

**Texas Department of Transportation
Book 2 - Technical Provisions**

SH 183 Managed Lanes Project

**Attachment 2-1
Project Management Plan Contents**

Attachment 2-1 – Project Management Plan Contents

The Project Management Plan Contents and Schedule for provision of the component parts.

Legend:

A = Submitted by Developer within 30 days of NTP 1 and approved by TxDOT prior to Commencement of Design and issuance of NTP 2

A1=Submitted by Developer within 30 days of NTP1 and concurrence by TxDOT prior to issuance of NTP2

B = Submitted by Developer within 90 days of NTP 1 and approved by TxDOT prior to Commencement of Construction

C = Submitted by Developer 60 days prior to NTP 2 and approved by TxDOT prior issuance of NTP 2

| Part | Ref | Section | Contents | Required by |
|--------------------------------------|------|---------------------|---|-------------|
| 1. Project Administration | | | | |
| | 1.1 | Organization | Organization diagram | A |
| | 1.2 | Personnel | Names and contract details, titles, and job roles | A |
| | 1.3 | Contractors | Procedures to establish how the Developer will manage Contractors | A |
| | 1.4 | Schedule | Project Baseline Schedule in accordance with the Technical Provision Section 2 | A |
| | 1.5 | Quality Control | Procedures to establish and encourage continuous improvement | A |
| | 1.6 | Audit | Procedures to facilitate review and audit by TxDOT and/or the Independent Reviewers | A |
| | | | Auditing and management review of Developer's own activities under the PMP | A |
| | | | Auditing and management review of Contractor's activities and management procedures | A |
| | 1.7 | PMP Update | Procedures for preparation of amendments and submission of amendments to any part of the PMP | A |
| | 1.8 | Document Management | The manner in which records will be maintained in compliance with the Technical Provisions, including any specific systems Developer will use | A |
| | | | Document management procedures in compliance with the Technical Provisions Section 2 | A |
| | | | Procedures for documenting all required Plans not specifically stated in this attachment, including but not limited to: Aesthetics and Landscaping Plan, ITS Implementation Plan, Haul Route Plan, Maintenance Management Plan (MMP), Emergency Response Plan, etc. | |
| 2. Quality Management Plan | | | | |
| 2A. Design Quality Management | | | | |
| | 2A.1 | Organization | Developer's main contractual arrangements | A |
| | | | Organizational structure covering the activities to be performed in accordance with the Contract Documents | A |
| | 2A.2 | Personnel | Resource Plan for the Developer and its subcontractors | A |

| 2. Quality Management Plan | | | | |
|---|-----------------------|--|---|--|
| 2A. Design Quality Management (Continued) | | | | |
| 2A.2 | Personnel | Arrangements for coordinating and managing staff interaction with TxDOT and its consultants including collocation of Key Personnel and description of approach to coordinating work of off-site personnel | A | |
| | | Names and contact details, titles, job roles and specific experience required for the Key Personnel and for other principal personnel during the period of Design Work | A | |
| | | Names and contact details, titles, job roles and specific experience required for the principal personnel for Contractors and any third party with which Developer will coordinate activities. | A | |
| 2A.3 | Offices and equipment | Description of the necessary offices and office equipment to be provided by Developer during the period of Design Work | A | |
| 2A.4 | Contractors | Overall control procedures for Contractors, including consultants and Subconsultants | A | |
| | | Responsibility of Contractors and Affiliates | A | |
| | | Steps taken to ensure Contractors and Suppliers meet the obligations imposed by their respective Contracts | A | |
| 2A.5 | Interfaces | Interfacing between the Developer, Contractors and the Independent certifiers during the period of Design Work | A | |
| | | Coordination with Utility Owners | A | |
| 2A.6 | Environmental | Integration of the interface between environmental requirements (including landscaping) and the design of the Project | A | |
| 2A.7 | Procedures | Procedures describing how the principal activities will be performed during the design stage: to include geotechnical site investigation, surveys and mapping, environmental management, safety audit, structural audit, and checking | A | |
| 2A.8 | Quality Control | Design Quality Management Plan (DQMP), including control procedures including a resource table for monitoring and auditing all design services, design review and certification, and verification of Procedures for environmental compliance | A | |
| | | Procedures to establish Developer's hold points in the design process at which checking and review will take place | A | |
| | | Procedures to ensure accuracy, completion, and quality in submittals to TxDOT, Governmental Entities and other third parties. | A | |
| | | Procedures to establish and encourage continuous improvement | A | |
| 2A.9 | Audit | Name of Developer's representative(s) with defined authority for establishing, maintaining, auditing and reporting on the PMP | A | |
| | | Name, title, roles and responsibilities of supporting quality management staff reporting to the person with defined authority | A | |
| 2A.10 | Document Management | The manner in which records will be maintained in compliance with the Technical Provisions, including any specific systems Developer will use | A | |
| | | Document management procedures in compliance with the Technical Provisions Section 2 | A | |
| | | Identify environmental documentation and reporting requirements, including Environmental Permits, Issues and Commitments (EPIC) sheets | A | |

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| 2. Quality Management Plan | | | | |
| 2B. Construction Quality Management | | | | |
| | 2B.1 | Organization | Developer's main contractual arrangements | A |
| | | | Organizational structure covering the activities to be performed in accordance with the Contract Documents | A |
| | 2B.2 | Personnel | Resource Plan for the Developer and its Contractors | B |
| | | | Arrangements for coordinating and managing staff interaction with TxDOT and its consultants including collocation of Key Personnel and description of approach to coordinating work of off-site personnel | B |
| | | | Names and contact details, titles, job roles and specific experience required for the Key Personnel as related to construction | A |
| | | | Names and contact details, titles, job roles of principal personnel for Contractors and any third party with which Developer will coordinate his activities | B |
| | | | Procedures for implementation of the Environmental Protection Training Plan (EPTP) for all employees in accordance with the Technical Provisions Section 4 | B |
| | | | | |
| | 2B.3 | Offices and equipment | Description of the necessary offices and office equipment to be provided by Developer during construction | A |
| | 2B.4 | Contractors | Overall control procedures for Contractors, including consultants and subconsultants | B |
| | | | Responsibility of Contractors and affiliates | B |
| | | | Steps taken to ensure Contractors and Suppliers meet the obligations imposed by their respective Contracts | B |
| | | | Procedures for implementation of Environmental Protection Training Plan (EPTP) for employees of subcontractors in accordance with the Technical Provisions Section 4 | B |
| | 2B.5 | Interfaces | Interfacing between the Developer, Contractors, including any testing contractor, and the Independent verifiers during construction | A |
| | 2B.6 | Procedures | List of Project specific construction procedures | B |
| | | | Construction detailed procedure for each major activity whether directly undertaken or subcontracted to include pavement, structures, drainage, communications | B |
| | | | Traffic Management Plan | B |
| | 2B.7 | Quality Control/ Quality Assurance | Construction Quality Management Plan (CQMP) | B |
| | | | Integration of component parts of the Comprehensive Environmental Protection Program (CEPP) into construction quality management | B |
| | | | Control, identification and traceability of materials, including any material or samples temporarily or otherwise removed from site for testing or other reasons. | B |
| | | | Examinations and audit of Construction Work, review of examination and audit, issue of certificates | B |
| | | | Observation and reporting of all tests in compliance with the Technical Provisions Section 2 | B |
| | | | Procedures for tests and inspections for the purpose of the Contractor certifying that prior to burying, each part of the Works is complete and conforms to the Contract Documents | B |
| | | Quality control procedures including a resource table for monitoring and auditing during construction any work and testing undertaken by Contractors and Suppliers both on and off Site | B | |

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| 2. Quality Management Plan | | | | |
| 2B. Construction Quality Management (continued) | | | | |
| | 2B.7 | Quality Control | Procedures to establish Developer's hold points in construction | B |
| | | | Procedures to ensure accuracy, completion, and quality in submittals to TxDOT, Governmental Entities and other third parties | B |
| | | | Procedures to establish and encourage continuous improvement | A |
| | 2B.8 | Audit | Inspection and test plans that identify the proforma and/or databases to be used for recording the inspection and test results and a methodology for transmitting acceptance testing and inspection reports to TxDOT | B |
| | | | Name of Developer's representative with defined authority for establishing, maintaining, auditing and reporting on the PMP | A |
| | | | Name, title, roles and responsibilities of supporting quality management staff reporting to the person with defined authority. | B |
| | 2B.9 | Document Management | The manner in which records will be maintained in compliance with the Technical Provisions, including any specific systems Developer will use | B |
| | | | Document management procedures in compliance with the Technical Provisions Section 2 | A |
| 2C. O&M Quality Management | | | | |
| | 2C.1 | Organization | Developer's main contractual arrangements | C |
| | | | Organizational structure covering the activities to be performed in accordance with the Contract Documents | C |
| | 2C.2 | Personnel | Resource Plan for the Developer and its Contractors | C |
| | | | Arrangements for coordinating and managing staff interaction with TxDOT and its consultants including collocation of Key Personnel and description of approach to coordinating work of off-site personnel | C |
| | | | Names and contact details, titles, job roles and specific experience required for the Key Personnel and for other principal personnel during the O&M Period. | C |
| | | | Names and contact details, titles, job roles and specific experience required for the principal personnel for Contractors and any third party with which Developer will coordinate activities. | C |
| | | | Procedures for implementation of the Environmental Protection Training Plan (EPTP) for all employees in accordance with the Technical Provisions Section 4 | C |
| | | | Procedures for implementation of the Environmental Protection Training Plan (EPTP) for all employees in accordance with the Technical Provisions Section 4 | C |
| 2C.3 | Offices and equipment | Description of the necessary offices and office equipment to be provided by Developer during the O&M Period | C | |
| 2C.4 | Contractors | Overall control procedures for Contractors, including consultants and Subconsultants | C | |
| | | Responsibility of Contractors and Affiliates | C | |
| | | Steps taken to ensure Contractors and Suppliers meet the obligations imposed by their respective Contracts | C | |
| 2C.5 | Interfaces | Interfacing between the Developer, Contractors, including any testing contractor, and the Independent verifiers during operations and maintenance including Renewal Work | C | |
| | | Coordination with Utility Owners | C | |
| | | Procedures to minimize the impact of the Project's operations on neighboring facilities | C | |

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| 2C.6 | Environmental | Coordination of the interface between environmental requirements and the operation and maintenance of the Project | C | |
| 2C.7 | Procedures | Maintenance Management Plan | C | |
| | | Procedures describing how the principal activities will be performed during the O&M Period: to Include routine maintenance, renewal work, inspections, corridor management, traffic control plan, and incident management | C | |
| | | Traffic Management Plan | C | |
| 2C.8 | Quality Control/ Quality Assurance | O&M Quality Management Plan (O&M-QMP) | C | |
| | | Quality control procedures including a resource table for monitoring and auditing all O&M Work | C | |
| | | All applicable controls, procedures, testing, acceptance, certification and reporting for O&M Renewal Work as described in Section 2B above. | C | |
| | | Procedures for establishing assets conditions score including compatibility of data sharing and transfer | C | |
| | | Procedures to ensure accuracy, completion, and quality in submittals to TxDOT, Governmental Entities and other third parties. | C | |
| | | Procedures to establish and encourage continuous improvement | C | |
| 2C.9 | Audit | Inspection and test plans that identify the proforma and/or databases to be used for recording the inspection and test results and a methodology for transmitting inspection reports to TxDOT | C | |
| | | Name of Developer's representative(s) with defined authority for establishing, maintaining, auditing and reporting on the PMP | | |
| | | Name, title, roles and responsibilities of supporting quality management staff reporting to the person with defined authority | C | |
| 2C.10 | Document Management | The manner in which records will be maintained in compliance with the Technical Provisions, including any specific systems Developer will use | C | |
| | | Document management procedures in compliance with the Technical Provisions Section 2 | C | |
| 3. Safety Plan | | | | |
| | 3.1 | Policies, plans, training programs, Work Site controls, and Incident response plans to ensure the health and safety of personnel involved in the Project and the general public affected by the Project | A1 | |
| | 3.2 | Procedures for notifying TxDOT of Incidents arising out of or in connection with the performance of the Work | A1 | |
| 4. TxDOT - Developer Communications Plan | | | | |
| | 4.1 | The manner in which the Developer's organization will respond to unexpected requests for information, communicate changes or revisions to necessary Developer personnel and notify the affected stakeholders before and after the changes are made. | A | |
| | 4.2 | Processes and procedures for communication of Project information between the Developer's organization and TxDOT | A | |
| 5. Public Information and Communications Plan | | | | |
| | 5.1 | Organization | Developer's main contractual arrangements | A |
| | | | Organizational structure covering the activities to be performed in accordance with the Contract Documents. | A |
| | 5.2 | Personnel | Resource Plan for the Developer and its Contractors | A |
| | | | Arrangements for coordinating and managing staff interaction with TxDOT and its consultants, including colocation of Key Personnel and description of approach to coordinating work of off-site personnel | A |

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| | | | Names and contact details, titles, job roles and specific experience required for Key Personnel and for other principal personnel | A |
| | | | Names and contact details, titles, job roles of principal personnel for Contractors and any third party with which Developer will coordinate his activities | A |
| | 5.3 | Offices and equipment | Description of the necessary offices and office equipment to be provided by Developer during design | A |
| 5. Public Information and Communications Plan (Continued) | | | | |
| | 5.4 | Contractors | Overall control procedures for Contractors, including consultants and subconsultants | A |
| | | | Responsibility of Contractors and Affiliates | A |
| | | | Steps taken to ensure Contractors and Suppliers meet the obligations imposed by their respective Contracts | A |
| | | | Procedures for implementation of EPTP for employees of Contractors | A |
| | 5.5 | Interfaces | Procedures for liaison with the public, the media and other Customer Groups in accordance with the Technical Provisions Section 3 and the press media policy of TxDOT | A |
| | | | Procedures to coordinate with Project Stakeholders such as Governmental Entities and other Customer Groups | A |
| | 5.6 | Procedures | Procedures describing how the principal activities will be performed | A |
| | 5.7 | Quality Control | Quality control procedures including a resource table for monitoring and auditing all public information and communication services | A |
| | | | Procedures to ensure accuracy, completion, and quality in submittals to TxDOT, Governmental Entities and Customer Groups | A |
| | 5.7 | Quality Control | Procedures to establish and encourage continuous improvement | A |
| | 5.8 | Audit | Name of Developer's representative with defined authority for establishing, maintaining, auditing and reporting on PMP | A |
| | | | Name, title, roles and responsibilities of supporting quality management staff reporting to the person with defined authority | A |
| | 5.9 | Document Management | The manner in which records will be maintained in compliance with the Technical Provisions, including any specific systems Developer will use | A |
| | | | Document management procedures in compliance with the Technical Provisions Section 2 | A |
| 6. Comprehensive Environmental Protection Program (CEPP) | | | | |
| | 6.1 | Organization | Developer's main contractual arrangements | A |
| | | | Organizational structure covering the activities to be performed in accordance with the Contract Documents | A |
| | | | Environmental Contact Tree | A |
| | 6.2 | Personnel | Resource Plan for the Developer and its Contractors | B |
| | | | Arrangements for coordinating and managing staff interaction with TxDOT and its consultants, including collocation of Key Personnel and description of approach to coordinating work of off-site personnel | A |
| | | | Names and contact details, titles, job roles and specific experience required for Key Personnel and for other environmental personnel | A |
| | | | Implement Environmental Protection Training Plan (EPTP) for all employees in accordance with the Technical Provisions Section 4 | A |

| 6. Comprehensive Environmental Protection Plan (continued) | | | | |
|--|-----|---------------------|--|---|
| | 6.3 | Contractors | Overall control procedures for Contractors, including consultants and subconsultants | A |
| | | | Responsibility of Contractors and Affiliates | A |
| | | | Implement Environmental Protection Training Plan (EPTP) for employees of Contractors in accordance with the Technical Provisions Section 4 | |
| | 6.4 | Environmental | Establishment of the component parts of the Environmental Compliance Mitigation Program (ECMP) | B |
| | 6.5 | Quality Control | Procedures to ensure accuracy, completion, and quality in submittals to TxDOT, Governmental Entities and other third parties | A |
| | | | Procedures to establish and encourage continuous improvement | A |
| | | | Procedures for environmental compliance | A |
| | 6.6 | Audit | Name, title, roles and responsibilities of supporting quality management staff reporting to the person with defined authority | B |
| | 6.7 | Document Management | The manner in which records will be maintained in compliance with the Technical Provisions, including any specific systems Developer will use | A |
| | | | Identify environmental documentation and reporting requirements | A |
| 7. Affected Third Parties Plan | | | | |
| | 7.1 | | Description and procedures on how Developer will mitigate the impact of the Work upon potentially impacted third parties and coordinate Work with other projects along the project corridor. | |
| 8. Right-of-Way Acquisition Plan | | | | |
| | 8.1 | Organization | Developer's main contractual arrangements | A |
| | | | Organizational structure covering the activities to be performed in accordance with the Contract Documents | A |
| | 8.2 | Personnel | Resource Plan for the Developer and its Contractors | A |
| | | | Arrangements for coordinating and managing staff interaction with TxDOT and its consultants, including collocation of Key Personnel and description of approach to coordinating work of off-site personnel | A |
| | | | Names and contact details, titles, job roles and specific experience required for the Key Personnel as related to ROW acquisition and Utility Adjustment activities. | A |
| | | | Names and contact details, titles, job roles of principal personnel for Contractors and any third party with which Developer will coordinate activities | A |
| | 8.3 | Contractors | Overall control procedures for Contractors, including consultants and subconsultants | A |
| | | | Responsibility of Contractors and Affiliates | A |
| | | | Steps taken to ensure Contractors and Suppliers meet the obligations imposed by their respective Contracts | A |
| | | | Procedures for implementation of the EPTP for employees of Contractors in accordance with the Technical Provisions Section 4 | A |

| 8. ROW Acquisition Plan (continued) | | | | |
|-------------------------------------|------|---------------------|---|---|
| | 8.4 | Interfaces | Interfacing between the Developer, Contractors and the Independent Reviewers during Project ROW acquisition, including the interfaces between Project ROW acquisition, Project design, and quality review processes | A |
| | 8.4 | Interfaces | Coordination with Utility Owners | A |
| | | | Procedures for establishing Utility Adjustment Concept Plans and Utility Adjustment Plans | B |
| | 8.5 | Relocation | Relocation Plan (ROW) | B |
| | 8.6 | Environmental | Integration of the interface between environmental requirements (including Hazardous Materials and demolition) and Project ROW acquisition activities | A |
| | | | Applicable procedures for the Hazardous Materials Management Plan (HMMP) in accordance with the Technical Provisions Section 4 | A |
| | | | Applicable procedures to implement the Storm Water Pollution Prevention Plan (SW3P), recycling program and waste management in accordance with the Technical Provisions Section 4 | A |
| | | | Address CEPP requirements | A |
| | 8.7 | Schedule | Logic linked ROW acquisition activities on a parcel-by-parcel basis as part of the Facility Baseline Schedule, including adequate time periods for TxDOT review and condemnation activities in accordance with the Technical Provisions Section 7 | A |
| | 8.8 | Procedures | Procedures describing how the principal activities will be performed during the Project ROW acquisition, whether directly undertaken or subcontracted | A |
| | 8.9 | Quality Control | Procedures to ensure accuracy, completion, and quality in submittals to TxDOT and Governmental Entities | A |
| | | | Procedures to establish and encourage continuous improvement | A |
| | | | Quality control procedures and quality review standards for Project ROW acquisition in accordance with the Technical Provisions Section 7 | A |
| | | | Integration of component parts of the CEPP into ROW acquisition management | A |
| | 8.10 | Audit | Name, title, roles and responsibilities of supporting quality management staff reporting to the person with defined authority | A |
| | 8.11 | Document Management | The manner in which records will be maintained in compliance with the Technical Provisions, including any specific systems Developer will use | A |
| | | | Document management procedures in compliance with the Technical Provisions Section 2 | A |
| | | | Identify environmental documentation and reporting requirements | A |

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| 9. Maintenance Management Plan | | | | |
| | 9.1 | Procedures | Procedures describing how the principal activities will be performed during the maintenance period including the general maintenance and operations obligations | C |
| | | | Procedures for managing records of inspection and maintenance activities | C |
| | | | Procedures setting out Developer's response to maintenance issues such as mitigation of hazards, and defects that require prompt attention or are a safety concern | C |
| | 9.2 | Performance Standards | Procedures to be followed by Developer pursuant to the Technical Provisions to comply with all applicable maintenance requirements for the term of the Agreement | C |
| | 9.3 | Emergency Response | Procedures setting out how Developer will respond to accidents and incidents on the Project | C |
| 10. Operations Management Plan | | | | |
| | 10.1 | | Procedures for identifying, assessing, analyzing, controlling and managing operations to meet its obligations under the Agreement. | C |
| 11. Emergency Management Plan | | | | |
| | 11.1 | | Procedures for Force Majeure events and vehicle accidents that may disrupt construction or damage facilities. | A |
| 12. Cost Management Plan | | | | |
| | 12.1 | | Procedures for identifying, assessing, analyzing, controlling and managing project costs to meet its obligations under the Agreement. | A |
| 13. Risk Management Plan | | | | |
| | 13.1 | | Procedures for identifying, assessing, analyzing, controlling and managing project risks to meet its obligations under the Agreement. | A |

**Texas Department of Transportation
Book 2 – Technical Provisions**

SH 183 Managed Lanes Project

**Attachment 2-2
Work Breakdown Structure Requirements**

Table 1 represents the minimum levels of the WBS that all cost and schedule information shall rollup to once the Project Baseline Schedule is fully developed. The WBS incorporates various geographic segments, regions, areas or phases of Work to better facilitate management of construction sequencing.

Table 1: WBS Minimum Requirements

- 1 [Name of Project]**
 - 1.1. Project Administration**
 - 1.1.1. Project Summary & Milestones
 - 1.1.2. Mobilization
 - 1.1.2.1. Developer
 - 1.1.2.2. DB Contractor
 - 1.1.3. Submittals and Permitting
 - 1.1.3.1. (By Governmental Agency)
 - 1.1.3.1.1. (By Specific Permit/Submittal Requirement)
- 2. Segment [A]**
 - 2.1.** Segment [A] Summary & Milestones
 - 2.2.** Segment [A] Right-of-Way Acquisition
 - 2.2.1. Acquisition By TxDOT
 - 2.2.1.1. (By Parcel No.)
 - 2.2.2. Acquisition by Developer
 - 2.2.2.1. (By Parcel No.)
 - 2.3.** Segment [A] Utility Adjustments
 - 2.3.1. Utility Coordination
 - 2.3.1.1. Administration and Planning
 - 2.3.1.1.1. Site Utility Engineering
 - 2.3.1.1.2. Conceptual Design
 - 2.3.1.2. (By Owner)
 - 2.3.1.2.1. Master Agreements
 - 2.3.1.2.2. Utility Assemblies
 - 2.3.2. Utility Relocations
 - 2.3.2.1. (By Owner)
 - 2.3.2.1.1. (By Line)
 - 2.4.** Segment A Design
 - 2.4.1. General Activities and Field Work
 - 2.4.1.1. Design Mobilization
 - 2.4.1.2. Schematics
 - 2.4.1.3. Survey Work
 - 2.4.1.4. Geotechnical Investigations
 - 2.4.1.5. Additional Field Investigations
 - 2.4.2. Develop Specifications
 - 2.4.2.1. (By Discipline)
 - 2.4.3. Geotechnical Design
 - 2.4.3.1. General
 - 2.4.3.2. Earthwork Geotech
 - 2.4.3.3. Bridge Geotech
 - 2.4.3.4. Culvert Geotech
 - 2.4.3.5. Wall Geotech
 - 2.4.4. Pavement Design
 - 2.4.4.1. Data Analysis and Draft Report

- 2.4.4.2. Final Design and Report
- 2.4.5. Drainage Design
 - 2.4.5.1. Hydrologic and Hydraulic Design
 - 2.4.5.2. Preliminary System Design
 - 2.4.5.3. Detailed Drainage Design
- 2.4.6. Roadway Design
 - 2.4.6.1. Alignments
 - 2.4.6.2. Sections
 - 2.4.6.3. Detailed Design
- 2.4.7. Bridge Design
 - 2.4.7.1. Establish Criteria and Procedures
 - 2.4.7.2. Bridge layouts
 - 2.4.7.3. Substructure Design
 - 2.4.7.4. Superstructure Design
- 2.4.8. Retaining Wall Design
 - 2.4.8.1. Establish Criteria and Procedures
 - 2.4.8.2. Fill Wall Design
 - 2.4.8.3. Cut Wall Design
- 2.4.9. Traffic Management
 - 2.4.9.1. (By Phase)
- 2.4.10. Environmental Design
 - 2.4.10.1. Erosion Control / SWPPP
 - 2.4.10.2. Noise Wall Design
 - 2.4.10.3. Wetland and habitat Mitigation
 - 2.4.10.4. TCEQ Best Management Practices
- 2.4.11. Landscape and Aesthetic Design
 - 2.4.11.1. Landscape Design
 - 2.4.11.2. Aesthetic Design
- 2.4.12. Electrical Design
 - 2.4.12.1. Illumination
 - 2.4.12.2. Traffic Signals
- 2.4.13. ITS & TCS Design
 - 2.4.13.1. Duct Bank System & Power Supply
 - 2.4.13.2. ITS/TCS Equipment & Structures
- 2.4.14. Signage and Marking Design
 - 2.4.14.1. Overhead
 - 2.4.14.2. Small signs and pavement markings
- 2.4.15. Design Packages
 - 2.4.15.1. Package Preparation
 - 2.4.15.2. QA/QC Review
 - 2.4.15.3. Submittal
 - 2.4.15.4. TxDOT/IE Reviews
 - 2.4.15.5. Comment Resolution
- 2.5. Segment A Construction [Phase]**
 - 2.5.1. Work Area [EBFR, WBFR, EBGPL, WBGPL, ML, etc.]
 - 2.5.1.1. Traffic Control and Temporary Work
 - 2.5.1.1.1. Barricades, Signs & Traffic Handling
 - 2.5.1.1.2. Erosion Control
 - 2.5.1.1.3. Detour Construction/Removal
 - 2.5.1.1.4. Portable Traffic Barrier
 - 2.5.1.1.5. Workzone Pavement Marking

- 2.5.1.1.6. Temporary Bridges
- 2.5.1.1.7. Temporary Walls/Shoring
- 2.5.1.1.8. Temporary Drainage
- 2.5.1.1.9. Temporary Illumination
- 2.5.1.2. Environmental Mitigation
 - 2.5.1.2.1. Noise Walls
 - 2.5.1.2.2. Wetland and Habitat Mitigation
- 2.5.1.3. Hazardous Materials
 - 2.5.1.3.1. Site Assessments
 - 2.5.1.3.2. Remediation
- 2.5.1.4. Removals
 - 2.5.1.4.1. Building Removals
 - 2.5.1.4.2. ROW Preparation
 - 2.5.1.4.3. Roadway Removals
 - 2.5.1.4.4. Bridge Removals
- 2.5.1.5. Earthwork
 - 2.5.1.5.1. Topsoil Stripping and Placing
 - 2.5.1.5.2. Excavation
 - 2.5.1.5.3. Embankment
 - 2.5.1.5.4. Special Geotechnical Measures
- 2.5.1.6. Subgrade Treatment and Base
 - 2.5.1.6.1. Lime Treatment
 - 2.5.1.6.2. Flexible Base
- 2.5.1.7. Drainage
 - 2.5.1.7.1. Culverts
 - 2.5.1.7.2. Storm Sewer
 - 2.5.1.7.3. Riprap
- 2.5.1.8. Pavement
 - 2.5.1.8.1. Asphalt Pavement
 - 2.5.1.8.2. Concrete Pavement
 - 2.5.1.8.3. Curb & Gutter
 - 2.5.1.8.4. Driveways
 - 2.5.1.8.5. Sidewalks and Median Paving
- 2.5.1.9. Retaining Walls
 - 2.5.1.9.1. (By Wall No.)
- 2.5.1.10. Bridges
 - 2.5.1.10.1. (By Bridge No.)
- 2.5.1.11. Permanent Barriers
 - 2.5.1.11.1. Permanent Concrete Barriers
 - 2.5.1.11.2. Metal Beam Guard Fence
 - 2.5.1.11.3. Crash Attenuators
- 2.5.1.12. Signals and Illumination
 - 2.5.1.12.1. Roadway Illumination
 - 2.5.1.12.2. High Mast Illumination
 - 2.5.1.12.3. Electrical Services
 - 2.5.1.12.4. Traffic Signals
- 2.5.1.13. ITS/TCS
 - 2.5.1.13.1. Duct Bank System
 - 2.5.1.13.2. Equipment Foundations
 - 2.5.1.13.3. Support Structures and Equipment
- 2.5.1.14. Landscaping

- 2.5.1.14.1. Seeding and Sodding
- 2.5.1.14.2. Fertilizer and Watering
- 2.5.1.14.3. Special Aesthetic Landscaping (if applicable)
- 2.5.1.15. Permanent Signing and Marking
 - 2.5.1.15.1. Overhead Sign Structures
 - 2.5.1.15.2. Small Signs
 - 2.5.1.15.3. Pavement Markings