



PennDOT Transit Project Delivery Process Guide



pennsylvania
DEPARTMENT OF TRANSPORTATION

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1 Roles and Definitions

Bureau Director (BD) is the Director of the Bureau of Public Transportation. The BD has executive-level decision-making ability and can represent the Deputy Secretary.

Bureau of Equal Opportunity (BEO) ensures equal access to public services for citizens and employees of the Commonwealth of Pennsylvania. For the purposes of this manual, BEO will determine the Disadvantaged Business Enterprise (DBE) goal for the project if federal funding passes through the Department. If the Transit Agency is providing federal funds, then the Transit Agency is responsible for providing their own DBE Goal.

Bureau of Public Transportation (BPT) is responsible for supporting and facilitating public transportation infrastructure and services throughout the Commonwealth of Pennsylvania. For the purpose of this manual, BPT is referred to as the Pennsylvania Department of Transportation (PennDOT).

Contractor(s) also referred to as the Prime Contractor, is apprised of the General Trades, Electrical, Mechanical, and/or Plumbing Contractors, or any Contractor directly contracted with the owner (PennDOT or TA), or a combination of the aforementioned; that are contracted to execute the build of a construction project.

Construction Manager Consultant (CM) also referred to as the Construction Manager, is an agent of PennDOT who assists in facilitating both the bidding process and oversight of the construction during the execution of the construction project.

Consultant is a third-party agency directly contracted with PennDOT. An example of a Consultant may be but not limited to those performing design, construction management, or land evaluation services, etc.

Disadvantaged Business (DB) is a state certification that is assigned to a small business that meets the requirements of the state.

Disadvantaged Business Enterprise (DBE) is a for-profit small business where socially and economically disadvantaged individuals own at least a 51% interest and also control management and daily business operations. For the purpose of this manual, a DBE determination will be made by the BEO for projects receiving FTA funding through PennDOT and is a procurement requirement for contractors during the bidding and construction phases of the project.

Deputy Secretary (DS) is an executive position for the Multimodal Deputate for the Bureau of Public Transportation of Pennsylvania. For the purpose of this manual, the DS will make the ultimate determinations during particular stages of a project of whether a project will continue to proceed to the next stage in the project delivery process.

Division Chief (DC) is a senior manager who manages a BPT division. For the purpose of this manual, the DC will be an authority making critical decisions regarding the construction project's process.

Design Consultant/Designer of Record (DOR) also referred to as the Designer, is an agent of PennDOT that is principally responsible for facilitating and delivering the design of the project; and provides construction phase consultation services during the duration of the construction of a project. The Designer may be an Engineer or an Architect and involve the services of other design professionals, who are contracted directly with and assists the Designer in both the design and construction phase services of the construction project.

Engineering and Construction Management System (ECMS) is an enterprise system utilized by PennDOT to facilitate the procurement (bidding) process and construction management of projects. For the purpose of this manual, ECMS may be utilized to procure a Contractor and facilitate the execution of the construction of a project.

Environmental Consultant (EC) is a third-party agency contracted by the PennDOT to perform environmental assessments for construction projects. For the purposes of this manual, the EC will conduct the environmental assessments during the needs assessments and NEPA approval process.

Federal Transit Administration (FTA) is a body of the federal government that provides financial and technical assistance to state and local transit systems. For the purpose of this manual, the PC will ensure that all parties adhere to FTA mandated requirements and reporting procedures as applicable.

Good Faith Effort (GFE) is a requirement of the FTA procurement program. Its efforts to achieve a DBE goal or other requirements of this special provision that by their scope intensity and appropriateness of this objective can reasonably be expected to fulfill the program requirement.

Highway Occupancy Permit (HOP) is a permit issued to install, alter, or remove a driveway, street, or other means of passage of vehicles between the highway and abutting property. For the purpose of this manual, the BPT Project Coordinator will confirm HOP is obtained during the 60% design phase.

National Environmental Policy Act (NEPA) is a federal environmental law that promotes the enhancement of the environment. For the purpose of this manual, the Consultant will perform the applicable NEPA processes needed to properly assess the project and the Project Coordinator will report to state or federal NEPA contact.

Project Coordinator (PC) is a member of BPT who will be directly facilitating the construction project process from conception to closeout.

Section 106 of the National Historic Preservation Act is a federal law that encompasses the historic preservation and cultural resources review process. The Pennsylvania State Historic Preservation Office (SHPO) is the primary partner in the process in coordination with FTA.

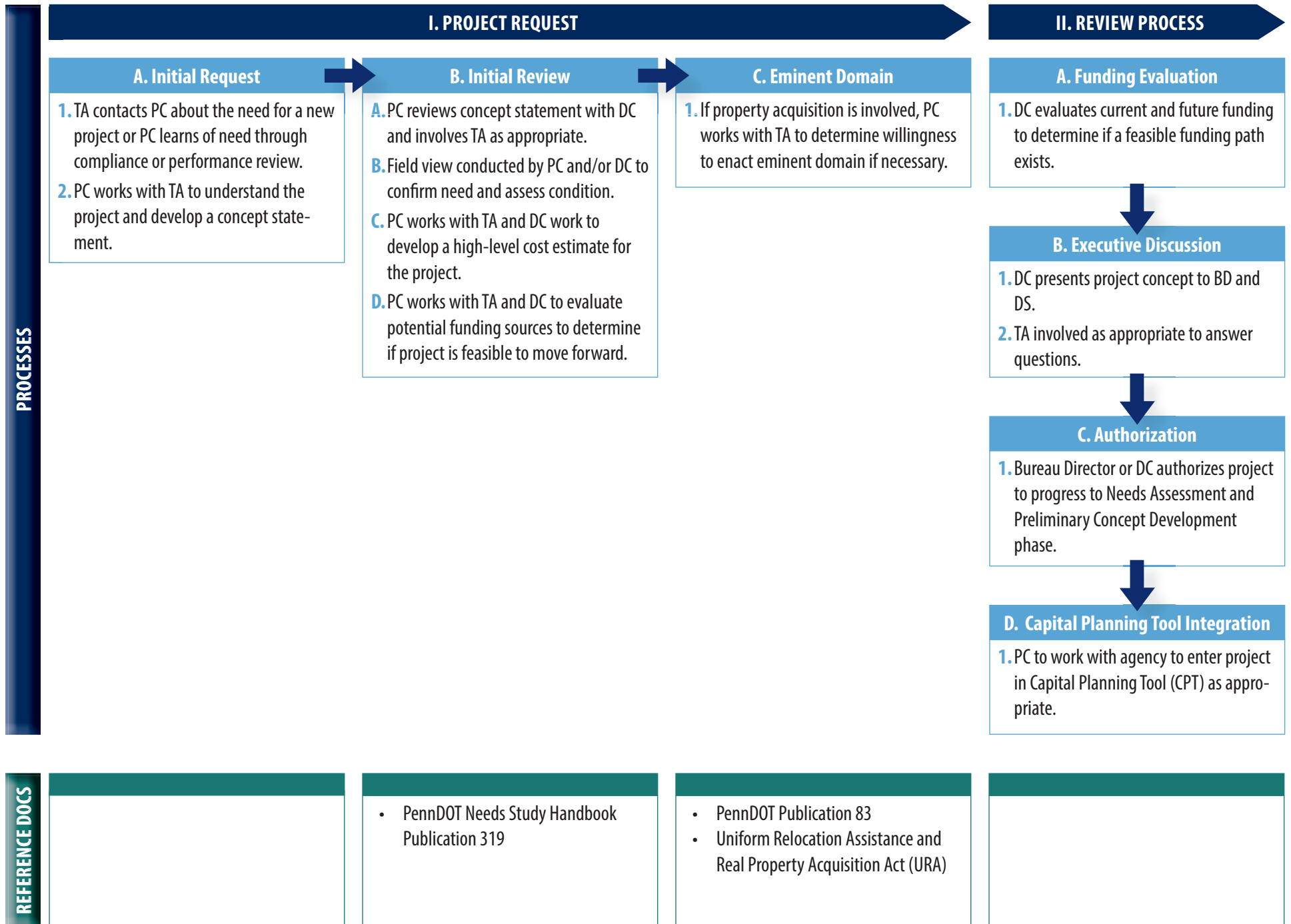
Title VI is a federal document enacted as part of the Civil Rights Act of 1964 that prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving federal financial assistance.

Transit Agency (TA) is a municipal authority, municipal department, or non-profit corporation created for the purpose of providing public transportation within a specific area. For the purpose of this manual, the TA will typically be the direct owner and primary user of the end product of the project.

2 Project Development

This section contains all processes and activities starting with the initial conversations of a project request between a Transit Agency and PennDOT to the authorization of the project to proceed to the need's assessment and conceptual development. Within this section lies the types of requests and the activities for Project Development, including an initial review, a preliminary needs assessment, and field verification. The interactions between PennDOT staff and the approval process within PennDOT is also a part of this section. Additional references regarding Project Development are outlined in the Construction Project Management Handbook FTA Report 15, Section 2 Project Development.

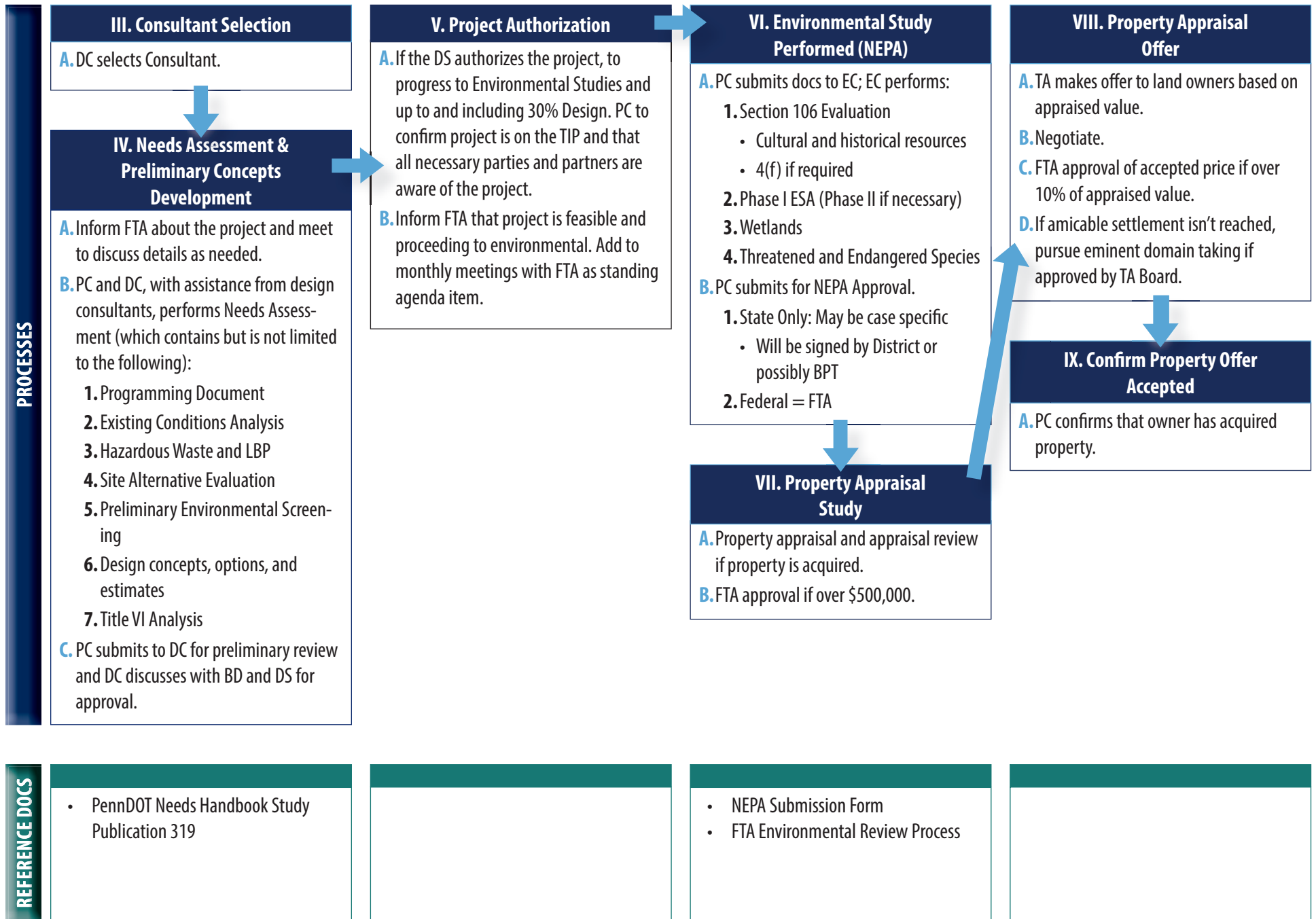
RESPONSIBILITY MATRIX						
	Transit Agency	PennDOT Project Coordinator	Division Chief	Deputy Secretary	Design Consultant(s)	CM Consultant
IA. Initial Request						
IB. Initial Review						
IC. Eminent Domain						
IIA. Funding Evaluation						
IIB. Executive Discussion						
IIC. Authorization						
IID. Capital Planning Tool Integration						



3 Project Planning, Environmental, & Property Acquisition

This section contains all processes and activities for Project Planning, Environmental, & Property Acquisition, starting with the selection of the consultants that will be utilized during the project through the finalization of the property selection process. Activities are laid out step-by-step for both the needs assessment and NEPA review processes. In addition, all processes within the property selection process including the appraisal study, offer, and acceptance are incorporated into this section. Additional references are available in the Construction Project Management Handbook FTA Report 15, Section 3 Project Initiation and Section 4 Planning, Environmental Clearance, and Real Estate Acquisition.

RESPONSIBILITY MATRIX	Transit Agency	PennDOT Project Coordinator	Division Chief	Deputy Secretary	Design Consultant(s)	CM Consultant	Consultant
III. Consultant Selection							
IV. Needs Assessment & Preliminary Concepts Development							
V. Project Authorization							
VI. Environmental Study Performed (NEPA)							
VII. Property Appraisal Study							
VIII. Property Appraisal Offer							
IX. Confirm Property Offer Accepted							



4 Project Design

This section contains the Project Design phase activities, starting with the 30%-Schematic Design (SD), progressing through the 60%-Design Development (DD) and 90%-Pre-Final (PF) phases, and ending with the 100%-Construction Documents (CD). Each stage defines steps in the design process to ensure the spatial and programmatic requirements of the Transit Agency are met in the most efficient manner. Additional references are available in the Construction Project Management Handbook FTA Report 15, Section 5 Project Design.

RESPONSIBILITY MATRIX	Transit Agency	PennDOT Project Coordinator	Division Chief	Deputy Secretary	Design Consultant(s)	CM Consultant
						
						
						
						
						
XA. 30%-Schematic (SD) Plans, Design Narrative, Estimate						
XB. 60%-Design Development (DD) Plans, Specs, Estimate						
XC. 90%-Pre-Final (PF) Plans, Specs, Estimate						
XD. 100%-Construction Docs (CD) Plans, Specs, Estimate						
XE. Retain Construction Phase Services						

X. DESIGN

PROCESSES

**A. 30%-Schematic (SD)
Plans, Design Narrative, Estimate**

1. Designer of Record (DOR) to review Estimate of Cost with PC and TA.
2. Deliverable Reviewed and Approved by PC/DC/DS/TA.
3. PC engages CM for Value Engineering and/or Constructability Review.
4. PC reiterates and enforces FTA Buy America and PA Steel Products procurement requirements with DOR.
 - For federally funded projects the DOR is to utilize Buy America compliant products as basis for design.
5. DS authorizes project to progress to 100% Design.
 - » If at any time the project footprint or locale is changed the PC should reach out to the Environmental Consultant (EC) regarding possible NEPA reevaluation. *This applies to all four design phases.*
6. DOR and TA meet with Authority Having Jurisdiction (AHJ), conservation district, and PennDOT district at 30% to discuss project plans.

**B. 60%-Design Development (DD)
Plans, Specs, Estimate**

1. DOR to review Estimate of Cost with PC and TA.
2. PC confirms HOP submission with DOR.
3. PC to confirm that Zoning, Land Development, and Permitting (PADEP, E&S, and NPDES etc.) processes have been initiated by the DOR.
4. Deliverable reviewed and approved by PC/DC/DS/TA.
5. PC requests Constructability Review from CM.
6. PC ensures DOR captures constructability comments in next phase of documents.
7. PC discusses procurement methodology with DC.
 - ECMS or Local Let
8. PC ensures Buy America is largely incorporated with DOR.
9. Independent cost estimate at end of 60% (optional).

**C. 90%-Pre-Final (PF)
Plans, Specs, Estimate**

1. DOR to review Estimate of Cost with PC and TA.
2. PC finalizes funding appropriation.
3. 90%-Pre-Final Deliverable Reviewed and Approved by PC/DC/DS/TA.
4. PC confirms CM delivers Front Ends (Division 00 and 01) to DOR and TA/Solicitor for review.
5. PC confirms CM performs Constructability Review.
6. PC discusses overview/funding with DS.
7. Establish DBE goal by BEO/TA
 - If TA as direct recipient; BPT reaches out to TA.
 - If TA as indirect recipient; BPT reaches out to BEO.
 - 100% State funded; DBE goal not required. PC ensures DB Solicitation Good Faith Effort language is incorporated into documents.
8. PC ensures Buy America is fully incorporated in design and specs with DOR.

**D. 100%-Construction Documents (CD)
Plans, Specs, Estimate**

1. DOR to review Estimate of Cost with PC and TA.
2. Deliverable reviewed and approved by PC/DC/DS/TA.
3. PC confirms DBE goal determination is finalized by BEO/TA.
4. Risk assessment by PC (optional).
 - Include DOR and/or CM as needed.
5. CM prepares bid package.
6. PC confirms with DOR Building Permit Plans/Application were submitted.

E. Retain Construction Phase Services

1. PC to retain DOR to provide Construction Phase Services.

REFERENCE DOCS

- Permitting Docs: PennDOT HOP, Local Zoning, Land Development, PADEP General or Joint Permit, Erosion & Sedimentation Control, NPDES – Post Construction Storm Water Management

5 Project Procurement

This section contains all activities within the Procurement stage, from the advertisement to the issuance of the notice to proceed to the contractor. The contractor's bid evaluation and assessments are provided, and the selection and approval process of the apparent low bidders are finalized. Contracts and notification documents are also included in this section. Additional references are available in the Construction Project Management Handbook FTA Report 15, Section 4 Planning, Environmental Clearance, and Real Estate Acquisition.

RESPONSIBILITY MATRIX	Transit Agency	PennDOT Project Coordinator	Division Chief	Deputy Secretary	Design Consultant(s)	CM Consultant
						
						
						
						
						
						
XIA. Advertise Project						
XIB. Pre-Bid Meeting						
XIC. Bid Opening/Assessment						
XID. Confirm Bid Assessment						
XIE. Notice of Award						
XIF. Contract for Execution						
XIG. Notice to Proceed						

XI. BIDDING

PROCESSES

A. Advertise Project

1. Advertise by TA with assistance from CM.

B. Pre-Bid Meeting

1. PC and DOR attend Pre-Bid Meeting (Optional).
 - CM conducts Pre-Bid Meeting.
 - PC to reach out to BEO (DBE notification).
 - Ask BEO if they want to present at Pre-Bid Meeting (if funding goes through the department).

C. Bid Opening/Assessment

1. TA opens bids. Then CM to tabulate and evaluate bids, makes recommendations.
2. TA prepares resolution(s) for their Board approval as applicable.

D. Confirm Bid Assessment

1. Contract holder (PC or TA) to assess/confirm CM tabulation and evaluation of bid).
 - PC to confirm with BPT BEO that DB/DBE requirements were met;
 - PC to relay to CM DB/DBE acceptance;
 - PC initiates, relays remediation/rebidding process to CM and/or TA if needed.

E. Notice of Award

1. Contract holder (PC or TA) confirms with CM Notice to Award is sent to awarded Prime Contractors.

F. Contract for Execution

1. Contract holder (PC or TA) confirms with CM and CM finalizes and sends contract(s), requests for bonds, and insurance for execution to awarded Prime Contractors.

G. Notice to Proceed

1. Contract holder (PC or TA) confirms with CM Notice to Proceed is sent to awarded Prime Contractors.

REFERENCE DOCS

6 Project Construction

This section contains all activities in the Construction phase, beginning with the Pre-construction Meeting through the execution of the building process. Deliverables from all project stakeholders are covered extensively at the private, state, and federal levels. Monitor and control functions by all parties are also included in the construction process. Additional references are available in the Construction Project Management Handbook FTA Report 15, Section 6 Construction.

RESPONSIBILITY MATRIX						
	Transit Agency	PennDOT Project Coordinator	Division Chief	Deputy Secretary	Design Consultant(s)	CM Consultant
XIIA. Pre-Construction Meeting						
XIIB. Ground Breaking Ceremony						
XIIC. Review Consultants Deliverables						
XIID. Review TA Draw Down Requests						
XIIE. Change Orders						
XIIF. Claims Analysis						

XII. CONSTRUCTION

PROCESSES

A. Pre-Construction Meeting

1. CM facilitates, PC, DOR attend Pre-Construction Meeting.

B. Ground Breaking Ceremony (Optional)

1. PC and TA coordinate Ground Breaking Ceremony (Optional).

C. Review Consultants Deliverables

1. CM observes construction and ensures contractor compliance with plans and specifications in the following manner:
 - a. Project coordination and correspondence
 - b. Project meetings
 - c. Schedule analysis and enforcement
 - d. Review and approve monthly contractor invoicing
 - e. Facilitate the change management, submittal, and RFI process
 - f. Verify DBE payment/reporting
 - g. Verify certified payrolls
 - h. Perform wage rate interviews
 - i. Maintain testing and inspection logs
 - j. Project photographs
2. PC to receive monthly deliverables from CM and DC. PC reviews monthly deliverables from CM and DC for conformity from work order.

D. Review TA Draw Down Requests

1. PC to review and approve monthly draw down requests from the TA, if the TA is the contract holder. If the department holds the contract, then the PC will coordinate with the CM to review the contractor pay requests in ECMS.

E. Change Orders

1. CM to promptly make PC aware of any Change Orders.
 - $\geq 10\%$ project aggregate needs FTA approval

F. Claims Analysis

1. CM to perform claims analysis, if needed.

REFERENCE DOCS

7 Project Closeout

The Closeout process involves commissioning processes as well as closeout procedures and activities. The PC confirms with each party involved with the project that all open items were completed, requirements satisfied, and records properly archived. Punchlists, final monetary distributions, and system closeouts, both internal and external to PennDOT are also included. Additional references are available in the Construction Project Management Handbook FTA Report 15, Section 8 Project Closeout.

RESPONSIBILITY MATRIX						
	Transit Agency	PennDOT Project Coordinator	Division Chief	Deputy Secretary	Design Consultant(s)	CM Consultant
XIIIA. Ribbon Cutting Ceremony						
XIIIB. Closeout Items						
XIIIC. Claims Analysis						
XIIID. Final Payment						
XIIIE. Final Closeout Meeting						

XIII. CLOSEOUT

PROCESSES

A. Ribbon Cutting Ceremony (Optional)

1. Contract holder (PC or TA) to coordinate Ribbon Cutting Ceremony (optional).

B. Closeout Items

1. PC to confirm receipt of closeout items with TA per CM work order.
 - Perform punchlists
 - Obtain certificate of substantial completion
 - Affidavit of payment of debts and claims
 - Affidavit of release of liens
 - Consent of surety to final payment
 - DBE participation affidavit
 - Maintenance bonds, if applicable
 - O&M Manuals
 - Warranties
 - Attic stock
 - As-built drawings
 - Owner training

C. Claims Analysis

1. PC oversees CM and DC performing claims analysis, if needed.

D. Final Payment

1. PC confirms final payment with CM.
 - CM to provide CD of project records to BPT PC.

E. Final Closeout Meeting

1. PC conducts final closeout meeting with TA.
2. If ECMS project, follow ECMS closeout process.
3. Project Team conducts After-Action Review.

REFERENCE DOCS