

NMDOT



Activities Description Manual

*For use with
Process Environmental Linkage (PEL) Workflow
and
Primavera P6 Version 7*

July 2010

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NMDOT ACTIVITY MANUAL

Activities by Phase

Activities by Functional Group

Activities by Phase

Statewide Long Range Transportation Plan Phase - Activities 110-116

STIP Planning and Preliminary Project Definition Phase - Activities 118-121

Environmental Class of Action Determination Phase - Activities 125-130

Complete Inventory of Existing Conditions Phase - Activities 132-172

Project Definition and Scoping (Phase A/B Analyses) Phase - Activities 200-214

Finalize and Adopt STIP Phase - Activities 300-320

Environmental Documentation, Processing, and Preliminary Design Phase - Activities 400-476 and 484-488

Final Design Phase - Activities 478-480, 500-548 and 552-560

PS&E Authorization Phase - Activities 549-550 and 600-630

Construction Phase - Activities 700-706

See Also:

Activities by Functional Group

Statewide Long Range Transportation Plan Phase

– Activities 110-116

#110 – Establish Location Study Team

#115 – Consider Performing VE Study **New Activity**

#116 – Conduct VE Study (Corridor Study)

See Also:

STIP Planning and Preliminary Project Definition Phase – Activities 118-121

Environmental Class of Action Determination Phase – Activities 125-130

Complete Inventory of Existing Conditions Phase – Activities 132-172

Project Definition and Scoping (Phase A/B Analyses) Phase – Activities 200-214

Finalize and Adopt STIP Phase – Activities 300-320

Environ. Documentation, Processing, and Prelim. Design Phase – Activities 400-476 and 484-488

Final Design Phase – Activities 478-480, 500-548 and 552-560

PS&E Authorization Phase - Activities 549-550 and 600-630

Construction Phase – Activities 700-706

STIP Planning & Preliminary Project Definition Phase

- Activities 118-121

#118 – Prepare Project Priority Plan

#119 – Develop Preliminary Purpose and Need Statement

#120 – Define Corridor Termini and Alternatives **New Activity**

#121 – Review ITS Architecture, ITS Deployment Along Corridor **New Activity**

See Also:

Statewide Long Range Transportation Plan Phase – Activities 110-116

Environmental Class of Action Determination Phase – Activities 125-130

Complete Inventory of Existing Conditions Phase – Activities 132-172

Project Definition and Scoping (Phase A/B Analyses) Phase – Activities 200-214

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Final Design Phase – Activities 478-480, 500-548 and 552-560

PS&E Authorization Phase - Activities 549-550 and 600-630

Construction Phase – Activities 700-706

Environmental Class of Action Determination Phase

- Activities 125-130

#125 – Prepare Draft Environmental Document

#126 – Prepare Pre-ISA **New Activity**

#130 – Hold Preliminary Field Review (PFR) **MILESTONE**

See Also:

Statewide Long Range Transportation Plan Phase – Activities 110-116

STIP Planning and Preliminary Project Definition Phase – Activities 118-121

Complete Inventory of Existing Conditions Phase – Activities 132-172

Project Definition and Scoping (Phase A/B Analyses) Phase – Activities 200-214

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Final Design Phase – Activities 478-480, 500-548 and 552-560

PS&E Authorization Phase - Activities 549-550 and 600-630

Construction Phase – Activities 700-706

Complete Inventory of Existing Conditions Phase

- Activities 132-172

- #132 – Secure Preliminary Design Funding
- #140 – Request Location Survey
- #142 – Conduct Location Survey
- #144 – Prepare Aerial Mapping
- #146 – Transmit Survey
- #148 – Complete ROW Survey Mapping
- #150 – Complete ROW Maps and Legal Description
- #152 – Prepare Preliminary Bridge Report
- #154 – Prepare Preliminary Drainage Report
- #156 – Obtain Traffic Data
- #158 – Obtain Accident Data
- #160 – Soil Profiling Field Exploration
- #162 – Conduct Geotechnical Field Surveys
- #166 – Materials Lab Testing
- #168 – Prepare Geotechnical Scoping Report
- #170 – Prepare Preliminary Pavement Design
- #172 – Initial Public Information Meeting

See Also:

- Statewide Long Range Transportation Plan Phase – Activities 110-116
- STIP Planning and Preliminary Project Definition Phase – Activities 118-121
- Environmental Class of Action Determination Phase – Activities 125-130
- Project Definition and Scoping (Phase A/B Analyses) Phase – Activities 200-214
- Finalize and Adopt STIP Phase – Activities 300-320
- Environ. Documentation, Processing, and Prelim. Design Phase – Activities 400-476 and 484-488
- Final Design Phase – Activities 478-480, 500-548 and 552-560
- PS&E Authorization Phase - Activities 549-550 and 600-630
- Construction Phase – Activities 700-706

Project Definition and Scoping (Phase A/B Analyses) Phase

- Activities 200-214

- #200 – Complete Scoping RFP Process
- #202 – Conduct Initial Corridor Study
- #204 – Complete Pre-Design RFP Process
- #206 – Conduct Detail Evaluation of Alternate Alignment Study
- #208 – Traffic Engineering Analysis
- #210 – Re-Negotiate Pre-Design Activities/Existing Contract
- #212 – Conduct Field Surveys
- #214 – 2nd Public Information Meeting

See Also:

- Statewide Long Range Transportation Plan Phase – Activities 110-116
- STIP Planning and Preliminary Project Definition Phase – Activities 118-121
- Environmental Class of Action Determination Phase – Activities 125-130
- Complete Inventory of Existing Conditions Phase – Activities 132-172
- Finalize and Adopt STIP Phase – Activities 300-320
- Environ. Documentation, Processing, and Prelim. Design Phase – Activities 400-476 and 484-488
- Final Design Phase – Activities 478-480, 500-548 and 552-560
- PS&E Authorization Phase - Activities 549-550 and 600-630
- Construction Phase – Activities 700-706

Finalize and Adopt STIP Phase

- Activities 300-320

- #300 – ROW Feasibility Study
- #302 – Prepare Preliminary Scoping Report
- #304 – Review Preliminary Scoping Report
- #306 – Estimate Preliminary ROW Needs
- #308 – Preliminary ROW Document Review
- #309 – ITS Concept of Operations/High Level Requirement for ITS Projects **New Activity**
- #310 – Obtain FHWA/State Oversight Approval
- #312 – Secure ROW Funding **New Activity**
- #313 – Establish Utility Relocation Funding **New Activity**
- #314 – Secure Final Design Funding
- #316 – Assign Final Design Control Number **New Activity**
- #318 – Complete Final Design RFP Process
- #320 – Re-Negotiate Final Design Activities on Existing Contract

See Also:

- Statewide Long Range Transportation Plan Phase – Activities 110-116
- STIP Planning and Preliminary Project Definition Phase – Activities 118-121
- Environmental Class of Action Determination Phase – Activities 125-130
- Complete Inventory of Existing Conditions Phase – Activities 132-172
- Project Definition and Scoping (Phase A/B Analyses) Phase – Activities 200-214
- Environ. Documentation, Processing, and Prelim. Design Phase – Activities 400-476 and 484-488
- Final Design Phase – Activities 478-480, 500-548 and 552-560
- PS&E Authorization Phase - Activities 549-550 and 600-630
- Construction Phase – Activities 700-706

Environmental Documentation, Processing, & Preliminary Design Phase

– Activities 400-476 and 484-488

- #400 – Prepare Preliminary Design Inspection Plans
- #402 – Prepare Preliminary Traffic Geometrics
- #404 – Prepare Bridge/Structure Layout
- #406 – Prepare Preliminary Traffic Control Plans
- #408 – Hold Preliminary Design Inspection **MILESTONE**
- #410 – Complete Preliminary Design Inspection Report
- #412 – Conduct Public Information Meeting
- #418 – Conduct VE Study (Final Design)
- #419 – Review and Consider VE Recommendations **New Activity**
- #420 – Conduct Preliminary Geotechnical Field Exploration
- #421 – Conduct Preliminary Geotechnical Soil Lab Testing
- #422 – Complete Preliminary Geotechnical Design Report
- #424 – Final Pavement Design Recommendations
- #426 – Submit Bridge Layout Borehole Location to RR for ROW
- #428 – Review Preliminary Bridge/Structure Layout
- #430 – Prepare Preliminary Structure/Foundation Report
- #432 – Prepare Preliminary Bridge/Structure Plans
- #434 – Prepare Plan & Profile (P&P) and Define Footprint **MILESTONE**
- #436 – Revise and Finalize Scoping Report
- #438 – Complete Field Surveys
- #440 – Conduct ISA
- #442 – Conduct PSI
- #444 – Conduct DSI
- #446 – Prepare Mitigation Plan **New Activity**
- #450 – Prepare Environmental Document
- #452 – Approve Environmental Document
- #454 – Process and Obtain Environmental Clearance
- #456 – Approve Final Scoping Report

Environmental Documentation, Processing, & Preliminary Design Phase (Continued)

- Activities 400-476 and 484-488

#460 – New Mitigation **New Activity**

#462 – Perform Data Testing and Recovery

#469 – Conduct Public Hearing

#470 – Complete Grade & Drain Inspection Plans **New Activity**

#474 – Hold Grade & Drain Design Inspection **New Activity** **MILESTONE**

#476 – Complete Grade & Drain Inspection Report **New Activity**

#484 – Submit Plans to Utilities

#486 – Submit Plans to Railroads

#488 – Designate SUE Level C & B

See Also:

Statewide Long Range Transportation Plan Phase – Activities 110-116

STIP Planning and Preliminary Project Definition Phase – Activities 118-121

Environmental Class of Action Determination Phase – Activities 125-130

Complete Inventory of Existing Conditions Phase – Activities 132-172

Project Definition and Scoping (Phase A/B Analyses) Phase – Activities 200-214

Finalize and Adopt STIP Phase – Activities 300-320

Final Design Phase – Activities 478-480, 500-548 and 552-560

PS&E Authorization Phase - Activities 549-550 and 600-630

Construction Phase – Activities 700-706

Final Design Phase

- Activities 478-480, 500-548 and 552-560

- #478 – Adjust Project Scope
- #479 – Structure and Foundation Field Drilling
- #480 – Structure and Foundation Lab Testing
- #500 – Prepare Final Traffic Control Plans
- #502 – Prepare Permanent Signage Plan
- #503 – Finalize Drainage Report
- #504 – Obtain Drainage Permits
- #505 – Prepare Pollution Prevention Package (PPP)
- #506 – Complete Soil Testing Logs
- #508 – Complete Final Geotechnical Design Report
- #510 – Complete Final Structure and Foundation Design Report
- #512 – Complete Structure and Foundation Plans
- #513 – Prepare and Submit Specials/Notices Drafts to PS&E **New Activity**
- #514 – Complete Final Design Inspection Plans
- #516 – Submit Plans for DQA Review **New Activity**
- #518 – Hold Final Design Inspection **MILESTONE**
- #520 – Complete Final Design Inspection Report
- #522 – Office Verification of ROW and Utility Requirements
- #524 – Authorize Utility Engineering
- #526 – Obtain Utility Relocation Plans
- #527 – Secure Utility Relocation Funding
- #528 – Authorize Utility Relocation
- #529 – Prepare Utility Certification
- #530 – Authorize Railroad Engineering
- #532 – Obtain Railroad Agreement or Permit and Plans
- #534 – Secure Final Railroad Funding
- #536 – Authorize Railroad Relocation
- #538 – Prepare Railroad Certification

Final Design Phase (Continued)

- Activities 478-480, 500-548 and 552-560

#540 – Office Review ROW Needs

#542 – ROW Field Survey

#544 – Title Reports

#546 – Update and Transmit Final ROW Maps/Docs to ROW

#548 – Appraise Parcels

#552 – Acquire Required ROW

#554 – Certify ROW

#560 – Obtain ITS Certification **New Activity**

See Also:

Statewide Long Range Transportation Plan Phase – Activities 110-116

STIP Planning and Preliminary Project Definition Phase – Activities 118-121

Environmental Class of Action Determination Phase – Activities 125-130

Complete Inventory of Existing Conditions Phase – Activities 132-172

Project Definition and Scoping (Phase A/B Analyses) Phase – Activities 200-214

Finalize and Adopt STIP Phase – Activities 300-320

PS&E Authorization Phase - Activities 549-550 and 600-630

Construction Phase – Activities 700-706

PS&E Authorization Phase

– Activities 549-550 and 600-630

- #549 – Prepare Pre-Final Monumentation Map
- #550 – Prepare Final Monumentation Map and Field Stake
- #600 – Complete PS&E Review Contract Package
- #610 – Record Monumentation Map
- #611 – Submit Engineer’s Estimate for DQA Review **New Activity**
- #612 – Hold PS&E Review Meeting **MILESTONE**
- #614 – Complete PS&E Review Report
- #616 – Make PS&E Review Revisions
- #617 – Complete Authorization Package
- #618 – Authorize Project
- #620 – Prepare for Advertisement **New Activity**
- #622 – Advertise Project
- #624 – Final Pricing Review Before Bid Opening **New Activity**
- #626 – Open Bids **New Activity** **MILESTONE**
- #628 – Review Bids
- #630 – Award Contracts **MILESTONE**

See Also:

- Statewide Long Range Transportation Plan Phase – Activities 110-116
- STIP Planning and Preliminary Project Definition Phase – Activities 118-121
- Environmental Class of Action Determination Phase – Activities 125-130
- Complete Inventory of Existing Conditions Phase – Activities 132-172
- Project Definition and Scoping (Phase A/B Analyses) Phase – Activities 200-214
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- Final Design Phase – Activities 478-480, 500-548 and 552-560
- Construction Phase – Activities 700-706

Construction Phase

- Activities 700-706

- #700 – Issue “Notice to Proceed” **New Activity**
- #701 – Submit Pre-Con Package to Project Manager **New Activity**
- #702 – Railroad Company Relocation Construction Activities
- #704 – Utility Company Relocates Utility
- #706 – Utility/Railroad Pre-Construction Conference

See Also:

- Statewide Long Range Transportation Plan Phase – Activities 110-116
- STIP Planning and Preliminary Project Definition Phase – Activities 118-121
- Environmental Class of Action Determination Phase – Activities 125-130
- Complete Inventory of Existing Conditions Phase – Activities 132-172
- Project Definition and Scoping (Phase A/B Analyses) Phase – Activities 200-214
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- Final Design Phase – Activities 478-480, 500-548 and 552-560
- PS&E Authorization Phase - Activities 549-550 and 600-630

Activities by Functional Group

Bridge Design
District Engineer
Drainage Design
Environmental – Cultural Resources
Environmental – Human & Natural Resources
Environmental Geology
Funding Control
Geotechnical Structures / Foundations
Intelligent Transportation Systems (ITS)
Materials Lab
Pavement Design
Planning
Plans, Specifications & Estimates (PS&E)
Railroad
Regional Design Division
Right-of-Way (ROW)
STIP – Program Management
Survey & Lands Engineering
Traffic Technical Support
Utilities
Value Engineering Unit

See Also:

Activities by Phase

Bridge Design

#152 – Prepare Preliminary Bridge Report

#404 – Prepare Bridge/Structure Layout

#426 – Submit Bridge Layout Borehole Location to RR for ROW

#428 – Review Preliminary Bridge/Structure Layout

#432 – Prepare Preliminary Bridge/Structure Plans

#512 – Complete Structure and Foundation Plans

See Also:

Activities by Functional Group

District Engineer

Drainage Design

Environmental – Cultural Resources

Environmental – Human & Natural Resources

Environmental Geology

Funding Control

Geotechnical Structures / Foundations

Intelligent Transportation Systems (ITS)

Materials Lab

Pavement Design

Planning

Plans, Specifications & Estimates (PS&E)

Railroad

Regional Design Division

Right-of-Way (ROW)

STIP – Program Management

Survey & Lands Engineering

Traffic Technical Support

Utilities

Value Engineering Unit

District Engineer

#304 – Review Preliminary Scoping Report

#419 - Review and Consider VE Recommendations **New Activity**

#456 – Approve Final Scoping Report

#701 – Submit Pre-Con Package to Project Manager **New Activity**

#702 – Railroad Company Relocation Construction Activities

#704 – Utility Company Relocates Utility

#706 – Utility/Railroad Pre-Construction Conference

See Also:

Activities by Functional Group

Bridge Design

Drainage Design

Environmental – Cultural Resources

Environmental – Human & Natural Resources

Environmental Geology

Funding Control

Geotechnical Structures / Foundations

Intelligent Transportation System (ITS)

Materials Lab

Pavement Design

Planning

Plans, Specifications & Estimates (PS&E)

Railroad

Regional Design Division

Right-of-Way (ROW)

STIP – Program Management

Survey & Lands Engineering

Traffic Technical Support

Utilities

Value Engineering Unit

Drainage Design

#154 – Prepare Preliminary Drainage Report

#503 – Finalize Drainage Report

#504 – Obtain Drainage Permits

#505 – Prepare Pollution Prevention Package (PPP)

See Also:

Activities by Functional Group

Bridge Design

District Engineer

Environmental – Cultural Resources

Environmental – - Human & Natural Resources

Environmental Geology

Funding Control

Geotechnical Structures / Foundations

Intelligent Transportation System (ITS)

Materials Lab

Pavement Design

Planning

Plans, Specifications & Estimates (PS&E)

Railroad

Regional Design Division

Right-of-Way (ROW)

STIP – Program Management

Survey & Lands Engineering

Traffic Technical Support

Utilities

Value Engineering Unit

Environmental – Cultural Resources

- #172 – Initial Public Information Meeting
- #212 – Conduct Field Surveys
- #214 – 2nd Public Information Meeting
- #412 – Conduct Public Information Meeting
- #438 – Complete Field Surveys
- #446 – Prepare Mitigation Plan **New Activity**
- #460 – New Mitigation **New Activity**
- #469 – Conduct Public Hearing

See Also:

- Activities by Functional Group
- Bridge Design
- District Engineer
- Drainage Design
- Environmental – Human & Natural Resources
- Environmental Geology
- Funding Control
- Geotechnical Structures / Foundations
- Intelligent Transportation Systems (ITS)
- Materials Lab
- Pavement Design
- Planning
- Plans, Specifications & Estimates (PS&E)
- Railroad
- Regional Design Division
- Right-of-Way (ROW)
- STIP – Program Management
- Traffic Technical Support
- Utilities

Environmental – Human & Natural Resources

#119 – Develop Preliminary Purpose and Need Statement

#125 – Prepare Draft Environmental Document

#172 – Initial Public Information Meeting

#212 – Conduct Field Surveys

#214 – 2nd Public Information Meeting

#438 – Complete Field Surveys **New Activity**

#450 – Prepare Environmental Document

#452 – Approve Environmental Document

#454 – Process and Obtain Environmental Clearance

#462 – Perform Data Recovery Testing

#469 – Conduct Public Hearing

See Also:

Activities by Functional Group

Bridge Design

District Engineer

Drainage Design

Environmental Geology Environmental – Cultural Resources

Funding Control

Geotechnical Structures / Foundations

Intelligent Transportation System (ITS)

Materials Lab

Pavement Design

Planning

Railroad

Regional Design Division

Right-of-Way (ROW)

STIP – Program Management

Utilities

Environmental Geology

#126 – Prepare Pre-ISA [New Activity](#)

#440 – Conduct ISA

#442 – Conduct PSI

#444 – Conduct DSI

See Also:

Activities by Functional Group

Bridge Design

District Engineer

Drainage Design

Materials Lab

Environmental – Cultural Resources

Environmental – Human & Natural Resources

Funding Control

Geotechnical Structures / Foundations

Intelligent Transportation System (ITS)

Materials Lab

Pavement Design

Planning

Plans, Specifications & Estimates (PS&E)

Railroad

Regional Design Division

Right-of-Way (ROW)

STIP – Program Management

Survey & Lands Engineering

Traffic Technical Support

Utilities

Value Engineering Unit

Funding Control

#132 – Secure Preliminary Design Funding

#204 – Complete Pre-Design RFP Process

#210 – Re-Negotiate Pre-Design Activities/Existing Contract

#312 – Secure ROW Funding

#313 – Establish Utility Relocation Funding **New Activity**

#314 – Secure Final Design Funding

See Also:

Activities by Functional Group

Bridge Design

District Engineer

Drainage Design

Environmental – Cultural Resources

Environmental – Human & Natural Resources

Environmental Geology

Geotechnical Structures / Foundations

Intelligent Transportation System (ITS)

Materials Lab

Pavement Design Planning

Plans, Specifications & Estimates (PS&E)

Railroad

Regional Design Division

Right-of-Way (ROW)

STIP – Program Management

Survey & Lands Engineering

Traffic Technical Support

Utilities

Geotechnical Structures / Foundations

- #162 – Conduct Geotechnical Field Surveys
- #168 – Prepare Geotechnical Scoping Report
- #420 – Conduct Preliminary Geotechnical Field Exploration
- #421 – Conduct Preliminary Geotechnical Soil Lab Testing
- #422 – Complete Preliminary Geotechnical Design Report
- #430 – Prepare Preliminary Structure / Foundation Report
- #479 – Structure and Foundation Field Drilling
- #480 – Structure and Foundation Lab Testing
- #506 – Complete Soil Testing Logs
- #508 – Complete Final Geotechnical Design Report
- #510 – Complete Final Structure and Foundation Design Report
- #512 – Complete Structure and Foundation Plans

See Also:

- Activities by Functional Group
- Bridge Design
- District Engineer
- Drainage Design
- Environmental – Cultural Resources
- Environmental – Human & Natural Resources
- Environmental Geology
- Intelligent Transportation System (ITS)
- Materials Lab
- Pavement Design
- Railroad
- Regional Design Division
- Right-of-Way (ROW)
- Survey & Lands Engineering
- Traffic Technical Support
- Utilities

Intelligent Transportation System (ITS)

#121 – Review ITS Architecture, ITS Deployment Along Corridor **New Activity**

#309 – ITS Concept of Operations/High Level Requirement for ITS Projects **New Activity**

#560 – Obtain ITS Certification **New Activity**

See Also:

Activities by Functional Group

Bridge Design

District Engineer

Drainage Design

Environmental – Cultural Resources

Environmental – Human & Natural Resources

Environmental Geology

Geotechnical Structures / Foundations

Funding Control

Materials Lab

Pavement Design

Planning

Plans, Specifications & Estimates (PS&E)

Railroad

Regional Design Division

Right-of-Way (ROW)

STIP – Program Management

Survey & Lands Engineering

Traffic Technical Support

Utilities

Value Engineering Unit

Materials Lab

#166 – Materials Lab Testing

#421 – Conduct Preliminary Geotechnical Soil Lab Testing

#480 – Structure and Foundation Lab Testing

See Also:

Activities by Functional Group

Bridge Design

District Engineer

Drainage Design

Environmental – Cultural Resources

Environmental – Human & Natural Resources

Environmental Geology

Funding Control

Geotechnical Structures / Foundations

Intelligent Transportation System (ITS)

Pavement Design

Planning

Plans, Specifications & Estimates (PS&E)

Railroad

Regional Design Division

Right-of-Way (ROW)

STIP – Program Management

Traffic Technical Support

Utilities

Pavement Design

#160 – Soil Profiling Field Exploration

#170 – Prepare Preliminary Pavement Design

#310 – Obtain FHWA/State Oversight Approval

#424 – Final Pavement Design Recommendations

See Also:

Activities by Functional Group

Bridge Design

District Engineer

Drainage Design

Environmental – Cultural Resources

Environmental – Human & Natural Resources

Environmental Geology

Geotechnical Structures / Foundations

Funding Control

Intelligent Transportation System (ITS) Planning

Materials Lab

Plans, Specifications & Estimates (PS&E)

Railroad

Regional Design Division

Right-of-Way (ROW)

STIP – Program Management

Survey & Lands Engineering

Traffic Technical Support

Utilities

Value Engineering Unit

Planning

- #110 – Establish Location Study Team
- #118 – Prepare Project Priority Plan
- #119 – Develop Preliminary Purpose and Need Statement
- #120 – Define Corridor Termini and Alternatives **New Activity**
- #156 – Obtain Traffic Data
- #158 – Obtain Accident Data
- #202 – Conduct Initial Corridor Study
- #206 – Conduct Detailed Evaluation of Alternate Alignment Study

See Also:

- Activities by Functional Group
- Bridge Design
- District Engineer
- Drainage Design
- Environmental – Cultural Resources
- Environmental – Human & Natural Resources
- Environmental Geology
- Geotechnical Structures / Foundations
- Funding Control
- Intelligent Transportation System (ITS)
- Materials Lab
- Pavement Design
- Plans, Specifications & Estimates (PS&E)
- Railroad
- Regional Design Division
- Right-of-Way (ROW)
- STIP – Program Management
- Survey & Lands Engineering
- Traffic Technical Support
- Utilities
- Value Engineering

Plans, Specifications & Estimates (PS&E)

#513 – Prepare and Submit Specials/Notices Drafts to PS&E **New Activity**

#516 – Submit Plans for DQA Review **New Activity**

#611 – Submit Engineer’s Estimate for DQA Review **New Activity**

#617 – Complete Authorization Package

#618 – Authorize Project

#620 – Prepare for Advertisement **New Activity**

#622 – Advertise Project

#624 – Final Pricing Review Before Bid Opening **New Activity**

#626 – Open Bids **New Activity** **MILESTONE**

#628 – Review Bids

#630 – Award Contracts **MILESTONE**

See Also:

Activities by Functional Group

Bridge Design

District Engineer

Drainage Design

Environmental – Cultural Resources

Environmental – Human & Natural Resources

Environmental Geology

Funding Control

Intelligent Transportation System (ITS)

Materials Lab

Planning

Pavement Design

Railroad

Regional Design Division

Right-of-Way (ROW)

STIP – Program Management

Traffic Technical Support

Utilities

Railroads

#530 – Authorize Railroad Engineering

#532 – Obtain Railroad Agreement or Permit and Plans

#534 – Secure Final Railroad Funding

#536 – Authorize Railroad Relocation

#538 – Prepare Railroad Certification

#702 – Railroad Company Relocation Construction Activities

#706 – Utility/Railroad Pre-Construction Conference

See Also:

Activities by Functional Group

Bridge Design

District Engineer

Drainage Design

Environmental – Cultural Resources

Environmental – Human & Natural Resources

Environmental Geology

Geotechnical Structures / Foundations

Intelligent Transportation System (ITS)

Planning

Plans, Specifications & Estimates (PS&E)

Regional Design Division

Right-of-Way (ROW)

STIP – Program Management

Survey & Lands Engineering

Traffic Technical Support

Regional Design Division

- #115 – Consider Performing VE Study **New Activity**
- #116 – Conduct VE Study (Corridor Study)
- #130 – Hold Preliminary Field Review (PFR) **MILESTONE**
- #140 – Request Location Survey
- #214 – 2nd Public Information Meeting
- #302 – Prepare Preliminary Scoping Report
- #306 – Estimate Preliminary ROW Needs
- #312 – Secure ROW Funding
- #313 – Establish Utility Relocation Funding **New Activity**
- #314 – Secure Final Design Funding
- #318 – Complete Final Design RFP Process
- #320 – Re-Negotiate Final Design Activities on Existing Contract
- #408 – Hold Preliminary Design Inspection **MILESTONE**
- #410 – Complete Preliminary Design Inspection Report
- #419 – Review and Consider VE Recommendations **New Activity**
- #434 – Prepare Plan & Profile (P&P) and Define Footprint **MILESTONE**
- #436 – Revise and Finalize Scoping Report
- #470 – Complete Grade & Drain Inspection Plans **New Activity**
- #474 – Hold Grade & Drain Inspection **New Activity MILESTONE**
- #476 – Complete Grade & Drain Inspection Report **New Activity**
- #478 – Adjust Project Scope
- #484 – Submit Plans to Utilities
- #486 – Submit Plans to Railroads
- #488 – Designate SUE Level C & B
- #513 – Prepare and Submit Specials/Notices Drafts to PS&E **New Activity**
- #514 – Complete Final Design Inspection Plans
- #516 – Submit Plans for DQA Review **New Activity**
- #518 – Hold Final Design Inspection **MILESTONE**
- #520 – Complete Final Design Inspection Report
- #600 – Complete PS&E Review Contract Package
- #611 – Submit Engineer’s Estimate for DQA Review **New Activity**

Regional Design Division (continued)

#612 – Hold PS&E Review Meeting **MILESTONE**

#614 – Complete PS&E Review Report

#616 – Make PS&E Review Revisions

#617 – Complete Authorization Package

#701 – Submit Pre-Con Package to Project Manager **New Activity**

See Also:

Activities by Functional Group

Bridge Design

District Engineer

Drainage Design

Environmental – Cultural Resources

Environmental – Human & Natural Resources

Environmental Geology

Funding Control

Geotechnical Structures / Foundations

Intelligent Transportation System (ITS)

Materials Lab

Pavement Design

Planning

Plans, Specifications & Estimates (PS&E)

Railroad

Right-of-Way (ROW)

STIP – Program Management

Survey & Lands Engineering

Traffic Technical Support

Utilities

Value Engineering Unit

Right-of-Way (ROW)

#300 – ROW Feasibility Study

#308 – Preliminary ROW Document Review

#312 – Secure ROW Funding

#313 – Establish Utility Relocation Funding **New Activity**

#522 – Office Verification of ROW and Utility Requirements

#540 – Office Review ROW Needs

#542 – ROW Field Survey

#544 – Title Reports

#548 – Appraise Parcels

#552 – Acquire Required ROW

#554 – Certify ROW

See Also:

Activities by Functional Group

Bridge Design

District Engineer

Drainage Design

Environmental – Cultural Resources

Environmental – Cultural Resources

Environmental Geology

Funding Control

Geotechnical Structures / Foundations

Intelligent Transportation System (ITS)

Materials Lab

Planning

Plans, Specifications & Estimates (PS&E)

Railroad

Regional Design Division

STIP – Program Management

Survey & Lands Engineering

Traffic Technical Support

Utilities

STIP – Program Management

#200 – Complete Scoping RFP Process

#316 – Assign Final Design Control Number **New Activity**

See Also:

Activities by Functional Group

Bridge Design

District Engineer

Drainage Design

Environmental – Cultural Resources

Environmental – Human & Natural Resources

Environmental Geology

Funding Control

Geotechnical Structures / Foundations

Intelligent Transportation System (ITS)

Materials Lab

Pavement Design

Planning

Plans, Specifications & Estimates (PS&E)

Railroad

Regional Design Division

Right-of-Way (ROW)

Traffic Technical Support

Utilities (RR&U)

Value Engineering Unit

Survey & Lands Engineering

#142 – Conduct Location Survey

#144 – Prepare Aerial Mapping

#146 – Transmit Survey

#148 – Complete ROW Survey Mapping

#150 – Complete ROW Maps and Legal Descriptions

#462 – Perform Data Testing and Recovery

#542 – ROW Field Survey

#546 – Update and Transmit Final ROW Maps/Docs to ROW

#549 – Prepare Pre-Final Monumentation Map

#550 – Prepare Final Monumentation Map and Field Stake

#610 – Record Monumentation Map

See Also:

Activities by Functional Group

Bridge Design

District Engineer

Drainage Design

Environmental – Cultural Resources

Environmental – Human & Natural Resources

Environmental Geology

Geotechnical Structures / Foundations

Intelligent Transportation Systems (ITS)

Pavement Design

Planning

Plans, Specifications & Estimates (PS&E)

Railroad

Regional Design Division

Right-of-Way (ROW)

STIP – Program Management

Traffic Technical Support

Utilities

Traffic Technical Support

- #208 – Traffic Engineering Analysis
- #400 – Prepare Preliminary Design Inspection Plans
- #402 – Prepare Preliminary Traffic Geometrics
- #406 – Prepare Preliminary Traffic Control Plans
- #500 – Prepare Final Traffic Control Plans
- #502 – Prepare Permanent Signage Plan

See Also:

- Activities by Functional Group
- Bridge Design
- District Engineer
- Drainage Design
- Environmental – Cultural Resources
- Environmental – Human & Natural Resources
- Environmental Geology
- Funding Control
- Geotechnical Structures / Foundations
- Intelligent Transportation System (ITS)
- Materials Lab
- Pavement Design
- Planning
- Plans, Specifications & Estimates (PS&E)
- Railroad
- Regional Design Division
- Right-of-Way (ROW)
- STIP – Program Management
- Survey & Lands Engineering
- Utilities
- Value Engineering Unit

Utilities

#313 – Establish Utility Relocation Funding **New Activity**

#524 – Authorize Utility Engineering

#526 – Obtain Utility Relocation Plans

#527 – Secure Utility Relocation Funding

#528 – Authorize Utility Relocation

#529 – Prepare Utility Certification

#704 – Utility Company Relocates Utility

#706 – Utility/Railroad Pre-Construction Conference

See Also:

Activities by Functional Group

Bridge Design

District Engineer

Drainage Design

Environmental – Cultural Resources

Environmental – Human & Natural Resources

Environmental Geology

Geotechnical Structures / Foundations

Intelligent Transportation System (ITS)

Planning

Plans, Specifications & Estimates (PS&E)

Regional Design Division

Right-of-Way (ROW)

STIP – Program Management

Survey & Lands Engineering

Traffic Technical Support

Value Engineering Unit

#418 – Conduct VE Study (Final Design)

#419 - Review and Consider VE Recommendations **New Activity**

See Also:

Activities by Functional Group
Bridge Design
District Engineer
Drainage Design
Environmental – Cultural Resources
Environmental – - Human & Natural Resources
Environmental Geology
Funding Control
Geotechnical Structures / Foundations
Intelligent Transportation System (ITS)
Materials Lab
Pavement Design
Planning
Plans, Specifications & Estimates (PS&E)
Railroad
Regional Design Division
Right-of-Way (ROW)
STIP – Program Management
Traffic Technical Support
Survey & Lands Engineering
Utilities

#110 Establish Location Study Team

Functional Group: Regional Design Division

Default Duration: 5 Days
Work: 12 Hours

Description: Establish location study team to evaluate project from a safety, transportation, social, economic, and environmental aspect.

Resources:

Code	Title	% of hours
COPDE	Consultant or Internal - Regional Design Division	25
IDPDE	Internal Design - Regional Design Division	75

Tasks:

ID	Title	Permit
1	Notify and establish location study team.	No

#115 Consider Performing VE Study

– *New Activity*

Functional Group: Regional Design Division

Default Duration: 1 Day
Work: 8 Hours

Description: A VE Study is considered for the Corridor if findings and recommendations are significant.

Resources:

Code	Title	% of hours
SLRTP	Statewide Long Range Transportation Plan Value Engineering Unit	100

Tasks:

ID	Title	Permit
1	Receive findings and/or recommendations.	No
2	Consider VE Study.	No

#116 Conduct VE Study (Corridor Study)

Functional Group: Regional Design Division

Default Duration: 5 Days
Work: 40 Hours

Description: Schedule VE Study of Corridor Study. Participate in the VE Study. Present findings and recommendations of VE Study.

Resources:

Code	Title	% of hours
SLRTP	Statewide Long Range Transportation Plan Value Engineering Unit	100

Tasks:

ID	Title	Permit
1	Obtain approval for VE Study.	No
2	Schedule VE Study.	No
3	Coordinate VE Study with VE Consultant.	No
4	Arrange for facilities and transportation for Study.	No
5	Schedule Implementation Committee meeting.	No
6	Present recommendations to Implementation Committee.	No
7	Manage and monitor VE Consultant Contract.	No

#118 Prepare Project Priority Plan

Functional Group: Regional Design Division &
District Engineer

Default Duration: 5 Days
Work: 25 Hours

Description: Based on the STIP, funding availability, constructability, letting schedule, transportation needs and safety needs develop corridor project priority plan.

Resources:

Code	Title	% of hours
COPDE	Consultant or Internal Design - Regional Design Division	35
IDPDE	Internal - Regional Design Division	65

Tasks:

ID	Title	Permit
1	Review STIP, determine available funding.	No
2	Assess corridor transportation and safety needs.	No
3	Develop corridor project priority plan.	No

#119 Develop Preliminary Purpose and Need Statement

Functional Group: Regional Design Division &
District Engineer

Default Duration: 5 Days
Work: 40 Hours

Description: Develop preliminary purpose and project needs statement. This is the initial Planning Phase. Project is assigned to PDE.

Resources:

Code	Title	% of hours
SP&PPD	STIP Planning and Preliminary Project Definition	75
IDPDE	Internal Design - Project Development	25

Tasks:

ID	Title	Permit
1	Identify desired improvements.	No
2	Propose new project in collaboration with agency and public stakeholders.	No

#120 Define Corridor Termini and Alternatives

- *New Activity*

Functional Group: Regional Design Division &
District Engineer

Default Duration: 5 Days
Work: 40 Hours

Description: Define corridor, termini, and potential alternatives (including modal alternatives) for desired transportation improvement(s)

Resources:

Code	Title	% of hours
SP&PPD	STIP Planning and Preliminary Project Definition Internal Design - Project Development	100

Tasks:

ID	Title	Permit
1	Study and define corridor.	No
2	Locate route and termini.	No

#121 Review ITS Architecture, ITS Deployment Along Corridor

- *New Activity*

Functional Group: ITS Bureau

Default Duration: 7 Days
Work: 56 Hours

Description: Review project candidate for ITS elements.

Resources:

Code	Title	% of hours
SP&PPD	STIP Planning and Preliminary Project Definition ITS Bureau	100

Tasks:

ID	Title	Permit
1	Identify purpose of ITS project.	No
2	Create project check list of ITS elements.	No
3	MPO and or Planning Data.	No
4	Project Implementation and Design.	No
5	Review ITS project form.	No
6	Submit to FHWA for signature.	No

#125 Prepare Draft Environmental Document

Functional Group: Environmental - Human & Natural Resources

Default Duration: 100 Days
Work: 580 Hours

Description: Conduct field investigations, agency coordination and public involvement necessary to prepare an environmental assessment to support federal funding authorization.

Resources:

Code	Title	% of hours
EVCOUNT	Environmental - Consultant Environmental Unit	50
EVCAD	Environmental Class of Action Determination Human & Natural Resources	50

Tasks:

ID	Title	Permit
1	Review project scope.	No
2	Conduct field investigations.	No
3	Prepare biological and cultural resources (CR) reports.	No
4	Review alignment study report.	No
5	Evaluate project impacts.	No
6	Conduct public information meeting.	No
7	Conduct agency consultations.	No
8	Review CR report.	No
9	Review CR report (tribes and land mgmt agency).	No
10	Review CR report by SHPO.	No
11	Review first submittal of EA.	No
12	Revise EA and submit to FHWA.	No
13	Submit data recovery plan to SHPO.	No

#126 Prepare Pre-ISA

- *New Activity*

Functional Group: Environmental Geology

Default Duration: 30 *Days*
Work: 240 *Hours*

Description: Identify potential areas of contamination within project limits.

Resources:

Code	Title	% of hours
ECAD	Environmental Class of Action Determination Environmental Geology Bureau	100

Tasks:

ID	Title	Permit
1	Designate respective site.	No
2	Review preliminary site recommendations.	No

#130 Hold Preliminary Field Review (PFR) -MILESTONE

Functional Group: Regional Design Division

Default Duration: 5 Days
Work: 45 Hours

Description: Preliminary determination and recommendation of the type and size of structures and other drainage features and improvements to be used on a project.

Resources:

Code	Title	% of hours
ECAD	Environmental Class of Action Determination Project Development - Internal Design PDE	55
ECAD	Environmental Class of Action Determination Consultant Design PDE	45

Tasks:

ID	Title	Permit
1	Schedule with appropriate design team members.	No
2	Conduct field review and gather input from team.	No
3	Get Design team consensus on project scope.	No

#132 Secure Preliminary Design Funding

Functional Group: Funding Control Unit

Default Duration: 15 Days
Work: 6 Hours

Description: To secure and establish funding for Preliminary Design of a project by a Consultant. Note: If project is 100% state funded, Tasks 5, 8 and 9 are required to complete this activity.

Resources:

Code	Title	% of hours
CIEC	Complete Inventory of Existing Conditions - Consultant Contracts Management Unit	100

Tasks:

ID	Title	Permit
1	CMU - Send out Request For Proposal or re-negotiate Contract.	No
2	CMU - Complete Fed Form and submit to FCU.	No
3	FCU - Process Fed Form and send to FHWA.	No
4	FCU - Post approved project to SHARE.	No
5	CMU - Award contract.	No
6	CMU - Modify Fed Form with award amount.	No
7	FCU - Process Fed Form and send to FHWA.	No
8	FCU - Post approval project to SHARE.	No
9	FCU - Encumber funds in SHARE.	No

#140 Request Location Survey

Functional Group: Regional Design Division & PDE

Default Duration: 5 Days
Work: 40 Hours

Description: Review project limits and make a preliminary determination of the project scoping report to determine if a Survey is needed.

Resources:

Code	Title	% of hours
CIEC	Complete Inventory of Existing Conditions Project Development and Design - Internal Design Project - PDE	50
CIEC	Complete Inventory of Existing Conditions Survey & Lands Engineering - Consultant PDE	50

Tasks:

ID	Title	Permit
1	Determine if a project survey is needed.	No
2	Send survey request to surveying manager.	No

#142 Conduct Location Survey

Functional Group: Survey & Lands Engineering

Default Duration:

Project Type Factor:		Labor Hours	Days
1.0 - Rural		300 Crew Hours for 1 mile project	38
1.3 - Semi Urban		400 Crew Hours for 5 mile project	50
1.7 - Urban		500 Crew Hours for 10 mile project	63
		600 Crew Hours for 15 mile project	75
		700 Crew Hours for 20 mile project	90

Description: Perform actual field location survey of topographic features, existing drainage structures, visible or marked utilities, etc. that cannot be digitized from the aerial photography along the project limits. Coordinate package containing electronic files, field books, maps, and all the data gathered at the project site during the survey for transmittal to aerial mapping.

Resources:

Code	Title	% of hours
IECS&LE	Survey & Lands Engineering - Cadastral Mapping	2
IECS&LE	Survey & Lands Engineering - Global Positioning System Unit	14
IECS&LE	Survey & Lands Engineering - Survey Crew	84

Tasks:

ID	Title	Permit
1	Receive Location Survey request from PDE.	No
2	Consult with PDE on scope of work.	No
3	Prepare package of research documents/drawings.	No
4	Review Field Survey transmittal.	No
5	Obtain survey permission where needed.	Yes
6	Request GPS control for project.	No
7	Establish scope limits and select monument locations,	No
8	Set monuments/utilize existing monuments.	No
9	GPS occupation of survey monuments	No
10	Process GPS raw data.	No
11	Prepare GPS control map.	No
12	Set up aerial flight panel layout with survey ties.	No
13	Schedule field work and aerial flight mission.	No

#144 Prepare Aerial Mapping

Functional Group: Survey & Lands Engineering

Default Duration:

		Labor Hours	Days
Project Type Factor:	1.0 - Rural	120 Crew Hours for 1 mile project	15
	1.3 - Semi Urban	130 Crew Hours for 5 mile project	16
	1.7 - Urban	140 Crew Hours for 10 mile project	18
		150 Crew Hours for 15 mile project	19
		160 Crew Hours for 20 mile project	20

Description: Aerial Photography Unit will coordinate with location survey unit to fly aerial mapping mission and generate negative roll fill for development and transmittal to either in house or contract photogrammetry services. CADD Mapping Unit will check and verify submitted location survey data for accuracy and completeness. CADD Mapping Unit will prepare in house preliminary mapping or generate transmittal package for contract services. On in house projects, photogrammetry data is merged with in house preliminary mapping for generation of final electronic in house mapping graph files. Contract services photogrammetry mapping data files are reviewed in-house for conformance with electronic data file formats and standards and transmitted to Internal Project Development/design.

Resources:

Code	Title	% of hours
IECS&LE	Survey & Lands Engineering - Aerial Photography Unit	4
IECS&LE	Survey & Lands Engineering - CADD Mapping Unit	20
IECS&LE	Survey & Lands Engineering - Photogrammetry Unit	76

Tasks:

ID	Title	Permit
1	Coordinate aerial flight.	No
2	Fly designated project.	No
3	Develop aerial photography.	No
4	Preliminary mapping is prepared.	No
5	Photogrammetry data is compiled.	No
6	Photogrammetry and preliminary data is merged.	No

#146 Transmit Survey

Functional Group: Survey & Lands Engineering

Default Duration: 1 Day
Work: 8 Hours

Description: CADD mapping surveyor will instruct CADD Mapping supervisor to copy final mapped data to assigned project area. CADD Mapping surveyor will alert assigned Project Development Engineer (PDE) with an IDC letter final data is available. A feed back form is mailed by the CADD Mapping supervisor to the assigned PDE for quality control and customer satisfaction results.

Resources:

Code	Title	% of hours
IEC	Inventory of Existing Conditions - Survey & Lands Engineering CADD Mapping Unit	100

Tasks:

ID	Title	Permit
1	Generate transmittal letter.	No
2	Send transmittal letter.	No

#148 Complete ROW Survey Mapping

Functional Group: Survey & Lands Engineering

Default Duration: 60 Days
Work: 960 Hours

Description: Check and analyze map and other data transmitted from ROW surveyor. Under direction from field surveyor prepare a right-of-way survey map for Lands Engineering to complete final mapping of new ROW needs of project. Transmit electronic files and mapping to Lands Engineering for final right-of-way mapping.

Resources:

Code	Title	% of hours
IEC	Inventory of Existing Conditions - Survey & Lands Engineering Research and Mapping Unit	91
IEC	Inventory of Existing Conditions - Survey & Lands Engineering Survey Crew	9

Tasks:

ID	Title	Permit
1	Receive existing ROW survey from ROW surveyor.	No
2	Consult with ROW surveyor on work done as needed.	No
3	Receive final title reports from Lands Abstract Unit.	No
4	Research documents and title reports for ownership.	No
5	Research existing ROW maps and documents.	No
6	Prepare preliminary mapping as per surveyor.	No
7	Review preliminary mapping with surveyor.	No
8	Make mapping corrections as directed.	No
9	Review and check mapping.	No
10	Transmit to Cadastral Mapping Unit.	No

#150 Complete ROW Maps and Legal Descriptions

Functional Group: Survey & Lands Engineering

Default Duration: 60 Days

Work: 960 Hours

Description: At the Preliminary Design Inspection a determination for new ROW is determined to be necessary or not. As the design progresses a determination is made for ROW requirements. Upon receipt of a written request from the PDE indicating ROW needs, a set of construction drawings indicating said ROW is when ROW mapping is started. Existing ROW maps are sent to the Lands Engineering Unit from Survey Mapping, based on a ROW survey request by the PDE. The PDE at this point has requested Title Reports for the affected new parcels. Upon receipt of written notice of final ROW requirements at the Grade & Drain stage, ROW maps should be eighty percent complete. At this point, minor ROW adjustments, if any, will be submitted in writing by PDE. These changes will be made to the maps and Legals. A review/check will be made of the Legals and ROW maps. Should an update of Title Reports have been made, a review of ownership changes will be determined. Final maps will be assigned a Final Map Date and are signed by the Section Supervisor. The required number of printed sets of ROW maps and copies of Legal descriptions are distributed to the ROW staff and necessary recipients. The Lands Engineering Unit Supervisor will format the Legal descriptions on the correct form necessary for the ROW. These are created in the ROW/Legal shared drawer, within the Project folder.

Resources:

Code	Title	% of hours
IEC	Survey & Lands Engineering - Cadastral Mapping Unit	50
IEC	Survey & Lands Engineering - ROW Map Verification Unit	30
IEC	Survey & Lands - Lands Engineering	20

Tasks:

ID	Title	Permit
1	Receive request for ROW mapping.	No
2	Receive existing ROW survey maps from Survey Research.	No
3	Receive final ROW requirements.	No
4	Receive Title Reports, survey plats and assessors map.	No
5	Commence ROW mapping.	No
6	Prepare legal descriptions.	No
7	Perform Verifications/Quality Control.	No
8	Distribution of final ROW maps and copies of Legals.	No
9	Prepare Legal on forms in shared drawer/folders.	No

#152 Prepare Preliminary Bridge Report

Functional Group: Bridge Design

Default Duration: 30 Days
Work: 60 Hours

Description: Review the project scope and proposed typical section. Collect all as-built drawings. Visit the site. Review any general correspondence. Discuss the proposed work with the District Bridge Engineer or Inspector. Review the Preliminary Drainage Report. Prepare the Preliminary Bridge Report. Prepare cost estimates for various alternatives.

Resources:

Code	Title	% of hours
IEC	Inventory of Existing Conditions - Bridge - Design Unit	100

Tasks:

ID	Title	Permit
1	Complete preliminary Bridge report.	No

#154 Prepare Preliminary Drainage Report

Functional Group: Drainage Design

Default Duration: 60 Days
Work: 230 Hours

Description: Preliminary determination and recommendation of the type and size of structures and other drainage features and improvements to be used on a project.

Resources:

Code	Title	% of hours
IEC	Inventory of Existing Conditions - Drainage Design Hydraulics Unit	26
IEC	Inventory of Existing Conditions - Drainage Design Hydrology Unit	17
IEC	Inventory of Existing Conditions - Drainage Design Special Drainage Projects Unit	57

Tasks:

ID	Title	Permit
1	Locate existing structures.	No
2	Field Review	No
3	Determine drainage areas.	No
4	Determine time of concentrations.	No
5	Establish Soil Class, Veg., Cover and Curve Number.	No
6	Determine precipitation amounts or intensities.	No
7	Determine discharges.	No
8	Analyze and select most feasible drainage features.	No
9	Determine headwater depths.	No
10	Estimate permanent erosion protection requirements.	No
11	Determine preliminary bridge waterway opening.	No
12	Estimate preliminary channel revetment requirement.	No
13	Design preliminary Storm Drain system.	No
14	Design preliminary Lift Station.	No
15	Design preliminary Detention/Retention Ponds.	No
16	Estimate CME and TCP requirements.	No
17	Determine preliminary Permit requirements.	No
18	Write report.	No

#156 Obtain Traffic Data

Functional Group: Planning & PDE

Default Duration: 60 Days
Work: 160 Hours

Description: Traffic Services and Planning will provide “final” traffic volume estimates, turning movements, ESAL forecast, and traffic estimates for all requests made from PDE. Turnaround time varies from 2 to 3 months depending on the extent of the request, location of the site, and other scheduled work for the field crews. Various systems are used to provide this data including the Traffic Monitoring System TRADAS, the ESAL forecasting program, the Consolidated Highway Database (CHDB), specialized ACCESS programs, and human intervention and judgment.

Resources:

Code	Title	% of hours
IEC	Inventory of Existing Conditions - Planning Accident Records Unit	30
IEC	Inventory of Existing Conditions - Planning Traffic Data Collection	50
IEC	Inventory of Existing Conditions – Traffic Services Traffic Scoping Unit	20

Tasks:

ID	Title	Permit
1	Assign road counts to field crew.	No
2	Process field counts through TRADAS.	No
3	Process Turning-Movement diagram for 12 hr. counts volume.	No
4	Establish MID and PM peak hours volumes.	No
5	48 hr counts used for AADT, generates DHV at peak hour.	No

#158 Obtain Accident Data

Functional Group: Planning & PDE

Default Duration: 4 Days
Work: 24 Hours

Description: Crash Analysis is provided to the PDE based on specific request. No standard request form exists from PDE. Analyst determines location information including urban or rural; city street vs. state route name; beginning/end milepoints; and number of years requested. Analyst uses CHDB to pull the statistics including crash and traffic AADT. Final step involves producing the accident fatality rates for each year requested.

Resources:

Code	Title	% of hours
IEC	Inventory of Existing Conditions - Planning Accident Records Unit	40
IEC	Inventory of Existing Conditions - Planning Traffic Data Collections Unit	20
IEC	Inventory of Existing Conditions - Traffic Technical Support Scoping Unit	40

Tasks:

ID	Title	Permit
1	Use AADT historical trendline growth rates.	No
2	Run preliminary CHDB report and analyze data.	No
3	Final Crash Analysis receive prioritize request	No
4	Determine location, functional class, local.	No
5	Verify location on map and against crash reference.	No

#160 Soil Profiling Field Exploration

Functional Group: Pavement Design

Default Duration: 35 Days
Work: 125 Hours

Description: Once final scoping report has been received, deflection testing and/or pavement profile sampling is performed as required. Deflection testing is performed every 250 feet in one direction of travel on two lane highways and in both directions of travel on four and greater lane highways. Pavement profile samples are taken 6 per mile in one direction of travel on two lane highways and 6 per mile in both directions of travel on four or greater lane highways.

Resources:

Code	Title	% of hours
IEC	Inventory of Existing Conditions - Materials Materials/Pavement Exploration Unit	100

Tasks:

ID	Title	Permit
1	Receive final scoping report.	No
2	Perform deflection testing if required.	No
3	Mark profile sample locations.	No
4	Obtain utility clearance.	Yes
5	Perform pavement profile sampling.	No
6	Deliver samples to Materials Laboratory for testing.	No

#162 Conduct Geotechnical Field Surveys

Functional Group: Geotechnical Structures / Foundations

Default Duration: 30 Days
Work: 200 Hours

Description: Use Field Geologic Mapping to prepare geotechnical and geophysical exploration plan. Acquire all applicable access permits, locate and drill soil borings or rock corings to determine geologic lithologies, perform field soil/rock testing, and perform field geophysical activities. Gather soil/rock samples to be submitted to Geotechnical Testing Lab and Soils Testing Unit.

Resources:

Code	Title	% of hours
IEC	Inventory of Existing Conditions - Materials Geotechnical/Bridge Exploration Unit	70
IEC	Inventory of Existing Conditions - Materials Geotechnical Design Unit	30

Tasks:

ID	Title	Permit
1	Acquire P&P sheets.	No
2	Prepare Geotechnical and Geophysical Testing plan.	No
3	Access outside ROW and get permit from property owner.	Yes
4	Scope site for utility clearance and get permits.	Yes
5	Perform soils exploration and gather soil samples.	No
6	Perform Geophysical testing.	No
7	Submit soil/rock samples to Materials Laboratory for testing.	No

#166 Materials Lab Testing

Functional Group: Materials Laboratory

Default Duration: 25 Days
Work: 95 Hours

Description: After subgrade soils profile samples are delivered to the Materials Laboratory, they are assigned lab numbers and logged into a sample database. The samples are then tested to determine moisture content, gradation, percent passing the #200 sieve, liquid limit, plastic limit, and load bearing capacity (R-Value).

Resources:

Code	Title	% of hours
IEC	Inventory of Existing Conditions - Materials Soils Testing Unit	100

Tasks:

ID	Title	Permit
1	Samples are delivered to Materials Laboratory.	No
2	Samples are numbered and entered into data base.	No
3	Moisture content is determined.	No
4	Dry gradation analysis is performed.	No
5	Percent passing #200 sieve is determined.	No
6	Liquid Limit and Plastic Limit are determined.	No
7	Resistance R-Value is determined.	No

#168 Prepare Geotechnical Scoping Report

Functional Group: Geotechnical Structures / Foundations

Default Duration: 15 Days
Work: 80 Hours

Description: Upon receipt of PFR report from the PDE, prepare Preliminary Geotechnical Report based on field reconnaissance, geologic mapping and reports, and field soil sampling study.

Resources:

Code	Title	% of hours
IEC	Inventory of Existing Conditions - Materials Geotechnical/Bridge Exploration Unit	40
IEC	Inventory of Existing Conditions - Materials Geotechnical Design Unit	60

Tasks:

ID	Title	Permit
1	Receive PFR report from PDE.	No
2	Perform field reconnaissance.	No
3	Perform Geologic Mapping/Soil Survey study.	No
4	Prepare preliminary Geotechnical report.	No
5	Submit preliminary Geotechnical report to PDE.	No

#170 Prepare Preliminary Pavement Design

Functional Group: Pavement Design

Default Duration: 9 Days
Work: 50 Hours

Description: Using as-let projects or preferably as-built typical pavement sections, current traffic ESAL projections and an understanding of the project scope, a preliminary pavement design is prepared. This preliminary pavement design may or may not represent the final pavement design recommendation once all field and design data have been obtained and analyzed.

Resources:

Code	Title	% of hours
IEC	Inventory of Existing Conditions - Materials Pavement Design Unit	100

Tasks:

ID	Title	Permit
1	Determine previous as-built typical section.	No
2	Receive final ESAL report from Planning Division.	No
3	Prepare preliminary Pavement Design recommendation.	No
4	Submit preliminary Pavement Design recommendation.	No

#172 Initial Public Information Meeting

Functional Group: Environmental - Cultural Resources

Default Duration: 1 Day
Work: 8 Hours

Description: Conduct information meeting upon completion of preliminary design plans to convey project details and obtain input from the public.

Resources:

Code	Title	% of hours
IEC	Inventory of Existing Conditions - Consultant Regional Design Division	20
IEC	Inventory of Existing Conditions - Internal Design Regional Design Division	80

Tasks:

ID	Title	Permit
1	Schedule public meeting.	No
2	Gather project information.	No
3	Develop project displays and handouts.	No
4	Develop power point presentation.	No
5	Hold public meeting.	No

#200 Complete Scoping RFP Process

Functional Group: Regional Design Division & Project Development Engineer (PDE) **Default Duration:** 80 Days
Work: 60 Hours

Description: Through coordination with Planning, District and the STIP, develop scope of work and write RFP. Advertise RFP, select consultant and execute contract for Corridor Study including Environmental Documentation, Preliminary Design (if required) and Final Design (if required).

Resources:

Code	Title	% of hours
PD&S	Project Definition & Scoping - Consultant Contracts Management Unit	40
PD&S	Project Definition & Scoping - Consultant Project Development	60

Tasks:

ID	Title	Permit
1	Meet with District and Planning to develop scope.	No
2	Write RFP and provide to FHWA for review.	No
3	Advertise RFP and hold pre-proposal meeting.	No
4	Review proposals and select consultant.	No
5	Write Appendix developing scope of services.	No
6	Negotiate fee and execute contract.	No

#202 Conduct Initial Corridor Study

Functional Group: Regional Design Division

Default Duration: 100 Days
Work: 465 Hours

Description: Determine need for the project. Define full range of viable alternatives and identify SEE constraints. Select the most practical alignments for further study.

Resources:

Code	Title	% of hours
PD&S	Project Definition & Scoping - Consultant or Internal Project Development	60
PD&S	Project Definition & Scoping - Internal Design Regional Design Division	40

Tasks:

ID	Title	Permit
1	Conduct field recon. and data collection.	No
2	Conduct transportation needs analysis.	No
3	Assess existing SEE conditions.	No
4	Identify possible alternate alignments and concepts.	No
5	Conduct initial engineering analysis.	No
6	Conduct initial ROW feasibility analysis.	No
7	Conduct initial SEE analysis.	No
8	Select most feasible alternates.	No
9	Develop environmental process plan.	No
10	Develop initial corridor analysis report.	No
11	Conduct public involvement throughout.	No

#204 Complete Pre-Design RFP Process

Functional Group: Regional Design Division & PDE

Default Duration: 80 Days

Work: 40 Hours

Description: Develop scope of work for RFP. Advertise RFP, select consultant and execute contract for preliminary design.

Resources:

Code	Title	% of hours
PD&S	Project Definition & Scoping - Consultant Contracts Management Unit	70
PD&S	Project Definition & Scoping - Consultant Project Development	30

Tasks:

ID	Title	Permit
1	Review EA and previous studies to develop scope.	No
2	Write RFP and provide to FHWA for review.	No
3	Advertise RFP and hold pre-proposal meeting.	No
4	Write Appendix outlining scope of services.	No
5	Select consultant, negotiate, and execute contract.	No
6	Distribute final Scoping Report to design team.	No

#206 Conduct Detail Evaluation of Alternate Alignment Study

Functional Group: Regional Design Division

Default Duration: 100 Days

Work: 465 Hours

Description: Refine alternate alignments and generate feasible designs for each alternate at a conceptual level. Provide adequate detail to serve as a basis for preparation of the environmental document and selection of the preferred alternative. Complete Detailed Evaluation of Alternates (DEA) report.

Resources:

Code	Title	% of hours
PD&S	Project Definition & Scoping - Consultant - Project Development	4
PD&S	Project Definition & Scoping - Internal Design Regional Design Division	96

Tasks:

ID	Title	Permit
1	Conduct public involvement throughout.	No
2	Develop conceptual engineering.	No
3	Assess SEE impacts and mitigation measures.	No
4	Refine ROW feasibility.	No
5	Refine transportation needs analysis.	No
6	Update cost estimates.	No
7	Conduct comparative evaluation of alternates.	No
8	Develop DEA report.	No

#208 Traffic Engineering Analysis

Functional Group: Traffic Technical Support

Default Duration: 10 Days

Work: 40 Hours

Description: Include all or some of the following tasks upon request of the PDE: Roadway, intersection or interchange capacity; Roadway, intersection or interchange efficiency; Roadside safety; Safety enhancement; Geometric compliance and Signal and Lighting warrants.

Resources:

Code	Title	% of hours
PD&S	Project Definition & Scoping - Planning - Accident Records Unit	15
PD&S	Project Definition & Scoping - Planning Traffic Data Collection Unit	15
PD&S	Project Definition & Scoping - Traffic Consultant Traffic Review Unit	20
PD&S	Project Definition & Scoping - Traffic - Traffic Scoping Unit	50

Tasks:

ID	Title	Permit
1	Obtain request for assistance from PDE.	No
2	Obtain traffic volume data.	No
3	Obtain traffic accident data.	No
4	Perform traffic review.	No
5	Prepare report with recommendations to PDE.	No

#210 Re-Negotiate Pre-Design Activities/Existing Contract

Functional Group: Regional Design Division & PDE

Default Duration: 30 Days

Work: 20 Hours

Description: Based on scope of work outlined in previously awarded contract through Activity #200. Complete scoping and RFP process. Negotiate preliminary design scope and activities.

Resources:

Code	Title	% of hours
PD&S	Project Definition & Scoping - Consultant Contracts Management Unit	40
PD&S	Project Definition & Scoping - Consultant Project Development	60

Tasks:

ID	Title	Permit
1	Based on existing contract, develop scope.	No
2	Negotiate fee.	No
3	Execute contract amendment.	No

#212 Conduct Field Surveys

Functional Group: Environmental - Cultural Resources

Default Duration: 20 Days
Work: 8 Hours

Description: Conduct detailed analysis of alternatives including engineering, right-of-way costs, environmental, cultural, and community resources.

Resources:

Code	Title	% of hours
PD&S	Project Definition & Scoping - Environmental Cultural Resources	100

Tasks:

ID	Title	Permit
1	Select recommended alternatives.	No
2	Prepare draft alternatives.	No
3	Evaluate and approve selected alternative.	No

#214 2nd Public Information Meeting

Functional Group: Environmental - Cultural Resources **Default Duration:** 5 *Day*
Work: 8 *Hours*

Description: Conduct information meeting upon receiving selected recommended alternatives. Finalize A/B Analysis.

Resources:

Code	Title	% of hours
PD&S	Project Definition & Scoping - Environmental - Cultural Resources	100

Tasks:

ID	Title	Permit
1	Conduct public involvement throughout.	No
2	Develop selected recommended alternatives.	No
3	Approve selected recommended alternatives.	No
4	Finalize and approve A/B Analysis.	No

#300 ROW Feasibility Study

Functional Group: Right-of-Way

Default Duration: 7 Days
Work: 30 Hours

Description: Estimate ROW acquisition costs for a particular project by examining comparable sales data, environmental, wetland, contamination and historical site impacts to determine if the project is feasible from a ROW standpoint.

Resources:

Code	Title	% of hours
F&AS	Finalize and Adopt STIP - ROW - Appraisal Unit	100

Tasks:

ID	Title	Permit
1	Identify Appraisal problems on project.	No
2	Identify the scope.	No
3	Research the market.	No

#302 Prepare Preliminary Scoping Report

Functional Group: Regional Design Division & PDE

Default Duration: 30 Days
Work: 129 Hours

Description: The PSR defines the proposed scope of work as determined by an engineering analysis utilizing all available information and design team input. The PSR will be submitted to the District Engineer and State-Oversight or FHWA Area Engineer for review and comments.

Resources:

Code	Title	% of hours
F&AS	Finalize and Adopt STIP – Consultant – Project Development	7
F&AS	Finalize and Adopt STIP - Internal Design Regional Design Division	93

Tasks:

ID	Title	Permit
1	Document existing conditions.	No
2	Establish design criteria.	No
3	Identify deficiencies.	No

#304 Review Preliminary Scoping Report

Functional Group: District Engineer

Default Duration: 2 Days
Work: 16 Hours

Description: Review Preliminary Scoping Report and determine if proposed work meets the District's transportation needs within programmed budget.

Resources:

Code	Title	% of hours
F&AS	Finalize and Adopt STIP – Construction State-Oversight Engineer	40
F&AS	Finalize and Adopt STIP - District Engineer	60

Tasks:

ID	Title	Permit
1	Review PSR and provide comments.	No

#306 Estimate Preliminary ROW Needs

Functional Group: Regional Design Division & PDE

Default Duration: 5 Days

Work: 20 Hours

Description: Review existing Right-of-Way (ROW) maps and make a preliminary determination if ROW may be required.

Resources:

Code	Title	% of hours
F&AS	Finalize and Adopt STIP - Consultant - Project Development	20
F&AS	Finalize and Adopt STIP - Internal Design Regional Design Division	80

Tasks:

ID	Title	Permit
1	Locate and assemble existing ROW maps.	No
2	Plot conceptual project limits.	No
3	Determine if ROW may be required.	No
4	Request ROW Feasibility Study if necessary.	No

#308 Preliminary ROW Document Review

Functional Group: Right-of-Way

Default Duration: 10 Days
Work: 16 Hours

Description: ROW review of Title searches, Legals and ROW Maps for accuracy.

Resources:

Code	Title	% of hours
F&AS	Finalize and Adopt STIP - ROW - Acquisition Unit	37
F&AS	Finalize and Adopt STIP - ROW - Lands Abstract Unit	63

Tasks:

ID	Title	Permit
1	Review Title reports for accuracy.	No
2	Review legal documents for accuracy.	No
3	Review ROW Maps for accuracy.	No

#309 ITS Concept of Operations/High Level Requirement for ITS Projects - *New Activity*

Functional Group: Intelligent Transportation System

Default Duration: 20 *Days*
Work: 160 *Hours*

Description: Identify project for ITS compliance.

Resources:

Code	Title	% of hours
F&AS	Finalize and Adopt STIP - ITS	100

Tasks:

ID	Title	Permit
1	Acquire all project information.	No
2	Address any ITS issues.	No
3	Finalize ITS project implementation and design.	No

#310 Obtain FHWA/State Oversight Approval

Functional Group: Pavement Design

Default Duration: 14 Days

Work: 14 Hours

Description: When required, the proposed final pavement design recommendations are submitted to FHWA or the State Construction Bureau for approval prior to submission to the PDE.

Resources:

Code	Title	% of hours
MAPAVDES	Materials - Pavement Design Unit	100

Tasks:

ID	Title	Permit
1	Send final pavement design for review/approval.	No
2	Receive approval.	No

#312 Secure ROW Funding

– *New Activity*

Functional Group: Regional Design Division & PDE

Default Duration: 20 *Days*
Work: 160 *Hours*

Description: Secure ROW acquisition costs for designated project by taking into consideration comparable sales data, environmental, wetland, contamination and historical site impacts to determine if the project is feasible from a ROW perspective.

Resources:

Code	Title	% of hours
F&AS	Finalize and Adopt STIP - Regional Design Division	100

Tasks:

ID	Title	Permit
1	Secure ROW funding appropriately.	No
2	Identify ROW costs.	No

#313 Establish Utility Relocation Funding

– *New Activity*

Functional Group: Regional Design Division & PDE

Default Duration: 15 Days
Work: 120 Hours

Description: Establish Utility relocation funding for a designated project by examining current utility owners within the proposed project impact area and along with the PDE estimating anticipated utility impact and therefore establish a reasonable estimate of probable utility relocation costs.

Resources:

Code	Title	% of hours
F&AS	Finalize and Adopt STIP - Regional Design Division	100

Tasks:

ID	Title	Permit
1	Identify existing Utility owners in the project area	No
2	Estimate probable utility impacts	No
3	Estimate reasonable cost of relocation due to anticipated impacts	No
4	Establish Utility Relocation Funding appropriately.	No

#314 Secure Final Design Funding

Functional Group: Funding Control

Default Duration: 15 Days
Work: 6 Hours

Description: To secure and establish funding for Final Design of a project by a Consultant. Note: If a project is funded with 100% state funds, Tasks 5, 8 and 9 are required to complete this activity.

Resources:

Code	Title	% of hours
F&AS	Finalize and Adopt STIP - Consultant - Project Development	100

Tasks:

ID	Title	Permit
1	CDS - Send out RFP or re-negotiate contract.	No
2	CDS - Complete Fed Form and submit to FCU.	No
3	FCU - Process Fed Form and send to FHWA.	No
4	FCU - Post approved Project to SHARE.	No
5	CDS - Award contract.	No
6	CDS - Modify Fed Form with award amount.	No
7	FCU - Process Fed Form and send to FHWA.	No
8	FCU - Post approved amounts to SHARE.	No
9	CDS - Encumbers funds in SHARE.	No

#316 Assign Final Design Control Number – *New Activity*

Functional Group: Program Management

Default Duration: 5 Days
Work: 40 Hours

Description: Assign/Revise project control number specific to Preliminary Design, ROW, Final Design or Construction.

Resources:

Code	Title	% of hours
F&AS	Finalize and Adopt STIP - Project Development	100

Tasks:

ID	Title	Permit
1	Select project for inclusion in the 4-year STIP.	No
2	Re-evaluate funding availability.	No
3	Agree to project implementation.	No
4	Control Number will be a seven digit alphanumeric number.	No

#318 Complete Final Design RFP Process

Functional Group: Regional Design Division &
Program Management

Default Duration: 80 Days
Work: 40 Hours

Description: Develop scope of work, write RFP, advertise RFP, select consultant, and execute contract to provide final design services for project.

Resources:

Code	Title	% of hours
F&AS	Finalize and Adopt STIP – Consultant Contracts Management Unit	50
F&AS	Finalize and Adopt STIP - Consultant - Project Development	50

Tasks:

ID	Title	Permit
1	Review Environmental Document and studies to develop scope.	No
2	Write RFP and provide to FHWA for review.	No
3	Advertise RFP and hold pre-proposal meeting.	No
4	Write appendix outlining scope of services.	No
5	Select consultant, negotiate and execute contract.	No

#320 Re-Negotiate Final Design Activities on Existing Contract

Functional Group: Regional Design Division & PDE

Default Duration: 30 Days
Work: 24 Hours

Description: Negotiate scope of work and based on previously developed RFP and contract from either Activity 200 or 204 to provide final design services.

Resources:

Code	Title	% of hours
F&AS	Finalize and Adopt STIP - Consultant - Project Development	100

Tasks:

ID	Title	Permit
1	Based on existing contract develop scope.	No
2	Negotiate fee.	No
3	Execute contract amendment.	No

#400 Prepare Preliminary Design Inspection Plans

Functional Group: Regional Design Division & PDE

Default Duration: 30 Days
Work: 506 Hours

Description: Complete plan sheets for Preliminary Design Inspection. See established check list for inspection requirements.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., Proc. & Preliminary Design Consultant or Internal - Project Development	1
EDP&PD	Environmental Doc. Proc. & Preliminary Design Internal Design - Regional Design Division	99

Tasks:

ID	Title	Permit
1	Revise geometry and template as required.	No
2	Re-compute quantities as required.	No
3	Incorporate traffic control plans.	No
4	Update estimate.	No

#402 Prepare Preliminary Traffic Geometrics

Functional Group: Traffic Technical Support

Default Duration: 15 Days
Work: 80 Hours

Description: Includes all or some of the following at the request of the PDE: Conceptual intersection layout (up to 2 weeks); Conceptual interchange layout (up to 3 weeks) and Auxiliary lanes and transitions (approximately 10 days).

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., Proc. & Preliminary Design - Planning Accident Records Unit	40
EDP&PD	Environmental Doc., Proc. & Preliminary Design - Planning Traffic Data Collection Unit	40
EDP&PD	Environmental Doc., Proc. & Preliminary Design - Traffic Traffic Scoping Unit	20

Tasks:

ID	Title	Permit
1	Obtain preliminary scope from PDE.	No
2	Obtain survey.	No
3	Obtain as-built plans.	No
4	Obtain traffic volumes from Planning.	No
5	Obtain traffic accident data from Planning.	No
6	Investigate alternatives.	No
7	Prepare and document recommendations to PDE.	No

#404 Prepare Bridge/Structure Layout

Functional Group: Bridge Design

Default Duration: 90 Days

Work: 400 Hours

Description: Prepare the general structural layout including P&P views. Prepare the typical section. Indicate the superstructure, substructure and deck types and general dimensions. Compute substructure loads and submit structural layout to the Foundation Engineer.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., Proc. & Preliminary Design Bridge Design Unit	100

Tasks:

ID	Title	Permit
1	Complete Bridge/Structural layout.	No

#406 Prepare Preliminary Traffic Control Plans

Functional Group: Traffic Technical Support

Default Duration: 20 Days
Work: 249 Hours

Description: Prepare suggested sequence of construction and define detour locations and limits for each phase of construction.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., Proc. & Preliminary Design Consultant - Project Development	4
EDP&PD	Environmental Doc., Proc. & Preliminary Design Internal Design - Regional Design Division	96

Tasks:

ID	Title	Permit
1	Create suggested sequence of construction.	No
2	Define detour locations and limits.	No
3	Prepare preliminary construction signing plans.	No

#408 Hold Preliminary Design Inspection

- *MILESTONE*

Functional Group: Regional Design Division & PDE

Default Duration: 1 Day
Work: 45 Hours

Description: The Preliminary Design Inspection is a field review where the design team members discuss issues related to the proposed horizontal and vertical alignment, and associated slope limits. This review should address drainage, property access, ROW, railroad and utility, construction traffic control, environmental and geotechnical related issues.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., Proc. & Preliminary Design Consultant - Project Development	45
EDP&PD	Environmental Doc., Proc. & Preliminary Design Internal Design - Regional Design Division	55

Tasks:

ID	Title	Permit
1	Schedule with appropriate design team members.	No
2	Transmit plans for review.	No
3	Conduct field review and gather input from team.	No

#410 Complete Preliminary Design Inspection Report

Functional Group: Regional Design Division & PDE

Default Duration: 5 Days
Work: 51 Hours

Description: The Preliminary Design Inspection Report will document specific project characteristics to be taken forward into the final design process. This should include environmental commitments and ROW requirements.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., Proc. & Preliminary Design Internal Design - Regional Design Division	100

Tasks:

ID	Title	Permit
1	Evaluate design team input.	No
2	Write and review report.	No
3	Transmit report to design team.	No

#412 Conduct Public Information Meeting

Functional Group: Environmental - Cultural Resources

Default Duration: 5 Days
Work: 80 Hours

Description: Conduct information meeting upon completion of preliminary design inspection plans to convey project details and obtain input from the public.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., Proc. & Preliminary Design Consultant - Project Development	20
EDP&PD	Environmental Doc., Proc. & Preliminary Design Internal Design - Regional Design Division	80

Tasks:

ID	Title	Permit
1	Schedule public meeting.	No
2	Gather project information.	No
3	Develop project displays and handouts.	No
4	Develop power point presentation.	No
5	Hold public meeting.	No

#418 Conduct VE Study (Final Design)

Functional Group: Value Engineering (VE) Unit

Default Duration: 5 Days
Work: 40 Hours

Description: Schedule VE Study of Final Design. Participate in VE Study. Present findings and recommendations of the study.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., Proc. & Preliminary Design Value Engineering Unit	100

Tasks:

ID	Title	Permit
1	Obtain request for VE Study.	No
2	Schedule VE Study.	No
3	Coordinate VE Study with VE Consultant.	No
4	Arrange for facilities and transportation for study.	No
5	Schedule Implementation Committee Meeting.	No
6	Present recommendations to Implementation Committee.	No
7	Manage and monitor VE Consultant Contract.	No

#419 Review and Consider VE Recommendations - *New Activity*

Functional Group: Value Engineering Unit

Default Duration: 5 Days
Work: 40 Hours

Description: Final approval of VE Study based on approved findings and recommendations.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., Proc. & Preliminary Design Value Engineering Unit	100%

Tasks:

ID	Title	Permit
1	Review request for VE Study.	No
2	Review final VE recommendations.	No
3	Approve final VE recommendations.	No

#420 Conduct Preliminary Geotechnical Field Exploration

Functional Group: Geotechnical Structures / Foundations

Default Duration: 30 Days

Work: 200 Hours

Description: Use Field Geologic Mapping to prepare geotechnical and geophysical exploration plan. Acquire all applicable access permits, locate and drill soil borings or rock corings to determine geologic lithologies. Perform field soil/rock testing and field geophysical activities. Gather soil/rock samples to be submitted to Geotechnical Testing Laboratory and Soils Testing Unit.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., Proc. & Preliminary Design - Materials Geotechnical/ Bridge Exploration Unit	70
EDP&PD	Environmental Doc., Proc. & Preliminary Design - Materials Geotechnical Design Unit	30

Tasks:

ID	Title	Permit
1	Acquire P&P Sheets.	No
2	Prepare geotechnical and geophysical testing plan.	No
3	Access outside ROW and get permit from property owner.	Yes
4	Scope site for utility clearance and get permits.	Yes
5	Perform soils exploration and gather soils for testing.	No
6	Perform geophysical testing.	No
7	Submit soil/rock samples to Materials Laboratory for testing.	No

#421 Conduct Preliminary Geotechnical Soil Lab Testing

Functional Group: Geotechnical Structures / Foundations

Default Duration: 30 Days

Work: 200 Hours

Description: Receive soil/rock samples and log-in from Field Exploration Unit. Prepare samples and perform direct shear, triaxial shear, consolidation, gradations, moisture contents, Atterberg limits of soil samples or unconfined compression of rock cores. Reduce test results and classify soils/rock according to USGS and AASHTO classifications or RMR ratings respectively. Prepare Soil Boring Summary and Test Reports/Logs. Submit Summary Reports/Logs to Geotechnical Design Unit.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., Proc. & Preliminary Design - Materials Geotechnical/Bridge Exploration Unit	30
EDP&PD	Environmental Doc., Proc. & Preliminary Design - Materials Geotechnical Design Unit	10
EDP&PD	Environmental Doc., Proc. & Preliminary Design - Materials Soils Testing Unit	60

Tasks:

ID	Title	Permit
1	Receive and log soil/rock samples from field.	No
2	Prepare samples for testing.	No
3	Perform DS / UU /Consolidation tests on soil samples.	No
4	Perform unconfined compression on rock cores.	No
5	Perform tests for gradations, moisture and Atterberg Limits.	No
6	Reduce test results.	No
7	Classify Soils/Rock to USGS or AASHTO classifications or RMR ratings.	No
8	Prepare Soil Boring Summary and Test Report/Logs.	No
9	Submit Soil Report/Logs to Geotechnical Design.	No

#422 Complete Preliminary Geotechnical Design Report

Functional Group: Geotechnical Structure / Found

Default Duration: 30 Days
Work: 200 Hours

Description: Upon receipt of Soil Boring Summary and Test Reports/Logs: Perform geotechnical analysis to determine creep and consolidation settlement or instability of roadway embankments, soil stabilization, excavation/rippability determination of rock cut sections, rockfall fencing/benches, cut/fill slope stability, steepened slope or special retaining walls, groundwater and subgrade drainage, shrink/swell, subgrade cut depths, geotextile or other special treatments. Prepare Preliminary Geotechnical Design Report to document all geotechnical design requirements to be included in project.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., Proc. & Preliminary Design - Materials Geotechnical Design Unit	100

Tasks:

ID	Title	Permit
1	Perform geotechnical analysis.	No
2	Prepare Preliminary Design Geotechnical Report.	No
3	Submit Preliminary Design Geotechnical Report to PDE.	No

#424 Final Pavement Design Recommendations

Functional Group: Pavement Design

Default Duration: 21 Days
Work: 60 Hours

Description: Once the final scoping report and deflection and/or pavement profile testing results are received, the final pavement design recommendation is prepared for District approval. The final pavement design recommendations are then submitted to the PDE after FHWA/State Construction Bureau approvals are received.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., Proc. & Preliminary Design - Materials Pavement Design Unit	100

Tasks:

ID	Title	Permit
1	Receive final scoping report.	No
2	Receive raw deflection test results.	No
3	Analyze deflection test results.	No
4	Receive pavement profile testing results.	No
5	Prepare final pavement design recommendation.	No
6	Receive District approval.	No
7	Receive FWHA/State Construction Bureau approval.	No
8	Submit final pavement design to PDE.	No

#426 Submit Bridge Layout Borehole Location to RR for ROW

Functional Group: Bridge Design

Default Duration: 180 Days
Work: 8 Hours

Description: This activity involves securing a ROW Agreement from the RR if soil testing within RR property is required. This process is for Department crews to perform soil testing. When this task is to be performed by outside sources, the process will require a longer duration for completion.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., Proc. & Preliminary Design ROW - Bridge Design	100

Tasks:

ID	Title	Permit
1	Establish if grade separation involves RR.	No
2	PDE advises of soil testing within RR property.	No
3	Secure Bridge layout with location of boreholes.	No
4	Transmit Bridge layout and borehole locations to RR.	No
5	Secure Right-of-Entry from RR.	Yes
6	Send payment for RR fee.	No
7	Review Right-of-Entry and secure approval from Office of General Counsel.	Yes
8	Process agreement internally.	No
9	Transmit Right-of-Entry to Lab to proceed.	No

#428 Review Preliminary Bridge/Structure Layout

Functional Group: Bridge Design

Default Duration: 15 Days
Work: 40 Hours

Description: Preliminary structural layout to be reviewed by the State Bridge Engineer. The State Bridge Engineer may assign this responsibility to a Design Unit or Panel of Structural Engineers.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., Proc. & Preliminary Design Bridge - Design Unit	100

Tasks:

ID	Title	Permit
1	Get Bridge/Structural Layout reviewed by Bridge Engineer.	No

#430 Prepare Preliminary Structure/Foundation Report

Functional Group: Geotechnical/Structure Foundations

Default Duration: 10 Days
Work: 60 Hours

Description: Using Structure Foundation Field Drilling logs, preliminary structure loads, and Drainage report, develop Preliminary Foundation Report to define structure foundation concept and preliminary design information. Submit Preliminary Foundation Report to Bridge Section.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., Proc. & Preliminary Design - Materials Foundation Design Section	100

Tasks:

ID	Title	Permit
1	Acquire Bridge Foundation Exploration Field Logs.	No
2	Acquire structure foundation loads from Bridge Design Bureau.	No
3	Perform constructability evaluation of alternative.	No
4	Perform cost comparison of alternatives.	No
5	Specify foundation alternative.	No
6	Perform preliminary lateral load analysis.	No
7	Develop Preliminary Structure Foundation Report.	No
8	Submit Report to Bridge Section.	No

#432 Prepare Preliminary Bridge/Structure Plans

Functional Group: Bridge Design

Default Duration: 90 Days
Work: 400 Hours

Description: Design the superstructure and deck. Use the Preliminary Foundation Report to begin design of the substructure. Begin structural detail sheets. Finalize the bridge P&P sheets. Start the General Notes sheet. Define Special Provisions that are required.

Resources:

Code	Title	% of hours
EDP&PD	Environ. Doc., Proc. & Preliminary Design - Bridge - Design Unit	100

Tasks:

ID	Title	Permit
1	Complete preliminary Bridge/Structure plans.	No

#434 Prepare Plan & Profile (P&P) and Define Footprint - *MILESTONE*

Functional Group: Regional Design Division & PDE

Default Duration: 30 Days

Work: 165 Hours

Description: Verify survey data, topographic information and elevation checks on original surface. Define preferred alignment, grade and template. See the established check list for required information.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design Consultant or Internal - Project Development	3
EDP&PD	Environmental Doc., & Preliminary Design - Internal Design Regional Design Division	97

Tasks:

ID	Title	Permit
1	Verify transmitted survey data.	No
2	Define geometry and template.	No
3	Generate 3-D model and product design surfaces.	No
4	Plot preliminary information as required.	No

#436 Revise and Finalize Scoping Report

Functional Group: Regional Design Division & PDE

Default Duration: 10 Days
Work: 129 Hours

Description: The Scoping Report shall be revised and finalized to define the proposed scope of work as determined by an engineering analysis utilizing all available information and design team input. The revised Scoping Report will be submitted to the District Engineer and State-Oversight or FHWA Area Engineer for review and comments.

Resources:

Code	Title	% of hours
F&AS	Finalize and Adopt STIP – Consultant – Project Development	7
F&AS	Finalize and Adopt STIP - Internal Design Regional Design Division	93

Tasks:

ID	Title	Permit
1	Document existing conditions.	No
2	Establish design criteria.	No
3	Identify deficiencies.	No

#438 Complete Field Surveys

Functional Group: Environmental - Cultural Resources **Default Duration:** 10 Days
Work: 40 Hours

Description: Upon completion of Preliminary Design Inspection plans, conduct Department/SHPO consultations. Proceed to complete field surveys if no mitigation processed.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design - Environmental Cultural Resources	100

Tasks:

ID	Title	Permit
1	Complete field surveys	No
2	Conduct Department/SHPO consultations.	No
3	Complete field survey if no mitigation processed.	No

#440 Conduct ISA

Functional Group: Environmental Geology

Default Duration: 60 Days
Work: 280 Hours

Description: Identification of contaminated areas within the existing and proposed Department ROW.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design - Environmental Geology	100

Tasks:

ID	Title	Permit
1	Records Review	No
2	Site Inspection	No
3	Interviews	No
4	Draft report.	No
5	Recommendations for preliminary site investigation.	No

#442 Conduct PSI

Functional Group: Environmental Geology

Default Duration: 60 Days

Work: 600 Hours

Description: Intrusive investigation to determine the absence or presence of contamination in soil and/or groundwater within the existing and/or proposed ROW.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design - Environmental Geology	100

Tasks:

ID	Title	Permit
1	Review ISA report and other pertinent project/site information.	No
2	Develop work plan.	No
3	Obtain utility clearance.	No
4	Perform field investigation.	No
5	Interpretation of field and laboratory analyses.	No
6	Draft report.	No
7	Recommendation for PSI.	No

#444 Conduct DSI

Functional Group: Environmental Geology

Default Duration: 60 Days
Work: 500 Hours

Description: Investigation to delineate the vertical and horizontal extent of contamination identified in the PSI, to include asbestos and lead paint.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design Environmental Geology	100

Tasks:

ID	Title	Permit
1	Review PSI and other available project/site information.	No
2	Develop work plan.	No
3	Obtain utility clearance.	No
4	Perform field investigation.	Yes
5	Interpret field and laboratory analysis.	No
6	Draft report.	No
7	Develop recommendations for mitigation.	No

#446 Prepare Mitigation Plan

- *New Activity*

Functional Group: Environmental Geology

Default Duration: 60 Days

Work: 600 Hours

Description: Intrusive investigation to determine the absence or presence of contamination in soil and/or groundwater within the existing and/or proposed ROW.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design - Environmental Geology	100

Tasks:

ID	Title	Permit
1	Review ISA report and other pertinent project/site information.	No
2	Develop work plan.	No
3	Obtain utility clearance.	No
4	Perform field investigation.	No
5	Interpretation of field and laboratory analyses.	No
6	Draft report.	No
7	Recommendation for PSI.	No

#450 Prepare Environmental Document

Functional Group: Environmental - Human & Natural Resources

Default Duration: 100 Days
Work: 170 Hours

Description: Conduct field investigations, Department coordination and appropriate public involvement to document the nature and extent of potential resource impacts and appropriate mitigation to complete categorical exclusion. It is assumed that a SEE study will be prepared or an EA for a moderate level project.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design - Environmental Human & Natural Resources	100

Tasks:

ID	Title	Permit
1	Review project scope.	No
2	Conduct field investigations.	No
3	Prepare biological and CR report.	No
4	Conduct public information meeting.	No
5	Evaluate project impacts.	No
6	Conduct agency consultations.	No
7	Review CR report (tribes and land mgmt agencies).	No
8	Review CR report by SHPO.	No
9	Prepare SEE or CE document.	No

#452 Approve Environmental Document

Functional Group: Environmental - Human & Natural Resources

Default Duration: 60 Days
Work: 56 Hours

Description: Obtain federal approval of environmental document.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design - Consultant Environmental - Human & Natural Resources	50
EDP&PD	Environmental Doc., & Preliminary Design - Internal Environmental - Human & Natural Resources	50

Tasks:

ID	Title	Permit
1	Submit document to FHWA for signature.	No
2	Publish availability of document.	No
3	Conduct public hearing.	No
4	Prepare Input Synopsis.	No

#454 Process and Obtain Environmental Clearance

Functional Group: Environmental - Human & Natural Resources

Default Duration: 60 Days
Work: 32 Hours

Description: Complete documentation of project development process. Address issues that were not fully resolved during the development of the environmental document. If an Environmental Assessment (EA) was prepared, the document will have to be circulated and a “Finding of No Significant Impact” (FONSI) will be issued. This will take an additional 30 days at a minimum. If a Categorical Exclusion (CE) is prepared, this task is skipped.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design - Consultant Environmental - Human & Natural Resources	50
EDP&PD	Environmental Doc., & Preliminary Design - Internal Environmental - Human & Natural Resources	50

Tasks:

ID	Title	Permit
1	Prepare FONSI request.	No
2	Sign Environmental Requirements sheet.	No
3	Submit FR to FHWA for signature.	No
4	Circulate FONSI.	No

#456 Approve Final Scoping Report

Functional Group: District Engineer

Default Duration: 20 Days
Work: 29 Hours

Description: The approved final scoping report will document the scope of work for a specific project with cost estimate. This document will include signature concurrence from the District Engineer, PDE, Design Region Manager and FHWA or State Oversight Engineer as applicable.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design - Consultant Project Development	50
EDP&PD	Environmental Doc., & Preliminary Design - Internal Design Regional Design Division	50

Tasks:

ID	Title	Permit
1	Submit Final Scoping Report for concurrence	No
2	Distribute Final Scoping Report to design team	No

#460 New Mitigation

- *New Activity*

Functional Group: Environmental - Cultural Resources

Default Duration: 30 *Days*
Work: 80 *Hours*

Description: Prepare Mitigation Plan, if needed conduct agency/SHPO consultant. Obtain MOA Section 106 (SHPO) clearance complete.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design - Environmental Cultural Resources	100

Tasks:

ID	Title	Permit
1	Identify mitigation measures.	No
2	Create and document mitigation.	No
3	Create draft mitigation report.	No

#462 Perform Data Testing and Recovery

Functional Group: Environmental

Default Duration: 20 Days
Work: 110 Hours

Description: Conduct testing and data recovery at impacted sites. Duration is based upon approximately 20 days per small site. Medium site durations should be based upon 40 days and large sites 80 days.

Resources:

Code	Title	% of hours
EVSUPPRT	Environmental Support	100

Tasks:

ID	Title	Permit
1	Conduct field phase of Data Recovery.	Yes

#469 Conduct Public Hearing

Functional Group: Environmental - Human & Natural Resources, Regional Design Division & PDE
Default Duration: 5 Days
Work: 40 Hours

Description: Prepare for and conduct information meeting upon completing G&D Inspection plans.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design - Project Development	100

Tasks:

ID	Title	Permit
1	Prepare for and conduct public involvement meeting.	No

#470 Complete Grade & Drain Inspection Plans – *New Activity*

Functional Group: Regional Design Division & PDE

Default Duration: 20 Days
Work: 80 Hours

Description: Finalize roadway & flowline grades & drainage details. See the established check list for required information & plan requirements.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design - Consultant Project Development	50
EDP&PD	Environmental Doc., & Preliminary Design - Internal Design - Regional Design Division	50

Tasks:

ID	Title	Permit
1	Finalize project limits	No
2	Finalize G&D Design Inspection plans.	No

#474 Hold Grade & Drain Inspection

- *New Activity* - **MILESTONE**

Functional Group: Regional Design Division & PDE

Default Duration: 1 Day
Work: 8 Hours

Description: Review project development design plans and submit final grades and drainage recommendations and incorporate into plans as noted.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design Consultant or Internal - Project Development	50
EDP&PD	Environmental Doc., & Preliminary Design - Internal Design Regional Design Division	50

Tasks:

ID	Title	Permit
1	Conduct field review of G&D Inspection plans.	No
2	Develop final recommendations.	No
3	Incorporate revisions as design team agreed upon.	No
4	Design team members agree G&D Inspection plans are 60% complete.	No

#476 Complete Grade & Drain Inspection Report

- *New Activity*

Functional Group: Regional Design Division & PDE

Default Duration: 5 Days
Work: 40 Hours

Description: Summarize inspection minutes including final decisions, final roadway grade, drainage components and complete report.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design Consultant Project Development	50
EDP&PD	Environmental Doc., & Preliminary Design - Internal Design Regional Design Division	50

Tasks:

ID	Title	Permit
1	Incorporate final field project recommendations.	No
2	Develop final work plan.	No
3	Compile final G&D Inspection report.	No

#484 Submit Plans to Utilities

Functional Group: Regional Design Division & PDE

Default Duration: 1 Day
Work: 8 Hours

Description: This requires the submittal of current plans to Utilities for review and comments regarding possible impacts to their facilities.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design - ROW Regional Design Division	100

Tasks:

ID	Title	Permit
1	Plans from PDE/Consultant to Utilities.	No
2	Alert letter, along with plans to Utilities.	No
3	Request comments back from Utilities.	No
4	Special mail arrangements (certified).	No

#486 Submit Plans to Railroads

Functional Group: Regional Design Division & PDE

Default Duration: 1 Day
Work: 8 Hours

Description: This requires the submittal of current plans to Railroads for review and comments regarding possible impacts to their facilities.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design - ROW Regional Design Division	100

Tasks:

ID	Title	Permit
1	Plans from PDE/Consultant to Railroads.	No
2	Alert letter, along with plans to Railroads.	No
3	Request comments back from Railroads.	No
4	Special mail arrangement (certified).	No

#488 Designate SUE Level C & B

Functional Group: Regional Design Division & PDE

Default Duration: 5 Days
Work: 40 Hours

Description: Request Subsurface Utility Designation (Horizontal Locations) services from SUE consultant for internally designed projects after PDE has requested such services and provided RR&U Section with appropriate information.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design - ROW Railroad & Utilities Unit	50
EDP&PD	Environmental Doc., & Preliminary Design - ROW Consultant – Project Development	25
EDP&PD	Environmental Doc., & Preliminary Design - ROW Internal Design – Regional Design Division	25

Tasks:

ID	Title	Permit
1	Internal Design Section identifies SUE Projects.	No
2	PDE requests SUE from RR&U on specific projects.	No
3	PDE transmits appropriate info to RR&U for SUE.	No
4	RR&U authorizes specific SUE phase.	No
5	RR&U reviews and approves payment.	No
6	RFP/Contract for SUE through Consultant Management Unit.	No
7	Consultant Mgmt. Unit processes payments.	No

Note: Activities #484, #486 and #488 are out of order because it is imperative that these activities are initiated early after complete of the P&P and Footprint Milestone and therefore are part of the Environmental Documentation Processing and Preliminary Design Work Breakdown Structure (WBS).

#478 Adjust Project Scope

Functional Group: Regional Design Division & PDE

Default Duration: 10 Days
Work: 49 Hours

Description: If required, adjust project scope, estimate, and programmed funding based on approvals from Programs & Infrastructure Deputy Secretary and District Engineer. Provide documentation to Planning that addresses required changes in STIP as provided by District.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design Consultant or Internal - Project Development	17
EDP&PD	Environmental Doc., & Preliminary Design - Internal Design Regional Design Division	83

Tasks:

ID	Title	Permit
1	Review Scoping Report.	No
2	Review Preliminary Design versus Scoping Report.	No
3	Adjust Project Scope.	No
4	Obtain approvals from DE, Programs and Infrastructure Deputy Secretary.	No
5	Adjust programmed funding.	No

#479 Structure and Foundation Field Drilling

Functional Group: Geotechnical Structures / Foundations

Default Duration: 30 Days
Work: 200 Hours

Description: Using approved Structure Foundation Layout sheet, acquire all applicable access permits. Locate and drill soil borings or rock corings to determine geologic lithologies. Perform field soil/rock testing, and gather soil/rock samples to be submitted to the Soil Testing Unit of the Materials Testing Lab.

Resources:

Code	Title	% of hours
FD	Final Design - Materials - Foundation Design Section	40
FD	Final Design - Materials - Geotechnical/Bridge – Exploration Unit	60

Tasks:

ID	Title	Permit
1	Acquire approved structure layout sheets.	No
2	Locate soil borings and specify field sampling.	No
3	If there is a RR overpass, get Access Permit from RR.	Yes
4	If outside ROW, get Permit from the property owner.	Yes
5	Scope site for Utility Clearance and Permits.	Yes
6	Perform soils exploration and gather soil samples.	No
7	Submit soil/rock samples to Laboratory for testing.	No

#480 Structure and Foundation Lab Testing

Functional Group: Materials Lab

Default Duration: 25 Days
Work: 190 Hours

Description: After foundation samples are delivered to the Materials Laboratory, they are assigned numbers and logged into a sample database. The samples are then delivered to the Geotechnical and Foundation Section for their testing. At some future date the samples are returned to the Materials and Testing Section and tested to determine gradation, percent passing the #200 sieve, liquid limit, and plastic limit.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design - Materials Laboratory Soils Testing	100

Tasks:

ID	Title	Permit
1	Samples are delivered to Materials Laboratory.	No
2	Samples are numbered and entered into database.	No
3	Samples are delivered to Geotechnical and Foundation Section.	No
4	Samples are received from Geotechnical and Foundation Section.	No
5	Dry gradation analysis is performed.	No
6	Percent passing #200 sieve is determined.	No
7	Liquid Limit and Plastic Limit are determined.	No

#500 Prepare Final Traffic Control Plans

Functional Group: Traffic Technical Support

Default Duration: 15 Days
Work: 169 Hours

Description: The final traffic control plan will define the suggested sequence of construction. The plans will include specific traffic control signs and pavement marking plans for each phase of construction and final quantities for each required bid item.

Resources:

Code	Title	% of hours
FD	Final Design - Consultant - Project Development	5
FD	Final Design - Internal Design - Regional Design Division	20
FD	Final Design - Internal Design - Traffic Signal/Sign Unit	75

Tasks:

ID	Title	Permit
1	Update suggested sequence of construction.	No
2	Detailed sign and pavement marking plans.	No
3	Calculate final quantities.	No

#502 Prepare Permanent Signage Plans

Functional Group: Traffic Technical Support

Default Duration: 10 Days
Work: 169 Hours

Description: Prepare permanent signing and pavement marking plans.

Resources:

Code	Title	% of hours
FD	Final Design - Bridge - Design Unit	5
FD	Final Design - Consultant - Project Development	5
FD	Final Design - Internal Design - Project Development and Design	15
FD	Final Design - Internal Design - Traffic Signal/Sign Unit	75

Tasks:

ID	Title	Permit
1	Verify existing permanent signing.	No
2	Draft required new sign details.	No
3	Prepare permanent sign plans.	No
4	Prepare permanent pavement marking plans.	No
5	Calculate final quantities.	No

#503 Finalize Drainage Report

Functional Group: Drainage Design

Default Duration: 30 Days
Work: 200 Hours

Description: Determination and recommendation of the revised and/or final type and size of structures and other drainage features and improvements to be used on a project.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design - Drainage Design Hydraulics Unit	54
EDP&PD	Environmental Doc., & Preliminary Design - Drainage Design Hydrology Unit	17
EDP&PD	Environmental Doc., & Preliminary Design - Drainage Design Special Drainage Projects Unit	29

Tasks:

ID	Title	Permit
1	Review and revise Drainage Areas.	No
2	Review and revise survey data.	No
3	Review and revise Time of Concentration.	No
4	Review and revise Soil Classification and Curve Numbers.	No
5	Review and revise Discharges.	No
6	Analyze and select most feasible Drainage Structures.	No
7	Determine Headwater Depths.	No
8	Analyze and select permanent erosion control measures.	No
9	Analyze and select most feasible bridge opening.	No
10	Perform Bridge Backwater analyses.	No
11	Compare Bridge alternatives.	No
12	Analyze and select type and size of Channel Revetment.	No
13	Analyze scour and core measures.	No
14	Prepare Water Surface Profile.	No
15	Finalize Storm Drain design.	No
16	Finalize Lift Station design.	No
17	Design Detention/Retention Ponds.	No
18	Determine CME and TCP requirements.	No
19	Finalize report.	No

#504 Obtain Drainage Permits

Functional Group: Drainage Design

Default Duration: 70 Days
Work: 80 Hours

Description: Preparation of various Clean Water Act permit application forms for review and approval of other agencies.

Resources:

Code	Title	% of hours
FD	Final Design - Drainage - Hydraulics Unit	1
FD	Final Design - Drainage - Hydrology Unit	34
FD	Final Design - Drainage - Special Drainage Projects Unit	65

Tasks:

ID	Title	Permit
1	Prepare and submit 404 application forms to COE.	No
2	Coordinate approval of the 404 permit with COE.	Yes
3	Prepare and submit 401 application forms to NMED.	No
4	Coordinate approval of the 401 permit with NMED.	Yes
5	Prepare and submit ground water NOI forms to NMED.	No
6	Coordinate approval of the ground water NOI with NMED.	Yes

#505 Prepare Pollution Prevention Package (PPP)

Functional Group: Drainage Design

Default Duration: 20 Days
Work: 40 Hours

Description: In compliance with the NPDES general permit requirements, prepare a PPP package to eliminate the discharge of pollutants on the construction site.

Resources:

Code	Title	% of hours
FD	Final Design - Drainage - Hydraulics Unit	10
FD	Final Design - Drainage - Hydrology Unit	10
FD	Final Design - Drainage - Special Drainage Projects Unit	80

Tasks:

ID	Title	Permit
1	Evaluate site and develop design.	No
2	Assess hydrology.	No
3	Select control measures and design plan.	No
4	Prepare certification and notification.	No

#506 Complete Soil Testing Logs

Functional Group: Geotechnical Structures / Foundations

Default Duration: 30 Days
Work: 200 Hours

Description: Receive soil/rock samples and log-in from Field Exploration Unit. Prepare samples and perform direct shear, triaxial shear, consolidation, gradations, moisture contents, Atterberg limits of soil samples or unconfined compression of rock cores. Reduce test results and classify soils/rock according to USCS and AASHTO classifications or RMR ratings respectively. Prepare Soil Boring Summary and Test Reports/Logs. Submit Summary Reports/Logs to Foundation Engineer.

Resources:

Code	Title	% of hours
FD	Final Design - Materials Lab Geotechnical/Bridge Exploration Unit	30
FD	Final Design - Materials Lab - Geotechnical Design Unit	10
FD	Final Design - Materials Lab - Soils Testing Unit	60

Tasks:

ID	Title	Permit
1	Receive and log-in soil/rock samples from field.	No
2	Prep samples for testing.	No
3	Perform DSS/UU/Consolidated tests of soil samples.	No
4	Perform unconfined compression on rock cores.	No
5	Perform tests for gradations, moisture and Atterberg Limits.	No
6	Reduce test results.	No
7	Classify Soils/Rock to USCS or AASHTO classifications or RMR ratings.	No
8	Prepare Soil Boring Summary and Test Report/Logs.	No
9	Submit Soils Report/Logs to Foundation Engineer.	No

#508 Complete Final Geotechnical Design Report

Functional Group: Geotechnical Structures / Foundations

Default Duration: 30 Days
Work: 200 Hours

Description: Upon receipt of Soil Boring Summary and Test Reports/Logs: Perform Geotechnical analysis to determine creep and consolidation settlement or instability of roadway embankments, soil stabilization, excavation/rippability determination of rock cut sections, rockfall fencing/benches, cut/fill slope stability, steepened slope or special retaining walls, groundwater and subgrade drainage, shrink/ swell, subgrade cut depths, geotextile or other special treatments. Prepare Final Geotechnical Design Report to document all geotechnical design requirements to be included in the project.

Resources:

Code	Title	% of hours
FD	Final Design - Materials Lab - Geotechnical Design Unit	100

Tasks:

ID	Title	Permit
1	Perform geotechnical analysis.	No
2	Prepare Final Design Geotechnical Report.	No
3	Submit Final Design Geotechnical Report to PDE.	No

#510 Complete Final Structure and Foundation Design Report

Functional Group: Geotechnical Structures / Foundations **Default Duration:** 30 Days
Work: 200 Hours

Description: Upon receipt of Soil Boring Summary and Test Report/Logs from Field Exploration Unit and final structure foundation loads from Bridge Section, perform final bearing capacity, settlement, and lateral load analysis. Specify project specific load testing, dynamic testing, or integrity testing. Develop plan requirements for foundation notes, tables and specifications. Submit Foundation Report to Bridge Design.

Resources:

Code	Title	% of hours
FD	Final Design - Materials Lab - Foundation Design Section	100

Tasks:

ID	Title	Permit
1	Receive Soil Summary Reports/Logs.	No
2	Receive Final Foundation Loads from Bridge Design.	No
3	Perform Bearing Capacity/Settlement/Lateral Analysis.	No
4	Specify Load/Dynamic/Integrity Testing.	No
5	Specify plan requirements for notes, tables and specifications.	No
6	Develop Final Foundation Report.	No
7	Submit Report to Bridge Design.	No

#512 Complete Structure and Foundation Plans

Functional Group: Bridge Design

Default Duration: 90 Days
Work: 600 Hours

Description: Complete all structural details, General Notes and Special Provisions. Complete the Bridge plans. Check computations, quantities and plans. Get PDE the bridge/structural items and quantities. Design the substructure. Coordinate the substructure design with the State Foundation Engineer. Seal and sign final bridge plans.

Resources:

Code	Title	% of hours
FD	Final Design - Bridge - Bridge Design Unit	100

Tasks:

ID	Title	Permit
1	Complete Bridge/Structure plans.	No

#513 Prepare and Submit Specials/Notices Drafts to PS&E - *New Activity*

Functional Group: Regional Design Division & PDE

Default Duration: 5 Days
Work: 40 Hours

Description: The PDE shall prepare drafts of project-specific Special Provisions and applicable NTC's for formatting and contract preparation to the PS&E Bureau for incorporation into the contract and availability for the PS& E Review by the design team.

Resources:

Code	Title	% of hours
FD	Final Design - Consultant or Internal - Regional Design Division	100

Tasks:

ID	Title	Permit
1	Prepare draft for project-specific Special Provisions and NTC's.	No
2	Submit to PS&E Bureau.	No
3	Follow up with Specifications Unit and Authorization Unit.	No

#514 Complete Final Design Inspection Plans

Functional Group: Regional Design Division & PDE

Default Duration: 20 Days

Work: 160 Hours

Description: Complete construction plan sheets for the Final Design Inspection. Finalize design and quantities. Finalize construction signing, permanent signing, and all other related plan sheets. Finalize project estimate.

Resources:

Code	Title	% of hours
FD	Final Design - Consultant - Project Development	6
FD	Final Design - Internal Design - Regional Design Division	94

Tasks:

ID	Title	Permit
1	Incorporate all required plan sheets.	No
2	Address all Grade & Drain Inspection comments.	No
3	Finalize quantities.	No
4	Update cost estimate.	No
5	Complete final plan assembly.	No

#516 Submit Plans for DQA Review

- *New Activity*

Functional Group: Regional Design Division & PDE

Default Duration: 5 Days
Work: 40 Hours

Description: Transmit construction plans for Design Quality Assurance review to DQA Unit through a formal submittal process including a transmittal letter with vital information and anticipated schedule for the review process. Review findings with the DQA Unit. PDE shall address findings in the DQA Review Report and document actions taken or reasoning for leaving as is. PDE shall submit a response report to the DQA Unit.

Resources:

Code	Title	% of hours
FD	Final Design - Internal Design - Regional Design Division PS&E Bureau - DQA Unit	100

Tasks:

ID	Title	Permit
1	Incorporate all necessary and required plan sheets.	No
2	Transmit formal submittal of final plan and estimate assembly to DQA Unit including all project vital information and schedule	No
3	Review final plans and DQA report.	No
4	Address all comments and final changes through written response.	No

#518 Hold Final Design Inspection

- *MILESTONE*

Functional Group: Regional Design Division & PDE

Default Duration: 1 Day
Work: 8 Hours

Description: The Final Design Inspection is the last field review where the design team members can evaluate the design for necessary details and conformity to existing field conditions.

Resources:

Code	Title	% of hours
FD	Final Design - Consultant or Internal Design Regional Design Division	100

Tasks:

ID	Title	Permit
1	Schedule with appropriate design team members.	No
2	Transmit plans for review.	No
3	Conduct field review.	No

#520 Complete Final Design Inspection Report

Functional Group: Regional Design Division & PDE

Default Duration: 10 Days
Work: 40 Hours

Description: The Final Design Inspection Report will document comments and issues of concern discussed during the field review. All issues should be addressed by a proposed course of action consistent with the project scope.

Resources:

Code	Title	% of hours
FD	Final Design - Internal Design - Regional Design Division	100

Tasks:

ID	Title	Permit
1	Evaluate design team comments.	No
2	Write and review report.	No
3	Transmit report to design team members.	No

#522 Office Verification of ROW and Utility Requirements

Functional Group: Right-of-Way

Default Duration: 5 Days
Work: 25 Hours

Description: Based on completion of G&D Inspection plans, verify ROW and Utility relocation requirements.

Resources:

Code	Title	% of hours
FD	Final Design - ROW - Acquisition/Appraisal Unit	100

Tasks:

ID	Title	Permit
1	Review ROW needs as shown on plans.	No
2	Review Utility requirements as shown on plans.	No

#524 Authorize Utility Engineering

Functional Group: Utilities

Default Duration: 5 Days
Work: 16 Hours

Description: Utility ownership, complexity of relocations and status of the utility from a financial standpoint will determine what resources and activities are required. Duration is also dependent on several elements. This activity is based on information provided on construction plans.

Resources:

Code	Title	% of hours
FD	Final Design - ROW - Utilities	100

Tasks:

ID	Title	Permit
1	Authorize letter to utilities.	No
2	Special mail arrangements.	No
3	Mail letter with plans to all utilities.	No
4	Appropriate mail distribution.	No

#526 Obtain Utility Relocation Plans

Functional Group: Utilities

Default Duration: 90 Days
Work: 16 Hours

Description: This activity is associated with Activity #522 in that the work performed as a result of the utility engineering authorization will occur during the ninety day (plus or minus) period.

Resources:

Code	Title	% of hours
PS&E & A	PS&E & Authorization - ROW - Utilities	100

Tasks:

ID	Title	Permit
1	Secure relocation plans and permits from utilities.	Yes
2	Obtain appropriate contracts and other documents as required from utilities.	No
3	Review utility relocation plans and other documents.	No

#527 Secure Utility Relocation Funding

Functional Group: Utilities

Default Duration: 30 Days
Work: 16 Hours

Description: Secure and process contract(s) between each utility and the State for setting up funding to reimburse utility for relocation work.

Resources:

Code	Title	% of hours
PS&E & A	PS&E & Authorization - ROW - Budget and Audit Unit	20
PS&E & A	PS&E & Authorization - ROW - Utilities	80

Tasks:

ID	Title	Permit
1	Obtain final ROW Maps.	No
2	Assure all documentation for Utility relocation is in place.	Yes
3	Process all documents for appropriate approvals.	No
4	Assure all financial documents are in file.	No

#528 Authorize Utility Relocation

Functional Group: Utilities

Default Duration: 5 Days
Work: 8 Hours

Description: Provide the utility a letter authorizing them to proceed with the utility relocation on the project. Send out letter with appropriate documents that have been approved.

Resources:

Code	Title	% of hours
PS&E & A	PS&E & Authorization - ROW - Utilities	100

Tasks:

ID	Title	Permit
1	Provide letter to each utility authorizing relocation.	No
2	Send each utility approved relocation package.	No
3	Appropriate mail distribution.	No

#529 Prepare Utility Certification

Functional Group: Utilities

Default Duration: 1 Day
Work: 8 Hours

Description: Provide each utility a letter authorizing them to proceed with the utility relocation on the project. Send out letter with appropriate documents that have been approved.

Resources:

Code	Title	% of hours
PS&E & A	PS&E & Authorization - ROW - Budget and Audit Unit	20
PS&E & A	PS&E & Authorization - ROW - Utilities	80

Tasks:

ID	Title	Permit
1	Assure appropriate approvals are in place.	Yes
2	Ensure R/W has been secured.	Yes
3	Prepare and mail authorization letter.	No

#530 Authorize Railroad Engineering

Functional Group: Railroads

Default Duration: 180 Days

Work: 2 Hours

Description: This is an official letter to RR authorizing them to proceed with engineering activities for determination of impacts to Railroad and begin negotiating a State/Railroad Agreement for performing highway work within railroad property.

Resources:

Code	Title	% of hours
FD	Final Design - Transit Rail - Railroads	100

Tasks:

ID	Title	Permit
1	Secure construction plans and submit to RR, along with correspondence authorizing engineering activities. Plans must be post G&D Inspection to ensure no changes occur after RR Authorization.	Yes
2	Special mail arrangements to ensure and document delivery to RR.	No

#532 Obtain Railroad Agreement or Permit and Plans

Functional Group: Railroads

Default Duration: 180 *Days*
Work: 16 *Hours*

Description: This involves getting the formal agreement from the RR, reviewing it and getting approval from the Office of General Counsel. Ultimately, both the State and the RR owner must sign the agreement before action can be taken.

Resources:

Code	Title	% of hours
FD	Final Design - Transit Rail - Railroads	100

Tasks:

ID	Title	Permit
1	Review of RR/State Agreement.	No
2	Review of Agreement from the Office of General Counsel.	No
3	Approval of Agreement by Department.	No
4	Record and sign off by Tax & Rev.	No
5	Record and approval by Contracts Administration Section.	No
6	Prepare and submit RR Special Provisions to PS&E Bureau for inclusion in contract documents.	No
7	RR Protective Liability Insurance Arrangements.	Yes
8	Submit all required NTC's to PS&E Bureau for inclusion into contract documents.	No

#534 Secure Final Railroad Funding

Functional Group: Railroads

Default Duration: 30 Days
Work: 24 Hours

Description: This involves processing the State/RR agreement after it has been approved by Office of General Counsel and signed off by both parties. This involves recording and issuing a Contract No. by the Contracts Administration Unit, Tax & Rev Department approval and State and FHWA approval.

Resources:

Code	Title	% of hours
FD	Final Design - Contracts Admin - Contracts	25
FD	Final Design - ROW - Budget & Audit Unit	25
FD	Final Design - Transit Rail - Railroads	50

Tasks:

ID	Title	Permit
1	Submit documents to Contract Admin for Contract No.	No
2	Submit to Tax & Rev Department for approval.	No
3	Program Management/Funding Control Action	No
4	Submit to FHWA for approval.	No
5	Appropriate financial documents by Railroads FS.	No
6	Encumbrance of funds by Railroads. Approval by ROW B&U.	No
7	Encumbrance by Contracts Administration Section.	No
8	RR Special Provisions into contract documents	No
9	RR Protective Liability Insurance arrangements	Yes
10	Notices To Contractors	No

#536 Authorize Railroad Relocation

Functional Group: Railroads

Default Duration: 1 Day
Work: 8 Hours

Description: Formally authorize RR to proceed with the relocation work after all approvals have been secured.

Resources:

Code	Title	% of hours
FD	Final Design - Transit Rail - Railroads	100

Tasks:

ID	Title	Permit
1	Prepare RR construction authorization letter and send along with RR copy of documents.	No
2	Special mail arrangements (certified).	No
3	Distribution of appropriate contract documents to appropriate parties.	No

#538 Prepare Railroad Certification

Functional Group: Railroads

Default Duration: 1 Day
Work: 8 Hours

Description: This involves certifying that all arrangements have been made with the RR regarding required RR relocation work, as well as a statement (letter) regarding the status of the State/RR Agreement.

Resources:

Code	Title	% of hours
FD	Final Design - Transit Rail - Railroads	100

Tasks:

ID	Title	Permit
1	Preparation of correspondence regarding the status of RR arrangements.	No
2	Distribution of certification to PS&E Bureau and other staff.	No

#540 Office Review ROW Needs

Functional Group: Right-of-Way

Default Duration: 10 Days
Work: 25 Hours

Description: Based on preliminary design plan completion, evaluate ROW needs.

Resources:

Code	Title	% of hours
FD	Final Design - ROW - Acquisition Unit/Lands Abstract Unit	100

Tasks:

ID	Title	Permit
1	Review preliminary design plan slope limits.	No
2	Review ROW needs on plans.	No

#542 ROW Field Survey

Functional Group: Survey & Lands Engineering & ROW

Default Duration: 120 Days
Work: 4800 Hours

Description: When determination is made that additional ROW is needed and what areas of project are affected, PDE requests that the Survey & Lands Unit perform existing ROW survey along with adjacent ownership along affected areas for additional acquisitions. Perform research gathering existing ROW documentation, maps, and most recent ownership adjacent to the affected areas of the project. Prepare package and preliminary ownership maps for affected areas for surveyor to take to the field for use during actual field survey. Perform actual field survey after comprehensive field reconnaissance of existing monumentation along existing ROW lines and adjacent property boundaries. Utilizing professional judgment, the surveyor analyzes data gathered and determines actual locations of existing ROW and adjacent intersecting property lines. Perform a careful review of field work and prepare a CADD map depicting survey information and all data utilized in determination of existing ROW positions. Transmit ROW survey map and all data utilized in determinations to ROW Survey Mapping Unit for preparation of ROW maps for project development.

Resources:

Code	Title	% of hours
FD	Final Design - Survey & Lands - Research and Mapping Unit	6
FD	Final Design - Survey & Lands - Survey Crew	94

Tasks:

ID	Title	Permit
1	Receive existing ROW survey request from PDE.	No
2	Consult with PDE on scope of ROW survey.	No
3	Schedule field work as needed.	No
4	Prepare package of research maps and documents.	No
5	Research preliminary ownership/assessment maps.	No
6	Obtain location survey data if previously done.	No
7	Assure that title reports have started.	No
8	Obtain survey permission where needed.	No
9	Field survey of affected existing ROW and adjoining properties.	No
10	Compute field ROW alignments as needed.	No
11	Analyze data and determine actual ROW ownership.	No
12	Review and check field data.	No
13	Transmit for interim existing ROW Mapping.	No
14	Send transmittal letter to PDE.	No

#544 Title Reports

Functional Group: ROW Bureau

Default Duration: 30 Days
Work: 158 Hours

Description: Prepare 33 year title searches to determine current owner of record and any encumbrances affecting the property.

Resources:

Code	Title	% of hours
RWLANDAB	ROW - Lands Abstract Unit	100

Tasks:

ID	Title	Permit
1	Receive request for title search from PDE.	No
2	Request location map, if not in PDE request. Check with ROW Records Unit for any previous records and/or maps.	No
3	Obtain copies of County Assessor's records and maps.	No
4	Research County Clerk for documentation.	No
5	Research District Court for documentation.	No
6	Research County Treasure Office for documentation.	No
7	Enter maps filing information in Index Database.	No
8	Compile all documentation.	No

#546 Update and Transmit Final ROW Maps/Docs to ROW

Functional Group: Survey & Lands Engineering

Default Duration: 30 Days
Work: 480 Hours

Description: Upon completion of Final ROW maps, it will be reviewed and approved by the Lands Engineer, thus finalizing the ROW mapping process. Maps and Legal Descriptions (Legals) are then printed and distributed to the necessary individuals. The primary distribution is to ROW staff. The required number of sets is sent to ROW, with copies of Legal descriptions and original Title Reports. The legal descriptions are entered into the Right/Legal Description shared drawer. A folder for each CN is created in this drawer where the supervisor of the Lands Engineering Unit enters the Legals in the specific deed format necessary. The Lands Engineering Unit Supervisor will make changes when necessary, otherwise the shared drawer has read/print access only. ROW maps will be revised as required after Final ROW Maps and Legals have been submitted. A written request for any changes must be submitted stating the reason for said change in order to justify any changes.

NOTE: ***THERE ARE NO ACTIVITIES FOR THIS PROCESS INVOLVING CONSULTANT PROJECTS, WHICH ARE REVIEWED BY THE VERIFICATIONS UNIT OF THE LANDS ENGINEERING UNIT.***

Resources:

Code	Title	% of hours
FD	Final Design - Survey & Lands - Cadastral Mapping Unit	70
FD	Final Design - Survey & Lands - Survey & Lands Engineering	30

Tasks:

ID	Title	Permit
1	Prepare legal descriptions using appropriate forms.	No
2	Have ROW maps printed for proper distribution.	No
3	Prepare letter of transmittal defining project	No
4	Distribute to ROW, the District and PDE.	No
5	Get pertinent signatures for receipt of documents.	No
6	Have maps filed in appropriate drawers.	No
7	Enter maps filing information in Index Database.	No
8	Revisions to ROW maps with written request only.	No
9	Resubmit revised ROW maps and legals	No

#548 Appraise Parcels

Functional Group: Right-of-Way

Default Duration: 45 Days
Work: 300 Hours

Description: Appraise properties to determine fair market value and initiate request for ROW funding authorization from Funding Control Unit.

Resources:

Code	Title	% of hours
FD	Final Design - ROW - Appraisal Unit	98
FD	Final Design - ROW - Budget and Audit Unit	2

Tasks:

ID	Title	Permit
1	Identify appraisal problem.	No
2	Research market for comparables.	No
3	Compile report and forward for review.	No
4	Prepare parcel summary sheet.	No
5	Check for environmental clearance.	Yes
6	Verify in STIP and send form to PDE.	Yes
7	Request estimates from Acquisition, Water & Relocation Unit.	No
8	Prepare Project Master Input Form.	No
9	File Fed Form in STIP via InTrans.	No
10	Send documents to Funding Control Unit for approval.	No
11	Advise Acquisition about approval.	No
12	Encumber funds in SHARE.	Yes

#552 Acquire Required ROW

Functional Group: Right-of-Way

Default Duration: 45 Days
Work: 260 Hours

Description: Negotiate with property owner in order to acquire ROW.

Resources:

Code	Title	% of hours
FD	Final Design – ROW - Acquisition Unit	60
FD	Final Design - ROW - Appraisal Unit	10
FD	Final Design – ROW - Budget and Audit Unit	20
FD	Final Design - ROW - Review Appraisal Unit	10

Tasks:

ID	Title	Permit
1	Prepare offer package.	No
2	Set up meeting with property owner.	No
3	Present formal offer to property owner.	No
4	Owner considers offer.	No
5	Follow-up with property owner.	No
6	If property owner signs the offer, prepare payment package.	No
7	Budget and Audit Unit reviews package and requests a check.	No
8	Budget and Audit mails check to owner.	No

#554 Certify ROW

Functional Group: Right-of-Way

Default Duration: 1 Day
Work: 3 Hours

Description: Certify in writing to FHWA and/or Design Section that all ROW has been secured.

Resources:

Code	Title	% of hours
FD	Final Design - ROW - Acquisition Unit	100

Tasks:

ID	Title	Permit
1	Prepare ROW certification letter.	No
2	Obtain operation section chief's signature.	No
3	Distribute copies of ROW certifications.	No

#560 Obtain ITS Certification

– *New Activity*

Functional Group: Intelligent Transportation System

Default Duration: 1 Day
Work: 3 Hours

Description: Certify ITS certification in writing to FHWA, PDE and all respective functional groups. Insure that all systems engineering planning requirements have been met.

Resources:

Code	Title	% of hours
FD	Final Design - ITS	100

Tasks:

ID	Title	Permit
1	Review final ITS elements.	No
2	Approve all project signatures.	No
3	Submit ITS project certification.	No

#549 Prepare Pre-Final Monumentation Map

Functional Group: Survey & Lands Engineering

Default Duration: 60 Days
Work: 360 Hours

Description: The pre-final monumentation maps are prepared for the in-house location surveyors, or for the district monumentation surveyors. These maps are dependent upon the final ROW maps from the Lands Engineering Unit and the ROW certification letter from ROW. These maps are utilized for the field staking of any ROW parcels, CME's and other newly acquired Department ROW. The consultant pre-final monumentation maps are submitted to the Monumentation Unit for review as to compliance with ROW standards and subsequently for County Clerk Office reduction.

Resources:

Code	Title	% of hours
EDP&PD	Environmental Doc., & Preliminary Design Monumentation Crew - Survey & Lands Engineering	60
EDP&PD	Environmental Doc., & Preliminary Design R/W Map Verification Unit - Survey & Lands Engineering	20
EDP&PD	Environmental Doc., & Preliminary Design Survey & Lands Engineering	20

Tasks:

ID	Title	Permit
1	Review final ROW maps for pre-final monumentation.	No
2	Prepare pre-final monumentation maps for in-house designs.	No
3	Monumentation field work.	No

#550 Prepare Final Monumentation Map and Field Stake

Functional Group: Survey & Lands Engineering

Default Duration: 30 Days
Work: 240 Hours

Description: After the in-house location surveyors, the District Monumentation surveyors or the consultant monumentation surveyors complete the field staking of any new ROW required and have red-lined any changes to the pre-final monumentation maps, the Survey & Lands Engineering Section, Monumentation Unit can complete any final changes to the mapping. These final monumentation maps are then signed and sealed by the responsible surveyor, and returned to the Monumentation Unit.

Resources:

Code	Title	% of hours
FD	Final Design - Survey & Lands - Monumentation Crew	20
FD	Final Design - Survey & Lands Engineering	80

Tasks:

ID	Title	Permit
1	Process and complete all red-line changes.	No
2	Complete final monumentation maps.	No
3	Follow-up for surveyor signatures.	No
4	Submit final maps to the Monumentation Unit.	No

#600 Complete PS&E Review Contract Package

Functional Group: Regional Design Division & PDE

Default Duration: 28 Days
Work: 160 Hours

Description: Prepare and complete the PS & E Review Contract project package for availability at the PS & E Review for Federal or State Oversight review and approval.

Resources:

Code	Title	% of hours
PS&E & A	PS&E & Authorization - Project Development and Design	100

Tasks:

ID	Title	Permit
1	Review final project plans.	No
2	Review all project certifications.	No
3	Review final project estimate.	No

#610 Record Monumentation Map

Functional Group: Survey & Lands Engineering

Default Duration: 7 Days
Work: 24 Hours

Description: The Surveying & Lands Engineering Section, Monumentation Unit upon receipt of the signed and sealed final monumentation maps, coordinates with the various New Mexico County Clerks as to the recording fees and number of copies needed for the final recordation of these maps. The Monumentation Unit coordinates the PO request through the Budget Section acquiring the proper warrants. The Monumentation Unit is responsible for the actual recordation of these maps at the various New Mexico County Clerk offices. The recorded final monumentation maps are then distributed to the Districts or the Consultants and filed in the Monumentation Unit Office.

Resources:

Code	Title	% of hours
PS&E & A	PS&E & Authorization - Survey & Lands - Monumentation Crew	100

Tasks:

ID	Title	Permit
1	Coordinate with county clerk for copies and fees.	No
2	Coordinate PO request with Budget Section.	No
3	Distribute maps to Districts, Consultants and office files.	No

#611 Submit Engineer's Estimate for DQA Review

– New Activity

Functional Group: Regional Design Division & PDE

Default Duration: 5 Days
Work: 40 Hours

Description: Verify and incorporate final quantities. Establish funding & municipal boundary details. Generate Engineer's Estimate on Estimator. Transmit estimate for Design Quality Assurance review to DQA Unit through a formal submittal process including a transmittal letter with vital information and anticipated schedule for the review process. Submit estimate ".XML" electronic file and make plans available to DQA Unit for pricing review. Review findings with DQA Unit. PDE shall address findings and subsequent recommendations in the DQA Review Report and document pricing revisions or reasoning for leaving as is. PDE shall submit a written response report to the DQA Unit.

Resources:

Code	Title	% of hours
PS&E & A	PS&E & Authorization – PDE All Projects	100

Tasks:

ID	Title	Permit
1	Incorporate all required estimate data.	No
2	Adhere to all comments and final changes.	No
3	Review and approve final cost items.	No
4	Review and approve final cost estimate	No
5	Transmit formal submittal of Engineer's Estimate to DQA Unit.	No
6	Review DQA findings and recommendations.	No
7	Finalize Engineer's Estimate.	No
8	Submit written response and actions feedback to DQA Unit.	No

#612 Hold PS&E Review Meeting - *MILESTONE*

Functional Group: Regional Design Division & PDE

Default Duration: 1 Day
Work: 8 Hours

Description: The PS&E Review is a collective review of the complete design package. The plans, associated specifications, cost estimate and required certifications and permits should be reviewed and verified for compatibility.

Resources:

Code	Title	% of hours
PS&E & A	PS&E & Authorization - Consultant or Internal Project Development	25
PS&E & A	PS&E & Authorization - Internal Design Regional Design Division	75

Tasks:

ID	Title	Permit
1	Schedule with appropriate design team members.	No
2	Transmit plans, project specific Special Provisions and the Engineer's Estimate for review.	No
3	Conduct PS& E Review.	No

#614 Complete PS&E Review Report

Functional Group: Regional Design Division & PDE

Default Duration: 5 Days
Work: 40 Hours

Description: The PS&E Review report will document comments and issues of concern discussed at the Review. All issues will be addressed by a proposed course of action consistent with the project scope. Certification dates and permit approval dates should be noted.

Resources:

Code	Title	% of hours
PS&E & A	PS&E & Authorization - Internal Design Regional Design Division	100

Tasks:

ID	Title	Permit
1	Evaluate design team comments.	No
2	Write and review Report.	No
3	Transmit report to design team.	No

#616 Make PS&E Review Revisions

Functional Group: Regional Design Division & PDE

Default Duration: 10 Days

Work: 166 Hours

Description: Revise final plans as per comments made at the PS&E Review meeting. Update project cost estimate.

Resources:

Code	Title	% of hours
PS&E & A	PS&E & Authorization - Consultant or Internal - Project Dev.	3
PS&E & A	PS&E & Authorization - Internal Design - Regional Design Div.	97

Tasks:

ID	Title	Permit
1	Make plan revisions as per PS&E Review comments.	No
2	Update cost estimate.	No

#617 Complete Authorization Package

Functional Group: Regional Design Division & PDE

Default Duration: 7 Days
Work: 40 Hours

Description: Compile all certifications and project package and submit project package on Production Date for Authorization, Advertisement, and Letting to PSE Bureau.

Resources:

Code	Title	% of hours
PS&E & A	PS&E & Authorization - Project Development and Design	100

Tasks:

ID	Title	Permit
1	Approve final project plans.	No
2	Approve all project certifications.	No
3	Approve final project estimate.	No

#618 Authorize Project

Functional Group: PS&E Bureau

Default Duration: 10 Days
Work: 52 Hours

Description: Prepares and submits the “9 Day Letter” to FHWA, in accordance with the FHWA/Plan Submittal deadline indicated on the letting schedule, the Authorization Unit. The 9-Day Letter informs FHWA of the projects scheduled for its monthly bid opening(s). The letter indicates Federal/State Oversight Projects, any alternates and any previous authorizations. In addition, the State-funded projects are also indicated. The authorization package consists of the following: 9-Day Letter; Environmental/Archaeological Clearance Dates; Production Submittal Checklist (Plans, Earthwork Runs, Cross Sections, Certifications, the Engineer’s Estimate (EE), Contract Time and Environmental/Archaeological Clearance Dates). The State Construction Liaison Engineer completes the Fed Form for federally funded projects and submits to the Authorization Unit. The Authorization Unit completes the Fed Form by entering the EE (including Engineering & Contingencies and Gross Receipts Taxes) and submits to the Funding Control Unit. The Funding Control Unit identifies the funding sources for the project as defined in the STIP or the TIP. The Funding Control Unit enters all Fed Form data into FMIS for FHWA approval.

Resources:

Code	Title	% of hours
PS&E & A	PS&E & Authorization - PS&E Bureau - Authorization Unit	80
PS&E & A	PS&E & Authorization - Funding Control Unit	15
PS&E & A	PS&E & Authorization - State Construction Bureau	5

Tasks:

ID	Title	Permit
1	Assemble authorization package.	No
2	Generate and complete the Fed Form.	No
3	Submit Fed Form to Funding Control Unit.	No
4	Transmit authorization package to FHWA requesting authorization to advertise projects.	No

#620 Prepare for Advertisement

– New Activity

Functional Group: PS&E Bureau

Default Duration: 15 Days
Work: 1175 Hours

Description: The advertising process begins seven weeks prior to the bid opening. In accordance with the FHWA/Plan submittal deadline indicated on the Letting Schedule, the Designer/PDE submits plans to the PS&E Bureau. The Project Letting Unit establishes the project information defined on the IFB including project termini and type of work and DBE goals and OJT trainees and hours. The Letting Unit coordinates with the Specs Unit on the Special Provisions required on the projects. The Letting Unit performs a review of the plans making a comparison of the plan schedule quantities to the quantities indicated on the Summary of Quantities. Errors and/or omissions are corrected. The Letting Unit prepares the estimate files required for internet bidding. The Letting Unit submits plans for printing two week prior to advertising. The Letting Unit posts plans and the electronic bidding files on the Bid Express website. The Specs Unit reviews the spec listing generated by the Letting Unit and provides project-specific Special Provisions. The Contracts Unit develops the contract documents. The wage rates are ordered. The Contracts Unit submits contract documents for printing one week prior to advertising. The Contracts Unit posts contract documents on the Bid Express website. The Contracts Unit posts the IFB on the Department's external website. The Authorization Unit generates the NTCs and generates the IFB and Notice of IFB. The Notice of IFB is released to the Santa Fe New Mexican, Albuquerque Journal and the Las Cruces Sun News one week prior to the first day of advertising.

Resources:

Code	Title	% of hours
PS&E & A	PS&E & Authorization - PS&E Bureau - Letting Unit	30
PS&E & A	PS&E & Authorization - PS&E Bureau - Contracts Unit	25
PS&E & A	PS&E & Authorization - PS&E Bureau - Project Letting Unit	5
PS&E & A	PS&E & Authorization - PS&E Bureau - Reprographics Unit	25
PS&E & A	PS&E & Authorization - PS&E Bureau - Authorization Unit	5
PS&E & A	PS&E & Authorization - PS&E Bureau - Specifications Unit	10

Tasks:

ID	Title	Permit
1	Prepare projects for advertisement	No

#622 Advertise Project

Functional Group: PS&E Bureau

Default Duration: 21 Days
Work: 920 Hours

Description: Typically, the Department has one letting per month with a three week advertising period. The Contracts Unit sends out the plans and contract books as requested. The Contracts Unit maintains these requests and generates the PH listing. The PH listing is sent out ten calendar days prior to the bid opening. The Contracts Unit posts the PH on the Department's external website. The Specs Unit attends the pre-bid conferences and advises the Project Letting Unit of revisions to be addressed through addendum. The Project Letting Unit reviews the requests for addenda and makes the decision on which items are included in the addenda. The Project Letting Unit, in coordination with the PDE, develops the addenda including the changes required on the bid schedule. The Project Letting Engineer requests FHWA/State Construction Bureau approval of all major addenda issued. The Letting Unit posts the electronic bidding amendment files on the Bid Express website. The Contracts Unit reviews the addenda, including the attachments. The Contracts Unit distributes and posts the addenda on the Bid Express website. The Reprographics Unit prints additional plans/contract documents as required. The Contracts Unit generates the Letting cards used in the bid opening. The Project Letting Unit opens bids.

Resources:

Code	Title	% of hours
PS&E&A	PS&E & Authorization - PS&E Bureau - Letting Unit	10
PS&E&A	PS&E & Authorization - PS&E Bureau - Contracts Unit	40
PS&E&A	PS&E & Authorization - PS&E Bureau - Project Letting Unit	15
PS&E&A	PS&E & Authorization - PS&E Bureau - Reprographics Unit	25
PS&E&A	PS&E & Authorization - PS&E Bureau - Specifications Unit	10

Tasks:

ID	Title	Permit
1	Advertisement of Projects	No

#624 Final Pricing Review Before Bid Opening

– *New Activity*

Functional Group: PS&E Bureau

Default Duration: 5 Days
Work: 40 Hours

Description: The PS&E Bureau reviews the pricing of projects prior to the bid opening. The PS&E Bureau Chief, DQA Unit and Letting Unit meet prior to the bid opening (typically the Monday before the Friday bid opening). Typically, the surfacing items (Base Course, Hot Mix Asphalt and Open Graded Friction Course) are reviewed with the most current bid data as these items are more susceptible to market trends and material availability. Other major items (10% of project cost or more) and lump sum item prices are also reviewed. The Letting Unit will advise the PDE of any pricing revision recommendations and request their final input regarding those prices. Changes to pricing are made with PDE approval only.

Resources:

Code	Title	% of hours
PS&E & A	PS&E & Authorization - PS&E Bureau - DQA Unit	75
PS&E & A	PS&E & Authorization - PS&E Bureau	5
PS&E & A	PS&E & Authorization - PS&E Bureau - Letting Unit	20

Tasks:

ID	Title	Permit
1	Establish Final Pricing on all Items for Projects.	No

#626 Open Bids

– *New Activity* - **MILESTONE**

Functional Group: PS&E Bureau

Default Duration: 1 Day
Work: 4 Hours

Description: Open bids, typically on the third Friday of each month. The apparent bid results are posted on the Bid Express website and on the Department's external website.

Resources:

Code	Title	% of hours
PS&E & A	PS&E & Authorization - PS&E Bureau - Project Letting Unit	90
PS&E & A	PS&E & Authorization - PS&E Bureau - Contracts Unit	10

Tasks:

ID	Title	Permit
1	Open and announce all project bids that were submitted by the bidders.	No
2	Post apparent bid results on the Department's external website.	No

#628 Review Bids

Functional Group: PS&E Bureau

Default Duration: 10 Days
Work: 64 Hours

Description: The Contracts Unit generates the bid tabulations the day of the bid opening. The Bid Analysis Construction Section generates the Line Item Profiles used for the bid analysis. The Bid Review Committee reviews the bids and makes recommendations on award to the Deputy Chief Engineer (for concurrence) and the Deputy Secretary (for approval). In addition to the pricing review, the Bid Review Committee reviews the contractual requirements. When required, the Bid Review Committee requests pricing clarification from the PDE and the bidders. The Contracts Unit posts the bid tabulations on the Bid Express website. The Project Letting Unit posts the Line Item Profiles on a shared drive for Department information. The Contracts Unit generates the cost estimates indicating contractor pricing. The Contracts Unit submits the cost estimates to the Funding Control Unit for a final review of funding sources.

Resources:

Code	Title	% of hours
PS&E & A	PS&E & Authorization - OIG - Bid Analysis Construction Section	5
PS&E & A	PS&E & Authorization - Bid Review Committee	75
PS&E & A	PS&E & Authorization - PS&E Bureau - Contracts Unit	15
PS&E & A	PS&E & Authorization - PS&E Bureau - Project Letting Unit	5

Tasks:

ID	Title	Permit
1	Review and make award recommendations.	No
2	Submit cost estimates to Funding Control Unit.	No

#630 Award Contracts - MILESTONE

Functional Group: PS&E Bureau

Default Duration: 20 Days
Work: 144 Hours

Description: The PS&E Bureau prepares the award recommendations, including pricing clarifications and any updates to conditional certifications as specified by the Authorization Engineer. The PS&E Bureau submits award recommendations to management for their concurrence and approval. The PS&E Bureau requests the concurrence in award from FHWA for Federal-Oversight projects and the State Construction Liaison Engineer for State-Oversight projects. Upon attaining approval and concurrence, the PS&E Bureau generates the Notices of Award and submits to the Procurement Section for issuance to the awarded contractor. The PS&E Bureau faxes the Notices of Award. The Project Letting Unit makes any funding changes requested by the Funding Control Unit. The Contracts Unit then generates the final detail estimates and makes distribution. The Project Letting Unit generates the electronic files used for construction management of the project. If there is a bid protest, deadlines are extended accordingly.

Resources:

Code	Title	% of hours
CONST	Construction - PS&E - PS&E Bureau	85
CONST	Construction - PS&E - Project Letting Unit	5
CONST	Construction - PS&E - Contract Units	5
CONST	Construction - PS&E - Authorization Unit	5

Tasks:

ID	Title	Permit
1	Award construction contracts.	No

#700 Issue Notice to Proceed

– New Activity

Functional Group: Contracts Administration Section

Default Duration: 30 Days
Work: 160 Hours

Description: When the Notice(s) of Award has been issued by the PS&E Bureau, the Required Contract Documents are also sent to the Contracts Section. The Contracts Section will advise the awarded contractor, via e-mail, of the Department's intent to award the contract and will request the documents indicated on the Notice of Award to be completed and returned within 15 calendar days of the e-mail. After receiving the completed documents, the Contracts Section checks the documents for validity. The NTP is generated and with the completed documents is then sent to the Deputy Secretary of Administrative Services for signature, executing the contract. The Contracts Section will provide Tax ID to Tax and Rev for verification purposes. Work order dates are coordinated with the ADE. The NTP is issued, via e-mail, to the contractor. The Required Contract Documents are sent to PS&E for distribution. After PS&E issues the final Detail Estimates, the Contracts Section creates the contract in SHARE. The Funding Control Unit then encumbers the funds for the project allowing for payment to the contractor as work progresses.

Resources:

Code	Title	% of hours
CONST	Construction – Contracts Administration Section	75
CONST	Construction - Contracts Unit, PS&E	5
CONST	Construction - Deputy Secretary	20

Tasks:

ID	Title	Permit
1	Request completed documents from contractor.	No
2	Check returned documents.	No
3	Prepare NTP and sent documents to Deputy Secretary for signature.	No
4	Verify Tax ID with Tax and Rev.	No
5	After work order dates are coordinated with ADE the NTP is issued.	No
6	Create contract in SHARE.	No

#701 Submit Pre-Con Package to Project Manager – *New Activity*

Functional Group: District Engineer/ Regional Design
Division & PDE

Default Duration: 5 Days
Work: 40 Hours

Description: Submit critical project file documents to Project Manager (PPP, work permits, cross sections, earth runs, ROW maps, etc.). Hold Pre Con Meeting.

Resources:

Code	Title	% of hours
CONST	Construction - District Engineer	100

Tasks:

ID	Title	Permit
1	PM receives Pre Con package and holds Pre Con Meeting.	No

#702 Railroad Company Relocation Construction Activities

Functional Group: Railroads

Default Duration: 90 Days
Work: 24 Hours

Description: Actual Railroad relocation activities prior to or concurrent with highway construction. Duration is variable.

Resources:

Code	Title	% of hours
CONST	Construction - ROW - Budget and Audit Unit	20
CONST	Construction - Transit Rail - Railroads	80

Tasks:

ID	Title	Permit
1	RR relocation.	No
2	Project Mgr. Oversight.	No
3	Railroads monitoring.	No
4	As-Builts and E-Files of work within RR Property	No
5	As-Built electronic files	No
6	On-Site safety training by RR forces.	Yes
7	Continued coordination with PM utilities.	No
8	On-Site flagging protection by RR forces.	No
9	Invoices for Railroad	Yes
10	Periodic review and approval of reimbursement.	No

#704 Utility Company Relocates Utility

Functional Group: Utilities

Default Duration: 90 Days
Work: 16 Hours

Description: Involves actual relocation construction activities by utility company; some may be prior to highway construction and some may be concurrent with highway construction. The duration of this activity involves many variables that are project specific and may require in excess of 90 days.

Resources:

Code	Title	% of hours
CONST	Construction - ROW - Budget and Audit Unit	25
CONST	Construction - ROW - Utilities	75

Tasks:

ID	Title	Permit
1	Actual utility construction.	Yes
2	PM oversight.	Yes
3	Preparation of Utility As-Builts.	Yes
4	Develop electronic utility location file.	Yes
5	Periodic review and payment of invoices.	Yes
6	Perform Field Inspections.	No

#706 Utility/Railroad Pre-Construction Conference

Functional Group: Railroads & Utilities

Default Duration: 1 Day
Work: 24 Hours

Description: Conduct both Utility and Railroad Pre-Construction Conferences.

Resources:

Code	Title	% of hours
CONST	Construction - Transit Rail - Railroads and ROW - Utilities	100

Tasks:

ID	Title	Permit
1	Assure Railroads and Utilities reps are at conference.	No
2	Assure all Railroads and Utilities arrangements are complete.	No
3	Attend Pre-Construction Conference.	No
4	Assure PDE/PM schedules conference and advise as necessary.	No
5	At the Pre-Construction Conference, ensure compatibility of Utility/Railroad construction with Highway work.	No

APPENDIX A

Glossary of Acronyms and Terms

AADT	Annual Average Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
ADE	Assistant District Engineer
CADD	Computer
CE	Categorical Exclusion
CHDB	Consolidated Highway Database
CME	Construction Maintenance Easement
CMU	Construction Management Unit
CN	Control Number
COE	Corp Of Engineers
CR	Cultural Resources
DBE	Disadvantaged Business Enterprises
DEA	Detail Evaluation of Alternates
DHV	Design Hour Volume
DQA	Design Quality Assurance
DSI	Detail Site Investigation
DS	Direct Shear
EA	Environmental Assessment
EE	Engineer's Estimate
ESAL	Equivalent Single-Axle Load
FCU	Funding Control Unit
Fed Form	Federal Project Authorization Form
FHWA	Federal Highway Administration
FMIS	FHWA Fiscal Management Information System
FONSI	Finding Of No Significant Impact
GPS	Global Positioning System
GRT	Gross Receipts Taxes
IFB	Invitation For Bids
ISA	Initial Site Assessment
ITS	Intelligent Transportation System
MOA	Memorandum Of Agreement
MPO	Metropolitan Planning Organization
NMED	New Mexico Environment Department
NOI	Notice Of Intent
NPDES	National Pollutant Discharge Elimination System
NTC	Notice To Contractors
NTP	Notice To Proceed
OJT	On-The-Job Training
OS	Oversight
P&P	Plan & Profile
PDE	Project Development Engineer
PFR	Preliminary Field Review
PFR	Preliminary Field Review
PH	Plan Holders

	PM	Project Manager
	PO	Purchase Order
	PPP	Pollution Prevention Package
	PSI	Preliminary Site Investigation
	PSR	Preliminary Scoping Report
	RFP	Request For Proposals
Required Contract Documents		Required Contract Documents For Bid Submittal Package
	RMR	Rock Mass Rating
	ROW	Right-Of-Way
	RR	Railroad
	SEE	Social, Economic and Environmental
	SHARE	Statewide Human Resources Accounting and Management Reporting System
	SHPO	State Historic Preservation Office
Specifications Unit		Standards and Specifications Unit
	STIP	Statewide Transportation Improvement Programs
	SUE	Subsurface Utility Engineering
Tax & Rev		Taxation & Revenue Department
	TCP	Temporary Construction Permit
	TIP	Albuquerque Metropolitan Plan Area Transportation Improvement Program
	TRADAS	Traffic Data System
	USGS	United States Geological Survey
	UU	Unconsolidated Undrained
	VE	Value Engineering