New Jersey Turnpike Authority
P.O. Box 5042, Woodbridge, NJ 07095

February 10, 2026

Document Change Announcement

Procedures Manual
Guidance for Creating an Engineer's Estimate
DCA2026PM-01

Subject: Revisions to
Section 3 Submission Requirements, Subsection 3.4 Final Design

Description of Change:
This DCA adds reference to a new guidance document for engineer's estimates and clarifies engineer's estimate deliverable instructions.

Notice to New Jersey Turnpike Authority Staff and Design Consultants
Effective immediately, all contracts currently in the design phase shall incorporate the revisions herein. Contact your New Jersey Turnpike Authority Project Manager for instruction.

The revisions may be accessed on the Authority's webpage:
https://www.njta.gov/business-hub/professional-services/document-change-announcements/

Recommended By:

(signature on original)

Lamis T. Malak, P.E.
Deputy Chief Engineer - Design

(signature on original)

Robert Higham, P.E.
Deputy Chief Engineer - Construction

Approved By:

(signature on original)

Daniel L. Hesslein, P.E.
Chief Engineer

Distribution: Senior Staff Engineering, Law, Operations Depts., All Prequalified Consultant Firms, File

NOTE: All text herein are REVISIONS, as indicated by the tracked changes, to the latest version of the Procedures Manual.

Section 3 - SUBMISSION REQUIREMENTS

3.4. FINAL DESIGN (PHASES B, C, D)

3.4.2. Major Tasks

3.4.2.6. Phase B Submission

The Phase B submission occurs for each construction contract at the stage of plan development when the horizontal and vertical alignment have been computed but the work has not progressed to the point of computing detailed quantities (70 percent complete contract documents). Development of the supplementary specifications should begin during this phase of the project lifecycle but are not a required deliverable unless otherwise directed by the Authority's Project Manager.

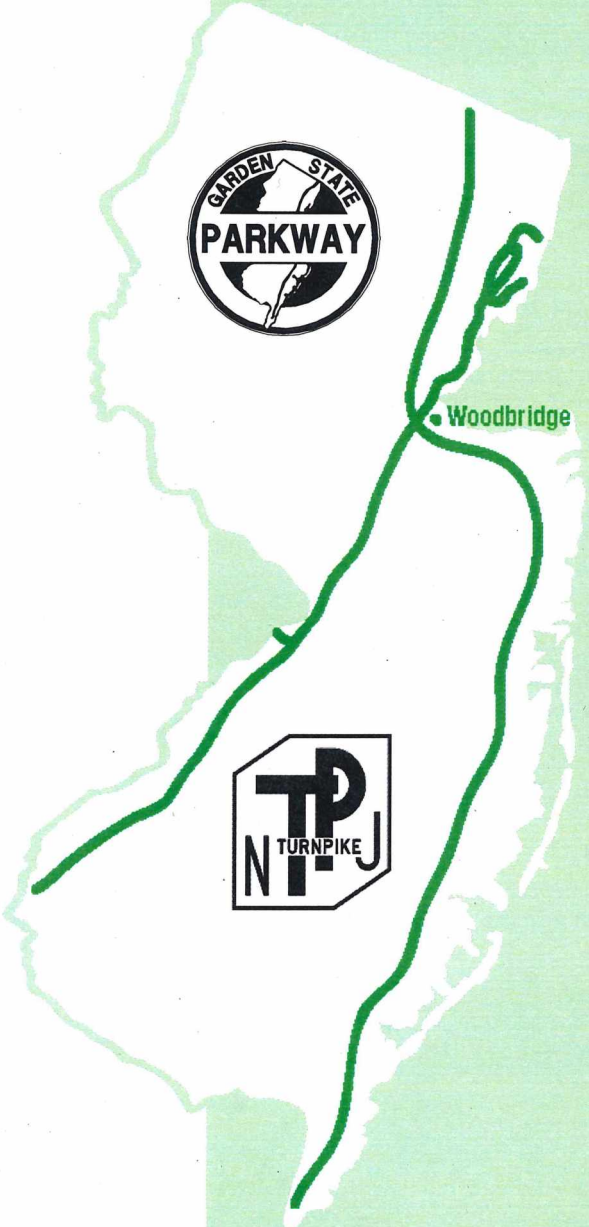
For developing the Engineer's Estimate, refer to the Authority's Guidance for Creating an Engineer's Estimate and the CapEx & Specifications Guidelines.

If additional Design Exceptions have been identified since approval of the Design Exception Report in Preliminary Design, the Design Exception Report shall be amended and resubmitted for approval.

NEW JERSEY TURNPIKE AUTHORITY

GARDEN STATE PARKWAY

NEW JERSEY TURNPIKE



GUIDANCE FOR CREATING AN ENGINEER'S ESTIMATE

Guidance for Creating an Engineer's Estimate

Purpose

Cost estimating is influenced by numerous factors, and the methodologies used to prepare Engineer's Estimates can vary significantly across the consulting industry. Accurate estimating is essential to the Authority, as it supports predictable budgeting and facilitates the efficient procurement of construction projects. To promote greater consistency and reliability, the Authority has identified the need to improve the accuracy of cost estimates and to provide guidance that establishes minimum expectations for the level of detail, assumptions and supporting documentation required in all Engineer's Estimates. For the purposes of this guidance, the Authority defines accuracy as the final (Phase D) Engineer's Estimate falling within -5 percent/+15 percent of the lowest responsible bid. This document outlines the Authority's expectations for Design Consultants ("the Engineer") and provides recommended methodology, processes and required deliverables for developing and updating estimates throughout each deliverable phase.

This guidance applies to all projects with an anticipated Engineer's Estimate greater than $20 million. For projects with an anticipated Engineer's Estimate above $20 million that are less complex in nature, the Engineer may request a waiver, which will be considered at the discretion of the Chief Engineer.

Methodology

The cost estimate is first developed during the Concept Development (CD) phase and is subsequently updated and refined as the project advances through Preliminary Design (PD) and into Final Design (FD). At every stage, the Engineer's Estimate is intended to represent the anticipated total construction cost of the project. During the CD phase, supplemental estimates, such as design, right-of-way, utility relocations, environmental mitigation and other project-related costs may also be required to support early planning and budgeting.

In the early phases of a project (CD and PD), major construction items are typically priced individually, while minor items may be grouped into logical categories. Appropriate contingencies are applied to account for design uncertainty and incomplete information. As the design progresses into the FD phase, all items are expected to be individually quantified and priced, and contingencies should be systematically reduced and ultimately eliminated as the design reaches completion. The estimating process may incorporate both historical bid-based (unit-price) data and cost-based estimating techniques, depending on the level of design development, the availability of relevant data, and the unique characteristics of the project.

To ensure consistency, transparency, and traceability, the Engineer is expected to document all assumptions, data sources, methodologies and calculation steps used in preparing each estimate. This includes providing narrative explanations for significant changes between estimate iterations.

The following table summarizes the features of the cost estimate across the various design phases:

Table 1: Cost Estimate Features for Various Design Phases

Design Phase	Design Maturity at Deliverable	Estimate Deliverable	Estimating Method	Level of Estimate Detail
Concept Development (CD)	0% to 15%	Preliminary Construction Cost Estimate	Historical bid-based	**LOW** Parametric or % of total
Preliminary Design	30%	Preliminary Construction	Cost based for high cost* items	**MEDIUM** High-cost items individually priced

Design Phase	Design Maturity at Deliverable	Estimate Deliverable	Estimating Method	Level of Estimate Detail
(Phase A)		Cost Estimate	Historical bid-based	Lower cost items – parametric or % of total
Final Design (Phase B)	70%	Engineer's Estimate	Cost-based for high-cost* items Historical bid-based	**MEDIUM/HIGH** High-cost items – individually priced Lower cost items – individually priced or % of total
Final Design (Phase C)	95%	Engineer's Estimate	Cost-based for high-cost* items Historical bid-based	**HIGH** All items are individually priced
Final Design (Phase D)	100%	Engineer's Estimate, Signed	Cost-based for high-cost* items Historical bid-based	**HIGH** All items are individually priced

* High-cost items are defined as the aggregate of items that account for approximately 80 percent of the total contract cost.

Historical Bid-Based Estimating

For the historical bid-based method, bid item prices from previously awarded contracts are used to establish the project's bid price and adjusted for escalation. When developing historical bid-based (unit-price) estimates, three reference projects of similar scope, size (quantity) and complexity should be utilized, where possible, to determine the applicable unit price for an item. Contract comparisons should be limited to those awarded within one year prior to the estimate date. The comparison window may be extended to increase the data set when information within the one-year period is limited. In all cases, the reference unit prices should be escalated accordingly.

Additionally, any lump sum (LS) items should be itemized by their work quantities, with unit prices applied individually (unit price x quantity), then summed to the LS value. The Engineer is required to provide all supporting documentation used to develop pricing. For high-cost items, unit prices should be developed using the cost-based method.

Cost-Based Estimating

To identify the largest contributors to the overall Engineer's Estimate, sort the bid items by their extended prices (unit price x quantity) and calculate the cumulative amount that accounts for approximately 80 percent of the total (typically derived from approximately 20 percent of the items).

For the cost-based method, the unit price is determined by considering the cost of each price element (labor, equipment, materials and subcontractors), plus general conditions (indirect costs), home office overhead (G&A), profit, insurance and bond requirements as they relate to the specific project. The Engineer is required to provide all supporting documentation used to develop pricing, including detailed cost reports if estimating software was utilized. Guidance on ranges of values is provided in Appendix A.

The following graphic illustrates the components that are recommended to develop a unit price using the cost-based estimating method.

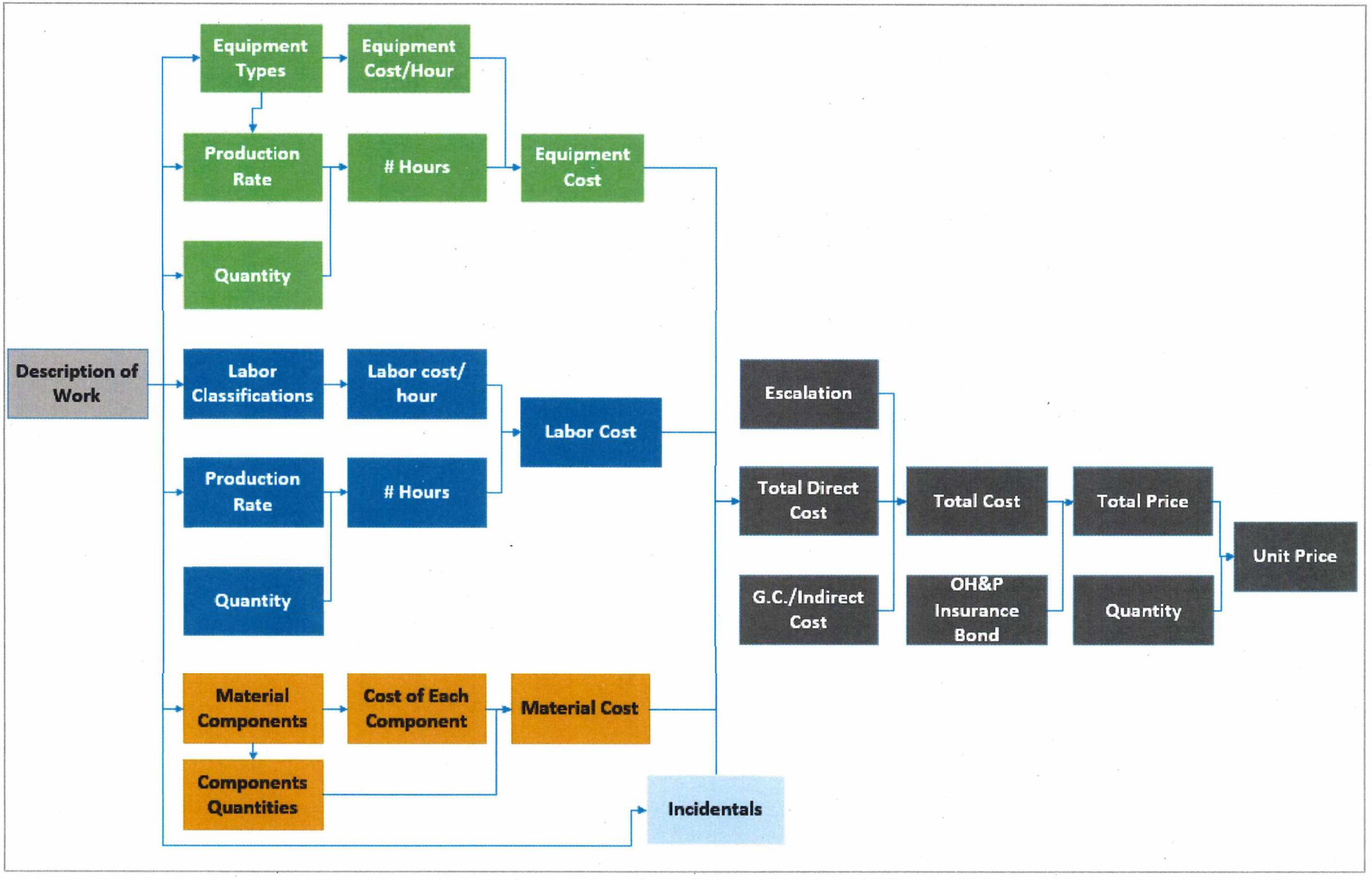


Figure 1: Estimated Guidance for Cost-Based Method

Escalation

See Appendix B for recommended guidance on inflation and escalation. The duration used for the escalation calculation should be based on the Construction Time Determination information.

Contingency

The below table summarizes the recommended design development contingency guidance for the various design phases.

Table 2: Design Development Contingency Guidance

Design Phase	Design Maturity at Deliverable	Estimate Deliverable	Estimating Method	Design Development (D/D) Contingency
Concept Development (CD)	0% to 15%	Preliminary Construction Cost Estimate	Historical bid-based	30%-40%
Preliminary Design (Phase A)	30%	Preliminary Construction Cost Estimate	Cost based for high-cost items Historical bid-based	20%-30%
Final Design (Phase B)	70%	Engineer's Estimate	Cost based for high-cost items Historical bid-based	10%-20%
Final Design (Phase C)	95%	Engineer's Estimate	Cost based for high-cost items Historical bid-based	No Contingency
Final Design (Phase D)	100%	Engineer's Estimate	Cost based for high-cost items Historical bid-based	No Contingency

There may be circumstances that warrant values outside the ranges shown. In such cases, the Engineer should provide justification, including the allocation of contingency to specific items in lieu of applying an overall contingency value.

Basis of Estimate

The Engineer should provide a written Basis of Estimate (BOE) that details how the construction cost estimate was developed. The BOE should outline the methodologies, assumptions, data sources and exclusions used to arrive at the final cost figure. The BOE should be updated at each design phase and include a comparison table with analysis of scope and/or price changes from the previous deliverable. See Appendix C for BOE template.

Estimate Validation

After the Phase C (95 percent) milestone has passed, the Authority may ask the Engineer to validate prices of the largest contributors to the overall Engineer's Estimate, particularly when any of the following conditions are present:

- Periods of volatile pricing for commodity-based items

- A six-month (or longer) duration between the last Engineer's Estimate update and the advertisement of the 100 percent documents for bidding

For high-cost commodity-based items, the Engineer should make every effort to apply current market material pricing obtained from applicable sources. The Engineer's discipline task leads, in conjunction with the project manager, are responsible for performing the price validation on all bid items requiring validation, regardless of who developed the original bid price. For example, if the Engineer's Structures department provided prices for bridge items, the project manager is still responsible for validation, even though the Structures department prepared the initial bid price and the update at 95 percent.

Change of Plan Estimates

Cost-based estimate should be utilized for any new line items that are not part of the original contract.

Appendix A

Basis of Estimate Template

Summary

Provide a brief description of the project. Include date of estimate, construction contract number, design phase and a summary of overall pricing.

Purpose

Provide a written description of the purpose of the project and a summary-level scope of the components required to meet the defined purpose. Include a description of anticipated deliverables for each phase.

Scope of Work

Provide a formal Work Breakdown Structure that defines discrete items of work by contract.

Design Basis

Identify the design deliverables used to generate the estimate, including but not limited to:

- Engineering drawings
- Specifications
- Design reports
- Bid item list

Planning Basis

Describe the design, management, procurement and construction approaches for the project. Include any assumptions made regarding constructability.

Schedule Basis

Describe the schedule information and assumptions used in the estimate. For example:

- Noise restriction requirements that may impact estimated costs
- Atypical shift work that requires labor premium costs
- Work scheduled during High-Intensity Construction Cycles (HICC) to minimize cost impacts

Cost Basis and Methodology

Describe the methods and sources used to determine pricing for both historical bid-based and cost-based methods.

For historical bid-based methods, include reference project information used to determine pricing, along with any parametric benchmarking data and adjustments for escalation, as appropriate.

For cost-based methods, identify:

- Labor rate determination
- Equipment rate determination
- Material pricing methods and sources used
- Work quantity development (for bid items with additional work quantities)
- Crew composition and productivity rate sources
- Methodology and application of multipliers
  - General conditions (indirect costs)
  - Overhead and Profit
  - Insurance
  - Bond

Additional items to identify:

- Allowances used in the estimate, including quantity and/or cost
- Authority costs (e.g., third party utilities, right of way, soft costs, etc.)
- Escalation rates and method of calculation (mid-point or Year of Expenditure [YOE])
- Contingency application and methodology

Assumptions and Qualifications

Describe any assumptions or qualifications not addressed elsewhere in this document. Identify potential risks that may affect cost and schedule.

Exclusions

Describe any costs that may be associated with the total project cost, but not included in the estimate.

Reconciliation

Describe any adjustments made between estimate deliverables. Include an itemized comparison sheet.

Estimating Team

Provide the names of the estimating team members, including their roles and responsibilities.

Supporting Documentation

Identify any appendices or attachments provided.

Cost-Based Estimating – Price Element Guidance

- Labor: Utilize published union or prevailing wage rates for wages, payroll burden and fringes
  - https://www.utcanj.org/nj-heavy-highway-union-rates/
  - https://www.nj.gov/labor/wageandhour/prevailing-rates/public-works/currentprevailingwage.shtml
- Material: Provide current market material price sourcing for major cost driver items and use recent historical information for others
- Equipment: Utilize published equipment rates (e.g., Equipment Watch or similar, *subscription required*), calculated as "FHWA" rates
  - https://app.equipmentwatch.com/search/by-manufacturer
- General Conditions (indirect costs): 10 percent to 20 percent
  - May also be estimated by duration
  - Includes contractor-related job supervision, engineering, field office personnel, field offices, temporary utilities and supplies as applicable to the project size
  - Mobilization should be a bid item and is not included in this category
- Home Office Overhead (G&A) and Profit: 10 percent to 20 percent
- Insurances (liability, pollution, railroad, auto, umbrella): 2 percent to 5 percent
  - Worker's compensation, SUI and SDI insurances should be included in labor payroll burden
- Bond: 0.5 percent to 1.5 percent

Appendix B

Purpose

The New Jersey Turnpike Authority (Authority) has implemented an annual process to provide cost growth guidance regarding Engineer's Estimates for Authority capital projects to reflect current atypical economic conditions including volatility in commodity markets, stresses in labor markets, fuel price surges, and the subsequent modifications by the contracting industry to project advertisement response. This document provides cost inflation and escalation guidance to design consultants performing Engineer's Estimates for the Authority. The document describes a methodology and process for updating Engineer's Estimates to reflect current conditions and to apply future escalation factors in a consistent fashion. Engineer's Estimates consist of full project costs, including program management, environmental, design, utilities, right-of-way, environmental mitigation, construction supervision, and construction. If non-construction items were estimated as percentages of construction cost, those items should be revised based on the newly estimated construction cost.

Methodology

A two-step process is presented that brings the current Engineer's Estimate (assumed to be prepared prior to May 2025) up to date through May 2025 using historical inflation factors to create the "base year estimate". The base year estimate is then factored up to reflect the anticipated annual escalation factors through project completion.

Two types of Engineer's Estimates require an approach to cost updates - with minor differences in methodology:

1. Near-term advertisements - projects expected to be advertised and bid in the next five years - these are the projects with the most sensitivity to current market conditions
2. Long-term advertisements - projects expected to be advertised and bid five years from now or greater

It is critical that both aforementioned project types address the economic influences that have occurred between the preparation date of the latest Engineer's Estimate and May 2025 - including current economic policies related to tariffs.

Given the ongoing uncertainty in trade policy and reciprocal tariffs, applying global cost factors to projects is **not recommended** at this time. Instead, a Risk Management approach—such as cost contingency or allowances—should be used to account for potential tariff impacts.

Since tariffs affect specific commodities within a project's overall cost, a targeted approach focusing on applicable projects and materials will yield more accurate results. If a broad escalation premium is applied globally over the long term, it could lead to unrealistic cost projections. It is important to distinguish between escalation, which impacts overall project costs, and tariffs, which affect specific commodities. These should not be conflated.

Step 1: Base Year Estimates - Updating for Inflation

Historical inflation will be used to normalize estimates from date of preparation to current day - Base Year May 2024. Table 1 below includes historical data for Philadelphia, PA (southern New Jersey capital projects) and New York City, NY (northern New Jersey capital projects). Design Consultants should use this inflation data when normalizing their estimates to May 2025. Inflation data was taken from several published cost indices including the Engineering News Record (ENR), Building Cost Index (BCI), and Construction Cost Index (CCI).

Table 1 - Historical Inflation Percentages (Actual)

Year	Philadelphia, PA	New York City, NY
6/2017 - 6/2018	3.45%	3.55%
6/2018 - 6/2019	2.35%	2.20%
6/2019 - 6/2020	3.65%	3.10%
6/2020 - 6/2021	3.95%	3.85%
6/2021 - 6/2022	9.05%	6.55%
6/2022 - 6/2023	3.10%	3.30%
6/2023 - 5/2024	2.50%	3.00%
5/2024 - 5/2025	3.75%	3.75%

Note - the adjustment of estimates to reflect inflation costs does not substitute for any considerations that may be required to address changes in project scope, specifications, or contract language that may have occurred during the periods of time covered by the table above.

For increased accuracy at the micro-level, such as a singular project estimate approaching a bid milestone and other near-term advertisements, it is suggested that those responsible for developing and maintaining the Engineer's Estimate update the costs to Base Year by confirming estimated costs using the following methodology:

- Verify labor costs against the latest available regional trade contracts
- Verify material costs by refreshing vendor quotations for project-specific commodities
- Verify equipment costs by refreshing operating costs to reflect latest energy prices
- Examine bid results over the past 12 months to recognize industry response to market conditions and how those conditions impact bid prices, and contractors' overhead and margins.

Step 2: Future Year Estimates – Updating for Escalation

Once a project, or program of selected projects, has been updated to a May 2025 Base Year cost estimate, the Engineer's Estimate then needs to be adjusted to reflect expectations of future market fluctuations. Escalation assesses a project's exposure to additional factors that impact expenditures by an agency and their contractors between the Base Year and the proposed completion milestone dates.

The forecasted escalation rates in Table 2 below are based on HNTB's engineering judgment, through research of industry source data from ENR CCI, ENR BCI, US Census Bureau, National Highway

Construction Cost Index, Bureau of Labor Statistics, Association of General Contractors, and other guidance developed by national Program Management Oversight Consultant (PMOC) entities.

Table 2 - Escalation Percentages (Estimate)

Year	Philadelphia, PA	New York City, NY
5/2025 - 5/2026	3.5%	3.5%
5/2026 - 5/2027	3.5%	3.5%
5/2027 - 5/2028	3.5%	3.5%
5/2028 - 5/2029	3.5%	3.5%
5/2029 - 5/2030	3.5%	3.5%
5/2030 - 5/2031	3.5%	3.5%
5/2031 - 5/2032	3.5%	3.5%
Beyond 2032	3.5%	3.5%

Adjusted escalation rates based upon 2025 source data

For a macro level assessment of cost impact, such as for long-term advertisements, these values should be applied to the estimated mid-point of construction for each project. While escalation to mid-point is an established industry norm, its accuracy can be less effective during periods of economic volatility. For increased accuracy supporting a micro-level assessment, such as one that could be required as a project approaches its bid milestone or for near-term advertisements, the rates above should be compounded annually to year of expenditure.

Alternate Methods and Documentation

Design consultants shall provide explanation of how the above methods were used in determining their base year and future year Engineer's Estimates. If the design consultant has recently updated their Engineer's Estimates without the guidance provided in this document, they shall provide comparative analyses of the methods used compared to those presented in this document. Design consultants can offer alternate escalation rates and methods of application against estimated costs for the Authority's consideration based on project-specific characteristics (i.e., commodity driven, schedule duration, etc.) or other considerations.

Appendix C

Project Name and Number: Example Project
Project Location:
Design Phase: Phase B - 70%

Estimate Date: 2/1/2025
Estimator:
QC Date:
QC Reviewer:

Item No.	Unit Code	Description	Qty	UOM	Unit Price	Line Total
1	401-0032	Concrete in Footings	240	C.Y.	$ 478.00	$ 114,720.00
2	403-0002	Structural Steel (~7,935,000 LBS.)	1	L.S.	$ 34,543,123.00	$ 34,543,123.00
3	xxx					
4	xxx					
5	xxx					
6	xxx					
7	xxx					
8	xxx					
9	xxx					
10	xxx					
11	xxx					
12	xxx					
13	xxx					
14	xxx					
15	xxx					
16	xxx					
17	xxx					
18	xxx					
19	xxx					
20	xxx					
xxx	xxx					
		Total Estimated Cost				**$ 34,657,843**

Estimate Contingency (Phase B - 70%)	15%	$	5,198,676
Total Engineer's Estimate		**$**	**39,856,519**

Project Name and Number: **Example Pay Item Template**

Pay Item Number:	401-0032	Estimate Date:	2/1/2025
Description:	Concrete in Footings	Estimator:	
Quantity:	240	QC Date:	
Unit:	C.Y.	QC Reviewer:	
		Design Phase:	Phase B - 70%

ASSUMPTIONS			
Description	**Production Rate**		**Notes**
Fab, Erect & Strip Formwork	350	SF/DAY	4 footings - 20' x 20' x 4' thick
Pour and Finish Concrete	125	CY/DAY	Difficult access, need pump truck

UNIT PRICE CALCULATION

Total Labor		$ 27,411	
Total Equipment		$ 4,028	
Total Materials		$ 51,400	
Subtotal		**$ 82,839**	
Escalation	3.5%	$ 2,899	To Midpoint or YOE
Direct Cost Subtotal		**$ 85,738**	
Indirect Costs	12.5%	$ 10,717	10%-20% Range
Subtotal		**$ 96,456**	
OH&P	15.0%	$ 14,468	10%-20% Range
Subtotal		**$ 110,924**	
Insurances	2.50%	$ 2,773.10	2%-5% Range
Subtotal		**$ 113,697**	
Bond	1.0%	$ 1,136.97	0.5%-1.5% Range
Subtotal		**$ 114,834**	
Unit Price		$ 478.47 /C.Y.	
Rounded Unit Price		**$ 478.00 /C.Y.**	

Project Name and Number: **Example Pay Item Template**

Pay Item Number:	401-0032	Estimate Date:	2/1/2025
Description:	Concrete in Footings	Estimator:	
Quantity:	240	QC Date:	
Unit:	C.Y.	QC Reviewer:	
		Design Phase:	Phase B - 70%

ASSUMPTIONS			
Description	**Production Rate**		**Notes**
Fab, Erect & Strip Formwork	350	SF/DAY	4 footings - 20' x 20' x 4' thick
Pour and Finish Concrete	125	CY/DAY	Difficult access, need pump truck

DIRECT COST LABOR					
Description	**Quantity**	**Unit**	**Unit Cost**	**Total Cost**	**Notes**
Task 1 - Formwork					
Carpenter Foreman	30	HRS	$ 123.41	$ 3,702	
Carpenter Journeyman (4)	118	HRS	$ 107.52	$ 12,687	
Equipment Operator	8	HRS	$ 113.93	$ 911	
Task 2 - Concrete					
Labor Foreman	16	HRS	$ 107.40	$ 1,718	
Labor Journeyman (4)	64	HRS	$ 102.63	$ 6,568	
Equipment Operator	16	HRS	$ 113.93	$ 1,823	Concrete Pump Truck
Task 3 -					
N/A					
Task 4 -					
N/A					
Total Labor				**$ 27,411**	

DIRECT COST EQUIPMENT					
Description	**Quantity**	**Unit**	**Unit Cost**	**Total Cost**	**Notes**
Task 1 - Formwork					
Pick-up Truck (Foreman)	30	HRS	$ 22.55	$ 677	
4 CY Loader	8	HRS	$ 58.86	$ 471	
Task 2 - Concrete					
Concrete Pump Truck	2	Days	$ 1,200.00	$ 2,400	
Concrete Tools	16	HRS	$ 7.50	$ 120	
Pickup Truck (Foreman)	16	HRS	$ 22.55	$ 361	
Task 3 -					
N/A					
Task 4 -					
N/A					
Total Equipment				**$ 4,028**	

DIRECT COST MATERIAL					
Description	**Quantity**	**Unit**	**Unit Cost**	**Total Cost**	**Notes**
Wood forms, oil and nails	1,280	SF	$ 3.75	$ 4,800	
Concrete - 4,500 PSI	260	CY	$ 170.00	$ 44,200	Assume 10% waste, Pump Mix
Curing Materials	1,600	SF	$ 1.50	$ 2,400	
Total Materials				**$ 51,400**	

Project Name and Number: **Example Pay Item Template**

Pay Item Number: 403-0002
Description: Structural Steel (~7,935,000 LBS.)
Quantity: 1
Unit: L.S.

Estimate Date: 2/1/2025
Estimator:
QC Date:
QC Reviewer:
Design Phase: Phase B - 70%

ASSUMPTIONS			
Description	**Production Rate**		**Notes**
Receive & Handle Materials	1	HR/EA	Assume 1 hour per girder/pier cap (130 ea)
Girder Erection	2	EA/DAY	Night work, requires temporary support. 43 Ton is heaviest pick, use 150 Ton crane due to access/radius
Steel Pier Cap Erection	0.5	EA/DAY	Night work. 182 Ton is heaviest pick, use 350 Ton mobile crane due to access/radius
Install Diaphragms	4	EA/DAY	Use smaller fall back crew for diaphragms
Bolt-up and Torque	480	EA/DAY	0.10 MH/EA from past project data

UNIT PRICE CALCULATION

Total Labor		$ 2,198,638	
Total Equipment		$ 1,337,623	
Total Materials		$ 21,382,455	
Subtotal		**$ 24,918,715**	
Escalation	3.5%	$ 872,155	To Midpoint or YOE
Direct Cost Subtotal		**$ 25,790,870**	
Indirect Costs	12.5%	$ 3,223,859	10%-20% Range
Subtotal		**$ 29,014,729**	
OH&P	15.0%	$ 4,352,209	10%-20% Range
Subtotal		**$ 33,366,939**	
Insurances	2.50%	$ 834,173.47	2%-5% Range
Subtotal		**$ 34,201,112**	
Bond	1.0%	$ 342,011.12	0.5%-1.5% Range
Subtotal		**$ 34,543,123**	
	Unit Price	$ 34,543,123 /L.S.	

Rounded Unit Price $ 34,543,123 /L.S.

or $ 4.35 /LB

Project Name and Number: **Example Pay Item Template**

Pay Item Number: 403-0002
Description: Structural Steel (~7,935,000 LBS.)
Quantity: 1
Unit: L.S.

Estimate Date: 2/1/2025
Estimator:
QC Date:
QC Reviewer:
Design Phase: Phase B - 70%

ASSUMPTIONS			
Description	**Production Rate**		**Notes**
Receive & Handle Materials	1	HR/EA	Assume 1 hour per girder/pier cap (130 ea)
Girder Erection	2	EA/DAY	Night work, requires temporary support. 43 Ton is heaviest pick, use 150 Ton crane due to access/radius
Steel Pier Cap Erection	0.5	EA/DAY	Night work. 182 Ton is heaviest pick, use 350 Ton mobile crane due to
Install Diaphragms	4	EA/DAY	Use smaller fall back crew for diaphragms
Bolt-up and Torque	480	EA/DAY	0.10 MH/EA from past project data

DIRECT COST LABOR					
Description	**Quantity**	**Unit**	**Unit Cost**	**Total Cost**	**Notes**
Task 1 - Receive and Handle Mtl's					Day Shift
Ironworker Foreman	136	HRS	$ 114.91	$ 15,628	
Ironworker Journeyman (8)	1088	HRS	$ 111.16	$ 120,942	
Equipment Operator (4)	544	HRS	$ 108.96	$ 59,274	
Task 2 - Temporary Support (Shoring Towers)					Day Shift
Ironworker Foreman	192	HRS	$ 114.91	$ 22,063	
Ironworker Journeyman (4)	768	HRS	$ 111.16	$ 85,371	
Equipment Operator (3)	576	HRS	$ 108.96	$ 62,761	
Task 3 - Erect Girders					Night Shift
Ironworker Foreman	420	HRS	$ 121.43	$ 51,001	
Ironworker Journeyman (8)	3360	HRS	$ 117.31	$ 394,162	
Equipment Operator (4)	1680	HRS	$ 116.09	$ 195,031	
Task 4 - Erect Steel Pier Cap					Night Shift
Ironworker Foreman	32	HRS	$ 121.43	$ 3,886	
Ironworker Journeyman (8)	256	HRS	$ 117.31	$ 30,031	
Equipment Operator (4)	128	HRS	$ 116.09	$ 14,860	
Task 5 - Install Diaphragms					Night Shift
Ironworker Foreman	600	HRS	$ 121.43	$ 72,858	
Ironworker Journeyman (4)	2400	HRS	$ 117.31	$ 281,544	
Equipment Operator (3)	1800	HRS	$ 116.09	$ 208,962	
Task 6 - Bolt-up & Torque					Night Shift
Ironworker Foreman	498	HRS	$ 121.43	$ 60,472	
Ironworker Journeyman (4)	1992	HRS	$ 117.31	$ 233,682	
Equipment Operator (3)	1494	HRS	$ 116.09	$ 173,438	
Task 7 - Crane Moves on-site (inc. Mobe/Demobe)					Night Shift
Ironworker Foreman	120	HRS	$ 121.43	$ 14,572	5 job-site moves
Ironworker Journeyman (4)	480	HRS	$ 117.31	$ 56,309	
Equipment Operator (3)	360	HRS	$ 116.09	$ 41,792	
Total Labor				**$ 2,198,638**	

Project Name and Number: **Example Pay Item Template**

Pay Item Number: 403-0002
Description: Structural Steel (~7,935,000 LBS.)
Quantity: 1
Unit: L.S.

Estimate Date: 2/1/2025
Estimator:
QC Date:
QC Reviewer:
Design Phase: Phase B - 70%

..... continued

DIRECT COST EQUIPMENT

Description	Quantity	Unit	Unit Cost	Total Cost	Notes
Task 1 - Receive and Handle Mtl's					
40-FT Manlift (3)	552	HRS	$ 74.99	$ 41,394	
150 Ton Crawler Crane (1)	184	HRS	$ 537.45	$ 98,891	
400A Welding Machine (2)	368	HRS	$ 12.37	$ 4,552	
375 CFM Compressor (1)	184	HRS	$ 72.28	$ 13,300	
Task 2 - Temporary Support (Shoring Towers)					
40-FT Manlift (2)	384	HRS	$ 74.99	$ 28,796	
30 Ton RT Crane (1)	192	HRS	$ 232.37	$ 44,615	
400A Welding Machine (2)	384	HRS	$ 12.37	$ 4,750	
375 CFM Compressor (1)	192	HRS	$ 72.28	$ 13,878	
Shoring Tower Rental (12)	9	MONTH	$ 8,400.00	$ 75,600	$700/MONTH/TOWER
Task 3 - Erect Girders					
40-FT Manlift (3)	1260	HRS	$ 74.99	$ 94,487	
150 Ton Crawler Crane (1)	420	HRS	$ 537.45	$ 225,729	
400A Welding Machine (2)	840	HRS	$ 12.37	$ 10,391	
375 CFM Compressor (1)	420	HRS	$ 72.28	$ 30,358	
Task 4 - Erect Steel Pier Cap					
40-FT Manlift (4)	128	HRS	$ 74.99	$ 9,599	
350 T Mobile Crane	32	HRS	$ 1,415.85	$ 45,307	
400A Welding Machine (2)	64	HRS	$ 12.37	$ 792	
375 CFM Compressor (1)	32	HRS	$ 72.28	$ 2,313	
Task 5 - Install Diaphragms					
40-FT Manlift (2)	1200	HRS	$ 74.99	$ 89,988	
30 Ton RT Crane (1)	600	HRS	$ 232.37	$ 139,422	
400A Welding Machine (2)	1200	HRS	$ 12.37	$ 14,844	
375 CFM Compressor (1)	600	HRS	$ 72.28	$ 43,368	
Task 6 - Bolt-up & Torque					
40-FT Manlift (2)	996	HRS	$ 74.99	$ 74,690	
30 Ton RT Crane (1)	498	HRS	$ 232.37	$ 115,720	
400A Welding Machine (2)	996	HRS	$ 12.37	$ 12,321	
375 CFM Compressor (1)	498	HRS	$ 72.28	$ 35,995	
Task 7 - Crane Moves on-site (inc. Mobe/Demobe)					
40-FT Manlift (3)	360	HRS	$ 74.99	$ 26,996	
150 Ton Crawler Crane (1)	120	HRS	$ 232.37	$ 27,884	
400A Welding Machine (2)	240	HRS	$ 12.37	$ 2,969	
375 CFM Compressor (1)	120	HRS	$ 72.28	$ 8,674	
Total Equipment				**$ 1,337,623**	

DIRECT COST MATERIAL

Description	Quantity	Unit	Unit Cost	Total Cost	Notes
Structural Steel - Fab & Delivered	7,935,000	LB	$ 2.65	$ 21,027,750	Quote Received
High Strength Bolts	39,675	EA	$ 5.00	$ 198,375	10 Bolts/Ton
Timber Mats for Shoring	7,200	BF	$ 2.00	$ 14,400	
Small Tools & Supplies (ST&S)	18,924	MH	$ 7.50	$ 141,930	I/W ST&S
Total Materials				**$ 21,382,455**	

Project Name & No.: Example Project
Project Location:
Design Phase: **Phase B - 70%**

Estimate Date: **2/1/2025**
Estimator:
QC Date:
QC Reviewer:

Item No.	Unit Code	Description	Qty	UOM	Unit Price	Line Total
1	401-0032	Concrete in Footings	240	C.Y.	$ 478	$ 114,720
2	403-0002	Structural Steel (~7,935,000 LBS.)	1	L.S.	$ 34,543,123	$ 34,543,123
3	xxx					
4	xxx					
5	xxx					
6	xxx					
7	xxx					
8	xxx					
9	xxx					
10	xxx					
11	xxx					
12	xxx					
13	xxx					
14	xxx					
15	xxx					
16	xxx					
17	xxx					
18	xxx					
19	xxx					
20	xxx					
xxx	xxx					
		Total Estimated Cost				**$ 34,657,843**
		Estimate Contingency (Phase B - 70%)			15%	$ 5,198,676
		Total Engineer's Estimate				**$ 39,856,519**

Project Name & No.: Example Project
Project Location:
Design Phase: **Phase C - 95%**

Estimate Date: **6/1/2025**
Estimator:
QC Date:
QC Reviewer:

Item No.	Unit Code	Description	Qty	UOM	Unit Price	Line Total
1	401-0032	Concrete in Footings	230	C.Y.	$ 478	$ 109,940
2	403-0002	Structural Steel (~7,935,000 LBS.)	1	L.S.	$ 34,750,000	$ 34,750,000
3	xxx					
4	xxx					
5	xxx					
6	xxx					
7	xxx					
8	xxx					
9	xxx					
10	xxx					
11	xxx					
12	xxx					
13	xxx					
14	xxx					
15	xxx					
16	xxx					
17	xxx					
18	xxx					
19	xxx					
20	xxx					
xxx	xxx					
		Total Estimated Cost				**$ 34,859,940**
		Estimate Contingency (Phase C - 95%)			0%	$ -
		Total Engineer's Estimate				**$ 34,859,940**

Difference		
Qty	Unit Price	Line Total
-10	$ -	$ (4,780)
0	$ 206,877	$ 206,877
		$ 202,097
		$ (5,198,676)
		$ (4,996,579)

Explanation
Notes
Updated quantity adjustment
Add'l MOT stage added, requiring more temp shoring costs
Removal of contingency at Phase C
Total change in value

NOTE: All text herein are REVISIONS, as indicated by the tracked changes, to the latest version of the CapEx & Specifications Guidelines.

DCP001 Define Scope of Work

I.

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I. Procedures

...

A.

B. Design Phase Schedule

...

1.

2.

3.

4.

5. Generate Engineer's Estimate Deliverable

On the Define Scope of Work page, click "Printable Engineer's Estimate" in the top right corner of the screen. This is the Authority's standard format for the Engineer's Estimate deliverable.

~~5.~~6. Respond to Contractor RFIs

See *Bid Period RFIs* for more information.

~~6.~~7. Make Addenda Changes

See *Addenda* for more information.

For Addenda that have changes to the Scope of Work (addition, deletion, or change in items):

Make these changes in Define Scope of Work prior to submitting the draft Addendum to NJTA. Follow the steps described in *Scope of Work*.

Any changes that come as a result of the Addendum review will be made by NJTA to ensure the correct Scope of Work is uploaded to BidX.

~~7.~~8. Perform Bid Analysis

Shortly after the bid opening, the bid tabulation will be available for analysis and award recommendation:

To view the full bid tabulation, ~~G~~go to Procurement Opportunity → Bid Analysis.

To view a table of the Authority bid history of all firms who bid on the contract, go to Procurement Opportunity → Contractor Bid History. Filter by contractor and starting date as desired.