

<b>NTTA Projects</b>	<b>Original Issue Date: 06/05/2008</b>	<b>FD-01</b>
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## 1.0 PURPOSE:

- The purpose of this procedure is to define the process to develop, review and approve Corridor/Project Plans, Specifications & Estimates (PS&E). This process serves as a review for completeness and conformance with NTTA and applicable local, State, and federal requirements, as well as budgetary constraints (planned or unforeseen). This procedure does not supersede the designer's professional obligations required under state statutes, nor does it relieve the designer from implementation of an independent internal QC/QA process prior to each milestone submittal. Milestone submittals are anticipated at 30%, 60%, 90% and 100%-Final completion.

## 2.0 RESPONSIBILITIES:

**2.1 Assistant Executive Director of Infrastructure (AEDI)** – The AEDI shall be responsible for approving all final PS&E submittals.

**2.2 Director of Project Delivery (DPD)** – The DPD shall be responsible for recommending the Final PS&E Submittal to the AEDI.

**2.3 NTTA Design Manager** – The NTTA Design Manager shall be responsible for reviewing and recommending the Final PS&E Submittal and forwarding recommendation of its approval to the DPD. Additionally, the NTTA Design Manager is responsible for resolving any escalated disputed comments during the PS&E review process.

**2.4 Corridor Manager (CM)/Project Manager (PM)** – The CM/PM shall be responsible for:

- Oversight of all PS&E development efforts to ensure compliance with NTTA and other applicable local, state and federal requirements
- Approving the detailed design schedule from the DSE to the PD Scheduler in compliance with PC-06, *Schedule Management*
- Receipt, review, verification of necessary components of PS&E submittal as described in Table 1. Completing form FD-01-F8, *Bluebeam Session Request Form*, and ensuring all internal (Project Delivery, Maintenance, IT, and Traffic and Incident Management Departments, and Visual Quality staff) and, if applicable, external (Private, Cities, Counties, and State) stakeholders are invited to review all PS&E Design Package milestone submittals.
- Checking review comments and organizing a Comment Resolution Meeting with the needed parties by ensuring any duplicated and/or conflicting review comments are resolved internally prior to incorporation in the next milestone submittal
- Verifying final resolutions have been resolved and incorporated into the plans
- Receipt, review and approval of a Level D (30% milestone), Level C (60% milestone), Level B (90% milestone) and Level A (100%-Final milestone) estimate, in compliance with PC-02, Cost Estimates

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- Delivery of the 60% PS&E construction schedule from the DSE to the PD Scheduler in compliance with PC-06, *Schedule Management*
- Coordination of any external stakeholders participating in the comment review processes (i.e. local or federal funding is involved such as TXDOT or FHWA) as these comments shall also be compiled and addressed prior to transmission to the DSE.
- In cases where comment resolution cannot be reached, issues may be escalated to the NTTA Design Manager for resolution

## 2.5 Design Section Engineer (DSE) – The DSE shall be responsible for:

- Participation in kick-off and coordination meetings.
- Developing a PS&E Design Package consisting of the components listed in Table 1 for 30%, 60%, 90% and 100%-Final levels of design submittals to the CM/PM, all of which are required on or prior to the dates defined in the detailed design project schedule.
- Submittal of milestone reviews for each PS&E Design Package to the CM/PM.
- Requests for any new or revised Special Specification(s), Special Provision(s), and/or general note(s) in compliance with FD-03, *NTTA Special Specification, Provision and General Note Management*, a minimum of 6 weeks prior to the submission of the 90% milestone submittal.
- Requests for any new or revised project standards in compliance with FD-04, *NTTA Standard Development*, a minimum of 6 weeks prior to the submission of the 90% milestone submittal.
- Responding to each comment by indicating on FD-01-F5 a “Response” and “Action Plan”, and re-submission to obtain concurrence. All comments require an entry of “Agree”, “Disagree”, or “Clarification.”
- Upholding his/her professional obligations in addition to responding to and complying with comments and resolutions made by PD staff and other agencies on design submittals.

## 2.6 Reviewers shall be responsible for:

- Review and recording comments within Bluebeam session.
- Participation in Comment Resolution Meetings.
- Reviewing subsequent milestone submittals for inclusion of prior comments.

## 3.0 SCOPE/APPLICABILITY:

This procedure shall apply to all NTTA projects and corridors within the Project Delivery Department.

## 4.0 REFERENCES:

- NTTA CAD Guidelines
  - NTTA PS&E Preparations Manual
  - NTTA’s and TxDOT’s Standard and Special Specifications, and Special Provisions
  - NTTA and TxDOT CAD Standards
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- NTTA Design Guidelines
- NTTA Roadway Electrical System Manual
- NTTA Sign and Traffic Control Device Guidelines Manual
- NTTA Sign Policy Manual
- NTTA Master General Notes
- FD-03 NTTA Special Specification, Provision and General Note Management
- FD-04 NTTA Standards Management
- FD-06 Design Criteria
- PC-02 Cost Estimate procedure
- PC-06 Schedule Management
- SD-06 Visual Quality Management - Design

## 5.0 DEFINITIONS & ACRONYMS

**Comment Resolution Meeting:** This meeting serves as a collaborative effort among all reviewers, the CM/PM, and the DSE to discuss and resolve solutions to disputed comments, as documented on form FD-01-F5, and to clarify any comments and Action Plans. Comments are provided by NTTA to the DSE on form FD-01-F5. The DSE responds to the comments as follows:

- Comments denoted as “*Agree*” will be incorporated into the next milestone submittal.
- Comments denoted as “*Disagree*” will require an “*Action Plan*” entry on form FD-01-F5 to justify the response.
- Comments denoted as “*Clarification*” shall be followed up immediately by the originator of the comment. This may be done by verbal or electronic communication. A Comment Resolution Meeting may be more appropriate in cases where joint discussions, exhibits, markups or drawings are needed to convey information.

During the meeting, the CM/PM shall discuss each “*Disagree*” and/or “*Clarification*” response by providing a documented and accepted “*Action Plan*” with the agreed upon solution. An updated form FD-01-F5 will be provided at or prior to the subsequent submittal.

**Action Plan:** A plan of action, as documented on form FD-01-F5, which serves as an agreed solution to address a comment that requires clarification or is in disagreement.

## 6.0 PROCEDURES:

### General:

- Corridors/Projects with Federal funding participation shall be reviewed and approved by TxDOT and FHWA. Projects/Corridors with local agency funding participation will be afforded a courtesy review to ensure their comments are appropriately addressed. In accordance with applicable Inter-Local Agreements (ILAs), PS&E development shall be coordinated with these stakeholders.

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- If upon review by the CM/PM, the recurring submission of a PS&E Design Submittal is found to be missing the required components, as indicated in Table 1, the submittal shall be rejected back to the DSE for resubmittal.

**PS&E Development:** The DSE shall develop PS&E in accordance with the Corridor/Project Scope, applicable references of this document and required components as indicated in Table 1.

**6.1 Project Kick-Off Meeting:** The project kick-off meeting shall:

- Be held after the DSE has completed contract negotiations, the contract has been executed, and an NTP has been issued
- Be initiated by the CM/PM and is required to communicate information for the DSE to begin work.
- The agenda shall include at a minimum the following discussion points:
- Project Schedule
- Design Package submittal process and schedule
- Distribution of contact information as well as access to all project related requirements
- Provide the DSE with any project specific documentation inclusive of:
  - Items listed on form *FD-01-F6, Project Kick-Off Items* to be furnished by NTTA
  - Electronic copies of all required design files and other applicable design information
- Be an opportunity for the DSE to ask questions, clarify requirements and request additional information

**6.2 PS&E Design Package Submittal:** The DSE shall deliver electronic copies of the required components of the PS&E Design Package to the CM/PM. The required components of a PS&E Design Package are described in Table 1. If TxDOT or FHWA is required to participate in the review, electronic copies of their review component requirements should be provided at this time.

**QMS MANUAL**  
Procedure Definition

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Table 1						
Components of a PS&E Design Package						
PS&E COMPONENTS	30%	IDENTIFY NEW STANDARDS, SS, SP, GENERAL NOTES	60%	Pre-90% (Proposal Book Development Only) 5 days prior to 90% Submittal	90%	100%-Final
Plan Distribution	FD-01-F8 (30%)	N/A	FD-01-F8 (60%)	N/A	FD-01-F8 (90%)	FD-01-F8 (100%-Final)
Plan Distribution (Electronic)	CAD		CAD	CAD	CAD	CAD
	PDF		PDF	PDF	PDF	PDF
Checklists	FD-01-F1		FD-01-F2	N/A	FD-01-F3	FD-01-F4
	FD-01-F9		FD-01-F9	N/A	FD-01-F9	N/A
	N/A		N/A	N/A	N/A	CA-01-F1
Comments	FD-01-F5 (initial)		FD-01-F5 (30% Comments, complete with Responses and PS&E Action Plan from previous submittal)	N/A	FD-01-F5 (60% Comments, complete with Responses and PS&E Action Plan from previous submittal)	FD-01-F5 (90% Comments, complete with Responses and PS&E Action Plan from previous submittal)
Estimate	PC-02-F1 -Level D		PC-02-F1 -Level C	N/A	PC-02-F1 -Level B	PC-02-F1 -Level A

**QMS MANUAL**  
**Procedure Definition**

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Table 1						
Components of a PS&E Design Package (continued)						
PS&E COMPONENTS	30%	IDENTIFY NEW STANDARDS, SS, SP, GENERAL NOTES	60%	Pre-90% (Proposal Book Development Only) 5 days prior to 90% Submittal	90%	100%-Final
<b>Standards Compliance</b>	Standards Checklist – Preliminary - Include all NTTA, TxDOT Standards and modifications (MOD)	Identify any new Project Specific or Systemwide Standards in compliance with FD-04. Minimum 6 weeks prior to 90% Submittal	Include all NTTA, TxDOT Standards and modifications (MOD).	N/A	Standards Checklist – Include all NTTA, TxDOT Standards and modifications (MOD) and <i>complete</i> any Project Specific Standards in compliance with FD-04.	Standards Final Checklist - Include all NTTA, TxDOT Standards and (MOD), and any project specific standards on this list.
<b>Proposal Development</b>	Specification List (Preliminary)	Identify any new SS, SP and/or General Notes in accordance with FD-03. Minimum 6 weeks prior to 90% Submittal	Submit a draft version of the Master General Notes.  ----- General Notes - Modify the NTTA Master GN and request any new GNs in accordance with FD-03. Complete the utility owner information in the GN.	Provide the following information to the CM/PM:  ----- (1) Total cost of the project (estimate) (2) Completed SP 0.02.3 ROW & Relocation by Others (3) Completed SP 0.03.7 Mandatory Construction Schedule (4) Summary Tables consistent with Project Estimate	Draft Proposal Book: Include items in Specification List, General Notes, and contract documents as described in Proposal Document Checklist	Final Proposal: Include items in Specification List, General Notes, and contract documents as described in Proposal Document Checklist
<b>Reports – Pavement, Drainage, Wall, or others as required</b>	Draft Reports – (Pavement, Drainage, Wall, or others as required)	N/A	Final Reports – (Pavement, Drainage, Wall, and/or others as required)	N/A	N/A	N/A – Previous submittal N/A
		←←←← 6 WEEKS MINIMUM →→→→				

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- 6.3 Preliminary Review:** The CM/PM receives electronic notification containing a link to the Design Package PS&E submittal. The CM/PM shall download and view the source files to begin the preliminary review for conformity and completeness. The CM/PM has two (2) working days to complete the preliminary review and return it to the DSE if it does not meet requirements.
- 6.4 Create Review Team:** The CM/PM shall create a review team composed of the review disciplines identified in FD-01-F8 to start the review process. The CM/PM shall complete form FD-01-F8 and initiate a Bluebeam session for the review team to review the plans. The CM/PM shall also include in the Bluebeam Session, the design checklist associated with the submittal level (30%, 60%, 90% & 100%-Final).
- 6.5 Team Review:** Each Team Reviewer (discipline) receives an email notification containing a link to the PS&E Design Package submittal in a Bluebeam session. The review is typically a two-week process. All reviewers shall record their comments on the plans inside of the Bluebeam session. Reviewers can use form FD-01-09 to aid in their review. The Bluebeam session Organizer will pull Reviewers comments and transfer them to form FD-01-F5.
- 6.6 Compile and Review Comments:** When all reviewers have completed the review process in Bluebeam, the CM/PM shall negotiate and resolve any conflicting review comments. The CM/PM submits the comments to the DSE for response and action plan generation.
- 6.7 Response & Action Plan:** In accordance with the design schedule and allowing sufficient time for resolution of disputed comments in advance of the next submission due date, the DSE shall review all comments and select a response from the pre-determined drop-down categories in form FD-01-F5. If comments are agreed to, the DSE shall incorporate the comments into the subsequent milestone submittal. For all comments categorized as "Disagree" or "Clarification", the DSE must document a justification and Action Plan on form FD-01-F5. The DSE shall submit the Response and Action Plans to the CM/PM for review.
- 6.8 Response & Action Plan Review:** The CM/PM shall review the DSE Response and Action Plans to determine if they are complete and acceptable. The CM/PM may elect to schedule a Comment Resolution Meeting with the DSE and the Review Team to resolve "Disagree" or "Clarification" comments. When comments have been resolved, the CM/PM shall update the Action Plans and submit them back to the DSE for review. When the response and action plans are complete and meet all requirements, the CM/PM shall forward it to the DSE and copy the PD Design Manager.
- 6.9 Incorporate Response & Action Plans:** The DSE incorporates all comments and action plans into the PS&E Design Package as requested by the CM/PM, recreates the electronic file folders with the updated documents and attaches them to the next milestone PS&E submittal.
- 6.10 Submittal Level Determination:** The PS&E Design Package submittal process is repeated (steps 6.2-6.9) until the 100%-Final submittal is completed.

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**7.0 REGULATORY REQUIREMENTS:**

N/A

**8.0 RELATED BOARD POLICY:**

N/A

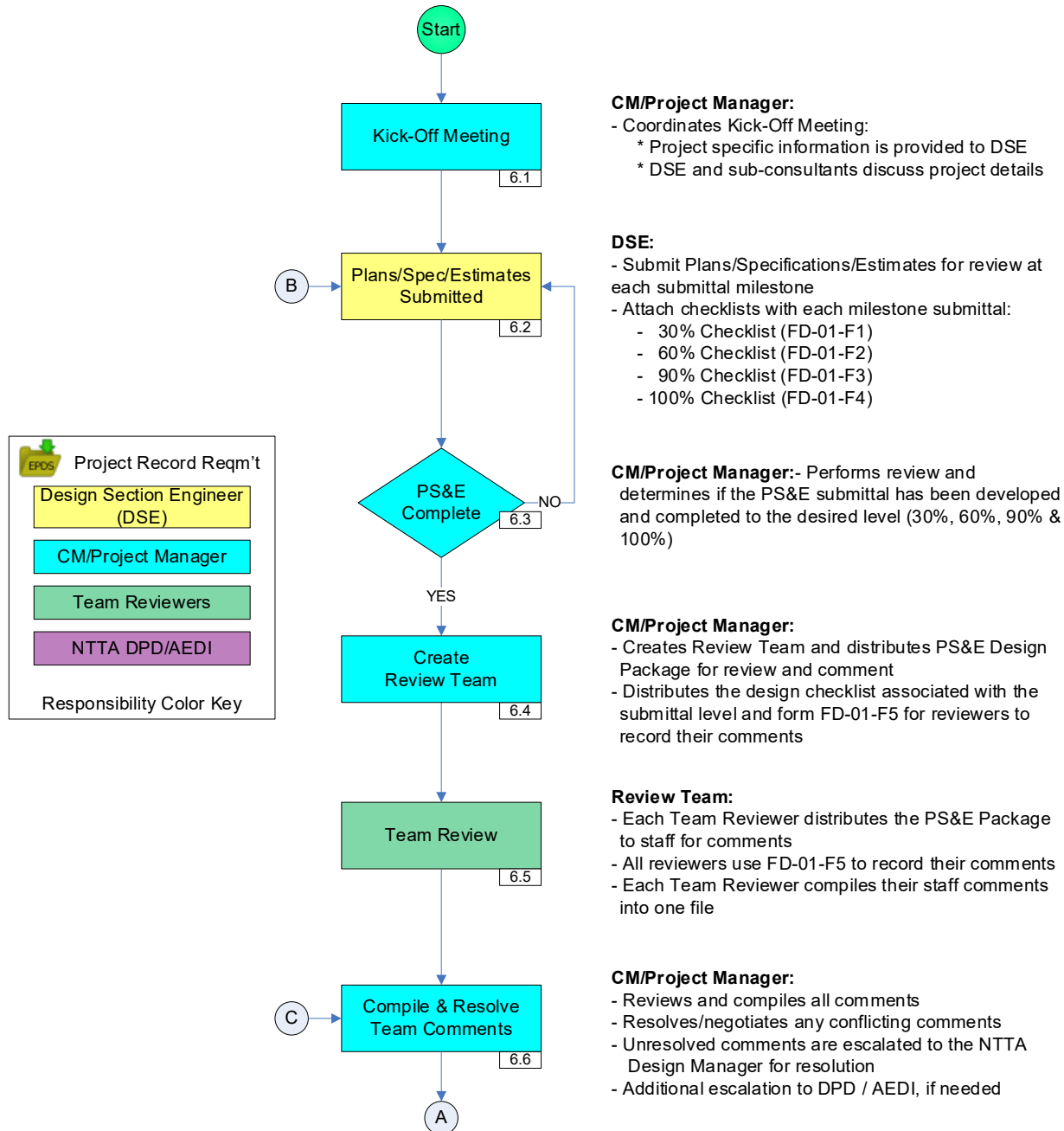
**9.0 COMPONENT DOCUMENTS:**

- FD-01-F1, FD-01-F2, FD-01-F3, and FD-01-F4 30/60/90/100% Design Checklists
  - FD-01-F5 Comment Review Form
  - FD-01-F6 Project Kick-Off Items to be Furnished by NTTA
  - FD-01-F8 Bluebeam Session Request Form
  - FD-01-F9 Constructability Review Checklists
-

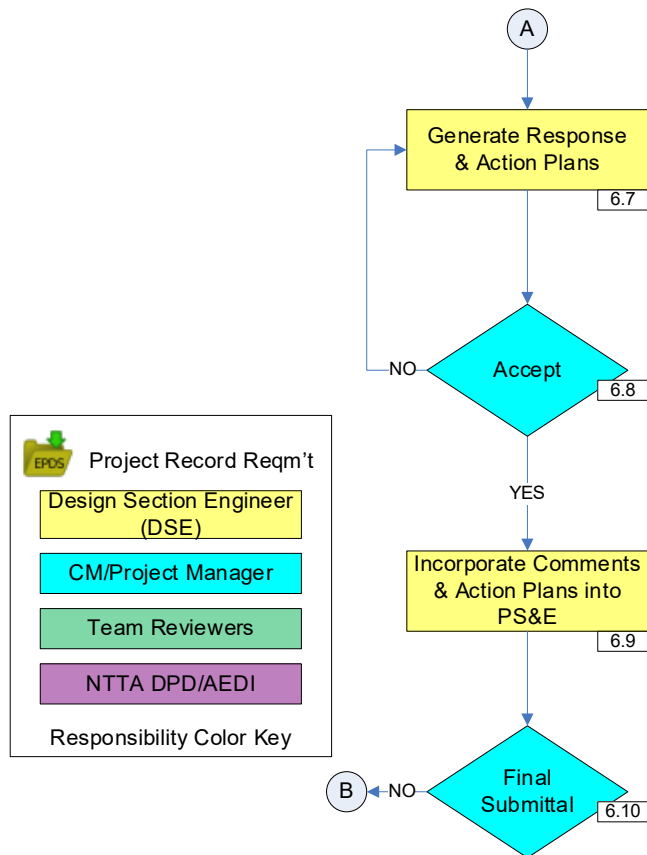


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## 10.0 FLOWCHART: PS&E REVIEW PROCESS (ADJUST ZOOM TO ENLARGE FLOWCHART)



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**DSE:**

- Responds and categorizes each comment using form FD-01-F5 (Agree, Disagree, Clarification)
- Develops responses and justification for comments categorized as "Disagree" or "Clarification"
- If rejected, incorporates revisions per FD-01-F5

**CM/Project Manager:**

- Reviews response & action plans and determines if all items have been addressed and are complete
- Schedule optional Comment & Resolution Meeting to resolve "Disagree" or "Clarification" comments

**DSE:**

- Incorporates comments and action plans into PS&E

**CM/Project Manager:**

- Process is repeated for 30%, 60%, 90% & 100% submittals
- When current submittal level is "Final", submittal is forwarded for final approval

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#### 11.0 REVISION HISTORY:

Revision	Revised by:	Date Issued	DRN NO.	Reason for Revision
0	Dave Clarke	06/05/2008		Original Issue
1	Floyd Martinez	9/18/2008		Significant Rewrite and addition of forms
1	Edie Adams	5/29/2009	<b>10007</b>	Admin Change – Correct manual title
2	Darla Payberah	04/28/2011	<b>10296</b>	Deleted Guiding Principles, Updated roles/responsibilities, Included procedure to detail EPDS submittal, Updated Flowchart.
3	Kelly Johnson	07/14/2025	<b>11112</b>	Updated procedure to reflect roles/responsibilities and current process of using Bluebeam session for review