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SUBJECT:		
<p style="text-align: center;"> New 2025 Edition Publication 51, Plans, Specifications and Estimate Package Delivery Process Policies & Preparation Manual </p> <p>INFORMATION AND SPECIAL INSTRUCTIONS:</p> <p>The 2025 Edition replaces the 2019 Edition.</p> <p>The new edition provides various updates including the following:</p> <ul style="list-style-type: none"> - Organizational name updates primarily due to the Projects, Schedules, Specifications and Constructability Section being divided between the Project Development & Lettings Section and the Specifications Section within the Highway Design & Technology Division. - The following Appendices were removed and are being incorporated into the Project Development Checklist: <ul style="list-style-type: none"> - Appendix I.A PS&E Certification List PM and DCMM - Appendix I.B PS&E Certification List Minor Projects, Consultant Designed - Appendix I.C PS&E Certification List PDL Section - Appendix II.D On-The Job Training Worksheet - The following Appendices were removed as they are available in ECMS: <ul style="list-style-type: none"> - Appendix I.F Master Project Development Checklist - Appendix I.G Execute Rules Publish Bid Package Level. - Appendix II.B Non-Standard Special Provisions Worksheet - The following appendix was removed as it was unnecessary: <ul style="list-style-type: none"> - Appendix II.A Special Provisions Flowchart - Other minor changes were made for clarifications and to update cross references. <p>The 2025 Edition takes effect as soon as practical without effecting any Letting dates, but must be used after May 1, 2025.</p>		
CANCEL AND DESTROY THE FOLLOWING: Publication 51: 2019 Edition	ADDITIONAL COPIES ARE AVAILABLE FROM: <input checked="" type="checkbox"/> PennDOT website - www.penndot.pa.gov <i>Click on Forms, Publications & Maps</i>	

APPROVED FOR ISSUANCE BY:

A handwritten signature in black ink that reads "Gavin E. Gray". The signature is written in a cursive, flowing style.

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Publication 51

Plans, Specifications and Estimate Package Delivery Process Policies & Preparation Manual



2025 Edition

Bureau of Design and Delivery, Highway Design & Technology Division



**Pennsylvania
Department of Transportation**

Pub 51 (2-25)

FOREWORD

Publication 51, *Plans, Specifications & Estimate (PS&E) Package Delivery Process Policies and Preparation Manual (PS&E Manual)* provides the policies and preparation information for the contents of the PS&E Packages. The PS&E Package Delivery Process is the culmination of the PS&E Package into a Bid Package. The PS&E Package Delivery Process is the completion of the design process, either preliminary or final, in accordance with the PennDOT Design Manuals, Standard Drawings, Strike-Off Letters, etc., which provide the policy and guidance for transportation projects. The Bid Package enables the prospective bidders to submit bids for transportation projects.

The PennDOT projects are funded by federal-aid, state and other sources. Federally funded transportation projects are developed in accordance with the FHWA and PennDOT Stewardship & Oversight Agreement, which was entered into...for the *purpose of administering the Federal-aid Highway Program in Pennsylvania...This Agreement categorizes design and construction projects as Federal Oversight (FO), PennDOT Oversight (PO)-National Highway System (NHS), or PennDOT Oversight (PO)-Non-NHS on the basis of highway system and cost. Further, it delegates to PennDOT certain non-project approval actions that would otherwise be taken by FHWA*¹. The PS&E Packages for state funded transportation projects follow the requirements of the *PA Title 62-Procurement Code*. The regulatory requirements are shown below.

Federal-Aid Projects

*The principal statutory and regulatory basis for development, administration, and oversight of Federal-aid projects are Title 23, United States Code (U.S.C.) and Code of Federal Regulations (CFR), in particular 23 CFR. The specific statutory basis for this agreement is Title 23 U.S.C., Section 106*².

State Funded Projects

PA Title 62-Procurement Code delegates "procurement responsibility" to PennDOT for:

Section 301.(c)(1) Bridge, highway, dam, airport (except vertical construction), railroad or other heavy or specialized construction.

¹ Publication 10, Design Manual, Part 1X, *Appendices to Transportation Development Process*, Appendix C, *FHWA/PennDOT Stewardship & Oversight Agreement*.

² *Ibid.*

This PS&E Manual contains two parts:

- Part I – PS&E Package Delivery Process Policies Manual
- Part II – PS&E Package Delivery Process Preparation Manual

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PART I:
PS&E PACKAGE
DELIVERY PROCESS
POLICIES

CHAPTER I.1 - INTRODUCTION

The Plans, Specifications & Estimate Package Delivery Process Policies portion of the Manual provides the policies for the development and delivery of the Plans, Specifications and Estimates Package, as a whole. Part I contains the Chapters for each of the specific elements of the Bid Packages, such as Plans, Special Provisions, etc. and the requirements which contribute to these specific elements. The Chapters contain the following Sections:

- **Definition**-Presents the meanings for the technical words in the Chapter.
- **Purpose**-Furnishes information on the statutory requirements.
- **Policy**-Provides PennDOT policy for deploying the requirements.
- **Responsibility for Compliance**-Identifies the experts responsible for development, quality control, and quality assurance. The roles have been stated to facilitate for statewide approach; however, the responsibilities also imply *or designee*, to allow for variations in the roles in the Districts.

CHAPTER I.2 - ECMS

The Engineering and Construction Management System (ECMS) is the main method of communicating the PennDOT transportation project requirements for construction, in the Bid Package.

2.0 DEFINITION

ECMS is the communication portal between PennDOT and the Business Partners for conducting transportation projects; bidding through construction close-out process. ECMS is available 24 / 7.

2.1 PURPOSE

ECMS has changed the Bid Package process from paper-based to electronic-based and makes the process more open and transparent. ECMS provides greater access to both Business Partners and the public. It establishes open two-way communication and provides the same information to all prospective bidders. The prospective bidders can view Questions from other bidders along with the PennDOT Responses. ECMS links to the Multi-Modal Project Management System, Electronic Document Management System, AutoTab and Categorical Exclusion System.

2.2 POLICY

The transportation projects are set up in ECMS, as shown on [ECMS Transportation Projects Chart](#). The Bid Packages are advertised / published in ECMS. The Bid Packages provide Project Information, Plans, Special Provisions, Design Items, Attachments, Proposal Report and the

Addenda in the Bid Package Screen. Additionally, Responses to Questions from the prospective bidders are provided directly in ECMS.

ECMS TRANSPORTATION PROJECTS

BID PACKAGE							
Project: <input type="text"/> <input type="button" value="Go"/>		Standard / PENNDOT Oversight Non-NHS				Advertised	
Short Description:		SR:		Org Code:			
County:		Group ID:		Section:			
District:				Municipality:			
Overview							
Type	Plans	Special Provisions	Items	Attachments	Report	Other	Let
Current							09/27/2012 11:00:00 AM
Original							09/27/2012 11:00:00 AM
The EBS file must be downloaded and completed to bid on a project.							
<ul style="list-style-type: none"> • Project Information Screen-State Route, Section, a short description of the project, the District / County / Municipality and others. 							
<ul style="list-style-type: none"> • Detail Information Section-Long Description and Subsections: <ul style="list-style-type: none"> ○ Long Description of the transportation project such as location, including length of project, etc. and in almost all projects the following statement: <i>as indicated on the approved drawings included in the Bid Package.</i> ○ Project Team-Design Team, FHWA Project Team on Federal Oversight Projects and Construction Team, including the Assistant Construction Engineer (ACE), in particular, so that the ACE can schedule the Preconstruction Conference upon receipt of the Award Notice. ○ Characteristics such as Prequalification requirements, Publication 408 version, Contract Management Review, airport and railway involvement and others. ○ Financial Funding including Enhancements projects, local or private funding. ○ Federal Project Numbers manually entered with information from the Multi-Modal Project Management System. ○ Innovative Bidding Types, such as A+Bx, Design-Build and others. 							
<ul style="list-style-type: none"> • Schedule Information, such as Original Completion Date and others. 							
<ul style="list-style-type: none"> • Financial Information, such as Design Estimate. 							
<ul style="list-style-type: none"> • Minority Information, such as the DBE Goal, etc. 							

The Contractors do not have access to view all the project information, as some information remains confidential. PennDOT employees and the public can log in as Guest in ECMS to view the limited information to which the Contractors have access.

2.3 RESPONSIBILITY FOR COMPLIANCE

The Portfolio Manager is responsible for setting up the transportation projects in ECMS and for ensuring that all project team members, such as the Project Development & Lettings Section (PDLS), in the Highway Design & Technology Division (HDTD), Bureau of Design and Delivery (BODD), and Federal Highway Administration (FHWA), as appropriate, are included on the Project Team in ECMS. ECMS Help Desk is responsible for providing assistance with technical system issues.

CHAPTER I.3 - PS&E PACKAGE DELIVERY PROCESS

The Plans, Specifications & Estimate Delivery (PS&E) Process is the process of developing the PS&E Package and converting it to the Bid Package for transportation projects. The prospective bidders review the Bid Package for submitting bids.

3.0 DEFINITION

The PS&E Package is the set of documents which contains the Plans, Specifications, Estimate, and other documents and specifies the requirements to perform transportation projects' improvements.

The Proposal / Bid Package for transportation projects, is defined in the Publication 408, *Specifications as the documents, designated by the Department, containing project requirements and other information upon which a bid for the project to be constructed is to be based*³. It is a legal document which includes Project Information, Plans, Special Provisions, Design Items, Attachments and others.

The PS&E Package Delivery Process is the process established for developing the requirements for constructing transportation projects.

3.1 PURPOSE

The Code of Federal Regulations [23CFR 630 Subpart B](#) provides information regarding the development and submission of plans, specifications and estimate.

Federal Requirements

23 CFR § 630.205 Preparation, submission, and approval

- (a) *The contents and number of copies of the PS&E assembly shall be determined by the FHWA.*
- (b) *Plans and specifications shall describe the location and design features and the construction requirements in sufficient detail to facilitate the construction, the contract control and the estimation of construction costs of the project. The estimate shall reflect the anticipated cost of the project in sufficient detail to provide an initial prediction of the*

³ Publication 408, *Specifications*, Section 101.03, Definitions.

financial obligations to be incurred by the State and FHWA and to permit an effective review and comparison of the bids received.

- (c) PS&E assemblies for Federal-aid highway projects shall be submitted to the FHWA for approval.*
- (d) The State highway agency (SHA) shall be advised of approval of the PS&E by the FHWA.*
- (e) No project or part thereof for actual construction shall be advertised for contract nor work commenced by force account until the PS&E has been approved by the FHWA and the SHA has been so notified.*

3.2 POLICY

The PS&E Package consists of Plans, Specifications, and Estimate and other project documents. The PS&E Package is converted into the Bid Package. The Bid Package consists of Plans, Special Provisions, Items, and Attachments. The Report, commonly termed the Proposal Report, contains the Project-Information, Special Provisions, Design Items and the Addenda. However, the Bid Package excludes the Estimate and some project documents which are considered confidential and for PennDOT internal use only.

The Bid Package Process culminates with the advertisement of the transportation projects in the Engineering Construction Management System (ECMS).

ECMS BID PACKAGE

BID PACKAGE					
Project: <input type="text"/> <input type="button" value="GO"/>		Standard / PENNDOT Oversight NHS			
Short Description:					
County:		SR:			
District:		Group ID			
Overview					
Type	Plans	Special Provisions	Items	Attachments	Report
Current					
Original					
Addendum 1					

A. Certifications Required for PS&E Delivery Process

Certifications are required to be completed prior to advertisement. The PennDOT PS&E Certification Lists should be completed and submitted as follows:

CERTIFICATION LISTS FOR AUTHORIZATION TO ADVERTISE

Certification Name	Destination	Completed By:
<ul style="list-style-type: none">PS&E Certification List- PM and DCMM (ECMS File Cabinet)	Attached to the PDC	Project Manager and Contract Management Manager
<ul style="list-style-type: none">PS&E Certification List- Minor Projects Design Procedures for Consultant Designed Projects (ECMS File Cabinet)	Attached to the PDC	District Contract Management
<ul style="list-style-type: none">PS&E Certification List- PDLS (ECMS File Cabinet)	Attached to the PDC	PDLS

B. Process and Responsibility Matrix

The Bid Package is advertised for the prospective bidders to review the information and submit Questions. Responses are provided and any Addenda necessary are published. Bid Package Process Flowchart, Bid Package Process Steps Descriptions, and Bid Package Process Responsibility Matrix provide the details of the Process.

PS&E DELIVERY / BID PACKAGE PROCESS FLOWCHART



C. PS&E Delivery / Bid Package Process Steps-Descriptions

1. Set-Up Project in ECMS-involves setting up the project information in ECMS.
2. Ensure Development of PS&E Package-covers ensuring the development of the entire Plans, Specifications and Estimate Package and completing the PS&E Submittal Review Certification List.
3. Review PS&E Package-entails the review of the entire PS&E Package to ensure conformance with the PennDOT Design Manuals, Standard Drawings and other applicable publications.
4. Finalize Bid Package-involves the preparation of the documents containing project requirements and other information upon which a bid for the project to be constructed is to be based.

5. Review Bid Package-covers the review of the General Information, Plans, Design Items, Special Provisions, and Attachments.
6. Advertise Project-entails publishing the Bid Package in ECMS.
7. Submit Responses to Questions-is the process in which the Department provides responses to questions from the prospective bidders regarding the Bid Package.
8. Publish Addenda-involves review of the Addenda, similar to the Bid Packages, and publishing the changes in Addenda form in ECMS.

PennDOT and FHWA are committed to Quality Management procedures and principles to ensure that highway programs and projects adequately meet the existing and future traffic needs and conditions in a manner conducive to safety, environmental requirements, durability and economy of maintenance. Projects will be designed and constructed in accordance with standards best suited to accomplish this objective to conform to the particular needs of each locality.


























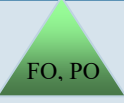
The roles and responsibilities for Quality Management are provided in this Publication for the PS&E Delivery Process. Quality Management includes Quality Control (QC), Quality Assurance (QA), and an Independent Oversight Program (IOP).

- Quality Control is the actions performed by PennDOT (and / or consultants and contractors) in conformance with approved processes and procedures (design manuals, etc.).
- Quality Assurance are the actions performed by PennDOT District and Central Office personnel to assure that QC procedures are followed and that the resultant product (plans, report, materials, etc.) or service will meet specified requirements.

[Bid Package Process Responsibility Matrix](#) designates primary, secondary and quality assurance responsibilities for Non-Complex (Minor), Moderately Complex, Most Complex (Major) and other types of projects, as defined in Design Manual, Part 1. The following are the definitions of responsibilities for the PS&E / Bid Packages Delivery Process shown in the Matrix:

- **Primary** responsibility means that the role ensures timely completion of the activity with quality. If more than one entity has the primary responsibility, those entities designated as primary share the responsibility jointly.
- **Secondary** responsibility provides support to the primary responsibility to ensure accurate and timely completion of the activity.
- **Quality Assurance** is providing the review after the activity has been completed.

BID PACKAGE PROCESS RESPONSIBILITY MATRIX

Activity	Portfolio Manager	Project Manager	District Contract Management Manager	Central Office Project Development and Lettings Section	FHWA
1. Set-up Project in ECMS					
2. Ensure Development of PS&E Package					
3. Review PS&E				 	
4. Finalize Bid Package					
5. Review Bid Package				 	 
6. Advertise Project					
7. Provide Responses to Questions					
8. Prepare / Review Addenda				 	
9. Publish Addenda				 	

A – All Projects (including S-100 Projects); DB*-Delegated Design-Build; M-Minor (excluding IB); MC-Moderately Complex; MJ-Major; FO-Federal Oversight; PO-PennDOT Oversight; IB-Innovative Bidding except delegated DB.



Primary



Secondary



Quality Assurance

D. PA Turnpike Commission Project Coordination

PennDOT and the Pennsylvania Turnpike Commission (PTC) perform project coordination. Refer to the *PennDOT / PA Turnpike Project Coordination Milestones* (Appendix I.A) for the process and milestones for both PennDOT and the PTC.

CHAPTER I.4 - GENERAL PS&E PACKAGE DEVELOPMENT POLICIES

Overall requirements exist for the development of the Plans, Specifications and Estimate (PS&E) Packages, which facilitate the bidding and construction.

4.0 POLICY

The accuracy of Bid Packages is of utmost importance to enable prospective bidders to provide effective bids and for inspection and management of construction by the inspection staff. Several basic principles exist for ensuring the accuracy of the PS&E Packages:

- Use of Standard Requirements in PennDOT
- Consistency of the PS&E Package
- Requirements Stated Singly

A. Use of Standard Requirements in PennDOT

Use the PennDOT approved standards, such as the Publication 408, Standard Special Provisions, Design Manuals, Standard Drawings and others in the Bid Packages for ease of bidding and construction by the Contractors and for ease of inspection. Approximately 80% of the PS&E Packages should incorporate the approved standards. Only approximately 20% of the PS&E package should contain project-specific requirements. If incorporating a project-specific requirement:

- First determine if the modification is absolutely necessary. Consider that the Contractors may perform construction in multiple Districts.
- If a modification to the standard documents is necessary, consider the impact of the change on the price of bids and the resulting possible confusion for the Contractors, as well as the complexity introduced into the inspection process.

B. Consistency of the PS&E Package

Ensure consistency of information in the PS&E Package. No conflicts between the Plans, Specifications and Attachments should be present. Assure that information such as the Design Items are exactly the same in the Plans, Special Provisions and Estimate. Verify that all verbiage

is in accordance with Publication 408, and that information does not conflict with its requirements or with other information in the PS&E Package.

C. Requirements Stated Singly

Each requirement in the PS&E Package should be stated only once, whether it is stated within the PS&E Package itself or by reference. No requirement should be repeated for any reason. This will ensure the accuracy of the PS&E Package.

4.1 RESPONSIBILITY FOR COMPLIANCE

The District Contract Management Manager is responsible for ensuring biddability of District published projects. The Project Development & Lettings Section, in the Highway Design & Technology Division, Bureau of Design and Delivery is responsible for ensuring the biddability of all other projects. Additionally, the Federal Highway Administration's Area Engineer performs quality control on Federal Oversight Projects.

CHAPTER I.5 - TWELVE-MONTH LETTING SCHEDULE

The Twelve-Month Letting Schedule provides information, in ECMS, regarding potential transportation projects to be bid.

5.0 DEFINITION

The Twelve-Month Letting Schedule is a list of upcoming projects which are / will be advertised in ECMS, in the upcoming twelve months.

5.1 PURPOSE

PennDOT posts the Twelve-Month Letting Schedule to communicate the planned projects for construction. This enables the Contractors to determine the bidding of projects. Additionally, the Twelve-Month Letting Schedule facilitates the Contractors' planning of resources, such as joint ventures, and the Subcontractors' and the suppliers' partnerships.

5.2 POLICY

The Twelve-Month Letting Schedule is automatically generated in ECMS and is updated monthly. The Twelve-Month Letting Schedule provides the list of projects in the earliest anticipated Let Date order, by District and must include the following information:

- Project Type
- MPMS / ECMS Number
- State Route, Section

- Project description
- Earliest anticipated Let Date
- Cost range

5.3 RESPONSIBILITY FOR COMPLIANCE

The Center for Program Development and Management is responsible for updating the projects' information in the Multi-Modal Project Management System (MPMS) to allow for automatic generation of the Twelve-Month Letting Schedule.

CHAPTER I.6 - UNOFFICIAL PLANS AND SPECIFICATIONS

The Unofficial Plans and Specifications are posted in ECMS, to enable the potential bidders to preview the plans and specifications for upcoming projects. The Contractors may provide comments to PennDOT for consideration, regarding constructability, etc.

6.0 DEFINITION

Unofficial Plans and Specifications are project plans, specifications and others, posted by PennDOT in ECMS, as the unofficial version.

6.1 PURPOSE

The Unofficial Plans and Specifications are posted to enable potential bidders to review the draft plans, specifications and others, to facilitate the Contractors becoming familiar with project requirements. The Contractors will also have the opportunity to provide valuable input regarding ambiguities and any constructability issues prior to the project advertisement.

6.2 POLICY

The selection of projects for posting Unofficial Documents is at the discretion of the District Portfolio Manager. Candidate projects for posting Unofficial Plans, Specifications and others, include major Federal Oversight projects, projects with Pre-Bid Meetings, and any other projects of an unusual or complex nature, including those containing experimental work.

The District Portfolio Manager posts the Unofficial Documents between 12-16 weeks prior to the Bid Opening in ECMS, and only after the final plan check comments are resolved. The Portfolio Manager releases only Unofficial Plans, Special Provisions, etc. that contain essential information. The Portfolio Manager stamps all Unofficial Plans with an Unofficial ink mark, either by electronic means or manually, prior to importing and linking into ECMS.

The District Portfolio Manager ensures that Unofficial Documents will not state when the final plans or the Bid Package will be available or when bids will be opened. PennDOT will not respond

to comments received on the Unofficial Documents. PennDOT may consider the comments in the development of the final plans. Additionally, PennDOT and FHWA will not participate in the cost of any claims based on Unofficial Plans, Specifications and other documents. FHWA neither prohibits nor endorses the practice of releasing preliminary documents.

6.3 RESPONSIBILITY FOR COMPLIANCE

The District Portfolio Manager posts the Unofficial Plans, Specifications and other documents in ECMS.

CHAPTER I.7 - FEDERAL AUTHORIZATION

The Federal Highway Administration authorizes the use of federal funds to PennDOT through the Federal Authorization process. This process provides for the obligation of federal funds and signifies federal consent to begin work on the project phase for which the approval was requested.

7.0 DEFINITION

The Federal Authorization is an administrative action taken by the Federal Highway Administration whereby that agency reviews and approves various project phases prior to the work being started.

7.1 PURPOSE

The project information is submitted to the FHWA on a Form D-4232. The authorization obligates the federal funds and establishes the date of eligibility for funding preliminary engineering, final design, right-of-way, and construction projects⁴.

The Code of Federal Regulations 23 CFR 630.106 states the following on federal authorization⁵:

⁴ *Ibid.*

⁵ *US Code Title 23, Highways, Code of Federal Regulations, Part 630-Preconstruction Procedures, Subpart A-Project Authorization and Agreements, §635.106-Authorization to Proceed, 2012.*

§ 630.106 Authorization to proceed.

(a)(1) The State transportation department (STD) must obtain an authorization to proceed from the FHWA before beginning work on any Federal-aid project. The STD may request an authorization to proceed in writing or by electronic mail for a project or a group of projects.

(2) The FHWA will issue the authorization to proceed either through or after the execution of a formal project agreement with the State. The agreement can be executed only after applicable prerequisite requirements of Federal laws and implementing regulations and directives are satisfied. Except as provided in paragraphs (c)(1) through (c)(4) of this section, the FHWA will obligate Federal funds in the project or group of projects upon execution of the project agreement.

(3) The State's request that Federal funds be obligated shall be supported by a documented cost estimate that is based on the State's best estimate of costs.

7.2 POLICY

The Form D-4232 is used by PennDOT and FHWA to authorize the use of Federal funds for transportation projects and is approved for each phase of the project. The Form D-4232 for the construction phase supplies FHWA with a concise summary of project characteristics including project funding amounts and the funding program codes, environmental and right-of-way clearances, project oversight and roadway type classifications and others.

The District Planning and Programming Manager processes the request for project authorization and funding and submits the required forms to the Center for Program Development and Management (CPDM). The funding amount on the D-4232 must be within $\pm 10\%$ of the Engineer's Estimate. The CPDM reviews to ensure consistency with the federal regulations and the Transportation Improvement Program and submits the document to FHWA to obtain approval. The CPDM notifies the Districts of the authorized D-4232, once approved⁶.

The Engineer's Estimate is located on the Federal Aid Report Summary Screen in ECMS using the Preliminary drop down option. The Grand Totals on this Screen includes an estimated amount for Construction Engineering (typically 10% to 15%).

Federal-aid projects may not be advertised until the D-4232 has been authorized. The D-4232 must be authorized at least one working day before the project is published, to accommodate the overnight D-4232 batch process. This will ensure that an Error in the Execute Rules Function does not occur.

⁶ Publication 10, Design Manual, Part 1, *Transportation Project Development Process*, Chapter 5.5, *Federal-Aid Programming & Authorization Procedures*.

A. Authorization to Advertise

Authorization to advertise the physical construction for bids or to proceed with force account construction thereof shall normally be issued as soon as, but not until, all of the following conditions have been met⁷, prescribed in 23 CFR 635.309:

AUTHORIZATION TO ADVERTISE REQUIREMENTS (23 CFR 635.309)

Statements

(b) ROW Clearance, Utility & Railroad work completed or will be completed as per requirements

(c) Individuals & families relocated (Highway Relocation Assistance Program)

(g) Right-of-Way acquired or will be acquired

(h) Steps to Relocation Advisory Assistance and Payments have been taken or not required

(p) Design-Build, see 23CFR635.309(p)

Checklist Items

(a) PS&E Approved

(d) Submitted Public Hearing Transcripts, Cert. & Reports (23 CFR 771.111(h))

(e) Other than Competitive Bidding (e.g., emergency projects)

(f) Wages in effect until award

(i) Minimizing soil erosion and water pollution

(j) Environmental conditions & commitments met

(k) Utilities-Scope of PennDOT's approval authority for alternates

(l) Verification-Adequate replacement house in place

(m) Areawide Agency Review (Coord. of Federal Aids with local governments)

(n) Signs & Traffic Control Devices conform to standards

(o) Erection of funding source signs for project

⁷ US Code Title 23, Highways, Code of Federal Regulations, Chapter 1, Subchapter G: Engineering & Traffic Operations Part 635-Construction and Maintenance, Subpart C-Physical Construction Authorization, §635.309-Authorization, 2012.

B. Appalachian Funded Projects

Projects with Appalachian Funds contain additional requirements. The District Contract Management Manager (DCMM), ensures that the Standard Special Provision in the General Category in ECMS, Employment Preference for Appalachian Contracts, is incorporated. Upon advertisement, the DCMM informs the Assistant District Executive (ADE) for Construction that Appalachian funding is being utilized on the project. The DCMM also adds a project condition in ECMS, Do not issue Notice to Proceed, to flag the requirements of the Appalachian Funding.

7.3 RESPONSIBILITY FOR COMPLIANCE

The Center for Program Development and Management is responsible for obtaining the authorized D-4232. The PDLs, for the Central Office published projects, and the DCMM for District published projects, review to confirm that the Form D-4232 is posted on the PDC prior to publishing the Bid Package advertisement. The DCMM informs the ADE for Construction regarding the presence of the Appalachian Funding, when applicable.

CHAPTER I.8 - PLANS

The Bid Package, in almost all projects, includes Plans which are approved drawings for project construction that indicate the details to facilitate the submission of bids by the bidders.

8.0 DEFINITION

The Plans are defined by Publication 408, Section 101.03, as follows:

The approved documents or drawings, or exact reproductions of them, for construction of the project. The Plans show the location, character, dimensions, approximate quantities, and other details of the prescribed work, including layouts, profiles, and cross sections; plans also include cited Standard Drawings. However, subsurface soil and geological data (e.g., the Soil Survey Report and Profile and Core Borings) are excluded from this definition⁸.

8.1 PURPOSE

The Code of Federal Regulations (CFR) 23 CFR 630.205 states the following regarding Plans⁹:

⁸ Publication 408, *Specifications*, Section 101.03.

⁹ *US Code Title 23, Highways, Code of Federal Regulations*, Part 630-Preconstruction Procedures, Subpart B-Plans, Specifications & Estimate, §635.205-Preparation, Submission & Approval, 2012.

(b) Plans and specifications shall describe the location and design features and the construction requirements in sufficient detail to facilitate the construction, the contract control and the estimation of construction costs of the project.

8.2 POLICY

District develops the Plans for roadway, bridge and other construction in accordance with all applicable PennDOT Design Manuals, Standard Drawings, etc. In particular, policies for the development of plans are provided in:

- Publication 10C, Design Manual, Part 1C, *Transportation Engineering Procedures and Project Delivery Process*
- Publication 13, Design Manual, Part 2, *Contextual Roadway Design*
- Publication 13M, Design Manual, Part 2, *Highway Design*
- Publication 14M, Design Manual, Part 3, *Plans Presentation*
- Publication 15M, Design Manual, Part 4, *Structures*

8.3 ROLES FOR PLAN DEVELOPMENT AND REVIEWS

The roles for the Plans development and reviews are as follows:

- The Project Manager submits the Plans with the PS&E Certification Lists, ensuring that the entire PS&E Package is in accordance with PennDOT requirements.
- The District Contract Management Manager (DCMM) performs quality control by reviewing the Plans to ensure consistency of the PS&E Package for the biddability on all projects. Additionally, the DCMM submits the entire set of Plans, in electronic format in the V Drive. The DCMM submits a full-size paper in hard copy form or an electronic form, through e-mail, of the Title Sheet for signatures by the Secretary, and Deputy Secretary.
- The DCMM obtains the required signatures and adds the approval date on the Title Sheet. The Districts upload all plans into ECMS.
- The Project Development & Lettings Section (PDLS) Section performs quality control by reviewing the Plans to ensure consistency of the PS&E Package for biddability, on Central Office published projects. Additionally, PDLS completes quality assurance for Districts' published projects.

8.4 RESPONSIBILITY FOR COMPLIANCE

The Project Manager ensures conformance with PennDOT requirements for Plans submissions. The District Contract Management and the PDLs ensure biddability of the Bid Package.

CHAPTER I.9 - SPECIAL PROVISIONS

The Bid Package includes the Special Provisions for the transportation project. PennDOT strives to achieve statewide uniformity in the use of specifications by the application of Publication 408, *Specifications*, Standard Drawings and other standards in the Bid Packages. Modifications to Publication 408 are necessary to be included in the Bid Package, at times, and are included in the form of Special Provisions.

9.0 DEFINITION

- **Special Provisions** are additions and revisions to the Publication 408 covering conditions pertaining to an individual project.
- **Compulsory Updates' Special Provisions** are supplements required to the Publication 408, *Specifications*, termed as Changes to Specifications in ECMS.
- **Conditional Revisions' Special Provisions** are project-related or other modifications to the Publication 408, termed as General, Item, Non-Pay, Provisional, Section Related and Design-Build Special Provisions in ECMS.
- **General Special Provisions** are titled with general headings, not specific to Item Numbers or the Publication 408 Sections and provide applicable requirements.
- **Item Number Special Provisions** are titled with the Design Item Numbers and provide applicable requirements.
- **Section Special Provisions** are titled with the Section Number and title of the Publication 408 Section and provide applicable requirements for the entire project.

9.1 PURPOSE

The Code of Federal Regulations (CFR) 23 CFR 630.205 states the following regarding Specifications¹⁰:

(b) Plans and specifications shall describe the location, design features and the construction requirements in sufficient detail to facilitate the construction, the contract control and the estimation of construction costs of the project.

¹⁰ US Code Title 23, Highways, Code of Federal Regulations, Part 630-Preconstruction Procedures, Subpart B-Plans, Specifications & Estimate, §635.205-Preparation, Submission & Approval, 2012.

The Publication 408, *Specifications*, have received guidance from many subject matter experts in the PennDOT Central Office Bureaus, Districts, Office of Chief Counsel, Contractor and Consultant industry and others in its development and updates. The Specifications Unit in the Highway Design & Technology Division, Bureau of Design and Delivery is the Document Owner and performs document control for the Publication 408.

9.2 POLICY

All PennDOT Plans, Specifications and Estimate / Bid Packages are governed by Publication 408, *Specifications*, standard publications and other documents. Publication 408 is the main document which contains the specifications required for the materials, construction and the method of measurement and payment for transportation projects.

A. General Requirements

Publication 408 contains the specifications required for most of the construction activities in transportation projects. Do not repeat text from the Publication 408 and other standard publications in the Bid Package. At times, projects may require revisions to some Sections of the Publication 408 due to regulatory, field conditions, and other requirements, albeit in few circumstances. Additionally, project specifications that are not included in Publication 408 may occasionally be required.


The Publication 408 revisions are incorporated into the PS&E Packages with Special Provisions and are made a part of the Bid Package. Write the Special Provisions in accordance with Publication 693, *Specifications Review Manual*. Each Special Provision has a General, Section or Item Number title. Place the Special Provisions with groupings of Standard and Project-Specific Special Provisions, respectively, into the PS&E Package in the following order: General, Section Number and Item Number.






B. Classifications of Special Provisions



The Special Provisions are drafted by District and Central Offices. The following are the classifications of Special Provisions, depending on the sources of revisions:

- Classification 1: Central Office Approved (COA)
- Classification 2: Central Office Drafted (COD) Modifications to Publication 408
- Classification 3: District Office Developed (DOD) Modifications to Publication 408
- Classification 4: Proprietary Specifications (PS)
- Classification 5: Not in Scope (NIS) of Publication 408

[Special Provisions Usage Chart](#) provides policy for the incorporation of the specific Classifications of Special Provisions into the PS&E Packages, along with the review requirements.

SPECIAL PROVISIONS USAGE CHART			
Publication 408 Modification	Incorporate into PS&E Package?	Steps for Incorporation, as Applicable	Review Required
Classification 1-Central Office Approved (COA) Special Provisions			
<ul style="list-style-type: none"> Compulsory Updates-Changes to Specifications Conditional Revisions-Design / Build, General Provisions, Item, Non-Pay Item, Provisional Specification and Section Related 	Yes	ECMS Instructions for Usage	N/A
Classification 2-Central Office Drafted (COD) Modifications to Publication 408			
<ul style="list-style-type: none"> Regulation updates Statewide Best Practices 	Yes	 Clearance Transmittal Process	CT Process Experts
Classification 3-District Office Developed (DOD) Modifications to Publication 408			
<p>Modifications</p> <ul style="list-style-type: none"> Modifications to Publication 408, Section 100s, 700s, and 1100s 	Yes	Submit to the Specifications Unit for coordination with OCC Clearance Transmittal Process	CT Process Experts
<p>Clarifications</p> <ul style="list-style-type: none"> Clarification of Publication 408 (e.g., guide rail stockpile location) 	Yes	ECMS Instructions for Usage	N/A

SPECIAL PROVISIONS USAGE CHART			
Publication 408 Modification	Incorporate into PS&E Package?	Steps for Incorporation, as Applicable	Review Required
<p>Additions or Highlights</p> <ul style="list-style-type: none"> Addition of information or revisions for Standard Item Numbers Repetition of requirements to highlight information in the plans, attachments, etc. 	No	N/A	N/A
<p>District Preferences</p> <ul style="list-style-type: none"> Due to Construction Lessons Learned Specific Project Type Modifications 	Yes	 <p>Submit Non-Standard Special Provision Worksheet</p>  <p>Clearance Transmittal Process</p>	 <p>D.O., C.O. & FHWA (Federal Oversight Only)</p>
Classification 4-Proprietary Specifications (PS) (Material / Product / Process)			
<ul style="list-style-type: none"> Proprietary: <ul style="list-style-type: none"> Material Product Construction processes 	Yes	<p>Chapter 19 – Proprietary Spec. Process</p>  <p>Submit Non-Standard Special Provision Worksheet</p>	 <p>D.O., C.O.</p>

SPECIAL PROVISIONS USAGE CHART			
Publication 408 Modification	Incorporate into PS&E Package?	Steps for Incorporation, as Applicable	Review Required
Classification 5-Not in Scope (NIS) of Publication 408			
<ul style="list-style-type: none"> Project specific requirements do not exist in the Publication 408 	Yes	 Submit Non-Standard Special Provision Worksheet	 D.O., C.O. & FHWA (Federal Oversight Only)

C. Classification 1-Central Office Approved (COA) Special Provisions

Central Office Approved (COA) Special Provisions are Publication 408 revisions that have been submitted and approved through the Clearance Transmittal Process. The two major categories of the COAs are: Compulsory Updates to Publication 408, and Conditional Revisions. ECMS automatically includes the Compulsory Updates into the Bid Packages. Incorporate the conditional revisions Special Provisions, such as General, Item, Non-Pay, etc., in accordance with the Special Provisions' Instructions for Usage provided in ECMS. No additional reviews are required.

D. Classification 2-Central Office Drafted (COD) Modifications to Publication 408

Central Office Drafted Modifications (COD) to Publication 408 are revisions developed due to the changing regulatory requirements, statewide best practices, etc. The developer of the modifications completes the Clearance Transmittal (CT) Process, in accordance with Publication 693, *Specifications Review Manual*. Review is to be provided by the subject matter experts in PennDOT and the industry, in the CT Process.

E. Classification 3-District Office Developed (DOD) Modifications to Publication 408

The District Offices Developed (DOD) Modifications to Publication 408 are revisions that Districts draft to incorporate into transportation projects due to specific project conditions, best practices, etc. The review of the DODs may be provided by the subject matter experts, Districts, PDLS, Specifications Unit and FHWA. Implement the revisions, as stated below.

1. Modifications. To modify Section 100 General Provisions, Section 700 Material, or Section 1100 Manufactured Material, the Contract Management Managers:

- Contact the Specifications Unit which will discuss the modification with the Office of Chief Counsel and other subject matter experts;
 - Complete the CT Process, in accordance with the Publication 693, *Specifications Review Manual, Coordination of Changes to Publication 408 and Standard Special Provisions*.
2. Clarifications. To clarify Publication 408 (e.g., stockpile location), include the clarification in the appropriate Standard Special Provision, in accordance with ECMS Instructions for Usage.
3. Additions or Highlights.
- To add / revise information for Standard Item Numbers, do not include the clarification as an Item Number, Section Number or General Title or any other type of Special Provision.
 - To repeat requirements to highlight certain conditions stated in the plans, attachments, etc., do not include the revision in a Special Provision, as repetitions may introduce inconsistencies.
4. District Preferences. To modify due to District preferences, continual use, construction lessons learned, or due to the nature of the project:
- Consider submitting the modifications through the CT Process for statewide use as a Standard Special Provision; and,
 - Evaluate the impact of including the modifications from the standard requirements, in terms of bid costs and ease of inspection, complete the Non-Standard Special Provisions Worksheet and include as stated below, depending on the revision:
 - If revising a Standard Item with a Non-Standard Item—indicate revisions in a Non-Standard Item Special Provision only.
 - If revising a Publication 408 Section,
 - Impacting entire project—develop a project specific Section Special Provision, except follow the guidance in this Section for revising Publication 408 Sections 100, 700 and 1100.
 - Impacting only one or few Items—develop a Non-Standard Item Special Provision only.

- If providing general project information—Incorporate revisions in an Item Number or a Section Special Provision and do not write any General Special Provisions.

F. Classification 4-Proprietary Specifications (PS) (Material / Product / Process)

Central Office or District Office engineers / managers may determine that materials, products or construction processes which may or may not be specified in the Publication 408 are required in the transportation project. These specifications may be considered to be proprietary specifications (PS). The review of the PS must be provided by the Districts and the PDLS. Complete the following for the PS materials / products / processes:

- If the materials, products or processes are appropriate to be acquired through the PennDOT construction bid contracting process, and are considered to be proprietary specifications, refer to the [*Chapter I.19, Standard & Proprietary Materials / Products / Processes Specifications*](#) for requirements prior to incorporating into the transportation project.
- Complete the Non-Standard Special Provision Worksheet and write a Non-Standard Item Special Provision.

G. Classification 5-Not In Scope (NIS) of Publication 408

District Office engineers / managers may determine that project-specific requirements that are unspecified in Publication 408 are required. The Project Manager includes these specifications. The review of the NIS may be provided by the Districts, the PDLS, the Specifications Unit, and the FHWA.

However, at the initial level, evaluate whether the project-specific requirements are permitted to be acquired through the PennDOT construction bid contracting process. In other words, evaluate whether another procurement method is more appropriate, in which case it should not be incorporated into the transportation project (e.g., procurement of computers for state use). However, if the project-specific requirements are essential, complete the following:

- Evaluate the impact of including the modifications from the standard requirements, in terms of bid costs and ease of inspection, complete the Non-Standard Special Provisions Worksheet and write a Non-Standard Item Number Special Provision
- Consider submitting the requirements through the CT Process for statewide use as a Standard Special Provision.

9.3 RESPONSIBILITY FOR COMPLIANCE

The Specifications Unit is the Publication 408 Document Owner responsible for document control. The PDLs is responsible for compliance with the General Requirements of this Chapter. The responsibilities for compliance with the Classifications' Special Provisions are as follows:

- Classification 1-Central Office Approved (COA) Special Provisions-Specifications Unit
- Classification 2-Central Office Drafted (COD) Modifications to Publication 408-Specifications Unit and Subject Matter Experts in PennDOT, FHWA and industry
- Classification 3-District Office Developed (DOD) Modifications to Publication 408-District Contract Management Manager (DCMM)
- Classification 4-Proprietary Specifications (PS) (Material / Product / Process)-Refer to [*Chapter I.19, Standard & Proprietary Materials / Products / Processes Specifications*](#).
- Classification 5-Not In Scope (NIS) of Publication 408-DCMM

CHAPTER I.10 - DESIGN ITEMS

The Bid Package includes Design Items for which Contractors must provide material, labor, and equipment necessary to complete the Item.

10.0 DEFINITION

Design Items, also known as Pay or Contract Items, are defined by the Publication 408, *Specifications*, as follows:

A specifically described unit of work for which a price is provided in the contract. Individual units in the component item schedule of a lump sum payment item are not considered contract items¹¹.

Standard Items are Design Items that begin with a 0 or 1 Item Number, to implement the specifications from the Publication 408.

Non-Standard Design Items are Design Items that either begin with a 4 or 5 Item Number, to modify Publication 408 requirements; or begin with a 9 Item Number, to provide specification requirements that are not in Publication 408.

Lump Sum Structure or other Lump Sum Items are Design Items that begin with an 8 Item Number, to implement the specifications from Publication 408. Component Items Schedules are

¹¹ Publication 408, *Specifications*, Section 101.03 Definitions.

a listing of individual Design Items which are part of the overall Lump Sum Item, used for the purpose of establishing unit prices for the various items listed.

Grouping of items are indicated with **and** items in the contract.

10.1 POLICY

The Design Item Numbers identify the line items to acquire items or services in the Bid Package. The Design Items must consist of eight numeric digit numbers (with a dash after the first four), Description, Unit of Measure, Quantity, Unit Price, Item Total, Fund Code, Predetermined Price (PDP) Indicator, Work Class Code, Component Item Schedule, Special Provision and Alternates Indicators. The first four digits (prefix) correspond to the appropriate Section of Publication 408, except in the cases of the Non-Standard Item Numbers which may or may not. The remaining four digits (suffix) must also be numeric digits progressing from 0000 to 9999. Contract Items may not contain alpha characters.

The Bid Package contains Standard and Non-Standard Design Items. The Bid Package should contain a majority of Standard Design Items. The Non-Standard Design Items, when required, can be included when the Publication 408, *Specifications*, may not meet the requirements. However, the Non-Standard Items must be used sparingly, and only when absolutely necessary. Include any Non-Standard Design Items, in accordance with the requirements of [Chapter 1.9, Special Provisions](#).

The properties of the Standard Design Items are auto-populated in ECMS. However, for the Non-Standard Design Items, the information for some or all of the properties must be manually entered. List the Standard and Non-Standard Design Items, on the Plans Summary Sheet, in ascending order by their selections. The requirements for implementing both Standard and Non-Standard Design Items are divided into the following four Categories:

- [Category 1-Standard Design Item starting with a 0, or 1 prefix.](#)
- [Category 2-Non-Standard Design Item correlating exactly the same as a Publication 408 Section, starting with a 4 or 5 prefix.](#)
- [Category 3-Non-Standard Design Items correlating similarly, but not exactly the same as a Publication 408 Section, starting with a 4 or 5 prefix.](#)
- [Category 4-Lump Sum Structure or other Lump Sum Items that include a Component Item Schedule, starting with an 8.](#)
- [Category 5-Non-Standard Design Items with no correlation to a Publication 408 Section, or Central Office issued items starting with a 9.](#)

A. Category 1-Standard Design Items Correlating Directly with Publication 408 (Starting with a 0 or 1)

The Standard Design Items correspond directly to the Publication 408 Sections, as shown on [Category 1-Standard Correlating Design Items](#). In other words, the Standard Design Items start with a 0 or 1 prefix, and correlate directly to the Section Numbers of the Publication 408. Use the Standard Design Items from ECMS directly, as ECMS automatically populates all properties of the Standard Items.

Design Item Designation					
Category 1-Standard Correlating Design Items					
Prefix	Suffix	Header	WCC	UoM	Special Provision
0xxx- 1xxx-	Same	Same	Same	Same	N/A

B. Category 2-Non-Standard Correlating Design Items-Same as Publication 408 (Starting with a 4 or 5 Prefix)

Implement the Design Item designation, as follows, and as shown on [Category 2 Non-Standard Correlating Design Items-Same as Publication 408](#), for Non-Standard Items which may correlate almost exactly with the Standard Item Numbers:

- Change only the first prefix digit to a 4 or 5 as follows, and retain the remaining seven numbers as the Standard Item:
 - 4-To correlate to a Publication 408 Section starting with a 0xxx-xxxx.
 - 5-To correlate to a Publication 408 Section starting with a 1xxx-xxxx.
- Only modify the Standard Header to add a descriptor (e.g., includes excavation).
- Place an indicator on the Plans Summary Sheet for a Special Provision.
- Write an Item Number Special Provision.

Design Item Designation Category 2-Non-Standard Correlating Design Items-Same as Publication 408					
Prefix	Suffix	Header	WCC	UoM	Special Provision
4xxx- 5xxx-	Same	Add a Descriptor	Same	Same	Item Number

C. Category 3-Non-Standard Correlating Design Items-Similar to Publication 408 (starting with a 4 or 5 prefix)

Implement the Design Item Designation, as follows, and as shown on [Category 3 Non-Standard Correlating Design Items-Similar to Publication 408](#), for Non-Standard Items which may correlate similarly with the Standard Item Numbers (i.e., suffix does not match the Standard Item Numbers):

- Coordinate with PDLS then, if agreed, change the first prefix digit to a 4 or a 5 as follows and also change the suffix numbers:
 - 4-To correlate to a Publication 408 Section starting with a 0xxx-xxxx.
 - 5-To correlate to a Publication 408 Section starting with a 1xxx-xxxx.
- Add Work Class Codes.
- Modify the Unit of Measure after coordinating with the PDLS for concurrence. They will coordinate with the Specifications Section as necessary.
- Place an indicator on the Plans Summary Sheet for a Special Provision.
- Write an Item Number Special Provision.

Design Item Designation Category 3-Non-Standard Correlating Design Items-Similar to Publication 408					
Prefix	Suffix	Header	WCC	UoM	Special Provision
4xxx- 5xxx-	Determine	Write Description	Determine	Determine	Item Number

D. Category 4-Lump Sum Structure or other Lump Sum Items (starting with an 8 prefix)

Implement the Design Item Designation, as follows, and as shown on Category 4 Lump Sum Structure or other Lump Sum Items for the Design Items including a Component Item Schedule:

- Indicate the prefix four digits in accordance with [APPENDIX I.C – NON-STANDARD ITEM NUMBERING GUIDELINES](#).
- Provide Work Class Codes
- Provide a Unit of Measure of Lump Sum
- Provide an indicator on the Plans Summary Sheet for a Special Provision
- Include an Item Number Special Provision

Design Item Designation					
Category 4-Lump Sum Structure or other Lump Sum Items					
Prefix	Suffix	Header	WCC	UoM	Special Provision
8xxx-	Can change	Add a Descriptor	Determine	Lump Sum	Item Number

E. Category 5-Non-Standard Non-Correlating Design Items to the Publication 408 (starting with a 9 prefix)

This category should only be used when it has been verified that no other Category of Item can be used. Implement the Design Item Designation, as follows, and as shown on [Category 5-Non-Standard Non-Correlating Design Items to Publication 408](#), for the Non-Standard Design Items which are unspecified in the Publication 408:

- Indicate the prefix four digits as 9000-. The suffix numbers can be chosen at the District's discretion within the limits shown*.
- Develop the Description for the Header.
- Provide Work Class Codes.
- Provide a Unit of Measure.
- Place an indicator on the Plans Summary Sheet for a Special Provision.
- Include an Item Number Special Provision.

Design Item Designation Category 5-Non-Standard Non-Correlating Design Items to Publication 408					
Prefix	Suffix	Header	WCC	UoM	Special Provision
9000-	0000 to 4999*	Write Description	Determine	Determine	Item Number

*Central Office issued Category 5 items will be designated with the suffix range 5000 through 9999.

F. Payment Terms for Design Items

The Design Items' Unit of Measure designate the payment terms. The basic types of payment terms for the Design Items are Unit Price and Lump Sum, as follows:

- **Unit Price**—The Contractor's basis of payment is per unit, since the bid is based on estimated quantities that may vary from the actual quantities required during construction.
- **Lump Sum**—The Contractor receives payment for a fixed price for the Item and no measurement of the final pay quantity is required. Use Lump Sum basis of payment only for the Design Items in which the scope of work, the type and quantity of materials to be furnished, and the methods of construction can be accurately defined in the Bid Package.
 - **Component Items' Schedules**—Provide Component Items Schedules to include the Design Item Numbers, Descriptions, and quantities for information only. Implement the requirements of [Chapter I.10, Design Items](#), and [Chapter I.9, Special Provisions](#), for the Design Items on the Component Items Schedules. Provide the Component Items Schedules for the following Lump Sum Design Items:
 - Design Item Numbers 8000- to 8799- for Structures
 - Design Item Numbers 8800- to 8999- for Roadway.

See [Appendix I.C, Non-Standard Item Numbering Guidelines](#)

G. Alternate Bid Items

An alternate bid Item is an Item (or a grouping of Items) that may be substituted for the base bid Item (or grouping of Items) of work. Including alternate bid Items provides the prospective bidders opportunities to select either the base Item or the alternate Item with the lowest acceptable price,

and for the Department to obtain more competitive bids. Include alternate Items, in accordance with Publication 14M, Design Manual, Part 3, *Plans Presentation*, Chapter 2, *Plans*. The determination of considering alternate bid Items, when practical, is at the discretion of the Engineer / Designer. The Engineer / Designer ensures that the primary bid Item and any alternate Items are equivalent in quality and performance.

The alternate Design Items are indicated as **either** the designed Item (or a group of Items) followed by the **or** with the alternate Item (or a group of Items). The bidder selects the alternate preferred and indicates the bid price.

The Standard and Non-Standard Design Items can be included in multiple occurrences. In other words, the Standard or Non-Standard Design Items can be used as a standalone Design Item and also as part of one or more alternate Items.

Whenever a specific Item is both bid on an individual basis and as an alternate, provide separate item numbers for the individual item as well as the alternate item. In other words, only include the Item quantity in the alternate that is to be bid with the alternate and separate out the Item quantity that will not be bid as an alternate. Publication 408 indicates the following:

Wherever an identical item number and description are used more than once, provide the same unit bid price for each bid entry. If the bidder provides different bid prices for an identical item number and description, the bid will be rejected¹².

H. Alternative Pavement Type Bidding Policy

By providing separate item numbers for like items (individual and alternate), a contractor is allowed to bid different prices for different instances of like items.

Alternate pavements can be bid in the Bid Package to facilitate competition between the asphalt and concrete industries. Indicate the C Factor for all pavement Design Items, in accordance with Publication 242, *Pavement Policy Manual*.

I. Fund Codes

Establish Fund Codes for each Design Item to define certain categories of work and to provide the mechanism of reporting federal improvement type information to the FHWA. Additionally, Fund Code information is used to determine the costs for specific elements of the project. In order to provide statewide consistency for extracting data, these requirements also apply to 100% State funded projects.

¹² Publication 408, *Specifications*, Section 102.06(g) Contract Unit Price.

Establish a separate fund code for different types of work and for each Work Breakdown Structure or route. Implement the naming convention, as shown on the Fund Code Name Prefix Chart in Appendix I.B. Each Fund Code must begin with the prefix indicated for each category (or subcategory) of work. Additional information may be included in the fund code name following the prefix.

10.2 RESPONSIBILITY FOR COMPLIANCE

The Project Manager (PM), in coordination with the District Contract Management Manager (DCMM) selects the Design Items, the alternate Items and the Fund Codes. The PM also ensures the Component Items Schedule is determined for the required Lump Sum Items, and the alternate Design Items are included in accordance with these requirements. The DCMM and the PDLS perform quality assurance to ensure compliance with these requirements.

CHAPTER 1.11 - PROJECT DEVELOPMENT CHECKLIST / ATTACHMENTS

Each transportation project contains records which are developed throughout the Project Development Checklist (PDC) Process. The project records which support the development of the Plans, Specifications and Estimate are uploaded into the PDC. Some of these project records are provided for use by the Contractors as Attachments to the Bid Package.

11.0 DEFINITION

Project Development Checklist (PDC) is an electronic file cabinet, in ECMS, which contains the plans, required permits, approvals and other records for the transportation project.

Attachments are additional documents provided for the prospective bidders and are a part of the Bid Package (e.g., Permits).

11.1 PURPOSE

The PDC is the electronic file cabinet to organize required project plans, records and to display the approvals specified in the PennDOT Design Manuals and other Publications, in ECMS. The PDC enables the Project Manager to compile the required Plans, Specifications and Estimate documents for development, quality control and quality assurance of transportation projects. The Attachments provide the needed information to the prospective bidders to provide a bid and subsequently, complete the construction of the project.

11.2 POLICY

A. Project Development Checklist

The PDC, in ECMS, must be utilized on all transportation projects. In the PDC, include the following:

- Roadway Plans
- Supplemental Plans
- Document records
- Approvals / permits
- Others

The PDC records can be attached in the standard Categories or in the Project Specific Category. Refer to the Master Project Development Checklist in the ECMS File Cabinet. The Project Manager develops the PDC Records as the project is being designed, reviewed, etc. The Project Manager also indicates whether each PDC record is to be included as an Attachment for viewing by the bidders, as shown in the Master Project Development Checklist. ECMS provides defaults which automatically toggle yes or no to indicate whether the record is an Attachment. The Project Manager reviews these defaults to ensure applicability to the project. The Project Manager must also review to ensure that appropriate Attachments have been included on the project.

The Project Development & Lettings Section (PDLS) in the Highway Design & Technology Division of the Bureau of Design and Delivery evaluates the list of possible standard PDC categories on a semi-annual basis for required changes due to regulations, policies, procedures and others. The PDLS also performs any updates to ECMS prompted by the evaluation, on the quarterly ECMS releases.

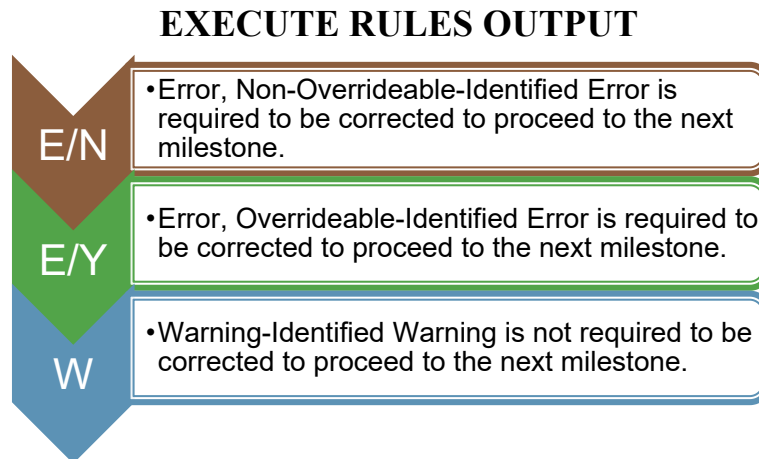
B. Execute Rules Function

The District and Central Offices perform a check of the completeness of the Bid Package by performing Execute Rules. The Execute Rules function in ECMS is a complex and powerful tool used during the Bid Package preparation through Notice to Proceed phases. The Execute Rules function checks that all conditions and requirements have been met to advance the project to the next developmental level. The Execute Rules Function can be run at the following milestones:

- Submit Bid Package (or Addendum)
- Publish Bid Package (or Addendum)
- Open Bids

- Award Contract
- Issue Notice to Proceed (NTP)

The Execute Rules function provides the output of E/N, E/Y, or W. [Execute Rules Output](#) chevron list provides the definitions of each.



C. Project Condition

The District and Central Office use the Project Condition feature in ECMS for those items not covered by Execute Rules. The Project Condition provides for entering information regarding issues that must be resolved prior to proceeding to the next step. For example, enter a condition of "Do Not Advertise" until the local municipality's Construction Inspection Agreement is executed.

D. Attachments

Each transportation project may consist of several attachments. Some of the attachments are:

- Standard attachments
 - Environmental permits
 - Contract Time
 - Wages
 - Final Engineer's Logs: Including Core Box Photographs
1. **Standard Attachments.** Standard Attachments are required to be tagged to the project in the PDC. The PDLs updates the Attachments required in ECMS.
 2. **Environmental Permits.** Projects are required to have environmental permits secured by the Department prior to advertising for bids. Submission of the Bid Package certifies

that the necessary environmental permits have been obtained or that no additional permits are required. The environmental permits are to be attached to the PDC.

In unique situations with unresolved issues, but with the anticipation that the permit will be obtained prior to the Bid Opening Date, the District with proper justification, may request the authorization to proceed to advertisement on the condition that bids will not be opened until the permit is issued. If the project is federally funded, this procedure requires approval of the FHWA. Link the approval correspondence in the PDC.

3. **Contract Time.** Bid Packages contain requirements to indicate the contract time on a project. The 23 CFR 635.121 states the following regarding Contract Time: *The STD should have adequate written procedures for the determination of contract time. These procedures should be submitted for approval to the Division Administrator within 6 months of the effective date of this Final Rule*¹³. Additionally, *the contract time for most construction projects can be determined by developing a progress schedule. A progress schedule shows the production durations associated with the chosen production rates for the items of work*¹⁴.

The Pre-Bid Construction Schedule is used to determine the Contract Completion Date and any interim milestones included in the Proposal. Develop the Pre-Bid Schedule to allow a qualified Contractor sufficient time to complete the proposed work using accepted construction practices and a reasonable application of resources. Include the Pre-Bid Schedule in the Bid Package as an Attachment.

Use the Critical Path Method (CPM) for project scheduling to develop the Pre-Bid Construction Schedule. Include any restrictions, commitments and other requirements that will be imposed upon the project. Involve subject matter experts, in the following areas, in the development of the Pre-Bid Schedule: Construction, Design, Traffic, Environmental, Right-of-Way, Utilities and Contract Management.

Calculate the Anticipated Notice to Proceed Date (ANTP) to be the Monday following six weeks after the Bid Opening Date. Obtain approval from the PDLs on setting the ANTP to be earlier than the Monday following six weeks after the Bid Opening Date.

4. **Wage Rates.** The wage rates for the workers on transportation projects are required to be included in the Bid Package, for almost all transportation projects. The District Contract Management Manager (DCMM) includes the federal Davis-Bacon Wage Determinations

¹³ US Code Title 23, Highways, Code of Federal Regulations, Part 635-Construction and Maintenance, Subpart A-Contract Procedures, §635.121, Contract Time and Contract Time Extensions, 2012.

¹⁴ FHWA Technical Advisory, *Guide for Construction Contract Time Determination Procedures*, <http://www.fhwa.dot.gov/construction/contracts/t508015.cfm>, October 15, 2002

for federally funded projects and the Prevailing Wage Rates for applicable state funded projects, as per the following requirements:

a. Federal-Davis-Bacon Wage Determinations.

- The Davis-Bacon Act and related acts require the Contractors to pay workers (laborers, carpenters, etc.) prevailing wage rates on all federal-aid construction projects exceeding \$2,000, except those on roadways classified as local roads or rural minor collectors. However, please note that projects funded through the Surface Transportation Block Grant (STBG) program or the Transportation Alternatives Program (TAP) program on roadways classified as local roads or rural minor collector shall include federal prevailing wages, with the exception of Recreational Trails Program (RTP) projects. Projects that are exempt from federal prevailing wage rates, however, generally require state wage rates.
- Include the latest federal wage rates on the federal-aid projects. Update the Davis-Bacon Wage Determinations attached to the Bid Package if the wage rates were revised by the Department of Labor (DOL) on or before the bid opening date. Delay the bid opening if necessary to fully comply with updating wage rates prior to bid opening. Justification is required when wage rates are not updated prior to bid opening for changes occurring less than 3 days of bid opening. Submit a request via email to the chief of the PDLS in Central Office for approval of not updating the wages for changes occurring less than 3 days of bid opening. The approval must be stored on the PDC for the subject project.
- The wage rates are separated into three basic sections for the Heavy and Highway Construction, based on the project location, as follows:
 - **Determination PA2** includes the wage rates for both Heavy and Highway Construction for the following counties: Allegheny, Armstrong, Beaver, Bedford, Blair, Butler, Cambria, Cameron, Centre, Clarion, Clearfield, Clinton, Crawford, Elk, Erie, Fayette, Forest, Franklin, Fulton, Greene, Huntingdon, Indiana, Jefferson, Lawrence, McKean, Mercer, Mifflin, Potter, Somerset, Venango, Warren, Washington, and Westmoreland Counties.
 - **Determination PA4** includes the wage rates for both Heavy and Highway Construction for the following counties: Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties.

- **Determination PA6** includes the separate wage rates for either Heavy or Highway Construction for the following counties: Adams, Berks, Bradford, Carbon, Columbia, Cumberland, Dauphin, Juniata, Lackawanna, Lancaster, Lebanon, Lehigh, Luzerne, Lycoming, Monroe, Montour, Northampton, Northumberland, Perry, Pike, Schuylkill, Snyder, Sullivan, Susquehanna, Tioga, Union, Wayne, Wyoming, and York Counties. Additionally,
 - For bridges over a water course (wet or dry), also include the Standard Special Provision Heavy Construction Wage Rates, in accordance with the Instructions for Usage in ECMS.
- If job classification rates are required which are not in the published rates, include the Special Provision Notice to Bidders, Wage Rate Determination and list the classifications, in accordance with the Instructions for Usage in ECMS.

b. State-Prevailing Wage Rates

- The Pennsylvania Prevailing Wage Act¹⁵ requires Contractors to pay workers prevailing wage rates for *construction projects (construction, reconstruction, demolition, alteration and or repair work other than maintenance work) financed by a public body where the estimated cost is at least \$25,000.*
- The requirement for inclusion of the prevailing wage rates is determined by the project's scope of work. Projects determined to be considered as "maintenance" by the Pennsylvania Department of Labor and Industry (hereinafter "Labor & Industry") are not required to contain the prevailing wage rates. The definition of "maintenance" is set forth in the Pennsylvania Prevailing Wage Act (43 P.S. § 165-2) and treatment classifications are currently located (subject to change) on the link, [Interpretation](#), for Interpretation of Maintenance Work for Road Projects Under Pennsylvania Prevailing Wage Act and on the link [PennDOT Treatment](#) for Prevailing Wage / PennDOT Treatment. If the designation is uncertain, coordinate with the Labor Contract Compliance Coordinator, Bureau of Design and Delivery.
- When requesting wage rates for non-Federal projects, complete one copy of the Request for Prevailing Minimum Wage Predetermination available at the below stated Prevailing Wage web page and submit it directly to the Bureau of Labor Law Compliance Division at the Labor & Industry. Describe the work involved completely so as to enable the Prevailing Wage Division to

¹⁵ The Pennsylvania Prevailing Wage Act (43 P. S. §§ 165-1 - 165-17), 2012.

appropriately identify the wage classifications applicable to the project. Link the wage rates to the PDC. Labor & Industry's main webpage for requests can currently be found on the link, [Prevailing Wage Quick Links](#).

- In addition to the wage rates, wage notes are also necessary. These notes can be accessed from: [Prevailing Wage Quick Links - Notes as Referenced in Predeterminations](#).
 - The Contract must be awarded within 120 days following the Wage Predetermined Date. If the Bid Opening is delayed and the Prevailing Wage Rates expire, it may become necessary to request updated wage rates from the Labor & Industry and add the wage rates by Addendum.
5. Final Engineer's Logs. All Final Engineer's Logs and Core Box Photographs are to be included within the Bid Package, as applicable. Final Engineer's Logs and Core Box Photos are to be in accordance with Publication 222, *Geotechnical Investigation Manual*.

11.3 RESPONSIBILITY FOR COMPLIANCE

The Project Manager (PM) ensures that all Records are present and accurate in the PDC records. The District Contract Management Manager (DCMM) performs quality control on the PDC records and ensures the required Attachments are provided in the Bid Package. The PDLS Section is responsible for performing quality assurance, on the standard and project-specific required PDC records.

CHAPTER I.12 - PROPOSAL REPORT

12.0 DEFINITION

The Proposal Report is generated in ECMS to present the Bid Package General Information, Design Items and the Special Provisions in one document.

12.1 PURPOSE

The Proposal Report combines the transportation project's Cover Page, Bid Package Summary, Project Items & Quantities, and Special Provisions in one report to facilitate review of these components in one document.

12.2 POLICY

The Proposal Report may be generated manually, prior to publishing the Advertisement. Upon advertisement ECMS automatically generates it as a link for the Bid Package.

12.3 RESPONSIBILITY FOR COMPLIANCE

The District Contract Management Manager or the Project Development & Letting Section publish the advertisement for the generation of the Proposal Report.

CHAPTER I.13 - COST ESTIMATE

The transportation project Cost Estimate is developed and reviewed and compared with the bid price to ensure the bid price is a reasonable representation of the project cost.

13.0 DEFINITION

Cost Estimate is the determination of the approximate fair and reasonable price the Department should expect to pay for each of the Design Items of work to be performed, based on expected prices as of the date the Cost Estimate is developed.

13.1 PURPOSE

The Cost Estimate is developed to identify the funding required and to facilitate comparison of bid prices for the project. The Code of Federal Regulations (CFR) 23 CFR 630.205 state the following regarding the Cost Estimate¹⁶:

(b) ...The estimate shall reflect the anticipated cost of the project in sufficient detail to provide an initial prediction of the financial obligations to be incurred by the State and FHWA and to permit an effective review and comparison of the bids received.

13.2 POLICY

The Project Manager (PM) develops the Cost Estimate in accordance with the Publication 352, *PennDOT Estimating Manual*. The District Contract Management Manager (DCMM) may update the Estimate until the project Letting Date. The PS&E Reviewers in the Project Development & Lettings Section (PDLS) in the Highway Design & Technology Division of the Bureau of Design and Delivery, review the Cost Estimate and provide comments, for Central Office full reviews only. The DCMM may update the Cost Estimate based on the comments received, if necessary.

The Cost Estimate is considered to be confidential, both before and after bidding, and is only to be viewed by those within PennDOT or FHWA, who have a need to know. However, the Project Manager provides project cost ranges in the Bid Package in ECMS.

¹⁶ US Code Title 23, Highways, Code of Federal Regulations, Part 630-Preconstruction Procedures, Subpart B-Plans, Specifications & Estimate, §635.205-Preparation, Submission & Approval, 2012.

13.3 RESPONSIBILITY FOR COMPLIANCE

The PM ensures the Cost Estimate is an effective representation of the project cost. The DCMM and the PDLS provide quality assurance of the Cost Estimate.

CHAPTER I.14 - ADVERTISEMENT

The PennDOT transportation projects are advertised in ECMS. The published advertisement provides the project requirements for all prospective bidders at the same time. The bidders have the opportunity to review the Bid Package, attend a Pre-Bid Conference, if scheduled and submit Questions.

14.0 DEFINITION

The Publication 408, *Specifications* defines a Proposal / Bid Package as *the public announcement, required by law, inviting bids for work to be performed or for materials to be furnished.*

14.1 PURPOSE

The Code of Federal Regulations 23CFR 635 Subpart A provides information regarding the advertisement:

23 CFR § 635. 112 Advertising for Bid and Proposals

(a) No work shall be undertaken on any Federal-aid project, nor shall any project be advertised for bids, prior to authorization by the Division Administrator.

(b) The advertisement and approved plans and specifications shall be available to bidders a minimum of 3 weeks prior to opening of bids except that shorter periods may be approved by the Division Administrator in special cases when justified¹⁷.

14.2 POLICY

A. Advertisement

PennDOT advertises the Bid Packages in ECMS. The PDLS Chief or their designee publish the advertisements for Central Office published projects. The District Contract Management Manager (DCMM) publishes the advertisements for the District Office published projects.

¹⁷ US Code Title 23, *Highways, Code of Federal Regulations*, Chapter 1, Subchapter G: Engineering & Traffic Operations Part 635-Construction and Maintenance, Subpart A-Contract Procedures, §635.112-Advertising for Bids & Proposals, 2012.

The transportation projects' advertisements must contain the following information in ECMS:

- Project number, time and location of bid opening
- Project identification such as County, SR, Section or Group and Township, etc., Type of project
- Milestones, such as Anticipated Notice to Proceed and Completion Dates
- Approved Federal and State Project Numbers for the Construction Phases
- Description, including the plans approval date and general information
- Plans (unless a project contains abbreviated plans only or no plans are required)
- Special Provisions
- Design Items
- Attachments
- Addenda, as required

The timelines for advertising Bid Packages for transportation projects are provided in the Publication 10C, Design Manual, Part 1C, *Transportation Engineering Procedures*, Section 4.14 (c) Contract Management Review in Chapter 4, Final Design Plan Development (shown below). A minimum five-week advertisement period is recommended for all projects. Coordinate with the Chief of PDLs for shorter advertisement durations. A minimum of six to seven weeks advertisement period is recommended for projects which will include conducting a Pre-Bid Conference.

B. Pre-Bid Conference

Pre-Bid Conferences may be conducted on complex projects to emphasize / clarify important project details or requirements. These Pre-Bid Conferences may be held for transportation projects which:

- Have a Cost Estimate of over \$10 million for construction.
- Contain exceptional Non-Standard Special Provisions or environmental considerations.
- Involve railroads, except where the need for coordination is minimal, such as resurfacing projects, minor bridge deck repairs, some bridge painting projects, etc.
- Are of significant size and complexity.
- Consist of new construction, complex interchanges, unusual bridge structures, innovative

bidding techniques, multiple / specialized / concurrent work activities, unusual construction sequencing / schedule constraints, major utility relocation / coordination, high profile projects, complicated maintenance and protection of traffic schemes and phasing, major ITS projects, emergency contracts and experimental projects.

- Others

Schedule the Pre-Bid Conference to be held between 14 calendar days after the Advertisement date and 14 calendar days prior to the Letting Date to enable the prospective bidders to have sufficient time to review the Bid Package, and to allow sufficient time to issue addenda, if required. The date and time of the Conference should be such that it is not in conflict with any critical event such as a Bid Opening date or the day after a national holiday.

The following experts must attend the Pre-Bid Conference: Project Manager, DCMM or authorized representative, and key construction personnel who will administer the construction contract and representatives from the utilities and participating governmental agencies. Document the Questions and publish an Addendum, if required. Comments or input from attendees should be directed to the experts.

Ensure that all attendees sign the Pre-Bid Conference Register which includes the name, company, and a telephone number. A copy of the Register should be made available at the end of the Conference, or by the end of the next business day, at the latest.

Some transportation projects may require Mandatory Pre-Bid Conferences in which all the prospective bidders must ensure that a representative is in attendance and has signed the Register. Conduct a Mandatory Pre-Bid Conference only when it is imperative to draw attention to particular details or conditions to enable the prospective bidders to fully understand the requirements. It is highly recommended that an optional Pre-Bid Conference be used instead of a mandatory Pre-Bid Conference as mandatory Pre-Bid Conferences limit the number of bidders. Consult with the PDLS Chief, prior to establishing a Mandatory Pre-Bid Conference. Develop Pre-Bid Conference Minutes and post on the Project Development Checklist.

14.3 RESPONSIBILITY FOR COMPLIANCE

The responsibilities for publishing the Advertisement are shown in the [PS&E Delivery / Bid Package Process Responsibility Matrix](#). The District Contract Management Manager consults with PDLS Chief in determining whether a Mandatory Pre-Bid Conference is appropriate.

CHAPTER I.15 - QUESTIONS AND RESPONSES

The Bid Packages are Advertised in ECMS. The Contractors have the ability to view the Bid Package Information, Plans, Special Provisions, Design Items, Attachments, etc. An Advertisement period is provided for the Contractors to review the Bid Packages, prior to the bids being opened. During this time, the Contractors can submit the Questions for clarification. PennDOT provides Responses to questions posted by the Contractors.

15.0 DEFINITION

Questions and Responses portion provides responses to questions from the prospective bidders on the Bid Packages, in ECMS, for informational and clarification purposes.

15.1 PURPOSE

The purpose of ECMS Bid Package Questions and Responses portion is:

- To enable the Contractors to post the Questions for receipt by the Department in ECMS.
- For Project Managers / Contract Management Managers in Districts, to respond to the Questions electronically.
- To enhance the quality of the Bid Package to result in effective bids.

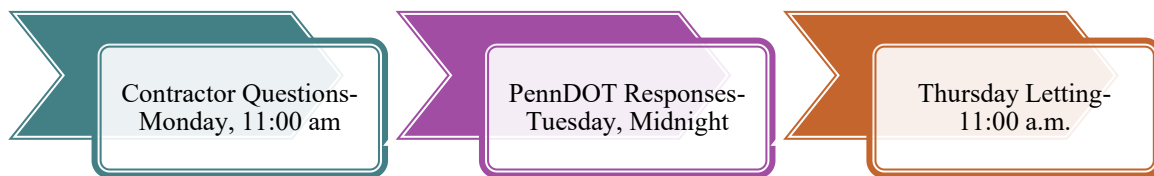
15.2 POLICY

The Bid Package is Advertised in ECMS, to enable the prospective bidders to review the Bid Package. The prospective bidders submit Questions in the Questions and Responses portion of ECMS. The District Contract Management Manager (DCMM), with input and guidance from the Project Manager, provides Responses to the Questions in ECMS. The PS&E Supervisor in PDLS performs quality assurance of the Responses to ensure compliance with this policy.

The DCMM provides Responses to Questions, as follows:

- Responds to the Questions, in ECMS only, within two business days. If the Question requires more than two days to clarify, the DCMM responds stating that "the Question is being researched and the Department will respond shortly."
- If the Question prompts a change to the Bid Package, publishes an Addendum. Responses to questions are for informational and clarification purposes, therefore, provides official changes to the Bid Package via an Addendum only. Responds to the Question indicating that it will be addressed via an Addendum.
- Submits the Responses prior to [Question & Responses-Cut-off Times](#) for providing the Responses.

QUESTIONS & RESPONSES-CUT-OFF TIMES - THURSDAY LETTING



- Responds to the Questions within one to three sentences, as longer explanations most likely warrant posting an Addendum.
- Forwards the Questions on the proper Work Classification Coding of Design Items to the Prequalification Office, in the Bureau of Design and Delivery, for direction on the Response to ensure that only qualified Contractors can submit bids and perform work.
- When writing responses, ensures that they are:
 - Consistent-Responses do not result in conflicts in the entire Bid Package.
 - Clear-All information is easily understood. Provides the responses in a straight forward manner in the format of the Publication 408, *Specifications*, such as writing in active voice, imperative mood, etc., as much as possible.
 - Succinct-Short and to the point; removes unnecessary wording. Does not provide any unnecessary explanations which might end up creating confusion. Does not repeat clarifications; in other words, either:
 - Clarifies through the Responses, or
 - Publishes changes through the Addendum.
 - Complete-All required information is included and all parts are complete; fully responds to the Question to avoid future Questions.
 - Courteous-Responds in a courteous manner. For example, does not provide "Bid it as you see it" as a Response. Instead, states the following:
 - *Clarification is provided in the following, but is not limited to: (i.e., Plan Sheets, Special Provisions, etc.)*
 - Does not use one-word Responses solely, such as "yes" or "no", as it seems discourteous. For example, the proper Response to a Question is to state No. *The Department will not be modifying the Bid Package to add a Letter of Intent.*

- If a registered Business Partner poses a Question over the telephone, requests that the Business Partner post the question directly into ECMS to enable all prospective bidders to view the Question and the Response; and provides no responses on the phone. If a non-registered business partner poses a Question on the phone:
 - Directs the caller to request a registered Business Partner to post the Question in ECMS; or,
 - Posts the Question and the corresponding Response in ECMS.
- Posts a Department Question and provides the Response, if the DCMM finds that a Department clarification is necessary and an Addendum is not required.

15.3 RESPONSIBILITY FOR COMPLIANCE

- The DCMM and the Project Manager are responsible for providing accurate and timely responses to the Questions in ECMS Questions and Responses.
- The PS&E Supervisor in the PDLS Section is responsible for performing quality assurance of the Responses.

CHAPTER I.16 - ADDENDA

The Bid Packages are advertised in ECMS. Changes to the Bid Packages, in the form of Addenda, are published in ECMS, as a result of either Questions posted by the construction industry or revisions or new requirements.

16.0 DEFINITION

Addenda are written information added to the Bid Package which clarify, modify, or support the information in the Bid Package, which become part of the contract documents when the construction contract is executed.

16.1 PURPOSE

The Code of Federal Regulations, 23 CFR 635.112 states the following¹⁸:

§ 635.112 ADVERTISING FOR BIDS AND PROPOSALS.

(c) The State Transportation Department (STD) shall obtain the approval of the Division Administrator prior to issuing any addenda which contain a major change to the approved plans or specifications during the advertising period. Minor addenda need not receive prior approval but should be identified by the STD at the time of or prior to requesting FHWA concurrence in award. The STD shall provide assurance that all bidders have received all issued addenda.

16.2 POLICY

The official revisions to the Bid Packages after advertisement are addressed by the Addenda process only. Addenda result from Bid Package Questions posted in ECMS, new requirements for the project, or other revisions that may affect the price of the construction and administration of the project. The addenda are published in ECMS, during the bidding period, after advertisement and prior to Bid Opening Date. The Contractors must acknowledge receipt of the Addenda through the Bid Certification.

Addenda are part of the Bid Package. Every effort should be made during the Bid Package development process to reduce, if not eliminate, the need for Addenda through careful preparation, coordination and review of the Bid Packages prior to Advertisement. The District Contract Management Manager (DCMM) analyzes the possible modifications to determine if it is necessary to issue an addendum. The DCMM issues the addendum as soon as it is practical and does not wait for all the questions to be received and in accordance with the [Addenda Timeframes Prior to Bid Opening provided below](#). This allows the prospective bidders to start reflecting the changes in the bid price calculations.

The DCMM develops the Addenda in accordance with the same requirements as those deployed in the development of the advertised Bid Package. The DCMM reviews the Addenda to ensure the accuracy, consistency and completeness of the information. The DCMM develops the Addenda on the components of the Bid Package, in accordance with the following:

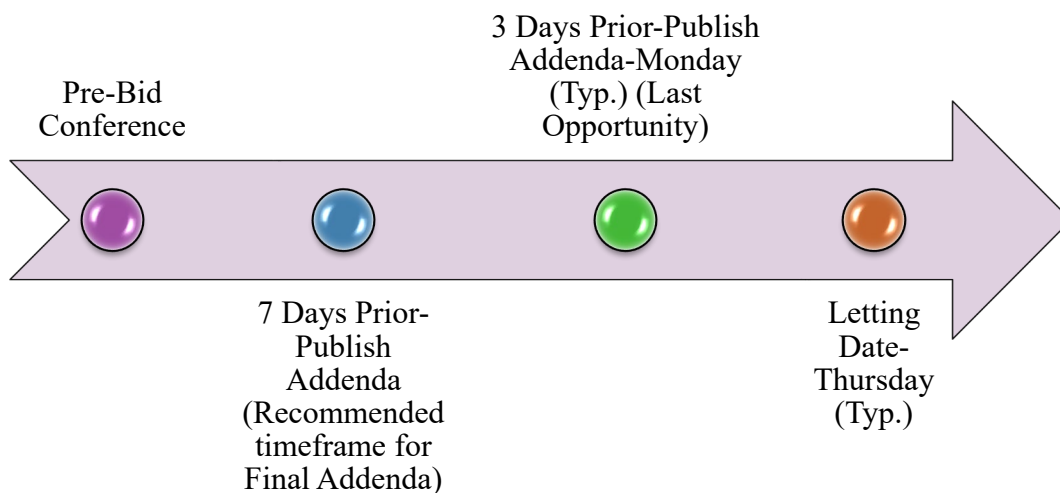
- **General Characteristics-Dates and other changes**-When revising the Let Date, Anticipated Notice to Proceed Date, and / or the Completion Date, indicates the revised dates and any other changes on the Project Milestone Screen and includes a statement on the Addenda Other block. Ensures that the Pre-Bid Meeting Date is not shifted to Mandatory through the Addenda. Revises the Pre-Bid Construction Schedule if dates change.
- **Plans**-Indicates changes to the Plans, in accordance with the Plans Revisions process in Publication 14M, Design Manual, Part 3, *Highway Plans Presentation*. Follows the

¹⁸ US Code Title 23, Highways, Code of Federal Regulations, Part 635-Construction and Maintenance, Subpart A-Contract Procedures, §635.112-Advertising for Bids and Proposals, 2012.

requirements for updating the signatures and the PE seal provided in Design Manual, Part 3. If providing plans revisions or replacing the entire Plan sheets in the Project Development Checklist, includes a note in the Other Section of the Addendum Title Screen. District updates the Title Sheet, as required.

- **Design Items**-If quantity changes are less than 15 percent of the original quantity or will not affect the unit price, does not include the revisions in the Addenda unless the changes in quantity are significant to the overall project cost of the project or if other changes are precipitated. If an Item was found to be missing or is not necessary, adds or deletes the Item, respectively, as required. When making changes to the Design Items List, completes the revisions through the Addendum Screen. Includes a brief description of the changes in the Addendum Screen-Items and Quantities block.
- **Special Provisions**-Uses strikethrough for deleted text and red bold font for additions. If there are extensive revisions, deletes and adds a new Special Provision and indicates as such. If a Design Item was added or deleted through the Addenda process, ensures that any associated Special Provision is also added or deleted. If including revisions to the Special Provisions, completes the revisions through the Addendum Screen and includes a brief description in the Special Provisions block.
- **Attachments**-Adds or deletes any attachments and includes a statement reflecting the changes on the Addenda Other block.

ADDENDA TIMEFRAMES PRIOR TO BID OPENING



The DCMM develops and submits the addenda to allow sufficient time for review by the PDLS in accordance with the following:

- Publishes the final Addenda approximately seven calendar days prior to the Letting Date. (However, does not publish the Addenda with a shorter timeframe of less than three calendar days). For example, the PDLS, on Central Office published projects, and the DCMM on the District published projects can publish the Addenda until midnight on Monday, at the latest, to facilitate any revisions as a result of the final Questions submitted by Contractors on Monday at 11:00 a.m. for a Thursday Bid Opening Date.
- If an Addendum is required to be published within three days of the Bid Letting Date, i.e., after midnight on Monday for a Thursday Bid Letting Date, coordinates with PDLS to verify the necessity of issuing an addendum, delays the Bid Opening Date and publishes the Addendum.
- Runs the Execute Rules function to ensure that any open Addenda can be published.
- Allows three additional working days for the FHWA review for Federal Oversight Projects.
- Avoids publishing Addendum prior to the Pre-Bid Conference, unless the addendum addresses the Conference itself.

16.3 RESPONSIBILITY FOR COMPLIANCE

The DCMM publishes the Addenda for the District Advertised projects. The DCMM submits the Addenda for approval to the PDLS, which reviews, coordinates with FHWA on Federal Oversight projects, approves and publishes the Addenda, in accordance with the Addenda Timeframes Prior to Bid Opening, for the Central Office Advertised projects.

CHAPTER I.17 - PREQUALIFICATION

The Prequalification process evaluates the experience of prospective bidders to determine their qualification to perform 50% of the work.

17.0 DEFINITION

Prequalification is the system for establishing a qualification rating, determining the maximum amount of contract and one or more of the classified types of work on which a Contractor will be eligible to bid or subcontract, and the maximum amount the Contractor may have under contract and incomplete at any one time¹⁹.

¹⁹ Publication 408, *Specifications*, Section 101.03 Definitions.

17.1 PURPOSE

Prequalification enables the processing and evaluation of the capacity and qualifications of the Contractors and the Subcontractors to perform highway project work in this Commonwealth²⁰. The requirements of the Code of Federal Regulations 23 CFR 635.110²¹ and the *Commonwealth's Title 67, Transportation*²² apply for the prequalification requirements for the PennDOT transportation projects.

Federal Requirements

Title23:Highways

CHAPTER I: FEDERAL HIGHWAY ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

SUBCHAPTERG:ENGINEERING AND TRAFFIC OPERATIONS

PART635:CONSTRUCTION AND MAINTENANCE

Subpart A :Contract Procedures

635.110 - Licensing and qualification of contractors.

(a) The procedures and requirements a STD proposes to use for qualifying and licensing contractors, who may bid for, be awarded, or perform Federal-aid highway contracts, shall be submitted to the Division Administrator for advance approval. Only those procedures and requirements so approved shall be effective with respect to Federal-aid highway projects. Any changes in approved procedures and requirements shall likewise be subject to approval by the Division Administrator.

(b) No procedure or requirement for bonding, insurance, prequalification, qualification, or licensing of contractors shall be approved which, in the judgment of the Division Administrator, may operate to restrict competition, to prevent submission of a bid by, or to prohibit the consideration of a bid submitted by, any responsible contractor, whether resident or nonresident of the State wherein the work is to be performed.

(c) No contractor shall be required by law, regulation, or practice to obtain a license before submission of a bid or before the bid may be considered for award of a contract. This, however, is not intended to preclude requirements for the licensing of a contractor upon or subsequent to the award of the contract if such requirements are consistent with competitive bidding. Prequalification of contractors may be required as a condition for submission of a bid or award

²⁰ PA Code Title 67, Chapter 457, *Prequalification of Bidders*, Section 457.2 Purpose, page 457-22.

²¹ US Code Title 23, *Highways*, Code of Federal Regulations, Part 635-Construction and Maintenance, Subpart G-Engineering and Traffic Operations, §635.110-Licensing and qualification of contractors, 2011.

²² PA Code Title 67, Chapter 457, *Prequalification of Bidders*, Section 457.2 Purpose, page 457-22.

of contract only if the period between the date of issuing a call for bids and the date of opening of bids affords sufficient time to enable a bidder to obtain the required prequalification rating.

(d) Requirements for the prequalification, qualification or licensing of contractors, that operate to govern the amount of work that may be bid upon by, or may be awarded to, a contractor, shall be approved only if based upon a full and appropriate evaluation of the contractor's capability to perform the work.

State Requirements

The Commonwealth's Title 67, Transportation, Chapter 457, Prequalification of Bidders-Section 457.3. General requirements

(a) Proof of competence and responsibility. Persons proposing to bid on work shall be required to establish proof of their competence and responsibility, as provided in this chapter, before being permitted to bid on the work, with the following exceptions:

- *Miscellaneous work excluded under §457.5(b) (relating to classification).*
- *Demolition work when the Department's estimate of costs for the same is less than \$25,000.*

Section 457.5. Classification

(a) The contractor or subcontractor shall be classified according to the type of work and amount of work for which his experience and financial capacity will qualify him to bid. The types of work, (are) described in Department of Transportation Specifications, Publications 408...

(b) Miscellaneous work as determined by the Chief Counsel, as not within the purview of the act, will be excluded by the Deputy Secretary for Highway Administration from the requirements of this Chapter. When this is done, the bid proposal shall so state.

(d) Each prequalified Contractor shall be eligible to bid on projects in which the types of work for which he is classified constitute at least 50% of the project.

17.2 POLICY

The Prequalification requirements include two parts: financial capacity and experience. *With regard to available financial capacity, prequalification eligibility will be determined by ensuring that the bidder's current maximum financial capacity exceed the total amount of the bid, less any credit for subletting as specified in Section 108.01(a), plus the total amount of all uncompleted work a bidder has under contract at the time of bid opening²³.*

²³ Publication 408, *Specifications*, Section 102.06(c), Preparation of Bids.

Experience is determined by the use of the Design Items' Work Classification Codes (WCC). The WCC are categorized by the types of Work in [PA Title 67, Section 457.5 Classification](#).

The WCC are used to match the type of work required for the project to the type of work that a Contractor is qualified to perform. Only Contractors with WCC that match the WCC in the project may bid. Subcontractors with WCC that match the WCC in the project for specific items of work may only perform construction on those items. For example, the WCC prevents a landscaping Subcontractor from constructing a bridge.

A. Subcontractors as Prime Contractors

The construction firms prequalified as Subcontractors only, under the Department prequalification regulations, may be considered eligible to submit bids on Local Projects as a Prime Contractor, consistent with their qualifications, provided the Bid Proposal so indicates and the firm meets the 50% prequalification requirement specified in 67 Code, Chapter 457, *Regulations Governing Prequalification of Prospective Bidders*. Indicate "yes" Prequalification Subs as Primes in ECMS on the applicable local projects.

B. Utilities, Railroad and Other Work

The Bid Packages should not contain any additional prequalification requirements for utilities, railroad and any other work. Do not require that the Contractor or Subcontractors receive approval by the utilities, railroads or other companies prior to starting work. Additionally, do not include any lists of pre-approved or prequalified Contractors by the utilities, and other companies in the Bid Packages. However, the Bid Packages may require, in a Special Provision, that the Contractor or Subcontractors must demonstrate sufficient experience by having successfully completed prior work for the specific utility. Examples of sufficient experience that must be demonstrated include successful completion of prior work using the specific utility's special provision and successful completion of prior work for the number of projects stated by the specific utility, if applicable. If the Bid Package Special Provision includes the successful completion of prior work using the specific utility's Special Provision, the Bid Package Special Provision must state the specific utility's special provision by name, and the specific utility's special provision must be attached to the Bid Package.

C. Municipal Projects

Advertise and perform the bidding and award processes for municipal projects in ECMS. For municipal projects, where prequalification is exempt or exceptional circumstances exist, local program sponsors may request a "paper let." The Chief, PDLS will provide the approval to proceed or not.

D. Emergency Projects

Prequalification is required on emergency projects.

E. Work Classification Codes List

The list of Work Classification Codes (WCC) is found in the Construction Projects', Resources in ECMS. The WCC for Standard Design Items have been predetermined and are stated in ECMS. The Project Manager (PM) or the District Contract Management Manager (DCMM) manually enters the WCC for the Non-Standard Items, using the Standard Design Items as a guideline and coordinates with the Prequalification Officer to ensure the accuracy of the WCC stated. The DCMM performs quality assurance, as required. The requirements for determining WCC for Non-Standard Design Items are shown in the [Work Class Codes' Requirements](#) Chart.

Work Classification Codes' Requirements	
Selecting WCC	Policy
Level of WCC	Determine WCC for the lowest common denominator using the Work Class Codes Chart in ECMS and the Work Class Codes Tool which links the Master Items and as noted in the Section 102.06 (c) Information . The Work Class Code Tool is located online in the ECMS File Cabinet.
Number of WCC	<p>Determine the number of WCC, in accordance with the following and as noted in the Section 102.06 (c) Information below:</p> <ul style="list-style-type: none"> Choosing one WCC for the majority of work included is preferable. Selecting two to three WCC is acceptable; for example, <ul style="list-style-type: none"> S1 is Cement Concrete Bridges up to 120 ft. and S7 is Rebar Installation. Designating S1, S7 means that the Contractor must have S1 <u>or</u> S7 and not S1 <u>and</u> S7. Including greater than 3 WCC is unacceptable.
Category	Section 102.06(c) ²⁴ Information
Multiple WCC	If a bid item has multiple WCC, the bidder must be prequalified for only one of the Codes listed.

²⁴ Publication 408, *Specifications*, Section 102.06(c), Preparation of Bids.

Work Classification Codes' Requirements	
Selecting WCC	Policy
X or ZZ Codes	Items of work that are coded X or ZZ on the bid package Design Items will be excluded from the total bid price when determining compliance with the 50% requirement. (Note that ECMS allows selecting X or ZZ as stand-alone WCC only).
Q, and Z Codes	To determine compliance with the 50% requirement, all bidders will be credited for the Q and Z items.
Lump Sum Items	For lump sum contract items requiring a Component Item Schedule (CIS), neither the WCC for component items on the CIS nor the component item dollar values submitted by the bidder on the CIS will be considered in evaluating compliance with the 50% requirement.
Design-Build Projects	
Items	Work Class Code
Design of...	X-for all Design Items
Construct...Roadway	C, F-Flexible Pavements C, G-Rigid Pavements
Construct...Bridge	S1-Construct Cement Concrete Bridges Up to and including 120 ft. S-Construct Cement Concrete Bridges Over 120 ft. S1-Construct Steel Bridges with Straight Girders Up to 120 ft. T-All Steel Bridges With Curved Girders T-All Steel Bridges Over 120 ft.

17.3 RESPONSIBILITY FOR COMPLIANCE

The Standard Items contain pre-coded WCC. The PM or the DCMM determine the WCC for the Non-Standard Design Items and the DCMM performs quality assurance to ensure that the WCC are appropriate.

CHAPTER I.18 - LIQUIDATED DAMAGES

The Contractor's failure to complete a project or a portion of a project on time may result in inconvenience to the traveling public, businesses, construction inspection and administration, etc. The liquidated damages provide for the Department to be compensated the liquidated sum for the damages incurred.

18.0 DEFINITION

Code of Federal Regulations, Title 23 § 635.102 define Liquidated Damages as follows:

Liquidated damages means the daily amount set forth in the contract to be deducted from the contract price to cover additional costs incurred by a State transportation department because of the contractor's failure to complete the contract work within the number of calendar days or workdays specified. The term may also mean the total of all daily amounts deducted under the terms of a particular contract.²⁵

18.1 PURPOSE

The Code of Federal Regulations 23 CFR 635.127 requires the following²⁶:

Each State transportation department (STD) shall establish specific liquidated damages rates applicable to projects in that State. These rates shall, as a minimum, be established to cover the estimated average daily construction engineering (CE) costs associated with the type of work encountered on the project. The STD may, with FHWA concurrence, include additional amounts as liquidated damages in each contract to cover other anticipated costs of project related delays or inconveniences to the STD or the public. Costs resulting from winter shutdowns, retaining detours for an extended time, additional demurrage, or similar costs as well as road user delay costs may be included.

18.2 POLICY

Liquidated Damages may be assessed on PennDOT construction projects. The types of Liquidated Damages that may be assessed are: Construction Engineering, Work Zone, and Road Users.

²⁵ US Code Title 23, Highways, Code of Federal Regulations, Chapter 1, Subchapter G: Engineering & Traffic Operations Part 635-Construction and Maintenance, Subpart A-Contract Procedures, §635.102-Definitions, 2012.

²⁶ US Code Title 23, Highways, Code of Federal Regulations, Chapter 1, Subchapter G: Engineering & Traffic Operations Part 635-Construction and Maintenance, Subpart A-Contract Procedures, §635.127-Agreement Provisions Regarding Overruns in Contract Time, 2012.

A. Construction Engineering and Work Zone Liquidated Damages

The Construction Engineering and Work Zone Liquidated Damages are assessed directly, as per Publication 408, *Specifications*, and do not require any additional information to be specified in the Bid Package.

B. Road User's Liquidated Damages

Liquidated damages can be assessed for a Contractor's failure to meet specified milestone dates, in the form of Road User's Liquidated Damages (RULDs). The Project Manager (PM) or the District Traffic Engineer or Designer considers Road User Costs during the Scoping Field View, for the following conditions:

- Road closure with a detour
- Long term lane closures
- Short term lane closures / restrictions with high impact
- High volume
- High impact of length of work zone and detour in miles and number of days
- Significant number of businesses affected
- Bridge closures
- Work zone posted speeds
- Others

Refer to the PennDOT Publication 10C, *Design Manual, Part 1C, Transportation Engineering Procedures*, Chapter 5, Section 5.6D for the Road User Costs Determination for guidance on developing the Road User Costs. The Publication 448, *Innovative Bidding Toolkit*, Chapter 1, Section 1.1.3 *Road User Costs* provides further guidance on calculating Road User Costs.

Each milestone requires a separate RULD analysis, estimate, justification and approval. The District Traffic Engineer or the PM calculates the RULDs using the Road Users Liquidated Damages (RULD) Calculator. The District Traffic Engineer or the PM ensures the stated amount is tailored to the particular project and is a reasonable estimate of damages that PennDOT and / or the public may incur as a result of the project delays caused by the Contractor.

The RULD rate must be supported by written analysis and justification, posted in the Project Development Checklist. It is recommended that if the minimum RULD rate calculation is below \$1000/day, an RULD rate is not to be included.

18.3 RESPONSIBILITY FOR COMPLIANCE

The PM or the District Traffic Engineer ensures the RULD rate is suitable for the transportation project. The DCMM ensures the Bid Package contains the appropriate specific statements regarding the RULDs. The Constructability & Schedules Unit in HDTD performs quality assurance of the RULD rate, on the projects that the PDLs performs quality assurance reviews.

CHAPTER 1.19 - STANDARD & PROPRIETARY MATERIALS / PRODUCTS / PROCESSES SPECIFICATIONS

PennDOT specifies materials, products and processes to be incorporated into the projects in the Bid Package. Most of the materials, products and processes that are incorporated into transportation projects are previously approved sources of supply.

In a few exceptional cases, however, materials, products and processes that are considered to be patented / proprietary are incorporated into the project, with prior approval.

19.0 DEFINITION

Standard products are those products, specifications or processes that have been previously approved by PennDOT and are listed in PennDOT sources of supply and other publications.

Patented or proprietary product is a product, specification, or process identified in the plans or specifications as a "brand" or trade name (e.g., 3M, Corten). However, it may also be a product so narrowly specified that only a single provider can meet the specification.

Synchronization is providing a product that matches specific current or desired characteristics of a project. Synchronization may be based on:

- Function (the proprietary product is necessary for the satisfactory operation of the existing facility);
- Aesthetics (the proprietary product is necessary to match the visual appearance of existing facilities);
- Logistics (the proprietary product is interchangeable with products in an agency's maintenance inventory);
- or any combination thereof.

In addition, it may be advisable to evaluate the following factors as they relate to synchronization:

- Lifecycle (the relative age of existing systems that will be expanded and the remaining projected life of the proposed proprietary element in relation to the remaining life of the existing elements).
- Size / extent of products and systems to be synchronized to / with, and the relative cost of the proprietary elements compared with replacing the elements requiring synchronization.

Experimental Product is a patented or proprietary product used for research or for a distinctive type of construction on relatively short sections of road on an experimental basis.

Patented or proprietary item approval is the written and signed statement of an appropriate contracting agency official certifying that a particular patented or proprietary product is either:

- Necessary for synchronization with existing facilities; or
- A unique product for which there is no equally suitable alternative.

19.1 PURPOSE

Materials, products and processes implemented in PennDOT are tested and pre-approved to ensure that they meet the requirements of the standards established by PennDOT, such as Publication 408, *Specifications*, Standard Drawings and others. The PennDOT publications, such as the Bulletins, list the pre-approved products and manufacturers. Other materials / products / processes which are not pre-approved may be used as allowed by the Publication 408, Section 106.02(a). However, materials / products / processes which are not listed on any PennDOT pre-approved sources of supply publications may be considered to be patented or proprietary products. Additionally, some materials, products or processes required to be included in the transportation projects may not be under the purview of the Publication 408.

Under 23 USC 112(a), *In all cases where the construction is to be performed by the State transportation department or under its supervision, a request for submission of bids shall be made by advertisement unless some other method is approved by the Secretary.* The Secretary shall require such plans and specifications and such methods of bidding as shall be effective in securing competition. *The FHWA has interpreted this clause to require competition not only for the award of the contract, but to also require competition for the various materials and processes involved in the work*²⁷.

The Codes of Federal Regulations 23 CFR § 633.207 Construction Labor and Materials states the following:

§ 633.207-Construction Labor and materials

*(a) Construction and materials shall be in accordance with the State highway department standard construction specifications approved for use on Federal-aid primary projects and special provisions and supplemental specifications amendatory thereto approved for use on the specific projects.*²⁸

19.2 POLICY

PennDOT specifies pre-approved sources of supply for materials, products and processes to be incorporated into the projects in the Plans, Specifications and Estimate (PS&E) Package through inference of the edition of Publication 408. Proprietary materials / products / processes are also specified in rare circumstances. The following are the requirements for the standard, approved equal and the patented / proprietary materials / products / processes.

²⁷ *Ibid.*

²⁸ *US Code Title 23, Highways, Code of Federal Regulations*, Part 633-Required Contract Provisions, Subpart B-Federal-Aid Contracts (Appalachian Contracts), §633.207 Construction Labor and Materials, 2012.

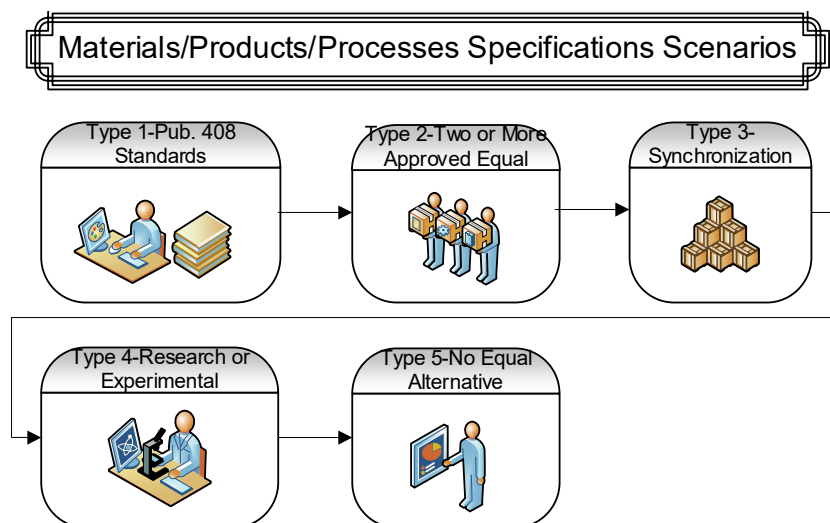
A. Standard Materials / Products / Processes and Approved Equal (Type 1, 2 & 4 Scenarios)

- Ensure that most materials / products / processes specified in the Plans, Specifications and Estimate Package are in accordance with Publication 408 and its supporting pre-approved materials, manufacturers and other related PennDOT Publications, some of which are:
 - Publication 34, Bulletin 14, *Aggregate Producers*
 - Publication 35, Bulletin 15, *Approved Construction Materials*
 - Publication 41, Bulletin 41, *Producers, Asphalt Mixtures*
 - Publication 42, Bulletin 42, *Producers, Ready Mix Concrete*
 - Others
- Proprietary item approval is not required

B. Patented / Proprietary Materials / Products / Processes (Type 3, and 5 Scenarios)

Patented or proprietary materials / products / processes, termed hereinafter as proprietary, require approval prior to specifying in the PS&E Package.

It is expected that very few patented / proprietary materials / products / processes will be specified in the Plans, Specifications & Estimate package. Acquire approval from the appropriate Bureau Director for all projects.



C. Type 1—Standard Specifications

- The materials / products / processes are in accordance with the Publication 408 and its supporting approved sources of supply, stated in PennDOT Publications; and,
- Are inferred in the PS&E Package by including the Special Provision, Governing Specifications & Applicable Designated Special Provisions in which the Bid Package requires that all standard requirements are in accordance with the stated edition of Publication 408; and,
- The materials / products / processes are not reiterated in the Plans or Special Provisions.

D. Type 2—Two or More Approved Equal

- The materials / products / processes may not be specified in Publication 408 and the supporting PennDOT Publications (i.e., bulletins of approved producers and materials); and,
- When three or more materials / products / processes are available, list a minimum of three; however when only two materials / products / processes are available, list only two. In either case, both are specified with the statement, *or approved equal*.

E. Type 3—Synchronization-Proprietary

- The materials / products / processes may or may not be specified in Publication 408 and the supporting PennDOT Publications (i.e., bulletins of approved producers and materials); however,
- This proprietary material / product / process specified in the PS&E Package is essential for [synchronization](#), in terms of function, aesthetics or logistics; and
- The patented / proprietary item approval letter is posted in the PDC; and
- The Project-Specific Special Provision states one acceptable material / product / process.

F. Type 4-Research or Experimental-Proprietary

- The materials / products / processes are not specified in Publication 408 and the supporting PennDOT Publications (i.e., bulletins of approved producers and materials); and,
- These proprietary materials / products / processes specified in the PS&E Package are experimental products; and,
- An approved Experimental Item Work Plan is posted in the PDC; and

- The Project-Specific Special Provision states the research or experimental materials / products / processes.

G. Type 5-No Equal Alternate-Proprietary

- The materials / products / processes are not specified in Publication 408 and the supporting PennDOT Publications (i.e., bulletins of approved producers and materials); and,
- Equally suitable alternatives for these proprietary materials / products / processes specified in the PS&E Package do not exist; and,
- The proprietary items approval letter is posted in the PDC; and,
- The Project-Specific Special Provision states one approved material / product / process.

19.3 RESPONSIBILITY FOR COMPLIANCE

The District Contract Management Manager (DCMM) ensures that materials / products / processes on projects are in accordance with Publication 408. The DCMM also ensures that approval letters are posted in the PDC for all the proprietary materials / products / processes for the District advertised projects. The PS&E Supervisor in PDLs ensures that the approval letters are posted in the PDC for all proprietary items, for Central Office advertised projects.

CHAPTER 1.20 - SMALL AND DISADVANTAGED BUSINESS PROGRAMS

PennDOT includes Goals for Disadvantaged Business Enterprises (DBE) along with Small Business requirements, on federally funded transportation projects. Similarly, PennDOT includes Minimum Participation Levels (MPL) for Diverse Business (DB), as well as Small Business requirements, for 100% state funded projects.

20.0 DEFINITION

Disadvantaged business enterprise or DBE means a for-profit small business concern,

- That is at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which 51 percent of the stock is owned by one or more such individuals; and

- Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.²⁹

Program means any undertaking on a recipient's part to use DOT financial assistance, authorized by the laws to which this part applies.

20.1 PURPOSE

The Code of Federal Regulations 49 CFR 26.1 states the objectives are:

- *(a) To ensure nondiscrimination in the award and administration of DOT-assisted contracts in the Department's highway, transit, and airport financial assistance programs;*
- *(b) To create a level playing field on which DBEs can compete fairly for DOT-assisted contracts;*
- *(c) To ensure that the Department's DBE program is narrowly tailored in accordance with applicable law;*
- *(d) To ensure that only firms that fully meet this part's eligibility standards are permitted to participate as DBEs;*
- *(e) To help remove barriers to the participation of DBEs in DOT-assisted contracts;*
- *(f) To promote the use of DBEs in all types of federally assisted contracts and procurement activities conducted by recipients;*
- *(g) To assist the development of firms that can compete successfully in the marketplace outside the DBE program; and*
- *(h) To provide appropriate flexibility to recipients of Federal financial assistance in establishing and providing opportunities for DBEs.³⁰*

The Code of Federal Regulations, 49 CFR 26.21 states the following on *Who must have a DBE program?*³¹

49 CFR 26.21 Who must have a DBE program?

(a) If you are in one of these categories and let DOT-assisted contracts, you must have a DBE program meeting the requirements of this part:

²⁹ 49 CFR 26 Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs, Subpart B-Administrative Requirements for DBE Programs for Federal-Assisted Contracting.

³⁰ 49 CFR 26 Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs, Subpart B-Administrative Requirements for DBE Programs for Federal-Assisted Contracting.

³¹ Ibid

(1) All FHWA recipients receiving funds authorized by a statute to which this part applies;

(2) All FTA recipients...

(3) FAA recipients...

(2) (b)(1) You must submit a conforming DBE program to the concerned operating administration (OA). Once the OA has approved your program, the approval counts for all of your DOT-assisted programs (except that goals are reviewed by the relevant OA).

(2) You do not have to submit regular updates of your DBE program plan if you remain in compliance with this part. However, you must submit significant changes to the relevant OA for approval.

(c) You are not eligible to receive DOT financial assistance unless DOT has approved your DBE program and you are in compliance with it and this part. You must continue to carry out your DBE program until all funds from DOT financial assistance have been expended.

20.2 POLICY

Each PennDOT Plans, Specifications and Estimate Package must be analyzed for the inclusion of the DBE Goals on federally funded projects, or MPLs, on state funded projects. The project-level DBE Goal is set and managed to meet the overall Department Goal. ECMS will identify the potential Design Items for the DBEs, based on the Work Class Codes (WCC) and the number of certified DBEs from the county with the identified WCCs. The District Contract Management Manager (DCMM) requests the DBE Goal / MPL from the Bureau of Design and Delivery. The Minority Participation & Commitment Coordinator (MPCC) in the Contract Management Section, in consultation with the Consultant Agreement Unit, both in the Bureau of Design and Delivery, develops the DBE Goal or the MPL in ECMS by considering / analyzing the following:

- Type and location of project
- Design Estimate
- DBE Availability
- Typical sub-contractible Design Items
- Overall Department Goal

The MPCC contacts the Consultant Agreement Unit to obtain the DBE Goal / MPL information for the Design-Build projects. The MPCC approves the DBE Goal / MPL in ECMS and submits it to the DCMM. The DCMM incorporates the DBE Goal / MPL in the Bid Package, for District Office Advertised projects, as follows:

- Includes the DBE Goal or MPL in the Standard Special Provision, Governing Specifications and Applicable Designated Special Provisions and checks the inclusion of the appropriate Designated Special Provisions (DSP), depending on the funding source.
- Includes the DBE Goal or the MPL in the Bid Package Information Screen.

The PS&E Supervisor in the PDLS ensures that the Goal / MPL is stated in the Special Provision, and is consistent with the Bid Package Information Screen, for the Central Office Advertised projects.

20.3 RESPONSIBILITY FOR COMPLIANCE

The Minority Participation & Commitment Coordinator, Bureau of Design and Delivery calculates and approves the DBE Goal or MPL. The DCMM incorporates the DBE Goal or MPL in the Bid Package. The PS&E Supervisor in the PDLS ensures consistency of the DBE Goal / MPL in the Bid Package.

CHAPTER I.21 - EQUAL EMPLOYMENT OPPORTUNITY-TRAINEES

PennDOT requires full utilization of all available training skill-improvement opportunities to ensure increased participation of minorities, women and disadvantaged individuals in all phases of the transportation industry.

21.0 DEFINITION

Trainee means a person who received on-the-job training, whether through an apprenticeship program or other programs approved or accepted by the FHWA³².

21.1 PURPOSE

The implementation of an On-the-Job-Training Program is to provide effective / meaningful training and the opportunity to assist in the development of a skilled workforce for the industry. The Code of Federal Regulations, 23 CFR 230.107 states the following³³:

§ 230.107 POLICY

(a) Direct Federal and Federal-aid highway construction projects. It is the policy of the FHWA to require that all direct Federal and Federal-aid highway construction contracts include the same specific equal employment opportunity requirements. It is also the policy to require that all direct Federal and Federal-aid highway construction subcontracts of \$10,000 or more (not including contracts for supplying materials) include these same requirements.

³² 23 CFR 230 External Programs, Subpart A-Equal Employment Opportunity in Federal and Federal-Aid Construction Contracts, Sections 107 and Section 111.

³³ *Ibid.*

(b) Federal-aid highway construction projects. It is the policy of the FHWA to require full utilization of all available training and skill-improvement opportunities to assure the increased participation of minority groups and disadvantaged persons and women in all phases of the highway construction industry. Moreover, it is the policy of the Federal Highway Administration to encourage the provision of supportive services which will increase the effectiveness of approved on-the-job training programs conducted in connection with Federal-aid highway construction projects.

§ 230.111 IMPLEMENTATION OF SPECIAL REQUIREMENTS FOR THE PROVISION OF ON-THE-JOB TRAINING.

111(a) The State highway agency shall determine which Federal-aid transportation contracts shall include the "Training Special Provisions" (appendix B) and the minimum number of trainees to be specified therein after giving appropriate consideration to the guidelines set forth in §230.111(c). The "Training Special Provisions" shall supersede section 7(b) of the Special Provisions (appendix A) entitled "Specific Equal Employment Opportunity Responsibilities." Minor wording revisions will be required to the "Training Special Provisions" in areas having "Hometown" or "Imposed Plan" requirements.

21.2 POLICY

The Project Manager or the District Contract Management Manager (DCMM) complete the On-the-Job Training Worksheet located on the Project Information Screen. The OJT “Goal Setting” criteria is used in accordance with Code 23 of the Federal Regulations 230, Subpart A. When completed and approved, the OJT Worksheet will automatically be populated to the Project Development Checklist. Use the following guidelines in selecting projects and determining the number of trainees:

On-the-Job Training Worksheet Trainees Selection Guidelines ³⁴
(1) Availability of minorities, women, and disadvantaged for training.
(2) The potential for effective training.
(3) Duration of the contract.
(4) Dollar value of the contract.
(5) Total normal work force that the average bidder could be expected to use.
(6) Geographic location.

³⁴ 23 Code of Federal Regulations 230 External Programs, Subpart A-Equal Employment Opportunity in Federal and Federal-Aid Construction Contracts, Sections 107 and Section 111(c), 2012.

(7) Type of work.

(8) The need for additional journeymen in the area.

(9) Recognition of the suggested minimum goal for the State.

(10) A satisfactory ratio of trainees to journeymen expected to be on the contractor's work force during normal operations (considered to fall between 1:10 and 1:4).

Assign trainees to projects which have at least 1000-hours of meaningful training which can be provided for each trainee. Indicate the total number of hours which represent the maximum hourly reimbursement the Contractor is eligible to receive in the Design Item 1999-0200 Trainees or Design Item 1999-0100 Trainees for Projects 100% State Funded.

Do not issue an addendum to the Bid Proposal to change the number of trainees calculated in the On-the-Job Training Worksheet unless a subsequent analysis by the Bureau of Equal Opportunity and the Bureau of Design and Delivery determines the project should be re-evaluated. If this situation occurs, the Assistant District Executive for Construction should submit a justification letter to the Director, Bureau of Equal Opportunity, explaining the circumstances and the need to change established training provisions through addendum.

21.3 RESPONSIBILITY FOR COMPLIANCE

The DCMM incorporates the requirement for the appropriate number of trainees for transportation projects. The PS&E Supervisor in the PDLS ensures that the appropriate number of trainees is included in the Bid Package.

CHAPTER I.22 - OTHER REQUIRED APPROVALS

22.0 DESCRIPTION

The following are additional items that require approvals prior to incorporating requirements in the Bid Package Process.

- Inspector's Field Office and Inspection Facilities-Special or Unusual Equipment
- Warranty of Project Items
- Letter of Intent
- Contractor Purchased Equipment and / or Materials for State Ownership
- Allowable Material Retention – Salvage Credit, Federal-Aid Projects

- State Owned / Furnished / Designated Materials

22.1 POLICY

A. Inspector's Field Office and Inspection Facilities-Special or Unusual Equipment

Prior to the Plans, Specifications & Estimate Package submission, the Project Manager obtains approval for specifying materials or equipment that are not already specified in Publication 408, *Specifications*, Section 609 for the Inspector's Field Office. The justification letter should include reasons for the specific materials or equipment requested. The letter should also include a statement as to the disposition of materials, and equipment after project completion.

B. Warranty of Project Items

Obtain approval of any requests for warranties for specific construction products or features on a project. Include justification for the warranty requirements. Warranties may not cover maintenance items which are not eligible for Federal participation. Do not require Contractors to provide warranty for items beyond their control. For example, a Contractor can warrant the smoothness of the pavement or the rutting performance. However, it is inappropriate to specify a warranty against reflective cracking, which might occur due to preexisting underlying layers. Include the warranty justification approval in the Project Development Checklist.

C. Letter of Intent

The State Procurement Code authorizes the Secretary of Transportation or the Deputy Secretary for Highway Administration to issue binding Letters of Intent before a contract for construction becomes effective. The Letter of Intent provides the Contractor an opportunity to begin the specified work prior to the start of the project, while being assured that authorized preparatory expenses will be reimbursed in the event the Secretary cancels the contract before the Notice to Proceed is issued.

Issue the Letter of Intent on projects which may require extensive or costly advance preparation by the Contractor. These projects usually have a compressed construction schedule, require significant quantities of steel piling or structural steel, involve critical staging constraints for large portions of the work, or require the fabrication of precast or prestressed concrete products during periods when plant capacity may be limited.

The District requests the incorporation of the Letter of Intent and submit it to the Chief, Contract Management Section in the Highway Design & Technology Division of the Bureau of Design and Delivery for the development of the Letter of Intent. The Contract Management Section consults with the Office of Chief Counsel and the Highway Construction and Claims Division to obtain approval. Include the Standard Special Provision *Section 103.02(a) Letter of Intent*. Post the Letter of Intent on the Project Development Checklist. Indicate a project condition of cannot open bids to indicate the requirement of the Letter of Intent.

D. Contractor Purchased Equipment and / or Materials for State Ownership

The Bid Packages should not contain provisions whereby the contractor is directed to purchase equipment and / or materials which will become the Department's property at the completion of the project. Materials not incorporated into the project are not eligible for Federal-aid funds. However, in rare circumstances, Federal-aid funds will participate only in the portion of the amortized cost directly attributable to the time the equipment is used on a specific Federal-aid project. Obtain approval for contractor purchased equipment for state ownership prior to project advertisement.

E. Allowable Material Retention – Salvage Credit, Federal-Aid Projects

Implement the following guidelines for the reuse and disposition of materials and for providing salvage credit on materials from Federal-aid projects:

1. In updating highway elements, attempts should be made to use the existing materials in the new construction when it is deemed in the interest of economy and overall public interest. No salvage credit is required to be provided to the federal-aid project.
2. If materials encountered on the project are not appropriate for use in the new construction and can be used for highway purposes, these materials may be removed and used without salvage credit provided to the federal-aid project.
3. If the existing materials are not used in the new construction or are not used for other highway purposes, provide credit as follows:
 - a. If the removed material has scrap value, a credit should be given to the federal-aid project. State in the Bid Package that the material will become the property of the Contractor, in which case no salvage credit is required to be provided.
 - b. If the materials, such as highway hardware (including traffic signal equipment, highway signs, highway lighting equipment, railroad grade crossing signals and high type railroad grade crossing surfaces), had been furnished as part of a federal-aid project, and are no longer needed or warranted for highway purposes, use the items for the following purposes, in the order provided:
 - i. Activities sponsored by the U.S. Department of Transportation.
 - ii. Activities sponsored by other Federal agencies.
 - iii. Disposition-Most items will be disposed; however, this disposition must be made within 10 years of the modification or termination of the federal-aid project for which the item was acquired or provide credit.
4. In case of milled or otherwise reclaimed pavement materials, Federal-aid funds are eligible to participate in hauling costs if the material is dumped or stockpiled:

- a. On the same Federal-aid project; or
 - b. On a present or near-future federal-aid or state highway project within 25 miles of the source project; or,
 - c. At a maintenance stock area within 25 miles of the source project.
5. In the case of reusable concrete median barrier, or highway hardware, federal-aid funds are eligible to participate in hauling and unloading costs if the item is stockpiled:
 - a. On the same Federal-aid project, or
 - b. At the nearest available maintenance facility, or
 - c. At a designated site which is no further away than the nearest maintenance facility, or
 - d. On a nearby present or near-future federal-aid or state highway project.
6. In the case of materials, such as highway hardware, that are no longer necessary, federal funds can be used to remove such material. Such funding decisions will be made on the individual project merits and in accordance with FHWA regulations for the class of funds used.

FHWA policy concerning salvage credit on utility and railroad relocations is in accordance with 23 CFR 645, Utilities; and 23 CFR 140, Subpart I, Reimbursement for Railroad Work.

F. State Owned / Furnished / Designated Materials

The Contractor is to furnish all items specified in the bid package. However, in rare circumstances when the Department is providing manufactured materials and / or local natural materials the Department must request a Public Interest Finding approval from FHWA for use on Federal-aid projects.

In order to permit prospective bidders to properly prepare their bids, the location, cost, and any conditions to be met for obtaining materials that are made available to the contractor shall be stated in the bid package.

Disposal Sites should be of the Contractor's choosing. However, in rare circumstances Mandatory Disposal Sites may be called out by the Department in the bid package. In this case, the Department must request a Public Interest Finding approval from FHWA for use on Federal-aid projects.

The Project Manager follows the procedures outlined in [Publication 51, Part II, PS&E Package Delivery Process Preparation Manual, Chapter II.10, Section 10.1.F.](#)

22.2 RESPONSIBILITY FOR COMPLIANCE

The District Contract Management Manager (DCMM) submits a justification letter to the PDLS Chief for:

- Inspector's Field Office and Inspection Facilities - Special or Unusual Equipment,
- Warranty of Project Items,
- Contractor Purchased Equipment
- State Owned / Furnished / Designated Materials

The PDLS Chief forwards the justification letter to FHWA for approval of:

- Warranty of Project Items for all projects on the NHS,
- Contractor purchased equipment for state ownership, and
- State Owned / Furnished / Designated Materials on all federal-aid projects.

All other justification requests are approved by the Director of the Bureau of Design and Delivery. The DCMM posts the approved justification letter on the Project Development Checklist.

The District Contract Management Manager (DCMM) submits the Letter of Intent request to the Contract Management Section Chief. The Director of the Bureau of Design and Delivery approves the requests for the PennDOT Oversight NHS projects and the Non-Federal (100% State) funded projects. The Director coordinates with the Deputy Secretary for Highway Administration and the FHWA, as applicable.

CHAPTER 1.23 - INNOVATIVE CONTRACTING, AND LOCAL AND EMERGENCY PROJECTS

The Plans, Specifications and Estimate (PS&E) Packages for developing the Innovative Contracting, Local Projects and Emergency Projects are provided in specific PennDOT Manuals.

A. Innovative Contracting

Innovative contracting procedures have been successfully applied in PennDOT. It is important to note that these innovative methods are not recommended for all projects. Refer to the Publication 448, *Innovative Bidding Toolkit* for the information regarding developing the PS&E Package for Innovative Bidding.

B. Local Projects

Pennsylvania municipalities may develop the PS&E Package for advertisement and bidding by PennDOT. Refer to the Publication 740, *Local Project Delivery Manual*.

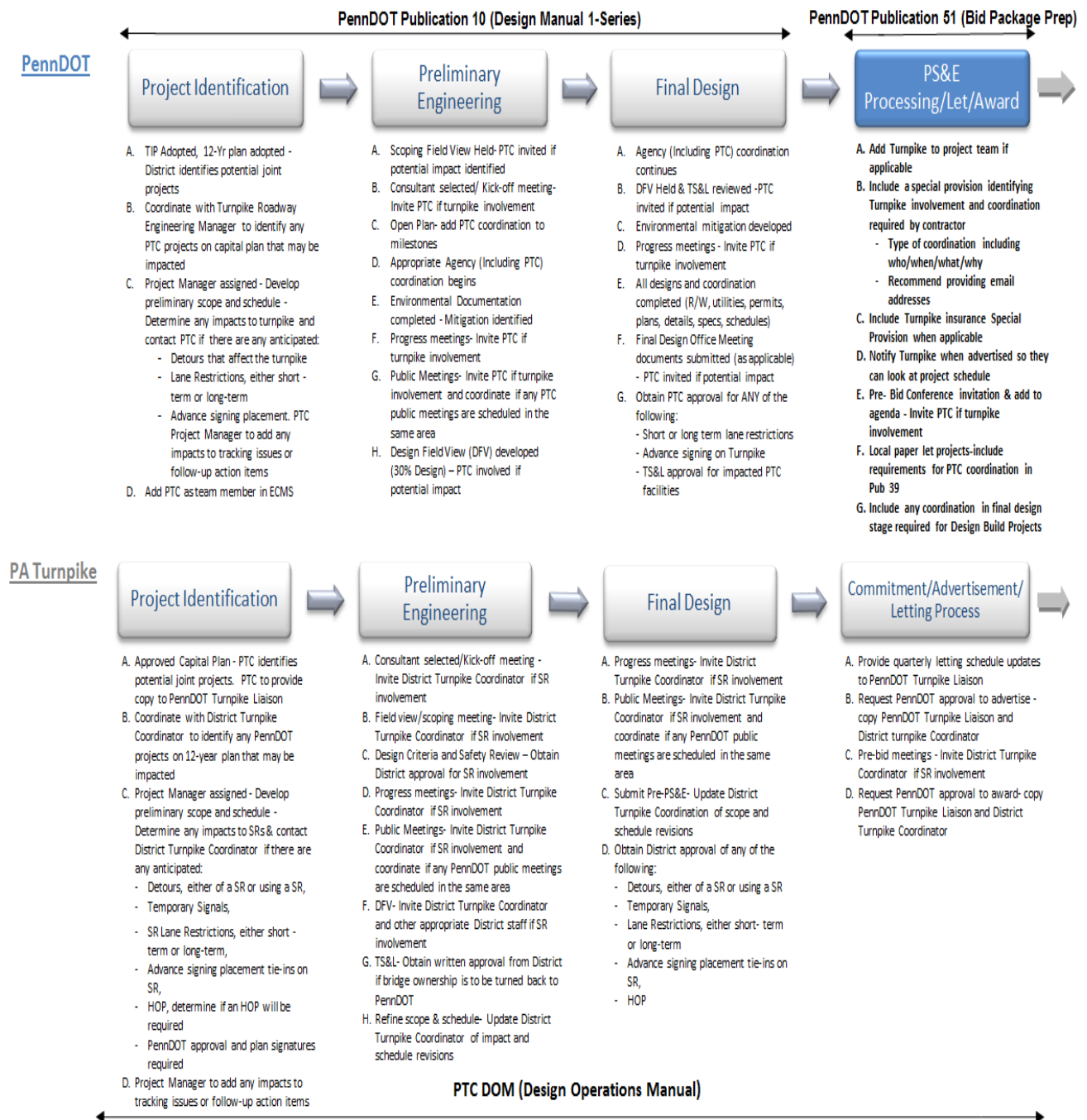
C. Emergency Projects

The PS&E Packages are developed for emergency projects. Refer to the following for details on eligibility for FHWA Emergency Relief (ER) funds or FEMA funds to repair serious damage as a result of natural disasters or catastrophic failures from an external cause:

- PennDOT Publication 550, *Disaster Recovery Manual*
- *FHWA Emergency Relief Manual (Federal-Aid Highways)*

APPENDIX I.A - PennDOT / PA TURNPIKE PROJECT COORDINATION MILESTONES (Publication 10C, Chapter 4, Figure 4.1)

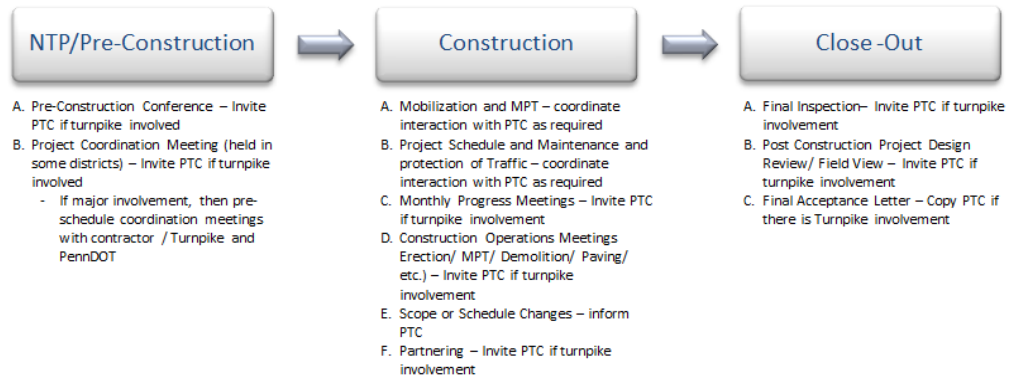
PennDOT / PA Turnpike Project Coordination Milestones



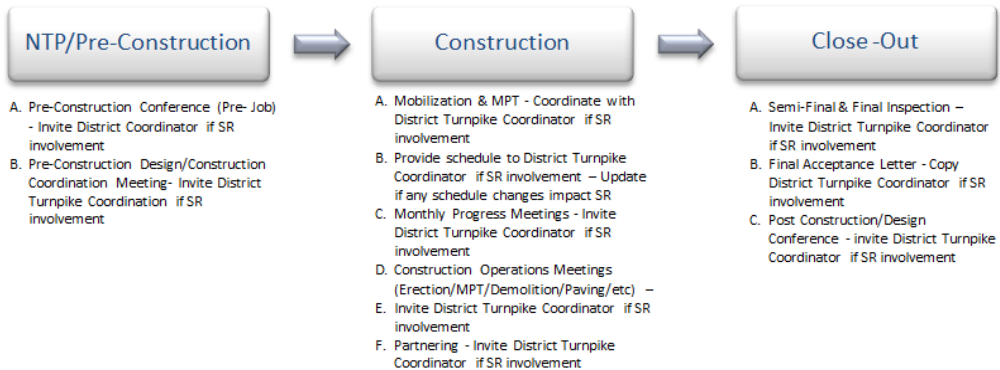
PennDOT / PA Turnpike Project Coordination Milestones

PennDOT Publication 2 (Project Office Manual)

PennDOT



PA Turnpike



PTC COM (Construction Operations Manual)

APPENDIX I.B - FUND CODE NAME PREFIX CHART

FUND CODE NAME PREFIX CHART		
FUND CODE ITEM	FUND CODE NAME	POLICY
Roadway Items		
Federal-Aid Projects	• RDWYF_	Number consecutively for each Roadway Item
State Funded Projects and S-100 Items (outside scope of work)	• RDWYS_	
Locally Funded and Local Roadway Items	• RDWYL_	
Structures		
Bridges	• STRB##S-XXXXX	• 1 Code / Structure • Match ECMS Structure Number • Number consecutively
Culverts	• STRC##S-XXXXX	
Walls	• STRW##S-XXXXX	
Tunnels	• STRT##S-XXXXX	
Sign Structures	• STRS##S-XXXXX	
Utilities (Incorporated Work)		
Electric	• UTL4_0 • UTL4_1 • UTL4_2	• 0-Proration of costs • 1-100% Department costs • 2-100% Utility costs
Sanitary Sewer	• UTL5_0 • UTL5_1 • UTL5_2	
Water Line	• UTL6_0 • UTL6_1 • UTL6_2	
Gas Line	• UTL7_0 • UTL7_1 • UTL7_2	
Aerial or Underground TV Cables	• UTL8_0 • UTL8_1 • UTL8_2	
Aerial or Underground Telephone Lines	• UTL9_0 • UTL9_1 • UTL9_2	

FUND CODE NAME PREFIX CHART		
FUND CODE ITEM	FUND CODE NAME	POLICY
FUND CODE NAME PREFIX CHART		
FUND CODE ITEM	FUND CODE NAME	POLICY
Others		
Construction Engineering <ul style="list-style-type: none"> • <u>Include</u> <ul style="list-style-type: none"> • Core Borings • Inspector's Field Office and Inspection Facilities • Field Laboratory • Equipment Package • Microcomputer with Battery Backup Systems • <u>Don't include in CENG (Include in Roadway Items)</u> <ul style="list-style-type: none"> • Surveying Items • Construction Scheduling 	<ul style="list-style-type: none"> • CENG_ 	
Trainees	<ul style="list-style-type: none"> • TRN_ 	
Mobilization <ul style="list-style-type: none"> • Option A-Create separate fund • Option B-Allocate the appropriate portion of each mobilization design item to the appropriate fund codes for mainline roadway and bridge / culverts. <ul style="list-style-type: none"> ○ Allocate portions based on ratio of the fund code element to the project estimate. ○ Don't create a mobilization fund code. 	<ul style="list-style-type: none"> • Option A- MOB_ • Option B-Allocate to mainline roadway and bridge / culverts 	
Maintenance & Protection of Traffic (M&P of Traffic) Option A-Create separate fund MPT_ Option B- <ul style="list-style-type: none"> • Allocate the appropriate portion of each M&P of Traffic Design Item to the appropriate fund codes for mainline roadway and bridge / culverts. Allocate portions based on ratio of the fund code element to the project estimate. • Don't create an M&P of Traffic Fund Code. 	<ul style="list-style-type: none"> • Option A-MPT_ • Option B- Allocate to mainline roadway and bridge / culverts 	

FUND CODE NAME PREFIX CHART		
FUND CODE ITEM	FUND CODE NAME	POLICY
Design-Build Design Related Activities <ul style="list-style-type: none">Design related Items, except for Quality Assurance by Peer Review Quality Assurance by Peer Review	<ul style="list-style-type: none">DESQA_	

APPENDIX I.C – NON-STANDARD ITEM NUMBERING GUIDELINES

ITEM SERIES	GENERAL DESCRIPTION
PRESTRESSED CONCRETE BRIDGE STRUCTURE	
8000-XXXX	Prestressed Concrete Bridge Structure
8010-XXXX	Prestressed Concrete Spread Box Beam
8020-XXXX	Prestressed Adjacent Box Beam
8030-XXXX	Prestressed I-Beam
8040-XXXX	Combination of Above Types
STEEL BRIDGE STRUCTURE	
8100-XXXX	Steel Bridge Structure
8110-XXXX	Rolled Beam
8120-XXXX	Plate Girder
8130-XXXX	Steel Truss
8140-XXXX	Combination of Above Items
COMPOSITE STEEL AND P/S CONCRETE BRIDGE STRUCTURE	
8200-XXXX	Composite Steel and P/S Concrete Bridge
DESIGN/BUILD STRUCTURES	
8210-XXXX	Design of Bridge Structure (As-Designed Foundation Provided)
8211-XXXX	Design of Bridge Structure (No As-Designed Foundation Provided)
8212-XXXX	Design of Retaining Wall (As-Designed Foundation Provided)
8213-XXXX	Design of Retaining Wall (No As-Designed Foundation Provided)
8214-XXXX	Design of Culvert (As-Designed Foundation Provided)
8215-XXXX	Design of Sound Barrier (As-Designed Foundation Provided)

ITEM SERIES	GENERAL DESCRIPTION
8216-XXXX	Design of Rehabilitation and/or Widening of Bridge Structure (As-Designed Foundation Provided)
8217-XXXX	Design of Rehabilitation and/or Widening of Bridge structure (No As-Designed Foundation Provided)
8218-XXXX	Design of Superstructure Replacement
8250-XXXX	Construction of Prestressed Concrete Bridge Structure
8251-XXXX	Construction of Steel Bridge Structure
8252-XXXX	Construction of Steel and Prestressed Concrete Bridge Structure
8253-XXXX	Construction of Concrete Bridge Structure
8254-XXXX	Construction of Timber Bridge Structure
8255-XXXX	Construction of Concrete Retaining Wall
8256-XXXX	Construction of Prefabricated Retaining Wall
8257-XXXX	Construction of Precast Culvert
8258-XXXX	Construction of Cast-In-Place Reinforced Concrete Culvert
8259-XXXX	Construction of Sound Barrier
8260-XXXX	Construction of Rehabilitation and/or Widening
8261-XXXX	Construction of Steel Superstructure Replacement
8262-XXXX	Construction of Prestressed Concrete Superstructure Replacement
8720 – 8299	All Other Type Structures, Such As Movable, Suspension, Tunnels etc.
TIMBER BRIDGE STRUCTURE	
8300-XXXX	Timber Bridge Structure
8310-XXXX	Timber Stringer Bridge
8320-XXXX	Timber Panel Bridge

ITEM SERIES	GENERAL DESCRIPTION
CONCRETE BRIDGE STRUCTURE	
8400-XXXX	Concrete Bridge Structure
8410-XXXX	Precast Concrete Slab Bridge
8420-XXXX	Concrete Rigid Frame
8430-XXXX	Cast-In-Place Concrete Arch
8431-XXXX	Cast-In-Place Concrete Tied Arch Culverts
CULVERTS	
8510-XXXX	Precast Concrete Box Culvert
8520-XXXX	Cast-In-Place Reinforced Concrete Box Culvert
8530-XXXX	Metal Box Culvert
8540-XXXX	Concrete Pipe Culvert
8541-XXXX	Concrete Pipe Arch Culvert
8550-XXXX	Precast Reinforced Concrete Arch Culvert
8560-XXXX	Concrete Elliptical Pipe Culvert
8570-XXXX	Metal Pipe Culvert
8571-XXXX	Metal Plate Pipe Culvert
8572-XXXX	Metal Pipe Arch Culvert
8573-XXXX	Metal Plate Arch Culvert
8580-XXXX	Metal Culvert
8590-XXXX	Concrete Culvert
RETAINING WALLS AND PREFABRICATED WALL SYSTEMS	
8610-XXXX	Concrete Retaining Wall
8620-XXXX	Prefabricated Retaining Wall
8621-XXXX	Mechanically Stabilized Retaining Wall

ITEM SERIES	GENERAL DESCRIPTION
8622-XXXX	Precast Modular Retaining Wall
8640-XXXX	Prefabricated Abutment or Wingwall
8641-XXXX	Mechanically Stabilized Abutment or Wingwall
8642-XXXX	Precast Modular Abutment or Wingwall
MISCELLANEOUS	
8700-8799	All Other Type Structures, Such As Movable, Suspension, Tunnels, etc.
WATER & SEWER	
88XX-XXXX	Water & Sewer Lines

PART II:
PS&E PACKAGE
PROCESS
PREPARATION
MANUAL

PART II - PS&E PACKAGE DELIVERY PROCESS PREPARATION MANUAL	
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CHAPTER II.1 - INTRODUCTION

The Plans, Specifications & Estimate Package Delivery Process Preparation portion of the Manual provides the procedures for the development and delivery of the Plans, Specifications and Estimates Package. Part II contains the Chapters for some of the specific elements of the Bid Packages, such as Plans, Special Provisions, etc. and the requirements which contribute to these specific elements, which correspond to the appropriate Section of the Policy Chapters in Part I. Some Chapters do not require a Preparation Chapter and therefore, have not been developed. Policy Chapters containing Preparation information include the following Sections:

- **Description**-Describes the intent of the Chapter.
- **Procedure**-Presents the activities required to be performed for completing the process.
- **Forms**-Lists the forms that are required to be completed for the activities.
- **References**-Identifies the references which contain the technical information for the activities.
- **Milestones**-States the due dates for the activities, along with the roles of those responsible for completing the process.

CHAPTER II.2 - ECMS

2.0 DESCRIPTION

The Engineering and Construction Management System (ECMS) Bid Package Screen contains many fields to specify the requirements of constructing the transportation projects. All appropriate data fields are required to be completed. Certain data fields contain significant useful information for the Contractors. These data fields are stated below in the Procedure Section.

2.1 PROCEDURE

The Bid Package is advertised in ECMS with specific information provided to enable bidders to submit bids. The following is specific guidance for some of the fields in ECMS.

A. Project Detail Screen

- Short Description. State the SR/Section or Group (GR), type of work and Design-Build (D/B, full or partial), if applicable.
- Long Description.
 - Begin with whether it is a full or partial D/B project, if applicable.

- Next, state: "This project is the construction of approximately (length of project) from (limit of work) to (limit of work), including (state the type of work here at a summary level), as indicated on the approved drawings included in the Bid Package."
- Publication 408, *Specifications*, Version. Show the applicable version and release edition of the Publication 408, *Specifications*. Ensure that the same version is listed in the Special Provision, Governing Specifications and Designated Special Provisions.
- Project Complexity. State project complexity such as, Non-Complex, Moderately Complex, and Most Complex. Ensure that it matches the Scoping Field View Form in the Categorical Exclusion Expert System and the Plan Review Report per Publication 10C, Design Manual, Part 1C, *Transportation Engineering Procedures*.
- Innovative Bidding Type. State as follows:
 - A + Bx: Yes for A+Bx bidding
 - Design-Build: State full, partial, or no
 - Alternate Pavement (C-Factor): State yes if using an alternate pavement C-Factor

B. Project Team Screen

1. Team. State as follows:
 - Design Team, FHWA Project Team on Federal Oversight Projects, and Construction Team, including the Assistant Construction Engineer (ACE), in particular, to enable the ACE to schedule the Preconstruction Conference upon receipt of the Award Notice.

C. Milestones Screen

1. Milestones. Make sure all milestones are up to date. If the dates change, review to verify if the changes impact the Bid Package requirements and incorporate the changes, as necessary.

D. Condition Screen

1. Project Condition. State any outstanding issues to be completed prior to the condition being met, before advancing to the next level in the Bid Proposal Process.

E. Attachments Screen

1. Pre-Bid Design Files. Include the following design files within the Bid Package screen under the Pre-Bid Design Files, for information:
 - CADD .xml (Inroads or MicroStation), Hydrology and Hydraulics (H&H), Environmental, Geotechnical, Permitting, Bridge and Utility files.

F. Design Item Summary

1. Stored Materials Indicator. When completing this indicator for a Lump Sum Structure item (i.e. 8XXX-XXXX Series), select "Not Eligible for General Stored Materials Pre-Payment".
2. Insert predetermined prices where applicable. If the total estimated amount of the PDA items plus any applicable specialty items (work class code ZZ) exceeds 15% of the total estimate, obtain written approval from the Project Development & Lettings Section (PDLS) and link approval to the PDC.

2.2 REFERENCES

[Publication 51, Part I, *PS&E Package Delivery Process Policy Manual*, Chapter I.2](#)

Publication 242, *Pavement Policy Manual*

ECMS Wave 4 Training Manual

CHAPTER II.3 - SPECIAL PROVISIONS

3.0 DESCRIPTION

The Special Provisions modify the requirements of the Publication 408, *Specifications* for transportation projects. The Conditional Revisions Special Provisions may be required to be included in the PS&E Package. These Conditional Revisions Special Provisions are District Office Developed (DOD) or Not-in-Scope (NIS) modifications to the Publication 408.

The DOD and NIS Special Provisions are written and coordinated with the PDLS to ensure the modifications are necessary to be included in the PS&E package and are accurate.

3.1 PROCEDURE

Transportation projects contain standard requirements approved by PennDOT and others. Design the project in accordance with the Publication 408 throughout the Project Development Process, as much as it is feasible. However, it may become necessary to modify the Publication 408 to meet particular project requirements. These modifications or additions may be required to be used once or to be used on current and future projects. The following procedures state the activities required to facilitate consistency within the District and at the statewide level:

1. The Project Manager (PM), in coordination with the District Contract Management Manager (DCMM), reviews the list of District Standard Special Provisions to determine if the required material, construction, or measurement and payment modifications are stated in an existing Standard Special Provision.
 - a. If the required modifications exist in an existing District Standard Special Provision, the PM incorporates the Special Provision in ECMS.
 - b. If the required modifications do not exist in a current District Standard Special Provision, the PM coordinates with the District and Central Office Subject Matter Experts (SMEs) to determine the applicability and feasibility of the requirements in the project PS&E package.
 - i. If it is determined that the Project-Specific Special Provision may be required, the PM completes the [Non-Standard Special Provisions Worksheet, provided in the ECMS File Cabinet in accordance with the Appendix II.A, Instructions](#).
 - ii. The PM writes the Special Provision in accordance with the Publication 693, *Specification Review Manual*. The DCMM reviews for its conformance with the Publication 693 requirements.
 - iii. The PM, in coordination with the DCMM, determines if the Non-Standard District Special Provision is required for only the particular transportation project, or for multiple projects. If the Non-Standard District Special Provision is required for multiple transportation projects, the following additional activities are completed:
 - (1) The DCMM assigns a Non-Standard Item Number (coordinates with PDLS for items starting with a 4 or 5); and,
 - (2) The DCMM uploads the Special Provision into ECMS District Library for use on future projects.
 - (3) The DCMM coordinates the Special Provision and Item Numbering through the monthly regionalization phone calls with the PDLS. The Districts and the PDLS discuss other potential Sections changes or additions to the Publication 408. The PDLS coordinates with the Specifications Unit as necessary.
 - (4) The Specifications Unit coordinates the District Best Management Practices with the Specification Review Committee. The proposed changes will be vetted through the Clearance Transmittal Process described in Publication 693.

- (5) The Specifications Unit periodically updates the Publication 408 to include approved changes, at which time the DCMM deletes the Special Provision in ECMS.
- iv. The PM incorporates the Non-Standard Design Item Number and the corresponding Non-Standard District Special Provision into the PS&E package; and,
- v. The PM attaches the Non-Standard Special Provisions Worksheet into the Project Development Checklist.

3.2 FORMS

Non-Standard Special Provision Worksheet – Provided in the ECMS File Cabinet

3.3 REFERENCES

[Publication 51, Part I, *PS&E Package Delivery Process Policy Manual*, Chapter I.9](#)

ECMS Wave 4 Training Manual

3.4 MILESTONES

Specific activities must be completed in order to incorporate Special Provisions. The *ECMS Milestones Chart* provides required activities, responsibility and the milestone dates.

Special Provisions Milestones Chart		
Activity	Responsibility	Milestone
1. PM coordinates with DCMM to determine the requirement of the Non-Standard Special Provision.	PM	Prior to Constructability Review

CHAPTER II.4 - DESIGN ITEMS

4.0 DESCRIPTION

The Design Items are included in the Plans, Specifications and Estimate (PS&E) Packages in ECMS. Standard Design Items are available to include in the PS&E Packages. The option of including Non-Standard Design Items is also available.

4.1 PROCEDURE

The transportation projects contain the Standard Design Items in the PS&E Packages. However, it may become necessary to include Non-Standard Design Items. The following procedures state the activities required to include both Standard and Non-Standard Design Items:

1. ECMS contains the approved Standard Design Items which correspond with the Publication 408, *Specifications*. The Project Manager (PM) selects the appropriate Design Items from ECMS.
2. At times, project requirements may necessitate the use of Non-Standard Design Items. The PM, in coordination with the District Contract Management Manager (DCMM), considers the inclusion of the Non-Standard Design Items when:
 - a. The required specifications do not exist in the Publication 408 for the approved project type of work necessary.
 - b. Publication 408 Section requires a change to suit the project requirements.
3. The PM considers the following impacts of including Non-Standard Items:
 - a. Typically, Non-Standard Items result in a higher bid price as there is a certain amount of uncertainty and risk associated. This is true particularly because the Contractors may not have experience with the modifications, whereas much experience may exist with the Standard Items.
 - b. Additionally, PennDOT's construction management team may not have experience with performing construction inspection and management on the Non-Standard Items, depending upon the change.
 - c. Each change impacts Item Price History.
4. The PM refers to [Chapter II.3, *Special Provisions*](#), for the determination of the applicability and development of Non-Standard Design Items.
5. The PM implements the guidelines stated in [Appendix I.C](#) and Publication 693, *Specification Review Manual*, in the development of the Non-Standard Item Numbers.
6. The PM incorporates Plan Station information from AutoTab into ECMS for both Standard and Non-Standard Design Items.
7. The PM refers to the ECMS Wave 4 Training Manual for the Alternate Bid Items Process.
8. The PM ensures the following is completed for the Alternate Pavement Type Bidding Process:

- a. The District Office determines whether to include the C-Factor in projects, based on Publication 242, *Pavement Policy Manual* for C-Factor determination policy.
- b. The District Pavement Management Engineer and PM determine which pavement sections require the C-Factor and separate the quantities for those Design Items to be bid as alternates and those Items that will not be bid as alternates.
- c. The District Pavement Management Engineer notifies the PM of the C-Factor Dollar Amount for each pavement alternative.
- d. The PM attaches the C-Factor results and approval to the ECMS Project Development Checklist. The PM enters, in ECMS, alternate Item (or group of Items) as either, or.
- e. The PM selects Yes in ECMS under the Innovative Bidding Types Section, for the A+Bx/C-Factor and Alternative Pavements toggles. If the A+Bx/C-Factor toggle is not selected as Yes, ECMS will calculate the Contract Amount and Bid Amount incorrectly which will negatively impact the awarding process.
- f. The PM includes the C-Factor Dollar Amounts for the Bituminous and Concrete Roadway options, if applicable. The PM indicates which pavement sections require the alternative pavement bidding requirements.

4.2 FORMS

Non-Standard Special Provision Worksheet – Provided in the ECMS File Cabinet

4.3 REFERENCES

[Publication 51, Part I, *PS&E Package Delivery Process Policy Manual*, Chapter I.19](#)

[Publication 51, Part I, *PS&E Package Delivery Process Policy Manual*, Appendix I.C](#)

Publication 242, *Pavement Policy Manual*

Publication 693, *Specification Review Manual*

Publication 448, *Innovative Bidding Toolkit*

ECMS Wave 4 Training Manual

4.4 MILESTONES

Specific activities must be completed in order to incorporate the Design Items. The Design Items Milestones Chart provides required activities, responsibility and the milestone dates.

Design Items Milestones Chart		
Activity	Responsibility	Milestone
PM coordinates with DCMM to determine the requirement of the Non-Standard Item.	PM	Prior to Constructability Review

CHAPTER II.5 - QUESTIONS & RESPONSES

5.0 DESCRIPTION

The Contractors are reviewing the Bid Packages from a different perspective of constructing the projects. The Contractor's Questions and PennDOT's Responses serve to enhance the quality of the transportation project's Bid Package to result in: suitable bids, enhanced communication and coordination during construction and overall an effective construction project. Questions & Responses are the partnership between the Contractor and PennDOT. This Chapter provides the procedure for submitting the Responses to the Questions.

5.1 PROCEDURE

The District Contract Management Manager (DCMM) notes that Questions have been submitted for the transportation project in the Engineering and Construction Management System (ECMS), and completes the following:

1. Reviews the Questions submitted by the prospective bidders.
2. Obtains draft responses from the Project Manager and other subject matter experts involved in the project, in order to post responses to the Questions.
3. Reviews the Responses, ensuring conformance with the Policy for writing the Responses.
4. Posts the Responses in ECMS.
5. Develops the addendum, if required, as a follow-up to the Questions.
6. Notes that if the Responses are not provided accurately or in a timely manner, may have to move the Letting Date for the project.
7. Ensures the Department's goal for responding to each Question within two (2) business days is met.

5.2 REFERENCES

Publication 51, Part I, *PS&E Package Delivery Process Policy Manual*, Chapter I.15

Publication 10C, Design Manual, Part 1C, *Transportation Engineering Procedures*

5.3 MILESTONES

Specific activities must be completed in order to develop the Responses to Questions. The *Questions and Responses Milestones Chart* provides required activities, responsibility and the milestone dates.

Questions & Responses Milestones Chart		
Activity	Responsibility	Milestone
1. Develop Responses	PM	See Publication 51, Part I, <i>PS&E Package Delivery Process Policy Manual</i> , Chapter I.15
2. Publish Responses	DCMM	See Publication 51, Part I, <i>PS&E Package Delivery Process Policy Manual</i> , Chapter I.15

CHAPTER II.6 - ADDENDA

6.0 DESCRIPTION

Modifications to the advertised Bid Package are performed by addenda. The addenda facilitate clarification of the Bid Package. This Section provides the actions required to develop and publish the addenda.

6.1 PROCEDURE

The four groups of addenda changes provided in a Bid Package are stated below:

- **Project information**, such as ECMS Project Number, Type of Work, Project Cost Range, Letting Date, Description of Project, Additional Information, etc. which are automatically populated by ECMS.
- **Item & Quantity**- District Contract Management Manager (DCMM) provides Design Items modifications information.

- **Special Provision**-DCMM provides modifications information on the Special Provisions.
- **Other**-DCMM provides information regarding Plan Sheets, Attachments and other modifications.

A. Project Information Modifications

The DCMM completes the following on general information modifications, as follows:

- Enters X in the Other field for the Addendum on the Bid Package Screen.
- Provides the required modifications on the general information. If the Letting Date is moved, adds the following:
 - "PennDOT has moved the let date. Submitted bid files have been deleted. PennDOT may publish further changes via addenda, resulting in the need to withdraw and resubmit bids."
- If the Letting Date is moved, may change the Anticipated Notice to Proceed Date. Note, however, that only the PDLs can publish an addendum to move the Letting Date.
- Changes the Pre-Bid Meeting Date, if appropriate; however, does not change from no Pre-Bid Meeting to a Pre-Bid Meeting in an addendum; it must be completed separately if newly required. Additionally, does not change from an optional to a mandatory Pre-Bid Meeting.

2. Item and Quantity Modifications

The DCMM states the following to show Items in the addenda as follows:

- When Items are changed from Standard to Non-Standard Item Numbers, states Deleted the Standard Item, followed by the Item Number and Title and Added the Non-Standard Item in the Item and Quantity followed by the Item Number and Title portion of the General Screen.
- If the quantities of Items need to be changed, states "Modified quantity for Item ..." and does not include the actual quantities.

3. Special Provisions Modifications

The DCMM completes the following to modify Special Provisions in the addenda as follows:

- When Special Provisions are being added, modified or removed, the DCMM states the actions taken for the Special Provisions, succinctly, such as added, modified, removed (written in past tense) followed by the title of the Special Provision, under the Addendum, General Screen.
 - Special Provisions:

- Added the following Special Provisions:
 - (1) <Special Provision Number in ECMS, title and name of Special Provision>. For example, (1) G7039A-a0739 Changes to Specifications Section 901.
- Modified the following Special Provisions:
 - (1) <Special Provision Number in ECMS, title and name of Special Provision>.
- Removed the following Special Provisions:
 - (1) <Special Provision Number in ECMS, title and name of Special Provision>.
- The DCMM modifies, removes or adds the Special Provision itself in the Special Provisions link.
- The DCMM ensures that no particular revisions information regarding the Special Provisions is included in the Addendum, General Screen. Actual revisions can be viewed by clicking on the Special Provisions link on the Addenda Screen.

4. Other Modifications-Plans and Attachments

1. Plans Modifications. The DCMM completes the following regarding Plan Sheet modifications in the addenda, depending on whether the Plan Sheets are to be revised or to be replaced in the Bid Package:
 - a. Condition 1-Plan Sheets to be Replaced
 - When Plan Sheets are being replaced or added, the DCMM replaces or adds the entire sheets on the Addendum Project Development Checklist and provides the action taken for each Plan Sheet on the Addendum Screen, Other block, as follows:
 - Other: Replaced the following Sheets:
 - (1) Roadway Plan Sheet x
 - (2) S-xxxxx, Structure Plan Sheet x
 - Added the following Sheets:
 - (1) Roadway Plan Sheet x
 - (2) Landscaping Plan Sheet x
 - Note(s):
 - (1) Revised plan set will be issued to the successful bidder at or before the Preconstruction Meeting.

b. Condition 2-Plan Sheets to be Revised

- When revisions are being indicated on the Plan Sheets, in accordance with Publication 10C, Design Manual, Part 1C, *Transportation Engineering Procedures*, and Publication 14M, Design Manual, Part 3, *Plans Presentation*, the DCMM provides the following information on the Addendum Report, Other block:
 - Note(s):
 - (1) Revised plan set will be issued to the successful bidder at or before the Preconstruction Meeting.

5. Attachments Modifications

The DCMM completes the following on Attachments modifications in the addenda, as shown:

- When Attachments are being replaced or added, states Replaced, or Added the <title of Attachment> in the Addendum, General Screen. For example,
 - Other: Attached the waterway permit to the Project Development Checklist.
 - Replaces or adds the Attachments on the Addendum Project Development Checklist.

6.2 REFERENCES

[Publication 51, Part I, *PS&E Package Delivery Process Policy Manual*, Chapter I.16](#)

Publication 10C, Design Manual, Part 1C, *Transportation Engineering Procedures*

Publication 14M, Design Manual, Part 3, *Plans Presentation*

6.3 MILESTONES

Specific activities must be completed in order to develop and publish the Addenda. The Addenda Milestones Chart provides required activities, responsibility and the milestone dates.

Addenda Milestones Chart		
Activity	Responsibility	Milestone
1. Develop Addenda	Project Manager and DCMM	See Publication 51, Part I, <i>PS&E Package Delivery Process Policy Manual</i> , Chapter I.16
2. Publish Addenda	DCMM and PDLS	See Publication 51, Part I, <i>PS&E Package Delivery Process Policy Manual</i> , Chapter I.16

CHAPTER II.7 - STANDARD AND PROPRIETARY MATERIALS / PRODUCTS / PROCESSES SPECIFICATIONS

7.0 DESCRIPTION

Materials / products / processes incorporated into transportation projects are generally pre-approved by PennDOT. Proprietary materials / products / processes may be required, at times. Any material / product / process identified as proprietary, as specified below, which is required for a project must be justified and approved prior to inclusion in the Plans, Specifications and Estimate / Bid Packages.

7.1 PROCEDURE

The following procedures for standard and proprietary materials / products / processes state the activities required to complete the processes.

A. Standard Materials / Products / Processes

Pre-approved materials / products / processes which meet the requirements of Publication 408, *Specifications* are stated in approved sources of supply in PennDOT Publications. Pre-approved materials / products / processes should not be stated in the PS&E Package.

B. Proprietary Materials / Products / Processes

The PMs and others may identify the need for incorporating proprietary materials / products / processes into projects. The following procedure provides the steps required for completing the Standard and Proprietary Materials / Products / Processes Specifications Process.

1. At the Design Field View, the PM discusses the materials / products / processes to be incorporated on the transportation project.
2. The team, at the Design Field View, identifies any proprietary materials / products / processes to be used on the project.
3. The PM performs research to determine if other equally suitable materials / products / processes are available. Use life cycle cost analysis to develop cost comparisons based on comparable designs to meet product requirements using the anticipated service life for each product. For additional information concerning justification for traffic signal equipment, refers to Publication 46, *Traffic Engineering Manual*.
4. If the proprietary materials / products / processes are required, the PM submits a Proprietary Items Request Letter (see [Appendix II.B](#)) for approval, to include the following information:
 - a. Reason(s), such as those provided below, that a *generic* material description cannot be used or at least two companies providing equally suitable items cannot be specified (one reason is sufficient).
 - i. Less than two suitable items exist, or no other items exist that are of acceptable quality.
 - ii. The item is essential for synchronization with existing highway facilities and no suitable alternative exists.
 - b. A description of how the proprietary product will benefit the public.
 - i. What unique needs are being addressed that result in no equally suitable alternate being available?
 - ii. Are there identified safety locations or critical decision points that would justify a higher standard?
 - c. An evaluation of the pool of potential products available in the PennDOT approved sources and a description of why these products cannot meet the state or local agency's needs.
 - d. An estimate of additional costs incurred as a result of this proprietary product requirement.

- e. If there are a number of products available that meet the proposed specifications, also include an engineering and economic analysis which should address all of the following:
 - i. Are there other products on the market that meet the specifications?
 - ii. Are these products of satisfactory quality?
 - iii. Are the anticipated costs for the products approximately the same?
 - f. The PM attaches a letter from the local municipality with justification, if applicable.
- 5. The PM submits the approval request with justification letter to the appropriate Bureau Director and provides a copy of the request to the PDLS Chief.
 - 6. The PM posts the request letter with justification information and the response on the Project Development Checklist, prior to the submission of the PS&E Package to the PDLS or advertisement posting.
 - 7. The Project-Specific Special Provision states acceptable material / product / process, if the request is approved.

7.2 FORMS

[Appendix II.B, Example Template Letter for Proprietary Item Approval](#)

7.3 REFERENCES

Publication 51, Part I, *PS&E Package Delivery Process Policy Manual*, Chapter I.19

7.4 MILESTONES

Specific activities must be completed in order to incorporate the standard and proprietary items on transportation projects. The Standard and Proprietary Materials Milestones Chart provides required activities, responsibility and the milestone dates.

Standard and Proprietary Materials Milestones Chart		
Activity	Responsibility	Milestone
1. Identify if proprietary materials / products / processes will be required on project	Project Manager	Design Field View
2. Submits request for approval for proprietary materials / products / processes	Project Manager	Start of Final Design
3. Provides approval / disapproval of proprietary item request.	Director, Bureau of Design and Delivery or Director, Bureau of Operations	Within 15 Calendar Days of Submission

CHAPTER II.8 - SMALL AND DISADVANTAGED BUSINESS PROGRAMS

8.0 DESCRIPTION

Transportation projects include the Disadvantaged Business Enterprise (DBE) requirements in the projects. The DBE Program goals, for Federal-aid projects or the minimum participation levels (MPLs) for the state-funded projects are provided in the Bid Package.

8.1 PROCEDURE

The Bureau of Design and Delivery develops the DBE goals/MPLs for the DBE Program. The following is the procedure for the review, approval and inclusion of the goals/MPLs:

1. The Project Manager completes the Estimate for the project and submits it to the District Contract Management Manager (DCMM).
2. The DCMM requests the Contract Awards in the Contract Management Section to provide the DBE Program goals/MPLs by e-mail to minorityparticipation@pa.gov.
3. The Contract Awards determines the DBE Program goals/MPLs. If the project is a Design-Build project, the Consultant Agreement Unit, Contract Management Section, determines the goal for the Design portion of the project.
4. The DCMM includes the DBE goal/MPLs in the Governing Specifications and Designated Special Provisions Special Provision.

8.2 REFERENCES

Publication 51, Part I, *PS&E Package Delivery Process Policy Manual*, Chapter I.20

8.3 MILESTONES

Specific activities must be completed in order to develop the DBE Program goals/MPLs. The DBE Program Goals/MPLs Milestones Chart provides the required activities, responsibility and the milestone dates.

DBE Program Goals / MPLs Milestones Chart		
Activity	Responsibility	Milestone
1. Request DBE Program goals / MPLs	DCMM	Minimum 5 weeks for Federal Oversight projects and 2 weeks for all others, prior to advertisement
2. Develop DBE Program goals / MPLs	Contract Awards	Minimum 3 weeks for Federal Oversight projects and 1 week for all others, prior to advertisement

CHAPTER II.9 - EQUAL EMPLOYMENT OPPORTUNITY-TRAINEES

9.0 DESCRIPTION

The transportation projects contain the requirement to evaluate the inclusion of Trainees. The number of trainees and the corresponding hours in the Design Items are provided as a requirement in the Bid Package.

9.1 PROCEDURE

The District develops and the Bureau of Design and Delivery approves the number and hours of Trainees. The following is the procedure for the review and approval of the Trainees:

1. The District Labor and Contract Compliance Agent completes the On-the-Job Training Worksheet in the Project Information Screen and includes the Special Provision, Item 1999-0200-Trainees, for Federal-aid projects or Item 1999-0100-Trainees, for state funded projects in the PS&E Package.
2. The District Contract Management Manager (DCMM) reviews the Trainees Worksheet and approves the number of trainees.
3. The Contract Awards in the Contract Management Section reviews the following during the pre-bid checking, to ensure compliance with the requirements, after advertisement and prior to bid opening:
 - a. Construction schedule
 - b. Trainees Worksheet
 - c. Number of Trainees stated in the Special Provision
 - d. The quantity of hours in the Design Item for Trainees
4. The Contract Awards determines any adjustments necessary and notifies the DCMM.
5. The DCMM revises the number and hours for the Design Item for Trainees.

9.2 REFERENCES

Publication 51, Part I, *PS&E Package Delivery Process Policy Manual*, Chapter I.21

9.3 MILESTONES

Specific activities must be completed in order to develop the Trainees Design Item. The Equal Employment Opportunity - Trainees Milestones Chart provides required activities, responsibility and the milestone dates.

Equal Employment Opportunity - Trainees Milestones Chart		
Activity	Responsibility	Milestone
1. Develop Trainee Worksheet	District Labor and Contract Compliance Agent	Prior to PS&E Package submission / advertisement
2. Approve number of Trainees	Contract Awards	Prior to Bid Opening

CHAPTER II.10 - OTHER REQUIRED APPROVALS

10.0 DESCRIPTION

Transportation projects may contain requirements for other approvals for the following items:

- Inspector's Field Office and Inspection Facilities – Special or Unusual Equipment
- Warranty of Project Items
- Letter of Intent
- Contractor Purchased Equipment and / or Materials for State Ownership
- Allowable Material Retention – Salvage Credit, Federal-Aid Projects
- State Owned / Furnished / Designated Materials

10.1 PROCEDURE

The procedures for each of these items are detailed below:

A. Inspector's Field Office and Inspection Facilities – Special or Unusual Equipment

The Project Manager (PM) submits the approval request to include materials and equipment that are not in Section 609 of the Publication 408 to the Chief, PDLS for approval by the Director of the Bureau of Design and Delivery.

B. Warranty of Project Items

The DCMM ensures that the warranty information is not required to be submitted with the bid.

C. Letter of Intent

The PM and the District Contract Management Manager (DCMM) establish the inclusion of the Letter of Intent in the transportation projects, as follows:

1. The PM determines that a Letter of Intent is desirable.
2. The DCMM sends an e-mail to the Contract Awards in the Contract Management Section to request approval to include a Letter of Intent in the Bid Package, along with a justification.
3. The Contract Awards reviews the Letter of Intent request and justification. The Contract Awards coordinates with Office of Chief Counsel. Provides response on whether to include the Letter of Intent requirement in the Bid Package and places a Project Condition as a reminder to prepare the Letter after Bid Opening.
4. The DCMM includes the Letter of Intent on the Project Development Checklist, if approved and the appropriate Special Provision.

D. Contractor Purchased Equipment and / or Materials for State Ownership

The Project Manager includes with the request for exemption a justification of the need for the equipment which cannot be obtained otherwise. In the justification, amortize the initial purchase cost over the useful life of the equipment.

E. Allowable Material Retention – Salvage Credit, Federal-Aid Projects

The DCMM ensures special provisions adequately address the disposition of items.

F. State Owned / Furnished / Designated Materials

The Project Manager prepares a Public Interest Finding justification which should include such items as cost effectiveness, system integrity, and local shortages of material.

10.2 REFERENCES

Publication 51, Part I, *PS&E Package Delivery Process Policy Manual*, Chapter I.22

10.3 MILESTONES

Specific activities must be completed in order to develop the following items:

- Inspector's Field Office and Inspection Facilities – Special or Unusual Equipment
- Warranty of Project Items
- Letter of Intent
- Contractor Purchased Equipment and / or Materials for State Ownership
- Allowable Material Retention – Salvage Credit, Federal-Aid Projects
- State Owned / Furnished / Designated Materials

The [*Other Required Approvals Milestones Chart*](#) provides required activities, responsibility and the milestone dates.

Other Required Approvals Milestones Chart		
Activity	Responsibility	Milestone
A.1 Develop field office special materials and equipment approval letter.	PM	Prior to PS&E Package submission to the DCMM
A.2 Approve field office special materials and equipment approval letter.	PDLS	Prior to PS&E Package submission / advertisement
B.1 Ensures warranty approval is on the PDC.	DCMM	Prior to PS&E Package submission / advertisement
C.1 Initiate Letter of Intent	PM	Prior to PS&E Package submission to the DCMM
C.2 Develop Letter of Intent	DCMM	Prior to PS&E Package submission / advertisement
C.3 Approve Letter of Intent	Contract Awards	Prior to PS&E Package submission / advertisement
C.4 Include appropriate Special Provisions	DCMM	Prior to PS&E Package submission / advertisement
D.1 Ensures Contractor purchased equipment approval is attached to the PDC.	DCMM	Prior to PS&E Package submission / advertisement
E.1 Ensures FHWA regulations are followed.	PM	Prior to PS&E Package submission to the DCMM
F.1 Ensures the State Owned / Furnished / Designated Materials approval is attached to the PDC	DCMM	Prior to PS&E Package submission / advertisement

APPENDIX II.A - INSTRUCTIONS NON-STANDARD SPECIAL PROVISIONS WORKSHEET**Instructions****Non-Standard Special Provisions Worksheet**

1. Complete the District and ECMS project number.
2. Enter the Project Manager's name.
3. Indicate whether the project is a project with local municipality funds (Yes/No).
4. Enter the Title of the Special Provision.
5. Indicate the areas of modification(s) to the Publication 408, *Specifications*, Section (may select more than one area):
 - a. XXXX.2 Material
 - b. XXXX.3 Construction
 - c. XXXX.4 Measurement & Payment
6. Indicate that the modifications, as per the Publication 51, Part I, *PS&E Package Delivery Process Policy Manual*, Chapter 9, *Special Provisions*, are a result of (may select more than one reason):
 - a. Publication 408 clarification
 - b. District preference
 - c. Construction lessons learned
 - d. Project-type modifications
 - e. Incidental items
7. Provide a brief explanation for the reasons for the necessity of the Special Provision. Limit your response to 150 characters.
8. Indicate the duration for the applicability of the Non-Standard Special Provision (select only one response):
 - a. Experimental—For research purposes
 - b. Single project use—use only on one project
 - c. Multiple project use—use on multiple projects in the District or statewide
9. After the District Contract Management Manager (DCMM) reviews, indicate the DCMM's response either to (select only one response):
 - a. Include the Non-Standard Special Provision
 - b. Don't include the Non-Standard Special Provision
10. Place signature and state the date in the "Completed By" field.

APPENDIX II.B - EXAMPLE TEMPLATE LETTER FOR PROPRIETARY ITEM APPROVAL

Using the appropriate PennDOT letterhead and Style Guide formats, below is a template of the Proprietary Item Approval letter.

DATE: [Enter Date Here]

SUBJECT: SR [SR] Section [Sec] ECMS [ECMS]
Proprietary Item Approval Request

To: [Enter Bureau Director Name here], P.E.
Director
Bureau of [Enter Bureau here]

FROM: [Enter Name here]
District Executive
Engineering District [XX]-0

We are providing the following information for Proprietary Item Approval.

[INSERT A SHORT PROJECT DESCRIPTION]

[INSERT THE PROPRIETARY ITEMS AND A JUSTIFICATION (in accordance with Publication 51, Part I, Chapter 19)]

(This is a sample justification. Please incorporate the appropriate Publication 51 reference and justifications pertaining to your proprietary item request.)

The items that we seek approval for are:

1. [Insert Item]

These items were selected to maintain (system continuity and/or unavailability of alternate same product) with the current products used by the (municipality/township/city).

[INSERT THESE PARAGRAPHS]

The District concurs with the justification provided herewith (by the municipality/township/city) and requests your approval for the subject proprietary item(s).

If you have any questions on this matter or require any additional information, please contact, (Name) at (XXX) XXX-XXXX.

Attachment(s)

Approval: _____ **Date:** _____
Director, Bureau of [Enter Bureau Here]