"x77'-0"	18"x ½"x56'-0"		2 L's 7"x4"x ⅜" 2 Fills 7"x⅝"

NOTES:
For general notes see Sh. 2.
Bearing stiffeners shall be milled to bear on bottom flange angles.
All bearing stiffeners & diaphragms shall be normal to stringer flanges.
For Camber notes, see Sh. 2
Stringers shall be cambered for full dead load.
For diaphragms D2 & B1 see Sh. 31.

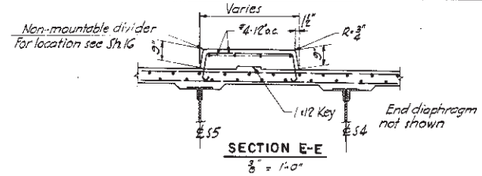


SECTION A-A
⅜" = 1'-0"

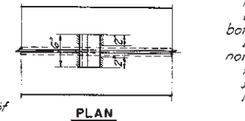


SECTION B-B
⅜" = 1'-0"

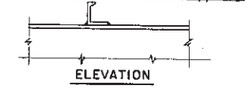
SECTION D-D
⅜" = 1'-0"



SECTION E-E
⅜" = 1'-0"



PLAN
Design load = 21.2 ᵏ/ᵢₙ shear lug
Towards nearest support



ELEVATION

All shear lugs to be Bulb L 4x3½ @ 14.5" with ⅜ fillet weld as shown.

SHEAR LUG DETAIL
1" = 1'-0"

	BY	DATE				
MADE	E.P.	5-24-54				
TRACED	J.T.	7-27-55	2	Corrected E. Abut. Stringer spacing	I.V.Z.	12-14-54
CHECKED	B.J.	10-13-54	1	General changes in checking	B.J.	10-13-54
IN CHARGE OF	F.H.S.		No.	REVISION	BY	DATE

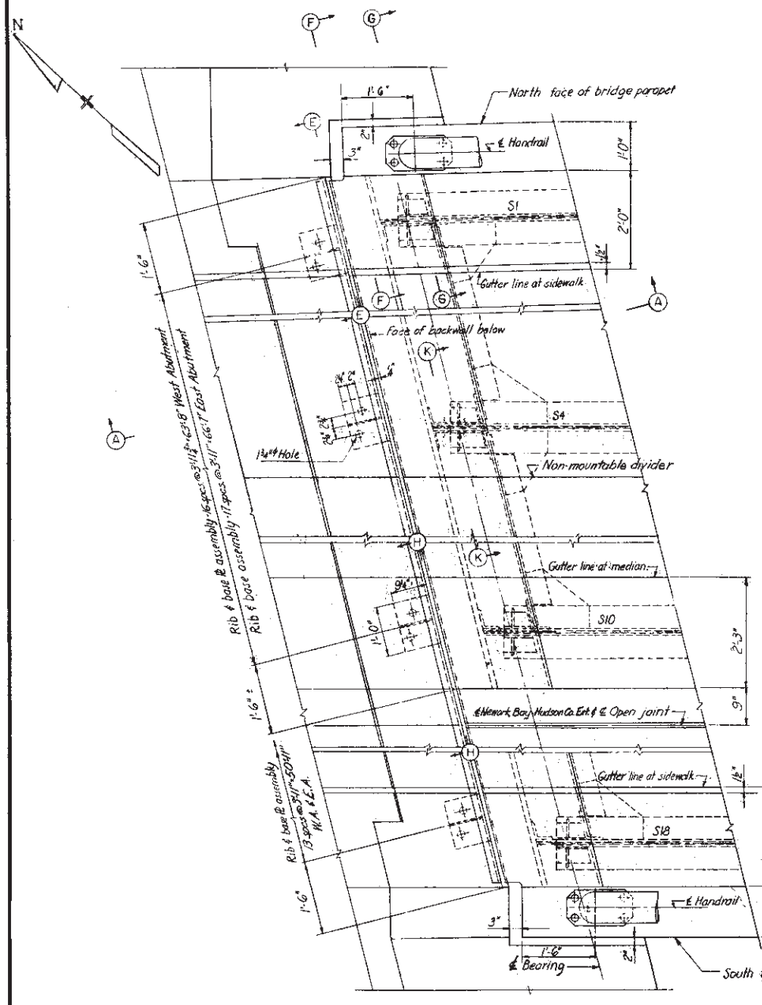
'AS BUILT'

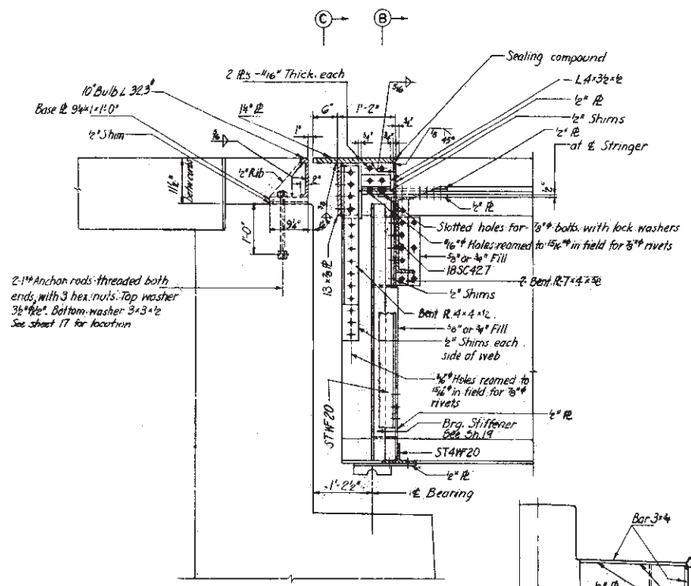
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

AVENUE "C" OVERPASS
BRIDGE STRUCTURES
FRAMING PLAN AND CROSS SECTION

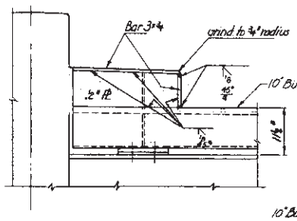
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: AS NOTED
CONTRACT NO. N-12
SHEET NO. 19 OF 35

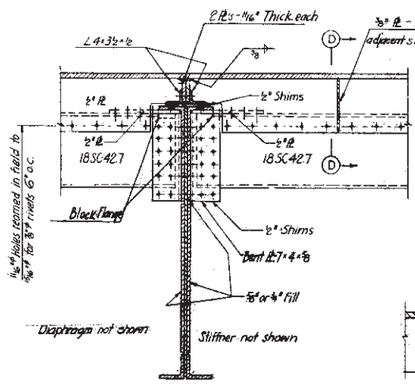




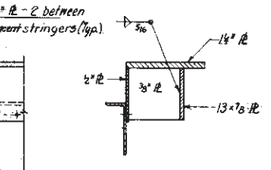
SECTION A – A



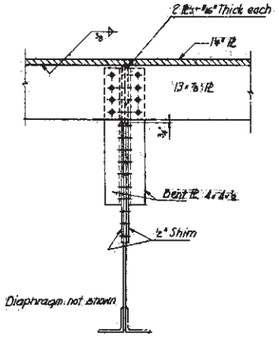
SECTION H – H



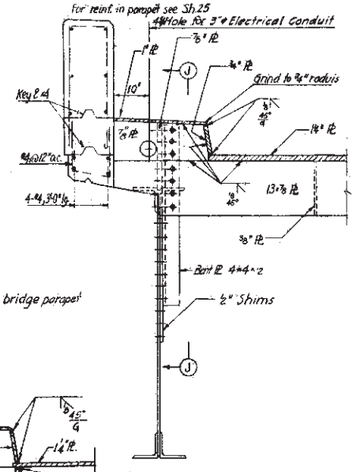
SECTION B – B



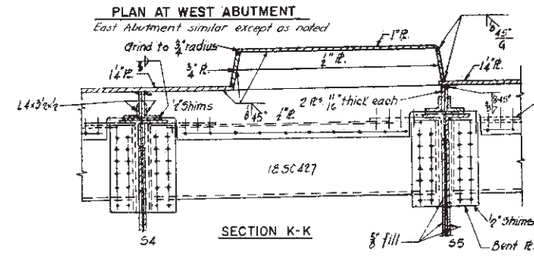
SECTION D–D



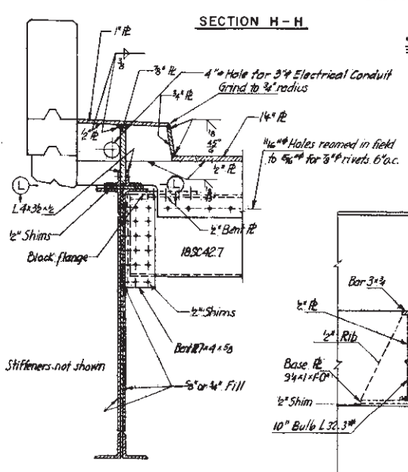
SECTION C–C



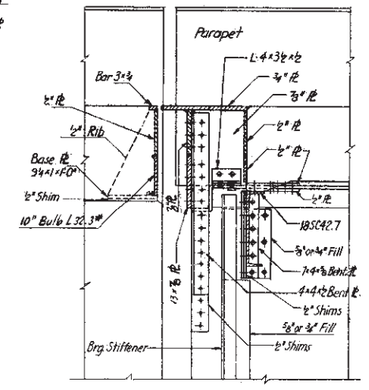
SECTION K–K



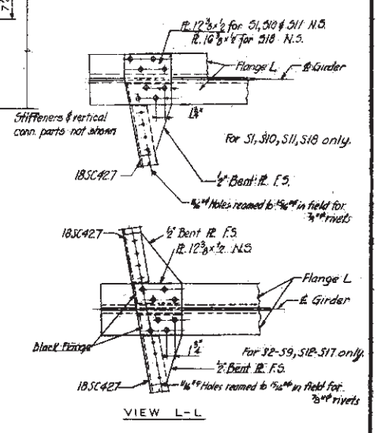
SECTION F–F



SECTION G–G



SECTION J–J



VIEW L–L

NOTES

For General Notes see Sh. 2
Dimension shown are for normal temperature of 68° F
For Section thru abutment showing transition from Kerduct to H.D. Galv. Steel Conduit, see Sh. 11.

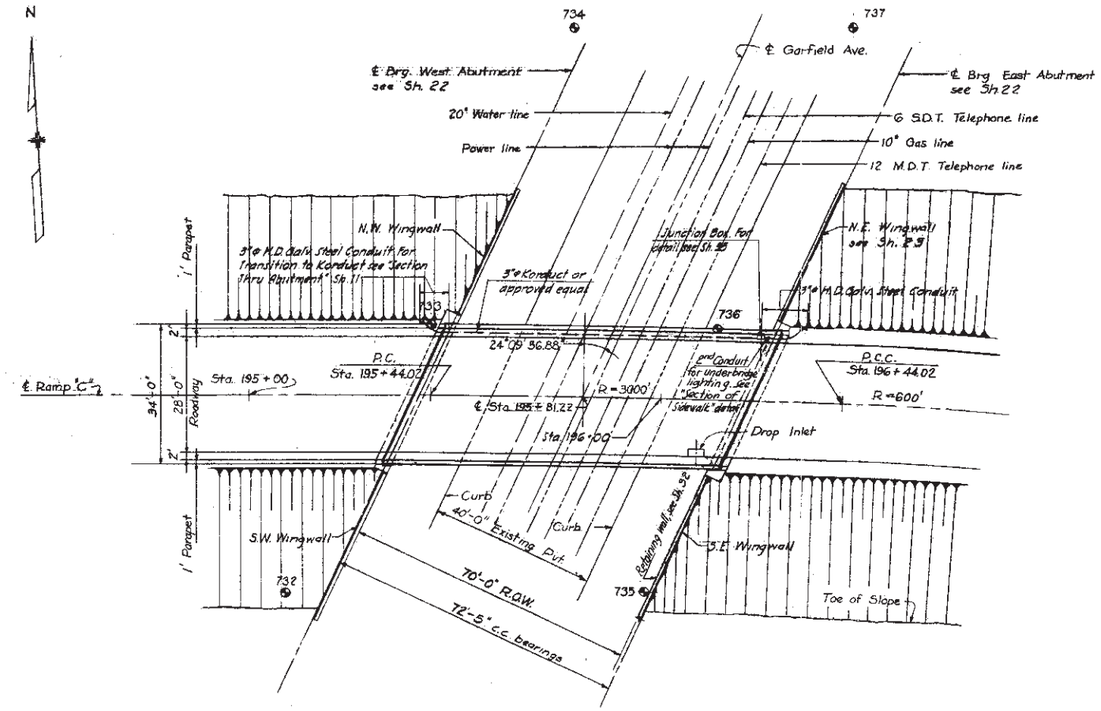
	BY	DATE				
MADE	T. Y.	7-8-54				
TRACED			2	Revised detail of plates at abutment	J.T.	1-26-55
CHECKED	B. J.	10-13-54	1	General Changes in Detailing	B. J.	10-13-54
IN CHARGE OF	F. H. S.		No.	REVISION	BY	DATE

'AS' BUILT

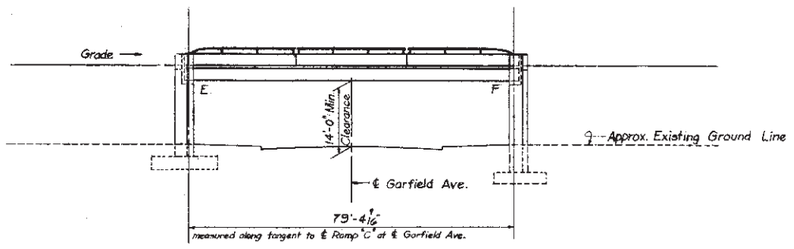
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
AVENUE "C" OVERPASS
BRIDGE STRUCTURES
EXPANSION JOINTS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

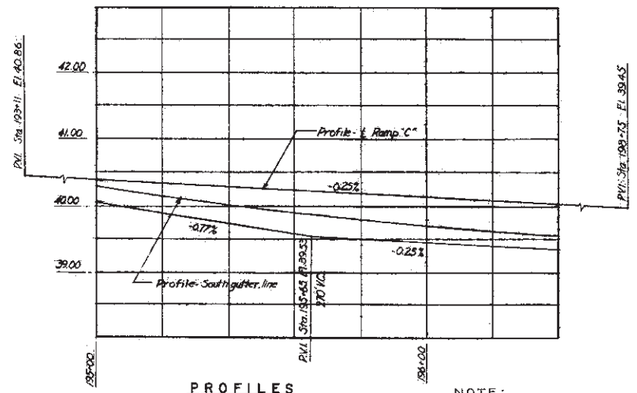
SCALE: 3/4" = 1'-0"
CONTRACT NO. N-12
SHEET NO. 20 OF 35



PLAN

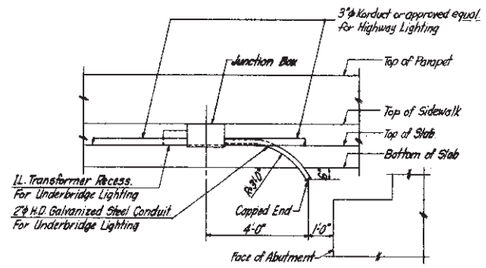


SOUTH ELEVATION



PROFILES
Hor. 1" = 20'
Vert. 1" = 1'

NOTE:
To obtain elevations on North gutter line, extend the cross-slope determined by using the elevation of ℄ Ramp "C" and the South gutter line at any one particular station. All cross-slopes are normal or radial to ℄ Ramp "C".



SECTION OF SIDEWALK
3/4"=1'-0"
Showing details of Conduit for Underbridge Lighting

NOTES:
- Indicates boring location
- F = Fixed
- E = Expansion
- For general notes see Sh. 2

	BY	DATE				
MADE	S.K.W.	4-8-54				
TRACED						
CHECKED	D. M.	10-14-54	1	General Changes in Checking	D.M.	10-14-54
IN CHARGE OF	F.H.S.		No.	REVISION	BY	DATE

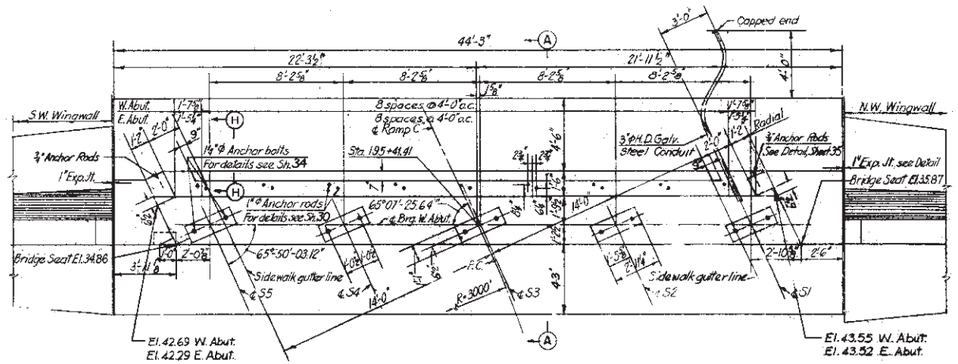
AS BUILT

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

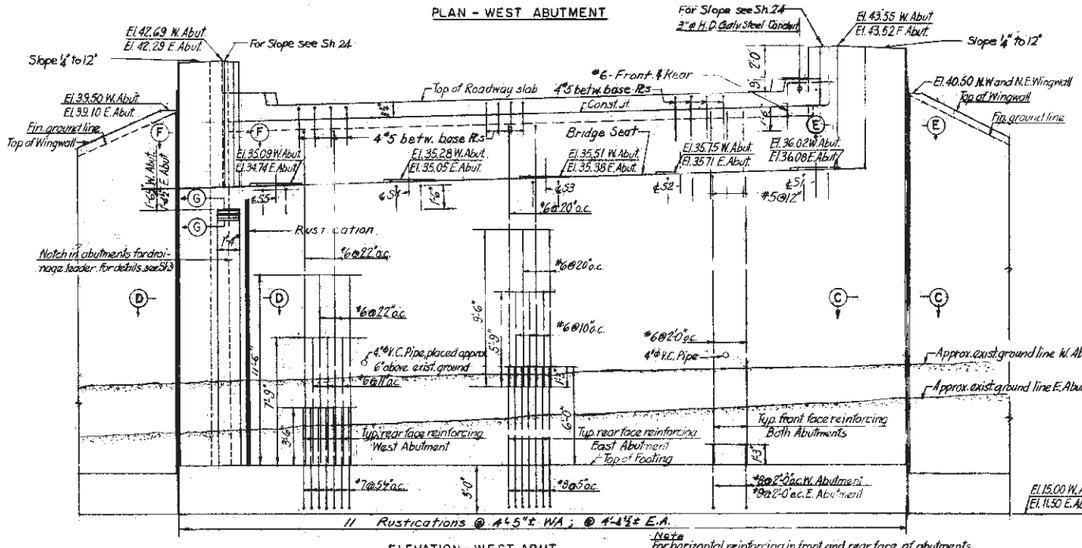
RAMP "C" BRIDGE OVER GARFIELD AVENUE
BRIDGE STRUCTURES
GENERAL PLAN AND ELEVATION

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE 1/8"=1'-0" UNLESS NOTED
CONTRACT NO. N-12
SHEET NO. 21 OF 35

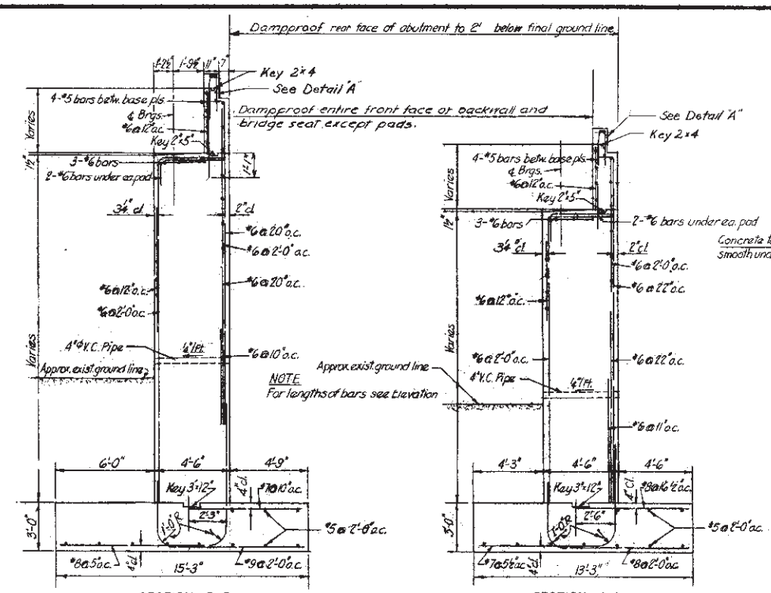


PLAN - WEST ABUTMENT



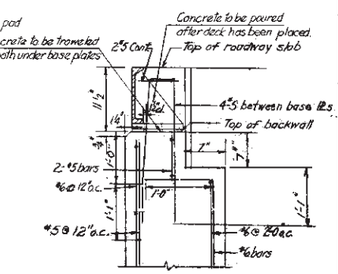
ELEVATION - WEST ABUT.
(" EAST " SIMILAR)

Note
For horizontal reinforcing in front and rear face of abutments see Sections A-A and B-B.

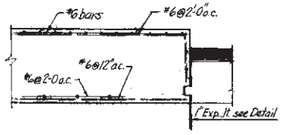


SECTION B-B

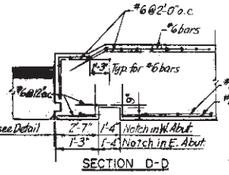
SECTION A-A



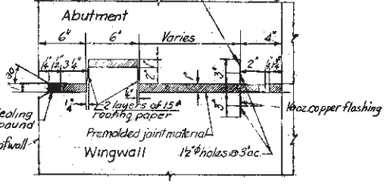
DETAIL "A"
1" = 1'-0"



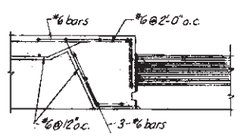
SECTION C-C



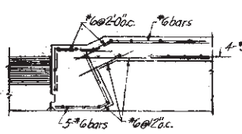
SECTION D-D



EXPANSION JOINT DETAIL
1½" = 1'-0"

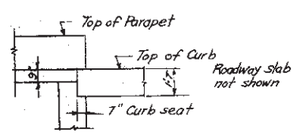


SECTION E-E

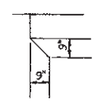


SECTION F-F

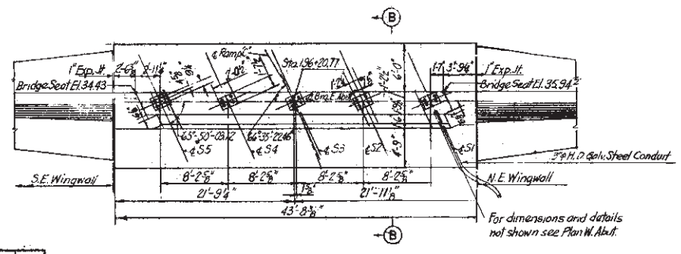
NOTES:
Maximum soil pressure = 3 Tons/□'
For rustication detail see sh. 27
For Section thru abutments showing transition from Konduct to H.D. Galv. Steel Conduit, see Sh. 11.
Minimum radius of bends for Steel Conduits is 3'-0"
Angles shown for intersection of ℄ Stringers with ℄ Brgs. are approximate and are only to be used for setting anchor bolts in pads.
For wingwall details see sh. 23
For General Notes see sh. 2.



SECTION H-H



SECTION G-G



PLAN - EAST ABUTMENT
⅛" = 1'-0"

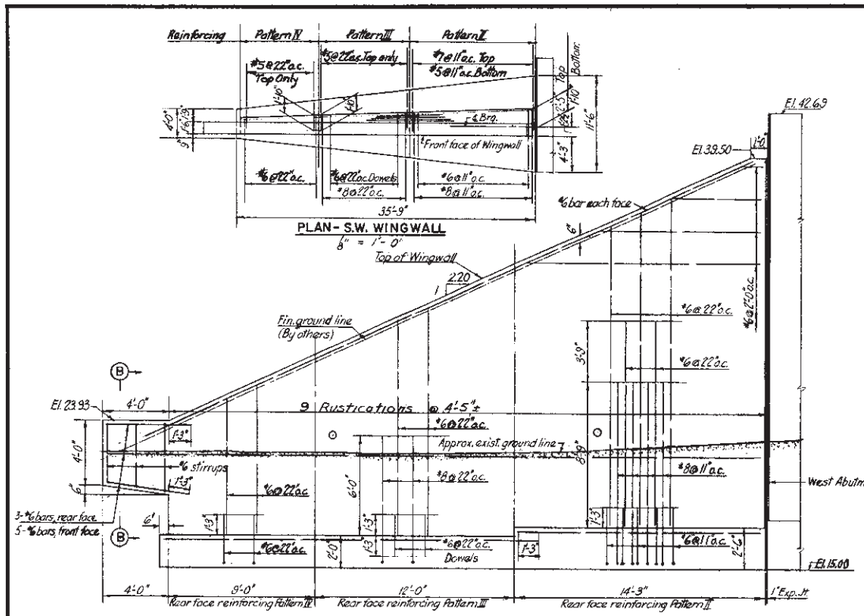
	BY	DATE				
MADE	M R	6-22-54	3	Changes in Pad & Bridge Seat Elev.	T.Y.Z.	12-14-54
TRACED			2	Remove Reinf. Bar from Approach Slab	M.S.	11-15-54
CHECKED	D. M.	9-21-54	1	General Changes to Engineer	D.M.	9-21-54
IN CHARGE OF	F H S		No.	REVISION	BY	DATE

'AS BUILT

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
RAMP "C" BRIDGE OVER GARFIELD AVENUE
BRIDGE STRUCTURES
EAST & WEST ABUTMENTS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1"=1'-0" Unless noted
CONTRACT NO. N-12
SHEET NO. 22 OF 35



NOTES:

Maximum soil pressure = 3 Tons / ☐'
For rustication detail see sheet 27
For general notes see sh. 2
For Abutment details see sh. 22
For Exp. Joint detail see sh. 22

	BY	DATE				
MADE	M. R.	7-3-54				
TRACED						
CHECKED	D. M.	10-21-54	1	General Changes & Cleanup	D.M.	10-21-54
IN CHARGE OF	F. H. S.		No.	REVISION	BY	DATE

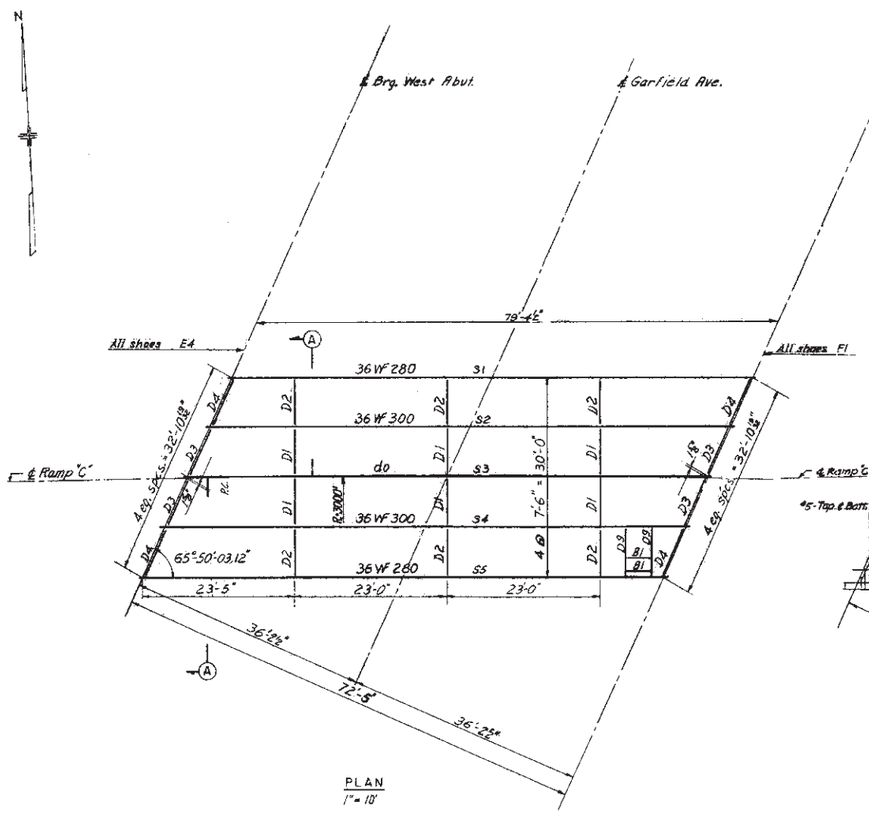
AS BUILT

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

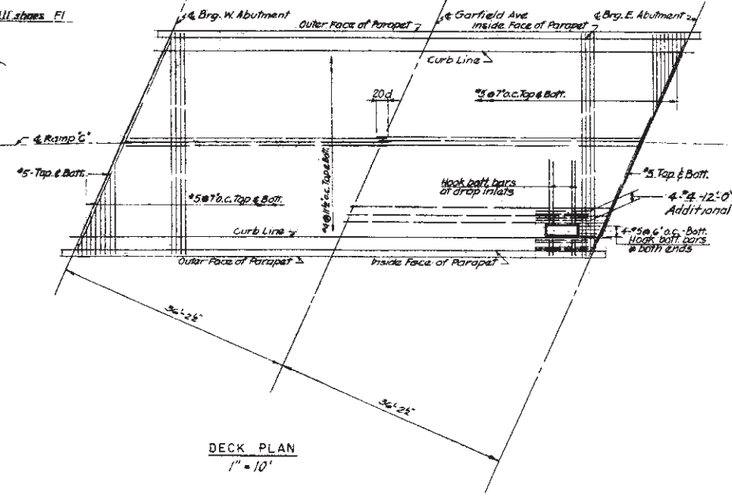
RAMP "C" BRIDGE OVER GARFIELD AVENUE
BRIDGE STRUCTURES
WINGWALLS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

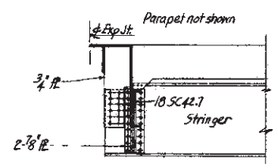
SCALE: 1" = 1'-0" Unless noted
CONTRACT NO. N-12
SHEET NO. 23 OF 35



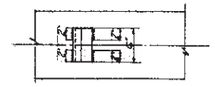
PLAN
1" = 18'



DECK PLAN
1" = 10'

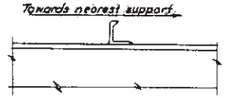


SECTION B-B
¾" = 1'-0"



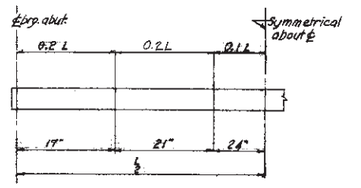
PLAN

Design load = 21.2 k/shear lug.

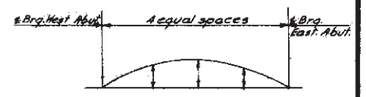


Note: All shear lugs to be Bulb L 4 x 3½ x 14.3# with ⅜" fillet weld as shown

ELEVATION
SHEAR LUGS
1" = 1'-0"



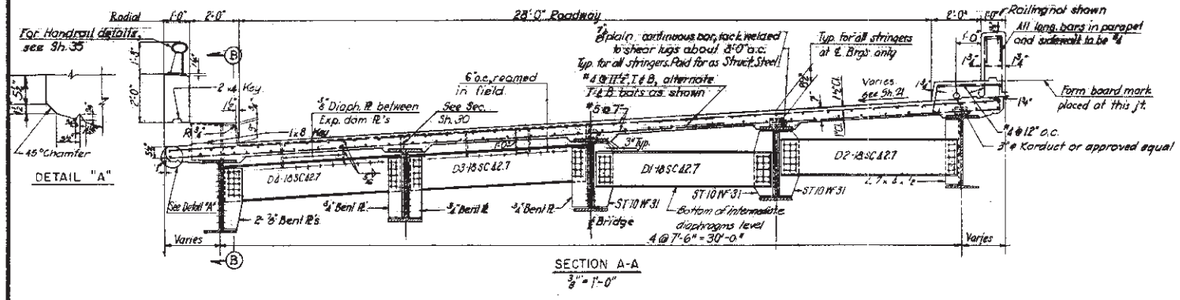
SPACING DIAGRAM
FOR SHEAR LUGS



Stringer	Loads	Deflections		
S1, S5	Full Dead Load	1.41	1.99	1.41
	Deck only	1.06	1.50	1.06
	Sidewalk Parap. & Railing	.42	.60	.42
S2, S3, S4	Full Dead Load	1.11	1.56	1.11
	Deck only	.78	1.09	.78

CAMBER DIAGRAM
No Scale

All deflections shown are in inches



SECTION A-A
¾" = 1'-0"

NOTES:

For General Notes, see Sh. 2
All diaphragms shall be normal to stringer flanges.
For Shoe Details, see Sh. 34
For Expansion Joint Details, see Sh. 30
For Diaphragms D9 and B1 see Sh. 31
For Camber Notes see Sh. 2
All stringers shall be cambered for full dead load.

	BY	DATE				
MADE	D.S.N. B.M.	4-7-54				
TRACED						
CHECKED	D. M.	10-15-54	1	General Changes Gen. Checking	D.M.	10-15-54
IN CHARGE OF - F.H.S.			No.	REVISION	BY	DATE

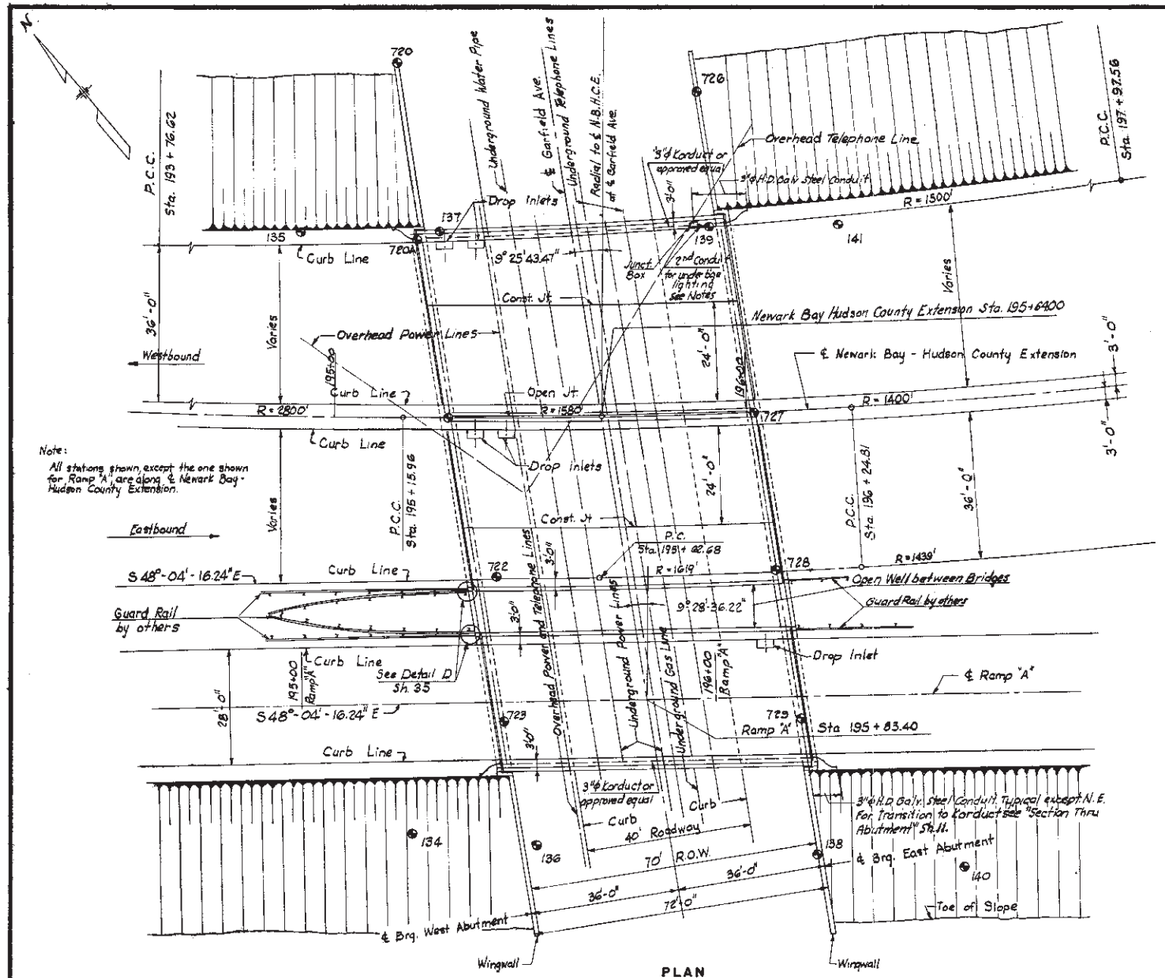
'AS BUILT'

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

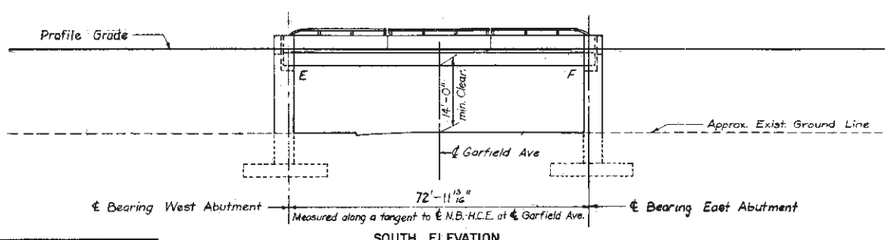
RAMP "C" BRIDGE OVER GARFIELD AVENUE
BRIDGE STRUCTURES
FRAMING PLAN & CROSS SECTION

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: AS NOTED
CONTRACT NO. N-12
SHEET NO. 24 OF 35

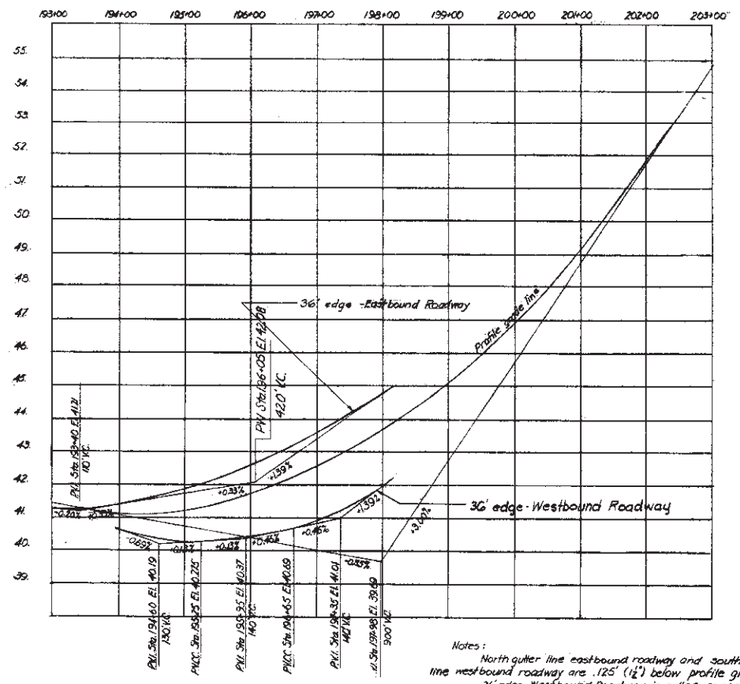


PLAN



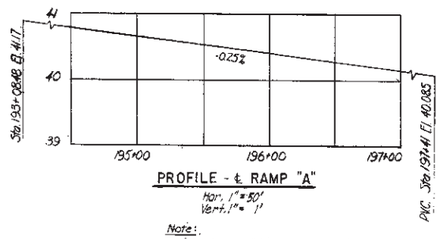
SOUTH ELEVATION

	BY	DATE				
MADE	S.K.W.	4-14-54				
TRACED						
CHECKED	H.H.C.	10-14-54	1	General changes in checking	H.H.C.	10-14-54
IN CHARGE OF	F.H.S.		No.	REVISION	BY	DATE



Notes:
North gutter line eastbound roadway and south gutter line westbound roadway are .125' (1½") below profile grade line.
36' edge Westbound Roadway is a line concentric with, and 36' away, from the south gutter line westbound roadway.
To determine elevations of the north gutter line westbound roadway at any one station, continue cross-slope determined from south gutter line and 36' edge westbound roadway. Station should be projected radially to ℄ N.B.H.C.E.
Similarly for 36' edge Eastbound Roadway.

PROFILES NEWARK BAY HUDSON COUNTY EXTENSION
Hor. 1"=100'
Vert. 1"= 2'



PROFILE - ℄ RAMP "A"
Hor. 1"=50'
Vert. 1"= 1'

Note:
Ramp "A" is superelevated 1% with the south gutter line of Ramp "A" .14' higher than ℄ Ramp "A".

NOTES:

- Indicates boring location.
For general notes see Sh. 2.
For Section of Sidewalk showing detail of conduit for underbridge lighting see Sh. 21.
Slope I.L. Transformer Recess to drain toward Junction Box.
E = Expansion.
F = Fixed.

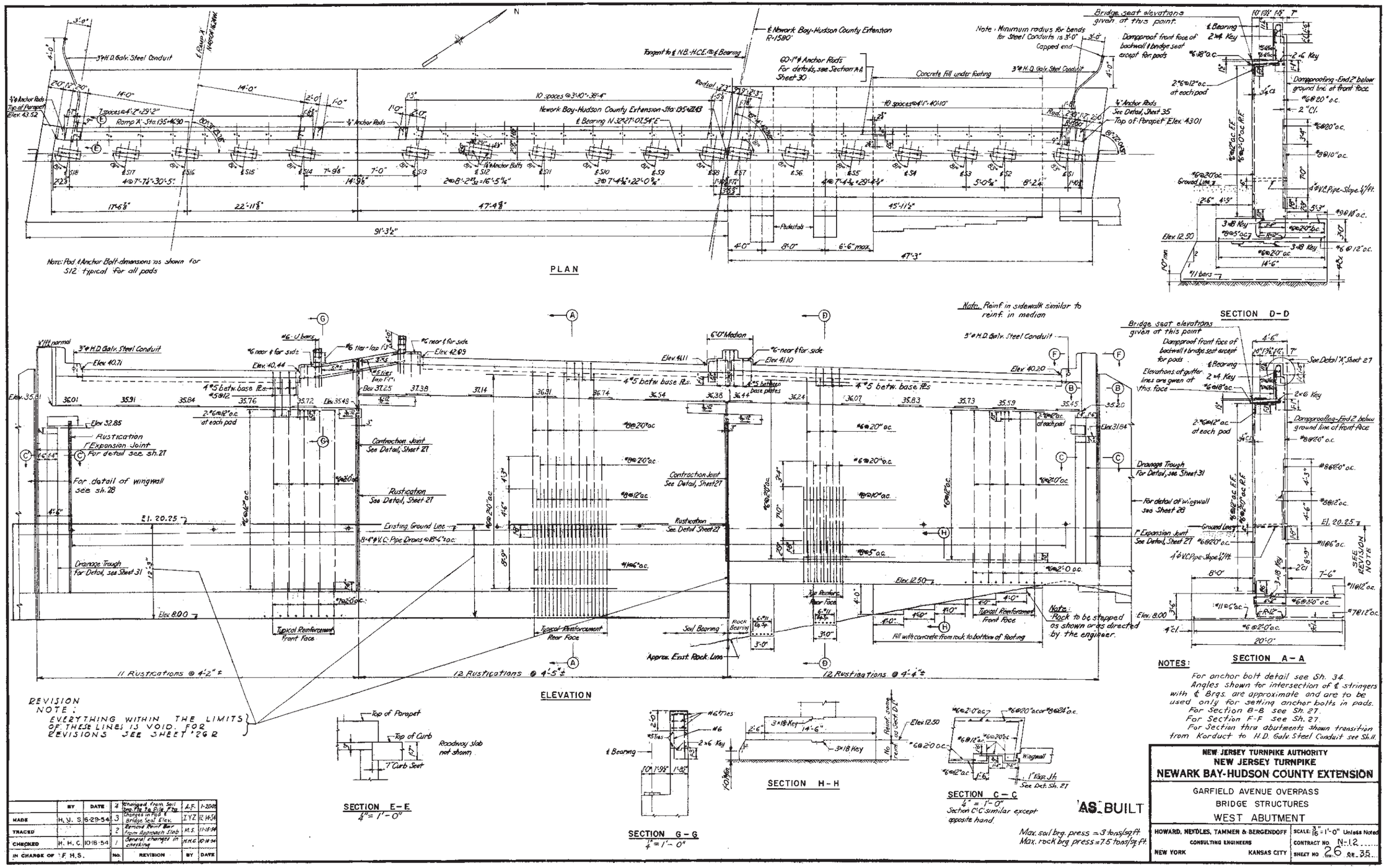
AS BUILT

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

GARFIELD AVENUE OVERPASS
BRIDGE STRUCTURES
GENERAL PLAN & ELEVATION

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1" = 1'-0" Unless Noted
CONTRACT NO. N-12
SHEET NO. 25 OF 35



	BY	DATE
MADE	H. V. S.	6-29-54
TRACED		
CHECKED	H. H. C.	10-18-54
IN CHARGE OF	F. H. S.	

No.	REVISION	BY	DATE
4	Changed from Soil Bng. Pile to Pile P'tg. Changes in Pad & Bridge Seat Elev.	A.F.	1-2006
3		I.Y.Z.	12-14-54
2	Remove Reinf Bar from Approach Slab	M.S.	11-18-54
1	General changes in detailing	H.H.C.	10-18-54

'AS BUILT

Max. soil brg. press = 3 tons/sq.ft.
Max. rock brg press = 7.5 tons/sq.ft.

NOTES:

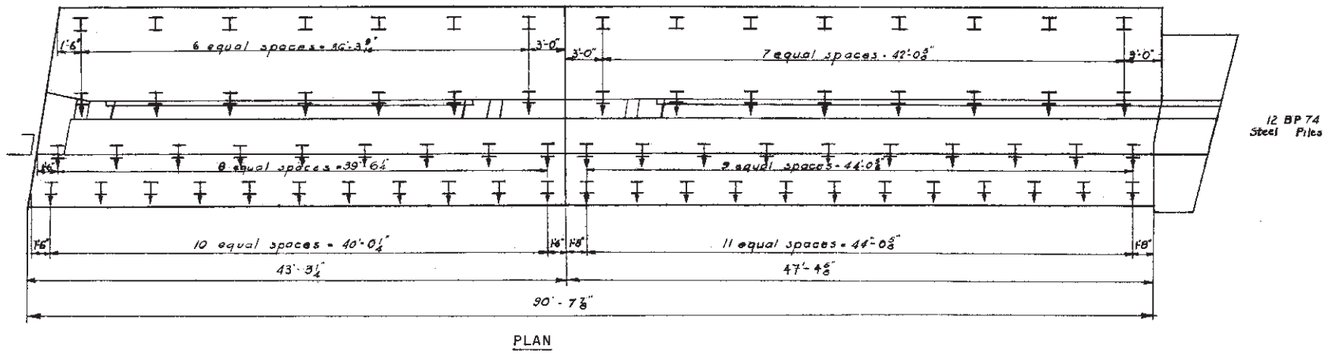
For anchor bolt detail see Sh. 34.
Angles shown for intersection of ℄ stringers with ℄ Brgs. are approximate and are to be used only for setting anchor bolts in pads.
For Section B-B see Sh. 27.
For Section F-F see Sh. 27.
For Section thru abutments shown transition from Korduct to H.D. Galv. Steel Conduit see Sh. 11.

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

GARFIELD AVENUE OVERPASS
BRIDGE STRUCTURES
WEST ABUTMENT

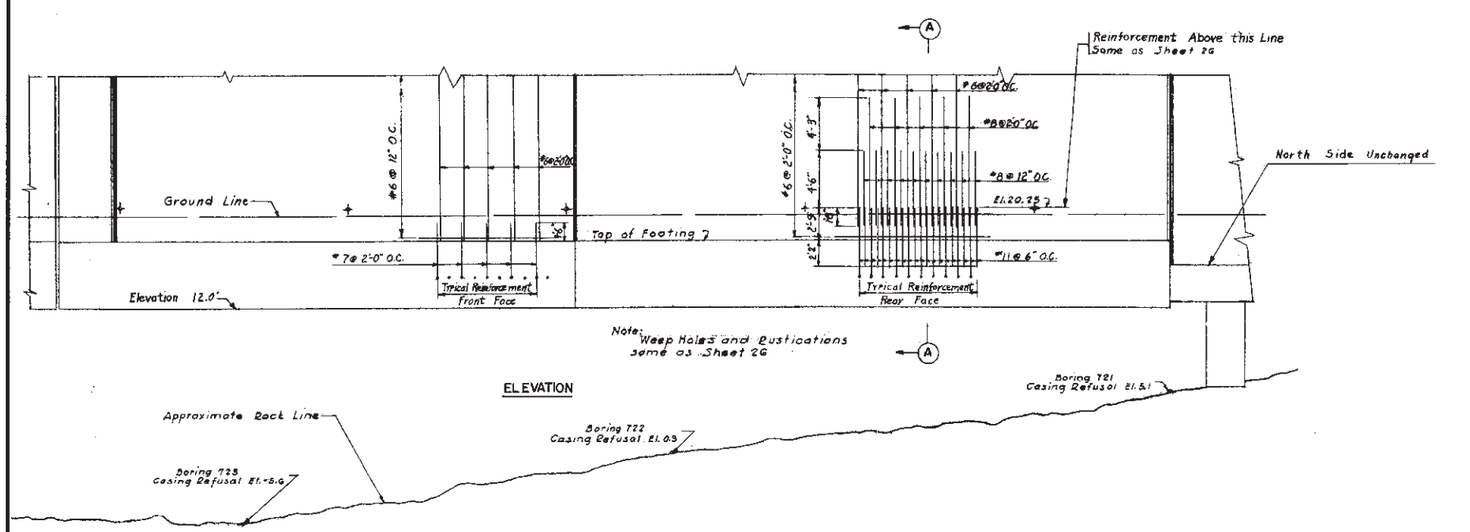
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

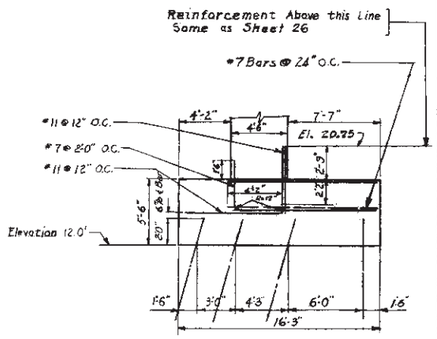
SCALE: 1/8" = 1'-0" Unless Noted
CONTRACT NO. N-12
SHEET NO. 26 OF 35



PLAN

12 BP 74 Steel Piles





SECTION A-A

NOTES:
7 Indicates 12 BP 74 Steel Piles Battered 3:12 in direction of Arrow
Maximum Pile D.L. + L.L. = 50 tons per pile

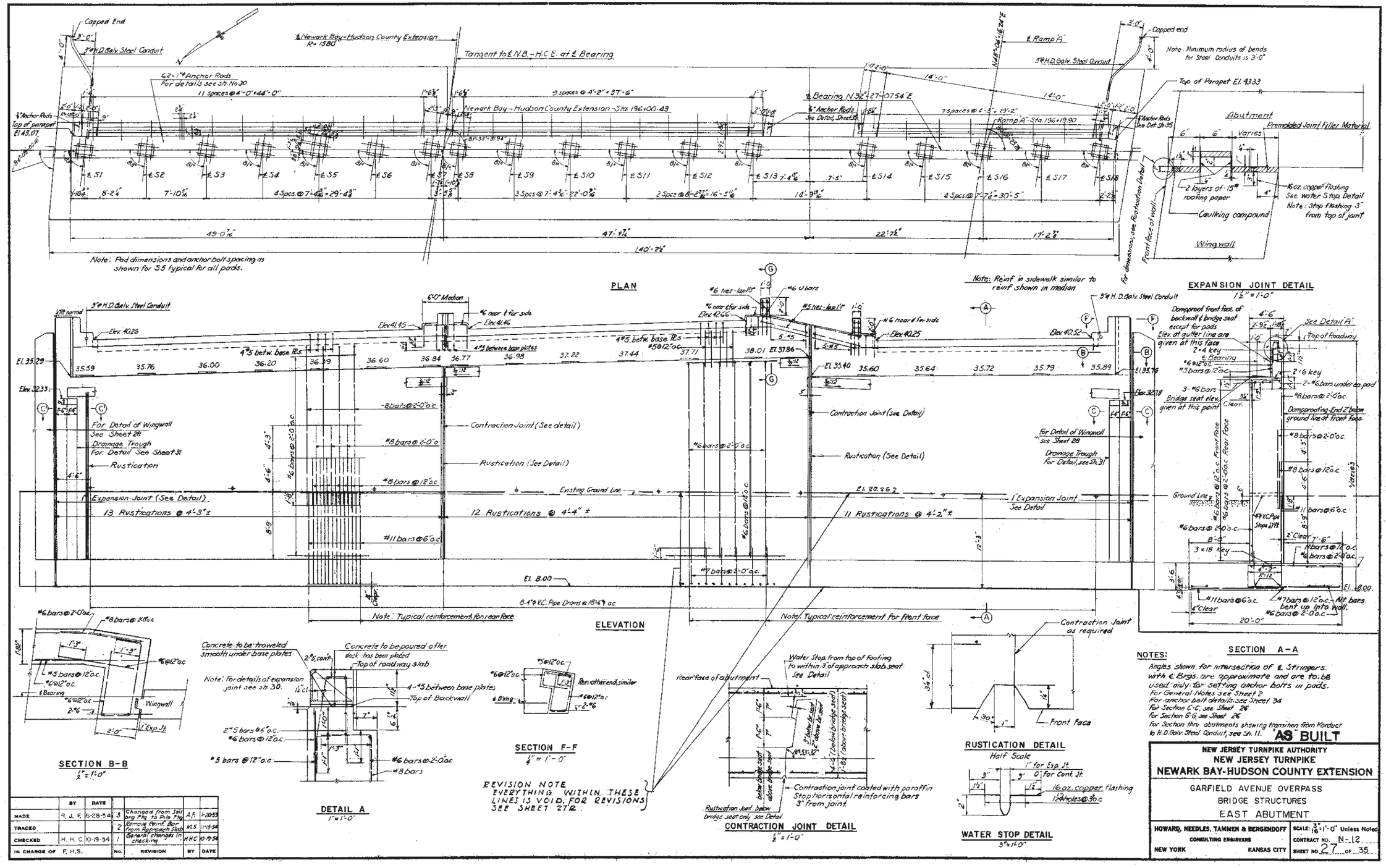
	BY	DATE				
MADE	HF	1-8-55				
TRACED						
CHECKED	A.F.	1-20-55				
IN CHARGE OF	J.L.		NO.	REVISION	BY	DATE

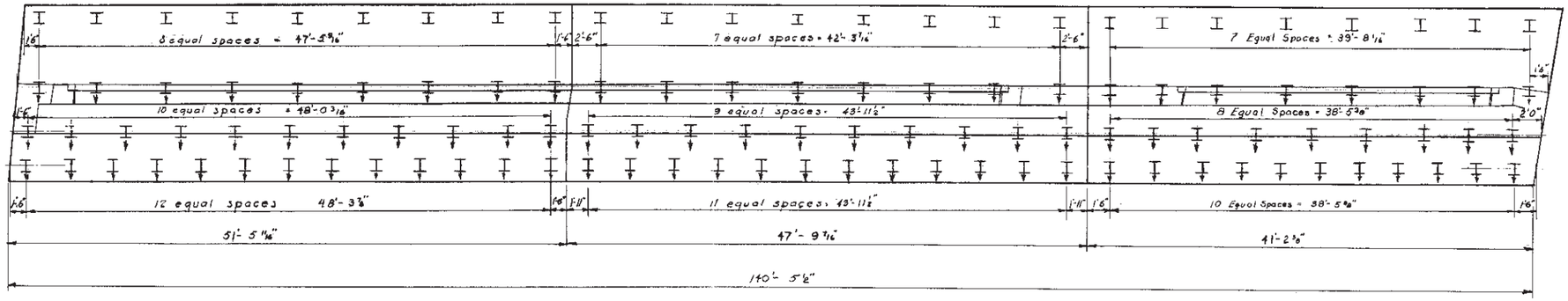
AS BUILT

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
GARFIELD AVENUE OVERPASS
BRIDGE STRUCTURES
REVISED WEST ABUTMENT

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

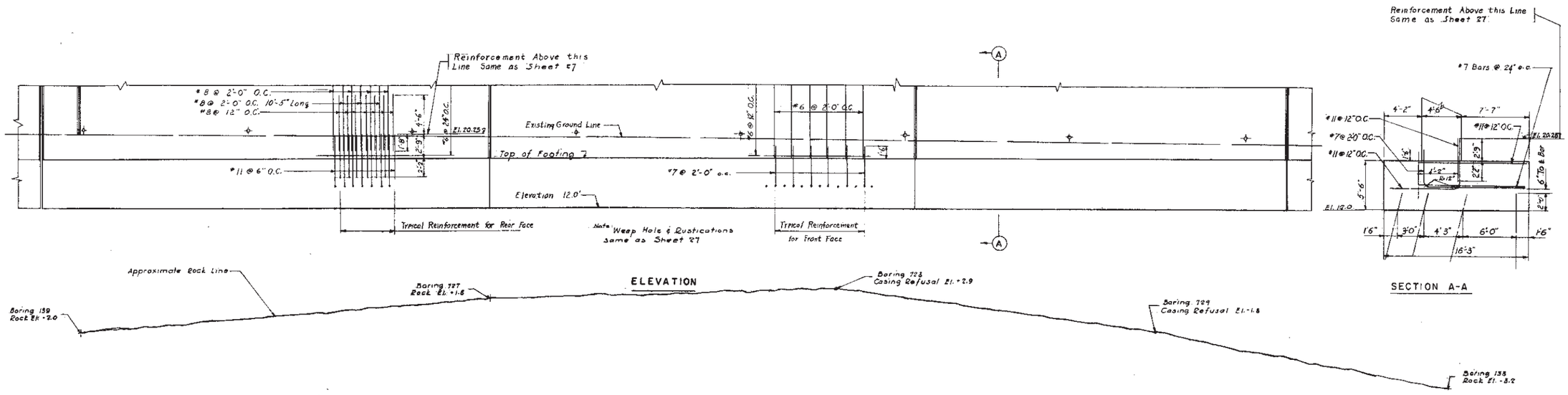
SCALE: 1/16" = 1'-0"
CONTRACT NO. N 12
SHEET NO. 26R OF 35


Capped End
3'-0"
3" H.D. Galv. Steel Conduit
4'-0"
1'-6"
2'-0" Var.
2'-0"
9"
¾" Anchor Rods
Top of parapet El. 43.07
6.2-1" ϕ Anchor Rods
For details see Sh. No. 30
11 spaces @ 4'-0" = 44'-0"
℄ Newark Bay-Hudson County Extension
R = 1580
Tangent to ℄ N.B.-H.C.E. at ℄ Bearing
9 spaces @ 4'-2" = 37'-6"
℄ Newark Bay-Hudson County Extension - Sta. 196+00.43
℄ Bearing N 32° 27' 07.54" E
¾" Anchor Rods
See Detail, Sheet 35
7 spaces @ 4'-3" = 29'-2"
℄ Ramp "A" - Sta. 196+19.90
℄ Ramp "A"
3" H.D. Galv. Steel Conduit
Capped end
Note: Minimum radius of bends for Steel Conduits is 3'-0"
Top of Parapet El. 43.33
Abutment
Premolded Joint Filler Material
6"
Varies
2 layers of 15# roofing paper
Caulking compound
16 oz. copper flashing
See Water Stop Detail
Note: Stop flashing 3" from top of joint
Wing wall
Front face of Wall
For dimensions, see Abutment Detail
℄ S1
℄ S2
℄ S3
℄ S4
℄ S5
℄ S6
℄ S8
℄ S9
℄ S10
℄ S11
℄ S12
℄ S13
℄ S14
℄ S15
℄ S16
℄ S17
℄ S18
4 Spcs. @ 7'-4 13/16" = 29'-4 3/4"
3 Spcs. @ 7'-4 3/16" = 22'-0 9/16"
2 Spcs. @ 8'-2 7/8" = 16'-5 1/16"
7'-5"
4 Spcs. @ 7'-7 1/4" = 30'-5"
49'-0 7/16"
47'-9 7/8"
22'-7 1/2"
17'-2 7/8"
140'-2 1/2"
Note: Pad dimensions and anchor bolt spacing as shown for S5 typical for all pads.
PLAN
Note: Reinf. in sidewalk similar to reinf. shown in median
EXPANSION JOINT DETAIL
1½" = 1'-0"
3" H.D. Galv. Steel Conduit
Dampproof front face of backwall & bridge seat except for pads
Elev. at gutter line are given at this face
2"x4" key
℄ Bearing
#6 @ 12" o.c.
#5 bars @ 12" o.c.
3-#6 bars
Bridge seat elev. given at this point
Clear.
See Detail "A"
Top of Roadway
2'-9½"
4'-6"
2'-6" key
2-#6 bars under ea. pad
#8 bars @ 2'-0" o.c.
Dampproofing. End 2' below ground line at front face.
#8 bars @ 2'-0" o.c. Front Face
#8 bars @ 12" o.c. Rear Face
#6 bars @ 2'-0" o.c.
#11 bars @ 6'-0" o.c.
4" V.C. Pipe Drain
Slope 1/8" ft.
2" Clear
1'-6"
8'-0"
3 x 18 Key
#7 bars @ 12" o.c.
#6 bars @ 2'-0" o.c.
#11 bars @ 6" o.c.
4" clear
#7 bars @ 12" o.c. Alt. bars bent up into wall.
#6 bars @ 2'-0" o.c.
20'-0"
6'-0" Median
¾" nom.
Elev. 41.45
¾" rear ℄ for side
Elev. 41.46
4"ϕ bet. base PLs
4"ϕ between base plates
Elev. 40.26
El. 35.29
35.59
35.76
36.00
36.20
36.39
36.60
36.84
36.77
36.98
37.22
37.44
37.71
38.01
El. 37.86
#5 @ 12" o.c.
#6 ties - lap 1'-3"
#6 U bars
¾" rear ℄ for side
Elev. 42.66
#5 ties - lap 1'-1"
#6 rear ℄ for side
Elev. 40.25
Elev. 40.52
El. 35.40
35.60
35.64
35.72
35.79
35.89
El. 35.79
Elev. 32.33
Elev. 32.18
8 bars @ 2'-0" o.c.
#8 bars @ 2'-0" o.c.
#8 bars @ 12" o.c.
#11 bars @ 6" o.c.
#6 bars @ 2'-0" o.c.
#6 bars @ 1'-0" o.c.
Contraction Joint (See detail)
Rustication (See Detail)
For Detail of Wingwall See Sheet 28
Drainage Trough For Detail See Sheet 31
Rustication
1" Expansion Joint (See Detail)
13 Rustications @ 4'-3" ±
12 Rustications @ 4'-4" ±
11 Rustications @ 4'-2" ±
Existing Ground Line
El. 22.267
El. 8.00
8-4" ϕ V.C. Pipe Drains @ 18'-6" o.c.
Note: Typical reinforcement for rear face
Note: Typical reinforcement for front face
ELEVATION
SECTION B-B
1" = 1'-0"
#6 bars @ 2'-0" o.c.
#8 bars @ 2'-0" o.c.
#6 @ 12" o.c.
#5 bars @ 12" o.c.
℄ Bearing
Wingwall
℄ Exp. Jt.
Concrete to be troweled smooth under base plates
Concrete to be poured after deck has been placed
Top of roadway slab
Note: For details of expansion joint see sh. 30.
2"ϕ, cont.
4-#5 between base plates
Top of Backwall
2"ϕ 5 bars @ 6" o.c.
#6 bars @ 12" o.c.
#5 bars @ 12" o.c.
#6 bars @ 2'-0" o.c.
#8 bars
DETAIL A
1" = 1'-0"
#5 @ 12" o.c.
#6 @ 12" o.c.
Pan other end, similar
2-#6
SECTION F-F
¼" = 1'-0"
Water Stop from top of footing to within 3' of approach slab seat. See Detail
Rear face of abutment
Below bridge seat
Above bridge seat
Contraction joint coated with paraffin
Stop horizontal reinforcing bars 3" from joint.
Rustication Joint below bridge seat only. See Detail
CONTRACTION JOINT DETAIL
½" = 1'-0"
Contraction Joint as required
Front Face
RUSTICATION DETAIL
Half Scale
1" for Exp. Jt.
0" for Cont. Jt.
16 oz. copper flashing
½" holes @ 3'-0" c
WATER STOP DETAIL
3" = 1'-0"
SECTION A-A
NOTES:
Angles shown for intersection of ℄ Stringers with ℄ Brgs. are approximate and are to be used only for setting anchor bolts in pads.
For General Notes see Sheet 2
For anchor bolt details see Sheet 34
For Section C-C, see Sheet 26
For Section G-G, see Sheet 26
For Section thru abutments showing transition from Conduit to H.D. Galv. Steel Conduit, see Sh. 11.
AS BUILT
REVISION NOTE
EVERYTHING WITHIN THESE LINES IS VOID. FOR REVISIONS SEE SHEET 27-2.
BY
DATE
MADE
R. J. F.
6-28-54
CHECKED
H. H. C.
10-19-54
IN CHARGE OF
F. H. S.
No.
REVISION
BY
DATE
3
Changed from Soil brg Pltg to Pile Pltg
A.F.
1-20-55
2
Removing Point Bar from Approach Slab
W.S.
1-15-54
1
General changes in checking
H.H.C.
10-19-54
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
GARFIELD AVENUE OVERPASS
BRIDGE STRUCTURES
EAST ABUTMENT
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK
KANSAS CITY
SCALE: 3/16" = 1'-0" Unless Noted
CONTRACT NO. N-12
SHEET NO. 27 OF 35



PLAN

12 BP 74 Steel Piles



NOTES:
‡ Indicates 12 BP 74 Steel Piles Battered 3½:12 in direction of arrow
Maximum Pile D.L.+L.L. = 50 tons per pile

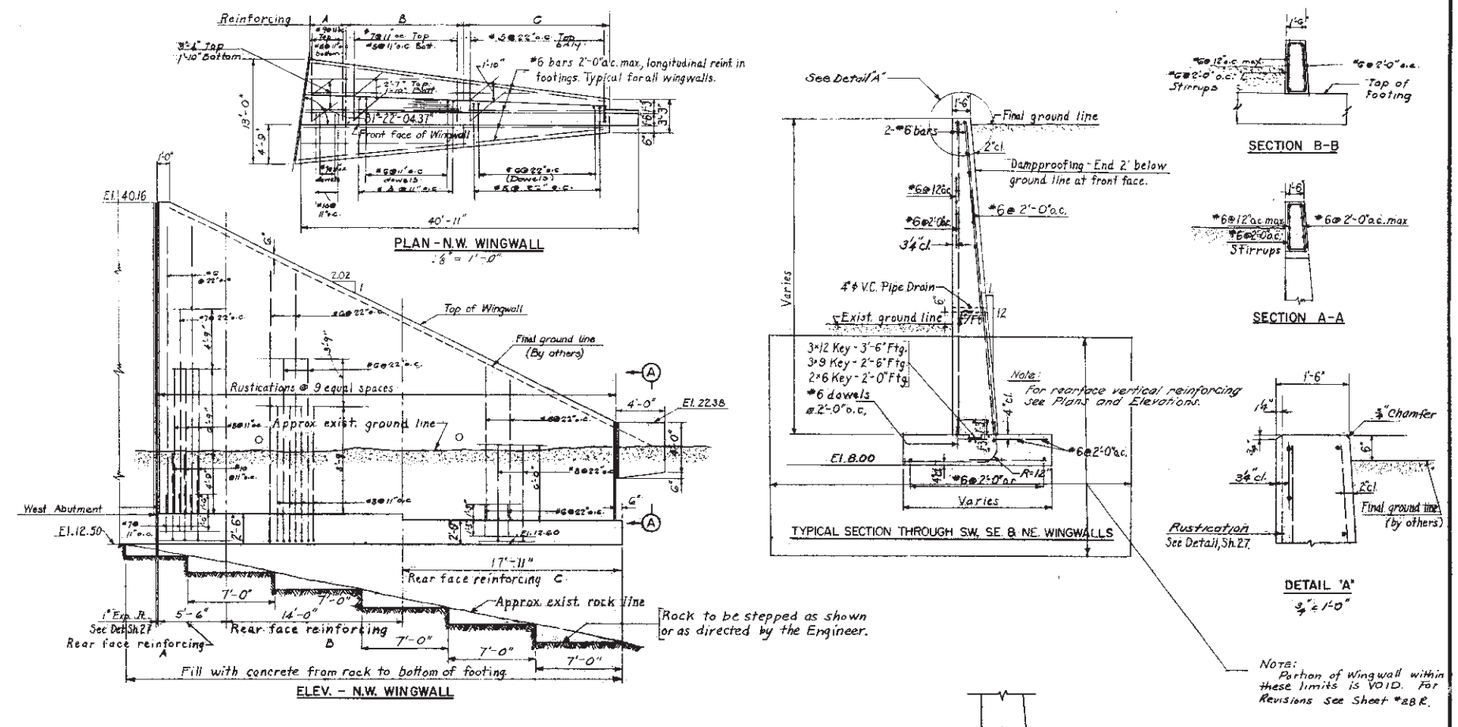
AS BUILT

	BY	DATE				
MADE	HF	1-10-55				
TRACED						
CHECKED	A.F.	1-20-55				
IN CHARGE OF	J. L		No.	REVISION	BY	DATE

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
GARFIELD AVENUE OVERPASS
BRIDGE STRUCTURES
REVISED EAST ABUTMENT

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 3/16" = 1'-0"
CONTRACT NO. N 12
SHEET NO. 27R OF 35



PLAN - N.W. WINGWALL
1/8" = 1'-0"

ELEV. - N.W. WINGWALL

TYPICAL SECTION THROUGH SW, SE & NE WINGWALLS

SECTION B-B

SECTION A-A

DETAIL "A"
3/4" = 1'-0"

TYPICAL SECTION THROUGH N.W. WINGWALL

DETAIL "B"

ELEV. - N.E. WINGWALL

ELEV. - S.E. WINGWALL

NOTES

For General Notes see Sh. 2.
Maximum soil pressure = 3 tons/sq. ft.
For Rustication detail see Sh. 27.
Max. rock pressure = 7.5 tons/sq. ft.

	BY	DATE				
MADE	S.K.W. D.G.H.	7-10-54				
TRACED			2	Changed from Soil Bra Ftg. to Pile Ftg.	A.F.	1-20-55
CHECKED	H.H.C.	10-16-54	1	General changes in checking	HHC	10-16-54
IN CHARGE OF	F.H.S.		No.	REVISION	BY	DATE

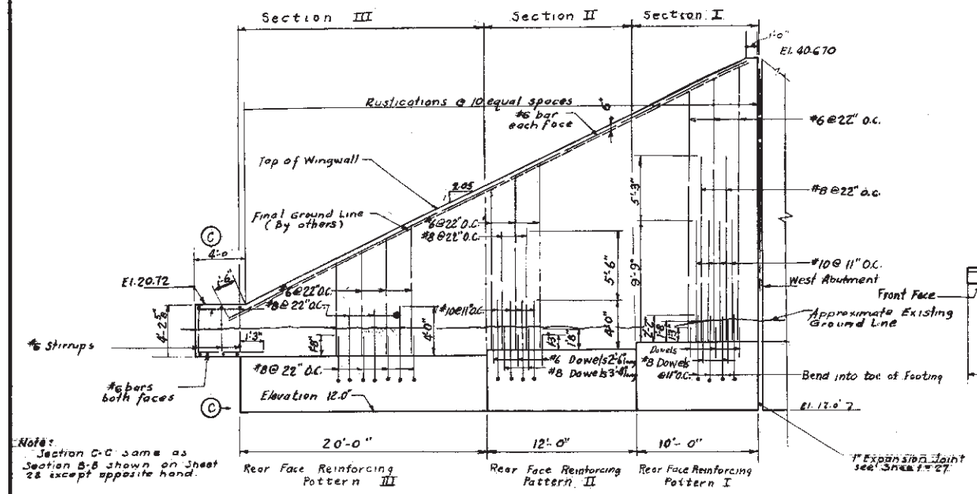
AS BUILT

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

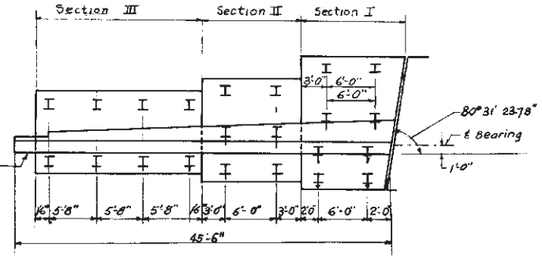
GARFIELD AVENUE OVERPASS
BRIDGE STRUCTURES
WINGWALLS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

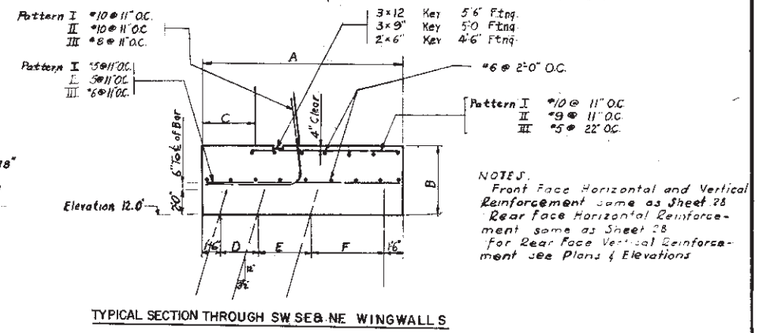
SCALE: 3/16" = 1'-0" Unless Noted
CONTRACT NO. N-12
SHEET NO. 28 OF 35



PLAN SW WINGWALL
3/8" = 1'-0"



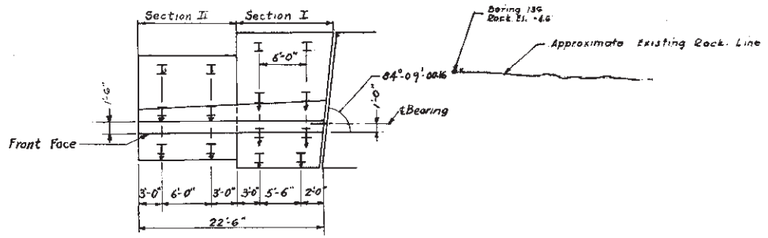
Section	A	B	C	D	E	F
I	16'-3"	5'-6"	4'-2"	3'-0"	4'-8"	6'-0"
II	12'-6"	5'-0"	3'-2"	4'-6"	0	5'-0"
III	9'-9"	4'-6"	2'-4"	0	0	6'-9"



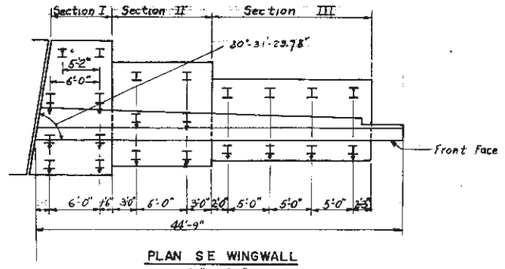
NOTES.
Front Face Horizontal and Vertical Reinforcement same as Sheet 28
Rear Face Horizontal Reinforcement same as Sheet 28
For Rear Face Vertical Reinforcement see Plans & Elevations

TYPICAL SECTION THROUGH SW SE & NE WINGWALLS

ELEVATION S W WINGWALL

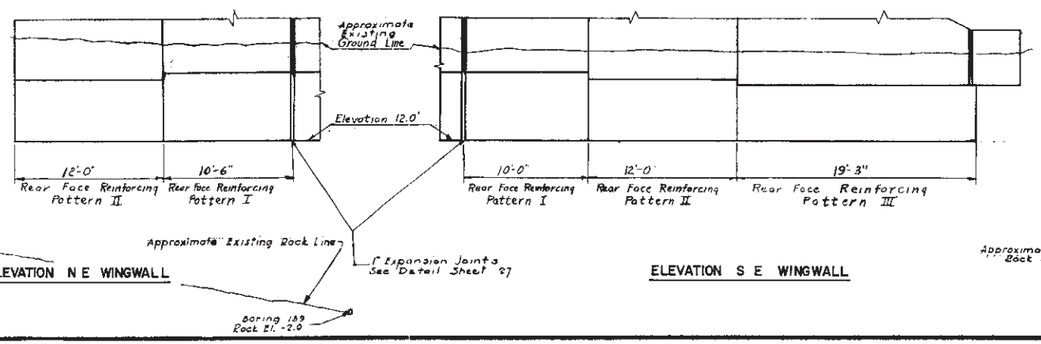


PLAN NE WINGWALL
3/8" = 1'-0"



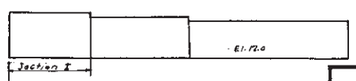
PLAN SE WINGWALL
3/8" = 1'-0"

NOTES:
† Indicates 12 BP 74 Steel Piles Battered 3½:12 in direction of the arrow
Northwest Wingwall not changed
Dimensions shown in Elevations are along front face of wall.
Maximum Pile Load 50 tons per pile

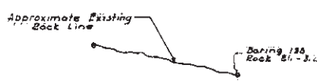


ELEVATION N E WINGWALL

ELEVATION S E WINGWALL



ELEVATION OF S.E WINGWALL SHOWING Rock Line
Scale ⅛



	BY	DATE
MADE	HF	11-55
TRACED		
CHECKED	AF	1-2055
IN CHARGE OF	J L	

No.	REVISION	BY	DATE

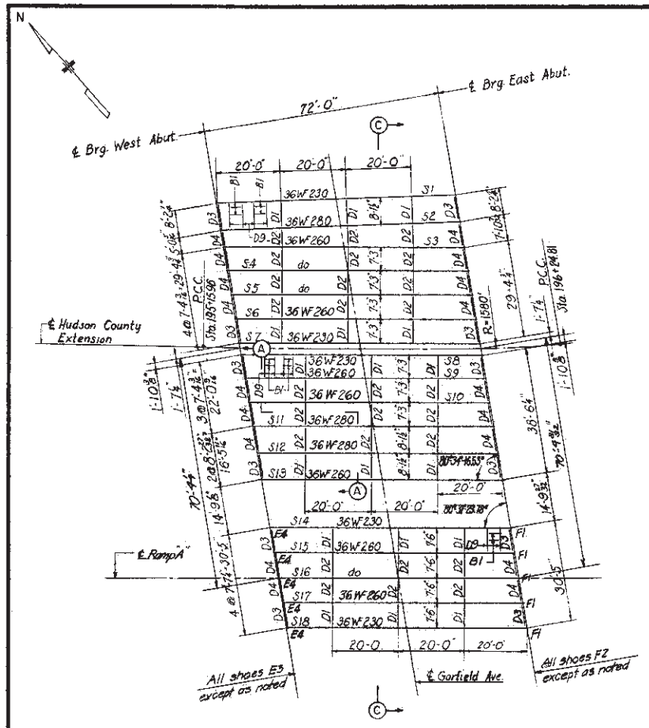
'AS BUILT'

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

GARFIELD AVENUE OVERPASS
BRIDGE STRUCTURES
REVISED WINGWALLS

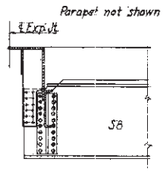
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1" = 1'-0" UNLESS NOTED
CONTRACT NO. N-12
SHEET NO. 28R OF 35

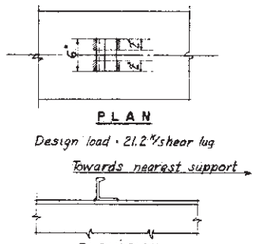


PLAN

1" = 20'-0"



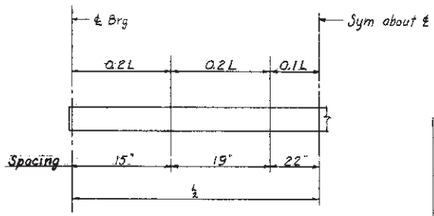
SECTION B-B



All shear lugs to be Bulb L 4"×3½" @ 14.3" with ⅜" fillet weld as shown

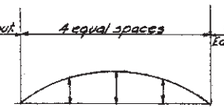
SHEAR LUGS

1"=1'-0"



SPACING DIAGRAM

For shear lugs

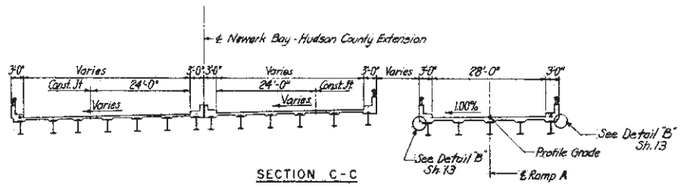


Stringers	Load	Deflections		
S1	Full Dead Load	1.18	1.66	1.18
	Deck only	.92	1.29	.92
	Sidewalk Parapet & Railing	.38	.53	.38
S2	Full Dead Load	.82	1.16	.82
	Deck only	.56	.79	.56
S3	Full Dead Load	.86	1.22	.87
	Deck only	.58	.83	.59
S4, S5, S6 S9, S10	Full Dead Load	.90	1.27	.90
	Deck only	.62	.88	.62
S7	Full Dead Load	1.11	1.56	1.11
	Deck only	.85	1.19	.85
	Median	.28	.39	.28
S8	Full Dead Load	1.09	1.52	1.09
	Deck only	.82	1.16	.82
	Median	.29	.40	.29
S11	Full Dead Load	.88	1.23	.88
	Deck only	.61	.85	.61
S12	Full Dead Load	.91	1.28	.91
	Deck only	.64	.90	.64
S13	Full Dead Load	1.21	1.70	1.21
	Deck only	.95	1.34	.95
	Sidewalk Parapet & Railing	.33	.46	.33
S14, S18	Full Dead Load	1.23	1.73	1.23
	Deck only	.97	1.36	.97
	Sidewalk Parapet & Railing	.37	.52	.37
S15, S16 S17	Full Dead Load	.92	1.30	.92
	Deck only	.64	.91	.64

CAMBER DIAGRAM

No Scale

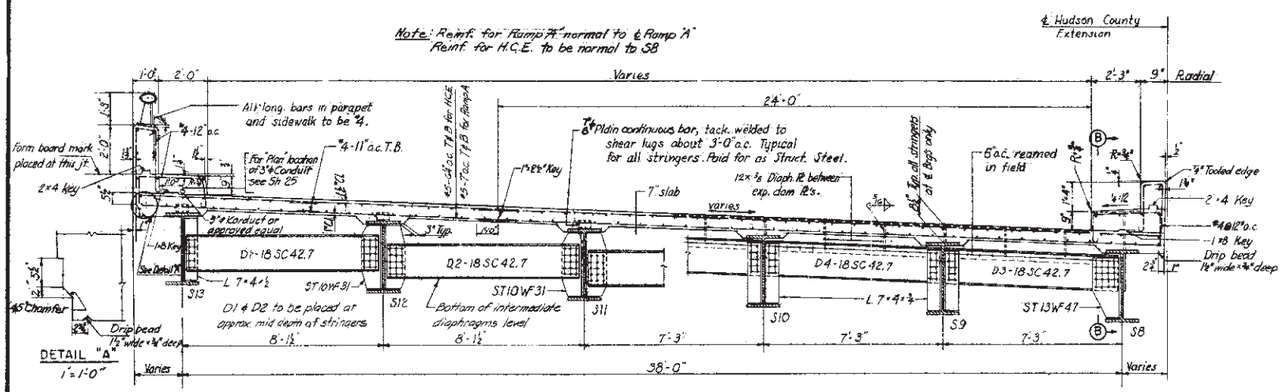
All deflections shown are in inches



SECTION C-C

Note: Parapet, median & railing details same as in Sect. A-A

¼" = 1'-0"



SECTION A-A

DETAIL "A"

1"=1'-0"

NOTES:

For General Notes, see Sh. 2
All diaphragms shall be normal to stringer flanges
For shoe Details, see Sh. 34
For Expansion Joint Details, see Sh. 30
For Handrail Details, see Sh. 35
For diaphragms D9 and B1, see Sh. 31
For Camber Notes see Sh. 2
Stringers S1, S7, S8, S13, S14 & S18 shall be cambered for full dead load. Other stringers shall be fabricated so that any mill tolerance deviation from straightness shall be in the direction of the required camber indicated by the camber diagram

AS BUILT

	BY	DATE
MADE	S.G.G.	4-10-54
TRACED		
CHECKED	H.H.C.	10-14-54
IN CHARGE OF	F.H.S.	

No.	REVISION	BY	DATE
1	General changes in checking	HHC	10-18-54

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

NEWARK BAY-HUDSON COUNTY EXTENSION

GARFIELD AVENUE OVERPASS
BRIDGE STRUCTURES

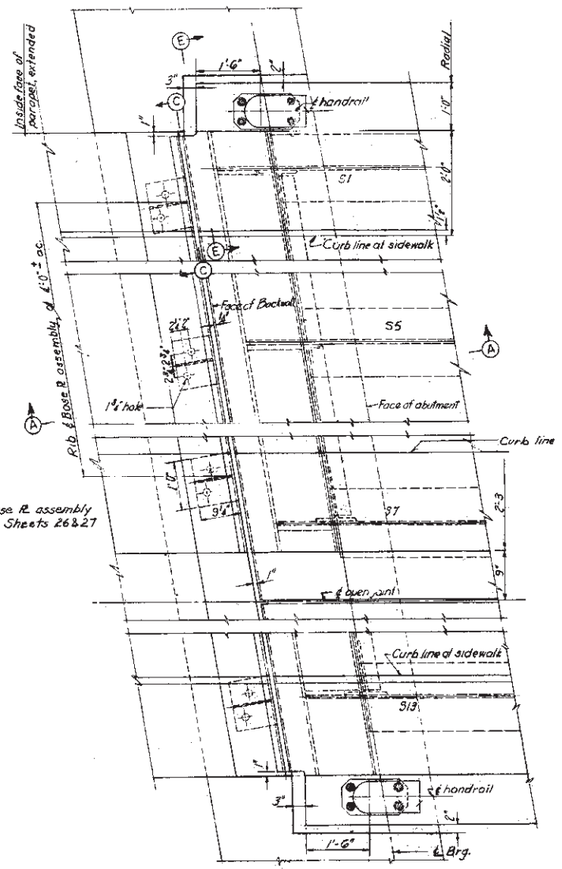
FRAMING PLAN AND CROSS SECTION

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1"=1'-0" UNLESS NOTED

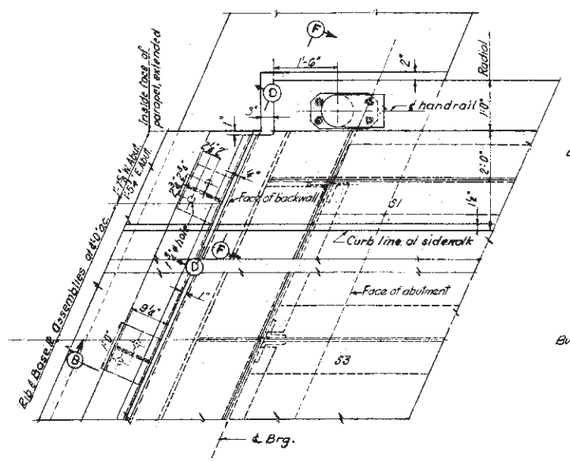
CONTRACT NO. N-12

SHEET NO. 29 OF 35

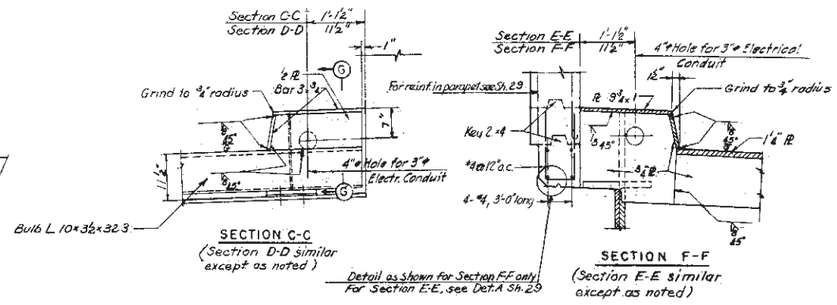


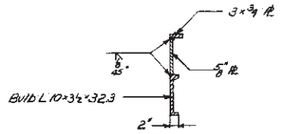
PLAN AT WEST ABUTMENT
GARFIELD AVENUE OVERPASS
(Ramp 'A' over Garfield Avenue similar)
(East Abutment similar)

Note:
For Rib and Base R assembly spacings, see Sheets 26 & 27

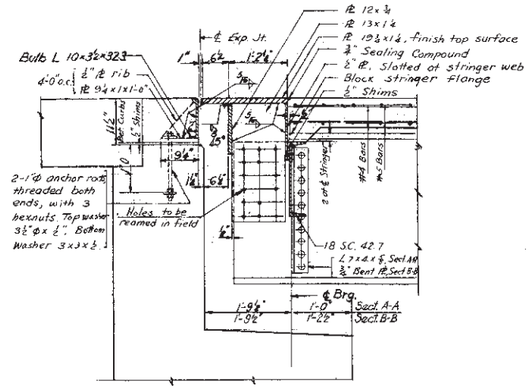


PLAN AT WEST ABUTMENT
RAMP "C" BRIDGE OVER GARFIELD AVENUE
(East Abutment similar)





SECTION G-G



SECTION A-A
Section B-B similar except as noted

NOTES
For General Notes see Sh. 2.
Dimensions shown are for a normal temperature of 68°F.
For Section thru Abutment showing transition from Conduct to H.D. Galv. Steel conduit, see Sh. 11.
For Handrail Detail see Sh. 35.

	BY	DATE				
MADE	B.M.	4-10-54				
TRACED			2	Revised detail of plates at abutment	J.T.	12-8-55
CHECKED	H.H.C.	10-21-54	1	General changes in checking	H.H.C.	10-21-54
IN CHARGE OF	F.H.S.		No.	REVISION	BY	DATE

AS BUILT

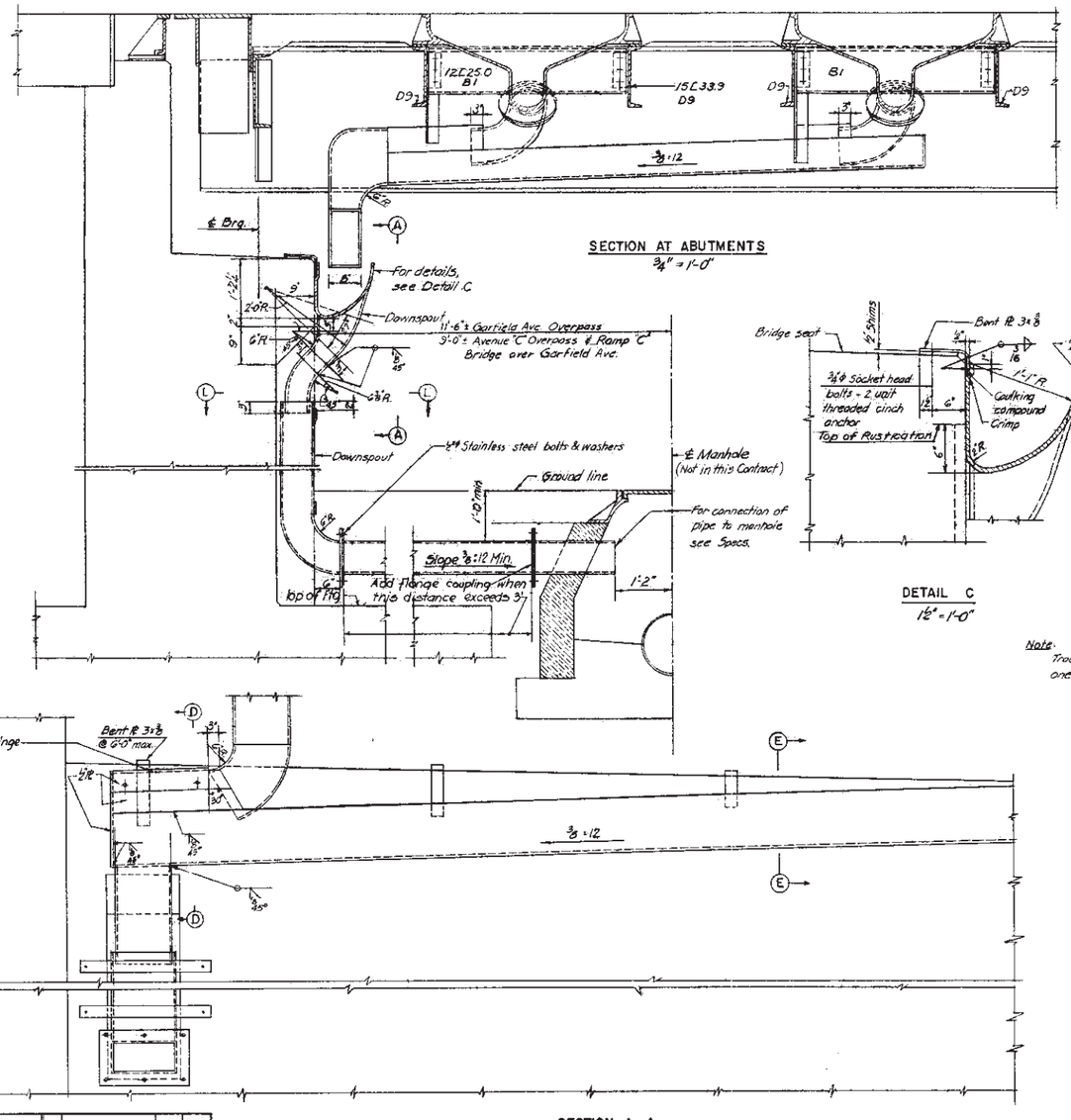
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

RAMP "C" BRIDGE OVER GARFIELD AVENUE
GARFIELD AVENUE OVERPASS
EXPANSION JOINTS

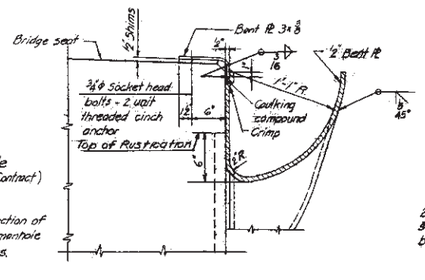
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1" = 1'-0"
CONTRACT NO. N-12-
SHEET NO. 30 OF 35

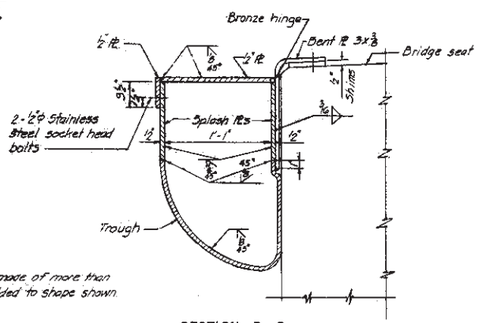
Note: For details and dimensions of drop inlets, supports and drainage troughs, see Sh. 13
For slab reinforcement near drop inlets see Sheets 15 & 24



SECTION AT ABUTMENTS
3/4" = 1'-0"

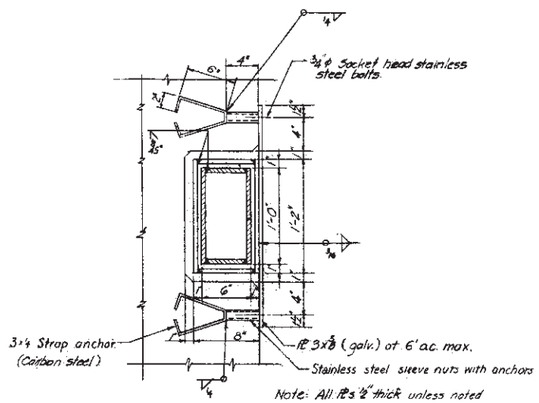


DETAIL C
1½" = 1'-0"



SECTION D-D
1½" = 1'-0"

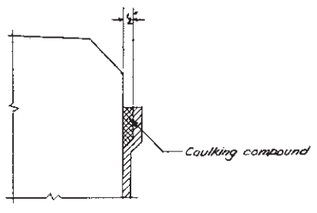
Note:
Trough may be made of more than one Pl and welded to shape shown



Note: All Pl's ½" thick unless noted

SECTION L-L
1½" = 1'-0"

SECTION A-A
¾" = 1'-0"



SECTION E-E
3" = 1'-0"

NOTES:
All downspouts, plates, straps and troughs to be galvanized low alloy steel, except as noted.
Inlet grating to be galv. cast steel, if required.
Inlet framing to be galv. cast iron, if required.

	BY	DATE	No.	REVISION	BY	DATE
MADE	H. C.	4-6-54				
TRACED			2	Sect. B-B changed to Sect. L-L	G.G.S.	1-13-55
CHECKED	H. H. C.	10-14-54	1	General changes in checking	H.H.C.	10-14-54
IN CHARGE OF	F. H. S.					

'AS BUILT'

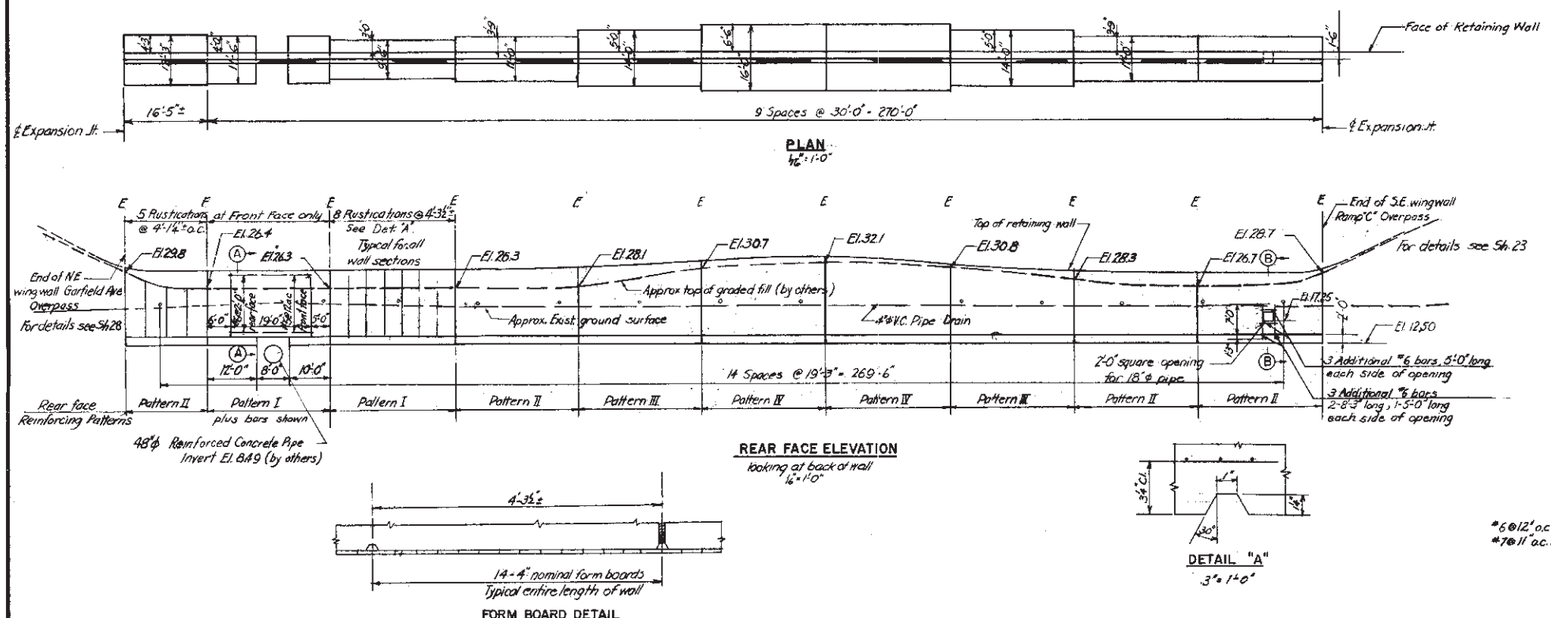
NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

AVENUE "C" OVERPASS, RAMP "C" BRIDGE OVER GARFIELD AVENUE, GARFIELD AVENUE OVERPASS

DRAINAGE DETAILS AT ABUTMENTS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: As noted
CONTRACT NO. N-12
SHEET NO. 31 OF 35

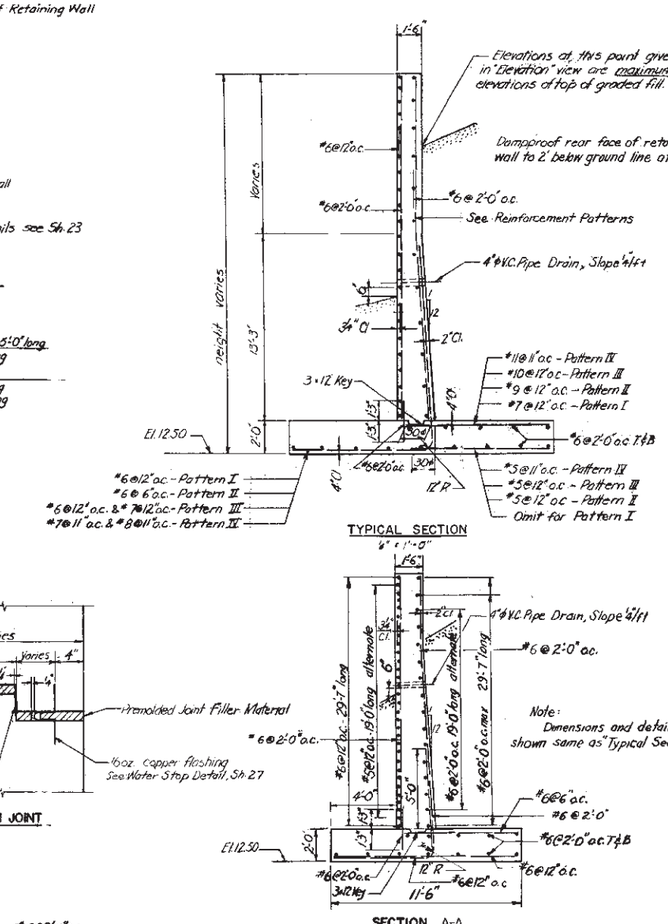


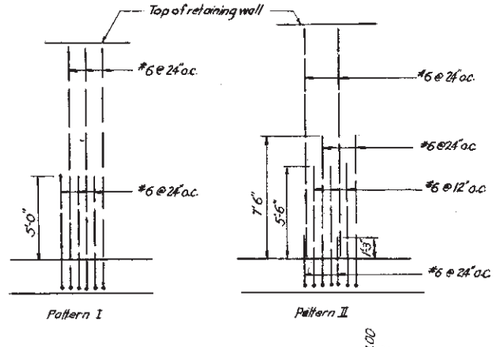
PLAN
1/16" = 1'-0"

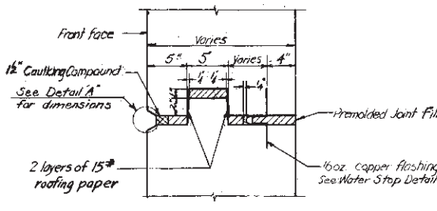
REAR FACE ELEVATION
looking at back of wall
1/16" = 1'-0"

FORM BOARD DETAIL
1" = 1'-0"

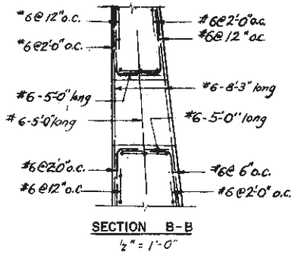
DETAIL "A"
3" = 1'-0"







DETAIL OF EXPANSION JOINT
½" = 1'-0"

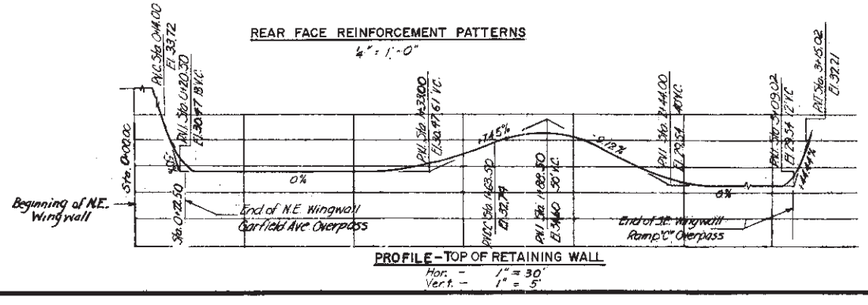


SECTION B-B
½" = 1'-0"

SECTION A-A
¼" = 1'-0"

NOTES:
E. Denotes Expansion Joint

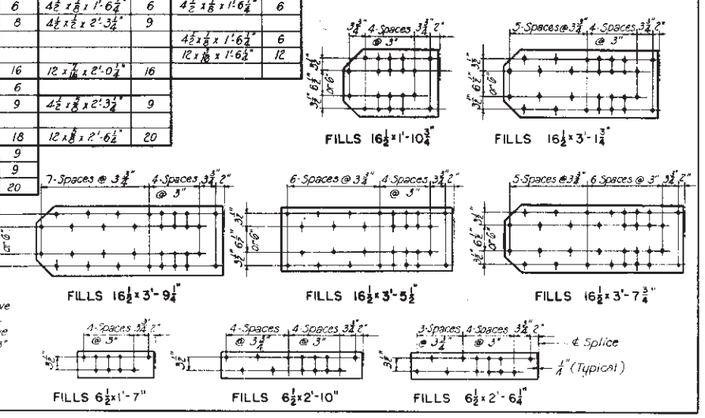
For general notes see Sh. 2
Max. Soil pressure = 2 Tons per sq. ft.


REAR FACE REINFORCEMENT PATTERNS
¼" = 1'-0"
Beginning of N.E. Wingwall
End of N.E. Wingwall Garfield Ave. Overpass
End of S.E. Wingwall Ramp "C" Overpass
+14.5%
-6.12%
0%
0%
Sta. 0+00.00
Sta. 0+22.50
Sta. 3+00.00
Sta. 3+41.00
Sta. 3+09.02
Sta. 3+51.02
El. 32.72
El. 32.30
El. 32.67
El. 32.30
El. 32.30
El. 32.54
El. 32.21
El. 32.30
El. 32.30
El. 32.30

TABULATION OF FLANGE FILLS TO BE USED IN SPLICES OF BEAMS DIFFERING IN WEIGHT

LIGHTER BEAM WEIGHT	FILLS LOCATION	FILLS NO. REQ'D	HEAVIER BEAM 300 FILL SIZE	300 RIVETS	280 FILL SIZE	280 RIVETS	260 FILL SIZE	260 RIVETS	245 FILL SIZE	245 RIVETS	230 FILL SIZE	230 RIVETS	194 FILL SIZE	194 RIVETS	182 FILL SIZE	182 RIVETS	170 FILL SIZE	170 RIVETS	160 FILL SIZE	160 RIVETS
150	A	2	4½ x ⅜ x 2'-0¼"	8	4½ x ⅜ x 2'-0¼"	8	4½ x 7/16 x 2'-0¼"	8	4½ x 7/16 x 1'-9¾"	7	4½ x ⅜ x 1'-9¾"	7	4½ x 7/16 x 1'-9¾"	7	4½ x ¼ x 1'-9¾"	7	4½ x 5/16 x 1'-3½"	5	4½ x ⅜ x 1'-3¼"	5
	B	2					4½ x ½ x 1'-3¼"	5	4½ x 7/16 x 1'-3¼"	5	4½ x ⅜ x 1'-9¾"	7								
	C	2	4½ x ½ x 1'-3¼"	5									4½ x 7/16 x 1'-9¾"	7	4½ x ¼ x 1'-9¾"	7	4½ x 5/16 x 1'-3¼"	5	4½ x ⅜ x 1'-3¼"	5
	D	1	12 x ⅜ x 2'-3½"	18	12 x ⅜ x 2'-3½"	18	12 x 7/16 x 2'-0¼"	16	12 x ¼ x 2'-0¼"	16			12 x ⅜ x 2'-3½"	18	12 x ⅜ x 2'-0¼"	16	12 x 5/16 x 2'-0¼"	16	12 x ⅜ x 1'-3½"	10
160	A	2	4½ x 11/16 x 2'-0¼"	8	4½ x ⅝ x 2'-3½"	8	4½ x 11/16 x 1'-9¾"	7	4½ x ⅝ x 1'-9¾"	7	4½ x ⅜ x 1'-9¾"	7	4½ x ⅜ x 1'-9¾"	7	4½ x ¼ x 1'-9¾"	7	4½ x ⅜ x 1'-3¼"	5		
	B	2					4½ x 11/16 x 1'-3¼"	5	4½ x ¼ x 1'-9¾"	7	4½ x ⅜ x 1'-9¾"	7								
	C	2											4½ x ⅜ x 1'-9¾"	7	4½ x ¼ x 1'-9¾"	7	4½ x ⅜ x 1'-3¼"	5	4½ x ⅜ x 1'-3¼"	5
	D	1	12 x ⅜ x 2'-3¼"	18	12 x ⅜ x 2'-0¼"	16	12 x ¼ x 2'-0¼"	16							4½ x ⅝ x 1'-3¼"	5	4½ x 5/16 x 1'-3¼"	5		
	E	1									12 x ⅜ x 1'-3¼"	10			12 x ⅜ x 2'-0¼"	16	12 x 5/16 x 1'-3¼"	10		
170	A	2	4½ x 13/16 x 2'-0¼"	8	4½ x ⅞ x 2'-0¼"	8	4½ x 13/16 x 1'-9¾"	7	4½ x ¼ x 1'-9¾"	7	4½ x 13/16 x 1'-3¼"	5	4½ x ⅜ x 1'-3¼"	5	4½ x ⅜ x 1'-3¼"	5				
	B	2			4½ x ⅝ x 1'-3¼"	5	4½ x ¼ x 1'-9¾"	7	4½ x ⅜ x 1'-9¾"	7	4½ x 7/16 x 1'-9¾"	7								
	C	2											4½ x ⅜ x 1'-3¼"	5	4½ x ⅜ x 1'-3¼"	5				
	D	1	12 x ⅞ x 2'-3½"	18	12 x ⅜ x 2'-3¼"	18	12 x 5/8 x 1'-6¼"	12					12 x 13/16 x 2'-3½"	18						
	E	1							12 x ⅝ x 1'-6¼"	12	12 x ⅝ x 2'-0¼"	16								
182	A	2	4½ x ½ x 2'-3½"	9	4½ x ⅜ x 2'-0¼"	8	4½ x ¼ x 2'-0¼"	8	4½ x 13/16 x 1'-6¼"	6	4½ x 13/16 x 1'-6¼"	6	4½ x ⅝ x 1'-6¼"	6						
	B	2	4½ x ⅝ x 1'-6¼"	6	4½ x 13/16 x 1'-6¼"	6	4½ x ⅜ x 2'-0¼"	8	4½ x 13/16 x 2'-0¼"	8	4½ x ½ x 2'-3½"	9								
	C	2											4½ x ⅝ x 1'-6¼"	6						
	D	1	12 x 13/16 x 2'-3¼"	18	12 x 13/16 x 1'-6¼"	12							12 x 13/16 x 1'-6¼"	12						
	E	1					12 x ⅝ x 1'-6¼"	12	12 x ¼ x 2'-0¼"	16	12 x 7/16 x 2'-0¼"	16								
194	A	2	4½ x 15/16 x 2'-0¼"	8	4½ x ⅞ x 2'-0¼"	8	4½ x ½ x 1'-6¼"	6	4½ x 15/16 x 1'-6¼"	6										
	B	2	4½ x 15/16 x 1'-6¼"	6	4½ x 15/16 x 2'-0¼"	8	4½ x 7/16 x 2'-0¼"	8	4½ x ½ x 2'-3½"	9										
	D	1	12 x ½ x 2'-6¼"	20																
	E	1					12 x ½ x 2'-3½"	18	12 x 13/16 x 2'-3½"	18	12 x ⅞ x 2'-6¼"	20								
230	A	2	6½ x 13/16 x 2'-10"	13	6½ x 13/16 x 2'-6¼"	12	6½ x 13/16 x 1'-7"	9	6½ x ⅝ x 1'-7"	9										
	C	2	6½ x 15/16 x 2'-10"	13	6½ x 15/16 x 2'-6¼"	12	6½ x 15/16 x 1'-7"	9	6½ x ⅞ x 1'-7"	9										
	D	1	16½ x ½ x 3'-9¼"	32	16½ x ⅝ x 3'-5½"	30	16½ x ⅝ x 3'-1¾"	28	16½ x 15/16 x 1'-10¾"	20										
245	A	2	6½ x 15/16 x 2'-6¼"	12	6½ x ¼ x 2'-6¼"	12	6½ x ⅝ x 1'-7"	9												
	C	2	6½ x 15/16 x 2'-6¼"	12	6½ x ¼ x 2'-6¼"	12	6½ x ⅞ x 1'-7"	9												
	D	1	16½ x ⅝ x 3'-5½"	30	16½ x 15/16 x 3'-1¾"	28	16½ x ⅞ x 1'-10¾"	20												
260	A	2	6½ x ¼ x 2'-6¼"	12	6½ x ⅝ x 1'-7"	9														
	C	2	6½ x ¼ x 2'-6¼"	12	6½ x ⅝ x 1'-7"	9														
	D	1	16½ x ½ x 3'-5½"	30	16½ x ¼ x 3'-1¾"	28														
280	A	2	6½ x ⅝ x 1'-7"	9																
	C	2	6½ x ⅝ x 1'-7"	9																
	D	1	16½ x ¼ x 3'-7¾"	32																

Flange fill plates 4½" wide will have rivets on one gage line at 3" pitch. Flange fill plates 12" wide will have rivets on two lines at 7½" gage, 3" pitch each line.



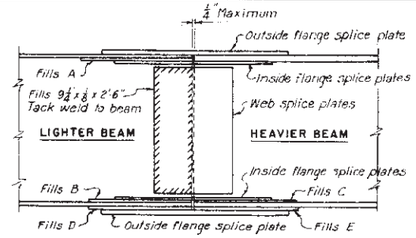
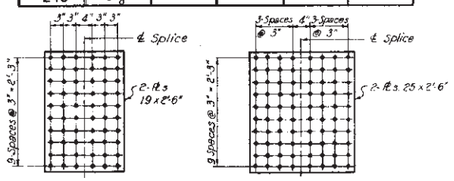


DIAGRAM SHOWING ARRANGEMENT OF SPLICE PLATES AND FILLS

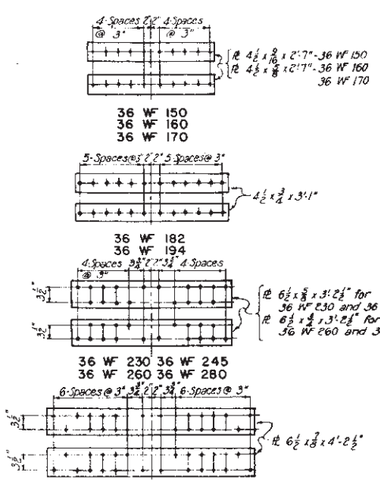
TABULATION OF FILLS FOR WEB SPLICES

LIGHTER BEAM	HEAVIER BEAM 300	280	260	245	194
150	2-⅜	2-⅜	2-⅜	2-⅜	2-⅜
160	2-7/16	2-7/16	2-⅜	2-⅜	
170	2-⅜	2-⅜	2-⅜		
182	2-⅜	2-7/16			
194	2-⅜				
230	2-⅜				
245	2-⅜				

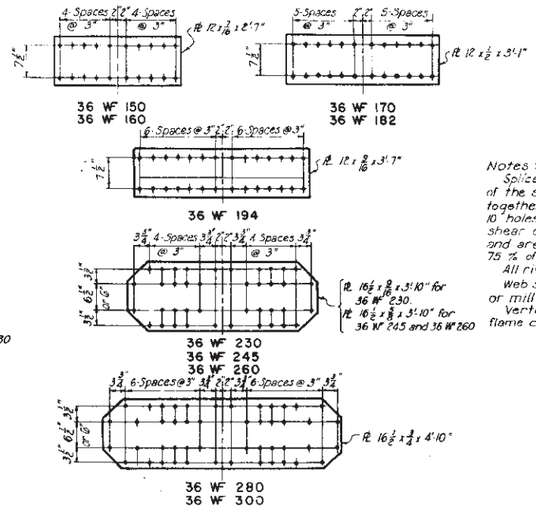


BEAM	WEB SPLICE PLATES
36 WF 150	19 x 3/8 x 2'-6"
36 WF 160	19 x 3/8 x 2'-6"
36 WF 170	19 x 7/16 x 2'-6"
36 WF 182	19 x 7/16 x 2'-6"
36 WF 194	19 x 7/16 x 2'-6"
36 WF 230	19 x 7/16 x 2'-6"
36 WF 245	19 x 1/2 x 2'-6"
36 WF 260	19 x 1/2 x 2'-6"

BEAM	WEB SPLICE PLATES
36 WF 280	25 x 1/2 x 2'-6"
36 WF 300	25 x 9/16 x 2'-6"



INSIDE FLANGE SPLICE PLATES FOR TOP AND BOTTOM FLANGES



OUTSIDE FLANGE SPLICE PLATES FOR TOP AND BOTTOM FLANGES

Notes:
Splices are designed for 75% of the capacity of the smaller of the two beams being spliced together, with 2 holes out of each flange and 10 holes out of the web. The simultaneous shear capacities are as tabulated above and and are in all cases equal to or greater than 75 % of the shear capacity of the lighter web.
All rivets are ⅞" ϕ, holes 15/16" ϕ.
Web splice plates shall have horizontal rolled or mill sheared edges.
Vertical edges may be shop sheared or flame cut.

CAPACITY OF SPLICES		
BEAM	MOMENT IN-KIPS	SHEAR KIPS
150	5580	213
160	6000	196
170	6430	254
182	6900	247
194	7380	220
230	9720	278
245	10390	248
260	11070	242
280	12020	250
300	12890	295

	BY	DATE			
MADE	G. A.	5-28-52			
TRACED	LWL & A. H.	7-10-52			
CHECKED	L. L. D.	12-17-52	/	General Changes in Checking	L.L.D. 12-19-52
IN CHARGE OF	F. H. S.		No.	REVISION	BY DATE

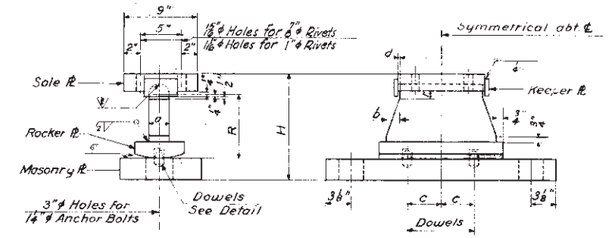
AS BUILT

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION

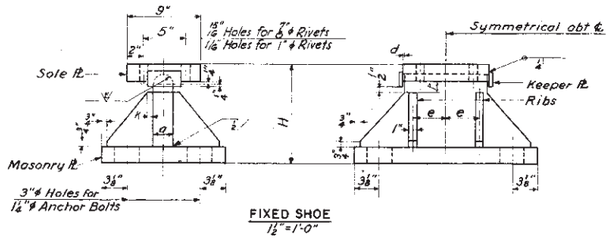
HUDSON BOULEVARD TO GARFIELD AVENUE
BRIDGE STRUCTURES
SPLICES

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: No Scale
CONTRACT NO. N-12
SHEET NO. 33 OF 35

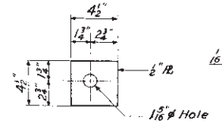


EXPANSION SHOE
1½" = 1'-0"



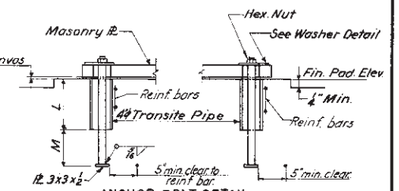
FIXED SHOE
1½" = 1'-0"

Finish Note:
The following contact surfaces shall be finished in accordance with the standards of the Association of Iron & Steel Engineers to the class of finish prescribed:
Tops of rocker stems & grooves in sole plates - Fine Finish, symbol "E".
Top surfaces of masonry plates & bottoms of rockers - medium finish, Symbol "G".



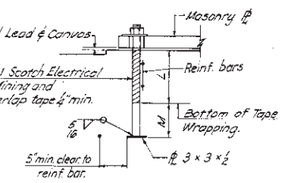
WASHER DETAIL
Not to Scale

Washers to be welded to masonry plates in field with ⅜" fillet weld all around.



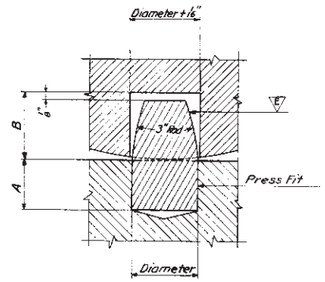
ANCHOR BOLT DETAIL
1" = 1'-0"
(For Abutments of Hudson Blvd. Overpass only.)

Transite pipes and anchor bolts furnished and set under this contract. The contractor shall fill the transite pipes with concrete at the time of pouring the abutments. The holes in the masonry plate shall be filled with 1:2 cement-sand mortar before washers and nuts are placed.



Wrap Anchor Bolts with 3 layers of # 21 Scotch Electrical Tape as manufactured by the Minnesota Mining and Manufacturing Co. or approved equal. Overlap tape ½" min. with each successive winding.

ANCHOR BOLT DETAIL
1" = 1'-0"
(Typical except for Abutments of Hudson Blvd. Overpass)
The holes in the Masonry Plate shall be filled with 1:2 cement-sand mortar before washers and nuts are placed.



DOWEL DETAIL
Full Scale

SHOE SCHEDULE

SHOE	E 1	E 2	E 3	E 4	E 5	E 6	E 7	E 8	E 9	E 10	F 1	F 2	F 3	F 4	F 5	F 6	F 7
SOLE PLATE	9"x 3¾" x 1'-0"	9"x 3¾" x 1'-0"	9"x 3" x 1'-4½"	9"x 3" x 1'-4½"	9"x 3¾" x 1'-4½"	9"x 2½" x 10½"	9"x 2½" x 1'-0"	9"x 2½" x 1'-4½"	9"x 2" x 1'-0"	9"x 2" x 1'-4½"	9"x 3" x 1'-4½"	9"x 3" x 1'-4½"	9"x 2" x 1'-0"	9"x 2" x 1'-4½"	9"x 2" x 10½"	9"x 2" x 1'-0"	9"x 2" x 1'-4"
ROCKER PLATE	6"x 2" x 1'-1½"	6"x 2" x 1'-5⅜"	6"x 2" x 1'-5⅜"	6"x 2" x 1'-5⅜"	6"x 2" x 1'-5⅜"	6"x 2" x 2'-0"	6"x 2" x 2'-0"	6"x 2" x 2'-0"	6"x 2" x 1'-5⅜"	6"x 2" x 1'-5⅜"							
MASONRY PLATE	8"x 1⅜" x 2'-2½"	10"x 2" x 2'-7¼"	9"x 1½" x 2'-7¼"	9"x 1⅜" x 2'-7¼"	10"x 2" x 2'-7½"	10"x 2½" x 3'-1½"	11"x 2½" x 3'-1½"	11"x 2½" x 3'-1½"	9"x 1⅜" x 2'-7¼"	9"x 1⅜" x 2'-7¼"	1'-3½" x 2'x 1'-8½"	1'-3½" x 2"x 1'-8½"	1'-3½" x 2"x 1'-8½"	1'-3½" x 2"x 1'-8½"	1'-3½" x 2"x 1'-8½"	1'-3½" x 2"x 1'-8½"	1'-3½" x 2"x 1'-8½"
KEEPER PLATE	2"x ½" x 4"	2"x ½" x 4"	2"x ½" x 4"	2"x ½" x 4"	2"x ½" x 4"	2"x ½" x 4"	2"x 1½" x 4"	2"x 1½" x 4"	2"x ½" x 4"	2"x ½" x 4"	2"x ½" x 4"	2 x ½" x 4"	2"x ½" x 4"	2"x ½" x 4"	2" x ½" x 4"	2" x ½" x 4"	2" ½" 4"
RADIUS R	7"	7"	7"	7"	7"	10"	10"	10"	7"	7"							
DIMENSION H	12¼"	12½"	12"	12"	12½"	1'-3"	1'-3¼"	1'-3¼"	11"	11"	11¼"	11¼"	1'-1"	1'-1"	1'-1"	11¼"	11¼"
" a	2½"	2½"	2"	2"	2½"	3"	3"	3"	2"	2"	2"	2"	2"	2"	2"	2"	2"
" b	6"	2¾"	5"	0	6"	6¼"	5½"	3¼"	2⅝"	6"							
" c	3⅝"	4 1/16"	4 1/16"	4 1/16"	4 1/16"	6"	6"	6"	4 1/16"	4 1/16"							
" d	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	⅜"	¼"	¼"	¼"	¼"	¼"	¼"
" e											3"	3"	3"	3"	3"	3"	3"
" k											⅝"	⅝"	⅝"	⅝"	⅝"	⅝"	⅝"
DOWELS	1"ϕ	1"ϕ	1"ϕ	1"ϕ	1"ϕ	1⅛"ϕ	1⅛"ϕ	1⅛"ϕ	1"ϕ	1"ϕ							
DIMENSION A	⅝"	⅝"	⅝"	⅝"	⅝"	½"	⅝"	⅝"	½"	⅝"							
" B	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"							
DIMENSION L	9"	9"	9"	9"	9"	9"	9"	9"	9"	9"	9"	9"	9"	9"	9"	9"	9"
" M	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
NO. REQUIRED	2	12	13	10	10	6	1	5	17	1	10	13	1	5	6	17	1

NOTES:
For location of Shoes, see Shs. 13, 19, 24 & 29
All material to be carbon steel.
Bottom of main vertical stem of all shoes shall be finished to bear on rocker plate or masonry plate.
Rockers are to be set so as to be vertical under full dead load at a temperature of 68° F.
Top of sole plates and masonry plates shall be planed, straightened, or otherwise treated to secure true level surfaces.
Radius on sole plate to be finished to radius on main vertical stem plus 1/100".
For General Notes, see Sh. 2.

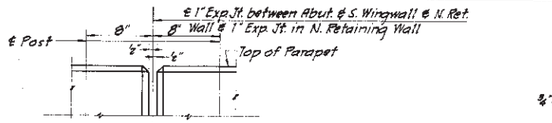
	BY	DATE				
MADE	H.C.	4-6-54				
TRACED	M. R.	4-26-54	2	Dimension N corrected E1 to E3	M.R.	12-14-54
CHECKED	J. J. R.	10-13-54	1	General Changes in Checking	J.J.R.	10-13-54
IN CHARGE OF	F.H.S.		NO.	REVISION	BY	DATE

AS BUILT

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
HUDSON BOULEVARD TO GARFIELD AVENUE
BRIDGE STRUCTURES
SHOES

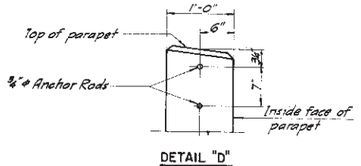
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: AS NOTED
CONTRACT NO. N-12
SHEET NO. 34 OF 35



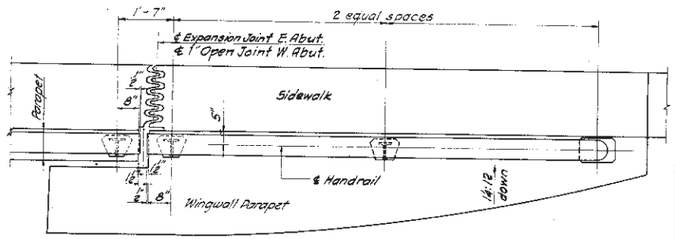
DETAIL AT EXPANSION JOINT
HUDSON BLVD. OVERPASS - EAST ABUTMENT
1½" = 1'-0"

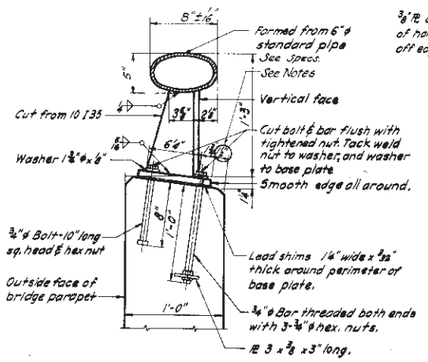
For details not shown, see "Intermediate Joint" below.



DETAIL "D"
1" = 1'-0"

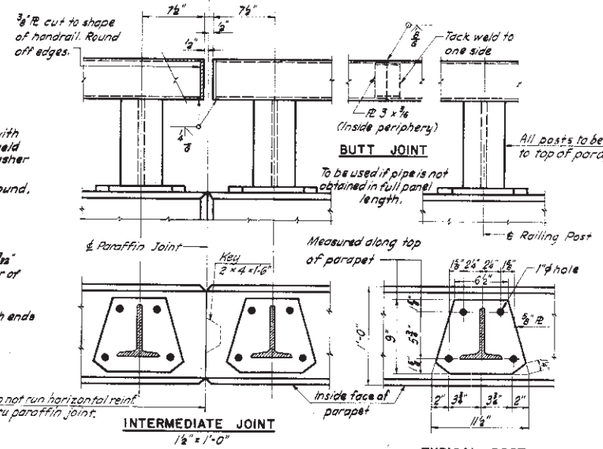
For location of Detail "D" see Sh. 25





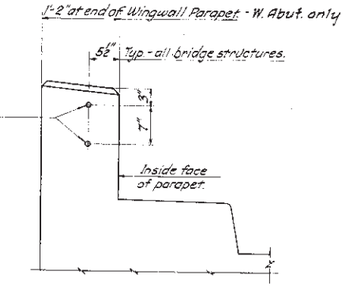
HANDRAIL SECTION
1½" = 1'-0"

Note:
Anchor bolts to be normal to base PL at all posts.

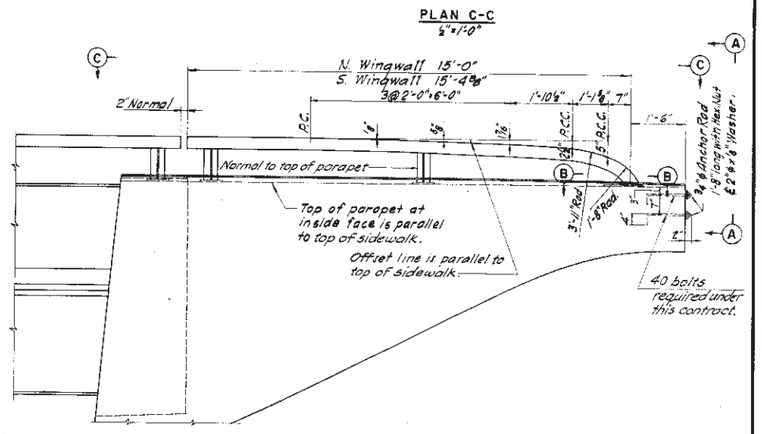


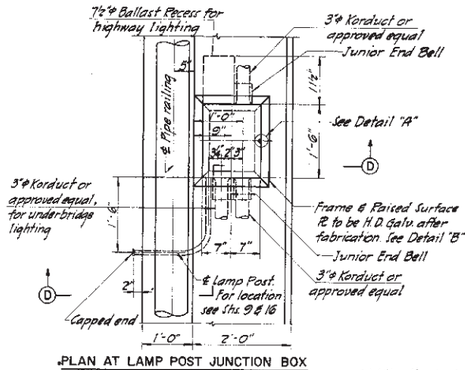
INTERMEDIATE JOINT
1½" = 1'-0"

TYPICAL POST
½" = 1'-0"

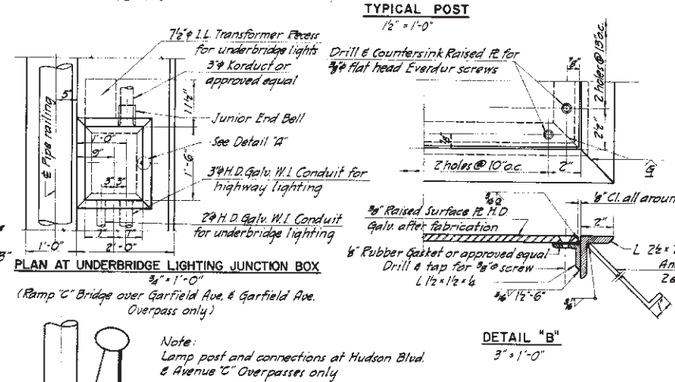


VIEW A-A
1" = 1'-0"



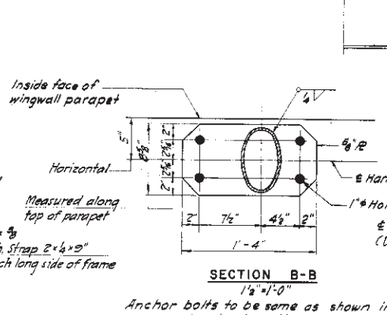


PLAN AT LAMP POST JUNCTION BOX
⅜" = 1'-0"
(Hudson Blvd. & Ave. "C" Overpasses only)



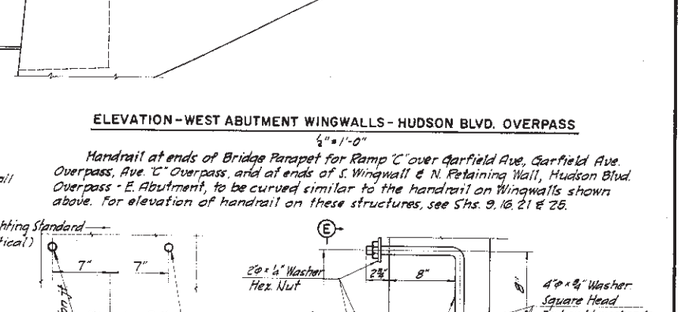
PLAN AT UNDERBRIDGE LIGHTING JUNCTION BOX
¾" = 1'-0"
(Ramp "C" Bridge over Garfield Ave. & Garfield Ave. Overpass only)

DETAIL "B"
3" = 1'-0"



SECTION B-B
1½" = 1'-0"

Anchor bolts to be same as shown in handrail section

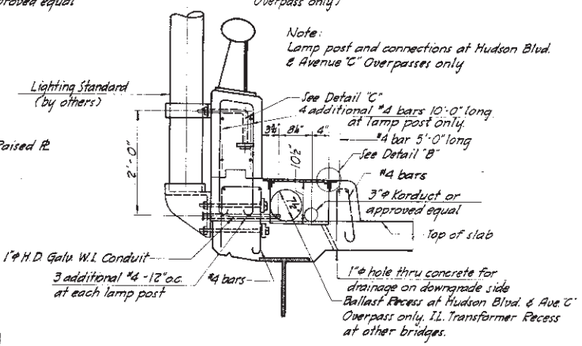


SECTION E-E
1½" = 1'-0"

DETAIL "C"
1½" = 1'-0"

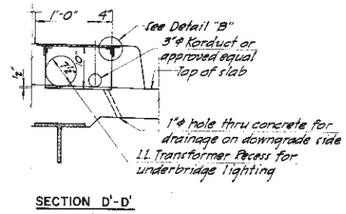
ELEVATION - WEST ABUTMENT WINGWALLS - HUDSON BLVD. OVERPASS
½" = 1'-0"

Handrail at ends of Bridge Parapet for Ramp "C" over Garfield Ave, Garfield Ave. Overpass, Ave. "C" Overpass, and at ends of S. Wingwall & N. Retaining Wall, Hudson Blvd. Overpass - E. Abutment, to be curved similar to the handrail on Wingwalls shown above. For elevation of handrail on these structures, see Shs. 9, 16, 21 & 25.



SECTION D-D
¾" = 1'-0"

For all bridges except Ramp "C" Bridge over Garfield Avenue (See also Sect. D'-D')



SECTION D'-D'
¾" = 1'-0"

For Ramp "C" Bridge over Garfield Ave only

Notch out Raised PL

DETAIL "A"
3" = 1'-0"

NOTES:

All handrail material furnished and erected under this contract.

To insure proper setting of anchor bolts, one ℄ template, the length of the handrail unit, shall be furnished for each unit of different post spacing.

Rustication marks to be normal to top of parapet.

Handrail units for Hudson Blvd. Overpass, Ramp "C" Bridge over Garfield Ave, and Garfield Ave. Overpass, shall be detailed as chords of the curved parapet. Dimensions of 1'-6" shown in "Handrail Section" shall be maintained at end of units. Handrail for Avenue "C" Overpass and Ramp "A" Bridge over Garfield Ave. to be straight.

Dimensions shown are for a normal temperature at +68°F.

	BY	DATE				
MADE	M. S.	4-21-54				
TRACED	L. Y. L.	9-22-54	2	Revised East Abut. Sect. D-D & Det. C.	B. J.	5-29-55
CHECKED	H.H.C.	10-14-54	1	General changes in detailing	H.H.C.	10-14-54
IN CHARGE OF	F.H.S.		NO.	REVISION	BY	DATE

AS BUILT

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
NEWARK BAY-HUDSON COUNTY EXTENSION
HUDSON BOULEVARD TO GARFIELD AVENUE
BRIDGE STRUCTURES
HANDRAIL & ELECTRICAL DETAILS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: AS NOTED
CONTRACT NO. N-12
SHEET NO. 35 OF 35

APPENDIX J: ANNOTATED BIBLIOGRAPHY

Authors:	Allison A. Gall and Michael J. Gall
Title:	Draft Supplemental Phase I Archaeological Survey and Geotechnical Boring Review, Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Improvement Program, Cities of Bayonne and Jersey City, Hudson County, New Jersey
Date:	November 2023
RGA Project No.:	2023-148
RGA Database Title:	GF NB-HCE Marist and Geotech Boring Review
State:	New Jersey
County:	Hudson County
Municipality:	City of Jersey City, City of Bayonne
Drainage Basin:	Newark Bay, Kill van Kull, Upper New York Bay, The Narrows, Lower New York Bay, Atlantic Ocean
USGS Quad:	Jersey City, NJ
Regulation:	Section 106 of the National Historic Preservation Act, as amended; New Jersey Executive Order 215; New Jersey Register of Historic Places Act; Freshwater Wetlands (N.J.A.C. 7:7A); Waterfront Development; New Jersey Register of Historic Place Act (N.J.A.C. 7:4-7.1).
Project Type:	Transportation: Road Improvement, Bridge Replacement
Project Sponsor:	New Jersey Turnpike Authority
Client:	Gannett Fleming, Inc.
Level of Survey:	Supplemental Phase I Archaeological Survey and Geotechnical Boring Review
Cultural Resources:	Morris Canal historic property (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 4/27/2004); Jersey Eagle Site (28-Hd-45 [SHPO Opinion: 5/17/2013]); Marist High School Site (28-Hd-55).

Appendix A-3

Programmatic Agreement

PROJECT PROGRAMMATIC AGREEMENT
AMONG
THE UNITED STATES COAST GUARD,
NEW JERSEY STATE HISTORIC PRESERVATION OFFICER,
AND NEW JERSEY TURNPIKE AUTHORITY
REGARDING THE
NEWARK BAY-HUDSON COUNTY EXTENSION IMPROVEMENTS PROGRAM,
INTERCHANGES 14 TO 14A/NEWARK BAY BRIDGE REPLACEMENT
AND ASSOCIATED IMPROVEMENTS
NEWARK BAY MP 3.8
BETWEEN NEWARK, ESSEX COUNTY AND
BAYONNE & JERSEY CITY,
HUDSON COUNTY, NEW JERSEY

WHEREAS, the New Jersey Turnpike Authority ("Authority") proposes a project to reconstruct the portion of the Newark Bay-Hudson County Extension ("NB-HCE") between Interchanges 14 and 14A to improve the long-term integrity of structures, including that of the Newark Bay Bridge (also known as the Vincent R. Casciano Memorial Bridge) over Newark Bay ("Newark Bay Bridge"), in the City of Newark, Essex County and the City of Bayonne and City of Jersey City, Hudson County, New Jersey ("Project"); and

WHEREAS, the Project involves the replacement of the existing four-lane, multi-span structure (i.e., the Newark Bay Bridge) with a new four-lane westbound structure in a parallel alignment north of the existing alignment, and a new eastbound, four-lane multi-span structure in the same approximate alignment as the existing structure (i.e., the Newark Bay Bridge), as well as roadway realignment and improvements on the NB-HCE east and westbound between Interchanges 14 and 14A, and various drainage and stormwater improvements; and

WHEREAS, the United States Coast Guard ("USCG"), with jurisdiction over the navigable waterways of the United States, is the lead Federal agency responsible for making a Federal bridge permit decision approving the location and plans for the proposed replacement of the Newark Bay Bridge, pursuant to The General Bridge Act of 1946, as amended (33 U.S.C. § 525-533); and

WHEREAS, the USCG has determined that the Project constitutes an undertaking under Section 106 of the National Historic Preservation Act of 1966 (54 U.S.C. § 306101 *et seq*) ("NHPA"), as amended and re-codified, and its implementing regulations at 36 CFR Part 800 (hereinafter collectively referred to as "Section 106"); and

WHEREAS, pursuant to 36 CFR § 800.4, the USCG in consultation with the New Jersey Historic Preservation Officer ("NJHPO") identified the Area of Potential Effects ("APE") for the Project, and determined that the APE will be the areas where potential effects on historic properties caused by the Project may occur (see Attachments 1 and 2); and

WHEREAS, a Phase I Archaeological Survey and Intensive-level Historic Architectural Survey Report and a Supplemental Phase I Archaeological Survey and Geotechnical Boring Review prepared for the Project (Richard Grubb & Associates, Inc. 2023a, 2023b) identified the following seven (7) historic

properties listed in or eligible for listing in the National Register of Historic Places ("NRHP") within the APE:

1. Newark and Elizabeth Branch of the Central Railroad of New Jersey Historic District (SHPO Opinion: 8/30/2000)
2. Pennsylvania Railroad New York Bay Branch Historic District (SHPO Opinion: 12/18/2019)
3. Lehigh Valley Railroad Historic District (SHPO Opinion 3/15/2002)
4. Morris Canal historic property (NJR: 11/26/1973 NR: 10/1/1974; SHPO Opinion: 5/27/2004)
5. Newark Bay Bridge (SHPO Opinion: 5/22/2023)
6. Port Authority Administration Building (SHPO Opinion: 5/22/2023); and
7. Site 28-Hd-45 (Jersey Eagle archaeological site) (a.k.a. the Jersey Eagle Site; SHPO Opinion: 5/17/2013); and

WHEREAS, in a letter dated February 5, 2025, the USCG indicated to the NJHPO that the subject Newark Bay Bridge is an element of the Eisenhower Interstate Highway System, specifically I-78. Therefore, pursuant to the Advisory Council on Historic Preservation's ("ACHP") notice published in the Federal Register (05-4739; 70 FR 11928) outlining an *Exemption Regarding Historic Preservation Review Process for Effects to the Interstate Highway System* that relieves federal agencies from Section 106's requirement to consider the effects of their undertakings on elements of the Interstate Highway System, the USCG is not required to assess the Project's effects to the Newark Bay Bridge under Section 106; and

WHEREAS, in a review letter dated January 9, 2024, the NJHPO determined that archaeological monitoring and an associated archaeological monitoring protocol are necessary to record and mitigate project-related adverse effects to the following areas:

1. Morris Canal historic property at the east and west proposed abutments of Structure No. N3.24R carrying the NB-HCE over Avenue C;
2. At proposed Piers 13-15, a portion of proposed Pier 17, and the eastern abutment for proposed Structure No. N3.73R (Southeast Viaduct); and
3. Adjacent to the identified footprint of the Jersey Eagle Site historic property at Basin HUC3-F (if the excavation for the basin outfall pipe trench adjacent to the historic property extends below a depth of 2.3 feet below current ground surface); and

WHEREAS, in a review letter dated January 9, 2024, the NJHPO determined that Phase IB archaeological survey is necessary for proposed Basin HUC2-I on the former Marist High School property in the City of Bayonne to determine the presence or absence of archaeological resources in the proposed basin footprint. Following this survey, the NJHPO determined it is also necessary to conduct both a Phase II archaeological survey to evaluate the NRHP-eligibility of identified archaeological resources, if present, at the basin, and Phase III archaeological data recovery or archaeological monitoring to mitigate project-related adverse effects to identified archaeological historic properties in the basin footprint if avoidance through project redesign is not feasible; and

WHEREAS, in a review letter dated January 9, 2024, the NJHPO agreed that an avoidance and protection plan would be appropriate to ensure protection of Marist High School Site (28-Hd-55) on Block 13, Lot 1 in the City of Bayonne during construction, that no further archaeological survey at the site

would be warranted if appropriate avoidance and protection measures were put in place, that an avoidance and protection plan for NJHPO review and approval is required to detail project-related avoidance measures, and that such avoidance measures must be specified on Final Design plans; and

WHEREAS, an Archaeological Monitoring Protocol, dated April 30, 2024, was submitted to the NJHPO that outlines the documentation tasks that will be conducted to record elements of the Morris Canal historic property at the east and west proposed abutments of Structure No. N3.24R carrying the NB-HCE over Avenue C; to record the Morris Canal historic property at proposed Piers 13-15, a portion of Pier 17, and the eastern abutment for Structure No. N3.73R (Southeast Viaduct); and to record elements of the Jersey Eagle Site for stormwater management basin HUC3-F if the excavation for the outfall pipe trench extends below a depth of 2.3 feet below ground surface adjacent to the Jersey Eagle Site (Richard Grubb & Associates, Inc. 2024). The protocol also included an unanticipated discovery of human remains protocol; and

WHEREAS, the USCG issued a Public Notice on May 9, 2024 and specified that a Programmatic Agreement ("PA") would be developed to resolve adverse effects and conclude the Section 106 process pursuant to 36 C.F.R. § 800.14; and

WHEREAS, in a review letter to the Authority, dated May 28, 2024, the NJHPO accepted the Archaeological Monitoring Protocol, dated April 30, 2024; and

WHEREAS, in a review letter to the USCG, dated June 13, 2024, the NJHPO concurred that additional consultation is necessary in the development of a PA with any consulting parties that may wish to participate and to identify any additional mitigation measures that may be necessary; and

WHEREAS, the USCG has invited the City of Newark, City of Newark Landmarks and Historic Preservation Commission, City of Bayonne, City of Bayonne Historic Preservation Commission, City of Jersey City, City of Jersey City Historic Preservation Commission, the Hudson County Executive, Hudson County Open Space, Recreation and Historic Preservation, Essex County Executive, Essex County Department of Parks, Recreation, and Cultural Affairs, Newark Historical Society, Bayonne Historical Society, Preservation New Jersey, New Jersey Historical Society, Society for Industrial Archaeology, Archaeological Society of New Jersey, Canal Society of New Jersey, Hudson County Genealogical & Historical Society, Hudson County Office of Cultural & Heritage Affairs/Tourism Development, and the Jersey City Landmarks Conservancy to be consulting parties regarding the effects of the Project on historic properties (see Attachment 3); and

WHEREAS, the USCG has invited the Delaware Nation; the Shawnee Tribe of Oklahoma; the Shawnee Tribe; the Stockbridge Munsee Community; and the Delaware Tribe of Indians to consult on historic properties that may have religious and cultural significance, and the Shawnee Tribe responded in an email dated January 10, 2025, in which it specified that the Project is out of the Tribal Nation's area of interest (see Attachment 3); and

WHEREAS, the USCG held a virtual Section 106 meeting on December 10, 2024, for all the aforementioned entities invited as consulting parties on the Project, which was attended by representatives of the New Jersey Historic Preservation Office, Stockbridge Munsee Community, City of Bayonne Historic Preservation Commission, USCG, United States Army Corps of Engineers ("USACE"), the

Authority, and the Authority's consultants (see Attachment 4); and

WHEREAS, during the December 10, 2024 virtual meeting, the Stockbridge Munsee Community verbally specified that it would like to be apprised of future work plans and various components of additional archaeological survey tasks associated with the Project, requested that its Inadvertent Discovery Protocol ("IDP") be adopted as part of the Project's requisite policies, and that the IDP is included as Attachment 5; and

WHEREAS, through consultation with the NJHPO and other consulting parties, the USCG has considered alternatives to avoid or minimize potential adverse effects to identified historic properties, and has determined that the proposed Project is the only feasible and prudent alternative; and

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), the USCG has notified the ACHP of its adverse effect determination with specified documentation, by e106 submission on February 6, 2025, and the ACHP has chosen not to participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii) in an email dated March 12, 2025; and

WHEREAS, the USCG has consulted with the Authority regarding the effects of the Project on historic properties and the Authority has agreed to sign this PA as an invited signatory; and

WHEREAS, the USCG in consultation with the NJHPO and the Authority has determined that the development of a PA, in accordance with 36 CFR § 800.14(b)(1)(ii), is warranted because effects of the undertaking on archaeological resources are not fully known; and

WHEREAS, the Authority, as the Project owner and sponsor, has the responsibility to implement the stipulations listed herein, as determined appropriate and warranted; and

WHEREAS, the USCG, as the federal authority issuing the permit for the Project, has the responsibility to provide oversight of the Authority's implementation of the stipulations listed herein, except where the USCG shall have the responsibility to directly undertake government-to-government consultation with Federally recognized Native American Tribal Nations;

NOW, THEREFORE, the USCG, NJHPO, and Authority agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effects of the undertaking on historic properties.

STIPULATIONS

The Authority, on behalf of the USCG, shall ensure that the following measures are carried out:

I. ONGOING CONSULTATION WITH NATIVE AMERICAN TRIBES

Federally recognized Native American Tribal Nations previously identified as consulting parties that have not declined to participate in consultation will be offered an opportunity to provide comments on archaeological survey reports, archaeological monitoring protocols, alternative analyses, avoidance and protection plans, and associated work plans that will or may be prepared as part of this PA. The USCG shall ensure that on-going consultation with Federally recognized Native American Tribal Nations is conducted to identify and express any concerns about historic properties of religious or cultural significance. Tribal consultation shall continue, as warranted, throughout the life of the Project, regardless of whether such tribes have chosen to consult or respond to USCG's initiation of consultation for this PA.

II. IDENTIFICATION AND EVALUATION OF ARCHAEOLOGICAL HISTORIC PROPERTIES

A. The Authority shall ensure that a Phase IB archaeological survey is undertaken within proposed Basin HUC2-I on the former Marist High School property in the City of Bayonne, Hudson County, New Jersey, to determine the presence or absence of archaeological resources. Due to the potential for extensive imported fill within the proposed basin footprint, the Phase IB archaeological survey will be facilitated by the use of mechanically excavated trenches to enable hand excavation of shovel test pits within buried, intact soils, if present. If buried natural soils with the potential to contain cultural material are present beyond a depth of 5 feet below grade, a backhoe will be utilized to recover soil samples that will be passed through 1/4-inch wire mesh cloth to facilitate recovery of cultural material, if present. A Phase IB archaeological survey report that complies with the NJHPO reporting and survey standards shall be completed. The USCG shall distribute the Phase IB archaeological survey report to the NJHPO and consulting parties, including Federally recognized Native American Tribal Nations, as necessary, for review and comment within 30 days of completion.

B. In the event intact archaeological resources are identified during the Phase IB archaeological survey, a Phase II archaeological survey may be determined necessary within archaeological site boundaries developed in consultation with the NJHPO and any consulting parties that may wish to participate. The methodology employed for a Phase II archaeological survey will be detailed in a Phase II archaeological survey work plan to be reviewed and approved by USCG, Authority, and NJHPO prior to the commencement of any Phase II archaeological survey fieldwork. The USCG shall distribute the work plan to consulting parties, including Federally recognized Native American Tribal Nations, as warranted. The Phase II archaeological survey will evaluate the NRHP eligibility of identified archaeological sites found in the footprint of proposed Basin HUC2-I on the former Marist High School property to enable an assessment on the Project's potential to affect identified archaeological properties. A Phase II archaeological survey report shall be

completed that conforms to the reporting and survey standards of the NJHPO. The USCG shall distribute the Phase II archaeological survey report to consulting parties, including Federally recognized Native American Tribal Nations, as warranted.

C. The USCG and the Authority shall consult with the NJHPO regarding the need, where appropriate, to prepare recovered archaeological assemblages for curation and storage in a facility that meets 36 C.F.R. Part 79 guidelines.

III. ALTERNATIVES ANALYSIS

In order to determine if impacts to newly identified archaeological historic properties can be minimized or avoided prior to the implementation of treatment measures outlined in Section IV, the Authority will prepare an Alternatives Analysis that considers and outlines the feasibility of different design alternatives. The design alternatives will be considered and proposed to determine the feasibility and rationale of each alternative to simultaneously meet or not meet the Project need and avoid or minimize impacts to newly identified archaeological historic properties. The design alternatives will include a no-build alternative, a build-as-designed alternative, and an alternative that minimizes or avoids impacts to newly identified archaeological historic properties. The Alternatives Analysis will be prepared to follow the NJHPO's guidelines for such documents. The USCG and the Authority will provide the draft Alternatives Analysis to the NJHPO, identified Tribal Nation consulting parties, and other identified consulting parties for review and comment. Upon receipt of consulting party comments, the USCG and the Authority will submit a final Alternatives Analysis to the NJHPO, identified Tribal Nation consulting parties, and other identified consulting parties. If, through consultation, it is determined that there is no feasible Project alternative to avoid impacts to newly identified archaeological historic properties, treatment measures for archaeological historic properties as described in Section IV may be deemed appropriate.

IV. TREATMENT MEASURES FOR ARCHAEOLOGICAL HISTORIC PROPERTIES

Following consultation with the NJHPO, the Authority shall ensure that project-related adverse effects the Project may have on an identified archaeological historic property in proposed Basin HUC2-I on the former Marist High School property are appropriately mitigated through a Phase III archaeological data recovery effort prior to construction and/or through archaeological monitoring during construction.

In the event Phase III archaeological data recovery is determined to be the most appropriate means to mitigate project-related adverse effects to newly identified archaeological historic properties at proposed Basin HUC2-I on the former Marist High School property, the Authority shall ensure that a Phase III archaeological data recovery work plan is prepared, submitted to, and approved by the NJHPO prior to the commencement of Phase III archaeological data recovery fieldwork. The work plan for the Phase III will outline the fieldwork and analysis methodology, research questions, curation procedures, reporting means, and public outreach that will be followed during a Phase III archaeological data recovery. The Phase III work plan may include provisions for archaeological monitoring, as appropriate. The USCG shall distribute the work plan to consulting parties, including Federally recognized Native American

Tribal Nations, as warranted. A Phase III archaeological data recovery report shall be completed that conforms to the reporting and survey standards of the NJHPO. The USCG shall distribute the Phase III archaeological survey report to consulting parties, including Federally recognized Native American Tribal Nations, as warranted. The Authority shall provide the NJHPO and USCG with monthly email summary updates from the start of Phase III fieldwork to the completion of all Phase III tasks. Following the completion of Phase III fieldwork, the Authority shall ensure that a management summary letter is prepared for submission to the NJHPO that details the fieldwork completed and cultural features identified with appended data demonstrating how the Phase III fieldwork has satisfied the research design. The letter will request that the archaeological site footprint be released for construction following approval from the NJHPO and identified Tribal Nation consulting parties. The letter will also outline a timeline for all outstanding data recovery elements (i.e., report, artifact curation, and public outreach) that will be conducted in a specified timeframe or a timeframe that is amenable to the NJHPO and USCG based on the complexity of the archeological historic property. All recovered artifacts will be prepared for curation and storage in a facility that meets 36 C.F.R. Part 79 guidelines.

V. ARCHAEOLOGICAL MONITORING

The Authority shall ensure that the NJHPO-approved Archaeological Monitoring Protocol will be adhered to document archaeological deposits and features associated with the Morris Canal historic property at the east and west proposed abutments of Structure No. N3.24R carrying the NB-HCE over Avenue C; to record elements of the Morris Canal historic property at proposed Piers 13-15, a portion of proposed Pier 17, and the eastern abutment for proposed Structure No. N3.73R (Southeast Viaduct); and archaeological resources associated with the Jersey Eagle Site historic property, if present, at Basin HUC3-F (if the excavation for the basin outfall pipe trench adjacent to the historic property extends below a depth of 2.3 feet below current ground surface). The Authority shall also ensure that the provisions for unanticipated discovery of human remains outlined in the Archaeological Monitoring Protocol will be followed in the even human remains are identified. The Authority shall ensure that the archaeological monitoring report is submitted to the NJHPO within 45 days of the completion of all archaeological monitoring fieldwork tasks.

In the event it is determined appropriate to mitigate adverse effects to newly identified archaeological historic properties and/or archaeological resources during construction through a process of archaeological monitoring in specific locations, the Authority shall ensure that an archaeological monitoring protocol be prepared that meets the NJHPO's standards. The monitoring protocol will outline the specific locations that require monitoring during construction, describe the methods of archaeological resource/historic property documentation, provide a list of Project contacts, and detail the methodology for artifact analysis, artifact curation, and reporting. The archaeologist to conduct on-site archaeological monitoring must meet 36 C.F.R. Part 61 standards for archaeology. The location of archaeological monitoring will be displayed on Final Design construction plans with notations referencing the relevant archaeological monitoring protocol, the need for archaeological monitoring in specific locations, and that an archaeological monitor must be given at least three (3) business days advance notice prior to being required on site. The USCG shall distribute the

monitoring protocol to consulting parties, including Federally recognized Native American Tribal Nations, as warranted.

On-site archaeological monitoring will occur during the construction phase and will adhere to the NJHPO-approved archaeological monitoring protocol. As determined appropriate through consultation between the USCG and the NJHPO, recovered artifacts will be prepared for curation and storage in a facility that meets 36 C.F.R. Part 79 guidelines.

In the event it is determined that construction has already occurred in an area requiring archaeological monitoring before such monitoring can be undertaken, the USCG will be notified per 36 C.F.R. Part 800.15(j) and the NJHPO shall be notified within 24 hours of each occurrence.

VI. AVOIDANCE AND PROTECTION MEASURES

In the event newly identified archaeological resources and/or archaeological historic properties are identified within the Project footprint that will be avoided or that adverse effects will be minimized through a redesign, the USCG and the Authority shall ensure that an Avoidance and Protection Plan or Minimization Plan is submitted to the NJHPO and identified Tribal Nation consulting parties for review and comment. Upon approval of the Final Avoidance and Protection Plan or Minimization Plan, as the case may be, the Authority shall ensure that the avoidance or minimization elements and/or engineering controls are documented on relevant Final Design construction plan sheets and notes pages. The NJHPO may request that photographic documentation be submitted that documents installation of the avoidance measures and conditions before, during, and after construction.

The Authority shall also ensure an Avoidance and Protection Plan is prepared for NJHPO review and approval that details project-related avoidance measures at the Marist High School Site (28-Hd-55) on Block 13, Lot 1 in the City of Bayonne, Hudson County, New Jersey. Such measures shall protect the footprint of the Marist High School Site (28-Hd-55) from disturbance during construction activities through emplaced engineering controls. The engineering controls determined to be appropriate to enable archaeological resource protection will be detailed on relevant Final Design construction plan sheets that display the site location and in the construction plan notes pages to ensure that the Construction Manager understands that no mechanical excavation and/or use of machinery can occur within the site limits. The NJHPO may request that photographic documentation be submitted that documents installation of the avoidance measures and conditions before, during, and after construction.

ADMINISTRATIVE CONDITIONS

VII. ROLES AND RESPONSIBILITIES

USCG: As a signatory and the lead federal agency, the USCG has authority to execute, amend, and/or terminate this PA. The primary responsibility of the USCG pursuant to 36 C.F.R. § 800.2 (a) (2) is to ensure that the provisions of this PA are carried out. The USCG will conduct government-to-government consultation with Consulting Tribes and participate in the resolution of disputes. The USCG will oversee the Authority's implementation of the stipulations contained herein, as determined appropriate and as warranted, except in such cases where government-to-government consultation is necessary to be conducted by the USCG with Federally recognized Native American Tribal Nations.

NJHPO: As a signatory with responsibility for regulatory review and compliance, the NJHPO has the authority to execute, amend, and/or terminate this PA. The NJHPO is also responsible for providing formal review and comment for actions requiring the same as part of this PA.

Authority: As an invited signatory, the Authority has the authority to amend and/or terminate this PA and shall ensure that specified stipulations and procedures for which it has assumed responsibility are carried out in accordance with this PA. The Authority has the responsibility to implement the stipulations contained herein, as determined appropriate and as warranted, on behalf of the USCG, except in such cases where government-to-government consultation is necessary to be conducted by the USCG with Federally recognized Native American Tribal Nations.

VIII. PROFESSIONAL QUALIFICATIONS STANDARDS

The Authority, on behalf of the USCG, will ensure that all work prescribed by this PA is carried out by or under the direct supervision of a person or persons meeting or exceeding the Secretary of the Interior's Professional Qualifications Standards [48 FR 44738-44739] in Archaeology, History, or Architectural History, as appropriate.

IX. UNANTICIPATED DISCOVERIES

All unanticipated historic and pre-contact period archaeological discoveries resulting from Project activities made anywhere on the Project site will be treated in accordance with the regulations set forth at 36 CFR § 800.11 and CFR § 800.13. In the event that unanticipated discoveries of historic period non-Native American archaeological resources are made during execution of the Project, the Authority will cease construction in the area of the discovery and the USCG shall notify the NJHPO. In the event that unanticipated discoveries of Native American archaeological resources are made during executions of the Project, the Authority will cease construction in the area of the discovery and the USCG shall notify all Tribal representatives and the NJHPO. Consultation will be conducted by the USCG with all identified Tribal Nation consulting parties that have an interest in the undertaking to seek comments on appropriate measures that may be required. The Stockbridge Munsee Community's IDP and the Native American Graves Protection and Repatriation Act

("NAGPRA") of 1990 rules set forth at 25 U.SC. § 3001 *et seq* and the implementing regulations at 43 CFR Part 10 will be followed (see Attachment 5). Construction will not resume until such time as the significance, treatment, and disposition of said discoveries can be determined in consultation with consulting parties. Irrespective of USCG actions, nothing in this paragraph shall or is intended to limit the Authority from directly notifying the NJHPO to coordinate response activities in cases of unanticipated historic and pre-contact discoveries.

X. TREATMENT OF HUMAN REMAINS

A. If human remains are encountered during construction, the Authority shall require the contractor to immediately halt subsurface disturbance in that portion of the construction area and secure and protect the human remains and any associated funerary objects in place in such a way that minimizes further exposure or damage to the remains from the elements, looting, and/or vandalism.

B. The Authority shall immediately notify the police department with jurisdiction to determine if the discovery is subject to a criminal investigation by law enforcement and notify the signatories within twenty-four (24) hours of the initial discovery.

C. If a criminal investigation is not appropriate, and the remains are not of Native American origin, the Authority shall develop a research design/treatment plan consistent with all relevant laws, procedures, policies, and guidelines of the NJHPO, and applicable provisions of the New Jersey Cemetery Act of 2003 set forth at N.J.S.A. § 45:27-1 *et seq*. The Authority shall submit the design and plan to the NJHPO for review and approval.

D. In the event the human remains encountered could be of Native American origin, whether from the pre-contact or historic period, the USCG shall immediately notify and consult with the appropriate Federally recognized Native American Tribal Nations and with the NJHPO to determine the treatment plan for the Native American human remains and any associated funerary objects that complies with NAGPRA of 1990, set forth at 25 U.SC. § 3001 *et seq* and the implementing regulations at 43 CFR Part 10. Irrespective of USCG actions, nothing in this paragraph shall or is intended to limit the Authority from directly notifying the NJHPO to coordinate response activities in the event human remains are encountered.

E. The Authority shall ensure the contractor shall not proceed with work in the affected area until the USCG, in consultation with the NJHPO and Federally recognized Native American Tribal Nations, as appropriate, determines the appropriate research design/treatment plan or other recommended mitigation measures are completed. However, work outside the area may continue.

XI. EMERGENCY SITUATIONS

Should an emergency situation occur that represents an imminent threat to public health or safety, or creates a hazardous condition and has the potential to affect historic properties, the Authority shall contact the police department with jurisdiction, as needed, as soon as possible

and notify the signatories within twenty-four (24) hours of the condition which created the emergency, the immediate action taken in response to the emergency, the effects of the response to historic properties, and, where appropriate, further plans to address the emergency. This shall include provisions for continuing consultation with the NJHPO and consulting parties to identify ways to avoid, minimize, or mitigate potential adverse effects to historic properties, pursuant to 36 C.F.R. Part 800.12.

The signatories shall have seven (7) days to review and comment on the plan(s) for further action. If USCG and the NJHPO do not object to the plan within the review period, then the Authority shall implement the proposed plan(s).

Where possible, the Authority shall ensure that emergency responses allow for future preservation or restoration of historic properties, take into account the Secretary of the Interior's *Standards for the Treatment of Historic Properties*, and include on-site monitoring by the appropriate qualified professional as contained in Administrative Condition VIII.

Immediate rescue and salvage operations conducted to preserve life or property are exempt from these and all other provisions of this PA.

XII. CHANGES IN PROJECT AREA/SCOPE

In the event that the Authority modifies the geographic boundaries of the proposed Project area, the scope of the proposed Project, or makes significant changes to the Project design, the following measures will be implemented in consultation with the signatories:

1. The Authority, in consultation with the USCG, NJHPO, and any consulting parties that wish to participate, will assess and revise the Project APE, as needed, to incorporate any additional areas that have the potential to affect historic resources.

2. The Authority, in consultation with the USCG, NJHPO, and any consulting parties that wish to participate, will carry out additional investigations deemed necessary to identify historic architectural and archaeological properties that may be affected.

3. The Authority, in consultation with the USCG, NJHPO, and any consulting parties that wish to participate, will assess the Project's potential effects on any new historic properties and develop through consultation, prudent and feasible measures to avoid, minimize, or mitigate adverse effects on these properties.

4. The Authority, in consultation with the USCG and NJHPO, will ensure the preparation of appropriate reports and documents, notify Section 106 consulting parties, including Federally recognized Native American Tribal Nations, of any changes in the Project's effects on historic properties, and provide an opportunity to review and comment.

5. If a change in Project scope results in potential effects to historic properties not addressed in this PA, USCG shall consult with all signatories to amend this PA in accordance with Administrative Condition XIV.

XIII. DISPUTE RESOLUTION

Should any signatory of this PA object at any time to any actions proposed or the manner in which the terms of this PA are implemented, the USCG shall consult with such party and the Authority to resolve the objection. If the USCG determines that such objection cannot be resolved, then the USCG shall proceed as follows:

1. Forward all documentation relevant to the dispute, including the USCG's proposed resolution, to the ACHP. The ACHP shall advise the USCG on resolving the dispute within forty-five (45) days of receiving the USCG's documentation. The USCG shall consider the ACHP's advice and respond in writing with the USCG's final decision and copy the signatories to this PA.

2. If the ACHP does not provide its advice regarding the dispute within the forty-five (45)-day period, the USCG may make a decision on the dispute and proceed accordingly. Prior to reaching such a final decision, the USCG shall prepare a written response that considers any timely comments regarding the dispute from the signatories and provide them and the ACHP with a copy of such written response.

3. The signatories remain responsible for carrying out all other actions subject to the terms of this PA that are not the subject of the dispute.

XIV. AMENDMENTS

Any signatory to this PA may request, in writing, that it be amended, whereupon the signatories will consult to consider such amendment. This PA may be amended only upon written concurrence of all signatories of this PA. The amendment will be effective on the date a copy signed by all the signatories is filed with the ACHP.

XV. TERMINATION

If any signatory to this PA determines that the terms shall not or cannot be carried out, that party shall immediately consult with the other signatories to attempt to develop an amendment per Administrative Condition XIV above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the PA upon written notification to the other signatories.

Should the agreement be terminated, then, prior to work continuing on the undertaking, the USCG shall either (a) execute a new agreement document pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. USCG shall notify the signatories and other consulting parties as to the course of action it shall pursue.

XVI. CONFLICT OF LAW AND ENTIRETY OF AGREEMENT

Nothing in this agreement is intended to conflict with current law or regulation or the directives of the USCG or Department of Homeland Security or the participating agencies. If a term of this agreement is inconsistent with such authority, that term shall be invalid. The remaining terms and conditions shall remain in full force and effect. This agreement supersedes all prior negotiations, representations, and agreements, whether written or oral on the subject between the signatories to this PA.

XVII. REPORTING

The Authority shall provide the USCG and NJHPO a written review of the Project annually, to monitor progress of the implementation of the terms of this PA. If the stipulations have not been implemented within the duration stated in Administrative Condition XVIII, the parties to this agreement shall review the PA to determine whether revisions are needed. If revisions are needed, the parties to this PA shall consult in accordance with Administrative Condition XIV above.

XVIII. DURATION

This PA will expire if its terms are not carried out within fifteen (15) years from the date of its execution by the last signatory to execute the PA, or upon Project completion, whichever comes first. If within 15 years, the proposed Project is not completed, or its stipulations are not met, the signatories will consult to determine if this PA will be amended, extended, or terminated. Prior to such time, the USCG through the Authority may consult with other signatories to reconsider the terms of the PA and amend it in accordance with Administrative Condition XIV above.

EXECUTION of this PA by the USCG, NJHPO, and Authority, and the implementation of its terms is evidence that the USCG has taken into account the effects of the undertaking on historic properties and has afforded the ACHP an opportunity to comment.

References

Richard Grubb & Associates, Inc.

2023a Phase I Archaeological Survey and Intensive-level Historic Architectural Survey, Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program, Cities of Bayonne and Jersey City, Hudson County, and Newark, Essex County, New Jersey. April 2023. On file at the New Jersey Historic Preservation Office, Trenton, New Jersey.

2023b Draft Supplemental Phase I Archaeological Survey and Geotechnical Boring Review, Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Bridge Replacements and Capacity Enhancements Program, Cities of Bayonne and Jersey City, Hudson County, New Jersey. November 2023. On file at the New Jersey Historic Preservation Office, Trenton, New Jersey.

2024 Archaeological Monitoring Protocol, Newark Bay- Hudson County Extension Interchange 14 to 14A/ Newark Bay Bridge Replacement and Associated Improvements, Cities of Bayonne and Jersey City, Hudson County, New Jersey. November 2023. On file at the New Jersey Historic Preservation Office, Trenton, New Jersey.

APPROVAL AND SIGNATURE PAGE FOR PROGRAMMATIC AGREEMENT AMONG THE UNITED STATES COAST GUARD, NEW JERSEY STATE HISTORIC PRESERVATION OFFICER, AND NEW JERSEY TURNPIKE AUTHORITY REGARDING THE NEWARK BAY-HUDSON COUNTY EXTENSION IMPROVEMENTS PROGRAM, INTERCHANGES 14 TO 14A/NEWARK BAY BRIDGE REPLACEMENT AND ASSOCIATED IMPROVEMENTS NEWARK BAY MP 3.8 BETWEEN NEWARK, ESSEX COUNTY AND BAYONNE & JERSEY CITY, HUDSON COUNTY, NEW JERSEY

SIGNATORY

UNITED STATES COAST GUARD

By: Michael Date: APRIL 16, 2025

M.E. Platt
Rear Admiral, United States Coast Guard
Commander, First Coast Guard District

APPROVAL AND SIGNATURE PAGE FOR PROGRAMMATIC AGREEMENT
AMONG
THE UNITED STATES COAST GUARD,
NEW JERSEY STATE HISTORIC PRESERVATION OFFICER,
AND NEW JERSEY TURNPIKE AUTHORITY
REGARDING THE
NEWARK BAY-HUDSON COUNTY EXTENSION IMPROVEMENTS PROGRAM,
INTERCHANGES 14 TO 14A/NEWARK BAY BRIDGE REPLACEMENT
AND ASSOCIATED IMPROVEMENTS
NEWARK BAY MP 3.8
BETWEEN NEWARK, ESSEX COUNTY AND BAYONNE & JERSEY CITY,
HUDSON COUNTY, NEW JERSEY

SIGNATORY

NEW JERSEY HISTORIC PRESERVATION OFFICER

By: Katherine J. Marcopul Date: 4/25/2025
Dr. Katherine J. Marcopul
Deputy State Historic Preservation Officer

APPROVAL AND SIGNATURE PAGE FOR PROGRAMMATIC AGREEMENT AMONG THE UNITED STATES COAST GUARD, NEW JERSEY STATE HISTORIC PRESERVATION OFFICER, AND NEW JERSEY TURNPIKE AUTHORITY REGARDING THE NEWARK BAY-HUDSON COUNTY EXTENSION IMPROVEMENTS PROGRAM, INTERCHANGES 14 TO 14A/NEWARK BAY BRIDGE REPLACEMENT AND ASSOCIATED IMPROVEMENTS NEWARK BAY MP 3.8 BETWEEN NEWARK, ESSEX COUNTY AND BAYONNE & JERSEY CITY, HUDSON COUNTY, NEW JERSEY

INVITED SIGNATORY

NEW JERSEY TURNPIKE AUTHORITY

By: _____ Date: 4/14/2025
James D. Carone
Executive Director

REVIEWED LAW DEPT.
DATE: 4/14/25

ATTACHMENT 1: SECTION 106 CONSULTATION DOCUMENTATION

- *USGS Public Notice (May 9, 2024)*
- *NJHPO response letter (June 13, 2024)*
- *USCG Section 106 Consultation Letter to NJHPO, with URL link to attachments including Phase I archaeological survey and Intensive-level historic architectural survey, Draft supplemental Phase I archaeological survey and geotechnical boring review, and Archaeological monitoring protocol (November 13, 2024;https://www.njta.com/section-106)*
- *NJHPO response letter (January 15, 2025)*
- *USGS Continued Consultation Letter to NJHPO (February 5, 2025)*
- *ACHP response letter (March 12, 2025)*

U.S. Department of Homeland Security
United States Coast Guard

Commander
First Coast Guard District

Battery Park Bldg.
1 South Street
New York, NY 10004-1466
Staff Symbol: (dpb)
Email: SMB-D1Boston-Bridges-PublicNotices@uscg.mil

09 MAY 2024

PUBLIC NOTICE D01-209-2024

PROPOSED REPLACEMENT OF THE NEWARK BAY-HUDSON COUNTY EXTENSION BETWEEN INTERCHANGES 14 AND 14A (EXTENSION) INCLUDING THE VINCENT R. CASCIANO MEMORIAL, NEWARK BAY BRIDGE (NBB) ACROSS NEWARK BAY, MILE 3.8, BETWEEN NEWARK, ESSEX COUNTY AND BAYONNE, HUDSON COUNTY, NEW JERSEY

All interested parties are notified that a U.S. Coast Guard (USCG) bridge permit application, and a draft National Environmental Policy Act (NEPA) Environmental Assessment from the New Jersey Turnpike Authority (NJTA) have been received by the Commander, First Coast Guard District, for approval of the enclosed plans to replace a bridge over a navigable waterway of the United States.

Further, the Department of the Army (USACE) has received an application from the NJTA for a Section 408 permission for certain work at or near the Newark Bay Channel Federal Navigation Project, as described in this public notice and shown on attached plans. The purpose of this public notice is to elicit comments from the public, government, and marine community regarding the proposed action.

WATERWAY AND LOCATION: The proposed replacement of the bridge would be constructed over the Newark Bay, mile 3.8, between Newark, Essex County and Bayonne, Hudson County, New Jersey. More specifically, the western terminus of the proposed action is Interchange 14 in Newark where the Extension intersects with the NJ Turnpike (I-95) mainline roadway, Interstate Route 78 and U.S. Routes 1 and 9. The eastern terminus of the proposed action is Interchange 14A in Jersey City and Bayonne where the Extension intersects with NJ Routes 440 and 185 and local streets.

CHARACTER OF THE WORK: The NJTA proposes to replace all roadway bridges and viaducts, including the NBB, while widening the roadway between Interchanges 14 and 14A from the existing two-way traffic lanes in each direction to carry four travel lanes in each direction. Specifically, the existing NBB will be replaced with two compliant bridges with one bridge carrying four travel lanes in the eastbound direction and the other bridge carrying four travel lanes in the westbound direction. One of the replacement bridges will be constructed off-line immediately to the north and carry westbound roadway traffic. The other replacement bridge will be replaced on approximately the same alignment as the existing NBB and will carry eastbound roadway traffic.

The proposed project will improve the navigational clearances of the Newark Bay Bridge, improve sea level resiliency, improve the long-term integrity of the Extension's structures, and improve the safety of commuter and marine traffic. The horizontal navigational clearance of 550feet and vertical clearance of 135feet Mean High Water (MHW) remain unchanged.

The NJTA has agreed to remove the existing piers 2-feet below the mudline, except that existing piers W1 & E1 will remain for integration with the fender design. The northwest corner of pier E1 will be dredged to the limit of the USACE maintained Newark Bay North Reach navigational channel to a depth of 2-feet below the authorized channel depth of 35-feet MLLW. The approximate volume of concrete to be removed is 20-cubic yards and 1.75-linear feet of 7 steel piers. All proposed foundations would be drilled shafts. A temporary bridge will not be required for this project.

MINIMUM NAVIGATIONAL CLEARANCES:

The proposed replacement bridge will have clearances as described in the table below. These clearances are no change from current clearances over this section of the waterway at or near this mile. Vertical clearance is from low member elevation to mean high water (MHW).

EXISTING CLEARANCES UNCHANGED FOR PROPOSED PROJECT	
Horizontal Clearances:	**Vertical Clearance:**
Navigational Channel: 500-feet **Between Fenders: 611.65-feet**	**135-feet MHW** **132.6-feet MLW**
NAVD1988	

ENVIRONMENTAL CONSIDERATIONS: The USCG is the lead federal agency for satisfying the requirements of the National Environmental Policy Act (NEPA) as amended. The USCG has tentatively determined that the proposed action will not have a significant impact for purposes of NEPA under the criteria given in the Coast Guard's NEPA implementation instruction. As a result, the USCG plans to issue a "Finding of No Significant Impact" (FONSI) for the proposed project, unless significant impacts are revealed by this public notification and public information events.

A Draft Environmental Assessment (EA) was issued in February 2024. Environmental documents are posted on-line at https://www.njta.com/capitalprojects/newark_bay_hudson_county
Copies of the Draft EA for comment are additionally available for viewing at the following locations:

Newark Public Library/ 5 Washington Street Newark, New Jersey, 07102
Bayonne Public Library/ Story Court Temporary Branch at 16 W 4th Street, Bayonne, 07002
Jersey City Public Library/ Earl A. Morgan Branch , 1841 John F. Kennedy Boulard, Jersey City 07305

Please visit the program website Newark Bay Hudson County Extension Improvements Program (njta.com) for more information and upcoming public informational events.

The proposed replacement bridge is located in a floodplain. The 100-year flood elevation varies between 14-feet and 15-feet within the limits of the NBB. A Water Quality Certificate (WQC) The WQC and Coastal Zone Consistency Determination were issued on April 3, 2024. NJDEP also determined that the proposed bridge replacement meets the requirements of the State's Flood Hazard Area Control Act Rules.

The USACE's authority for this project falls under Section 404 of the Clean Water Act, authorized with a Nationwide Permit 15. A Section 408 permit application is pending USACE review.

The NJTA performed a Phase I Archaeological Survey and Intensive Historic Architectural Survey for the proposed bridge project during the environmental review process. The NJTA determined that the proposed project will have adverse impacts to historic architecture and property listed or eligible for listing in the National Register of Historic Places (NRHP) or otherwise of archaeological, historical, or architectural significance. Per Section 106 of the National Historic Preservation Act of 1966, the NJTA, as the Coast Guard's designated Federal representative, coordinated with the New Jersey Historic Preservation Office (NJHPO). Mitigation measures identified in consultation with the NJHPO and other consulting parties through the development of a Programmatic Agreement will resolve adverse effects and conclude the Section 106 process. Specific information regarding the Area of Potential Effects (APE)

and properties and locations listed in the NRHP in Newark Bay, Morris Canal, City of Bayonne, City of Newark and City of Jersey City are described in the EA.

Informal consultations initiated with the National Oceanic and Atmospheric Administration, Fish and Wildlife Administration and the National Marine Fisheries Service are pending. Detailed information regarding environmental compliance with NEPA is described in the EA regarding applicable Federal laws, including and not limited to: Endangered Species Act, Marine Mammal Protection Act, Migratory Bird Treaty Act, Bald and Golden Eagle Act.

SOLICITATION OF COMMENTS: Mariners are requested to comment on the placement of a bridge protective system and other navigational safety issues, including the need for clearance systems and extent of nighttime navigation to determine the need for bridge lighting. Boat owners are requested to provide information about their vessels including type of vessel, length overall, draft, beam, and height from the waterline to the highest fixed point and to appurtenances (e.g., tuna towers, flying bridges, fixed antennas and radar units) and other navigational safety issues.

Interested parties are requested to express their views, in writing, on the proposed bridge project including its possible environmental impacts to include those impacts on minority and/or low-income populations, if any, giving sufficient detail to establish a clear understanding of the reasons for support of, or opposition to, the proposed work. Comments regarding this Public Notice will be received for the record at the address above or by e-mail to SMB-D1Boston-Bridges-PublicNotices@uscg.mil through June 11. All comments of an environmental nature such as those regarding wildlife refuges, waterfowl refuges, public parks, historic sites, wetlands, floodplain issues, air, water quality, etc. will be appropriately considered. Comments regarding matters under the jurisdiction of the USACE will be forwarded to the USACE. It is requested that this information be brought to the attention of any person having an interest who may not have received a copy of this public notice.

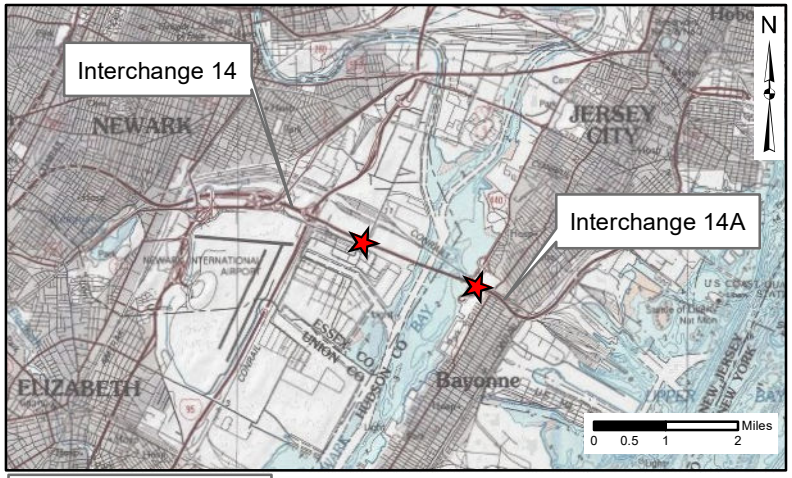
Plans of the proposed project, a location map and USACE figures are included in this public notice.

Translated copies of this public notice into Spanish, Portuguese, Polish, Hindi, Tagalog, and Arabic have additionally been posted on the USCG Navigational Center's website.
http://www.navcen.uscg.gov/?pageName=pnBridges&Active=1&region=1.

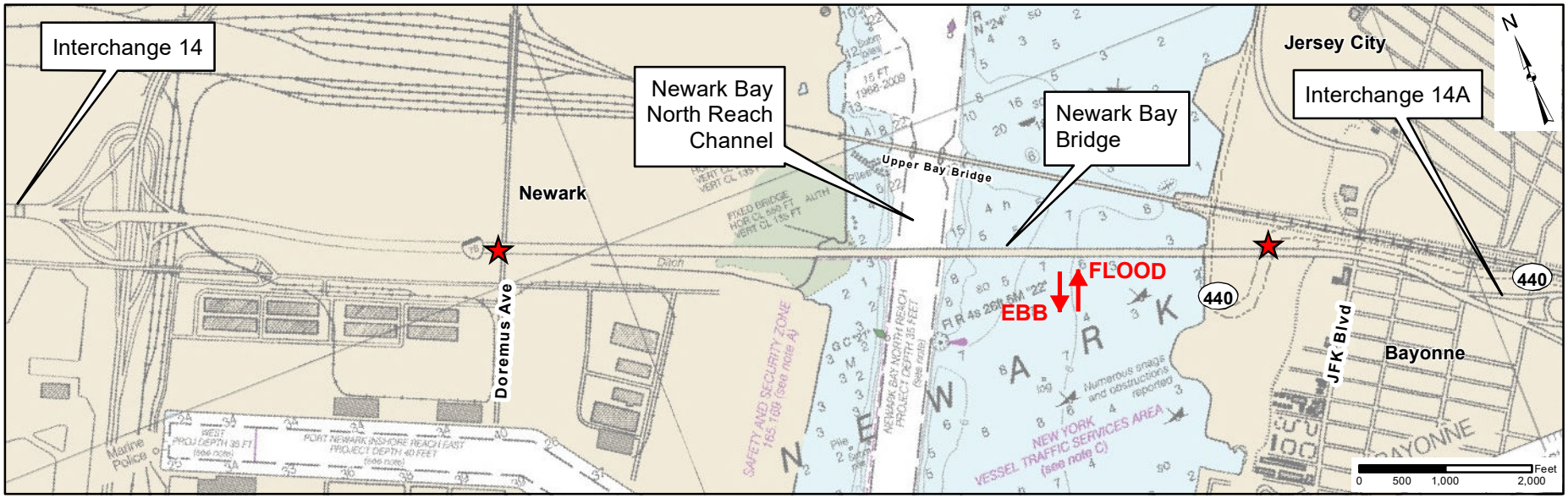
Donna A. Fisher

Digitally signed by Donna A. Fisher
Date: 2024.05.07 16:32:44 -04'00'

Donna. A. Fisher
Bridge Program Manager
U.S. Coast Guard
By direction



VICINITY MAP



PROJECT SITE MAP

★ Approximate Limits of Newark Bay Bridge

SOURCES:
ESRI, USGS MAP SERVICE. WSP 2022.

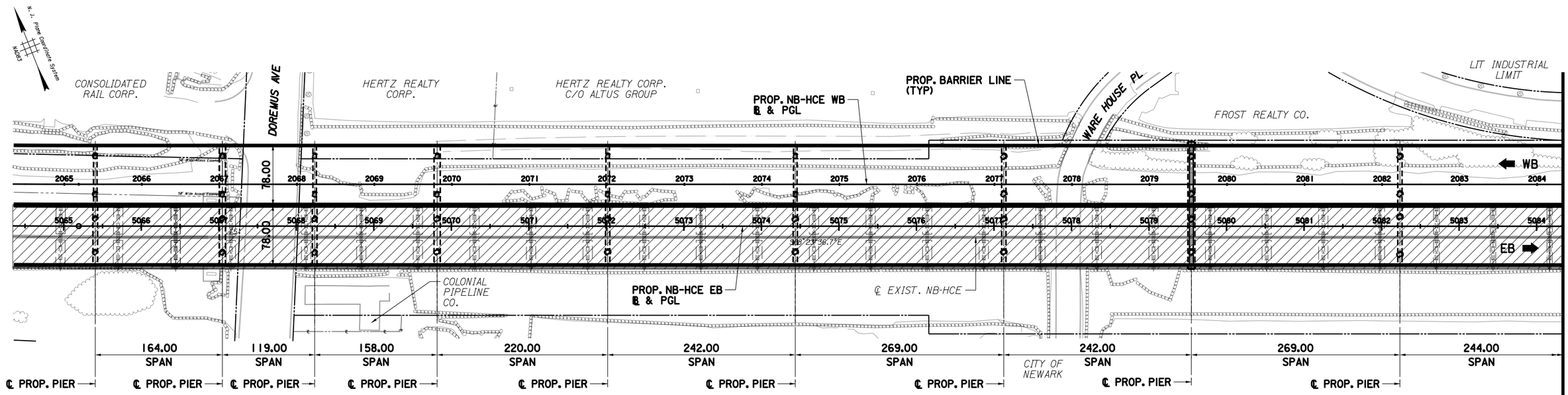
NEW JERSEY TURNPIKE AUTHORITY

NEWARK BAY-HUDSON COUNTY EXTENSION PROGRAM
PROJECT 1 - INTERCHANGES 14 TO 14A
NEWARK BAY BRIDGE REPLACEMENT AND ASSOCIATED IMPROVEMENTS
NEWARK BAY MP 3.8
BETWEEN NEWARK, ESSEX COUNTY AND BAYONNE, HUDSON COUNTY
NEW JERSEY

VICINITY MAP

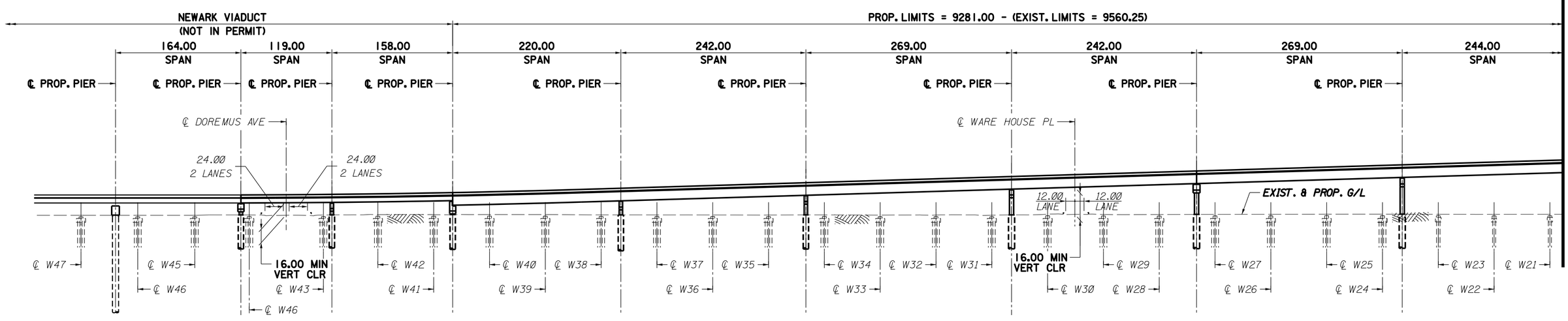
CONSULTANTS:
GANNETT FLEMING, INC.
WSP USA, INC.

DATE: APRIL 26, 2024
SHEET: 1 OF 8



PLAN

MATCHLINE A



ELEVATION

NOTES:

1. EXISTING BOTTOM OF CHANNEL TAKEN AT THE CENTER LINE OF THE EXISTING BRIDGE BASED ON 2021 BATHYMETRIC SURVEY DATA. ELEVATIONS BASED ON NAVD 88.
2. ALL DIMENSIONS AND DISTANCES ARE IN US LINEAR FEET IN DECIMAL FORMAT.
3. SEE NOTES ON GENERAL PLAN AND ELEVATION - 3.

LEGEND:

EXIST. NB-HCE BRIDGE AREA OF REMOVAL

NOTE:
CONCEPTUAL PLANS UTILIZED TO OBTAIN COAST GUARD BRIDGE PERMIT.

SCALE: 1" = 200'

200' 100' 0 200' 400'

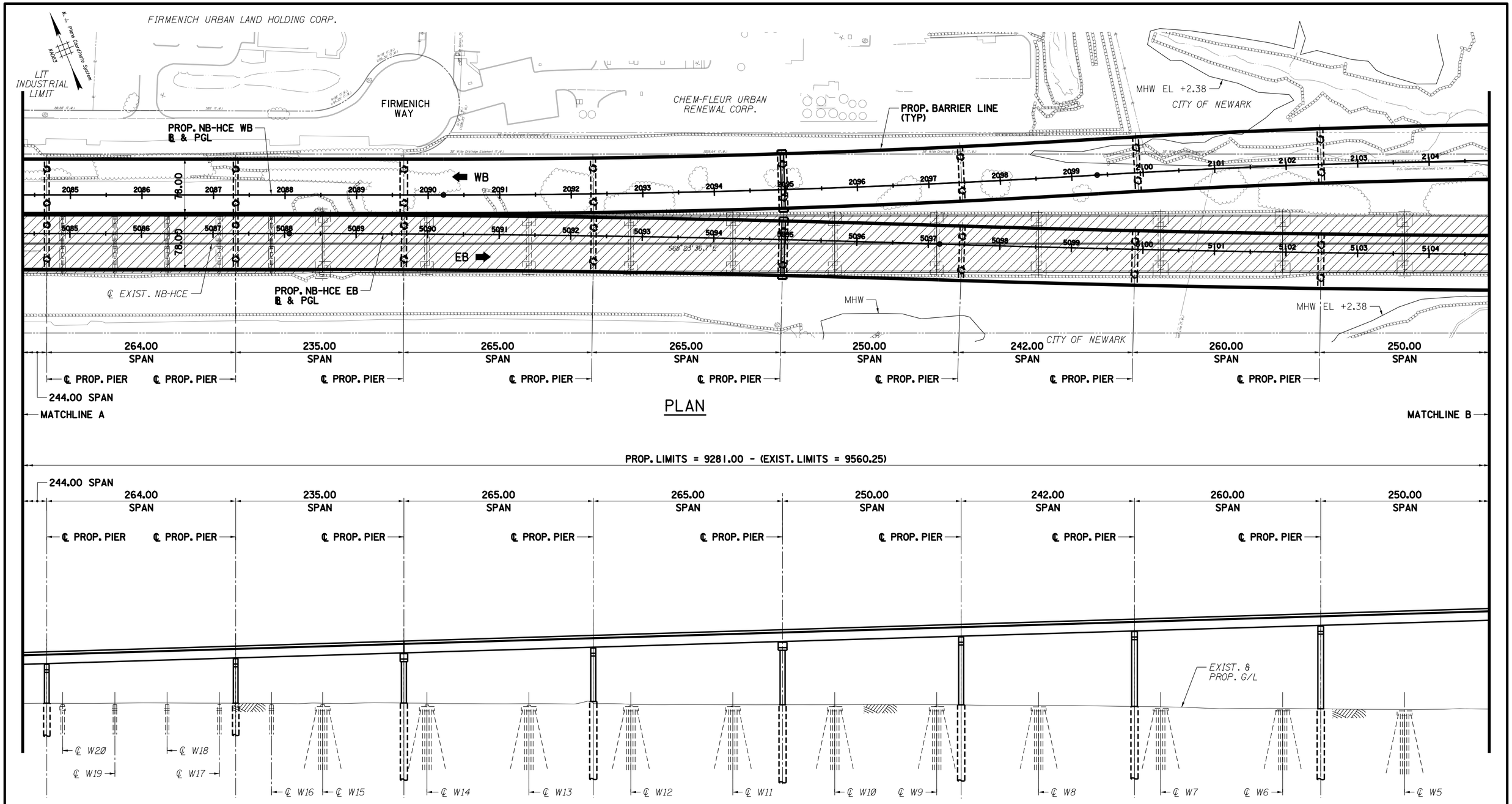
NEW JERSEY TURNPIKE AUTHORITY

NEWARK BAY - HUDSON COUNTY EXTENSION PROGRAM
PROJECT 1 - INTERCHANGES 14 TO 14A
NEWARK BAY BRIDGE REPLACEMENT AND ASSOCIATED IMPROVEMENTS
NEWARK BAY MP 3.8
BETWEEN NEWARK, ESSEX COUNTY AND BAYONNE, HUDSON COUNTY
NEW JERSEY

GENERAL PLAN AND ELEVATION - 1

CONSULTANTS:
GANNETT FLEMING, INC.
WSP USA, INC.

DATE: APRIL 26, 2024
SHEET: 2 OF 8



NOTES:

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2. ALL DIMENSIONS AND DISTANCES ARE IN US LINEAR FEET IN DECIMAL FORMAT.
3. SEE NOTES ON GENERAL PLAN AND ELEVATION - 3.

LEGEND:

EXIST. NB-HCE BRIDGE AREA OF REMOVAL

NOTE:
CONCEPTUAL PLANS UTILIZED TO OBTAIN COAST GUARD BRIDGE PERMIT.

SCALE: 1" = 200'

200' 100' 0 200' 400'

NEW JERSEY TURNPIKE AUTHORITY

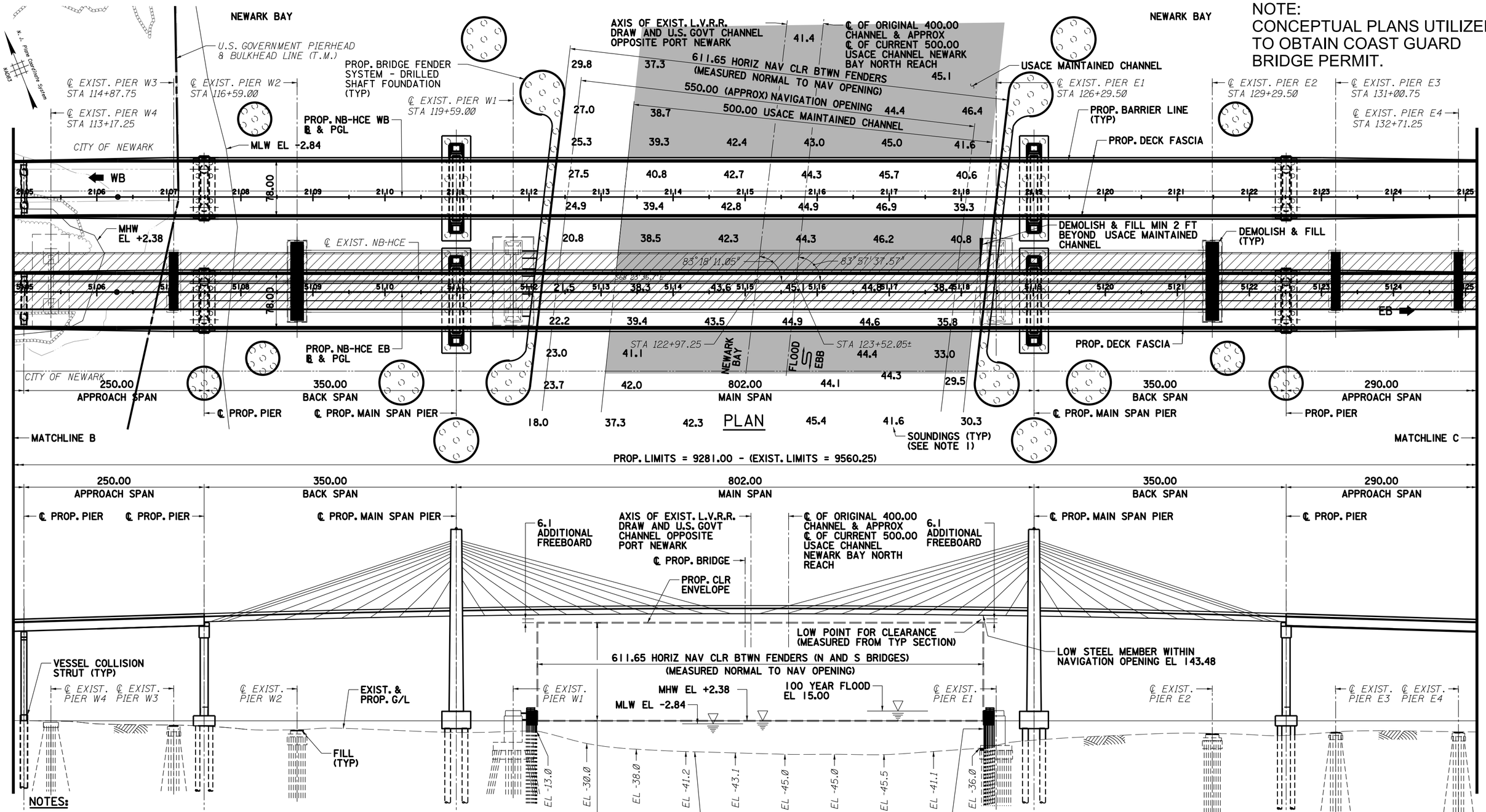
NEWARK BAY - HUDSON COUNTY EXTENSION PROGRAM
PROJECT 1 - INTERCHANGES 14 TO 14A
NEWARK BAY BRIDGE REPLACEMENT AND ASSOCIATED IMPROVEMENTS
NEWARK BAY MP 3.8
BETWEEN NEWARK, ESSEX COUNTY AND BAYONNE, HUDSON COUNTY
NEW JERSEY

GENERAL PLAN AND ELEVATION - 2

CONSULTANTS:
GANNETT FLEMING, INC.
WSP USA, INC.

DATE: APRIL 26, 2024
SHEET: 3 OF 8

NOTE:
CONCEPTUAL PLANS UTILIZED TO OBTAIN COAST GUARD BRIDGE PERMIT.



NOTES:

1. EXISTING BOTTOM OF CHANNEL TAKEN AT THE CENTER LINE OF THE EXISTING BRIDGE BASED ON 2021 BATHYMETRIC SURVEY DATA. ELEVATIONS BASED ON NAVD 88.
2. EXISTING PIERS W1 AND E1 TO REMAIN FOR INTEGRATION WITH FENDER DESIGN, EXCEPT AS NOTED.
3. ALL EXISTING PIERS TO BE REMOVED TWO FEET BELOW MUDLINE UNLESS OTHERWISE NOTED. APPROXIMATE FILL OUTSIDE OF NAVIGATIONAL CHANNEL 1513 CY. FILL SHOWN TO EXISTING MUDLINE WHERE EXISTING PIERS ARE REMOVED. ALL PROPOSED PIERS ARE DRILLED SHAFTS.
4. NO TEMPORARY STRUCTURES/FALSEWORK REQUIRED IN THE NAVIGATIONAL OPENING. NO TEMPORARY BRIDGE REQUIRED. TEMPORARY TRESTLE TO REMAIN OUTSIDE OF NAVIGABLE OPENING.
5. NO DREDGING, FILL, EXCAVATION OR RIP RAP IN NAVIGATIONAL CHANNEL OTHER THAN THE NORTHWEST CORNER OF PIER E1. NORTHWEST CORNER OF PIER E1 TO BE REMOVED TO LIMIT OF USACE CHANNEL AND 2 FEET BELOW 35 FOOT CHANNEL. APPROXIMATE VOLUME OF CONCRETE TO BE REMOVED 20 CY AND 1.75 LINEAR FEET OF 7 STEEL PILES. FILL TO BE BACKFILL WITH NATIVE MATERIAL.
6. ALL PROPOSED FOUNDATIONS ARE DRILLED SHAFTS.
7. DOLPHINS NOT SHOWN IN ELEVATION FOR CLARITY.
8. USACE MAINTAINTED CHANNEL LIMITS BASED ON USACE PROVIDED CADD NATIONAL CHANNEL FRAMEWORK. USCG NAVIGATIONAL OPENING BASED ON AS BUILT PLANS.

LEGEND:

- AREA OF EXISTING MAINTAINED CHANNEL.
- EXIST. NB-HCE BRIDGE AREA OF REMOVAL
- REMOVE MIN 2.00 BELOW MUDLINE & FILL

SCALE: 1" = 200'

200' 100' 0 200' 400'

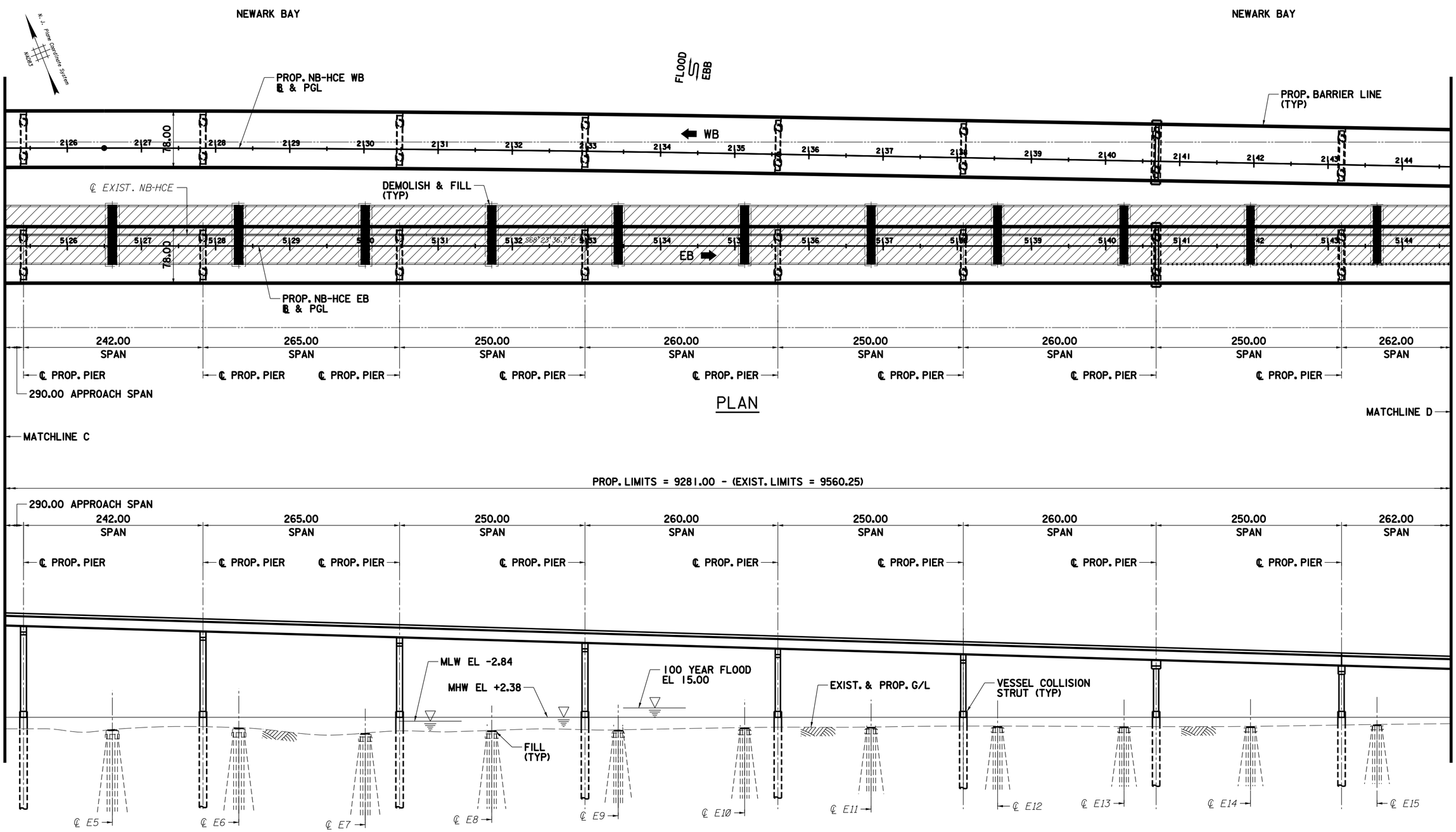
NEW JERSEY TURNPIKE AUTHORITY

NEWARK BAY - HUDSON COUNTY EXTENSION PROGRAM
PROJECT 1 - INTERCHANGES 14 TO 14A
NEWARK BAY BRIDGE REPLACEMENT AND ASSOCIATED IMPROVEMENTS
NEWARK BAY MP 3.8
BETWEEN NEWARK, ESSEX COUNTY AND BAYONNE, HUDSON COUNTY
NEW JERSEY

GENERAL PLAN AND ELEVATION - 3

CONSULTANTS:
GANNETT FLEMING, INC.
WSP USA, INC.

DATE: APRIL 26, 2024
SHEET: 4 OF 8



PLAN

ELEVATION

NOTES:

1. EXISTING BOTTOM OF CHANNEL TAKEN AT THE CENTER LINE OF THE EXISTING BRIDGE BASED ON 2021 BATHYMETRIC SURVEY DATA. ELEVATIONS BASED ON NAVD 88.
2. ALL DIMENSIONS AND DISTANCES ARE IN US LINEAR FEET IN DECIMAL FORMAT.
3. SEE NOTES ON GENERAL PLAN AND ELEVATION - 3.

LEGEND:

EXIST. NB-HCE BRIDGE AREA OF REMOVAL

REMOVE MIN 2.00 BELOW MUDLINE & FILL

NOTE:
CONCEPTUAL PLANS UTILIZED TO OBTAIN COAST GUARD BRIDGE PERMIT.

SCALE: 1" = 200'

200' 100' 0 200' 400'

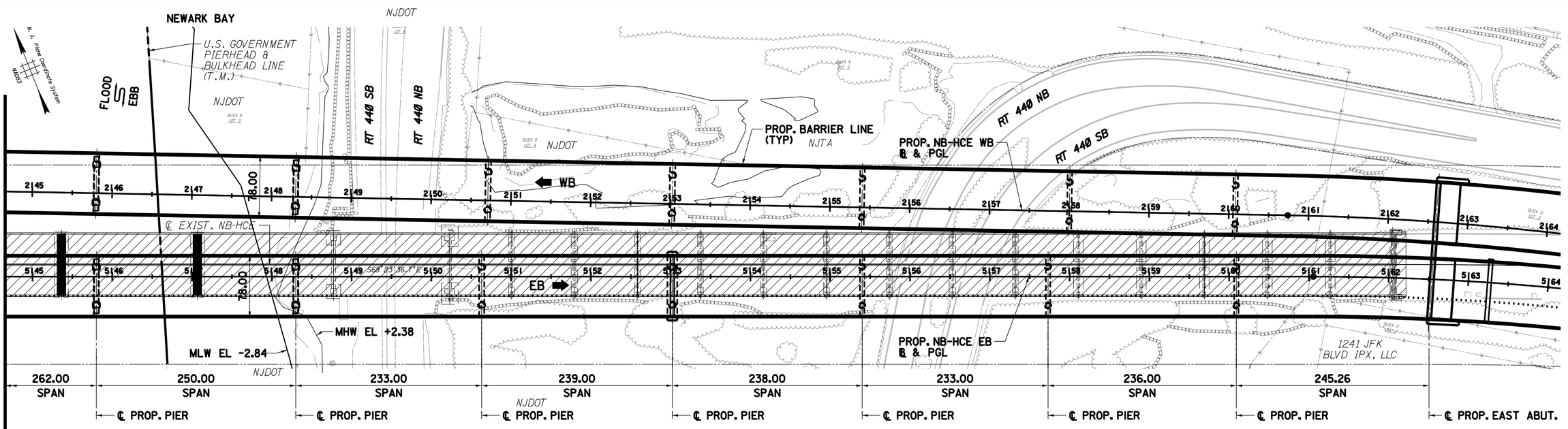
NEW JERSEY TURNPIKE AUTHORITY

NEWARK BAY - HUDSON COUNTY EXTENSION PROGRAM
PROJECT 1 - INTERCHANGES 14 TO 14A
NEWARK BAY BRIDGE REPLACEMENT AND ASSOCIATED IMPROVEMENTS
NEWARK BAY MP 3.8
BETWEEN NEWARK, ESSEX COUNTY AND BAYONNE, HUDSON COUNTY
NEW JERSEY

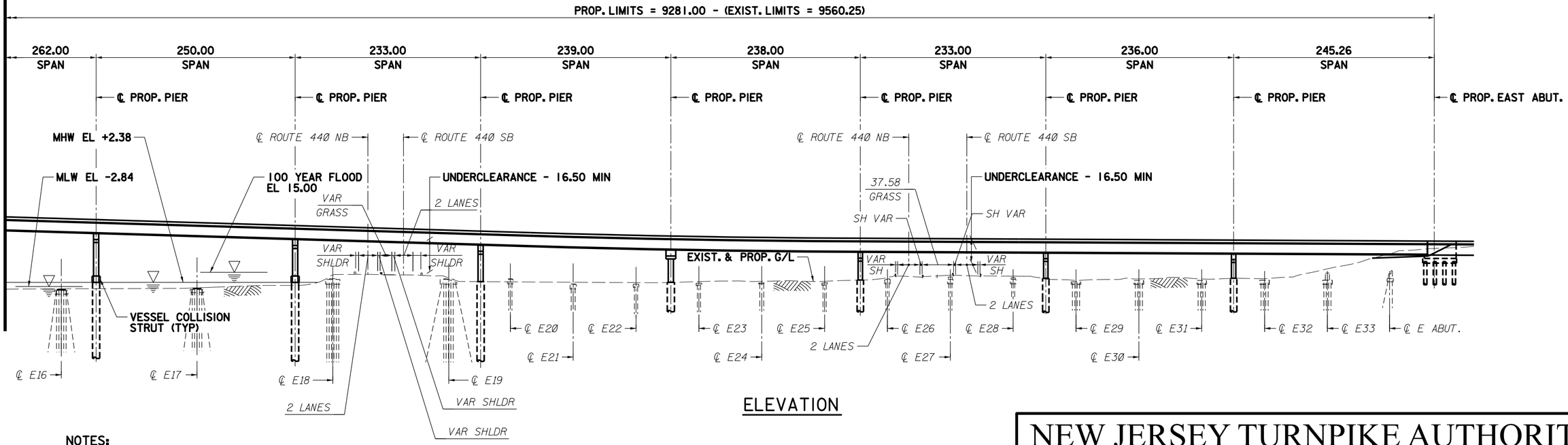
GENERAL PLAN AND ELEVATION - 4

CONSULTANTS:
GANNETT FLEMING, INC.
WSP USA, INC.

DATE: APRIL 26, 2024
SHEET: 5 OF 8



PLAN



ELEVATION

NOTES:

1. EXISTING BOTTOM OF CHANNEL TAKEN AT THE CENTER LINE OF THE EXISTING BRIDGE BASED ON 2021 BATHYMETRIC SURVEY DATA. ELEVATIONS BASED ON NAVD 88.
2. ALL DIMENSIONS AND DISTANCES ARE IN US LINEAR FEET IN DECIMAL FORMAT.
3. SEE NOTES ON GENERAL PLAN AND ELEVATION - 3.

LEGEND:

- EXIST. NB-HCE BRIDGE AREA OF REMOVAL
- REMOVE MIN 2.00 BELOW MUDLINE & FILL

NOTE:
CONCEPTUAL PLANS UTILIZED TO OBTAIN COAST GUARD BRIDGE PERMIT.

SCALE: 1" = 200'

200' 100' 0 200' 400'

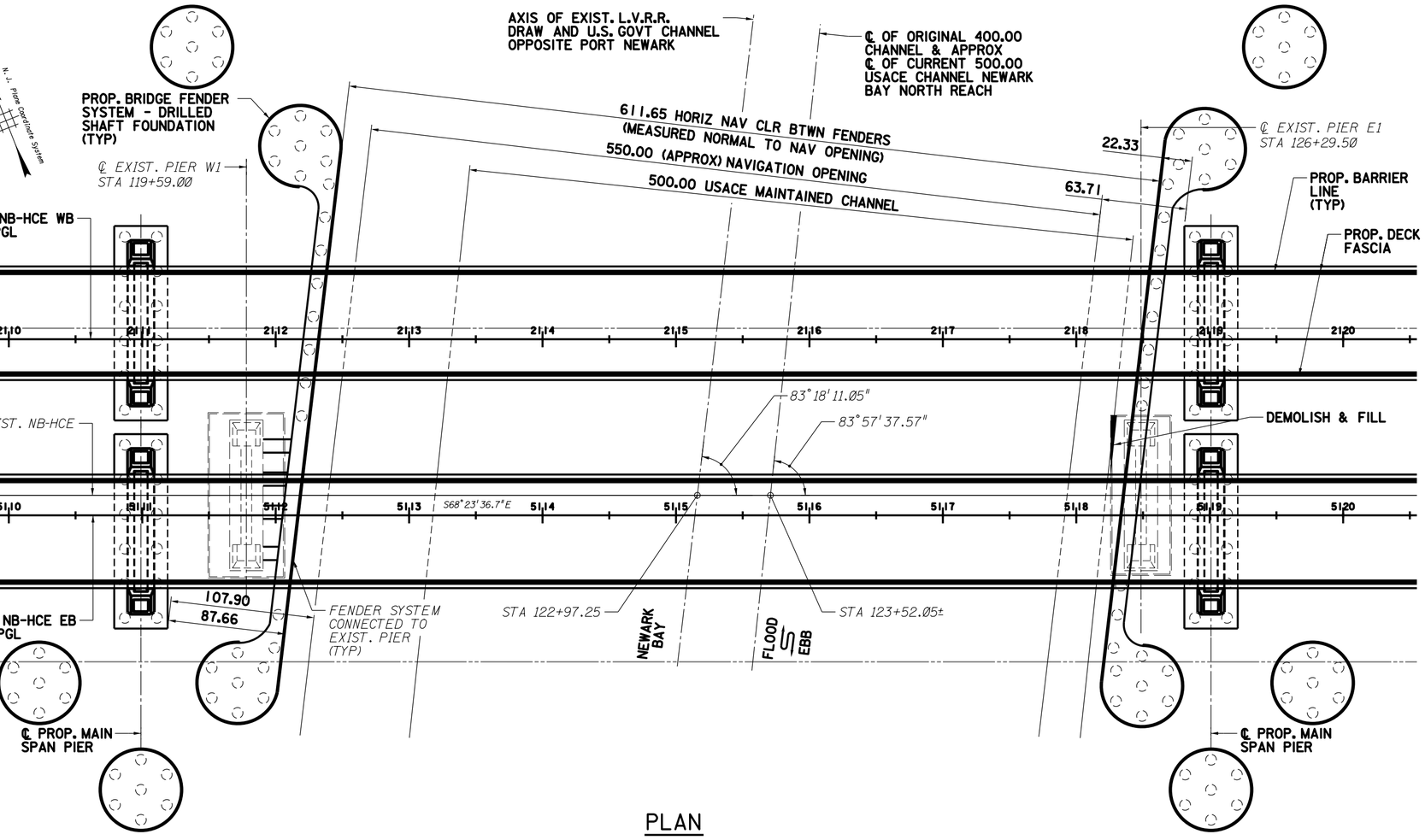
NEW JERSEY TURNPIKE AUTHORITY

NEWARK BAY - HUDSON COUNTY EXTENSION PROGRAM
PROJECT 1 - INTERCHANGES 14 TO 14A
NEWARK BAY BRIDGE REPLACEMENT AND ASSOCIATED IMPROVEMENTS
NEWARK BAY MP 3.8
BETWEEN NEWARK, ESSEX COUNTY AND BAYONNE, HUDSON COUNTY
NEW JERSEY

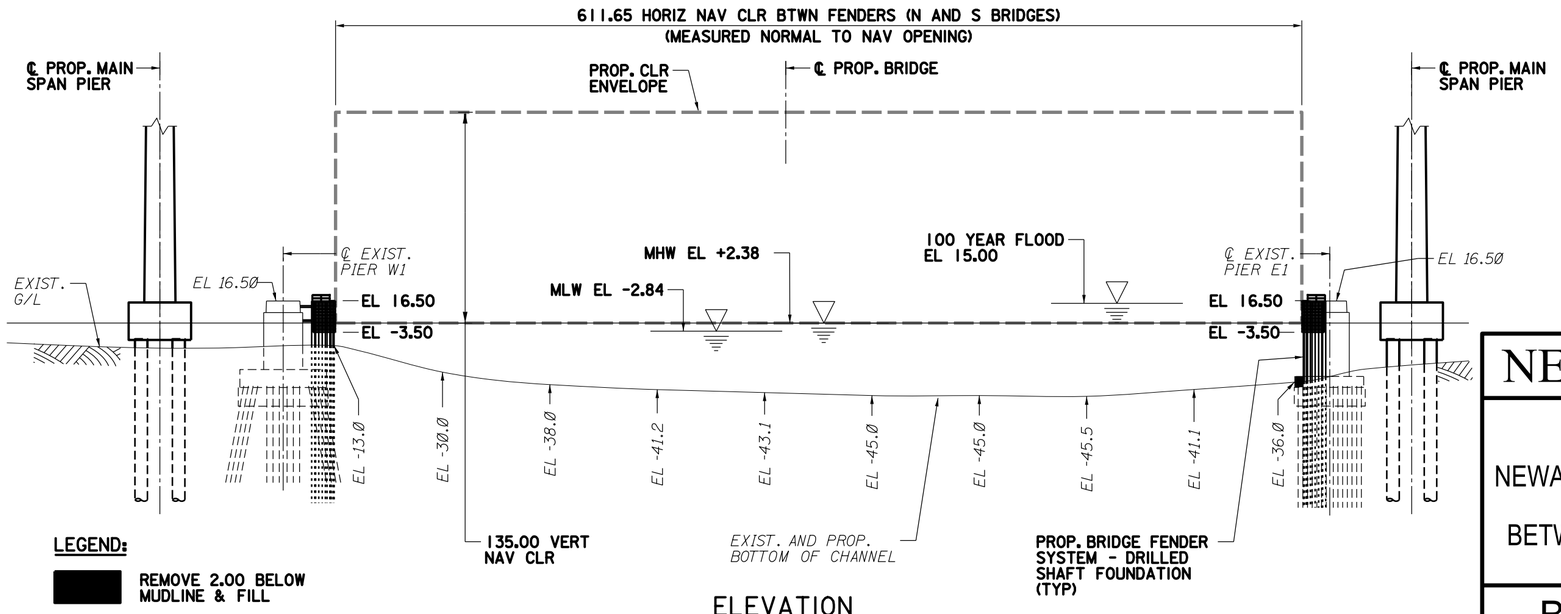
GENERAL PLAN AND ELEVATION - 5

CONSULTANTS:
GANNETT FLEMING, INC.
WSP USA, INC.

DATE: APRIL 26, 2024
SHEET: 6 OF 8



PLAN



ELEVATION

SCALE: 1" = 150'

150' 75' 0 150' 300'

NOTE:
CONCEPTUAL PLANS UTILIZED TO OBTAIN COAST GUARD BRIDGE PERMIT.

NOTES:

1. PROPOSED FENDERS TO USE EXISTING MAIN PIER FOUNDATIONS FOR SUPPORT AND ENERGY DISSIPATION. NO PROPOSED FENDERS TO BE ATTACHED TO PROPOSED STRUCTURES.
2. COUNTERSUNK BOLTS TO BE UTILIZED FOR ALL NAVIGATION FACING CONNECTIONS.
3. FENDERS DESIGN AND DETAILING TO MEET ALL APPLICABLE AASHTO STANDARDS AND COORDINATE WITH PROJECT STAGING.
4. DOLPHINS NOT SHOWN IN ELEVATION FOR CLARITY.
5. USACE MAINTAINTED CHANNEL BASED ON USACE PROVIDED CADD LINEWORK. USCG NAVIGATIONAL OPENING BASED ON AS BUILT PLANS.
6. SEE ADDITIONAL NOTES ON "GENERAL PLAN AND ELEVATION - 3".

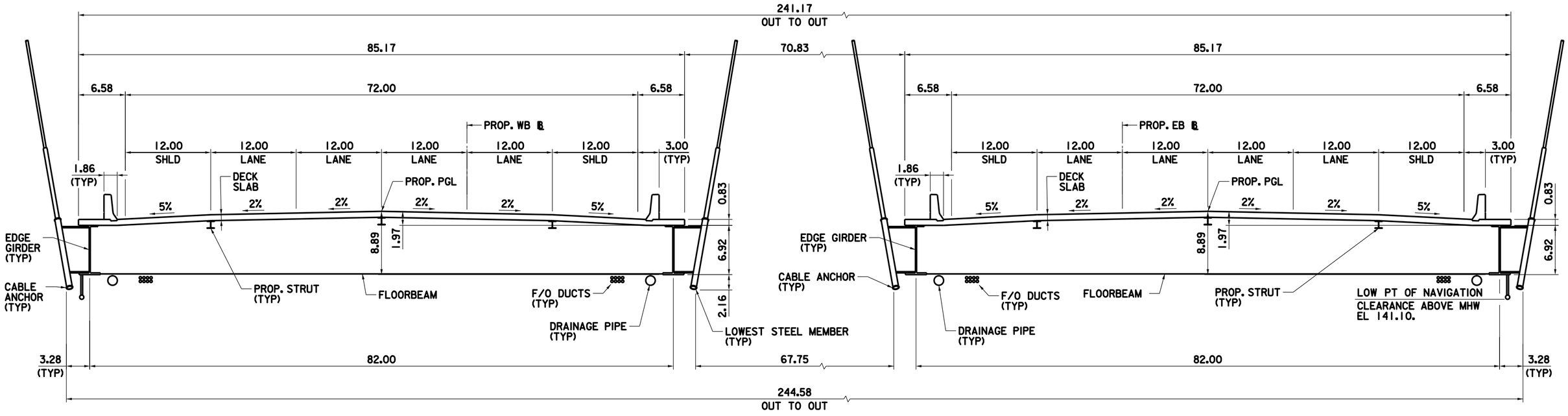
NEW JERSEY TURNPIKE AUTHORITY

NEWARK BAY - HUDSON COUNTY EXTENSION PROGRAM
PROJECT 1 - INTERCHANGES 14 TO 14A
NEWARK BAY BRIDGE REPLACEMENT AND ASSOCIATED IMPROVEMENTS
NEWARK BAY MP 3.8
BETWEEN NEWARK, ESSEX COUNTY AND BAYONNE, HUDSON COUNTY
NEW JERSEY

BRIDGE PROTECTION SYSTEM DETAILS

CONSULTANTS:
GANNETT FLEMING, INC.
WSP USA, INC.

DATE: APRIL 26, 2024
SHEET: 7 OF 8



TYPICAL SECTION - MAIN SPAN

(LOOKING EAST)
1/8" = 1'-0"

NOTES:

1. ALL DIMENSIONS AND DISTANCES IN US LINEAR FEET IN DECIMAL FORMAT.
2. ALL DIMENSIONS ARE BASED ON PRELIMINARY ANALYSIS. FINAL DIMENSIONS WILL MEET VERTICAL CLEARANCE REQUIREMENTS AS NOTED ON SHEET GENERAL PLAN AND ELEVATION - 3.

NOTE:
CONCEPTUAL PLANS UTILIZED TO OBTAIN COAST GUARD BRIDGE PERMIT.

SCALE: 1/8" = 1'=0"

1'0 2' 4' 8' 16'

NEW JERSEY TURNPIKE AUTHORITY

NEWARK BAY - HUDSON COUNTY EXTENSION PROGRAM
PROJECT 1 - INTERCHANGES 14 TO 14A
NEWARK BAY BRIDGE REPLACEMENT AND ASSOCIATED IMPROVEMENTS
NEWARK BAY MP 3.8
BETWEEN NEWARK, ESSEX COUNTY AND BAYONNE, HUDSON COUNTY
NEW JERSEY

TYPICAL SECTION

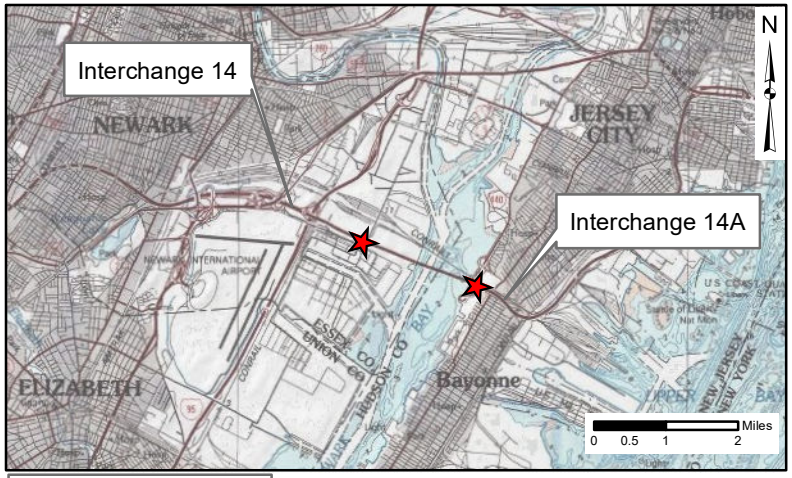
CONSULTANTS:
GANNETT FLEMING, INC.
WSP USA, INC.

DATE: APRIL 26, 2024
SHEET: 8 OF 8

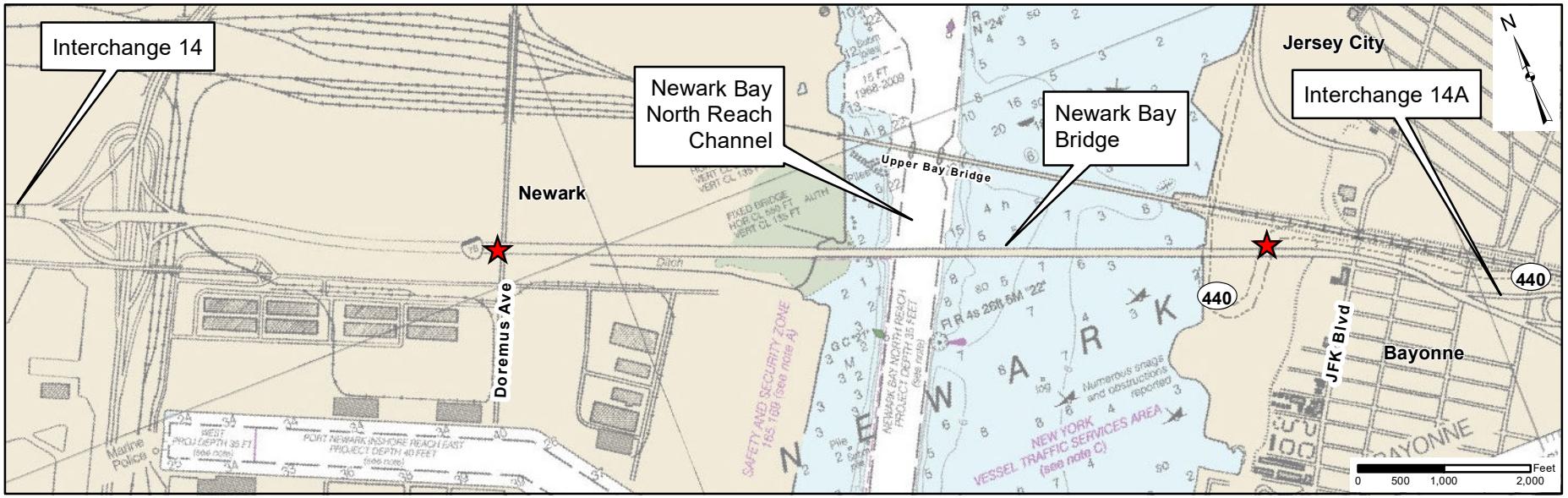
Section 408 Application Plan Set

New Jersey Turnpike Authority Replacement of Vincent R. Casciano Memorial (Newark Bay) Bridge over Newark Bay North Reach Channel; City of Newark, Essex County, New Jersey

(NAN-2020-00729-WCO Newark Bay Bridge Replacement)



VICINITY MAP



PROJECT SITE MAP

★ Approximate Limits of Newark Bay Bridge

SOURCES:
ESRI, USGS MAP SERVICE. WSP 2022.

NEW JERSEY TURNPIKE AUTHORITY

NEWARK BAY-HUDSON COUNTY EXTENSION PROGRAM
PROJECT 1 - INTERCHANGES 14 TO 14A
NEWARK BAY BRIDGE REPLACEMENT AND ASSOCIATED IMPROVEMENTS (NEWARK BAY MP 3.8) BETWEEN NEWARK, ESSEX COUNTY AND BAYONNE, HUDSON COUNTY NEW JERSEY

VICINITY MAP

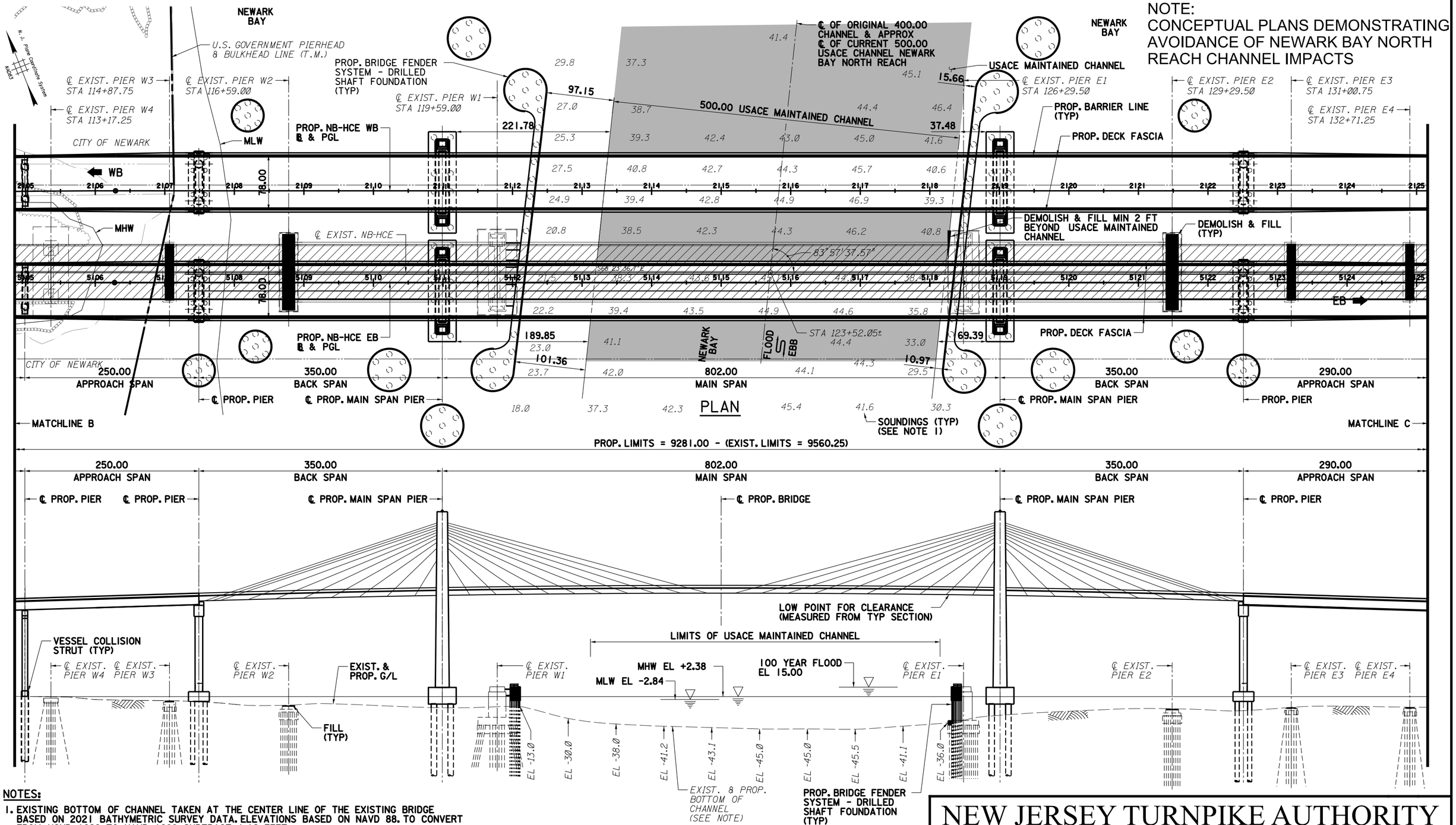
CONSULTANTS:
GANNETT FLEMING, INC.
WSP USA, INC.

DATE: DEC. 22, 2023

CADD FILE: IP_PWP:d1463018\T3820_N2.01_GP02_NBNR_USACE.sht

PLOT DATE: 26-JAN-2024 08:20

NOTE:
CONCEPTUAL PLANS DEMONSTRATING AVOIDANCE OF NEWARK BAY NORTH REACH CHANNEL IMPACTS



ELEVATION
(SHOWN AT SOUTH FASCIA OF EASTBOUND BRIDGE)

NOTES:

1. EXISTING BOTTOM OF CHANNEL TAKEN AT THE CENTER LINE OF THE EXISTING BRIDGE BASED ON 2021 BATHYMETRIC SURVEY DATA. ELEVATIONS BASED ON NAVD 88. TO CONVERT FROM NGVD 1929 TO NAVD 1988, SUBTRACT 1.12 FEET.
2. ALL DIMENSIONS AND DISTANCES ARE IN US LINEAR FEET IN DECIMAL FORMAT AND BASED ON PRELIMINARY ASSESSMENT.
3. EXISTING PIERS W1 AND E1 TO REMAIN FOR INTEGRATION WITH FENDER DESIGN, EXCEPT AS NOTED.
4. ALL EXISTING PIERS TO BE REMOVED TWO FEET BELOW MUDLINE UNLESS OTHERWISE NOTED. APPROXIMATE FILL OUTSIDE OF NAVIGATIONAL CHANNEL 1513 CY. FILL SHOWN TO EXISTING MUDLINE WHERE EXISTING PIERS ARE REMOVED. ALL PROPOSED PIERS ARE DRILLED SHAFTS.
5. NO DREDGING, FILL, EXCAVATION OR RIP RAP IN NAVIGATIONAL CHANNEL OTHER THAN THE NORTHWEST CORNER OF PIER E1. NORTHWEST CORNER OF PIER E1 TO BE REMOVED TO LIMIT OF USACE CHANNEL AND 2 FEET BELOW 35 FOOT CHANNEL. APPROXIMATE VOLUME OF CONCRETE TO BE REMOVED 20 CY AND 1.75 LINEAR FEET OF 7 STEEL PILES. QUANTITIES BASED ON MINIMUM REMOVAL ANTICIPATED.
6. DOLPHINS NOT SHOWN IN ELEVATION FOR CLARITY.
7. USACE MAINTAINTED CHANNEL LIMITS BASED ON USACE PROVIDED CADD NATIONAL CHANNEL FRAMEWORK.

LEGEND:

- AREA OF EXISTING MAINTAINED CHANNEL.
- EXIST. NB-HCE BRIDGE AREA OF REMOVAL
- REMOVE MIN 2.00 BELOW MUDLINE & FILL

SCALE: 1" = 100'

200' 100' 0 200' 400'

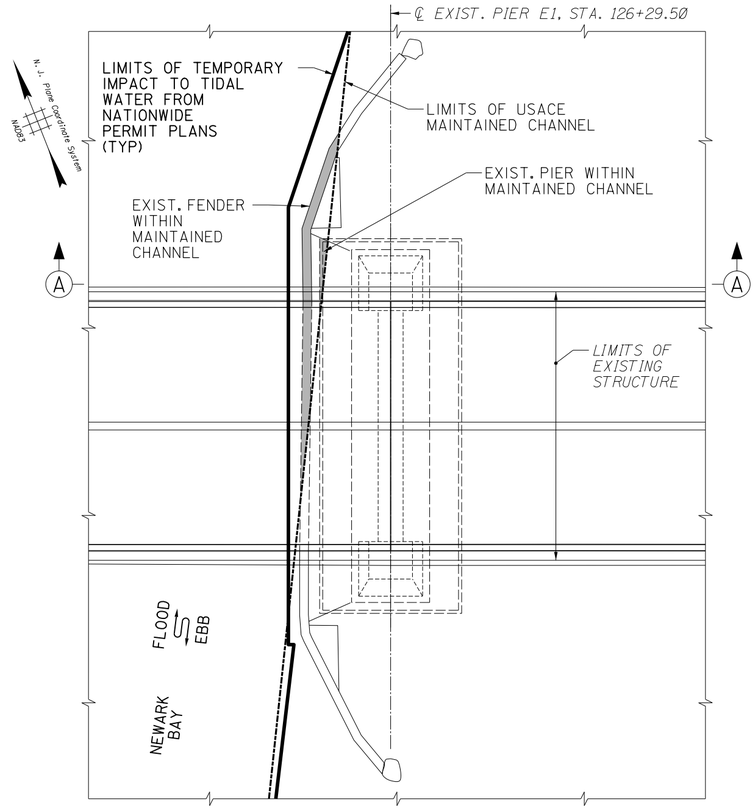
NEW JERSEY TURNPIKE AUTHORITY

NEWARK BAY - HUDSON COUNTY EXTENSION PROGRAM
PROJECT 1 - INTERCHANGES 14 TO 14A
NEWARK BAY BRIDGE REPLACEMENT AND ASSOCIATED IMPROVEMENTS
NEWARK BAY MP 3.8
BETWEEN NEWARK, ESSEX COUNTY AND BAYONNE, HUDSON COUNTY
NEW JERSEY

NEWARK BAY NORTH REACH CHANNEL PLAN AND ELEVATION

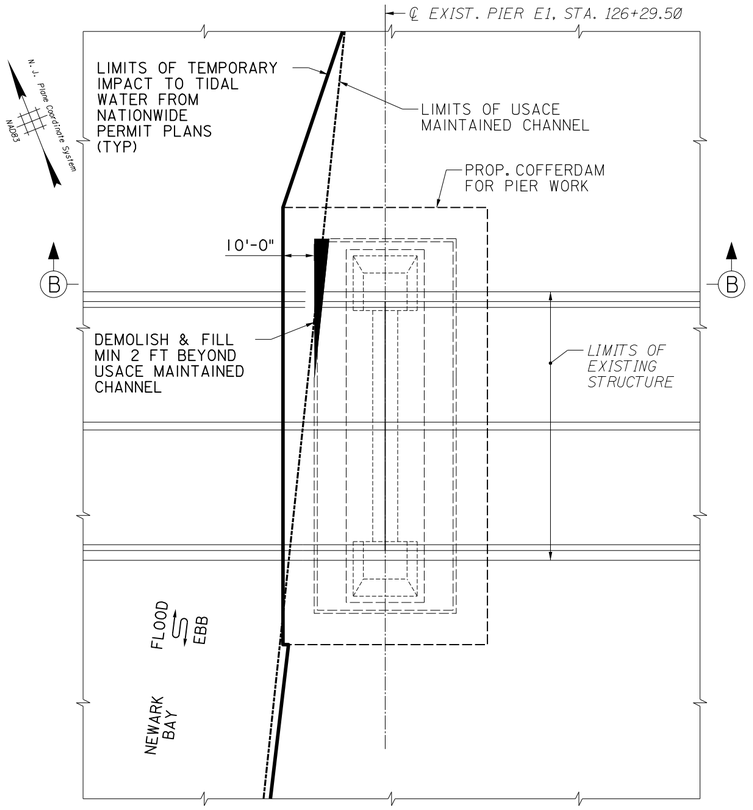
CONSULTANTS:
GANNETT FLEMING, INC.
WSP USA, INC.

DATE: JAN. 26, 2024
SHEET: 1 OF 2



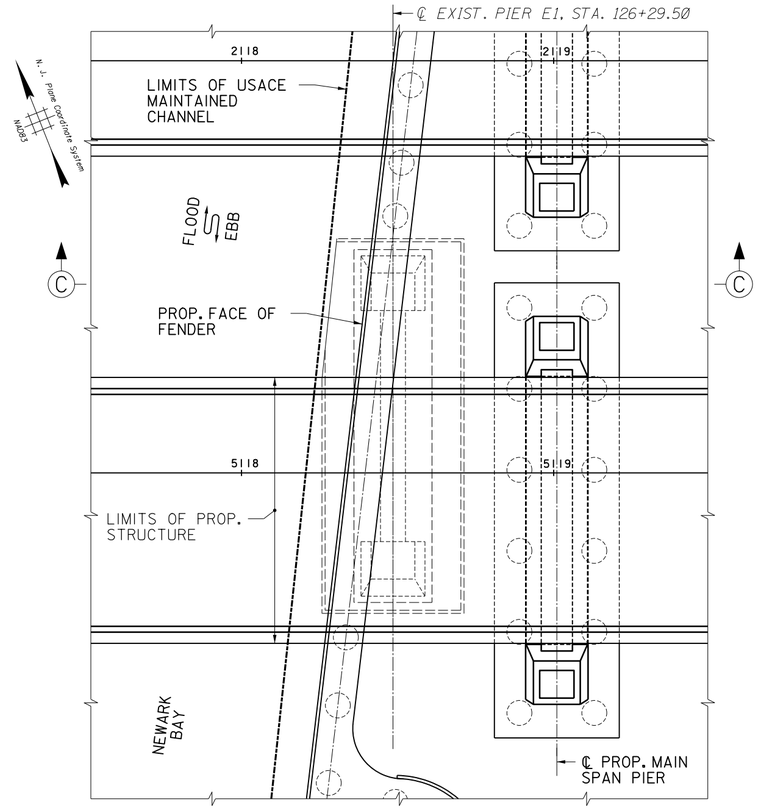
PLAN - FENDER REMOVAL AND EXISTING ENCROACHMENT

(TEMPORARY WORK WITHIN MAINTAINED CHANNEL LIMITS)



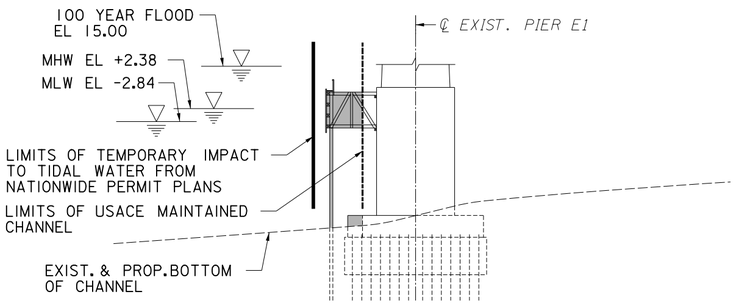
PLAN - PIER E1 DEMOLITION

(TEMPORARY WORK WITHIN MAINTAINED CHANNEL LIMITS)

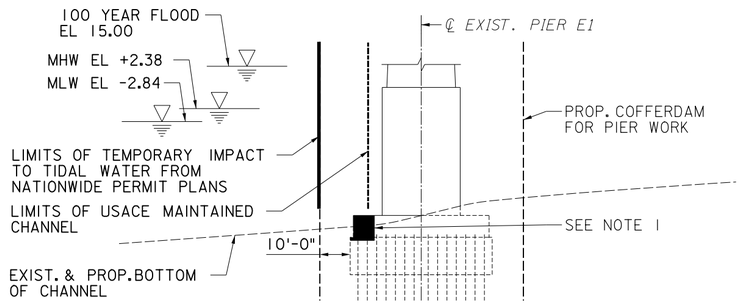


PLAN - PROPOSED CONDITION

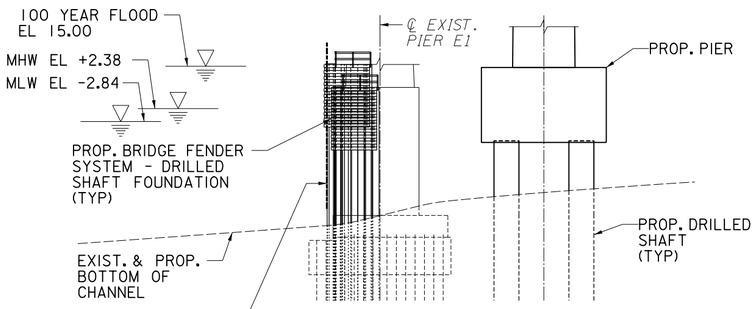
(NO PERMANENT FEATURE WITHIN MAINTAINED CHANNEL LIMITS)



SECTION A-A



SECTION B-B



SECTION C-C

NOTES:

1. MINIMUM REMOVAL OF PIER E1 SHOWN. EXISTING FENDER AND PIER TO BE REMOVED TO 2 FEET PAST THE LIMIT OF THE 500 FT USACE MAINTAINED CHANNEL AND 2 FEET BELOW THE 35 FT USACE MAINTAINED CHANNEL.
2. USACE MAINTAINED CHANNEL LIMITS BASED ON USACE PROVIDED CADD NATIONAL CHANNEL FRAMEWORK.

LEGEND:

- EXISTING ENCROACHMENT ON MAINTAINED CHANNEL
- REMOVE MIN 2.00 BELOW MUDLINE & FILL TO EXISTING MUDLINE

SCALE: 1" = 40'

100' 50' 0 100'

NEW JERSEY TURNPIKE AUTHORITY

NEWARK BAY - HUDSON COUNTY EXTENSION PROGRAM
PROJECT 1 - INTERCHANGES 14 TO 14A
NEWARK BAY BRIDGE REPLACEMENT AND ASSOCIATED IMPROVEMENTS
NEWARK BAY MP 3.8
BETWEEN NEWARK, ESSEX COUNTY AND BAYONNE, HUDSON COUNTY
NEW JERSEY

PIER E1 MINIMUM REMOVAL PLAN

CONSULTANTS:
GANNETT FLEMING, INC.
WSP USA, INC.

DATE: JAN. 26, 2024
SHEET: 2 OF 2

NJ Tidelands Claim Boundary - Newark Bay

12/21/2023, 11:37:46 AM

1:36,112

0 0.23 0.45 0.9 mi

0 0.38 0.75 1.5 km

County Boundaries

CLAIMED

NYC OpenData, New Jersey Office of GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

New Jersey Department of Environmental Protection

NYC OpenData, New Jersey Office of GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA | NJDEP | NJ Department of

HPO Project # 21-1041-14,-15
HPO-F2024-037

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
COMMUNITY INVESTMENT AND ECONOMIC REVITALIZATION
HISTORIC PRESERVATION OFFICE
501 East State Street
P.O. Box 420, Mail Code 501-04B
Trenton, New Jersey 08625-0420
Tel. (609) 940-4312 • Fax (609) 984-0578
www.nj.gov/dep

PHILIP D. MURPHY
Governor

TAHESHA L. WAY
Lt. Governor

SHAWN M. LaTOURETTE
Commissioner

June 13, 2024

Donna D. Leoce
First Coast Guard District
Battery Park Building
One South Street
New York, NY 10004-1466
Via email: Donna.D.Leoce@uscg.mil

Dear Ms. Leoce,

As Deputy State Historic Preservation Officer for New Jersey, in accordance with 36 CFR 800: Protection of Historic Properties, as published in the Federal Register on December 12, 2000 (65 FR 777698-77739) and as amended on July 6, 2004 (69 FR 40544-40555), I am providing **Continuing Consultation Comments** for the following proposed project:

Essex County, City of Newark
Hudson County, Cities of Bayonne
NJTA Newark Bay – Hudson County Extension (NB-HCE) Project
PUBLIC NOTICE-D01-209-2024-Newark Bay-Newark Bay Bridge
United States Coast Guard (USCG)

The United States Coast Guard (USCG) has requested consultation comments on the replacement of the New Jersey Turnpike Authority's (NJTA) replacement of the Vincent R. Casciano Memorial Bridge (Newark Bay Bridge over Newark Bay) as part of the Newark Bay-Hudson County Extension between interchanges 14 and 14A.

The project's area of potential effects (APE) contains the Newark Bay Bridge (SI&A # N020010) which is eligible for inclusion on the New Jersey and National Registers of Historic Places (SHPO Opinion 5/18/2023).

800.14 Federal Agency Program Alternatives

Pursuant to 36 C.F.R. Part 800.14, the USGC has identified that the development of a programmatic agreement (PA) is the appropriate treatment option for resolving the undertaking's *adverse effects* on historic properties. In consequence, the HPO looks forward to additional

consultation developing the PA in consultation with any consulting parties that may wish to participate. Please be aware, a program of mitigation has been developed in consultation with NJTA within the attached NJDEP permit (Permit # 0000-23-0012.2 LUP230001). Consultation with consulting parties pursuant to Section 106 of the National Historic Preservation Act may identify additional mitigation as part of the development for the PA.

Additional Comments

Thank you again for providing this opportunity for review and comment on the potential for this project to affect historic properties. The HPO looks forward to additional consultation developing the PA in consultation with consulting parties and implementing the PA. Please reference the HPO project number **21-1041** in any future calls, emails, submission or written correspondence to help expedite your review and response. If you have any questions, please feel free to contact **Jennifer Leynes** of my staff at jennifer.leynes@dep.nj.gov regarding historic architecture or **Vincent Maresca** of my staff at vincent.maresca@dep.nj.gov with questions regarding archaeology.

Sincerely,

Katherine J. Marcopul

Katherine J. Marcopul
Deputy State Historic
Preservation Officer

cc (via email): Matthew Resnick, NJDEP-Division of Land Resource Protection
David Pepe, NJDEP-Office of Permit Coordination and Environmental Review
Lisa Navarro, NJTA

Attachment

U.S. Department of Homeland Security
United States Coast Guard

Commander
First Coast Guard District

One South Street
New York, NY 10004-1466
Staff Symbol: dpb
Phone: (571) 607-8154

16593
November 13, 2024

Katherine J. Marcopul, Ph.D.
Administrator and Deputy State Historic Preservation Officer
New Jersey Historic Preservation Office
Department of Environmental Protection
Mail Code 501-04B, PO Box 420
Trenton, NJ 08625-0420

Re: Section 106 Consulting
Proposed Replacement of the Newark Bay – Hudson County Extension between Interchanges 14 and 14A including the Vincent R. Casciano Memorial, Newark Bay Bridge across Newark Bay, Mile 3.8, between Newark, Essex County and Bayonne, Hudson County, New Jersey
HPO Project# 21-1041

Dear Dr. Marcopul:

The New Jersey Turnpike Authority (Authority) proposes to reconstruct the Newark Bay-Hudson County Extension (NB-HCE) between Interchanges 14 and 14A (Extension) including the Vincent R. Casciano Memorial, Newark Bay Bridge (NBB) Across Newark Bay, Mile 3.8 (the "Project"). The Project requires a Bridge Permit from the United States Coast Guard (USCG), approving the location and plans for the proposed replacement bridge. The USCG holds jurisdiction over the navigable waterways of the United States pursuant to The General Bridge Act of 1946, as amended (33 U.S.C. § 525-533). The USCG has assumed the role as the lead federal agency under the National Environmental Policy Act and will also take the lead for National Historic Preservation Act (Section 106) consultation. The purpose of this letter is to initiate formal Section 106 consultation, delineate the Area of Potential Effects (APE), identify consulting parties, and present the results of a Phase I archaeology survey and Intensive-level historic architectural survey report, as well as a Supplemental Phase IA archaeological survey geotechnical boring review. An archaeological monitoring protocol is also provided for your review.

The NBB is approaching the end of its design service life. The NBB has experienced nearly 70 years of fatigue-inducing dynamic live load stresses on steel members, typical of any structure of that age, and it does not meet modern design standards for vehicular live loads or earthquake events. The Project will replace the existing bridge with new structures designed and constructed to accommodate today's heavier truck traffic and seismic design requirements while providing a minimum 100-year service life with a goal of a 150-year service life. Under the proposed Project, a new four-lane westbound bridge is proposed to the north of the existing bridge, while a new four-lane eastbound bridge will be built in the general location of the existing NBB. The proposed cable stayed bridge will provide the clearances shown on page 4 of 8 of the April 25, 2024, plan sheets which are part of the USCG Public Notice. The vertical clearance will be 135' (at mean high water), which is the same as the existing bridge. The horizontal clearance is increased to 611' between the fenders. The horizontal clearance accommodates the existing 550' approved navigation opening and the 500' U.S. Army Corps of Engineers maintained channel.

In support of Section 106 compliance for the Project, Richard Grubb & Associates, Inc. (RGA), an outside cultural resources subconsultant meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology and Architectural History and working on behalf of Gannett Fleming, Inc., the Authority's lead preliminary engineering design consultant, conducted a Phase I archaeological survey and Intensive-level historic architectural survey. As a result of the surveys, it is the USCG's determination that the proposed undertaking will result in an adverse effect to the following three (3) historic properties, per 36 CFR § 800.5(a)(2)(i) of the Section 106 regulations:

- Morris Canal historic property
- Jersey Eagle Site historic property
- Newark Bay Bridge

The determination of adverse effect is still pending for the location of the proposed Stormwater Basin HUC2-I at the former Marist High School property, which will be determined following the completion of a Phase IB archaeological survey for the basin, and subsequent Phase II archaeological survey that may be necessary if archaeological resources are identified at the proposed stormwater basin footprint. The Authority has redesigned a portion of the Project east of the proposed stormwater basin to avoid project-related impacts to the Marist High School Site (28-Hd-55), an identified archaeological resource on the former Marist High School property, and will prepare an avoidance and protection plan associated with the identified archaeological site for formal submission to NJHPO. The Marist High School Site (28-Hd-55) has not undergone NRHP evaluation.

To resolve the Project's adverse effect to historic properties, several mitigation measures are proposed for inclusion in a Programmatic Agreement, which consist of the following:

- Archaeological survey within the proposed Stormwater Basin HUC2-I on the former Marist High School property in the City of Bayonne, Hudson County, New Jersey to determine the presence or absence of archaeological historic properties;
- Preparation of an avoidance and protection plan to implement avoidance measures during construction at the Marist High School Site (28-Hd-55);
- Archaeological monitoring during construction where the Project intersects with the Morris Canal historic property during bridge replacement activities and where the Project abuts the Jersey Eagle Site historic property for the installation of a stormwater outfall pipe associated with Stormwater Basin HUC3-F;
- Documentation of the NBB to the standards of the Historic American Engineering Record (HAER); and
- Development of interpretive signage that details the history and significance of the historic structure.

On May 9, 2024, the USCG issued a Public Notice for the Project as part of the National Environmental Policy Act (NEPA) process and, in so doing, requested comment from the pubic, government, and marine community regarding the proposed action by providing an electronic link

to a Draft Environmental Assessment (EA) document issued in February 2024. As part of Section 106 compliance, the USCG and its designated Federal representative, the Authority, consulted with the New Jersey Historic Preservation Office (NJHPO) through the submission of a Phase I archaeological survey and Intensive-level historic architectural survey report, a Phase I archaeological survey and geotechnical soil boring review report, an archaeological monitoring protocol, and a draft Programmatic Agreement. In response, the NJHPO issued a letter dated June 13, 2024, with continuing consultation comments. In its letter, the NJHPO specified that it looks forward to additional consultation in developing a Programmatic Agreement in consultation with any consulting parties that may wish to participate. The NJHPO further indicated that a program of mitigation has been developed in consultation with the Authority through the implementation of a New Jersey Department of Environmental Protection (NJDEP) permit (Permit # 0000-23-0012.2 LUP230001) and that consultation with consulting parties pursuant to Section 106 may identify additional mitigation as part of the Programmatic Agreement's development. The USCG has developed a list of consulting parties as carbon copied entities to this letter, which include Federally recognized Tribal Nations, historical and archaeological societies, preservation commissions, and local governments with a direct interest in the Project location.

In addition to the USCG's Public Notice for the Project, the USCG proposes to hold a virtual Consulting Parties meeting to elicit input from participants regarding impacts to historic properties and the proposed mitigation measures. Consulting parties will be provided with the Section 106 Consultation Document and associated attachments, as well as a link to view and download the cultural resources survey reports previously submitted to the NJHPO.

Provided for your review is the attached Section 106 Consultation Document and associated attachments pursuant to 36 CFR § 800.3. Included in the document is a detailed project description, summary of the consultation that has occurred to date with the NJHPO, identification of historic properties, and a determination of effect to historic properties. The Section 106 Consultation Document includes a link to the cultural resources survey reports that have been prepared by RGA.

The USCG looks forward to continuing consultation with your office to identify appropriate archaeological survey and mitigation measures to be stipulated in a Programmatic Agreement and conclude the Section 106 process.

Should you have questions, please contact me at the number and address above or the NJ Turnpike Authority design team Section 106 Liaison Mr. Graham Trelstad at Graham.Trelstad@wsp.com.

Sincerely,

G. P. Hitchen
Bridge Program Manager
U.S. Coast Guard
By Direction

cc: Consulting Parties
United States Army Corps of Engineers
Delaware Nation, Oklahoma
Absentee Shawnee Tribe of Oklahoma
Shawnee Tribe
Stockbridge Munsee Community
Delaware Tribe of Indians
Mayor Ras Baraka, City of Newark
City of Newark Landmarks and Historic Preservation Commission
Mayor Jimmy Davis, City of Bayonne
City of Bayonne Historic Preservation Commission
Mayor Steven M. Fulop, City of Jersey City
City of Jersey City Historic Preservation Commission
Hudson County Executive Craig Guy
Hudson County Open Space, Recreation and Historic Preservation
Essex County Executive Joseph N. DiVincenzo, Jr.
The Essex County Department of Parks, Recreation, and Cultural Affairs
Newark History Society
Bayonne Historical Society
Preservation New Jersey
New Jersey Historical Society
Roebling Chapter, Society for Industrial Archaeology
Archaeological Society of New Jersey
Canal Society of New Jersey
Hudson County Genealogical & Historical Society
Hudson County Office of Cultural & Heritage Affairs/Tourism Development
Jersey City Landmarks Conservancy, Inc.
Daniel L. Hesslein, P.E. (NJ Turnpike Authority)
Lamis T. Malak, P.E. (NJ Turnpike Authority)
Lisa K. Navarro, P.E. (NJ Turnpike Authority)
Becky Mazzei (NJDEP)
Michael A. Morgan, P.E. (Gannett Fleming, Inc.)
Allee Davis (Richard Grubb & Associates, Inc.)
Michael J. Gall (Richard Grubb & Associates, Inc.)

Encl.: Section 106 Consultation Document
Attachments 1-4
Attachment 1: Project Location
Attachment 2: Area of Potential Effects with 3/4-mile Viewshed Buffer
Attachment 3: Area of Potential Effects with 500-foot Buffer and Previously Identified Historic Properties
Attachment 4: List of Consulting Parties

US Coast Guard Request for Section 106 Consultation under the National Historic Preservation Act of 1966

New Jersey Turnpike Authority, Newark Bay Bridge across Newark May, Mile 3.8
Newark, Essex County and Bayonne, Hudson County, New Jersey

NJHPO Project# 21-1041

November 8, 2024

Introduction

The New Jersey Turnpike Authority (Authority) proposes to replace the Newark Bay-Hudson County Extension (NB-HCE) between Interchanges 14 and 14A (Extension) including the Vincent R. Casciano Memorial, Newark Bay Bridge (NBB) Across Newark Bay, Mile 3.8, between Newark, Essex County and Bayonne, Hudson County, New Jersey. Attachment 1 depicts the Project location.

The Project requires a Bridge Permit from the United States Coast Guard (USCG), approving the location and plans for the proposed replacement bridge. The USCG holds jurisdiction over the navigable waterways of the United States pursuant to The General Bridge Act of 1946, as amended (33 U.S.C. § 525-533). Because of federal involvement, the undertaking is subject to Section 106 of the National Historic Preservation Act (NHPA), as amended and re-codified (54 United States Code [U.S.C.] § 306108), and its implementing regulations at 36 Code of Federal Regulations (CFR) § 800. The USCG, as lead federal agency for the undertaking, is responsible for ensuring compliance with Section 106, as well as the preparation of an Environmental Assessment (EA) under the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. § 4321 et seq.) and Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR §§ 1500-1508). The USCG will use its findings from the Section 106 process to inform the cultural resources component of NEPA.

The purpose of this document is to initiate formal Section 106 consultation with the Deputy New Jersey Historic Preservation Officer (NJHPO); delineate the Area of Potential Effects (APE); identify consulting parties; and present the results of a Phase I archaeological survey and Intensive-level historic architectural survey report, as well as a Supplemental Phase IA archaeological survey geotechnical boring review report in support of Section 106 compliance. Pursuant to 36 CFR § 800.2(a)(3), Richard Grubb & Associates, Inc. (RGA), an outside cultural resources subconsultant meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology and Architectural History and working on behalf of Gannett Fleming, Inc., the Authority's lead preliminary engineering design consultant, conducted the required surveys.

On May 9, 2024, the USCG issued a Public Notice for the Project pursuant to NEPA with a link to cultural resources survey documents. In a letter dated June 13, 2024 (HPO-F2024-037), the NJHPO acknowledged receipt of the Public Notice and specified that it looks forward to additional consultation with its office in developing a Programmatic Agreement (PA) in consultation with any consulting parties that may wish to participate. The NJHPO specified that, consistent with its obligations under the New Jersey Register of Historic Places Act and its review of an Application for Project Authorization submitted by the Authority, a program of mitigation has been developed within a NJDEP permit and that consultation with consulting parties pursuant to Section 106 of the NHPA may identify additional mitigation as part of the development of the PA.

This link (https://www.njta.com/section-106) is provided for your access to and review of the following documents:

1. Phase I Archaeological Survey and Intensive-Level Historic Architectural Survey (April 20, 2023)
2. Draft Supplemental Phase I Archaeological Survey and Geotechnical Boring Review (November 28, 2023)
3. Archaeological Monitoring Protocol (April 30, 2024)

Project Description

The Authority has identified a preferred alternative for the Project to advance to Preliminary Design, which the USCG will assess under Section 106. The preferred alternative will rebuild the NB-HCE from Interchange 14 in Newark to Interchange 14A in Bayonne and Jersey City, as well as the Southeast Viaduct up to approximately Linden Avenue in Jersey City and is divided into seven distinct areas. Project elements include the following:

- Area 1 – Interchange 14 (Milepost [MP] N0.0 to MP N0.9): An interchange configuration that minimizes intrusion into the approach flight path to Newark Liberty International Airport Runway 29L while improving ramp profiling. This includes impacts to ramps and ramp bridges, as well as the bridges over the Turnpike's mainline north-south corridor.

- Area 2 – Newark Viaduct (MP N0.9 to MP N1.2): An alignment realigning the NB-HCE westbound to the north to avoid impacting an existing Colonial Pipeline facility while minimizing right-of-way (ROW) acquisition and allowing a crossover between the existing and proposed NB-HCE viaduct structures to facilitate construction sequencing and enable traffic to be removed from the existing NBB by 2031. This includes replacing the Newark Viaduct with a new, wider structure expanding northward of the existing alignment and carrying four (4) travel lanes in each direction along with shoulders on both sides to facilitate response to incidents and accidents, and to provide space to maintain travel lanes during future maintenance activity.

- Area 3 – West Approach (MP N1.2 to MP N1.7): A horizontal alignment realigning the NB-HCE westbound to the north to avoid staged demolition of the NB-HCE westbound viaduct structure, provide the necessary median gap width to accommodate the long span main span bridge over the Newark Bay, and minimize ROW impacts to the existing chemical facility property to the north. This includes replacement with a wider structure expanding northward of the existing alignment carrying four (4) travel lanes in each direction along with shoulders on both sides.

- Area 4 – Main Span (MP N1.7 to MP N2.0): An alignment realigning the NB-HCE westbound to the north to provide the minimum distance between the existing and proposed bridges to accommodate a long span utilizing a cable-stay design. The proposed cable-stayed bridge will provide the clearances shown on page 4 of 8 of the April 25, 2024, plan sheets which are part of the Coast Guard Public Notice. The vertical clearance is 135' (MHW) which is the same as the existing bridge. The horizontal clearance is increased to 611' between the fenders. The horizontal clearance accommodates the existing 550' approved navigation opening and the 500' U.S. Army Corps of Engineers maintained channel.

- Area 5 – East Approach (MP N2.0 to MP N2.7): An alignment realigning the NB-HCE westbound to the north that transitions gradually from the main span offset to the horizontal curve in Area 6. This includes replacement with a wider structure expanding northward of the existing alignment carrying four (4) travel lanes in each direction along with shoulders on both sides.

- Area 6 – Embankment Section and Interchange 14A Ramps (MP N2.7 to MP N3.4): The realignment improves substandard geometric elements (minimum radius, stopping sight distance, acceleration/deceleration lane length) while minimizing impacts to adjacent residences and avoiding impacting Route 440. The existing connector roadway from John F. Kennedy (JFK) Boulevard to Avenue C and an entrance ramp to Route 440 southbound will be eliminated and replaced with a new ramp directly connecting JFK Boulevard to Route 440 southbound. This includes reconstructing the east at-grade section of the NB-HCE with replacement of the bridges over JFK Boulevard, Avenue C, and Garfield Avenue, and Interchange 14A Ramps WT and TW.

- Area 7 – Southeast Viaduct (MP N3.4 to MP N4.1): An alignment realigning the NB-HCE to the north and Interchange 14A Ramp TE to the south. This includes the replacement of Structure Nos. N3.73 and N3.53D.

- Construction of stormwater detention basins within portions of the NB-HCE existing and new right-of-way, including areas between ramps at Interchange 14 and 14A beneath the Newark Viaduct and east and west

approaches to the Newark Bay Bridge, on the site of the former Marist High School property, and on Block 30306, Lots 2, 4, and 7; Block 30303, Lot TURN; and Block 27401, Lot 29 in the City of Jersey City; and

- Associated utility relocation, grading, and filling.

Previous NJHPO Coordination

To facilitate its planning, the Authority asked the NJHPO for Technical Assistance regarding the possible eligibility of the Newark Bay Bridge for listing in the National Register of Historic Places (NRHP). In correspondence dated August 9, 2021, the Authority submitted an Intensive-level Architectural Survey Form for the bridge recommending the structure not eligible for listing in the NRHP. The NJHPO requested additional information on September 24, 2021 (HPO-I2021-156), which the Authority provided in a subsequent submission dated December 6, 2021. On February 2, 2022 (HPO-B2022-011), the NJHPO responded by disagreeing with the survey form's not eligible recommendation. The NJHPO concluded that the Newark Bay Bridge would meet Criterion C as a well-preserved example of a cantilevered truss bridge of the mid-twentieth century. The boundaries of the historic property would include the bridge in its entirety, and the period of significance would be limited to its year of construction, 1956. In correspondence dated March 14, 2023, the NJTA submitted an Intensive-level Architectural Survey Form for the NB-HCE recommending the roadway not eligible for listing in the NRHP. On April 4, 2023 (HPO-D2023-005), the NJHPO concurred with the survey form's not eligible recommendation as part of Technical Assistance review. Up until this point, the NJHPO comments were informal and did not constitute project review under any state or federal law.

In a virtual meeting held May 20, 2022, among the Authority, USCG, NJHPO, Gannett Fleming, Inc., WSP, Inc., and RGA, the Authority requested additional Technical Assistance from the NJHPO for the delineation of the APE for Historic Architectural Resources (APE-Architecture) and survey methodology for the Intensive-level historic architectural survey. The Authority presented the proposed APE-Architecture on a series of maps, which also illustrated the APE for Archaeological Resources (APE-Archaeology), a 500-foot viewshed buffer, previously identified historic properties (i.e., resources that have been previously determined eligible for or listed in the NRHP by the NJHPO), and historic resources that have not yet been formally evaluated by the NJHPO for the NRHP and which would be surveyed as part of the Intensive-level historic architectural survey. During the meeting, Jennifer Leynes of the NJHPO generally agreed with the proposed APE-Architecture and survey methodology; however, Ms. Leynes's comments were informal and did not constitute approval of the proposed APE-Architecture or APE-Archaeology under Section 106. Additional details regarding the delineation of the APE-Architecture and APE-Archaeology and proposed survey methodology are included below.

On May 22, 2023, the New Jersey Department of Environmental Protection's Office of Permitting and Project Navigation (NJDEP) issued comments on the draft New Jersey Executive Order No. 215 Environmental Impact Statement (EO 215 EIS). The draft EO 215 EIS included the Phase I archaeological survey and Intensive-level historic architectural survey report completed by RGA for the proposed undertaking, which is on file with the NJHPO and associated with HPO project number 21-1041. The NJDEP comments included the NJHPO's formal issuance of an Opinion of Eligibility that the Newark Bay Bridge is eligible for listing in the NRHP, which is consistent with NJDEP Division of Land Resource Protection and state regulations and not in response to consultation conducted under Section 106 of the National Historic Preservation Act. In addition to the Newark Bay Bridge, the NJHPO also determined that the Port Authority Administration Building (also known as Building 260) is eligible for listing in the NRHP.

The NJHPO determined that the APE-Archaeology in the City of Newark and in the Newark Bay does not necessitate any further archaeological survey due to an assessed low archaeological sensitivity. The NJHPO stated that the portion of the project footprint in the City of Bayonne and the City of Jersey City is sensitive for pre-Contact period Native American and historic period archaeological resources and requested Phase II archaeological survey at an identified archaeological resource found on Block 13, Lot 1 in the City of Bayonne designated as the Marist High School Site (28-Hd-55), which measures 78 feet by 193 feet in plan. Archaeological monitoring during construction was recommended at the Morris Canal historic property (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004) and at a location adjacent to the Jersey Eagle Site (28-Hd-45 [SHPO Opinion: 5/17/2013]) where a proposed stormwater basin pipe will parallel the site and an existing natural gas pipeline within the site. The NJHPO specified that, where intact buried natural soil layers are present, comparison of the depths of such stratigraphy must be made with the proposed vertical

excavation base depths for project elements, to determine if hand dug or mechanically assisted Phase IB archaeological survey is needed to determine the presence or absence of archaeological resources. The NJHPO required geotechnical data review to also eliminate areas of archaeological sensitivity and rule out areas of potential Phase IB archaeological survey. The NJHPO requested this additional information to determine if archaeological monitoring during construction at the aforementioned two historic properties would be prudent.

A Draft Supplemental Phase I Archaeological Survey and Geotechnical Boring Review report was prepared by RGA on November 28, 2023, and submitted to the NJHPO. The report specified that the Marist High School Site (28-Hd-55), located on the eastern side of the former Marist High School property, will be preserved in place and avoided during construction. A formal avoidance and protection plan will be prepared to document the avoidance engineering controls that will be emplaced during construction to prevent Project-related ground disturbance activities within the site. Therefore, Phase II archaeological survey within the site was not recommended. The supplemental report recommended a Phase IB archaeological survey within proposed stormwater management basin HUC2-I in the City of Bayonne, Hudson County and that archaeological monitoring during construction take place for proposed piers 13-15, a portion of pier 17, and the eastern abutment for Structure No. N3.73R (Southeast Viaduct) and for stormwater management basin HUC3-F if the excavation for the outfall pipe trench extends below a depth of 2.3 feet below ground surface adjacent to the Jersey Eagle Site. On January 9, 2024 (HPO-A2024-048), the NJHPO concurred with the recommendations presented in the Draft Supplemental Phase I Archaeological Survey and Geotechnical Boring Review report and requested the preparation of a technically complete Application for Project Authorization pursuant to the New Jersey Register of Historic Places Act for project elements within the limits of the Morris Canal, inclusive of an NJHPO-approved archaeological Monitoring Protocol. To date, while no historic properties have been identified on the former Marist High School property, the Marist High School Site (28-Hd-55) has been identified east of proposed stormwater management basin HUC2-I. This archaeological resource has not undergone NRHP evaluation and will be avoided by Project impacts through a redesign and avoidance measures will be formally provided to the NJHPO in an Archaeological Avoidance and Protection Plan document. Phase IB archaeological survey will be undertaken at proposed stormwater management basin HUC2-I, once access is granted, to determine the presence or absence of intact archaeological resources. If archaeological resources are identified, a Phase II archaeological survey will be completed to evaluate NRHP eligibility and assess effects on newly identified archaeological historic properties.

On April 3, 2024, the NJDEP issued the following permits to the Authority authorizing the reconstruction of the Newark Bay Bridge: Waterfront Development Individual Upland Permit, Waterfront Development Individual In-Water Permit, Flood Hazard Area Individual Permit, Freshwater Wetlands Individual Permit, and Water Quality Certificate (Permit # 0000-23-0012.2 LUP230001). The authorization included Historic Preservation Special Conditions to mitigate adverse effects to historic properties, among other conditions. Under Section 106, the mitigation measures with which the USCG will comply will be included in a draft Programmatic Agreement that will be subject to review and comment by the NJHPO and consulting parties.

On April 30, 2024, RGA prepared an Archaeological Monitoring Protocol for the Morris Canal historic property and the Jersey Eagle Site, which included an unanticipated discovery of human remains protocol. On May 28, 2024 (HPO-E2024-304), the NJHPO reviewed the submitted Application for Project Authorization under the New Jersey Register of Historic Places Act, which contained the aforementioned Archaeological Monitoring Protocol, and found that the document was technically and professionally complete and sufficient pursuant to New Jersey administrative Code (N.J.A.C.) 7:4-7.1(d), that the Project will not constitute an encroachment upon the Morris Canal under the New Jersey Register of Historic Places Act, and that the Project may proceed as documented pursuant to N.J.A.C. 7:4-7.2(d).

Area of Potential Effects

Under Section 106, the APE is defined in 36 CFR § 800.16(d) as follows: "the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking." Historic properties are defined as cultural resources listed in or eligible for listing in the NRHP.

The APE has been developed to assess the Authority's preliminary preferred alternative for the Project. The APE may change as the Authority progresses through its planning process and as a result of consultation. The APE is based on the proposed work activities and their potential to affect cultural resources, including potential direct and indirect impacts.

APE-Archaeology

The APE-Archaeology comprises the area that would be directly affected by ground disturbances from construction activities. Ground disturbances include, but are not limited to, areas subject to excavation or deep grading, wetlands mitigation sites (i.e., stormwater management basins), construction staging areas, bridge abutment footings, pier footings, or borrow areas opened expressly for the project. It includes the expected limits of disturbance for the proposed reconstruction of the NB-HCE, which includes at the following: Interchange 14 and 14A improvements, Newark Viaduct, Newark Bay Bridge, east at-grade segment, stormwater management areas, temporary and permanent parking areas, and construction staging and laydown areas. Because project plans remain in the early stages of development, and vertical and horizontal areas of direct physical disturbance have not been fully identified, including potential stormwater basins, the APE-Archaeology is likely to change. The horizontal extent of the APE-Archaeology appears in Attachment 2 (labeled as the Project Location).

APE-Architecture

The APE-Architecture includes the area in which the proposed Project may directly or indirectly cause changes in the character or use of historic properties. This includes all locations subject to ground-disturbing activities (consisting of the APE-Archaeology). To account for potential visual or contextual effects, the APE-Architecture extends beyond the actual construction limits to include those properties that may be impacted by visual changes, patterns of use, or may experience a change in historic character associated with the construction of the proposed Project.

As proposed, the Authority's preliminary preferred alternative alignment would expand the NB-HCE's existing footprint to the north, creating a wider structure. The overall height of the new bridge would not change significantly from its current maximum height of 263 feet. The new cable-stayed span clearance over the navigation channel within Newark Bay would be seven feet higher than the current clearance. Visibility from the surrounding area would remain largely unchanged. The density of industrial development, intervening construction, topography, and the optical effects of distance and diminishing perspective limit visibility further. To test visibility, the Authority first prepared a viewshed map using a 3/4-mile buffer (see Attachment 2). This limit corresponds to the Federal Communication Commission's guidance for cellular towers measuring between 200 and 400 feet. Within the 3/4-mile buffer, computer-generated modeling delineated areas of visibility and non-visibility based on the shifting height of the NB-HCE and intervening topography to determine areas in which the undertaking has the potential to be seen from street level. The results indicated broad visibility because of the flat nature of the surrounding landscape. However, visibility was generally low to the horizon with little or no potential to affect historic properties, especially at greater distances. Further analysis using available street views indicated that intervening development and vegetation greatly reduced overall visibility to areas immediately fronting on the roadway, open space, and water. This, together with the negligible expected changes to the existing viewshed, would limit or eliminate nearly all possible impacts to surrounding historic properties, if present. The APE-Architecture was limited to a 500-foot buffer on either side of the project centerline in order to account for visual, atmospheric, or audible effects. Further verification in the field during the historic architectural survey identified any anomalies to ensure full coverage. Generally, resources not likely to fall within the direct line of sight of the Project undertaking were excluded from the APE-Architecture, per field verification. Resources located partially within the viewshed or adjoining a line-of-sight boundary were generally included in the APE-Architecture out of an abundance of caution. The APE-Architecture with the 500-foot buffer and previously identified historic properties within and proximate to the APE-Architecture appear in Attachment 3.

The western portion of the APE-Architecture in Newark includes certain industrial and commercial properties adjacent to the Newark Viaduct and West Approach and south of Interchange 14. To ensure proper coverage, certain portions of the APE-Architecture extend beyond the 500-foot study buffer to encompass the entire parcel limits of adjacent properties. Based on current project plans, the proposed Interchange 14 connector ramps to the east of the Newark Liberty International Airport are within an area of dense transportation infrastructure and will likely be at a similar height as the existing routes around the Port Street overpass. The potential for the proposed undertaking to result in indirect visual impacts on any historic properties west of the New Jersey Turnpike mainline corridor within the Newark

Liberty International Airport complex is negligible and would not introduce new incompatible visual elements within the current setting. As a result, the APE-Architecture was drawn more narrowly in this area, along the west side of the New Jersey Turnpike, and excludes the Newark Liberty International Airport. Over the Newark Bay, the APE-Architecture follows the 500-foot buffer. In the dense urban environment of Bayonne and Jersey City, the southern boundary of the APE-Architecture was more narrowly defined to encompass portions of Sunset Avenue, JFK Boulevard, West 54th through 58th Streets, Avenues B and C, Garfield Avenue, and NB-HCE Interchange 14A. The eastern boundary of the APE-Architecture encompasses parcels flanking the NB-HCE, as well as certain industrial properties south of New Jersey Route 185. In Jersey City, the northern boundary of the APE-Architecture follows a railroad embankment and the existing Hudson-Bergen Light Rail (HBLR) ROW. The railroad corridors coupled with the raised elevation of New Jersey Route 440 and surrounding pockets of dense vegetation provide a visual barrier from the NB-HCE and thereby limit potential visual indirect impacts on adjacent residential neighborhoods and commercial development to the north and west of the highway. The APE-Architecture terminates adjacent to the east of Linden Avenue.

Consultation and Public Involvement

Section 106 requires federal agencies to consider the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings. Please reference the ACHP's *A Citizen's Guide to Section 106 Review* at https://www.achp.gov/sites/default/files/documents/2017-01/CitizenGuide.pdf for more information on the Section 106 process.

In addition to the USCG, the Authority, and the NJHPO, other consulting parties include the United States Army Corps of Engineers, local governments, federally recognized Indian tribes, and invited individuals and organizations with a demonstrated interest in the undertaking. A list of identified consulting parties for your review appears in Attachment 4. The USCG anticipates holding a Consulting Parties meeting to introduce the project, solicit information on resources significant to the community, review the findings of cultural resources studies, and discuss ways to avoid, minimize, and/or mitigate anticipated adverse effects.

Identification of Historic Properties

An examination of the NJDEP's Cultural Resources GIS Online Viewer, LUCY, indicates there are seven historic properties previously listed in or determined eligible for the NRHP within the APE-Archaeology and APE-Architecture:

- Newark and Elizabeth Branch of the Central Railroad of New Jersey Historic District (SHPO Opinion: 8/30/2000)
- Pennsylvania Railroad New York Bay Branch Historic District (SHPO Opinion: 12/18/2019)
- Lehigh Valley Railroad Historic District (SHPO Opinion 3/15/2002)
- Morris Canal historic property (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004)
- Newark Bay Bridge (SHPO Opinion: 5/22/2023)
- Port Authority Administration Building (SHPO Opinion: 5/22/2023)
- Site 28-Hd-45 (Jersey Eagle archaeological Site) (a.k.a. The Jersey Eagle Site; SHPO Opinion: 5/17/2013)

Of these, two are archaeological historic properties previously identified within the APE-Archaeology:

- Site 28-Hd-45 (Jersey Eagle archaeological Site) (a.k.a. The Jersey Eagle Site; SHPO Opinion: 5/17/2013)
- Morris Canal historic property (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004)

As a result of RGA's Phase I archaeological survey and Intensive-level historic architectural survey report completed in April 2023, the 32 previously unevaluated historic architectural resources identified within the APE-Architecture and surveyed at the intensive level were not recommended eligible for listing in the NRHP, with which the NJHPO concurred in the NJDEP's correspondence dated May 22, 2023. As a result of the Phase I archaeological survey in the APE-Archaeology, the Marist High School Site (28-Hd-55) was identified on Block 13, Lot 1 in the City of Bayonne.

The site measures 78 feet by 193 feet in plan and is bounded to the west and south by areas of existing disturbance and deep (greater than 3-foot deep) grade cuts. The northern and eastern sides of the site are bounded by the APE-Archaeology footprint.

Following the NJDEP's May 22, 2023, letter, the Authority redesigned a portion of the project to avoid Project impacts to the Marist High School Site (28-Hd-55), determining that the site can be avoided and protected during project construction and that an avoidance and protection plan will be prepared for formal submission to the NJHPO for review and comment.

A Supplemental Phase I archaeological survey and geotechnical boring review was prepared on November 28, 2023. The survey included a review of 20 soil borings and three mechanical test pits excavated in 2022, as well as a review of 160 soil borings excavated in 1954 for the construction of the NB-HCE and resulted in a revised archaeological sensitivity assessment and recommendations. The data reveals that all proposed basin locations with the exception of HUC2-I on Block 13, Lots 1 and 15 and Block 11, Lot 1 are located within the vertical footprint of recently imported and/or disturbed soils, resulting in a low archaeological sensitivity assessment and a recommendation for no further archaeological survey. Basin HUC2-I may extend to a depth of 10 feet below grade and could impact a buried topsoil located six feet below grade at an elevation of 127.3 feet above mean sea level. The buried topsoil and underlaying subsoil have an assessed moderate to high archaeological sensitivity. This proposed basin is situated on land not currently owned by the Authority and is being used as a staging and construction area by the current property owner. In the event the proposed basin is not redesigned with a shallower footprint, Phase IB archaeological survey through mechanical excavation assistance is recommended once Authority assumes control over the property. The Phase IB archaeological survey for stormwater management Basin HUC2-I will occur once Authority has obtained access permission to the property or has acquired the property that encompasses the proposed basin location to determine if archaeological resources are present or absent.

Due to the presence of the buried Morris Canal historic property (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004), archaeological monitoring during construction is recommended for the construction of bridge abutments for the overpass carrying the NB-HCE over Avenue C (Structure N3.24R) in the City of Jersey City that will extend five feet below grade. Based on a review of soil boring logs from 1954, archaeological monitoring is recommended at proposed Piers 13-15, a portion of Pier 17, and the eastern abutment for Structure No. N3.73R to document the Morris Canal historic property (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004). There, proposed piers will be excavated via a six- to eight-foot diameter screw auger to bedrock through very deep fills emplaced in 1954 and earlier for the construction of twentieth-century railroads and the 1954 viaduct structure. Monitoring during construction is also recommended at the location of a stormwater sewer pipe that will extend from Linden Avenue to proposed basin HUC3-F that parallels and may fall within the trench footprint for an existing deeply buried natural gas pipeline at the Jersey Eagle Site (28-Hd-45 [SHPO Opinion: 5/17/2013]). Phase IB archaeological testing in the aforementioned locations is not feasible given the presence of existing structural embankments, abutments, and piers, as well as an active high pressure natural gas pipeline. As a result, archaeological monitoring to record exposed elements of the deeply buried Morris Canal historic property (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004), and sampling at the Jersey Eagle Site (28-Hd-45 [SHPO Opinion: 5/17/2013]) is recommended during construction. An archaeological monitoring protocol was prepared for the Morris Canal historic property NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004) and the Jersey Eagle Site (28-Hd-45 [SHPO Opinion: 5/17/2013]) that included a protocol for unanticipated human remains discovery.

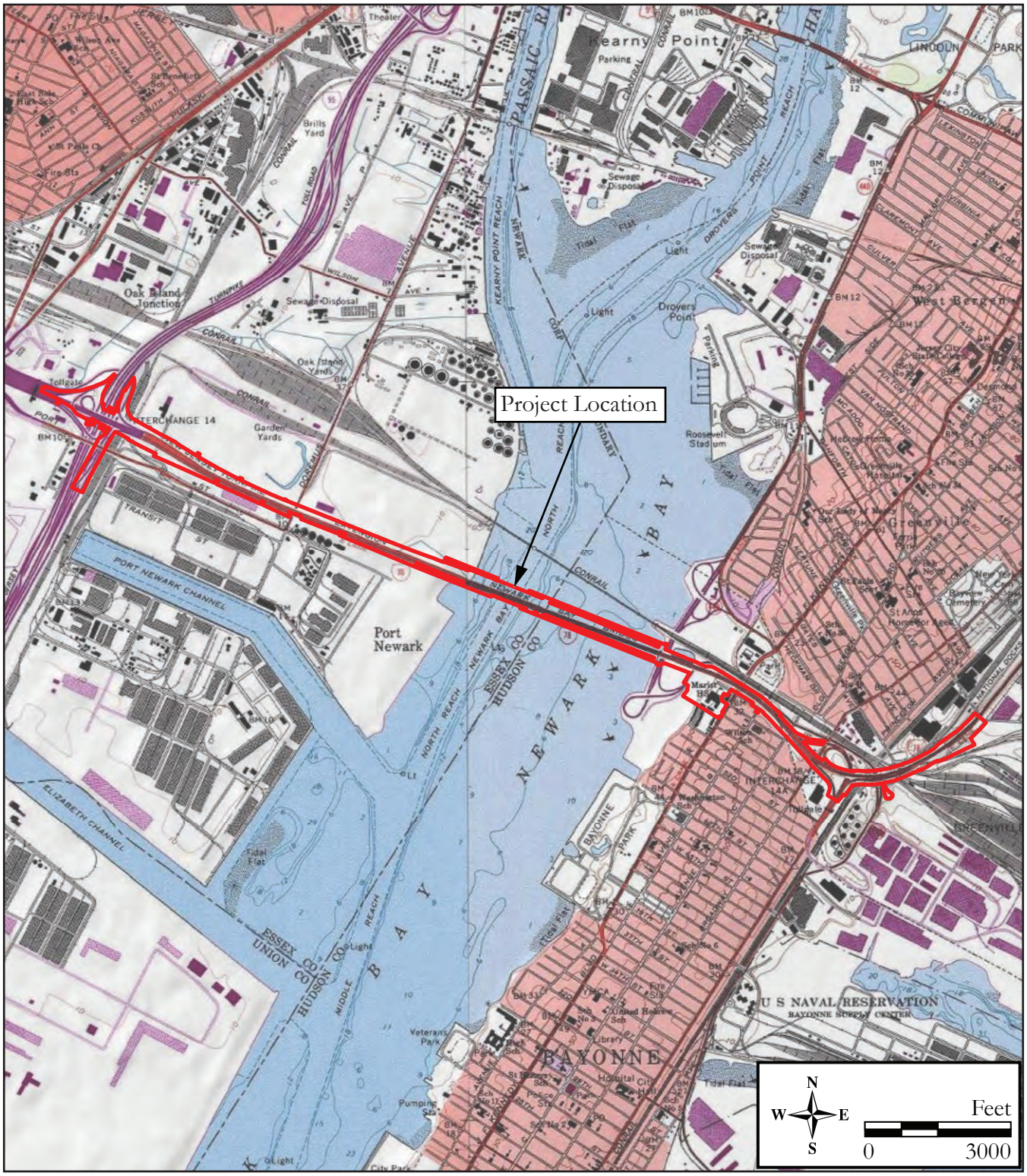
Determination of Effect

Based on research and the results of the Phase I archaeological survey and Intensive-level historic architectural survey report and Supplemental Phase I archaeological survey and geotechnical boring review completed by RGA for the proposed undertaking, it is the USCG's determination that the proposed undertaking will result in an adverse effect to historic properties, per 36 CFR § 800.5(a)(2)(i) of the Section 106 regulations. As currently proposed, project plans call for the removal and replacement of the NRHP-eligible Newark Bay Bridge, an intact example of a mid-twentieth-century cantilevered truss bridge, which will constitute an adverse effect due to the loss of the historic bridge.

Archaeological monitoring during construction will be conducted as a measure to mitigate adverse effects to the Morris Canal historic property (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004) and the Jersey Eagle Site (28-Hd-45 [SHPO Opinion: 5/17/2013]). Phase IB archaeological survey, if needed, to determine the presence or absence of archaeological resources cannot be undertaken at proposed basin HUC2-I on Block 17, Lots 1 and 15 until the Authority owns the parcels. Subsequent changes that may occur in project design, such as a reduction in project depth to limit excavations to depths above 127.3 feet above mean sea level for the proposed basin may affect the need to conduct Phase IB archaeological survey.

Attachment 1

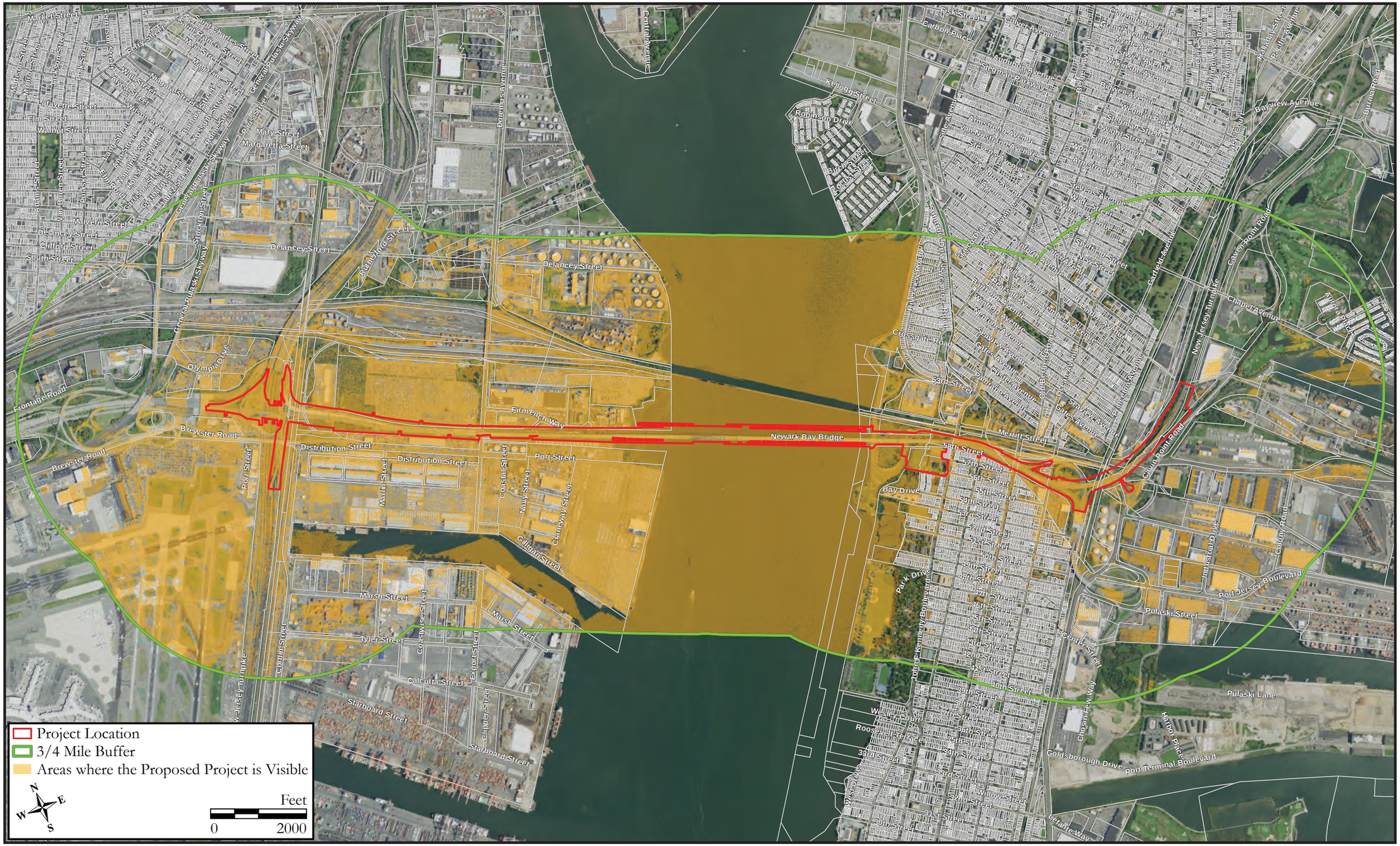
Project Location



Attachment 1: Project Location

Attachment 2

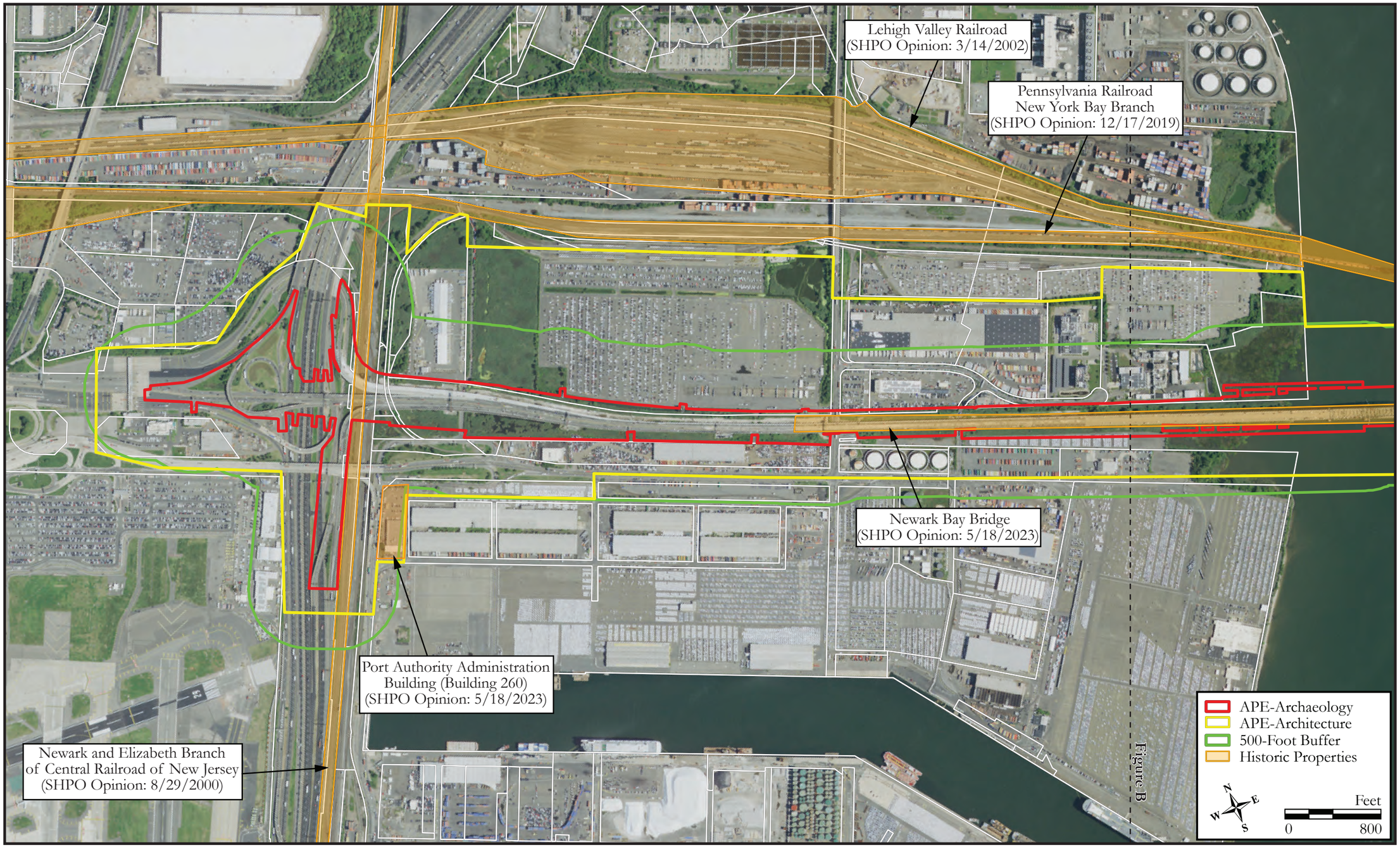
Area of Potential Effects with 3/4-mile Viewshed Buffer



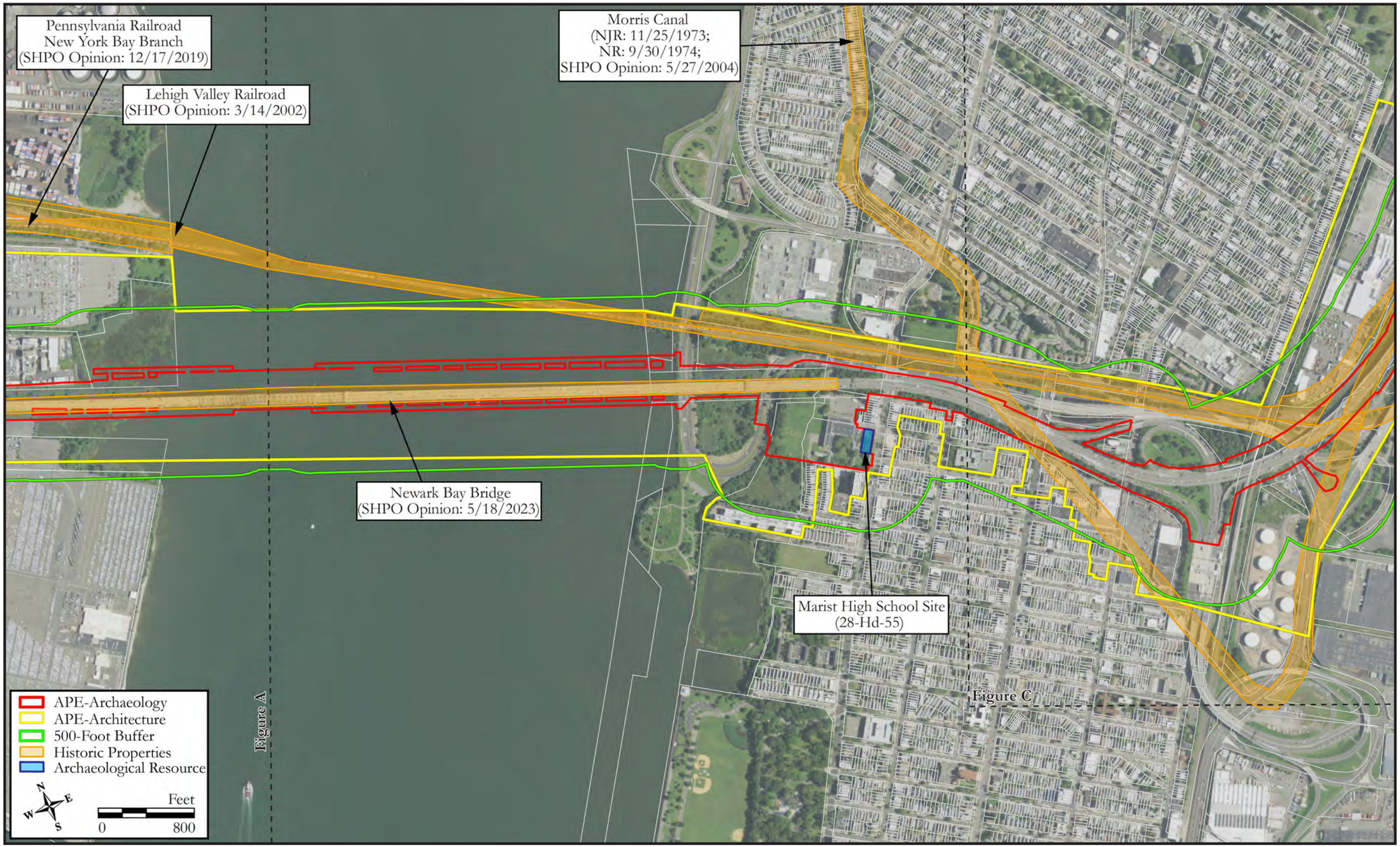
Attachment 2: Area of Potential Effects with 3/4-mile Viewshed Buffer

Attachment 3

Area of Potential Effects with 500-foot Buffer and
Previously Identified Historic Properties



Attachment 3a: Area of Potential Effects with 500-foot Buffer and Previously Identified Historic Properties



Attachment 3b: Area of Potential Effects with 500-foot Buffer and Previously Identified Historic Properties

Attachment 3c: Area of Potential Effects with 500-foot Buffer and Previously Identified Historic Properties

Attachment 4

List of Consulting Parties

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HPO Project No. 21-1041-18
HPO- A2025-157

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
COMMUNITY INVESTMENT AND ECONOMIC REVITALIZATION
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PHILIP D. MURPHY
Governor

TAHESHA L. WAY
Lt. Governor

SHAWN M. LATOURETTE
Commissioner

January 15, 2025

Gregory P. Hitchen
Bridge Program Manager
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via email: Gregory.P.Hitchen@uscg.mil

Dear Mr. Hitchen:

As Deputy State Historic Preservation Officer for New Jersey, in accordance with 36 CFR Part 800: Protection of Historic Properties, as published in the Federal Register on December 12, 2000 (65 FR 77725-77739) and amended on July 6, 2004 (69 FR 40553-40555), I am providing consultation comments on the following proposed undertaking:

Essex County, City of Newark
Hudson County, City of Bayonne
New Jersey Turnpike Newark Bay-Hudson County Extension
Interchanges 14-14A (Extension)
United States Coast Guard

Thank you for providing the Historic Preservation Office (HPO) with the opportunity for review and comment on the potential for the above-referenced project to affect historic properties. The comments below are in reply to your letter and supporting documentation, received at the Historic Preservation Office (HPO) on November 13, 2024, as well as information provided at the Section 106 consulting parties meeting held on December 10, 2024.

The United States Coast Guard (USCG) previously initiated consultation regarding the referenced undertaking in May 2024, and the HPO concurred with the identification of historic properties in June 2024 (HPO-F2024-037).

800.4 Identification of Historic Properties

The USCG identified the following historic properties within the area of potential effects (APE) for the undertaking:

- Newark Bay Bridge (SHPO Opinion 5/18/2023)
- Port Authority Administration Building (SHPO Opinion 5/18/2023)

- Morris Canal (SR 11/25/1973; NR 9/30/1974)
- Newark and Elizabeth Branch of Central Railroad of New Jersey (SHPO Opinion 8/29/200o)
- Lehigh Valley Railroad (SHPO Opinion 3/14/2002)
- Pennsylvania Railroad New York Bay Branch (SHPO Opinion 12/17/2019)
- Jersey Eagle Site (SHPO Opinion 5/17/2013)

800.5 Assessment of Adverse Effects

According to your correspondence, the proposed undertaking involves the reconstruction of the Newark Bay-Hudson County Extension between Interchanges 14 and 14A (Extension), including replacement of the Vincent R. Casciano Memorial, Newark Bay Bridge. The USCG has determined in consultation to date that the undertaking will result in an adverse effect on the following historic properties:

- Morris Canal (SR 11/26/1973; NR 10/1/1974)
- Jersey Eagle Site (SHPO Opinion 5/17/2013)
- Newark Bay Bridge (SHPO Opinion 5/18/2023)

According to your correspondence, the determination under 36 C.F.R. Part 800.5 for adverse effects is still pending for the location of the proposed stormwater basin HUC2-I at the former Marist High School property. This determination will be made following the completion of a Phase IB archaeological survey for the basin, and subsequent Phase II archaeological survey, if necessary. The New Jersey Turnpike Authority (NJTA) has redesigned a portion of the project east of the proposed stormwater basin to avoid project-related impacts to the identified Marist High School Site (28-Hd-55).

800.14 Federal Agency Program Alternatives

In order to address the undertaking's adverse effects and address the continued identification of archaeological historic properties, the USCG proposes to prepare a Programmatic Agreement (PA) for the project. In the consulting parties meeting of December 10, 2024, the USCG requested feedback on the proposed mitigation for the project, which includes, but not limited to, the following:

- Phased archaeological survey within the proposed Stormwater Basin HUC2-I on the former Marist High School property in the City of Bayonne, Hudson County, to determine the presence or absence of archaeological historic properties;
- Preparation of an avoidance and protection plan to implement avoidance measures during construction at the Marist High School Site (28-Hd-55);
- Archaeological monitoring during construction where the project intersects with the Morris Canal historic property during bridge replacement activities and where the project abuts the Jersey Eagle Site historic property for the installation of a stormwater outfall pipe associated with Stormwater Basin HUC3-F;
- Documentation of the Newark Bay Bridge to the standards of the Historic American Engineering Record (HAER); and
- Development of interpretive signage that details the history and significance of the historic structure.

The HPO agrees that the above mitigation is appropriate; however, we do not believe that this mitigation alone is commensurate with the adverse effect, given the size and scale of the project. The Newark Bay Bridge is a landmark over the Newark Bay, visible from surrounding communities, and experienced by millions of commuters annually. As such, it is the opinion of the HPO that additional mitigation is necessary. The HPO previously recommended mitigation as part of New Jersey Department of Environmental Protection permit for the project (Permit #0000-23-0012.2 LUP230001) that included the above measures, as well as preparation of a historic context study and inventory of the extant bridges at least 45 years of age (pre-1979) on the New Jersey Turnpike owned by the NJTA. We recommend the inclusion of this study as mitigation in the USCG PA, as well. Additional consultation with consulting parties may identify additional mitigation items as part of the PA consultation process.

Additional Comments

Thank you for providing the opportunity to review and comment on the potential for the above-referenced undertaking to affect historic properties. The HPO looks forward to additional consultation regarding the identification of archaeological historic properties and any additional consultation with consulting parties resolving project effects on historic properties through the development of the PA. Please reference HPO project number **21-1041** in any future calls, emails, submission or written correspondence to help expedite your review and response. If you have any questions, please feel free to contact **Jennifer Leynes** of my staff at jennifer.leynes@dep.nj.gov regarding historic architecture or **Vincent Maresca** of my staff at vincent.maresca@dep.nj.gov with questions regarding archaeology.

Sincerely,

Katherine J. Marcopul

Katherine J. Marcopul
Deputy State Historic
Preservation Officer

cc: Lisa Navarro, NJTA
Graham Trelstad, WSP
Allee Davis, RGA
Michael Gall, RGA

KJM/MMB/VM/JBL

U.S. Department of Homeland Security
United States Coast Guard

Commander
First Coast Guard District

Battery Park Bldg.
1 South Street
New York, NY 10004-1466
Staff Symbol: (dpb)
Phone: (571) 607-8154
Email: Gregory.P.Hitchen@uscg.mil

16591
February 5, 2023

Dr. Katherine J. Marcopul
Deputy State Historic Preservation Officer
Department of Environmental Protection
Historic Preservation Office
501 East State Street, P.O. Box 402, Mail Code 501-04B
Trenton, New Jersey 08625-0420

RE: **HPO Project No. 21-1041-18**

Dear Dr. Marcopul:

The United States Coast Guard (USCG) welcomes your continued consultation under Section 106 of the National Historic Preservation Act (36 CFR 800) for the New Jersey Turnpike Newark Bay-Hudson County Extension Interchanges 14-14A (Extension) Project (HPO Project No. 21-1041-18).

In the Historic Preservation Office's (HPO) January 15, 2025, letter regarding the potential for the above-referenced project to affect historic property, the HPO concurs that the proposed mitigation is appropriate. Regarding the HPO recommendation that a historic context study and inventory of the extant bridges at least 45 years of age (pre-1979) on the New Jersey Turnpike owned by the New Jersey Turnpike Authority be prepared, we submit updated information concerning the project's assessment of adverse effects (800.5).

The Project is an element of the Eisenhower Interstate System, specifically, I-78. In 2005, the Advisory Council on Historic Preservation published a notice in the Federal Register (05-4739; 70 FR 11928) outlining an *Exemption Regarding Historic Preservation Review Process for Effects to the Interstate Highway System*. This exemption relieves federal agencies from Section 106's requirement to consider the effects of their undertakings on elements of the Interstate Highway System. Although recently determined eligible for inclusion in the National Register of Historic Places, the Newark Bay Bridge was not included in the inventory of elements of the Interstate Highway System excluded from the exemption. Therefore, consideration of this project's effects to the Newark Bay Bridge are not warranted under Section 106.

Therefore, the USCG proposes:

- HPO concurrence to apply the Interstate Highway exemption;
- The USCG, as lead federal agency for the Project, will advance a Section 106 Programmatic Agreement that will not include effects to the Newark Bay Bridge given the application of the Interstate Highway exemption; and

- The mitigation efforts to be documented in the Programmatic Agreement for the Newark Bay Bridge will be limited to stipulations 1 and 2 (HAER documentation) from the New Jersey Department of Environmental Protection permit for the project (Permit #0000-23-0012.2 LUP230001).

The USCG and the Authority provide this added information to achieve completion of the Project's PA for compliance with Section 106. We respectfully request your concurrence on the above information.

Sincerely,

Gregory P. Hitchen
Bridge Program Manager
U.S. Coast Guard
By direction

Copy: Dewberry Environmental Consultants
New Jersey Turnpike Authority
New Jersey Department of Environmental Protection

From:	Stieb, Jeffrey D CIV USCG D1 (USA)
To:	Stieb, Jeffrey D CIV USCG D1 (USA)
Subject:	FW: ACHP Case 022156: Replacement of the Newark Bay Bridge across Newark Bay
Date:	Thursday, March 13, 2025 6:39:05 AM
Attachments:	image001.png

From: Katharine Cline <kcline@achp.gov>
Sent: Wednesday, March 12, 2025 4:02 PM
To: Robertson, Matthew S CIV USCG (USA) <Matthew.S.Robertson2@uscg.mil>
Cc: Christopher Wilson <cwilson@achp.gov>; commissioner@dep.nj.gov
Subject: [Non-DoD Source] ACHP Case 022156: Replacement of the Newark Bay Bridge across Newark Bay

Dear Mr. Robertson:

On February 20, 2025, the Advisory Council on Historic Preservation (ACHP) received the additional documentation as requested regarding the potential adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Based upon the information you provided, we have concluded that Appendix A, Criteria for Council Involvement in Reviewing Individual Section 106 Cases, of Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, "Protection of Historic Properties" (36 CFR Part 800), does not apply to this undertaking. Accordingly, we do not believe our participation in the consultation to resolve adverse effects is needed.

However, if we receive a request for participation from the New Jersey State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer, affected Indian Tribe, a consulting party, or other party, we may reconsider this decision. Should the undertaking's circumstances change, consulting parties cannot come to consensus, or you need further advisory assistance to conclude the consultation process, please contact us.

Pursuant to 36 CFR § 800.6(b)(1)(iv), you will need to file the final Section 106 agreement document (Agreement), developed in consultation with the New Jersey SHPO and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the Agreement and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the NHPA.

Thank you for providing us with the additional information we requested regarding this notification of adverse effect. If you have any questions or require our further assistance, please contact MR. Chris Wilson at (202) 517-0229 or by e-mail at cwilson@achp.gov and reference the ACHP Project Number above.

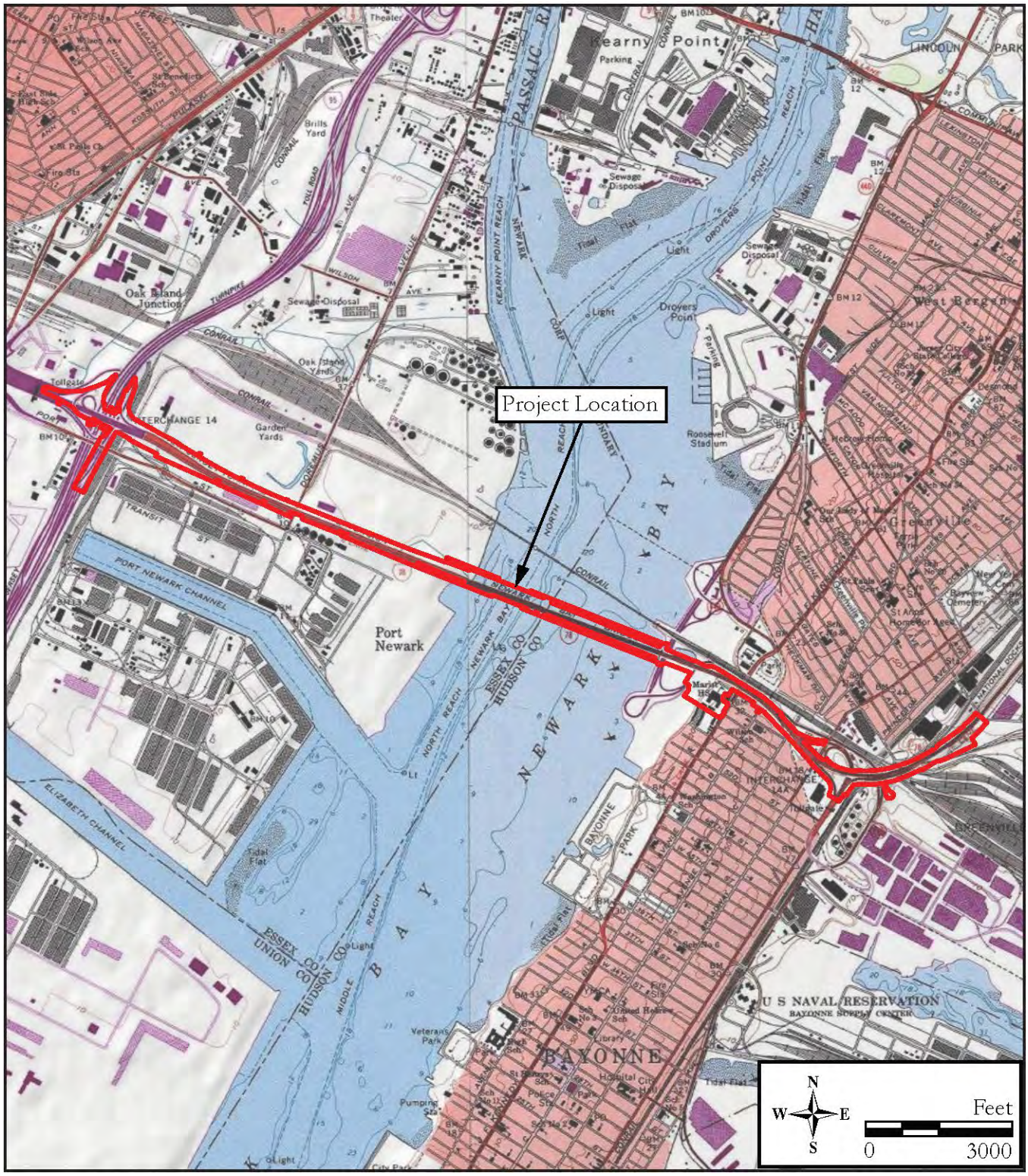
Sincerely,

Kate Cline (she/her)
Historic Preservation Specialist

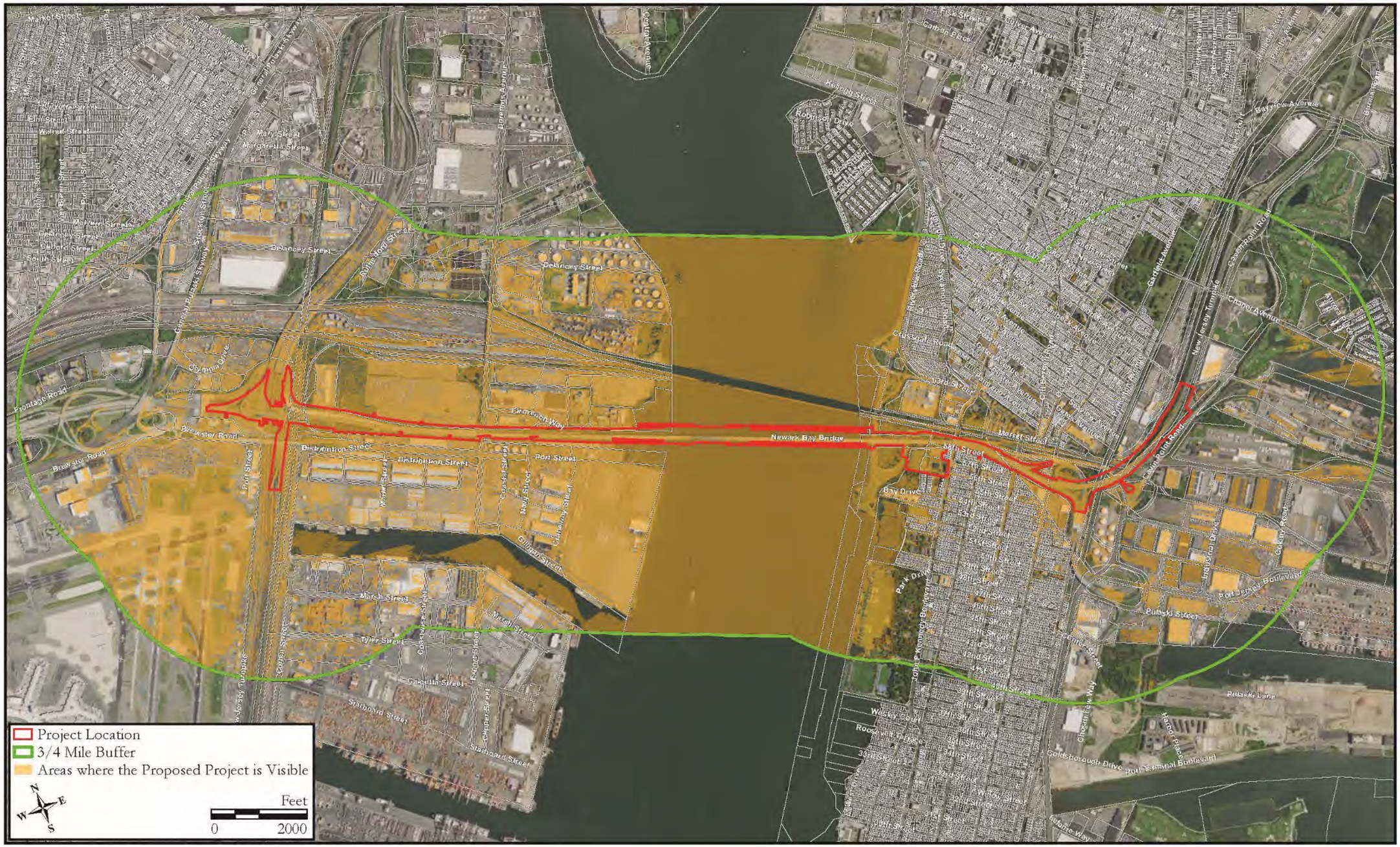
Advisory Council on Historic Preservation
401 F Street NW, Suite 308, Washington, DC 20001
(202) 517-0225
kcline@achp.gov

www.achp.gov
www.facebook.com/usachp
@usachp – Twitter and Instagram
https://www.youtube.com/channel/UChReeJ63BktsEqSidL396Ng

ATTACHMENT 2: AREA OF POTENTIAL EFFECTS (APE)



Attachment 2 – Figure 1: Project Location.


Project Location
3/4 Mile Buffer
Areas where the Proposed Project is Visible
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Newark Bay Bridge
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Port Street
Distribution Street
Marsh Street
Tyler Street
Calcutta Street
Starboard Street
Gillispie Street
Gateway Street
Coastal Street
Main Street
Export Street
Chipper Street
Corbin Street
Garden State Parkway
Frontage Road
Brewster Road
Olympia Drive
Embarcadero Way
Bayonne Avenue
Kellogg Street
Robinson Drive
Bay Drive
Mercer Street
Merritt Street
Caven Point Road
Chapel Avenue
Saint Pauls Avenue
New Jersey Turnpike
Port Jersey Boulevard
Pulaski Street
Pulaski Lane
Industrial Drive
Colony Road
Constitution Way
Goldsborough Drive
Port Terminal Boulevard
Hanover Place
Lafayette Way
Center Street
John F Kennedy Boulevard
Park Drive
Roosevelt Terrace
Wesley Court
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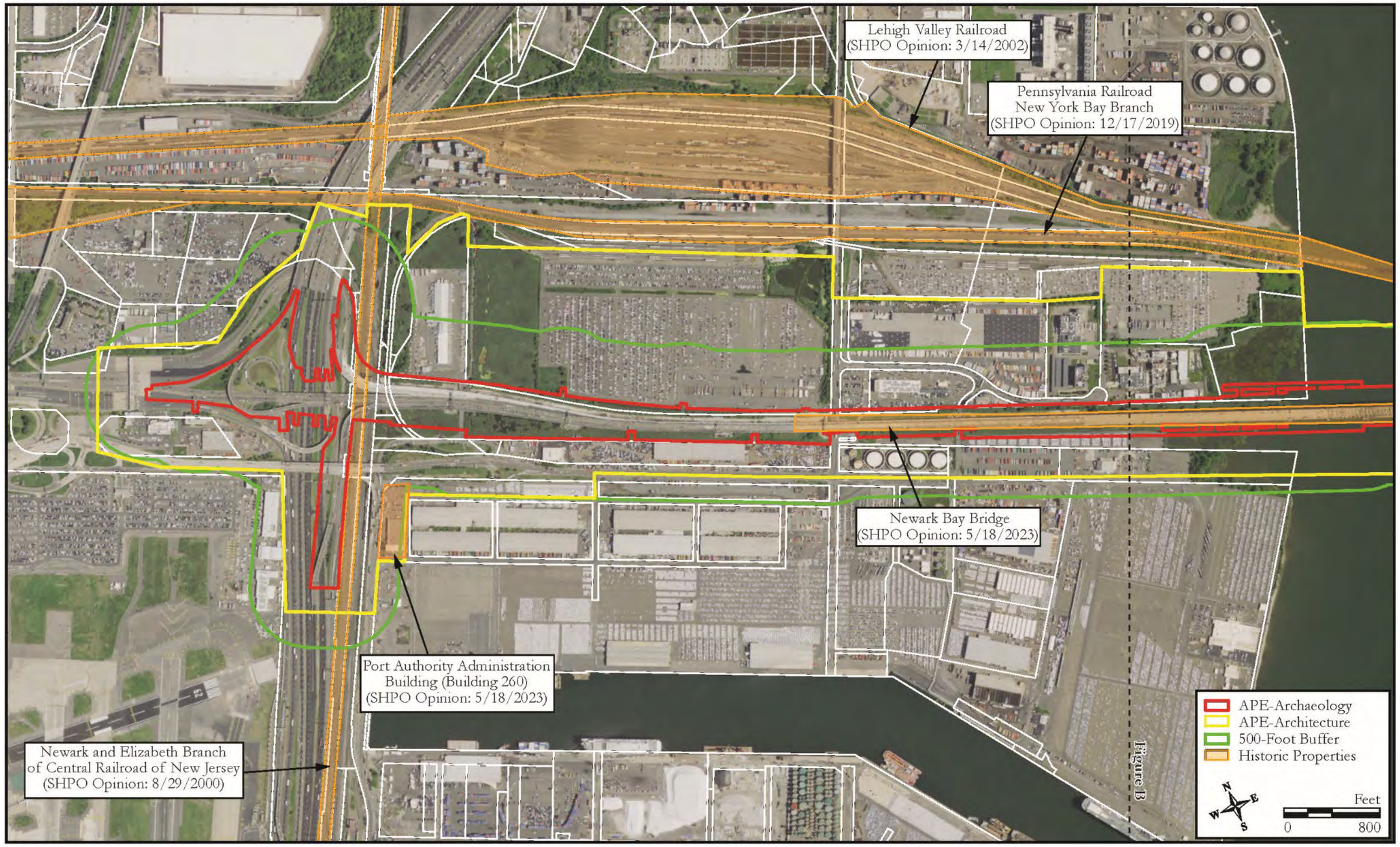
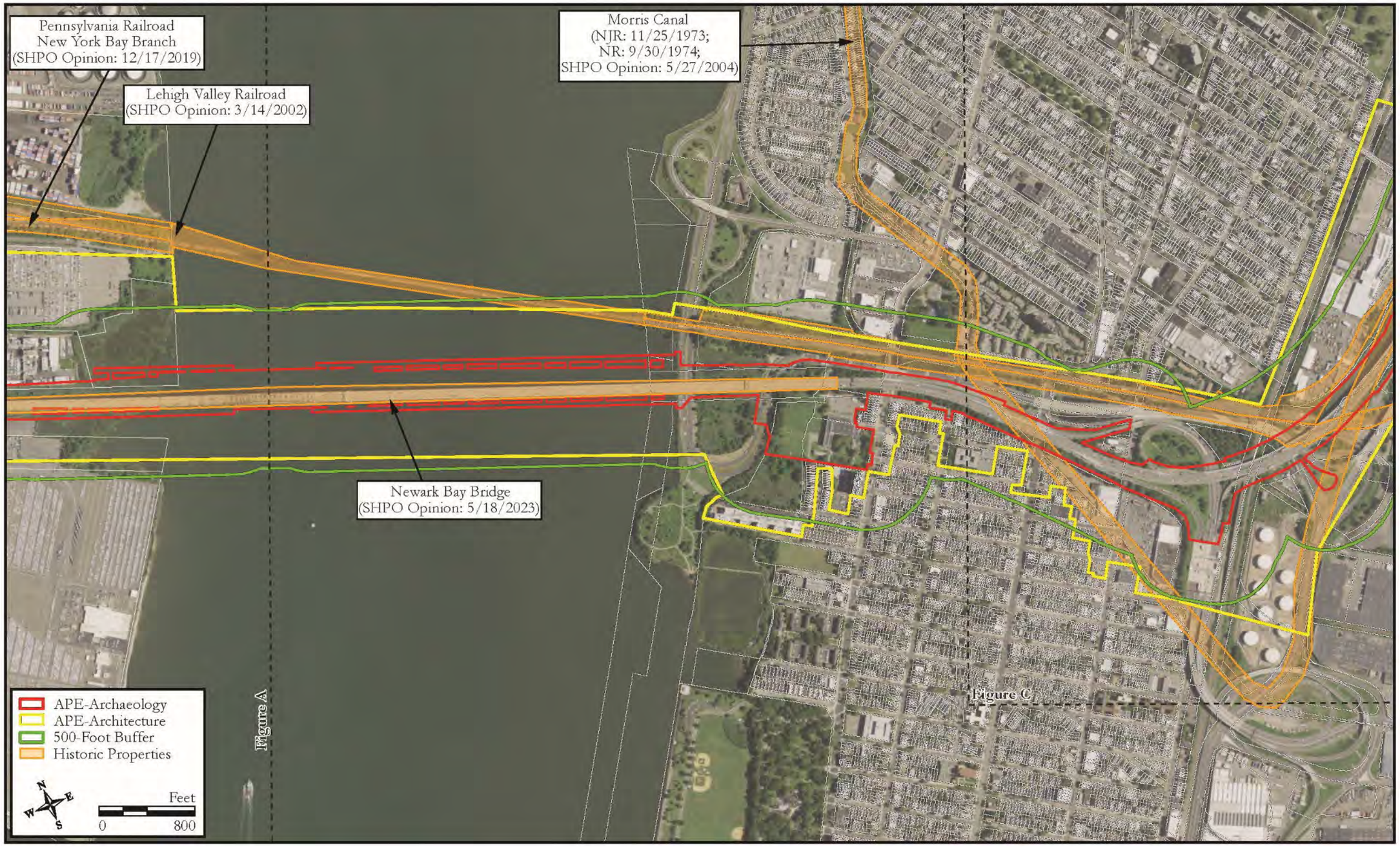


Attachment 2 – Figure 3a: Area of Potential Effects with 500-foot Buffer and Previously Identified Historic Properties.



Attachment 2 – Figure 3b: Area of Potential Effects with 500-foot Buffer and Previously Identified Historic Properties.

Attachment 2 – Figure 3c: Area of Potential Effects with 500-foot Buffer and Previously Identified Historic Properties.

ATTACHMENT 3: SECTION 106 CONSULTING PARTIES CORRESPONDENCE

- *The USCG invited the following organizations and federally recognized Tribal Nations as Section 106 consulting parties:*
    - *City of Newark*
    - *City of Newark Landmarks and Historic Preservation Commission*
    - *City of Bayonne*
    - *City of Bayonne Historic Preservation Commission*
    - *City of Jersey City*
    - *City of Jersey City Historic Preservation Commission*
    - *Hudson County Executive*
    - *Hudson County Open Space, Recreation and Historic Preservation*
    - *Essex County Executive*
    - *Essex County Department of Parks, Recreation, and Cultural Affairs*
    - *Newark Historical Society*
    - *Bayonne Historical Society*
    - *Preservation New Jersey*
    - *New Jersey Historical Society*
    - *Society for Industrial Archaeology*
    - *Archaeological Society of New Jersey*
    - *Canal Society of New Jersey*
    - *Hudson County Genealogical & Historical Society*
    - *Hudson County Office of Cultural & Heritage Affairs/Tourism Development*
    - *Jersey City Landmarks Conservancy*
    - *Delaware Nation*
    - *Delaware Tribe of Indians*
    - *Absentee Shawnee Tribe of Oklahoma*
    - *Shawnee Tribe*
    - *Stockbridge Munsee Community*
- *City of Bayonne Historic Preservation Commission Response Email (December 10, 2024)*
- *Shawnee Tribe Response Email (January 10, 2025)*

Outlook

FW: New Jersey Turnpike Authority Newark Bay-Hudson County Extension/Newark Bay Bridge Replacement: Section 106 Consultation

From Trelstad, Graham <Graham.Trelstad@wsp.com>
Date Wed 11/13/2024 2:01 PM
To Morgan, Michael A. <mmorgan@GFNET.com>; Pesesky, Larry <lawrence.pesesky@wsp.com>; Allee Davis <adavis@rgaincorporated.com>; Michael Gall <mgall@rgaincorporated.com>

2 attachments (13 MB)
2024.11.08 Sec 106 Consultation Document with Attachments.pdf; CG LTR NJHPO Nov 13 2024.pdf;

Here's the e-mail that went out to Consulting Parties.

From: Trelstad, Graham
Sent: Wednesday, November 13, 2024 1:59 PM
To: 'Kristin.B.Andrade@usace.army.mil' <Kristin.B.Andrade@usace.army.mil>; 'klucas@delawarenatuion-nsn.gov' <klucas@delawarenatuion-nsn.gov>; '106NAGPRA@astribe.com' <106NAGPRA@astribe.com>; 'cbutler@astribe.com' <cbutler@astribe.com>; 'tonya@shawnee-tribe.com' <tonya@shawnee-tribe.com>; 'Jeff.bendremer@mohican-nsn.gov' <Jeff.bendremer@mohican-nsn.gov>; 'thpo@mohican-nsn.gov' <thpo@mohican-nsn.gov>; 'sbachor@delawaretribe.org' <sbachor@delawaretribe.org>; 'Barakara@ci.newark.nj.us' <Barakara@ci.newark.nj.us>; 'richard.partyka@gmail.com' <richard.partyka@gmail.com>; 'mayors.office@baynj.org' <mayors.office@baynj.org>; 'jryan@baynj.org' <jryan@baynj.org>; 'fulops@jcnj.org' <fulops@jcnj.org>; 'jchpc@jcnj.org' <jchpc@jcnj.org>; 'hcexecoffice@hcnj.us' <hcexecoffice@hcnj.us>; 'countyplanning@hcnj.us' <countyplanning@hcnj.us>; 'joedi@admin.essexcountynj.org' <joedi@admin.essexcountynj.org>; 'dsalvante@parks.essexcountynj.org' <dsalvante@parks.essexcountynj.org>; 'NewarkHistorySoc@gmail.com' <NewarkHistorySoc@gmail.com>; 'lf70nj@aol.com' <lf70nj@aol.com>; 'info@preservationnj.org' <info@preservationnj.org>; 'contactNJHS@jerseyhistory.org' <contactNJHS@jerseyhistory.org>; 'RCSIA.Sec@gmail.com' <RCSIA.Sec@gmail.com>; 'asofnj@gmail.com' <asofnj@gmail.com>; 'macgraphics2@gmail.com' <macgraphics2@gmail.com>; 'info@hudsoncountynjgenealogy.org' <info@hudsoncountynjgenealogy.org>; 'ghulings@hcnj.us' <ghulings@hcnj.us>; 'Christopher.perez@gmail.com' <Christopher.perez@gmail.com>
Cc: 'Gregory.p.hitchen@uscg.mil' <Gregory.p.hitchen@uscg.mil>; 'Jeffrey.d.stieb@uscg.mil' <Jeffrey.d.stieb@uscg.mil>; 'Donna.d.leoce@uscg.mil' <Donna.d.leoce@uscg.mil>; 'kate.marcopul@dep.nj.gov' <kate.marcopul@dep.nj.gov>; 'jennifer.leynes@dep.nj.gov' <jennifer.leynes@dep.nj.gov>; 'Vincent.Maresca@dep.nj.gov' <Vincent.Maresca@dep.nj.gov>; Navarro, Lisa <navarro@njta.com>; Heeren, James <JHeeren@Dewberry.com>
Subject: New Jersey Turnpike Authority Newark Bay-Hudson County Extension/Newark Bay Bridge Replacement: Section 106 Consultation

Dear Consulting Parties:

The United States Coast Guard (USCG) and the New Jersey Turnpike Authority (Authority) have identified your organization as one that may have an interest in the Authority's proposed reconstruction of the Newark Bay-Hudson County Extension (NB-HCE) between Interchanges 14 and 14A (Extension) including the Vincent R. Casciano Memorial, Newark Bay Bridge (NBB) Across Newark Bay, Mile 3.8, between Newark, Essex County and Bayonne, Hudson County, New Jersey (the Project). The Project

requires a Bridge Permit from the United States Coast Guard (USCG) and is therefore subject to Section 106 of the National Historic Preservation Act of 1966, as amended.

As such, you are invited to participate as a Consulting Party regarding the Project's potential to affect historic properties. Consulting parties have certain rights and obligations under the National Historic Preservation Act of 1966, as amended, and its implementing regulations at 36 CFR § 800. The review process, known as Section 106 review, is described at https://www.achp.gov/sites/default/files/documents/2017-01/CitizenGuide.pdf. As a consulting party, you are actively informed of steps in the Section 106 process, including opportunities to review and comment on reports/documents prepared for Section 106 compliance.

The USCG proposes to hold a virtual Consulting Parties meeting in November to elicit input from participants regarding the Project's impacts to historic properties and the proposed mitigation measures to resolve the Project's adverse effects on identified historic properties. Additional information regarding the virtual meeting will be provided.

In addition to the attached Section 106 Consulting letter sent to the New Jersey State Historic Preservation Office and the Section 106 Document that contains additional Project details, you are invited to review several cultural resources survey reports, which can be accessed at https://www.njta.com/section-106.

Please respond with any comments or questions within 15 days of receipt of this transmittal.

Graham L. Trelstad
Senior Vice President

WSP USA, Inc.
One Penn Plaza
New York, NY 10119

wsp.com

- *Per Title VI of the Civil Rights Act of 1964, WSP USA will not discriminate on the grounds of race, color, or national origin in the selection and retention of subconsultants, including procurement of materials and leases of equipment.*

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-LAEmHhHzdJzBlTWfa4Hgs7pbKl

Outlook

Section 106 Comments

From Joe Ryan <jryan@baynj.org>
Date Tue 12/10/2024 2:10 PM
To Trelstad, Graham <Graham.Trelstad@wsp.com>; jeffrey.d.stieb@uscg.mil <jeffrey.d.stieb@uscg.mil>

The City of Bayonne and our local history community have an interest in obtaining sample portions of the span of the Newark Bay Turnpike Extension Bridge (Vincent Casciano Bridge) for use in displays and local memorials. I would suggest saving at least four four-ft. sections of the metal that could be placed in Rutkowski Park and other public places in Bayonne. Similar portions of the World Trade Center were salvaged for use in September 11 memorials.

I believe there would be broad public interest in purchasing small portions of the span as souvenirs. Small portions of the span could be sold to reduce the Turnpike Authority's bonded indebtedness for the project. Owning a piece of New Jersey history would attract a large number of consumers.

Respectfully submitted,
Joseph E. Ryan

Public Information Officer
City of Bayonne

Staff Secretary
Bayonne Historic Preservation Commission

Trelstad, Graham

From:	Laserfiche Notification <donotreply@laserfiche.com>
Sent:	Friday, January 10, 2025 12:27 PM
To:	Trelstad, Graham
Subject:	Section 106 Consultation - New Jersey Turnpike Authority Newark Bay-Hudson County Extension/Newark Bay Bridge Replacement
Categories:	NJTPA-Historic

This email is in response to New Jersey Turnpike Authority Newark Bay-Hudson County Extension/Newark Bay Bridge Replacement. The project is out of the Shawnee Tribe's area of interest. If you have any questions, you may contact me via email at Section106@shawnee-tribe.com.

Thank you for giving us the opportunity to comment on this project.

Sincerely,

Erin Paden
TRIBAL HISTORIC PRESERVATION SPECIALIST
Office: (918) 542-2441, x140
Email: epaden@shawnee-tribe.com
29 S Hwy 69A
Miami, OK 74354
shawnee-tribe.com

ATTACHMENT 4: VIRTUAL SECTION 106 CONSULTING PARTIES MEETING MINUTES

Meeting Notes

Program:	Newark Bay Hudson County Expansion	**Minutes by:**	Graham Trelstad, WSP
Topic:	**Section 106 Consulting Parties**	**Meeting No.:**	**1**
Date/Time:	December 10, 2024 10:30 AM to 11:25 AM	**Location:**	Virtual

Attendees:

NAME	REPRESENTING	EMAIL
Greg Hitchen	USCG	Gregory.P.Hitchen@uscg.mil
Jeffrey Stieb	USCG	Jeffrey.D.Stieb@uscg.mil
Donna Leoce	USCG	Donna.D.Leoce@uscg.mil
Amanda Boone	USCG	Amanda.N.Boone2@uscg.mil
Madeleine McNamara	USCG	Madeleine.W.McNamara@uscg.mil
Matt Robinson	USCG	matthew.s.robertson2@uscg.mil
Matt Stuck	USCG	Matthew.b.stuck@uscg.mil
Kristin Andrade	USACE	Kristin.B.Andrade@usace.army.mil
Lisa Navarro	NJ Turnpike Authority	navarro@njta.com
AJ Piechnick	NJTA/HNTB	APiechnik@hntb.com
James Heeren	NJTA/Dewberry	JHeeren@dewberry.com
Joann Papageorgis	NJTA/Dewberry	jpapageorgis@dewberry.com
Michael Morgan	NJTA/Gannett Fleming	mmorgan@gfnet.com
Lawrence Pesesky	NJTA/WSP	Lawrence.Pesesky@wsp.com
Graham Trelstad	NJTA/WSP	Graham.Trelstad@wsp.com
Allee Davis	NJTA/RGA	ADavis@rgaincorporated.com
Michael Gall	NJTA/RGA	MGall@rgaincorporated.com
Jeffrey Bendremer	Stockbridge Munsee Community	Jeff.Bendremer@mohican-nsn.gov
Jennifer Leynes	NJ HPO	Jennifer.Leynes@dep.nj.gov
Joseph Ryan	Bayonne Historic Preservation Commission	jryan@baynj.org

I. Agenda Items

a. Welcome and Introductions
b. Summary of Project
c. Overview of the Section 106 Process
d. Review of Cultural Resources Surveys
e. Resolution of Adverse Effects and Proposed Mitigation
f. Comments Period
g. Next Steps & Adjourn

II. Meeting Notes

Following introductions by USCG and New Jersey Turnpike Authority, Michael Morgan provided a project overview, USCG outlined the major steps of the Section 106 process, and Michael Gall and Allee Davis summarized technical studies on historic resources to date.

Comments were solicited:

Joe Ryan:	We don't have a problem taking down the bridge. We would like to receive pieces of the span for display. It would help to preserve memory of bridge – perhaps in Rutkowski Park. The Authority might want to consider selling small portions of the span.
Jeffrey Bendremer:	It would have been nice to have a heads-up on archaeological work in advance. Will there be any effort to identify any buried A soils in APE that might harbor native American resources.
Response: M. Gall	As part of Supplemental Phase 1A, we reviewed geotechnical boring logs, some of which included trenches, including soil profile photographs. Some recent borings were also photographed. That review triggered the need for additional survey work at the Marist Property. Elsewhere we identified buried A soils close to the Jersey Eagle site, but very deep. Since project work would not be that deep there would be no effect, except for a stormwater outfall pipe extending to Linden Avenue. Thus, the program includes archaeological monitoring at that location. If buried A-horizon or intact subsoils are identified during the monitoring effort at the outfall pipe, then the protocol requires sampling. The reason for monitoring as opposed to staged Phase 1 or Phase 2 surveys are dangers to individuals posed by the adjacent natural gas pressurized gas main. So that archaeological identification and mitigation-level work would be done during construction when appropriate machinery is present.
Bendremer:	That absolutely answered my question and I appreciate the challenges encountered in such studies. It would be nice to be kept in the loop on a work plan and various components of archaeological work going forward. We would like to see our inadvertent discovery protocol adopted as part of any requisite policies. That information can be found at this link (provided in the meeting chat): https://www.mohican.com/mt-content/uploads/2022/09/smc-inadvertent-discovery-policy.pdf

USCG will be accepting written comments through COB Friday, 1/17/2025, to: Jeffrey.D.Stieb@uscg.mil with copy to Graham.Trelstad@wsp.com.

ATTACHMENT 5: STOCKBRIDGE MUNSEE COMMUNITY INADVERTENT DISCOVERY POLICY

Stockbridge-Munsee Community
Band of Mohican Indians
Policy for
Treatment and Disposition of Human Remains and Cultural Items
That May be Discovered Inadvertently

Purpose

The purpose of this policy is to outline procedures that will be followed by all agencies, contractors or others in the event of an inadvertent discovery of human remains or cultural materials that are identified as potentially Stockbridge-Munsee (Mohican).

Treatment and Disposition of Human Remains and Cultural Items

1) The federal agency or contractor shall contact the Stockbridge-Munsee Community immediately, but no later than three days after the discovery of the remains and/or artifacts at the contact information below:

updated September 2022

Jeff Bendremer, Tribal Historic Preservation Officer (THPO)	thpo@mohican-nsn.gov	413-884-6029 office 715-881-2254 cell

If unavailable, contact:

Bonney Hartley, Tribal Historic Preservation Manager	Bonney.Hartley@mohican-nsn.gov	413-884-6048 office
Monique Tyndall, Cultural Affairs Director	Monique.Tyndall@mohican-nsn.gov	715-793-4270 office
Linda Mohawk Katchenago, Administrator	Linda.Katchenago@mohican-nsn.gov	715-793-4355 office

2) Place tobacco with human remains and/or funeral objects.

3) Cover remains and funeral objects with a natural fiber cloth such as cotton or muslin when possible.

4) No photographs will be taken.

5) The preferred treatment of inadvertently discovered cultural materials and/or human remains is to leave them *in-situ* (in place) and protect them from further disturbance.

6) Non-destructive "in-field" documentation of the remains and cultural items shall be carried out only in consultation with the Tribe, who will determine appropriate methods of recordation depending upon the circumstances.

7) If the remains and cultural items are to remain *in-situ*, the requirements of 43 CFR 10 Sections 10.4–10.6 will have been fulfilled.

8) The specific location(s) of discovery shall be withheld from disclosure (with the exception of local law officials and tribal officials as described above) and protected to the fullest extent by federal law.

9) If remains and funeral objects are to be removed from the site, specific procedures and considerations will be determined by Stockbridge-Munsee Tribe in consultation with the federal agency.

Appendix A-4

Archaeological Monitoring Protocol

ARCHAEOLOGICAL MONITORING PROTOCOL
NEWARK BAY – HUDSON COUNTY EXTENSION INTERCHANGE 14 TO INTERCHANGE 14A/NEWARK BAY BRIDGE REPLACEMENT AND ASSOCIATED IMPROVEMENTS
CITIES OF BAYONNE AND JERSEY CITY,
HUDSON COUNTY, NEW JERSEY

DLRP NOS. 0000-22-0010.1 & 0000-23-0012.2
NJHPO NO: 21-1041

APRIL 2024

RICHARD GRUBB & ASSOCIATES, INC.

Archaeological Monitoring Protocol,
Newark Bay – Hudson County Extension Interchange 14 to Interchange 14A/
Newark Bay Bridge Replacement and Associated Improvements,
Cities of Bayonne and Jersey City
Hudson County, New Jersey

DLRP File Nos. 0000-22-0010.1 & 0000-23-0012.2
NJHPO No. 21-1041

Prepared by:
Michelle L. Davenport, MA, RPA
Michael J. Gall, MA, RPA

Submitted by:

Richard Grubb & Associates, Inc.
259 Prospect Plains Road, Building D
Cranbury, New Jersey 08512

Submitted to:

Gannett Fleming, Inc.
1 Tower Center Boulevard, Suite 801
East Brunswick, NJ 08816

Date: April 30, 2024

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3.0 INTRODUCTION

This archaeological monitoring protocol has been prepared by Richard Grubb & Associates, Inc. (RGA), as a member of the Gannett Fleming, Inc. Team preparing preliminary engineering and environmental services for the New Jersey Turnpike Authority (NJTA), for the proposed reconstruction of the Newark Bay-Hudson County Extension (NB-HCE) in the City of Bayonne and the City of Jersey City, Hudson County, New Jersey (Attachment A: Figures 1–3). This archaeological monitoring plan was developed following recommendations for archaeological monitoring during construction to record elements of the New Jersey Register (NJR)- and National Register of Historic Places (NRHP)-listed Morris Canal (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004) at the locations of proposed bridge abutments for Structure No. N3.24R carrying NB-HCE over Avenue C and at the locations of proposed Piers 13, 14, and 15, a portion of Pier 17, and the eastern abutment for the Southeast Viaduct (Structure No. N3.73R), all of which are within the footprint of the deeply buried Morris Canal footprint (RGA 2023a; see Attachment A: Figure 3). Archaeological monitoring was also recommended for the installation of the outfall pipe for Basin HUC3-F within or adjacent to the multicomponent NRHP-eligible Jersey Eagle Site (28-Hd-45 [SHPO Opinion: 5/17/2013]), should excavation for the pipe trench extend beyond a depth of 2.3 feet below the current ground surface and occur outside of the disturbed 16-foot-wide trench footprint for a parallel, existing natural gas pipeline (RGA 2023a; see Attachment A: Figure 3).

These recommendations were made following the completion of a Supplemental Phase I archaeological survey and a review of geotechnical borings conducted by RGA (2023a). The New Jersey Historic Preservation Office (NJHPO) concurred with the recommendation for archaeological monitoring at these locations in a review letter dated January 9, 2024 (Attachment B). This archaeological monitoring protocol is specific to the areas of proposed ground disturbance described above and represents mitigation efforts for potential project effects on two archaeological historic properties: the Morris Canal and 28-Hd-45.

RGA understands that work on the NB-HCE requires a Bridge Permit from the United States Coast Guard (USCG), which would approve the location and plans for the proposed replacement of the Newark Bay Bridge. The USCG will serve as the lead federal agency. Federal involvement additionally means that the undertaking is subject to Section 106 of the National Historic Preservation Act (NHPA), as amended and re-codified (54 United States Code [U.S.C.] § 306108), and its implementing regulations in 36 Code of Federal Regulations (CFR) § 800. The USCG, as lead federal agency for the undertaking, is responsible for ensuring compliance with Section 106 as well as preparation of an Environmental Assessment (EA) under the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. § 4321 et seq.) and Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR §§ 1500-1508). The USCG will use its findings from the Section 106 process to provide the cultural resources component of NEPA. The proposed project will be funded under the NJTA's Capital Improvements Program and thus, necessitates compliance with New Jersey Executive Order 215 (EO 215) and is expected to require a Waterfront Development permit (WD) and a Freshwater Wetlands Protection permit (FW) from the New Jersey Department of Environmental Protection's (NJDEP) Division of Land Resource Protection, which necessitates compliance with N.J.A.C. 7:7-9.34 and N.J.A.C. 7:7A, respectively. Due to the use of NJTA funding, and the presence of the NJR- and NRHP-listed Morris Canal (NJR: 11/26/1973; NR: 10/1/1974; SHPO Opinion: 5/27/2004), those portions of the project within the Morris Canal footprint require compliance with the New Jersey Register of Historic Place Act (NJRHPA) and submission of an Application for Project Authorization (APA) to the New Jersey Historic Sites Council (N.J.A.C. 7:4-7.1). An Application for Project Authorization (APA) has been prepared for the portions of the project occurring with the footprint of the Morris Canal. This

archaeological monitoring protocol is included with the APA to ensure that the project does not encroach upon the Morris Canal. The Monitoring Protocol is also part of an effort to mitigate project-related adverse effects to the Morris Canal to comply with EO 215, the FW Act, and Section 106 of the NHPA.

Due to the potential for significant, intact archaeological resources associated with the Morris Canal and the Jersey Eagle Site (28-Hd-45) within the Area of Potential Effects for Archaeology (APE-Archaeology), this archaeological monitoring plan establishes a protocol for documenting archaeological remains associated with the historic properties if exposed during project activities in areas of recommended archaeological monitoring. It is the understanding of RGA that the NJHPO only requires archaeological monitoring for and documentation of the Morris Canal and associated elements and site 28-Hd-45 within these specified areas of proposed ground disturbance within the APE-Archaeology. Figures 3 through 12 in Attachment A depict the locations of recommended archaeological monitoring. Archaeological monitoring will be limited to horizontal and vertical limits of disturbance in the depicted areas.

This archaeological monitoring protocol includes provisions for monitoring during construction, identification of key personnel responsible for ensuring that the monitoring takes place, and a chain of command for key personnel, including contact information. A protocol for the unanticipated discovery of human remains is also included, which is applicable for excavation work occurring within Section 3 of the Project 1 Design between John F. Kennedy Boulevard in the City of Bayonne and Linden Avenue in the City of Jersey City (see Attachment A: Figure 3). The Qualified Archaeologist (Archaeologist) who will be present on site during the archaeological monitoring and documentation will be determined prior to project commencement and will be communicated to the NJHPO, the NJTA, the Section 3 Final Design Engineer, and the Construction Manager. The Archaeologist(s) overseeing the archaeological monitoring work and reporting must meet the requirements of 36 CFR 61. The NJHPO will be notified within 24 hours should construction actions take place within areas requiring archaeological monitoring without an archaeological monitor present.

Michael J. Gall, MA, RPA, Principal Senior Archaeologist from RGA, oversaw the development of this Monitoring Protocol. Mr. Gall meets the requirements of 36 CFR 61 (Attachment C). This document was written by Michelle L. Davenport with contributions from Michael J. Gall. Mr. Gall, Richard Grubb, and Catherine Smyrski edited the document, and Patricia McEachen produced the graphics.

4.0 PROJECT DESCRIPTION

The NB-HCE Interchanges 14 to 14A improvements in their entirety extend from the City of Newark, across the Newark Bay Bridge, into the City of Bayonne, and end at Linden Avenue in the City of Jersey City (see Attachment A: Figures 1 and 2). The focus of this archaeological monitoring protocol are three specific areas (see Attachment A: Figure 3), described below:

Area 6: Embankment Section and Interchange 14A Ramps (Milepost [MP] N2.7 to MP N3.4; Cities of Bayonne and Jersey City)

This realignment will improve substandard geometric elements (minimum radius, stopping sight distance, acceleration/deceleration lane length) while minimizing impacts to adjacent residences and avoiding impacts to Route 440. The existing connector roadway from John F. Kennedy (JFK) Boulevard to Avenue C will be eliminated and replaced with a new ramp directly connecting JFK Boulevard to Route 440 southbound. This includes reconstructing the east at-grade section of the NB-HCE with the replacement of the bridges over JFK Boulevard, Avenue C, and Garfield Avenue, and Interchange 14A Ramps WT and TW. Archaeological monitoring will take place during excavation for the proposed 5.0-foot-deep abutments of Structure No. N3.24R, carrying the NB-HCE over Avenue C, which occur within the footprint of the Morris Canal (see Attachment A: Figures 4, 5, and 6). Archaeological monitoring will document excavations below the elevation of the sidewalk adjacent to Avenue C.

Area 7: Southeast Viaduct (MP N3.4 to MP N4.0; City of Jersey City)

This area consists of the realignment of the NB-HCE to the north and the Interchange 14A Ramp TE to the south, including the replacement of Structure Nos. N3.73 and N3.53D. Archaeological monitoring will take place during excavations for the installation of Piers 13, 14, 15, a portion of Pier 17, and the eastern abutment for Structure No. N3.73 within the footprint of the Morris Canal (see Attachment A: Figures 7, 8, and 9). Proposed piers and the abutment will be excavated using a 6- to 8-foot-diameter screw auger. According to project plans, proposed pier and abutment excavation will extend beyond the depth of mid- to late twentieth-century imported fills identified in geotechnical borings and into bedrock, which is present at in Area 7 at depths up to 75 feet below the current ground surface (RGA 2023).

Stormwater Infrastructure

The proposed improvements include the construction of stormwater retention basins and outfall piping within portions of the NB-HCE's existing and new right-of-way. This includes the proposed construction of detention basin HUC3-F and the installation of an associated outfall pipe on Block 30306, Lot 7 in the City of Jersey City (see Attachment A: Figures 10, 11, and 12). Soil boring data taken from the proposed location of basin HUC3-F indicates that natural soil was encountered at 7.0 feet below the ground surface. The proposed depth of Basin HUC3-F is 5.0 feet below the ground surface; as a result, excavations for the proposed basin will not extend into natural soils identified in the soil boring (RGA 2023a). The proposed outfall pipe will extend north of the basin and be located parallel to an existing deeply buried, 30-inch natural gas pipeline that was installed within the Jersey Eagle Site (28-Hd-45) (see Attachment A: Figure 10). It is unclear if the proposed stormwater pipe will fall within the 16-foot-wide gas pipeline trench, which previously received archaeological mitigation by the Public Archaeology Laboratory (PAL) (PAL 2013a, 2013b). Archaeological monitoring will take place during trench excavations for the outfall pipe installation if excavations extend deeper than 2.3 feet below the current ground surface and outside the existing gas utility trench.

5.0 SUMMARY OF PREVIOUS SURVEYS AND RESEARCH

National Register Files

Research conducted using the NJHPO's online cultural resources GIS program (NJDEP-NJGIS 2022b) and resources of the NJHPO on file at RGA indicated that the APE-Archaeology contains the NJR- and NRHP-listed Morris Canal (NR: 10/1/1974; NJR: 11/26/1973; SHPO Opinion: 4/27/2004) and the NRHP-eligible Jersey Eagle Site (28-Hd-45 [SHPO Opinion: 5/17/2013]) (see Attachment A: Figure 3).

The footprint of the Morris Canal intersects with the APE-Archaeology at Avenue C in Bayonne and Jersey City and at the Southeast Viaduct (Structure No. 3.73R) in Jersey City (see Attachment A: Figure 3). The Morris Canal was completed in 1836 and listed in the NJR and NRHP in 1974. Its stated areas of significance are Engineering, Industry, and Transportation (NJDEP 1974). The property is listed under Criteria A, B, C, and D. The Morris Canal meets Criterion A for its association with canal transportation, American technical education, and the demographic and industrial growth in northern New Jersey, New York City, and the Lehigh Valley. Because several inventors, engineers, and important people were associated with the construction and operation of the canal, the canal is also significant under Criterion B. The Morris Canal meets Criterion C as a major technological feat of construction and operation, including the inclined plane design. The potential information relating to canal engineering and construction as well as the lifeways of nineteenth-century canal culture that archaeological investigations may yield make the canal significant under Criterion D (Guzzo 2004). The period of significance established in the Morris Canal nomination form covers the years 1836 to the turn of the century (Guzzo 2004). In 2004, the NJHPO expanded the period of significance for the Morris Canal to 1930 when the closure of the canal was complete (Guzzo 2004).

The Jersey Eagle Site (28-Hd-45 [SHPO Opinion: 5/17/2013]) represents a below grade archaeological historic property. Located near the northern terminus of the APE-Archaeology on Block 30306, Lot 7 in Jersey City, the site is a multi-component Middle to Late Woodland period pre-Contact and eighteenth- to twentieth-century historic-period archaeological site (see Attachment A: Figure 3). The site was determined eligible for listing in the NRHP under Criterion A for its association with events that made a significant contribution to the broad patterns of our history and Criterion D for the potential to yield new, important information to our knowledge of the pre-Contact period Native American occupation and early settlement of Hudson County from 0 to 1850 AD. The site is deeply buried below 2.3 feet of imported fill on its northern side and 7.9 feet of fill on its southern side.

Registered Archaeological Sites

An examination of standard references (Cross 1941; Skinner and Schrabisch 1913) and site files at the New Jersey State Museum (NJSM) and the NJHPO indicated that one registered archaeological site is present within the APE-Archaeology: The Jersey Eagle Site (28-Hd-45 [SHPO Opinion: 5/17/2013]). The pre-Contact Native American component of the site was first identified during mechanical trenching for a Phase IB archaeological survey in 2012. The boundaries of the site are currently limited to the previous excavations performed by PAL within the footprint of a 16-foot-wide natural gas pipeline trench (PAL 2013a, 2013b; see Attachment A: Figure 3). The Phase IB and subsequent Phase II archaeological surveys completed by PAL (2013a, 2013b) yielded 51 pre-Contact period artifacts but no pre-Contact features. The recovered artifact assemblage indicated stone tool manufacture and maintenance, as well as subsistence-related resource processing during the Middle and Late Woodland periods. The artifacts were recovered from buried plowzone layers found at top depths ranging from 2.3 feet below the current ground surface in the northern portion of the site to 7.9 feet below the current ground surface in the southern portion of the site. The historic-period component of the site

yielded artifacts related to eighteenth- to twentieth-century domestic refuse. Only one historic feature was identified, a stone wall that PAL identified as a boundary wall rather than a structural foundation (2013a, 2013b). The site was determined eligible for listing in the NRHP.

RGA (2023b) conducted subsurface testing within the APE-Archaeology at the former location of the Marist High School on Block 13, Lot 1 in the City of Bayonne as part of a Phase I archaeological survey for the NB-HCE project. Thirteen shovel test pits (STPs) were excavated on the property in a grassy area adjacent to the west side of John F. Kennedy Boulevard, encountering several twentieth-century fill layers capping truncated subsoil. One STP encountered a buried A-horizon (Ab-horizon) beneath twentieth-century fills. Four STPs yielded early to mid-nineteenth-century ceramics recovered from redeposited fills and the Ab-horizon. No historic cultural features were identified. The landscape had been extensively modified during the property's development between 1909 and 1919, likely resulting in disturbance of intact deposits and the emplacement of imported fills. In a May 22, 2023 review letter, the NJDEP required a Phase II archaeological survey of the historic deposits on Block 13, Lot 1 in Bayonne to evaluate their NRHP eligibility. The archaeological deposits were registered as the Marist High School Site (28-Hd-055). The NJTA determined that the Marist High School Site (28-Hd-055) will be avoided by project-related ground disturbances and that an avoidance and protection plan for the archaeological site will be prepared during the Final Design Phase. In a letter dated January 9, 2024, the NJHPO determined that Phase II archaeological survey will not be necessary at the Marist High School Site (28-Hd-055) if the site was avoided during project construction activities and requested the submission of an avoidance and protection plan.

Previous Cultural Resources Surveys

Twenty-five archaeological surveys have been conducted within or adjacent to the APE-Archaeology (Crossroads of the American Revolution National Heritage Area 2011; E^{2}PM 2016; Geismar 1995a, 1995b, 1997, 2002; Historic Conservation & Interpretation, Inc. 1978; Kardas and Larrabee 1978; The Louis Berger Group, Inc. 2001; Lynn Drobbin & Associates 1994; Parsons Brinkerhoff Quade & Douglas, Inc. 1991; The Public Archaeological Laboratory [PAL] 2010, 2011a, 2011b, 2011c, 2012, 2013a, 2013b; RGA 1998, 2017, 2023a, 2023b; URS Corporation 2009, 2010, 2014). The majority of the surveys did not identify archaeological resources within or adjacent to the current APE-Archaeology (E^{2}PM 2016; Kardas and Larrabee 1978; Lynn Drobbin & Associates 1994; PAL 2010, 2011c, 2012; RGA 1998; URS Corporation 2009, 2010, 2014). Eight surveys note the presence of the Morris Canal in proximity to the current APE-Archaeology (Historic Conservation & Interpretation, Inc. 1978; The Louis Berger Group, Inc. 2001; Geismar 1995b, 1997, 2002; PAL 2013a; Parsons Brinkerhoff Quade & Douglas, Inc. 1991; RGA 2017; 2023a, 2023b). Numerous surveys assessed portions of the current APE-Archaeology and surrounding areas with a low potential for archaeological resources (The Louis Berger Group, Inc. 2001; RGA 1998; Kardas and Larrabee 1978; E2PM 2016; URS 2009). Geismar (1995a) and Parsons Brinkerhoff Quade & Douglas, Inc. (1991) indicate that the southeastern portion of the current APE-Archaeology in the City of Bayonne is located within a potentially sensitive pre-Contact zone.

Beginning in 2010, PAL conducted a series of archaeological surveys for the New Jersey-New York Expansion Project that extended within and adjacent to the eastern side of the current APE-Archaeology in the cities of Bayonne and Jersey City (PAL 2010, 2011a, 2011b, 2011c, 2012, 2013a, 2013b). The first survey, completed in 2010, was a Phase I that did not identify any archaeological resources within or adjacent to the current APE-Archaeology and assessed no or low to moderate archaeological sensitivity in the project area closest to the current APE-Archaeology (PAL 2010). In 2011, PAL completed geophysical soil borings south of Linden Avenue and north of Greenville Yards, encountering deep fill deposits (4.7 feet below ground surface), an intact mid- to late nineteenth-century living surface, the potential remains of the Colonel Thomas Brown property, and subsoil (PAL

2011a). A second geophysical soil boring-based archaeological survey was performed by PAL in various locations in Jersey City east of the APE-Archaeology in 2011, encountering historic fills 8.0 to 14.4 feet below ground surface related to the Morris Canal in the area west of Greenville Yards (PAL 2011b). Two addendum reports by PAL noted most of the project area proximate to the current APE-Archaeology had no or low to moderate sensitivity for archaeological resources due to marshland below twentieth-century fills, and no identified archaeological resources (PAL 2011c). In 2012, PAL completed a Geoarchaeological soil boring survey at various locations east of the current APE-Archaeology along Caven Point Road, documenting 3 to 20 feet of fill over estuarine deposits in the area north of Greenville Yards, and 15 to 20 feet of fill in areas between the U.S. Military Reservation and south of Bayview Avenue (PAL 2012).

In 2013, PAL conducted a Phase IB archaeological identification survey within the current APE-Archaeology between Route 440 and Linden Avenue. The survey recorded the Morris Canal and the pre-Contact Jersey Eagle Site (28-Hd-45) within the current APE-Archaeology (PAL 2013a, see Attachment A: Figure 3). PAL returned to the Jersey Eagle Site (28-Hd-45), north of Greenville Yards, to complete a Phase IB/II archaeological survey and found no cultural features; however, pre-Contact period Native American artifacts were recovered, including: six ceramic sherds, two chert bifaces/projectile points, two chert debitage fragments, two jasper scrapers and a biface, 16 jasper debitage fragments, one quartz manuport, two quartz debitage fragments, and one fire cracked rock. The site was documented as a Middle to Late Woodland site used for tool maintenance or manufacture, and resource processing (PAL 2013a, 2013b). The historic component of the site, also identified during the Phase IB/II survey, contained artifacts related to eighteenth- to twentieth-century domestic refuse, including ceramic and bottle fragments, personal items, shell, coal, and slag. Architectural material including window glass, nail, and brick were also found. PAL identified a stone wall feature as the remnants of a boundary wall (PAL 2013). The historic component of the site was interpreted as consistent with field scatter in a former agricultural field. The artifacts in the Jersey Eagle Site were recovered from deeply buried plowzone layers with top subsurface depths ranging from roughly 7.9 feet below ground surface in the southern portion of the site to 2.3 feet below ground surface in the northern portion of the site. Excavations at 28-Hd-45 suggest the presence of deeply buried pre-Contact archaeological sites within this portion of the current APE-Archaeology (PAL 2013a, 2013b).

Previous Cultural Resources Surveys for the Current Project

RGA (2023b) conducted a Phase I archaeological survey and Intensive-level architectural survey for the NB-HCE extending from Interchange 14 in the City of Newark, Essex County to Linden Avenue in the City of Jersey City, Hudson County. This survey included project-wide background research, a field reconnaissance survey, and subsurface testing within a portion of the current APE-Archaeology on Block 13, Lot 1 in the City of Bayonne. Sections of the current APE-Archaeology in the City of Newark and Newark Bay were assessed with low archaeological sensitivity and no further archaeological survey was recommended. The NJHPO concurred with the assessment and recommendation in an NJDEP letter dated May 22, 2023 (see Attachment B). In the same May 22, 2023 letter, the NJHPO determined that the portion of the current APE-Archaeology in the cities of Bayonne and Jersey City is sensitive for pre-Contact period Native American and historic-period archaeological resources, and requested the analysis of geotechnical data to identify the location and extent of past filling and grading associated with previous construction.

RGA (2023a) completed a Supplemental Phase I archaeological survey and review of geotechnical boring logs for the eastern part of the APE-Archaeology in the cities of Bayonne and Jersey City. The logs of 20 soil borings and 3 mechanical test pits excavated in 2022 were reviewed in addition to data from 160 soil borings excavated within this portion of the APE-Archaeology in 1954 for the initial

construction of the NB-HCE. Soil boring data revealed that all but one of the proposed stormwater basin locations are confined to the vertical footprint of recently imported and/or disturbed soils, resulting in a low archaeological sensitivity assessment and a recommendation for no further archaeological survey for these basin locations. The analysis of soil boring logs, historic aerial photographs, and project plans demonstrated that significant ground disturbance exists within much of the current APE-Archaeology in the cities of Bayonne and Jersey City, with a few exceptions including the deeply buried Morris Canal and the Jersey Eagle Site.

The deeply buried Morris Canal extends through the footprint of the proposed abutments for Structure No. N3.24R carrying the NB-HCE over Avenue C in Bayonne and Jersey City (see Attachment A: Figures 3–6). The fill and slope of the existing embankment in this location prevented completion of geotechnical borings and a Phase IB archaeological survey within the mapped footprint of the Morris Canal. Furthermore, due to the depth of the Morris Canal based on historic geotechnical data, the Morris Canal was inaccessible for Phase IB archaeological survey testing in Area C. The proposed bridge abutments at and within the footprint of the Morris Canal extend to 5 feet below the current grade. Archaeological monitoring of construction excavations for the bridge abutments at this location was recommended to identify sections of the Morris Canal, if encountered—evidence such as masonry or earthen embankment walls for the canal prism, evidence of the tow path, and other historic deposits associated with the construction or use of the canal—and mitigate project-related adverse effects to the NJR- and NRHP-listed historic property (RGA 2023a).

Proposed Piers 13, 14, and 15, part of Pier 17, and the eastern abutment for Structure No. N3.73R of the Southeast Viaduct also fall within the footprint of the Morris Canal (see Attachment A: Figures 3, 7, 9, and 9). Excavations for the proposed piers will be conducted with a 6- to 8-foot-diameter screw auger and will extend to bedrock through very deep fills. These deep fills range between 7.0 and 20.0 feet thick and were emplaced prior to and during 1954 construction of railroads and the NB-HCE's existing Southeast Viaduct. A geotechnical soil boring excavated proximate to the location of proposed Pier 15 within the footprint of the Morris Canal encountered organic buried wetlands soils at 9.0 feet below the current ground surface and groundwater at 11.0 feet below ground surface. Bedrock was encountered at 51.8 feet. A second geotechnical soil boring taken within the Morris Canal near Pier 17 did not encounter natural soils by its terminal depth at 15.0 feet below the ground surface but encountered groundwater at 6.0 feet below ground surface. Another soil boring drilled adjacent to the eastern abutment for N3.73R, outside of the footprint of the Morris Canal, encountered a buried A-horizon (Ab-horizon) representing a natural former topsoil 11.0 feet below the ground surface capping natural soil strata. Bedrock was encountered at approximately 75.0 feet below the ground surface. It is possible that deep excavations for these piers and abutment for the Southeast Viaduct may encounter structural features associated with the Morris Canal embankment, prism, berm, and tow path. Archaeological monitoring of excavations at Piers 13, 14, 15, part of 17, and for the southeastern abutment of Structure No. N3.73R was recommended to document features or material associated with the Morris Canal, if present (RGA 2023a).

The NRHP-eligible Jersey Eagle Site (28-Hd-45) intersects with the proposed location of the outfall pipe for Basin HUC3-F (see Attachment A: Figures 3, 10, 11, and 12). The Jersey Eagle Site was recorded within the 16-foot wide trench excavated for the installation of a 30-inch natural gas pipeline north of the basin (PAL 2013a, 2013b). The outfall pipe will run parallel to this gas pipeline, although it is unclear if it will fall within the disturbance associated with the gas utility trench (see Attachment A: Figure 10). Prior investigations at the Jersey Eagle Site recovered artifacts and one stone wall feature from buried natural soil layers at depths ranging from 2.3 feet below the current ground surface in the northern part of the site to 7.9 feet below the current ground surface in the southern part of the site. Due to the presence of a high-pressure natural gas pipeline adjacent to the proposed basin outfall

footprint, Phase IB archaeological survey via mechanical excavation cannot be safely conducted and was not recommended. Archaeological monitoring was recommended for portions of the outfall pipe trench that extend deeper than 2.3 feet below the current ground surface (i.e., the northernmost top depth of the Jersey Eagle Site) and occur outside of the existing 16-foot-wide gas pipeline trench. Archaeological monitoring will document artifact deposits and features, such as pre-Contact hearth features and additional associated features/artifact deposits within the Jersey Eagle Site, and mitigate potential project-related adverse effects to the archaeological property.

6.0 METHODOLOGY

Goals and Methods of Archaeological Monitoring

Archaeologists will document all project-related ground-disturbing construction activities within the areas of proposed archaeological monitoring at the proposed bridge abutments for Structure No. N3.24R; at proposed Piers 13, 14, 15, part of Pier 17, and the proposed eastern abutment of Structure No. N3.73R; and for the proposed outfall pipe to be installed north of stormwater basin HUC3-F on Block 30306, Lot 7 (see Attachment A: Figures 3–12). The goal of the archaeological monitoring is to record existing conditions and any exposed cultural features or intact artifact concentrations associated with the Morris Canal, including the surrounding berms, earthen or masonry walls, prism, and/or tow path, if present, within the vertical and horizontal limits of disturbance for construction at the aforementioned locations. Additionally, archaeological monitoring for the outfall pipe installation excavations on Block 30306, Lot 7 within or adjacent to the Jersey Eagle Site (28-Hd-45) will record any encountered archaeological deposits and exposed cultural features, such as pre-Contact period hearth features or historic walls or foundations, if encountered within the project's vertical and horizontal limits of disturbance where excavation depths extend beyond 2.3 feet below the current ground surface and outside the limits of an existing utility corridor.

Accomplishing these objectives may entail brief stoppages of work to record and sample individual archaeological features or artifact concentrations and to record representative soil profiles exposed through excavation. The Construction Manager should be made fully aware that such stoppages may be necessary, and plan accordingly. If archaeological remains (i.e., intact cultural or structural features) are not present, lengthy work stoppages are not anticipated. The Construction Manager should supply the Archaeologist with copies of the most recent construction plans for use during on-site monitoring and report production. Final Design construction plans should clearly depict the areas of archaeological monitoring and should include a note on the cover and notes sheet that archaeological monitoring is required in these specified areas, that the monitoring effort must adhere to this monitoring plan by referencing the title, author, and date, and that the archaeological monitoring consultant requires a minimum of three (3) business days of advance notice for each instance an archaeological monitor is required to be on site.

Cultural features and artifact deposits associated with the Morris Canal and/or the Jersey Eagle Site encountered during construction monitoring will be exposed to the greatest extent possible within the vertical and horizontal boundaries of the project footprint, where safe entry into construction excavations is permissible, and documented using photography and scaled line drawings. Any accessible, non-structural features exposed will be sampled through hand excavation or mechanical excavation to determine age and function if trench and screw auger excavation conditions are safe for personnel entry. Archaeological personnel will not enter excavations that extend deeper than 5.0 feet without proper shoring and a means for safe entrance and egress, following Occupational Safety and Health Administration (OSHA) standards. Archaeological personnel will not enter confined spaces. A high water table in certain locations may limit the ability to record soil profiles and cultural features.

The context of identified cultural material will be recorded, to the extent possible. As depth increases in screw auger excavations, the ability to record soil profiles and/or cultural features will be limited, particularly once the water table has been encountered and if corrugated steel tubing is used as shoring to prevent wall collapse during screw auger excavations. In such cases, an attempt will be made to record soils removed via screw auger at 1-foot intervals to observe and record soil texture/color changes and presence/absence of observable artifacts until terminal depth (i.e. buried wetland soil or subsoil) is encountered. Artifacts recovered from intact contexts or features either during archaeological sampling of the open trench excavations or during sampling of soils recovered during

screw auger excavations will be collected in the field, processed and cataloged, and a complete inventory of collected materials will be included in the resulting report as an appendix.

All work will be conducted in accordance with the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation,* 1983, *Standards for the Treatment of Historic Properties*, and the standards of the NJHPO. A qualified Archaeologist meeting the *Professional Qualification Standards for Archaeology* (36 CFR Part 61) set forth by the Secretary of the Interior's *Professional Qualifications Standards* (48 CFR 44739) will conduct the archaeological monitoring and oversee the monitoring work. Should construction activities commence in areas requiring archaeological monitoring prior to an archaeological monitor arriving on site, the NJHPO will be notified within 24 hours.

Monitoring and Recordation Protocol

This archaeological monitoring protocol includes the following:

- Provisions for documentation and monitoring during construction;
- Identification of key personnel responsible for ensuring that monitoring is occurring; and
- A chain of command for key personnel including contact information.

Protocol for archaeological monitoring and the recordation of identified features during construction will be as follows:

1) A pre-construction start-up meeting will be held between NJTA, NJTA's Section 3 Final Design Engineer, the archaeological firm, and the Construction Manager to discuss the scope of the monitoring, review existing project design/construction maps, and reach a clear agreement on how work should be conducted. The Construction Manager will be notified that the identification of archaeological resources may necessitate halting construction so that archaeological documentation can proceed. The start-up meeting may be held on the first day of on-site monitoring.

2) The Construction Manager will be responsible for ensuring that excavations will be secured, and that excavations meet OSHA standards for safe entry/egress in the event archaeological staff are required to enter trenches deeper than 5.0 feet below grade. Such measures may include, at a minimum, providing appropriate shoring, or the sloping or benching of soils, and providing safe means of access/egress from the excavations as per OSHA standards. The Construction Manager will provide equipment for the safe entry of excavation areas, such as ladders, shoring, machinery, and operators for additional excavation to slope or bench steep exposed side walls, etc., as needed. Archaeological personnel will not enter trenches deeper than 5.0 feet without appropriate shoring, sloping/benching, and a safe means of access/egress. A ladder must be provided for excavations deeper than 4.0 feet. Archaeological personnel will not enter confined spaces.

3) A designated representative from NJTA, NJTA's Engineer, and/or the Construction Manager will inform the archaeological consultant by phone or e-mail at least three (3) business days in advance of construction activities where archaeological monitoring is needed.

4) A designated representative from the Construction Manager should be on-site at all times during archaeological monitoring. Decisions to temporarily halt work to document

archaeological resources will be communicated to the Construction Manager and to representatives of NJTA and NJTA's Engineer.

5) One archaeological monitor must be present for each excavation occurring within designated areas of archaeological monitoring. Should excavation occur in multiple areas requiring archaeological monitoring at the same time, more than one archaeological monitor will be needed on site.

6) Trench excavations opened within the designated areas of archaeological sensitivity will be observed by an archaeological monitor. Soil profiles exposed in trenches will be documented and a description of each stratum, including Munsell color, texture, soil composition, and presence or absence of cultural material, will be recorded on standardized forms. Deep screw auger excavations will necessitate that the archaeological monitor record soil spoils unearthed by the screw auger at 1-foot intervals until either buried wetlands or intact natural subsoils are encountered. An attempt should also be made, to photographically document exposed soil profile walls, if possible.

7) Should no intact structural remains, cultural features, or archaeological deposits be encountered in excavations, no work stoppages will be necessary, and the archaeologist will record existing conditions and the excavations with field notes and digital photography.

8) Should structural remains, features, or archaeological deposits be identified that are not associated with the Morris Canal or the Jersey Eagle Site (28-Hd-45), limited work stoppages may be necessary to facilitate photo documentation, scaled line drawings, and sampling, if necessary.

9) In the event that structural remains, features, or archaeological deposits associated with the Morris Canal or the Jersey Eagle Site (28-Hd-45) are encountered, work will cease in the proximity of the find until coordination with the NJTA and NJHPO occurs and a work plan is developed to fully investigate the feature should additional documentation be necessary beyond that outlined herein. Work may continue in other parts of the project location, subject to this monitoring protocol.

   Features associated with the Morris Canal (at the abutments for Structure No. N3.24R at Avenue C and for Piers 13, 14, 15, 17, and the eastern abutment for Structure No. N3.73R) may include masonry or earthen walls/embankments, the canal prism, earthen berms, and/or evidence of the canal tow path.

   Features associated with the Jersey Eagle Site (28-Hd-45) (at the outfall pipe for Basin HUC3-F on Block 30306, Lot 7) may include pre-Contact period hearth and pit features, as well as historic-period refuse pits, post molds, shaft features (wells or privies), and structural foundation remains.

   Identified cultural features will be exposed to the extent possible by site conditions and the parameters of project-related ground excavations. Features may be exposed and sampled by hand in open trench excavations up to 5.0 feet deep. Archaeologists will not enter trenches deeper than 5.0 feet without proper shoring. If features are identified in trenches deeper than 5.0 feet and proper shoring and a ladder are not provided to enable safe entry, archaeologists will document features deeper than 5.0 feet from the ground

surface with digital photography and scaled line drawings as they are visible from locations outside of and adjacent to trench excavations.

Identified cultural features will be documented in plan and profile using digital photography and scaled line drawings and will be plotted on project base maps. If accessible, soil-based features may be bisected along their long axis to facilitate profile exposure and documentation. Should cultural features be encountered that extend deeper than 3.0 feet from their exposed surface, such as shaft features, a 1.5-foot-square shovel test pit (STP) will be excavated to a depth of up to 3.0 feet to reach the base of the feature. If necessary, the base of the STP may be augered. Further, if necessary, the Construction Manager may be asked to facilitate mechanical excavation of shaft features to enable archaeological sampling of feature contents. Such may entail mechanical removal of shaft feature contents at 1-foot intervals and placement of the excavated soil outside the trench to enable archaeological screening of the sampled deposits in order to efficiently excavate and sample feature deposits in a time sensitive manner. Archaeologically excavated features soils will be screened through one-quarter-inch wire mesh to facilitate artifact recovery to gather information about feature function, age, and integrity.

Artifacts recovered from feature sampling will be collected. Artifacts identified in buried deposits may be sampled, where appropriate, to help provide a date of deposition. Pre-Contact and historic period artifacts identified in construction excavation spoil piles, recent disturbances, or redeposited fills will be documented in field notes, photographed, and sampled.

10) Archaeological monitoring for the installation of the outfall pipe for Basin HUC3-F (Block 30306, Lot 7, Jersey City) at the location of the Jersey Eagle Site (28-Hd-45) is only necessary for excavations occurring deeper than 2.3 feet below the current ground surface.

    Within monitored portions of the excavation trench for the outfall pipe, where the buried A-horizon and underlying subsoil are present and require removal, the Construction Manager will be asked to mechanically remove roughly 5-gallon samples of soil from each soil horizon to be placed on the outside of the proposed pipe trench for archaeological screening using one-quarter-inch wire mesh to facilitate artifact recovery. This sampling strategy will occur at 25-foot intervals along the length of the outfall pipe trench from the northern tip of Basin HUC3-F to Linden Avenue. Mechanical excavation will be conducted only if hand excavation is not possible due to soil conditions and natural soil depth. If access is permissible, the archaeological monitor will instead excavate a 1-foot-diameter STP every 25 feet within the trench once the buried A-horizon is identified and exposed. Shovel test pits (STPs) will extend no more than 3.0 feet below the top of the buried A-horizon. All hand excavated soils in each STP will be screened through one-quarter-inch wire mesh to facilitate artifact recovery. Brief work stoppages will be necessary while soils are being screened.

    Encountered features will be treated as described in Bullet Point 9 above. A longer stoppage of work may be necessary to sample and document identified significant cultural deposits. Significant deposits or features may require field methods not presented within this monitoring plan that will be developed in consultation with the NJHPO.

11) Should screw augers be used for excavations, the soil profiles and bases within excavations are likely to be obscured. Archaeological monitoring of screw auger excavations will

document the spoil soils brought up by the screw auger, including recording the soil texture, Munsell color, soil composition, presence or absence of cultural material, and depths of soil changes. Depths at which soil changes occur and artifacts are present may need to be provided by the machine operator. Limited work stoppages may be necessary to allow soil documentation. This documentation will occur at 1-foot intervals until wetland soils are encountered or until intact natural subsoil is encountered. Artifacts, if encountered, may be sampled from the excavated soil spoils. Feature documentation will not be possible. By recording soils, depths, and the presence of cultural material, it may be possible to estimate feature presence or absence.

12) Sampled artifacts recovered from cultural features or buried contexts will be placed in polyethylene bags with an accompanying tag that lists the appropriate provenience information, including excavation location, depth, and stratum. Concrete, asphalt, coal, coal ash, slag, creosote-soaked wood, plastic, and twentieth-century bottle glass will be noted but not retained. Retained artifacts will be processed, analyzed, and cataloged. A catalog will be appended to the archaeological monitoring report. Cataloged artifacts will be curated following federal regulations and will be offered to the NJSM following the completion of the archaeological monitoring report.

13) If possible human burials or human skeletal remains are encountered, which is unlikely, all ground-disturbing activities in the vicinity shall cease immediately and the NJHPO, NJTA, United States Coast Guard, Section 3 Final Design Engineer, and Construction Manager will be contacted at the phone numbers provided in Section 7.0. Appropriate legal officials, such as the local law enforcement department, or the County or State Medical Examiner, will also be contacted immediately at the phone numbers provided in Section 7.0. The possible human remains shall be left in place unless imminently threatened by human or natural displacement, and their discovery and treatment shall adhere to the Unanticipated Discovery of Human Remains protocol below.

    Excavation and other activities in the vicinity will resume with approval from applicable parties, which may include the NJHPO, the State Medical Examiner's office, and site managers, depending on the nature of the remains. Should remains be determined to potentially be Native American, the Lead Federal Agency (United States Coast Guard) will notify all Federally Recognized Tribes (Tribes) with interests in Hudson County, presented in Section 7.0, within 24 hours of the discovery. All Tribal consultation will be conducted by the United States Coast Guard.

<u>Unanticipated Discovery of Human Remains Protocol</u>

If unanticipated human remains are exposed during construction for the Project, the following protocol will be followed:

1) In the event that unanticipated human burials or human skeletal remains are encountered either during archaeological monitoring or during construction for the Project, all ground-disturbing activities in the vicinity shall cease immediately within a 25-foot radius of the identified remains. The Construction Manager will contact the NJTA and NJTA's Section 3 Final Design Engineer. The NJTA, NJTA's Section 3 Final Design Engineer, or the Construction Manager will contact the Archaeologist, who will come out to the project site to determine if the remains

are human or non-human, articulated or disarticulated, if they are associated with an intact grave or are displaced from their original burial location, and assess if the remains are historic, pre-Contact, and/or Native American. The Construction Manager may continue to excavate other areas of the project site while the Archaeologist is making their assessment.

After the Archaeologist is finished with their assessment, the NJTA or NJTA's Section 3 Engineer will contact local law enforcement, the medical examiner, the United States Coast Guard, and the NJHPO to inform them of the find and consult on next steps.

Identified human remains will be left in place until the points of contact listed below are notified and an appropriate protocol is established.

- Point of contact at NJTA will be contacted.
  - Lisa K. Navarro, 732-750-5300 x 8273, navarro@njta.com.
- Point of contact with the NJTA's Section 3 Final Design Engineer will be contacted.
  - TBD
- Point of Contact with the Construction Manager will be contacted.
  - TBD
- Archaeologist
  - TBD
- Point of Contact at the United States Coast Guard will be contacted.
  - TBD
- The NJHPO archaeological reviewer will be contacted.
  - Vincent Maresca, 609-633-2395, Vincent.Maresca@dep.nj.gov.
- Local law enforcement and County/State Medical Examiners will be contacted immediately by the NJTA, NJTA's Section 3 Final Design Engineer, or the Construction Manager.
  - Jersey City Division of Police (South District): 201-547-5456 (non-emergency number).
  - Northern Regional Medical Examiner's Office (Essex, Hudson, Passaic, & Somerset Counties): 862-350-5000 (24 hour: 973-648-4500)

If the remains are determined by the Archaeologist, the NJHPO, and the County/State Medical Examiner to be potentially Native American based on articulation, cremation, and/or associated grave goods, the United States Coast Guard, as the Lead Federal Agency, will notify the five below-listed Federally-recognized Tribal Nations within 24 hours of the discovery:

- Delaware Nation:
  - Katelyn Lucas, Tribal Historic Preservation Officer, 405-544-8115, klucas@delawarenation-nsn.gov.
- Delaware Tribe of Indians:
  - Susan Bachor, Tribal Historic Preservation Officer, 539-529-1671, sbachor@delawaretribe.org.
- Shawnee Tribe:

    - Tonya Tipton, Tribal Historic Preservation Officer, 918-542-2441, tonya@shawnee-tribe.com .
- Absentee-Shawnee Tribe of Indians of Oklahoma:
    - Devon Frazier, Tribal Historic Preservation Officer, 405-275-4030, ext. 6243, tdfrazier@astribe.com .
- Stockbridge-Munsee Community:
    - Jeffrey C. Bendremer, Ph.D., Tribal Historic Preservation Officer, 413-884-6029, jeff.bendremer@mohican-nsn.gov and thpo@mohican-nsn.gov.

In consultation with the Federally-recognized Tribal Nations, the United States Coast Guard and the NJHPO will develop a protocol for treatment of the remains. Minimally, this treatment will initially necessitate concealment of the identified remains with a natural fiber cloth covering (such as cotton or muslin) and placement of tobacco with the remains. No photographs of the remains will be permitted. The appropriateness of documentation, leaving the remains in place, and/or removal for reinterment will be determined through consultation between the United States Coast Guard and the aforementioned Federally-recognized Tribal Nations.

If the remains are determined to be historic non-Native American in nature, the United States Coast Guard and the NJHPO will develop a protocol for treatment of the remains, which may include documentation and removal by archaeological monitors. Work may not resume in the vicinity of the remains until an approved protocol is in place and permission is granted by the United States Coast Guard, NJHPO, and NJTA.

The New Jersey Superior Court must legally approve the exhumation, removal, and relocation of human remains as per NJ Rev Stat § 45:27-23. Documentation and exhumation protocol(s) developed by the United States Coast Guard, the NJHPO, and, if necessary, Federally-recognized Tribal Nations can be used to petition the New Jersey Superior Court for permission to exhume and relocate remains to an appropriate receiving cemetery.

2) The following outlined provisions will be followed if no other protocols are established through consultation with the United States Coast Guard, NJHPO, potential descendent communities, and Federally-recognized Tribal Nations (if applicable). No photographic documentation of potential Native American remains or burial goods will take place without explicit consent from Tribal Nations.

Should exhumation be required and permitted, human remains and associated grave goods, including casket hardware and monuments, will be carefully and respectfully excavated by hand and documented by a Physical Anthropologist/Bioarchaeologist/Archaeologist with experience in the identification and treatment of human remains.

Exhumed remains must be stored in a secured (locked) climate-controlled facility provided by the NJTA, preferably proximate to the Section 3 Final Design Phase project location. Remains will remain stored at this temporary storage facility until

they are ready to be transferred to and reinterred at a receiving cemetery identified in consultation with the United States Coast Guard, NJHPO, and potential descendent communities, if applicable. Storage and transfer of potential Native American remains for reburial will be determined in consultation with Tribal Nations, should exhumation be required/permitted.

Care must be taken to respectfully handle any and all human remains and associated grave goods found. The location of exposed human remains and burial shafts, if present, will be mapped using a handheld global positioning satellite (GPS) device with submeter accuracy or using survey points established by the Construction Manager. The approximate location of recovered human remains and/or burial shafts will be documented on project plans not to be shared with the public. Each burial shaft or exposed human skeleton will be given a unique identifying provenience number to aid in assigning skeletal remains, coffin hardware, and grave goods to specific burial shafts. A unique identification number will also be assigned to each area of clustered or isolated human remains found in re-deposited fills above alluvial soils.

Unless other guidelines or provisions are established with Tribal Nations, isolated or redeposited human remains that are observed will be mapped, collected, and placed in a bag with a tag that lists the appropriate identification and provenience information. Mapping and recovery of a displaced, isolated human bone will require Construction Manager excavation stoppages to enable locational recordation.

In the event that burial shafts are identified, construction work will cease at the location of the burial shaft or the location of exposed human remains to enable documentation/exhumation. The Archaeologist will fully expose each burial shaft to enable documentation. Each end (head and foot) of the burial shaft will be mapped prior to hand excavation. If permitted, digital photographs will be taken to document the burial shaft with proper measurement scales and sign boards. No photographs will be taken of potential Native American graves/burials without explicit consent from Tribal Nations.

Additional archaeological field staff may be required for cautious hand excavations to determine the depth and extent of human remains. Once the depth and extent of remains is determined and after consultation with the NJHPO and descendent communities (including Tribal Nations, if applicable), the Construction Manager may be requested to mechanically remove soil above the human remains to enable archaeological excavation and removal of human remains in the remainder of the burial shaft.

Following machine assistance, remaining soils within burial shafts will be hand dug and screened through ¼-inch hardware mesh to facilitate recovery of human remains, grave goods, and coffin hardware. Screening of water-logged soils may not be possible. Site environmental conditions may also affect preservation of human remains and the ability to recover intact skeletal elements. Poor preservation may reduce the ability to recover bony skeletal elements and limit the types of skeletal elements found.

A log of recovered non-bone artifacts will be made on a burial form for each interment or isolated human bone. A digital photograph of recovered grave goods and coffin hardware will be taken in the field for use in generating a catalog of such items for inclusion in the technical report. Photographs of potentially Native American remains and grave goods will only be taken with the express permission of Federal Tribes.

Mapping of articulated human skeletons will be conducted using a field sketch map showing the position of the skeleton and the remains present. The burial forms will contain a universal drawing of a human skeleton and upper/lower dentition. The Archaeologist will note on the universal drawing which skeletal elements are present, when possible, for each burial or isolated element. Washing and cataloging of the remains will not be conducted. Scanned copies of the forms will be included as an appendix in the monitoring report.

Each exposed human skeleton or isolated bone/tooth and associated grave goods will be separately bagged using breathable rice bags containing a tag with the appropriate identification and provenience information to facilitate transport to the secure temporary storage facility within or near the site. Bagged items will be placed in cardboard storage boxes with an affixed outside label denoting the contents. Boxes may contain the remains of more than one individual if remains and associated artifacts are separately bagged and labeled by unique provenience. To the extent possible, unique proveniences (i.e., unique individuals and any associated artifacts) should be kept together and not intermixed with other contexts. Proveniences should be respected and remains and burial items handled with the utmost care. If artifacts found clearly identify the interred individual (e.g., a burial shaft is found in association with a buried grave marker or found with an item that clearly establishes the personal identity of the interred individual), that identity information will be listed on the associated provenience tag and in the monitoring report.

If identified, all headstones, footstones, and other grave monuments will also be mapped, digitally photographed, and notes will be taken regarding material inscription and decoration. Identified headstone/monuments will not be retained following in-field recordation, unless requested by descendants or NJHPO and established under a separate agreement.

3) Monitoring will only be conducted within the confines of project-related excavations. Should burial shafts be identified, but the bottom of the shaft is not encountered during construction excavations, the remainder of the grave shaft will be left in place and unexcavated. No investigation will be made for burial shafts that may exist outside of the vertical and horizontal limits of disturbance. The Construction Manager will be informed to avoid the area of identified burial shafts that extend beyond the limits of excavation and the area will be marked on construction plans and with high visibility tape or fencing to avoid further disturbances and unanticipated affects.

4) Following the completion of human remains exhumation, a technical report documenting the remains will be prepared as described in Section 8.0 herein. The report will include the results of documentation of human burials/human remains,

if identified, and exhumation activities, if applicable. The scope of such a report will be coordinated with Tribal Nations and other descendent communities, if applicable, to ensure that culturally sensitive information is protected.

7.0 POINTS OF CONTACT

The chain of command for archaeological monitoring is presented below:

Construction Manager: To Be Determined

Section 3 Final Design Engineer: To Be Determined

New Jersey Turnpike Authority Supervising Engineer: Lisa K. Navarro, 732-750-5300 x 8273, navarro@njta.com; New Jersey Turnpike Authority, 1 Turnpike Plaza, PO Box 5042, Woodbridge, NJ 07095-5042.

United States Coast Guard (Lead Federal Agency): To Be Determined

Qualified Archaeologist: To Be Determined

NJHPO Project Reviewer: Vincent Maresca, 609-633-2395, Vincent.maresca@dep.nj.gov; New Jersey Historic Preservation Office, 501 East State Street, Trenton, NJ 08625.

Jersey City Division of Police (South District): 201-547-5456; South District of the Jersey City Division of Police, 191 Bergen Avenue, Jersey City, NJ 07305.

Northern Regional Medical Examiner's Office (Essex, Hudson, Passaic, & Somerset Counties): Dr. Alex Zhang, MD, 862-350-5000 (24 hour: 973-648-4500); Northern Regional Medical Examiner's Office, 325 Norfolk Street, Newark, NJ 07103.

Federally Recognized Tribes with Interests in Hudson County
Delaware Nation: Katelyn Lucas, Tribal Historic Preservation Officer, 405-544-8115, klucas@delawarenation-nsn.gov; P.O. Box 825, Anadarko, OK 73005.

Delaware Tribe of Indians: Susan Bachor, Tribal Historic Preservation Officer, 539-529-1671, sbachor@delawaretribe.org; 5100 Tuxedo Blvd. Bartlesville, OK 74006.

Shawnee Tribe: Tonya Tipton, Tribal Historic Preservation Officer, 918-542-2441, tonya@shawnee-tribe.com; 29 South Highway 69 A, Miami, OK 74354.

Absentee Shawnee Tribe of Indians of Oklahoma: Devon Frazier, Tribal Historic Preservation Officer, 405-275-4030, ext. 6243, dfrazier@astribe.com, 2025 S. Gordon Cooper Drive, Shawnee, OK 74801.

Munsee-Stockbridge Community: Jeffrey C. Bendremer, Ph.D., Tribal Historic Preservation Officer, 413-884-6029, thpo@mohican-nsn.gov and jeff.bendremer@mohican-nsn.gov, 86 Spring Street, Williamstown, MA 01267.

8.0 REPORT AND DELIVERABLES

After completion of all archaeological monitoring and documentation fieldwork, a Draft Report summarizing the results of the work will be prepared for review and comment by the NJTA Section 3 Final Design Engineer, the NJTA, and the United States Coast Guard within ninety (90) days. Any additional archaeological sites identified during archaeological monitoring will be registered with the NJSM and an updated archaeological site form for the Jersey Eagle Site (28-Hd-45), if appropriate, will be submitted to NJSM. The Draft Report will conform to the *Guidelines for the Preparation of Cultural Resource Management Archaeological Reports Submitted to the Historic Preservation Office,* 1994 and, if applicable, to the scope of reporting agreed upon by the NJHPO, Tribal Nations, and other descendent communities to ensure that culturally sensitive information is protected should burials be identified. Upon receipt of comments on the Draft Report, one (1) digital copy of the Final Report will be produced for submission to the NJHPO. Digital copies of the Final Report will also be submitted to the NJTA's Section 3 Final Design Engineer, United States Coast Guard, and the NJTA.

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ATTACHMENT A: FIGURES

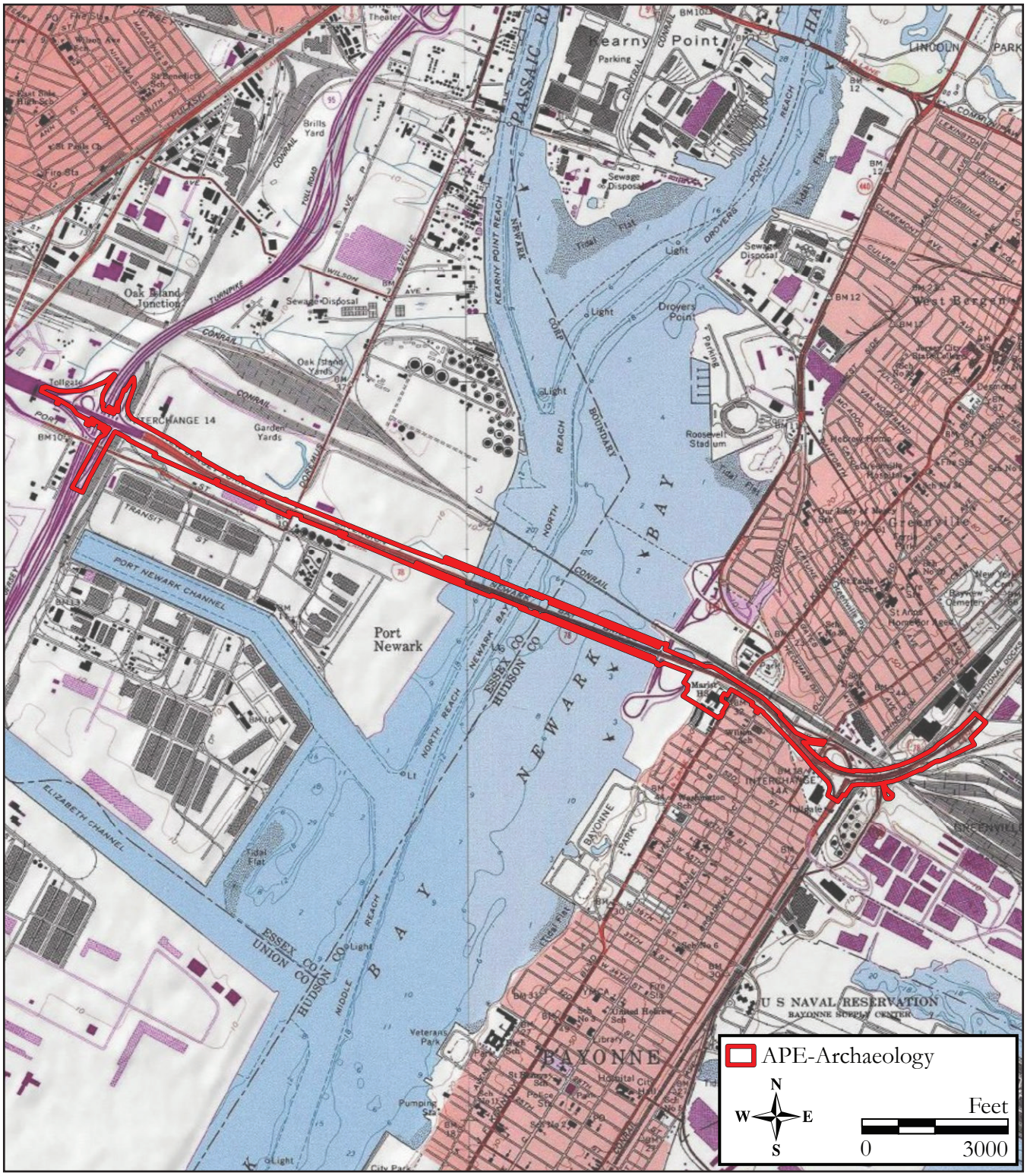

Figure 1: USGS map
(1967 USGS 7.5' Quadrangles: Elizabeth, NJ and Jersey City, NJ [photorevised 1981]).

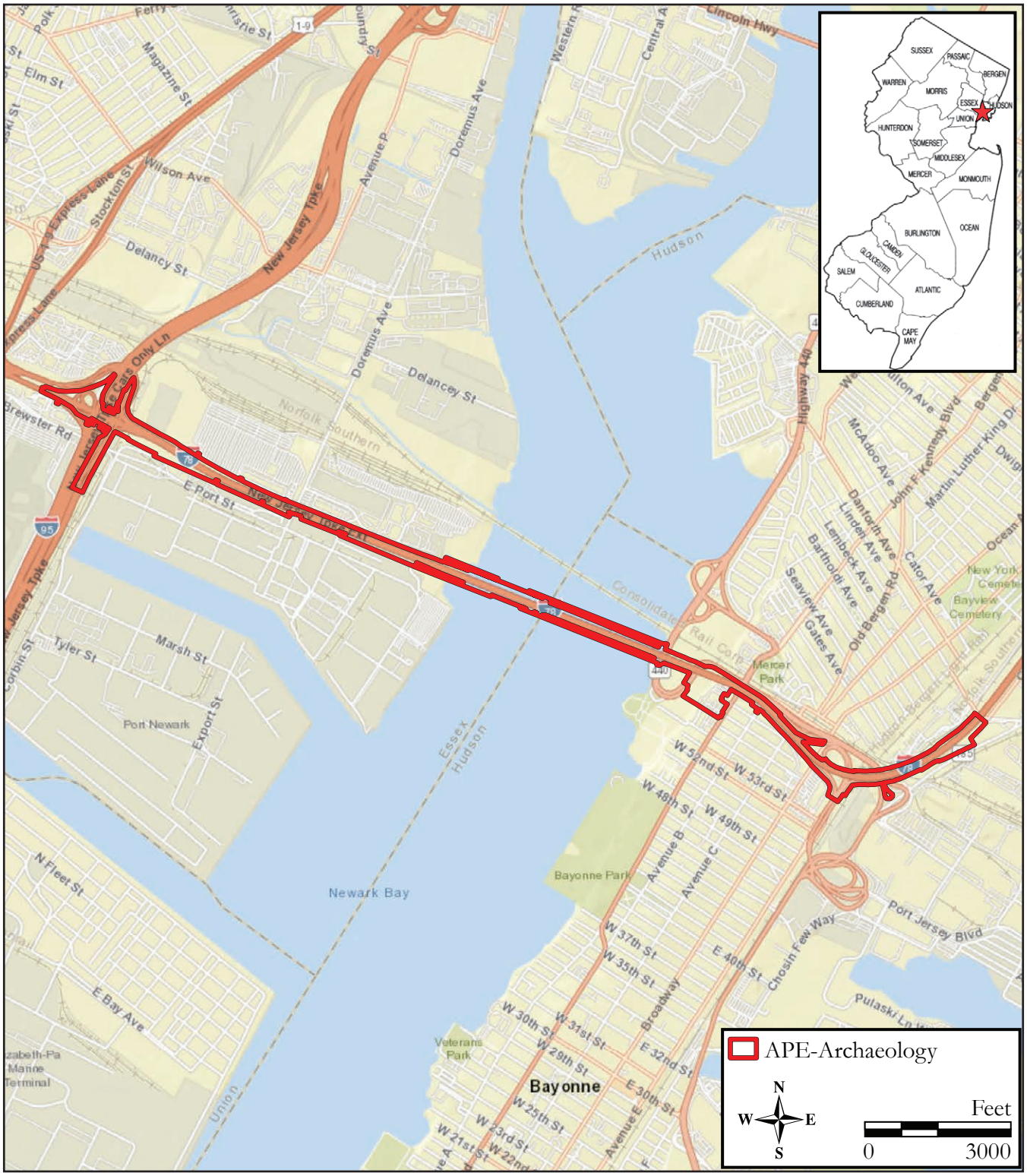

Figure 2: Road map
(ESRI 2021).

Figure 3: Aerial image showing areas of archaeological monitoring and Section 3 of Project 1 (NJGIS Digital Orthographic Imagery 2020).

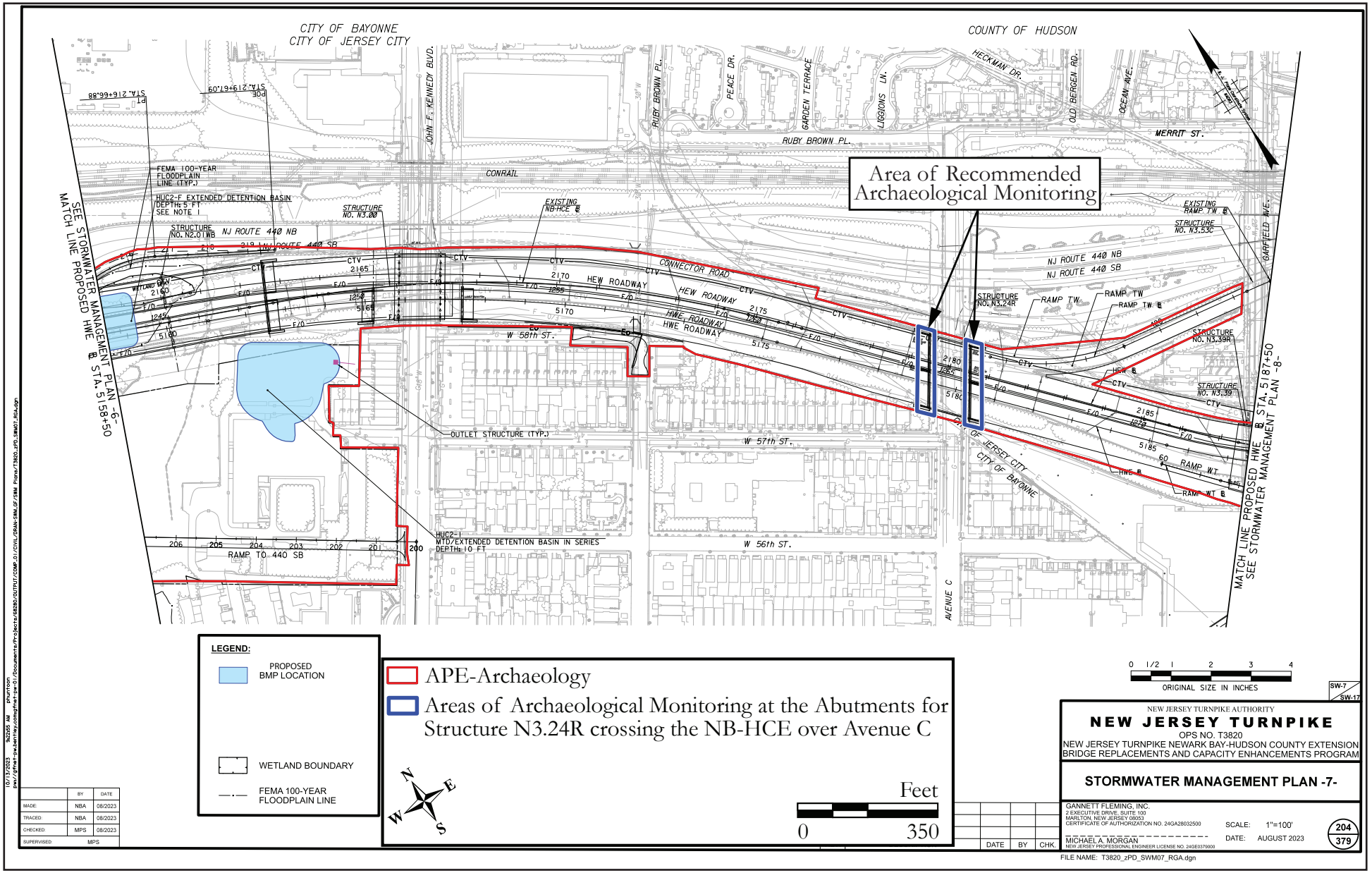

Figure 4: Stormwater Management Plan showing the recommended areas of archaeological monitoring at the Abutments for Structure N3.24R crossing the NB-HCE over Avenue C (Gannett Fleming, Inc. 2022b).

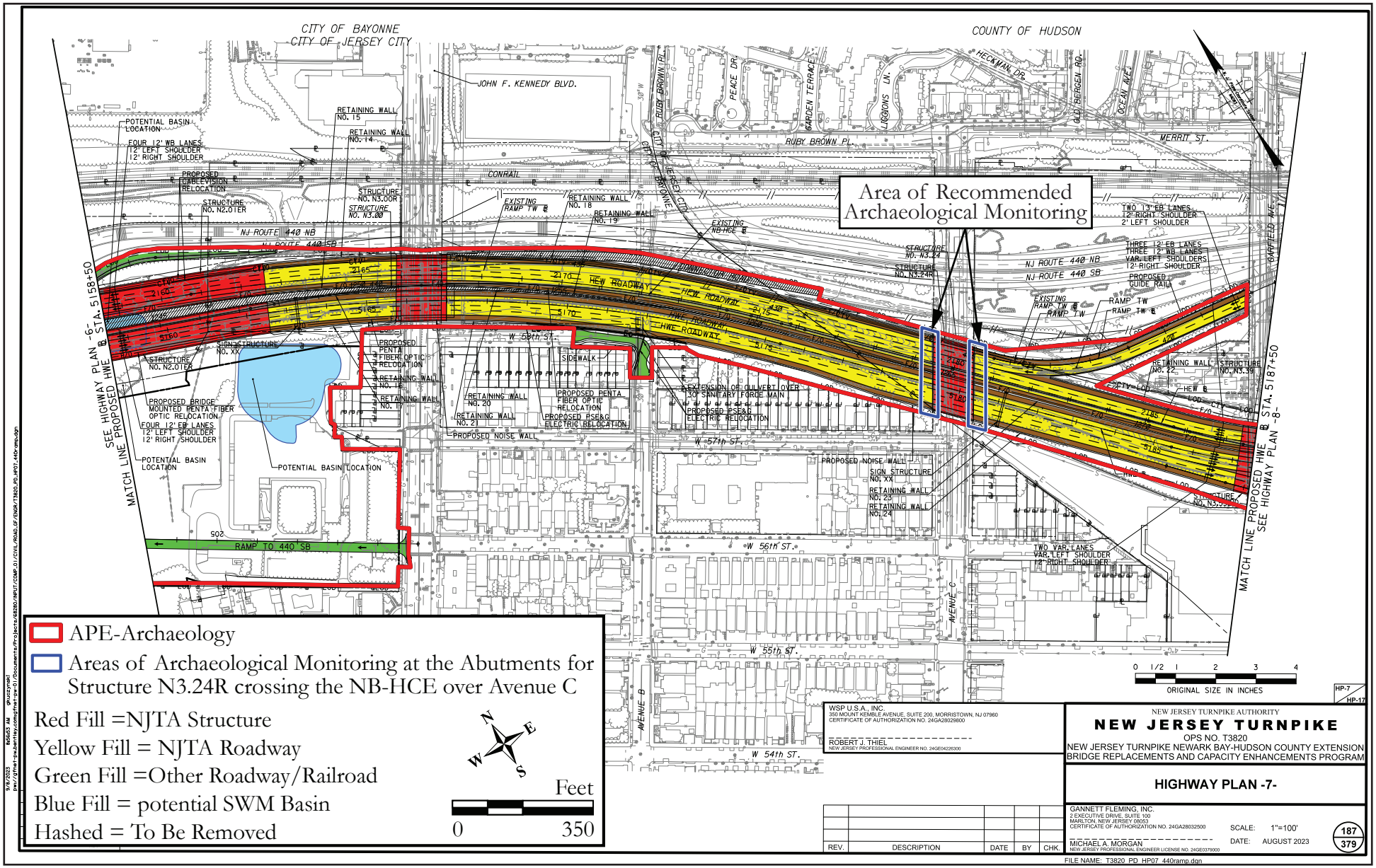

Figure 5: Highway Plan showing the recommended areas of archaeological monitoring at the Abutments for Structure N3.24R crossing the NB-HCE over Avenue C (Gannett Fleming, Inc. 2022a).

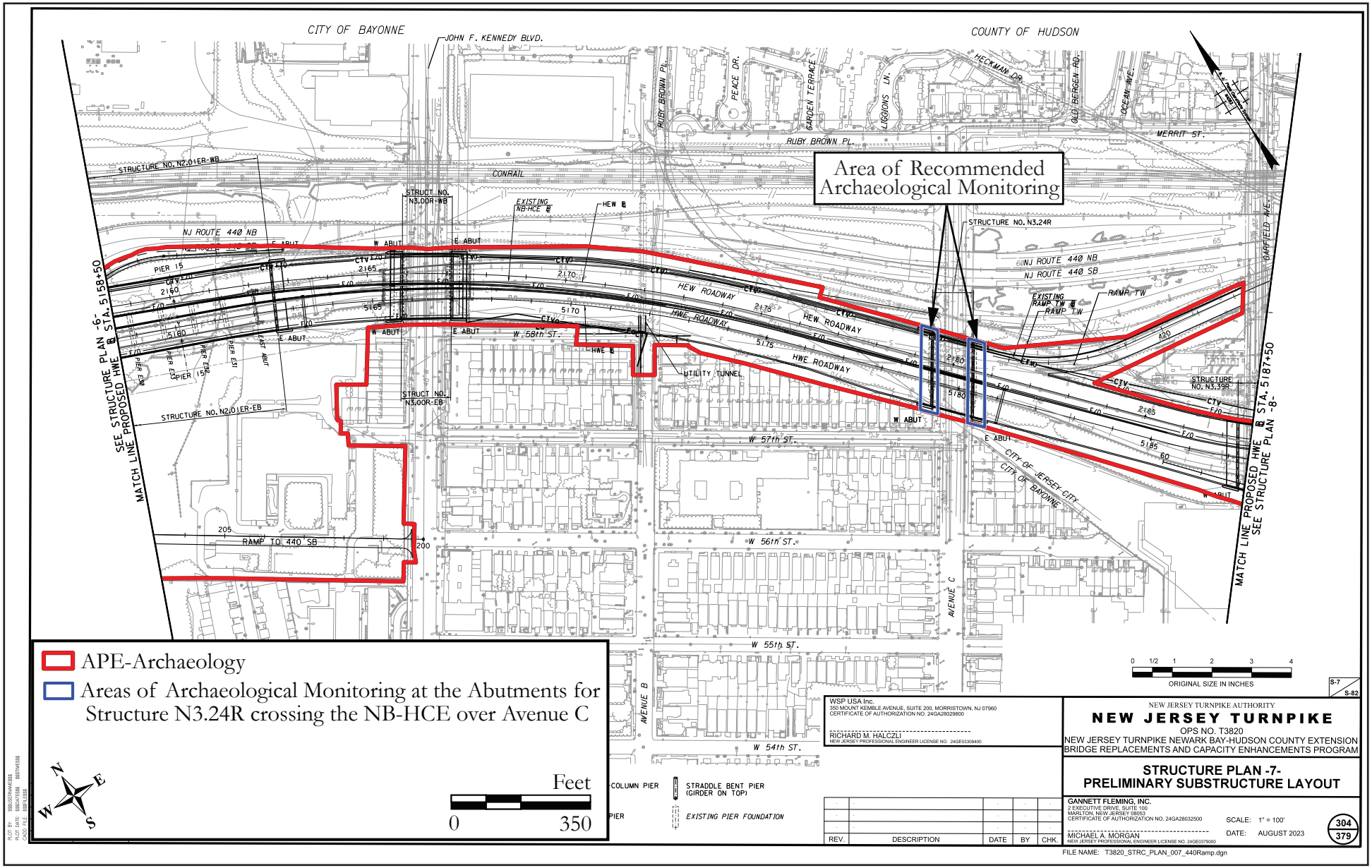

Figure 6: Structure Plan, Preliminary Substructure Layout showing the recommended areas of archaeological monitoring at the Abutments for Structure N3.24R crossing the NB-HCE over Avenue C (Gannett Fleming, Inc. 2022c).

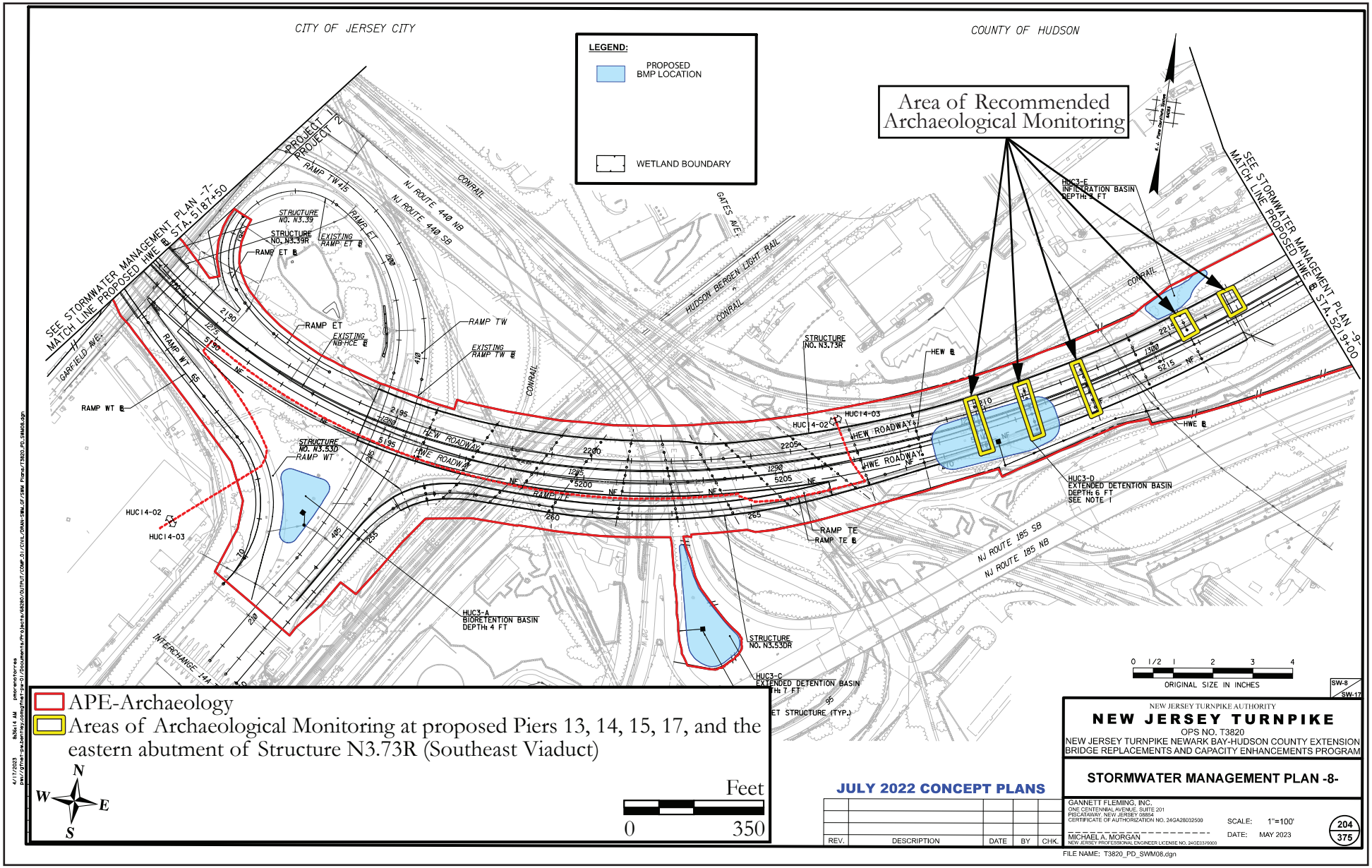

Figure 7: Stormwater Management Plan showing the recommended areas of archaeological monitoring at proposed Piers 13, 14, 15, 17, and the eastern abutment of Structure N3.73R (Southeast Viaduct)
(Gannett Fleming, Inc. 2022b).

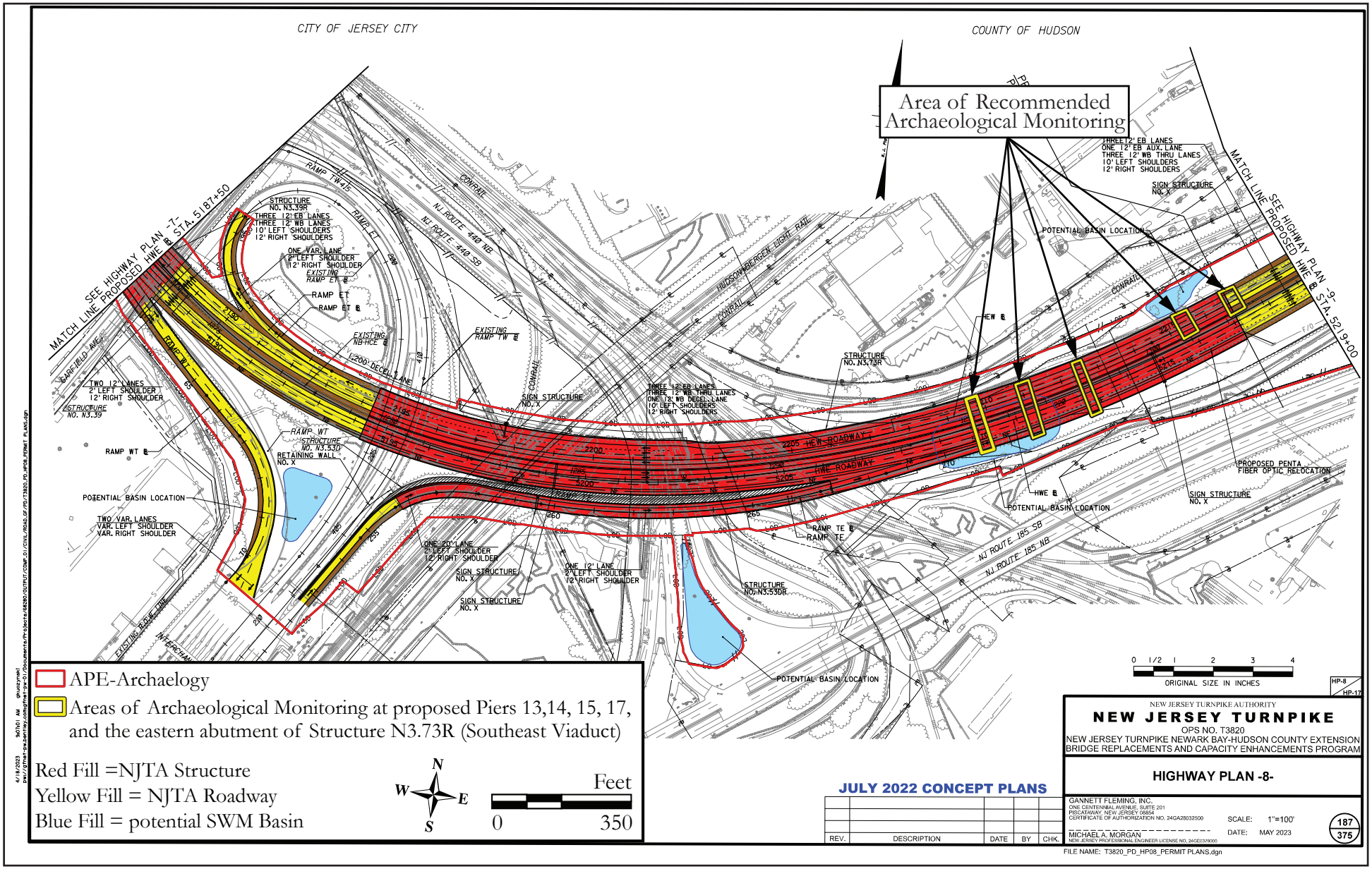

Figure 8: Highway Plan showing the recommended areas of archaeological monitoring at proposed Piers 13, 14, 15, 17, and the eastern abutment of Structure N3.73R (Southeast Viaduct)
(Gannett Fleming, Inc. 2022a).

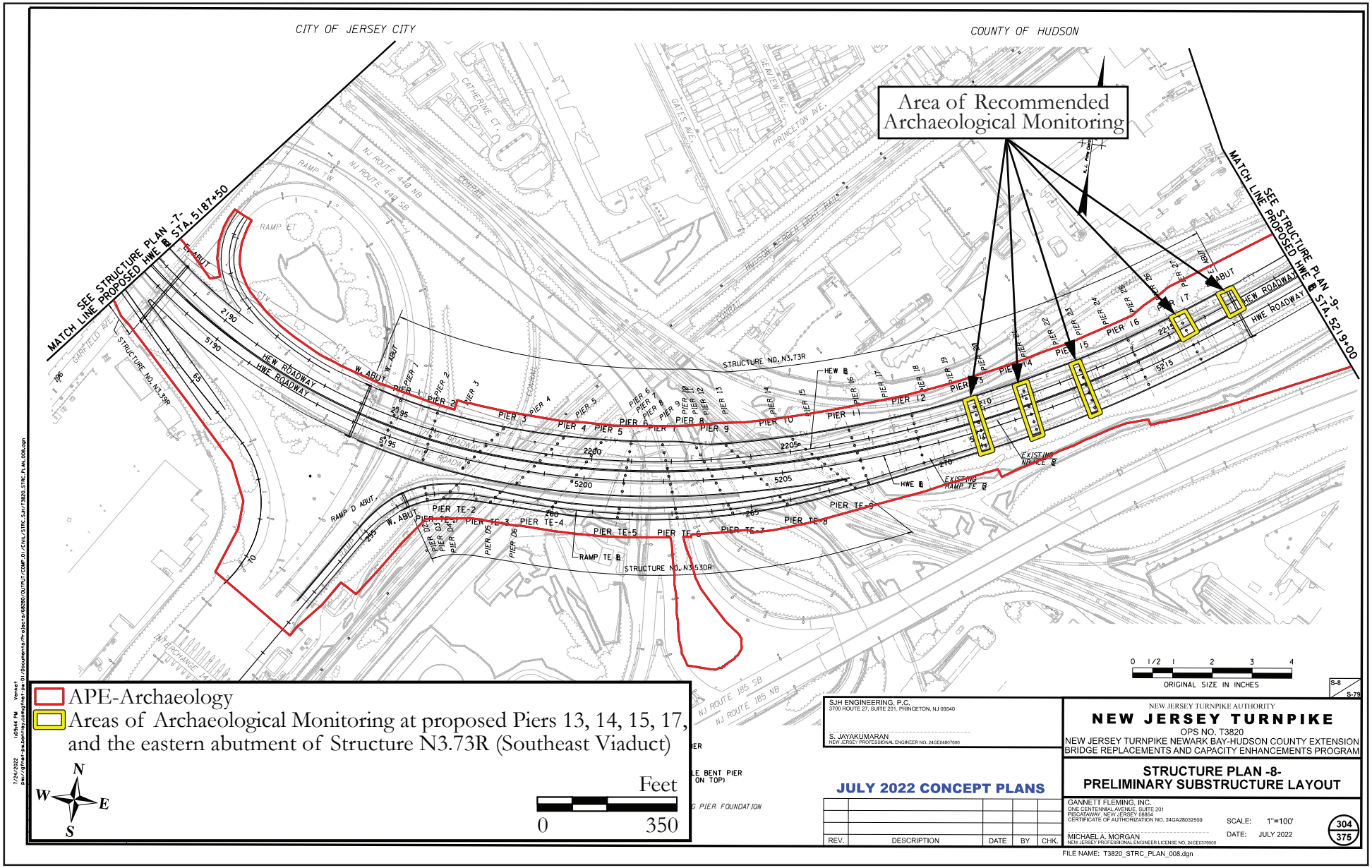

Figure 9: Structure Plan, Preliminary Substructure Layout showing the recommended areas of archaeological monitoring at proposed Piers 13, 14, 15, 17, and the eastern abutment of Structure N3.73R (Southeast Viaduct) (Gannett Fleming, Inc. 2022c).

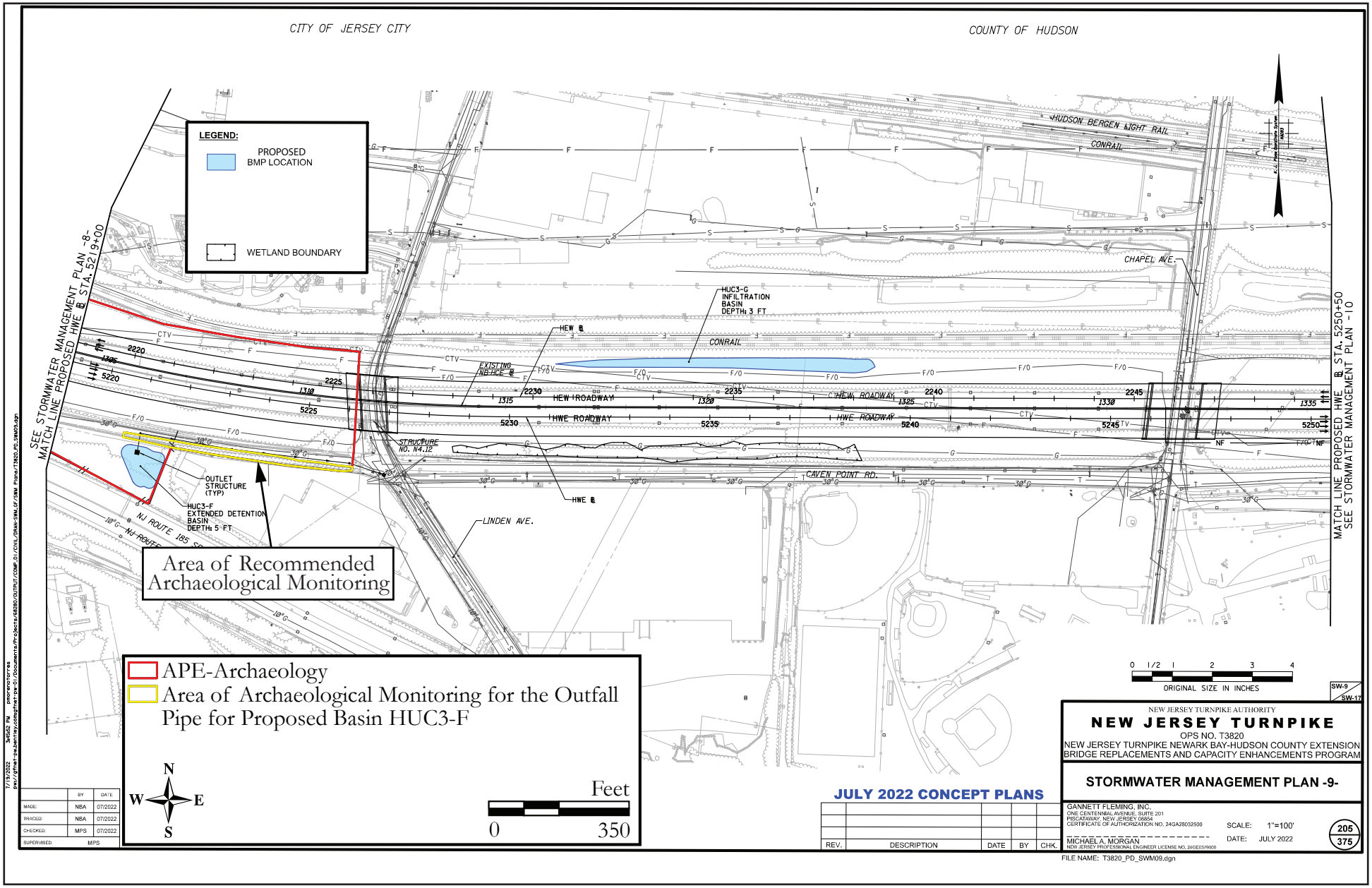

Figure 10: Stormwater Management Plan showing the recommended areas of archaeological monitoring for the Outfall Pipe for Proposed Basin HUC3-F (Gannett Fleming, Inc. 2022b).

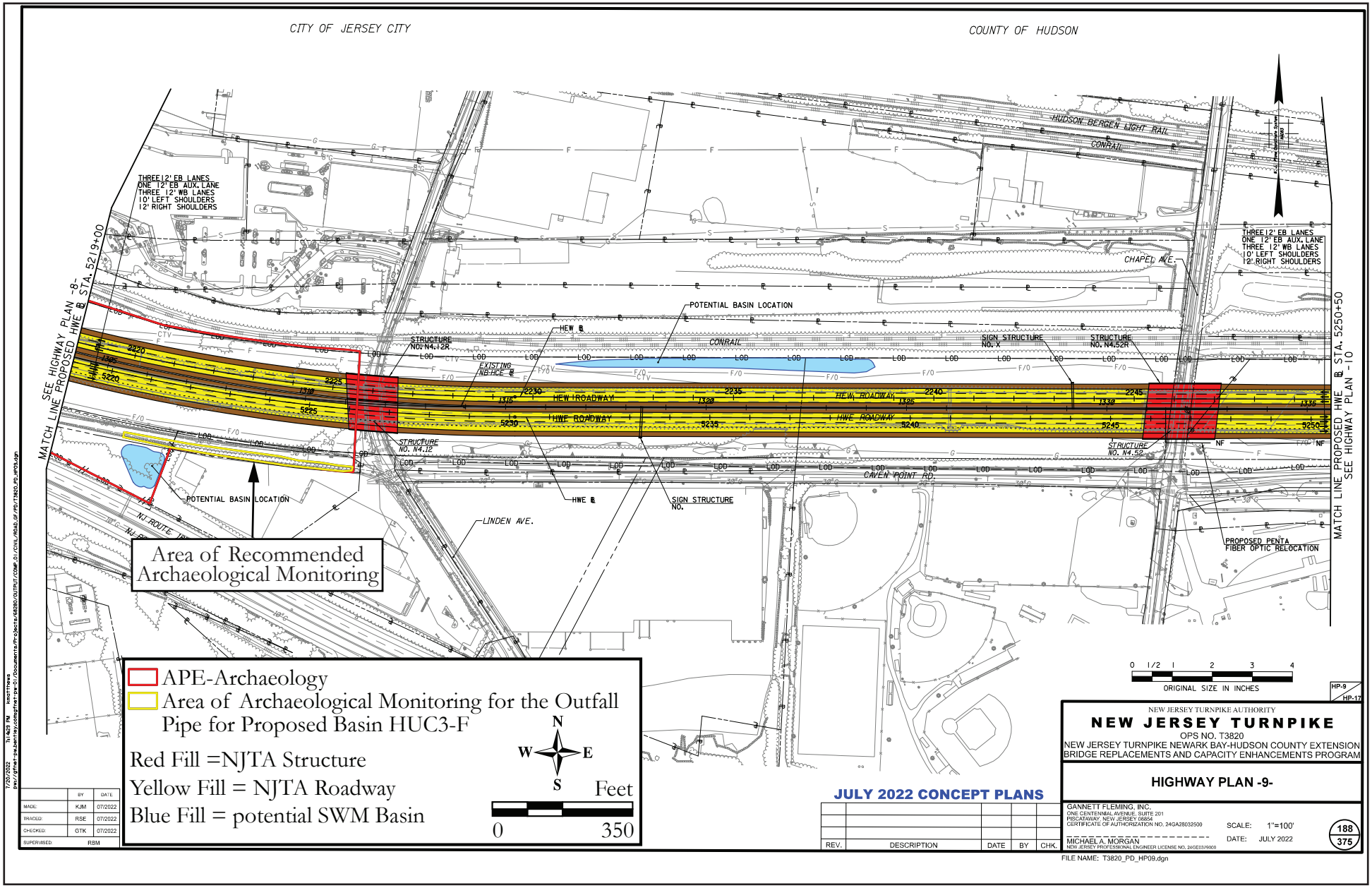

Figure 11: Highway Plan showing the recommended areas of archaeological monitoring for the Outfall Pipe for Proposed Basin HUC3-F (Gannett Fleming, Inc. 2022a).

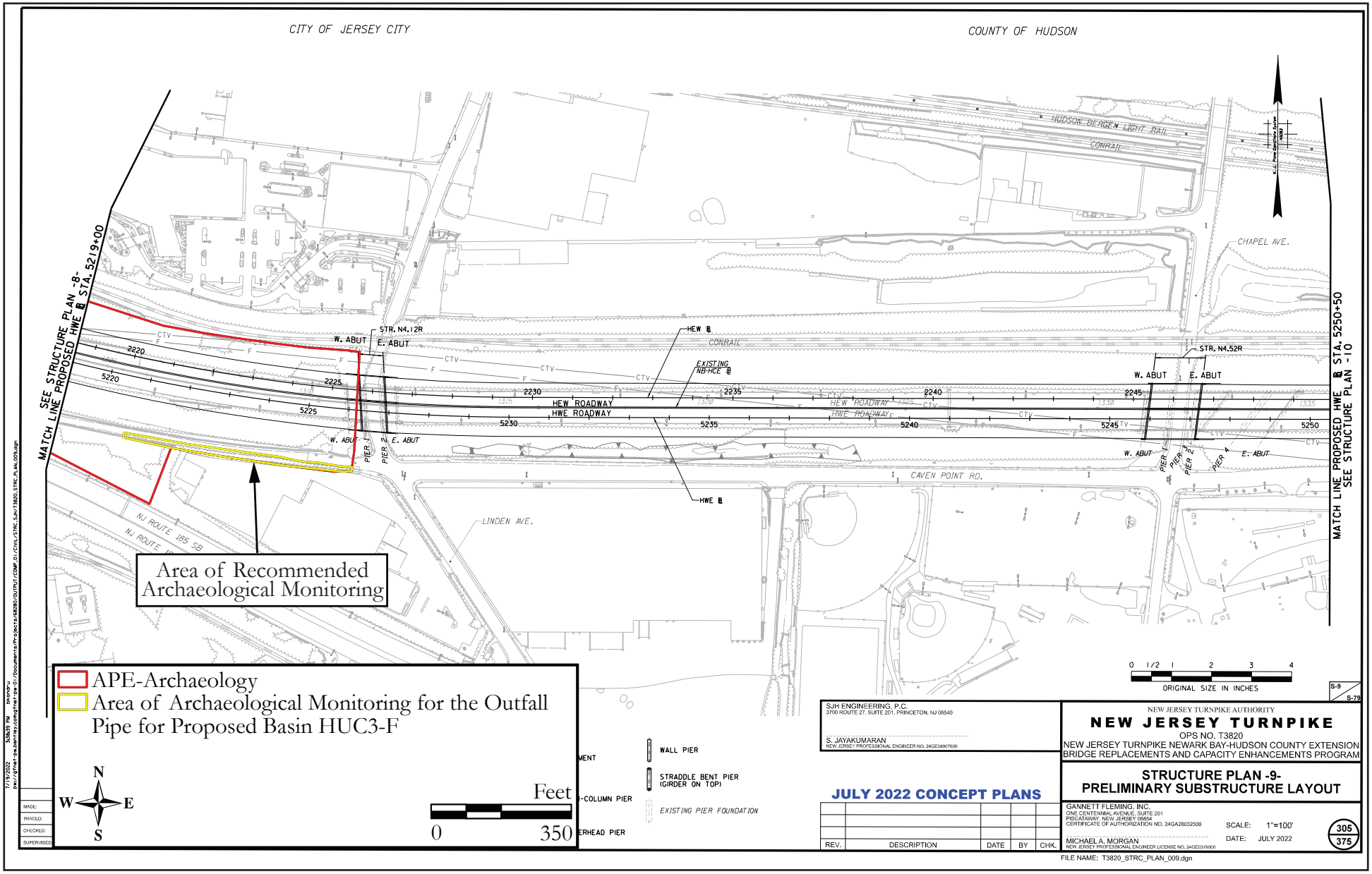

Figure 12: Structure Plan, Preliminary Substructure Layout showing the recommended areas of archaeological monitoring for the Outfall Pipe for Proposed Basin HUC3-F
(Gannett Fleming, Inc. 2022c).

ATTACHMENT B: PROJECT DOCUMENTS

HPO Log No. 21-1041-10
HPO-A2024-048

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TAHESHA L. WAY
Lt. Governor

SHAWN M. LATOURETTE
Commissioner

January 9, 2024

Lisa Navarro
New Jersey Turnpike Authority
1 Turnpike Plaza
P.O. Box 5042
Woodbridge, New Jersey 07095
via email

Re: Essex County, City of Newark
Hudson County, City of Bayonne
NJTA Newark Bay – Hudson County Extension (NB-HCE) Project
Supplemental Phase I Archaeological Survey and Geotechnical Boring
DLRP Files No. 0000-22-0010.1 & 0000-23-0012.2
Executive Order 215

Dear Ms. Navarro,

Thank you for providing the Historic Preservation Office (HPO) with the opportunity to review and comment on the potential for the above-referenced project to affect historic and archaeological resources. These comments are in response the following revised archaeological survey report received as part of continued consultation pursuant to New Jersey Executive Order 215 and anticipation of review pursuant to the New Jersey Freshwater Wetlands Protection Act (N.J.A.C. 7:7A), Waterfront Development (N.J.A.C. 7:7), and Section 106 of the National Historic Preservation Act in consultation with the United States Coast Guard:

Gall, Michael J., and Allison A. Gall
November 28, 2023 *Draft Supplemental Phase I Archaeological Survey and Geotechnical Boring Review, Interchange 14 to 14A: New Jersey Turnpike Newark Bay-Hudson County Extension Improvement Program, Cities of Bayonne and Jersey City, Hudson County, and Newark, Essex County, New Jersey*. Prepared by Richard Grubb & Associates, Inc. Prepared for Gannett Fleming, Inc.

The above referenced supplemental Phase I archaeological survey provides revised recommendations based on analysis of soil boring geotechnical data currently available for the project area (1954, 2022) which extends from the eastern shore of Newark Bay (Bayonne City) to

Linden Avenue E (Jersey City). The report states that, based on areas of fill shoreline and documented ground disturbance from construction of the highway in 1954, additional archaeological survey in the form of archaeological monitoring is only recommended at the following pier and stormwater management basin locations for the presence of the Morris Canal and one pre-Contact period resource (see Report Figures 4.1 and Figures 4.8a to 4.8d):

- Proposed Piers 13–15.
- A portion of Pier 17.
- The eastern abutment for Structure No. N3.73R (Southeast Viaduct).
- Basin HUC3-F (if the excavation for the outfall pipe trench extends below a depth of 2.3 feet below current ground surface).

The report recommends the preparation of an archaeological monitoring protocol work plan for review and approval by the HPO prior to construction activities.

Further, Phase IB archaeological survey is recommended for Basin HUC2-I through mechanical excavation methods once NJTA assumes control over the property. Finally, the former Marist High School archaeological site (28-Hd-55), City of Bayonne (Block 13, Lot 1) will be avoided during the project and no additional archaeological studies are recommended. The report states that a detailed avoidance and protection plan will be developed and submitted to the HPO for review and approval. The avoidance plan shall include provisions during construction protecting the site via the placement of a barrier, such as orange silt fencing or jersey barriers, between the site and the construction excavation/staging area.

Upon review, the HPO concurs with this assessment.

New Jersey Register of Historic Places Act

The report notes that, due to the use of NJTA funding, and the presence of the Morris Canal which is listed in the New Jersey and National Registers of Historic Places, the project requires compliance with the New Jersey Register of Historic Place Act (N.J.A.C. 7:4). Therefore, the report recommends the completion of an application for project authorization pursuant to the New Jersey Register of Historic Places Act (N.J.A.C. 7:4-7.1) for the portions of the project within the canal footprint.

The report recommends project construction elements for proposed Piers 13–15, a portion of Pier 17, and the eastern abutment for Structure No. N3.73R has a high probability to impact buried Morris Canal and canal-related archaeological resources elements. However, the report notes that traditional Phase IB investigation methods are infeasible at these locations based on the inability to conduct Phase I mechanical assisted excavation due to resource depth (over 5-feet) and/or proximity to transportation and utility resources that could be damaged through machine excavation. Therefore, the report recommends archaeological monitoring as the preferred investigation method with an approved work plan during construction.

Upon review, the HPO concurs that a technically complete application for project authorization pursuant to the New Jersey Register of Historic Places Act is necessary for the project elements

within the limits of the Morris Canal. The application shall include an HPO-approved archaeological monitoring work plan.

Additional Comments

Thank you again for providing the opportunity to review and comment on the potential for the above-referenced project to affect historic and archaeological resources. The HPO looks forward to any additional consultation as needed pursuant to state and federal regulations, the application for project authorization, and the archaeological monitoring and avoidance and protection plans for review and comment. Please reference the HPO project number **21-1041** in any future calls, emails, submission or written correspondence to help expedite your review and response. If you have any questions, please feel free to contact **Jennifer Leynes** of my staff at jennifer.leynes@dep.nj.gov regarding historic architecture or **Vincent Maresca** of my staff at vincent.maresca@dep.nj.gov with questions regarding archaeology.

Sincerely,

Katherine J. Marcopul

Katherine J. Marcopul
Administrator &
Deputy State Historic
Preservation Officer

c. David Pepe, OPPN
Elizabeth Lange, OPPN
Matthew Resnick, DLRP
Lamis Malak, NJTA
Michael Gall, RGA

KJM/MMB/VM

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Office of Permitting and Project Navigation
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PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

SHAWN M. LaTOURETTE
Commissioner

May 22, 2023

Michael Garofalo, P.E.
Chief Engineer
New Jersey Turnpike Authority
1 Turnpike Plaza – P.O. Box 5042
Woodbridge, NJ 07095

RE: Comments on the E.O. 215 Draft Environmental Impact Statement
Newark Bay – Hudson County Extension
Interchange 14 to Interchange 14A / Newark Bay Bridge and Associated Improvements
Newark, Essex County and Bayonne and Jersey City, Hudson County

Dear Mr. Garofalo,

The New Jersey Department of Environmental Protection's (Department) Office of Permitting and Project Navigation (OPPN) has distributed, for review and comment, the Executive Order #215 (E.O. 215) required Draft Environmental Impact Statement (EIS) for a proposed bridge and highway interchange infrastructure improvement project at the above location. The New Jersey Turnpike Authority (Authority) proposes a modernization of the Newark Bay – Hudson County Extension (NB-HCE) between Interchange 14 in Newark, Essex County, and Interchange 14A in Bayonne and Jersey City, Hudson County, to meet current and future needs of patrons of the NB-HCE, current design standards, and the Authority's operational and maintenance needs (the Proposed Project). A major element of the Proposed Project is the replacement of Newark Bay Bridge (NBB), officially, the Vincent R. Casciano Memorial Bridge, which comprises nearly half of the total length of the NB-HCE between Interchanges 14 and 14A. Proposed actions include replacement of all existing structures, increasing the number of travel lanes, increasing width of roadway shoulder, and improving ramp merges.

In response to your request for a determination as to whether the proposal will have any adverse impacts to land resources, historical or cultural resources, threatened and endangered species and migratory birds, contaminated sites, or whether there are any impacts to Green Acres encumbered parkland held by the State, local government units and/or nonprofit organizations, the Department offers the following comments for your consideration:

State-Owned Lands
Public Land Compliance (PLC)
Essex County
PLC confirms that there are no Green Acres encumbered parcels located within the Newark portion of the study area.

Hudson County
The following Green Acres encumbered parks were identified as being within or directly adjacent to the project's study area:

Bayonne: Mercer Park, Russell Golding Park, Rutkowski Park (The document states that the City "received funding for constructing wetland restoration, observation decks, bike trails and other amenities through NJDEP's settlement with a company over natural resources damages..." and, "is not listed on the Green Acres ROSI (NJDEP 2022)." However, it appears the City also received Green Acres funding for improvements at Rutkowski Park under Green Acres Project: 0901-00-067 resulting in the park being encumbered by Green Acres.)

Jersey City: Martiniak-Enright Park

Please note that under NJAC 7:36-25.14 any proposed temporary uses of Green Acres encumbered parkland for non-conservation/recreation use (i.e. temporary staging area) shall be no longer than two years with the possibility of a six month extension for good cause shown. Additionally, any trees removed from Green Acres encumbered parkland, even related to a temporary use, must be compensated for.

If you have any questions regarding this information, please contact Adam Taylor at Adam.Taylor@dep.nj.gov.

Public Land Administration (PLA)
If you have any questions regarding use of State-owned lands, please contact Louis Tallone at Louis.W.Tallone@dep.nj.gov.

Watershed and Land Management
Tidelands
If the proposed scope of work remains within the granted right-of-way (ROW) covered by the prior tidelands grants, then additional grants will not be required. If the proposed work/structures will extend beyond the current grant ROW boundaries, then a new grant for those portions that would extend beyond the grant boundaries will be required; an interim tidelands license would be required if work will start before the grant is delivered. If a grant is obtained prior to the start of work, however, then the license will not be required.

The mooring of a boat, barge, or raft for more than ten (10) consecutive days will require a tidelands license, unless the barge is within the grant boundary ROW.

If you have any questions regarding this information, please contact Randy Bearce at Randy.Bearce@dep.nj.gov.

Coastal Permitting
The New Jersey Turnpike Authority has initiated coordination with the Division of Land Resource Protection. The proposal will require Freshwater Wetlands, Waterfront Development and/or Flood Hazard authorizations.

If you have any questions regarding this information, please contact Matt Resnick at Matthew.Resnick@dep.nj.gov. Additionally, please include Jeff Thein at Jeff.Thein@dep.nj.gov in any correspondence involving Newark City, or Becky Mazzei at Becky.Mazzei@dep.nj.gov in any correspondence involving Bayonne City or Jersey City.

Freshwater Wetlands
If you have any questions regarding freshwater wetlands, please contact Cindy Rivera at Cindy.Rivera@dep.nj.gov involving Newark City, or Andrew Mazza at Andrew.Mazza@dep.nj.gov involving Bayonne City or Jersey City.

Flood Hazard and Stormwater Engineering
If you have any questions regarding flood hazard areas or stormwater management, please contact Dominick Cardella at Dominick.Cardella@dep.nj.gov.

New Jersey Fish and Wildlife (NJFW)
Endangered Non-game Species Program (ENSP)
The EIS addressed ENSP's main concerns to clear vegetation outside the breeding season, avoid work within a certain distance from active peregrine, osprey, and bald eagle nests, and to coordinate with ENSP when working on the bridge that contains a peregrine nest.

Marine Resource Administration (MRA)
MRA is comprised of the Bureau of Marine Fisheries and the Bureau of Marine Habitat & Shellfisheries. Both Bureaus are charged with reviewing permits within the context of the species they regulate, the habitat(s) of said species, and the user groups associated with those species and habitats. Based on the documentation that was provided, MRA recommends the following timing restrictions:

9.5 Finfish migratory pathways: Anadromous I (March 1 – June 30)

The MRA notes that the EIS for this project acknowledges the presence of various life stages of winter flounder and anadromous species in Newark Bay. Pursuant to Section 7:7-0.5 (Finfish migratory pathways), this project is a concern for fisheries resources because Newark Bay provides an important migratory pathway for several anadromous fish species that migrate towards river systems to spawn each Spring. The proposed project area is located in close proximity to confirmed American shad and river herring spawning locations. The Newark Bay drainage estuary is a vital ecosystem that provides a pathway to spawning grounds and essential nursery habitats for river herring and striped bass. Striped bass are one of the most economically and culturally important fishery resources in New Jersey, and the stock has recently been assessed as overfished and experiencing overfishing. River herring have significant ecological importance to coastal marine ecosystems coastwide, and populations are currently depleted. Any construction activities that may cause disturbance to habitats potentially used by these fish during spawning runs should be limited. Therefore, MRA recommends the Anadromous Time of Year Restriction on all proposed in-water project activities (March 1 – June 30) to avoid disruption of habitat and fish behavior during this Spring spawning migration period.

In addition, if there will be any dredging activity during this project, which would most likely occur during cofferdam installations, MRA recommends timing restrictions to protect winter flounder in the area. The Southern New England/Mid-Atlantic winter flounder stock is near historic lows and the proposed project is located within a region which has been determined to be Essential Fish Habitat for all life history stages of winter flounder. In New Jersey, winter flounder make an annual spawning migration into nearshore waters during the end of fall and beginning of winter, then return a few months later in late spring/summer to deeper cooler portions of estuaries and or offshore locations. Eggs, larvae, and juveniles are vulnerable to dredging activities during this time. Timing restrictions for winter flounder, which have been established to protect the spawning and vulnerable life history stages, in areas north of the Absecon Inlet and 20-feet or less MLLW bathymetric contour, are recommended from January 1 – May 31.

If you have any questions regarding this information, please contact Joe Corleto at Joseph.Corleto@dep.nj.gov.

Historic and Cultural Resources
The New Jersey Historic Preservation Office (HPO) concurs with the assessment of above ground resources and finds that the Newark Bay Bridge and the Port Authority Administration Building are eligible for inclusion in the New Jersey and National Registers of Historic Places.

An additional archeological survey is needed in the project area in Cities of Bayonne and Jersey City before the HPO can complete identification of historic resources. The HPO's review of this project cannot be completed until identification of historic resources is completed.

Identification of Historic Properties

Historic Architecture

The draft cultural resources report defines the area of potential effects (APE) for historic architecture as including all areas of direct construction impacts, as well as areas that may be impacted by visual changes, patterns of use, or may experience a change in historic character associated with the construction of the proposed project. The HPO concurs with the APE for historic architecture as delineated.

The APE for historic architecture includes the following properties previously listed on or determined eligible for the New Jersey and National Registers of Historic Places:

- Newark and Elizabeth Branch of the Central Railroad of New Jersey (SHPO Opinion 8/29/2000)
- Pennsylvania Railroad New York Bay Branch Historic District (SHPO Opinion 12/17/2019)
- Lehigh Valley Railroad Historic District (SHPO Opinion 3/14/2002)
- Morris Canal (SR 11/26/1973; NR 10/1/1974; SHPO Opinion 5/27/2004)

In addition to the above, 36 properties more than 50 years of age were identified within the APE for historic architecture. Five of these properties had been previously surveyed, and the remaining 31 were surveyed at the intensive level for this project. Of these, only two were recommended eligible for the New Jersey and National Registers: the Newark Bay Bridge, and the Port Authority Administration Building. *The HPO concurs with this recommendation.*

It is the opinion of the New Jersey State Historic Preservation Officer that the Newark Bay Bridge is eligible for listing on the New Jersey and National Registers of Historic Places. The Newark Bay Bridge was constructed in 1956 as a component of the New Jersey Turnpike Newark Bay-Hudson County Extension (Extension) to carry the Extension over Newark Bay between the cities of Newark and Bayonne. The main span consists of a three-part, cantilevered through-truss with east and west anchor arms and a central, shouldered tied-arch span, with a 43-span west approach and a 32-span east approach. The approaches are comprised of a combination of steel stringer beam spans and steel riveted girder spans, and the substructure includes two kinds of reinforced concrete piers. The bridge was designed by Charles M. Noble, Chief Engineer of the NJTA, with consulting engineers Howard Needles Tammen & Bergendoff.

The Newark Bay Bridge embodies the distinctive characteristics of a type, the cantilevered truss bridge. This type is no longer a favored bridge design among engineers and is an uncommon bridge type in New Jersey. The structure is one of four cantilevered truss bridges constructed in the state during the twentieth century. The other three have all been determined eligible for or listed on the New Jersey and National Registers of Historic Places: Goethals Bridge, built 1928 (SHPO Opinion 2/13/1995); Outerbridge Crossing, built 1928 (SHPO Opinion 2/20/2003); and U.S. Route 1 Extension [Pulaski Skyway], built 1931 (NR 8/11/2005; SR 6/12/2005). Of these, only the Outerbridge Crossing and Pulaski Skyway survive. The Newark Bay Bridge embodies all of the distinctive characteristics of a cantilevered through truss structure, including the cantilevered through truss span and anchor arms. The bridge also embodies the characteristics of other major bridges constructed during the development of the NJ Turnpike, including the concrete substructures, simple rolled steel girders on most spans, and built-up riveted deck plate girders on wider

spans. As such, the Newark Bay Bridge meets Criterion C as an example of a cantilevered truss bridge of the mid-twentieth century. Although the bridge has been modified in the decades since its construction, the changes have not impacted its character-defining features. The boundaries of the historic property are limited to the bridge itself, and the period of significance is limited to the year of its construction, 1956.

Additionally, **it is the opinion of the New Jersey State Historic Preservation Officer that the Port Authority Administration Building is eligible for listing on the New Jersey and National Registers of Historic Places.** Also known as Building 260, the Port Authority Administration Building was constructed in 1967. The property is eligible under Criterion C as a representative example of New Formalism Style, which characterized the architecture of many high-profile cultural, institutional and civic buildings during the 1960s. The Administration Building retains its form and many original materials, including its precast concrete vertical panels, glass and spandrel panels, glazed face brick, and the translucent, insulated fiberglass windows. The multi-story, multi-use, steel-framed building has a T-shaped footprint. The crossbar of the T-shaped building constitutes the three-story office area and is distinctive for its angular façade treatment. The combination of concrete and glass were thoughtfully positioned to provide views of the inner port area from the office area with the glass and spandrel panels facing south, and privacy from the public with the concrete panels mostly facing north. Extending from the office area's northeast elevation is the one-story garage and storage area, which features translucent insulated fiberglass windows.

John M. Kyle, the agency's chief engineer for 25 years, designed the Port Authority Administration Building and many other Port Authority facilities in New Jersey and New York. The Administration Building was part of the effort by the Port Authority to continuously invest in the expansion and improvement of its marine facilities in the Port of Newark. The interior of the building has been substantially altered, but the exterior retains a high level of integrity of location, design, materials, feeling and association. The period of significance for this property is 1967 (the date of construction). The boundaries of the Port Authority Administration Building include the entire footprint of the building and the rear parking lot and is bounded to the north by Distribution Street, to the east by industrial warehouses used by Port Newark (Compass Street), to the south by Kellogg Street, and to the west by Corbin Street. **These are new SHPO Opinions**.

<u>Archaeology</u>

The report provides information on the combined Phase IA and limited Phase IB archaeological surveys consisting of background research, a field reconnaissance survey, an archaeological sensitivity assessment, subsurface testing within a portion of the archaeological area of potential effects (APE), analysis, and reporting.

City of Newark

The report states that the Newark portion of the APE was historically salt marsh and subsequently filled during the mid-twentieth century thus possessing low archaeological sensitivity. No additional archaeological survey is recommended. *Upon review, the HPO concurs with this assessment.*

Newark Bay

The report states that the Newark Bay portion of the APE contains no known shipwrecks and that only one submerged target, likely a submerged historic piling marked the edge of the dredged navigation channel, is located within one of the temporary construction trestle pier footprint locations. The report recommends that the construction of the temporary construction trestle piers does not have the potential to affect any

maritime archaeological resources and that no further archaeological survey is recommended. *Upon review, the HPO concurs with this assessment.*

Cities of Bayonne and Jersey City

The report states that the APE is highly sensitive for intact buried structural elements for the Morris Canal (canal prism, towpath, and associated construction elements) which is listed on the New Jersey and National Registers of Historic Places (Block 30203, Lot 3; Block 30204, Lot 4; Block 30306, Lots 2 and 4; and Block 30303 TURN). The APE also contains the multi-component pre-Contact and historic-period Jersey Eagle Site (28-Hd-45) which is eligible for inclusion on the New Jersey and National Registers of Historic Places (SHPO Opinion 5/17/2013) with the general area of the site assessed with a high potential for deeply buried pre-Contact and historic archaeological resources. Finally, the report states one of the proposed basins is sensitive for a *circa* 1908 New York Bay Railroad Co. turntable and Morris Canal elements. The report recommends that the project as proposed will have an *adverse effect* on the listed Morris Canal and recommends archaeological monitoring, with an HPO-approved work plan, for the above referenced archaeological resources (Report Figures 4.1b-4.1c). The report assesses the remainder of the APE (excluding Block 13, Lot 1, see below) as low archaeological sensitivity based on filled salt marsh and/or ground disturbance from the 1953 construction of the NB-HCE, surrounding roads, former and extant rail lines, and the installation of underground utilities, and therefore, no further archaeological survey is recommended within the APE.

The report did assess a single parcel in Bayonne (Block 13, Lot 1) as holding a moderate- to high archaeological sensitivity for pre-Contact period Native American archaeological resources based on its location on former uplands bordering the Newark Bay prior to infilling of the adjacent salt marshes. The Phase IB archaeological survey effort included 13 shovel test pits (STPs) and observation of two separate construction trenches independently excavated on site. The report states that testing identified multiple historic period levels containing early to mid-nineteenth century artifacts above a truncated subsoil interpreted as modified and re-deposited soil levels developed during the property's development between 1909 and 1919. The report concludes that these soil levels lack integrity, do not represent potentially significant archaeological deposits, and no further archaeological survey of Block 13, Lot 1 is recommended.

Upon review, the HPO cannot concur with the assessment above based on the available information to date nor the recommendations for archaeological monitoring alone within the areas of known archaeological resources (Figures 4.1b-4.1c). The majority of the eastern APE is sensitive for both pre-Contact and historic period archaeological resources based on the detailed information provided within the above referenced report. While selective areas of sensitivity have been identified for monitoring based on existing, documented archaeological resources, the remainder of the APE equally holds archaeological sensitivity but the depths of historic filling and/or grading from highway construction remains unknown based on the current data in the above referenced report. Archaeological survey in urban areas confirms both deep disturbances but pockets of intact archaeological strata do survive requiring consideration as part of any undertaking. These intact deposits have the potential to provide important new information on the undocumented prehistory and early historic period development within Bayonne and Jersey City. **Therefore, Phase IB archaeological survey will be necessary for areas of ground disturbance within the APE with the potential to affect shallow and deeply buried archaeological resources. Archaeological monitoring is still necessary upon the completion of the phased archaeological surveys for this undertaking.** Machine-assisted Phase I testing methods will be required as part of the archaeological identification process. In addition, the report did not discuss if any program of geotechnical investigation has been, or will be, conducted for the undertaking and if that data can be used to identify areas of fill/disturbance within the project area that can be used to rule out areas requiring

survey. Therefore, the report's supposition that previous urbanization, road, and highway construction-related grading, filling, and utility work renders the majority of the archaeological APE as low archaeological sensitivity requires confirmation through either geotechnical evidence and/or physical archaeological testing.

In light of the information above and based on the lack of information regard depth(s) of disturbance/grading for the proposed project, a Phase IB archaeological survey is necessary within the APE, particularly all stormwater management basins unless subsequent documentation exists demonstrating the depth of disturbance within the APE and/or potential archaeological deposits are located beyond the depth of proposed ground disturbance for the project.

Regarding the Phase IB survey within Bayonne Block 13, Lot 1, a review of the shovel test logs (Appendix G) and artifact catalog (Appendix H) suggests a fairly intact soil stratigraphy was identified across the testing area typified in urban landscape development consisting of areas of disturbance but also areas of intact stratigraphy consisting of an upper twentieth century level followed by nineteenth (and possibly late eighteenth century) stratigraphy. Therefore, Block 13, Lot 1 appears to contain intact archaeological deposits developed during the historic period (possibly as early as the late eighteenth century) and developed by the early nineteenth century. In addition, STP 6 may contain an early nineteenth century feature based on the depth of the deposits identified. Based on the lack of twentieth century artifacts within the lower STP levels suggestive of post-depositional site activity, **Phase II archaeological survey within the APE for Bayonne Block 13, Lot 1 will be necessary. Phase II archaeological survey will assess the identified archaeological deposits for inclusion on the New Jersey and National Registers of Historic Places and will require an HPO-approved Phase II work plan.**

The HPO cannot fully assess the effects of this proposed project until identification of all potential historic properties is complete.

Additional Comments

The HPO looks forward to receiving the additional archeological survey in order to complete identification of historic properties within the area of potential effect and to continue the EO 215 review and DLRP review. Because of the need for United States Coast Guard permits the HPO will also have a review of this project under Section 106 of the National Historic Preservation Act. Because of the NJTA involvement and impacts to the Morris Canal, which is listed in the NJ Register of Historic Places, a review under the New Jersey Register of Historic Places Act (NJRHPA) will also be required. Please reference the HPO project number **21-1041** in any future calls, emails, submissions or written correspondence to expedite your review and response. If you have any questions, please contact Vincent Maresca regarding archaeology at Vincent.Maresca@dep.nj.gov, or Jennifer Leynes regarding historic architecture at Jennifer.Leynes@dep.nj.gov.

Bureau of Water Allocation and Well Permitting (BWAWP)

The EIS identified the need to perform construction related dewatering for this project – please see the attached copy of the BWAWP Construction Related Dewatering Guidance (Attachment A). Since the project will be covering multiple municipalities and counties, the project would need to obtain one authorization per municipality where dewatering will occur.

Depending on the quantity of water to be diverted and the duration of the activity within each municipality, either a Temporary Dewatering Permit or a Short-Term Water use Permit-by-Rule may be required. For areas where the contractor will be utilizing coffer dams, a Dewatering Permit-by-Rule should be sufficient. The applicant should contact BWAWP to discuss this matter further since the application requirements and review time varies significantly for each authorization type.

If you have any questions regarding this information, please contact Ken Komar at Ken.Komar@dep.nj.gov.

NJPDES Discharge to Surface Water

Based on a review of the EIS, a NJPDES Discharge to Surface Water General Permit will be needed for a surface water discharge from construction related dewatering.

If the discharge will be uncontaminated groundwater generated during construction activities, the appropriate NJPDES Discharge to Surface Water General Permit is the B7 - Short Term De Minimis General Permit (http://www.nj.gov/dep/dwq/gp-b7.htm). As per the B7 application checklist, analytical lab data of all the parameters specified in Attachment 1 must be submitted and the results must demonstrate that they are below the effluent standards.

If the discharge will be treated groundwater from remediations and dewaterings, the appropriate NJPDES Discharge to Surface Water General Permit is the BGR – General Groundwater Remediation Clean-up Permit (http://www.nj.gov/dep/dwq/gp_bgr.htm). As per the BGR permit application, a summary of the contaminants of concern must be submitted where the data was collected no more than 12 months prior to the submittal of the application. In addition, a Treatment Works Approval (TWA) from the Bureau of Environmental, Engineering and Permitting may be needed for the construction of the treatment system.

If you have any questions regarding this information, please contact Bennett Moss at Bennett.Moss@dep.nj.gov.

Air

Air Permitting

The applicant should review the requirements of N.J.A.C. 7:27-8.2(c) 1-22 for stationary permitting requirements. This includes but is not limited to, construction equipment-stationary construction equipment or emergency generators, may require air pollution permits if it is located on the site for longer than one year N.J.A.C. 7:27-8.2(d)15. There are general permits for boilers and emergency generators (https://www.state.nj.us/dep/aqpp/gp.html) if the units can meet the prescribed requirement in the general permits.

Idling Vehicles – any vehicles involved on the project must adhere to the idling standards (less than 3 minutes) in N.J.A.C. 7:27-14 and 15.

Air pollution, including odors that are detectable offsite that are injurious to human health or would result in citizen complaints are prohibited. N.J.A.C. 7:27-5.2.

Fugitive Dust – dust emissions either windblown or generated from construction activities should be controlled to prevent offsite impacts or material tracked onto the roadways. N.J.A.C. 7:27-5.2.

If you have any questions regarding this information, please contact Danny Wong at Danny.Wong@dep.nj.gov.

Bureau of Mobile Sources

NJTPA utilized EPA's Motor Vehicle Emission Simulator to calculate the emissions from motor vehicles used on the project. While the data computing system is outdated, the results are still an effective way of knowing how to maintain vehicle operations on-site. While the construction-related emissions were shown to have no long-term effects on air quality in the State through the year 2050, there can still be impacts of the vehicles used during the operation. It is important that all hydraulic hoses for medium and heavy-duty

construction vehicles are frequently checked for leaks, and that operators of these vehicles inspect their vehicles for oil and transmission leaks before, during, and after use of each vehicle. Considering the noise pollution would impact at minimum 181 homes in the area, it is imperative that there are minimal setbacks in this project caused by vehicle operations, so preventative checks and maintenance should be of primary concern.

To reduce pollutant emissions during the construction process, NJDEP recommends that all diesel-fueled construction equipment, vessels, and commercial vehicles involved in the process must monitor their idling in times of operation. This could include control strategies and training for equipment operators to ensure that vessel and equipment operating times are minimized and controlled. Project partners should focus on monitoring onshore construction sites and ports used for the offshore stations, as these are located within some nonattainment and maintenance areas.

Diesel exhaust contributes the highest cancer risk of all air toxics in New Jersey and is a major source of NOx within the state. Therefore, NJDEP recommends that construction projects involving non-road diesel construction equipment operating in a small geographic area over an extended period of time implement the following measures to minimize the impact of diesel exhaust:

All on-road vehicles and non-road construction equipment operating at, or visiting, the construction site shall comply with the three-minute idling limit, pursuant to N.J.A.C. 7:27-14 and N.J.A.C. 7:27-15. Consider purchasing "No Idling" signs to post at the site to remind contractors to comply with the idling limits. Signs are available for purchase from the Bureau of Mobile Sources at 609/292-7953 or http://www.stopthesoot.org/sts-no-idle-sign.htm.

All non-road diesel construction equipment greater than 100 horsepower used on the project for more than ten days should have engines that meet the USEPA Tier 4 non-road emission standards, or the best available emission control technology that is technologically feasible for that application and is verified by the USEPA or the CARB as a diesel emission control strategy for reducing particulate matter and/or NOx emissions.

All on-road diesel vehicles used to haul materials or traveling to and from the construction site should use designated truck routes that are designed to minimize impacts on residential areas and sensitive receptors such as hospitals, schools, daycare facilities, senior citizen housing, and convalescent facilities.

In accordance with N.J.A.C. 7:27-14 and 15, diesel vehicles should not idle for more than 15 consecutive minutes when the vehicle has been stopped for 3 or more hours and only if the temperature is <25 deg. F.

In accordance with N.J.A.C. 7:27-14 and 15, diesel vehicles can idle if the engine provides power for mechanical operations such as: refrigeration units for perishable goods, hydraulic lifts, "cherry pickers", or similar equipment.

If you have any questions regarding this information, please contact Kris Dahl at Kris.Dahl@dep.nj.gov.

NJPDES Stormwater

Any project which disturbs 1 or more acres of land, or less than 1 acre but is part of a larger common plan of development which is greater than 1 acre, is required to obtain a NJPDES Stormwater Construction General Permit (5G3) authorization. This authorization requires the applicant to first submit and receive certification of a soil erosion and sediment control plan from the local soil conservation district office. Once the plan has been certified the applicant must file for 5G3 permit coverage through the NJDEP online service. Once the applicant has registered for DEPonline they must navigate to the Stormwater construction general authorization service to complete and submit their application. The application requires the input

of two unique codes obtained from the soil conservation district office upon certification of their soil plan. Once the application is complete and submitted, a temporary authorization will be issued to the applicant, provided the system determines the application meets the eligibility requirements of the permit. Once the application information is migrated into our database system a final permit authorization, along with a summary of the application information submitted, will be emailed to the individual identified as the "permittee contact" during the application process.

For projects conducted by the NJDOT the online application process does not apply. NJDOT self certifies their soil erosion and sediment control plans and must file a paper permit application through standard mail.

If you have any questions regarding this information, please contact Dan Kuti at Daniel.Kuti@dep.nj.gov.

Contaminated Site Remediation and Redevelopment (CSRR)

If you have any questions regarding contaminated sites, please contact A.J. Joshi at Ashish.Joshi@dep.nj.gov.

Office of Environmental Justice

The Office of Environmental Justice is aware that the Diamond Alkali Superfund Site - Operable Unit 3 (Newark Bay) has entered into an Interim Remedy by USEPA and supported by the NJDEP's Contaminated Site Remediation & Redevelopment Program. Given the coinciding timelines for both the Newark Bay Bridge Replacement and the Newark Bay remediation, OEJ recommends that project managers consult one another to ensure that constructions do not significantly impact environmental justice communities and proper coordination occurs.

EJMAP is listed to have been reviewed, however, the report's analysis is limited to age, income, minority status, education level, and language in its identification of EJ populations. Globally, the report does not factor in any analysis of whether specific EJ/overburdened communities will be impacted from the proposed projects, or how the 26 stressors included in EJMAP will be impacted.

The former Marist High School property is identified under the proposed plan as a future stormwater treatment facility and will be a construction staging area, among the other planned project staging areas across Hudson and Essex Counties. The former Marist High School property is adjacent to residential neighborhoods. Please clarify if the MOVES3 analysis factors in proximity to residential exposures, including sensitive populations. If so, proper monitoring and engineering/institutional controls may be needed.

If you have any questions regarding this information, please contact Myla Ramirez at Myla.Ramirez@dep.nj.gov.

Thank you for giving the Department the opportunity to comment on the EIS for the Proposed Project. Please contact Elizabeth Lange at Elizabeth.Lange@dep.nj.gov or Ryan Carter at Ryan.Carter@dep.nj.gov, or contact OPPN at (609) 292-3600 if you have any questions.

Sincerely,

David Pepe, Director
Office of Permitting and Project Navigation

Attachment A

Bureau of Water Allocation and Well Permitting
Construction Related Dewatering Guidance

Revised 8/2015

Bureau of Water Allocation & Well Permitting
Construction Related Dewatering Guidance

Various permits and approvals may be required for construction related dewatering activities from the Well Permitting and Water Allocation Permitting sections in the Bureau of Water Allocation and Well Permitting. Permits required are site and project specific.

Well Permitting

An approved Well Permit is required for dewatering wells or dewatering well points which are 25 feet or more in total depth or are 6 inches or more in borehole diameter. All drilling activity shall be performed and completed by a New Jersey licensed well driller of the proper class. N.J.A.C. 7:9D – 1.11(g) 5.

Water Allocation

If construction related water use (including trench dewatering) is required at rates exceeding 70 gallons per minute or greater pumping capacity from a single source or combination of sources in the same municipality then that activity would be regulated. Potential regulatory mechanisms include:

Diversion of more than 100,000 gallons of water per day ($\geq$ 70 gpm) for less than 31 days in a consecutive 365 day period- Short Term Water Use Permit-by-Rule (BWA-003) /Short Term Water Use Report (BWA-004), N.J.A.C. 7:19 – 2.17(a).

Diversion of more than 100,000 gallons of water per day ($\geq$ 70 gpm) from a confined area/space (coffer dam) – Dewatering Permit-by-Rule (BWA-005), N.J.A.C. 7:19 – 2.17(b).

Diversion of more than 100,000 gallons of water per day ($\geq$ 70 gpm) for more than 30 days in a consecutive 365 day period – Temporary Dewatering Permit (BWA-002), N.J.A.C. 7:19 – 2.3.

Diversion of less than or equal to 100,000 gallons of water per day at pumping rates of more than 70 gpm or larger – Water Use Registration (DWR-188), N.J.A.C. 7:19 – 2.18.

In addition –

Horizontal directional drilling – as this is part of the pipeline construction it would be included within the scope of the applicable regulatory mechanism for the project.

Pipeline pressure testing – water used for pressure testing pipeline segments has historically been done under a Short Term Water Use Permit-by-Rule (BWA-003)/Short Term Water Use Report (BWA-004), N.J.A.C. 7:19 –2.17(a).

Applicability – If the project is located in close proximity to a salt water body (ocean, bay, coastal river, salt water marsh) the native ground water and water in the adjacent water body should be checked for: chlorides and salinity. Water Allocation Permitting does not apply to diversions of salt water except where the Department determines that the diversion and the resultant usage may affect utilization of fresh water in accordance with N.J.A.C. 7:19 –1.4(a)2. Salt water is defined as water containing a chloride concentration in excess of 10,000 mg/L. N.J.A.C. 7:19-1.3

For additional information see – www.nj.gov/dep/watersupply

or contact – Bureau of Water Allocation and Well Permitting
Mail Code 401-04Q
P.O. Box 420
Trenton, New Jersey 08625-0420
(609)984-6831

ATTACHMENT C: QUALIFICATIONS OF PRINCIPAL INVESTIGATORS

MICHAEL J. GALL
PRINCIPAL SENIOR ARCHAEOLOGIST (36 CFR 61)

YEARS OF EXPERIENCE

With this firm: 2001-Present
With other firms: 3

EDUCATION

EDUCATION:
MA 2004
Monmouth University
American History

BA 2001
Monmouth University
History and Anthropology

PROFESSIONAL TRAINING

40-hour Health and Safety Training for Hazardous Waste Operations and Emergency Response (OSHA 29 CFR 1910.120), (October 2004)

8-hour Health and Safety Training for Hazardous Waste Operations and Emergency Response Supervisor (June 2010)

8-hour Health and Safety Training for Hazardous Waste Operations and Emergency Response Annual Refresher (May 2020)

C.R.M. Essentials, Trenton, NJ (2007)

PROFESSIONAL AFFILIATIONS

Register of Professional Archaeologists

Council for Northeast Historical Archaeology (Board Member)

Society for Historical Archaeology

Archaeological Society of New Jersey (Bulletin Editor)

Michael J. Gall has extensive experience in applying Section 106 of the National Historic Preservation Act, as amended, the New Jersey Register of Historic Places Act, and other relevant state and municipal laws. Mr. Gall has served as a Principal Investigator on Phase I-III archaeological investigations and archaeological monitoring, and specializes in historical archaeology. He has experience working on archaeological sites in New Jersey, Pennsylvania, Connecticut, Delaware, Virginia, Maryland, Massachusetts, and New York and completing surveys in Arizona, Vermont, Maine, and North Carolina. He exceeds the qualifications set forth in the Secretary of Interior's Standards for Archaeologists [36 CFR 61].

REPRESENTATIVE PROJECT EXPERIENCE:

Phase I-III Archaeological Investigation, Great Road and Cherry Valley Road Intersection Improvement, Somerset and Mercer County, NJ (Sponsor: Somerset County Engineering) Principal Investigator for a Phase I Archaeological investigation in Montgomery Township, Somerset County and Princeton Township, Mercer County. Mr. Gall directed Phase I-III excavations for an early nineteenth-century cottager site owned by Paul Tulane. An archaeological data recovery report detailing the archaeological results at the P. Tulane site was produced presenting the results of the investigation to NJDEP standards.

Garden State Parkway Bridge Nos. 28.0S and 28.5S over Great Egg Harbor Bay and Drag Channel, City of Somers Point and Township of Egg Harbor, Atlantic County and Township of Upper, Cape May County, NJ (Sponsor: NJ Turnpike Authority) Principal Investigator, Senior Archaeologist for Phase II archaeological survey at GEHB 1 Site, a multi-component prehistoric and historic archaeological resource. The archaeological fieldwork resulted in the identification of 12 historic cultural features, and the recovery of eight prehistoric artifacts and 7,403 historic artifacts. The prehistoric component of the site was not recommended eligible for listing on the National Register of Historic Places based on the absence of intact prehistoric cultural features, and the confinement of prehistoric cultural material in historic deposits. The historic component of the site was determined to be associated with the Goldin family's occupation of the property between the 1690s/1700s and 1820s. As a result of the Phase II archaeological survey, RGA recommended GEHB 1 Site eligible for listing on the National Register of Historic Places under Criterion D for its ability to provide important new information on New Jersey's early settlement, animal husbandry, building practices, foodways, space use, and domestic economy between the 1690s/1700s and 1820s.

Phase I Archaeological Survey, Berlin-Cross Keys Road (County Route 689), Gloucester, Winslow, Pinehill and Berlin, Camden County, NJ (Sponsor: Camden County) Principal Investigator, Senior Archaeologist a Phase I archaeological survey for roadway improvements and retention basin installation to a 4.2-mile section of Berlin-Cross Keys Road (County Route [CR] 689 between New Brooklyn-Erial Road (CR 706) to North Park Drive in Gloucester and Winslow townships and Pine Hill and Berlin boroughs. Project tasks included background research at the NJ Historic Preservation Office (NJHPO), an assessment of archaeological sensitivity, field survey, and associated reporting. Fieldwork included the excavation of 522 shovel test pits and photographic documentation of existing conditions. No archaeological sites were identified. A technical report was prepared that met the reporting and survey standards of the NJHPO.

MICHELLE DAVENPORT
SENIOR ARCHAEOLOGIST (36 CFR 61)

YEARS OF EXPERIENCE

With this firm: 2018-Present
With other firms: 5

EDUCATION

MA 2017
Mississippi State University
Applied Anthropology

BA 2011
Whitman College
Anthropology

PROFESSIONAL TRAINING

Forensic Anthropology Center at Texas State University (FACTS) 40-hour Human Osteology Workshop and FACTS 8-hour Human versus Non-Human Remains Identification Workshop

NYC Landmarks qualified physical anthropologist

40-hour Hazardous Waste Operations and Emergency Response (OSHA 29 CFR 1910.120), November 2018

8-hour Hazardous Waste Operations and Emergency Response Supervisor (OSHA 29 CFR 1910.120), April 2019

PROFESSIONAL REGISTRATION:

Register of Professional Archaeologists

PROFESSIONAL AFFILIATIONS

Archaeological Society of New Jersey

Michelle Davenport is an Archaeologist at Richard Grubb & Associates with experience conducting archaeological field investigations for Phase I-III archaeological surveys, archaeological monitoring, and cemetery delineations. Ms. Davenport has participated in cultural resources surveys prepared in accordance with Section 106 of the National Historic Preservation Act, NEPA, and various municipal and state cultural resource regulations. She is on the list of Qualified Archaeologists to Work at Burial Sites and the list of Qualified Skeletal Analysts with the State of Wisconsin and is on the New York City Landmarks Preservation Commission's list of qualified physical anthropologists. Ms. Davenport has conducted multiple monitoring projects within the boundaries of recorded burial sites and cemeteries. Her graduate research involved the skeletal analysis of human remains recovered from an historic cemetery, and she has experience excavating human remains from multiple contexts, including single and comingled inhumations, cremations, and redeposited fills. She has worked on archaeological projects in New York, Vermont, New Jersey, West Virginia, Wisconsin, Missouri, Oklahoma, Louisiana, Texas, Arkansas, Kansas, South Carolina, Mississippi, and Spain.

REPRESENTATIVE PROJECT EXPERIENCE:

Levi Solomon Site (28-Mo-428) Archaeological Data Recovery, Township of Freehold, Monmouth County, NJ (Sponsor: Monmouth County) Principal Investigator for a data recovery at the Levi Solomon Site (28-Mo-428), a nineteenth-century tenant property, prior to roadway improvements to County Route 537. Excavations identified the foundation and cellar hole for the nineteenth-century tenant house, an associated wooden porch, a refuse pit, a wood-lined pit associated with an earthfast outbuilding, and an intact side yard deposit. Artifact deposits were identified associated with property tenants between circa 1840 and circa 1885 and with unknown site occupants prior to 1840. Analysis identified a later example of earthfast construction methods in New Jersey and provided new insight into the continued use of such methods in rural areas during the nineteenth century. The side yard deposit revealed the juxtaposition in consumer behavior between rural working class and middle-class villages and urban working class communities in New Jersey. The site serves as an archaeological example of a rural, nineteenth-century village setting occupation and an upwardly mobile working- to middle-class residential site and of consumer behavior in a mid-nineteenth-century Methodist rural tenant household.

10 Main Street Woodbridge Development, Woodbridge Township, Middlesex County, NJ (Sponsor: Mill Creek Residential Trust, LLC) Principal Investigator for a Phase IA historical and archaeological survey and archaeological monitoring of a proposed mixed residential and commercial development in downtown Woodbridge. The proposed LOD encompassed the footprint of the 1824-1896 Salamander Brick Company brick factory and surrounding associated nineteenth-century structures. Archaeological monitoring during construction was recommended within the nineteenth-century factory and outbuilding footprints. NJHPO concurred with the recommendation. Archaeological monitoring identified the brick factory floor, seven kilns, and sub-floor flue elements of the brick factory.

Crestmont Block 902 Lot 4 Phase II, Pequannock Township, Morris County, NJ (Sponsor: Crestmont Toyota) Principal Investigator for a Phase II survey of a prehistoric site (28-Mr-393) identified during Phase I survey for a proposed commercial development associated with the Crestmont Toyota dealership in Pompton Plains. A total of three, five-foot by five-foot test units and seven shovel test pits were excavated within the site boundary, recovering 135 prehistoric artifacts. The site was interpreted as a short-term Woodland period resource procurement and processing campsite, and was recommended to be not eligible for listing in the NRHP.