TABLE OF CONTENTS

Revised 4/24/2012

MANAGEMENT UNIT 2500 ..... CONSULTANT DESIGN

General Information:

The Consultant Design Unit is part of the Pre-Construction Division.

Contacts:

2500-Tim Conway-444-7292	tconway@mt.gov
2501-Fred Bente- 444-7634	fbente@mt.gov
2502-Mike Dalsoglio - 444-6250	mdalsoglio@mt.gov
2503-Vacant -	
2504-Mark Studt - 444-9191	mstudt@mt.gov
2505-Bryan Miller - 444-9413	brmiller@mt.gov
2506-Blair Nordhagen - 444-9128	bnordhagen@mt.gov
2507-Gabe Priebe - 444-5446	gpriebe@mt.gov
2508-Vacant	
2509-Miki Lloyd- 444-6118	mlloyd@mt.gov
2510-Kevin Malone- 444-9369	kmalone@mt.gov
2511-Vacant-	

ACTIVITY 100 Interactive Project Evaluation

DEFINITION:

Meet to scope the project. This will enable the consultant to prepare a scope of services, cost proposal and schedule.

TASKS:

1. Attend scoping meeting.
   1.1. Discuss with MDT the timing requirements for the Notice of Intent.
2. Determine project activities, develop scope of services and cost proposal.
3. Prepare Consultant activity durations for all applicable flowchart activities.
   1.2. Develop a QA /QC plan for an independent technical and editorial review process for all environmental document submittals.
4. Request, from MDT, the completed Level of Environmental Documentation Form. (This document may be obtained by the MDT Consultant Project Engineer from the Environmental Project Development Engineer.)
5. Monthly meetings.
   1.3. For Environmental Assessment (EA) and Environmental Impact Statement (EIS): Working Group monthly meetings are required by MDT practice. Determine Working Group participants.
   1.4. For Categorical Exclusions (CE): Frequency of meetings to be agreed upon by MDT Consultant Project Engineer and Environmental Project Development Engineer.
6. If the scoping meeting minutes will serve as the Preliminary Field Review (PFR) for the project, prepare the document in accordance with the PFR requirements as outlined in the MDT Road Design Manual.
7. Determine if pavement deflection data will be required for the project. Consultant will notify the MDT Consultant Project Engineer who will notify the MDT Non-Destructive Testing Supervisor in the Materials Bureau for scheduling.

NOTE:

The following terms apply to the National Environmental Policy Act (NEPA) process:

1. Working Group – includes required participation by MDT, FHWA and the consultant.
2. Focus Group – includes the Working Group and participation of other groups (public or private) as necessary.

START DEPENDENCIES:

Selection of a consultant by the Consultant Selection Board.

DELIVERABLES:

1. Prime consultant must submit:
   1.1. Prime consultant must submit their audited indirect cost rate information calculated in accordance with 23 CFR 172.7(b) for the cost principles of 48 CFR part 31 at the scoping meeting.
   1.2. Prime consultants providing non-engineering professional services such as cultural work or noise studies with a cumulative contract value of less than $100,000, measured on a per contract basis, will not be required to obtain an audited indirect cost rate. However, the un-audited indirect cost rate must be submitted and be calculated in accordance with 23 CFR 172.7(b) for the cost principles of 48 CFR part 31. Firms that have a current audited indirect cost rate available will be required to provide them.
2. Submit Scoping Meeting Minutes within 7 calendar days of Scoping Meeting.
3. Submit Consultant activity durations for all applicable flowchart activities.
4. Submit Scope of Services and cost proposal within 21 calendar days of Scoping Meeting.
   4.1. Provide audited indirect cost rate information calculated in accordance with 23 CFR 172.7(b) for the cost principles of 48 CFR part 31 for all professional services sub-consultants with an anticipated cumulative contract value of greater than $100,000, measured on a per contract basis.
   4.2. Subconsultants providing engineering or non-engineering professional services with a cumulative contract value of less than $100,000, measured on a per contract basis, will not be required to obtain an audited indirect cost rate. However, the un-audited indirect cost rate must be submitted and be calculated in accordance with 23 CFR 172.7(b) for the cost principles of 48 CFR part 31. Firms that have a current audited indirect cost rate available will be required to provide them.
5. Include Consultants standard QA/QC process for proposed work or a specific Project Quality Plan if required.
6. Negotiations completed within 9 weeks from the Consultant Selection Board meeting. Contract executed within 11 weeks from the Consultant Selection Board meeting.

ACTIVITY 102 Preliminary Roadway Design

CORRESPONDING MDT REVIEW ACTIVITY:

260 Preliminary Roadway Review

DEFINITION:

Conduct preliminary design meetings and determine preliminary design criteria.

TASKS:

Draft and distribute News Release (202 and 652)

Submit draft news release to MDT for review by Public Involvement Officer and District Administer. Receive and incorporate MDT comments and return to MDT for distribution to news agencies.

Prepare for and conduct informational meeting (205 and 654)

1. Prepare draft Notice of Intent (NOI) for FHWA to forward to Federal Register (Environmental Impact Statement (EIS) Projects only).
2. For Environmental Assessment's (EA) or EIS's, comments and opportunities, determine a deadline for replies then publicize by public notice and direct mailings the preliminary scope of the project and invite appropriate responses. Arrange date and place for meeting through lead agent and district office. Notify the public of the meeting by public ad notice and direct mailing. Conduct the appropriate gathering.
3. Reference the Scoping Meeting document to determine the level of public involvement. Prepare the following, as applicable:
   3.1. Prepare displays for the public meeting.
   3.2. Establish preliminary corridor alternates.
   3.3. Prepare preliminary cost estimates for the alternates being considered.
4. For projects that require an EA or EIS, additional public involvement may be required.

Preliminary plan preparation (212)

1. Compile survey.
2. Compile design data.
3. Initiate preliminary design.
   3.1. Prepare preliminary plans.
   3.2. Prepare cross sections.
   3.3. For urban routes, establish alternative preliminary typical sections, i.e., number of lanes, pedestrian and bicycle facilities, etc.
   3.4. For rural routes, establish the preliminary sub-grade template sections based on "worst case" typical section.

START DEPENDENCIES:

Completion of Activity 100

DELIVERABLES:

1. Completed MDT review activity 260 checklist.
2. Public/Informational meeting minutes

ACTIVITY 103 Preliminary Conceptual Mitigation Design

DEFINITION:

Development by consultant of preliminary conceptual designs for a proposed wetland mitigation site. This may include several conceptual designs, as well as anticipated construction costs to maximize wetland credit development within the parcel of land.

TASKS:

1. Preliminary Field Report (PFR) meeting with MDT headquarters and district personnel as well as Federal, State and tribal resource agencies at the proposed wetland mitigation site.
2. Compile design data.
3. Initiate development of conceptual designs to maximize stream and/or wetland mitigation credit development.
4. Maximize mitigation credits for each design to fulfill MDT project needs within the watershed.
5. Prepare conceptual plans and cross sections.
6. Develop cost estimates for the development of each conceptual design.
7. Develop anticipated project schedule for construction of wetland project.

START DEPENDENCIES:

Completion of Activity 100

DELIVERABLES:

1. DRAFT Conceptual Mitigation Design Report.
2. Project schedule for completion of various tasks

ACTIVITY 105 Environmental Wetland Evaluation

CORRESPONDING MDT REVIEW ACTIVITY:

781 Environmental Resource Report Review

DEFINITION:

Preparation of the technical Environmental Resource Reports (Hazardous Waste, Cultural Resources, Biological Assessment, Wetland Findings) that will ultimately be utilized for development of the DRAFT NEPA/MEPA document for the proposed wetland mitigation project.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

TASKS:

1. Section 106 Clearance (724)
2. Perform an intensive pedestrian cultural resource inventory (archeological and historic properties survey) and record and evaluate all cultural resources within the proposed project area. Prepare cultural resource report.
3. The MDT is solely responsible for completing the Section 106 process. MDT will prepare the determination of effect and prepare and submit to SHPO, FHWA and ACHP, any memorandum of agreement necessary to complete the Section 106 phase of the project.
4. Hazardous Materials/Substances/Air and Noise (Initial Site Assessment) if applicable based on information provided at the project scoping meeting.
   - 4.1. Perform Initial Site Assessment (ISA Form can be found on MDT's website). May include in-house review of translites, plans (if available), as-builts plans, TIS Image Viewer, historic air photos, and on-site review (if warranted).
   - 4.2. Review historic land uses, Sanborn maps, State and Federal Superfund list, MDEQ Underground Tank Program files, and other relevant databases.
   - 4.3. Consult with appropriate environmental regulatory and local agencies to determine if hazardous materials/substances or groundwater quality issues could potentially impact the project.
   - 4.4. Determine if Preliminary Site Investigation (PSI – activity 746) is needed.
   - 4.5. Air Quality Assessment (742) Determine if project is in a non-attainment or maintenance area for CO or PM-10/2.5, and determine if project is exempt from conformity (Table 2, 40 CFR 93.126).
   - 4.6. Determine if project needs a CO hot-spot analysis. Consult the regulations (93.123) and follow required consultation procedures (Montana Air Quality SIP).

4.7. Determine need for PM-10 or PM 2.5 hot-spot analysis. If project is not listed in Table 2 of 40 CFR 93.126, then determine if it is a project of "localized air quality concern." Refer to Transportation Conformity Guidance for Qualitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas (EPA420-B-06-902, March, 2006).

4.8. Determine need for a discussion of Mobile Source Air Toxics (MSATs). This is not required for projects that are categorically excluded under 23 CFR 771.117(c), or those projects which are exempt under the Clean Air Act (Transportation Conformity, 40 CFR 93.126). All other projects, whether located in a non-attainment area or not, require some level of discussion of MSATs. Refer to FHWA guidance document HEPN-10, dated Feb 3, 2006.

4.9. Preliminary Traffic Noise Assessment (704) Conduct the Preliminary Noise Screening Procedure as outlined in MDT's Noise Policy/Procedure Manual (June 2001 or most recent version). This manual can be found on MDT's web site.

4.10. Submit ISA Form or an Initial Site Assessment report to the Department.

5. General Fish and Wildlife Assessment – Biological Resource Report (706) and Biological Assessment (752)
6. Perform a field and/or a literature review to identify all general wildlife, fish, critical habitats, vegetative communities and rare and/or sensitive plants located at the project site and/or along the project corridor.
7. Perform a field and/or literature review to identify all wetlands, rivers, streams, and other water resources located at a specific construction site or throughout a project's construction corridor for survey and illustration on project plans.
8. Discuss the location, size, and the relative functions of all wetlands, rivers, streams, and other water resources that may be affected with the MDT design group or consultant responsible for designing the project and preparing its' Scope of Work
9. Identify and perform all initial feasibility studies, i.e., field reviews, literature reviews, water rights, ownership studies, etc., for potential on-site, project specific, wetland mitigation sites for further evaluation and development under activity 750.
10. Insure that all potential on-site, project specific, wetland mitigation sites are accurately identified in the project's preliminary field review report and on preliminary plans, whenever possible and appropriate. Alert Right-of-Way agent of potential opportunities so that they can pursue landowner coordination. Selected sites will be included and discussed in the project's Scope of Work Report.
11. Request information from MT FWP, DEQ, USFS, BLM, DNRC, USFWS and any other pertinent agencies that have a management or regulatory interest in the wildlife, fish, critical habitats, rare and/or sensitive plants, wetlands, rivers and streams, and other water resources that may be affected by the project.

12. Prepare a written assessment of the fish, wildlife, critical habitats, rare and/or sensitive plants, wetland, river, stream, and other water resources located at the project site and/or along the project corridor. The assessment will include a comprehensive analysis and discussion, including suggestions for the avoidance and/or minimization of impacts to, of the fish, wildlife, critical habitats, rare and/or sensitive plants, wetland, river, stream, and other water resources at the project site and/or along the project corridor.
13. Wetland Finding Report (734)
14. Prepare a Wetlands Finding report including a delineation of all existing wetlands and other aquatic resources/features located within the proposed mitigation area. All wetlands are to be delineated and described in detail as to the Cowardin and Hydrogeomorphic Classes of Aquatic Vegetation communities.
15. Completion of the Routine Data Forms from the Corps 1987 Federal Jurisdictional Wetlands Delineation manual for each distinct and different wetland vegetation community on the property.
16. Completion of the most current MDT Montana Wetland Assessment Methodology form for each different wetland community identified during the delineation of existing resources.
17. Attend a field meeting with US Army Corps of Engineers, US Environmental Protection Agency, and Tribal Wetland protection personnel to verify existing wetland boundaries within the proposed wetland mitigation site for acceptance to proceed with design efforts and mitigation credit development.
18. Prepare and submit draft Wetland Findings Report to MDT.

START DEPENDENCIES:

Completion of Activity 100.

DELIVERABLES:

1. Preliminary Biological Resource Report, (include Biological Assessment report if required).
2. Preliminary Hazardous Waste ISA Report
3. Preliminary Wetland Findings Report
4. Completion of activity 781 checklist.

ACTIVITY 106 Preliminary Geotech and Materials

CORRESPONDING MDT REVIEW ACTIVITY:
440 Preliminary Geotech and Materials Review

DEFINITION:
Provide preliminary information relevant to geotechnical and materials issues.

TASKS:
Preliminary Soil Survey Investigations (450)
1. Reconnaissance
2. Perform Sub-surface exploration and obtain samples
3. In Place Moisture and Density
4. Samples for Structural Analysis
5. "R" Value Analysis, or Other Acceptable Test Method
6. Soil Classification
7. Moisture and Density of Different Soil Types
8. Culvert Evaluation

Borrow and Surface Pit Investigation (When directed by MDT) (452)
1. Reconnaissance
2. Subsurface exploration of borrow pits and surfacing pit
3. Tie pit boundaries to Control Traverse
4. Prepare Form 92 (Prospected Area Report)
5. Topographic site survey

Preliminary Geotechnical Field Investigation (455)
When directed by MDT, conduct preliminary field geotechnical exploration and investigation along alternative road alignments. Complete the following sub-tasks:
1. Conduct field investigations: geologic surveying and mapping, geophysical surveys, or other surficial inspections for engineering studies.
2. Perform subsurface exploration to obtain soil and rock samples, perform in-place tests for soils or groundwater, install geotechnical monitoring devices.
3. Assign laboratory testing for recovered samples and prepare boring logs.

Preliminary Geotechnical Evaluation (460)
Conduct initial office review of published information and site reconnaissance of geology, topography and surface drainage characteristics. Prepare Geotechnical Evaluation Report with field observations and preliminary recommendations.

Prepare Preliminary Surfacing Typical Sections (600)
Determine alternate combinations of materials which meet design requirements. Prepare cost estimates for each combination of materials. Determine percent asphalt for projects where ¾" Grade S volumetric PMS is specified.

Deflection Analysis (as needed) (602)

1. Determine mean pavement temperature.
2. Research in-place materials and corresponding thickness.
3. Calculate design Resilient Modulus Values for each layer of the surfacing section.

START DEPENDENCIES:

Completion of Activity 100

DELIVERABLES:

1. Completed MDT review activity 440 checklist.
2. Preliminary Geotechnical and Materials report to include the following, as applicable:
3. Preliminary Soil Survey Investigation Report.
4. Borrow and Surfacing Pit Reports.
   4.1. Prepare Form 92 (Prospected Area Report)
5. Preliminary Geotechnical Evaluation Report.
6. Preliminary Surfacing Typical Sections (Minimum of 3 with economic analysis.)

ACTIVITY 107 Geotechnical Wetland Evaluation

CORRESPONDING MDT REVIEW ACTIVITY:

441 Geotechnical Wetlands Review

DEFINITION:

Geotechnical and hydrologic information to determine suitability for wetland development. Preliminary office review/research and field geotechnical reconnaissance and mapping of selected wetland mitigation sites.

Geotechnical subsurface investigation of proposed wetland mitigation sites.

TASKS:

1. Conduct geologic mapping, geophysical surveys, or other engineering studies, as necessary.
2. Drill to obtain soil samples for laboratory testing, perform in-situ soil tests, and install groundwater monitoring wells to determine depth of groundwater. Monitoring wells will be tied to topographic survey.
3. Prepare a Geotechnical Engineering Report including preliminary recommendations, and results of the office review, field observations, and subsurface investigation.
4. Develop groundwater directional flow maps for the site.
5. The Consultant will monitor groundwater elevations for a period of 6 months. After 6 months, wells will be monitored by the US Geological Survey under the MDT – USGS cooperative agreement.
6. Development of groundwater hydrographs for the site utilizing data collected from the wells.

START DEPENDENCIES:

Completion of Activity 100

DELIVERABLES:

1. Geotechnical Report with recommendations containing, but not limited to the following:
2. Location of geologic features such as bedrock outcrops and unstable areas.
3. Evaluation of terrain and possible effects of excavation and/or embankment placement might produce.
4. General surface soil types within and surrounding the proposed mitigation site.
5. Summary of the results of the Geotechnical subsurface investigation, including boring logs and laboratory results.
6. Estimate of suitability of soils for the proposed type of wetland mitigation.
7. Identification and evaluation of groundwater/surface interface areas such as springs and seeps.
8. Summary of results for groundwater elevations and other monitoring data, including groundwater directional flow maps.

ACTIVITY 108 Control Survey

CORRESPONDING MDT REVIEW ACTIVITY:

320 Control Survey Review

DEFINITION:

Provide control survey. Control survey information will be used by the consultant for project design and by MDT Construction crews and contractors for construction.

TASKS:

1. Complete vertical control survey.
2. Complete horizontal control survey.
3. Complete instrument calibration reports (peg tests and EDM calibration baseline reports.)
4. Produce the control diagram.

START DEPENDENCIES:

Completion of Activity 100.

DELIVERABLES:

1. Completed MDT review activity 320 check list.
2. Applicable deliverables as defined in the MDT Survey Manual for conventional control surveys and/or GPS control surveys. Include **original** field notes.

ACTIVITY 109 Detailed Noise Analysis

CORRESPONDING MDT REVIEW ACTIVITY:

725 Detailed Noise Analysis Review

DEFINITION:

Measurement and analysis of existing and design year traffic noise levels, determination of impacts, and a preliminary analysis of the reasonableness and feasibility of noise abatement. This is completed after the Preliminary Traffic Noise Assessment is completed and that activity indicates that further noise analysis is required. The noise consultant and the design consultant work together to eliminate or reduce noise impacts by alignment modification or other means.

TASKS:

1. Consult with MDT Traffic Noise Specialist before proceeding with this activity.
2. Conduct a detailed highway traffic noise analysis as described in MDT's Noise Procedure Manual (Most recent version). This manual can be found on MDT's Internet site.
3. Modify the design to eliminate or reduce noise impacts.
4. Analyze the reasonableness and feasibility of noise abatement in the form of walls or berms.
5. Prepare a Detailed Noise Analysis Report that identifies the final noise impacts and proposed abatement.
6. Coordinate with MDT to prepare for neighborhood meetings.
7. Produce materials necessary for neighborhood meetings to include visualizations of proposed abatement.
8. Facilitate and conduct the neighborhood meetings unless directed otherwise by MDT.
9. Prepare a survey to gather neighborhood opinions of noise abatement.

START DEPENDENCIES:

Activity 717

DELIVERABLES:

1. Detailed Noise Analysis Report
2. Materials necessary for neighborhood meetings
3. Neighborhood opinion survey
4. Completed MDT Review Activity 725

ACTIVITY 110 Preliminary Right of Way

CORRESPONDING MDT REVIEW ACTIVITY:

870 Preliminary R/W Review

DEFINITION:

Prepare PE Report

TASKS:

1. Prepare or Secure PE Report to include:

Ownership Study to Include:

1.1. Last Deeds of Record for all Ownerships
1.2. Colored Ownership Map
1.3. Off Premise Signs

2. R/W Cost Estimate
3. Preliminary Areas of Acquisition
4. Relocation Assistance Conceptual Stage Study
5. Access Control Study, Preliminary Access Management Guidelines and Plan
6. Irrigation Study to Include:
   6.1. Identification and Sufficiency of Water Source
   6.2. Location, Size and Ownership of Irrigation and Drainage Ditches
   6.3. Description, Ownership and Acreage of Land Irrigated
   6.4. Estimate of Depreciation which would Accrue to Each Owner if Land was Deprived of Water

   Alternatives to Perpetuate Irrigation Facilities
   6.5. Feasibility of Terminating Facilities
   6.6. Maps, Photos and Sketches of Irrigation Facilities
7. Stockpass Study to include ownerships, locations and feasibility of eliminating structures
8. Retracement Survey:
   8.1. Initiate Survey Required for Retracement, Establishment and/or Monumentation of Existing Highway R/W. Survey to be done under direct Supervision of Professional Land Surveyor.
   8.2. Initiate Survey Required for Section and Property Corner Ties. Survey to be done under Direct Supervision of Professional Land Surveyor.
9. Permission to Enter from landowners (retained by consultant)

START DEPENDENCIES:

Completion of Activity 100

DELIVERABLES:

1. Completed MDT review activity 870 checklist
2. PE Report (one color hard copy and one electronic pdf)
   2.1. Ownership Study
   2.2. R/W Cost Estimate
   2.3. Preliminary Areas of Acquisition.

2.

2.4. Relocation Assistance Conceptual Stage Study (if applicable)
2.5. Access Control Study, Preliminary Access Management Guidelines and Plan (if applicable)
2.6. Irrigation Study (if applicable)
2.7. Stockpass Study (if applicable)

ACTIVITY 111 Phase One S.U.E. (Wetland Mitigation)

CORRESPONDING MDT REVIEW ACTIVITY:

871 Phase One S.U.E.

DEFINITION:

Designation (Phase I)-Establish by engineering, surveying and drafting practices the accurate horizontal presence of overhead and underground utilities within project limits unless deemed unnecessary by the Department.

TASKS:

Prepare Phase I Subsurface Utility Exploration (SUE) information for each proposed site.

START DEPENDENCIES:

Completion of Activity 100

DELIVERABLES:

1. Completed MDT review activity 871 checklist.
2. 2 sets of S.U.E. plans.
3. Utility CADD files including the map file

ACTIVITY 112 Preliminary Traffic Report

CORRESPONDING MDT REVIEW ACTIVITY:

430 Preliminary Traffic Report Review

DEFINITION:

Report traffic related issues that affect roadway typical section and operational characteristics that are used in design. This activity should address traffic related items including those identified in the PFR.

TASKS:

Request Traffic and Crash data from Consultant Design Project Engineer.

Prepare a traffic report outlining recommendations associated with the traffic operational/safety needs within the project limits. The traffic study typically includes the following:

1. Traffic volumes.
2. Capacity analysis and Level of Service.
3. Traffic control features.
4. Major access management features (frontage roads, median, etc.)
5. Special operational needs (truck climbing lanes, intersection sight distance, roadway lighting, etc.)
6. Analysis of crash data and dominant trends.
7. Analysis of pedestrian/bicycle/school crossing needs.
8. Provide traffic recommendations.

START DEPENDENCIES:

Completion of Activity 100

DELIVERABLES:

Completed MDT review activity 430 checklist
Preliminary Traffic Report

ACTIVITY 113 Preliminary Utility Conflicts/S.U.E.

CORRESPONDING MDT REVIEW ACTIVITY:

873 Preliminary Utility Conflict Review

DEFINITION:

Designation (Phase I)-Establish by engineering, surveying and drafting practices the accurate horizontal presence of overhead and underground utilities within project limits unless deemed unnecessary by the Department.

TASKS:

Prepare or secure:

1. Set up and conduct initial Utility Informational office meeting with MDT and all Utility Companies believed to have facilities within the vicinity of the project. The MDT Project Manager and a representative from MDT Utilities Section will attend the meeting.
   1.1. Provide large exhibit depicting aerial view of the project area.
   1.2. Describe project design objectives, including as applicable an overview of the project location, project limits, proposed improvements, design schedule, and proposed construction letting date.
   1.3. Explain that a qualified subsurface utility engineering (SUE) consultant will be in contact with them in the near future to begin the utility investigation and mapping process and that utility owner participation will be required. Critical to the success of the SUE process is including existing utility data in the very early stages of the design development.
   1.4. Describe the SUE process and how systematic data acquisition and inclusion of existing facilities (and proposed utility improvements) within design development minimizes conflicts with existing facilities wherever practical and feasible.
2. Upon completion of the SUE Phase I investigation, show information on preliminary plans, then set up and conduct individual Utility Coordination office Meetings with MDT and each utility company. The MDT Project Manager and a representative from MDT Utilities Section will attend these meetings.
   2.1. Review their facility.
   2.2. Review options on what can be done to avoid potential conflict with their facility. How much fill/cut can be done over their facility, will placing ditch blocks work, place pipes to avoid conflict, etc.
   2.3. Prepare a detailed report of each meeting. This report will be attached to the Preliminary Utility Conflict Report (item #4 below)
3. Integrate existing facility data from the SUE Phase I investigation with all design activities including: hydraulic, geotechnical, traffic, road alignment, structural, and environmental. Adjust designs wherever practical to mitigate impact to existing facilities. Identify crossings and locations where higher quality level data (e.g., test holes) may be needed to further assess and refine

designs. Schedule and execute a SUE Phase II investigation to obtain additional data as necessary to complete designs and conflict assessment.

4. Prepare a Preliminary Utility Conflict Report which outlines all the utilities in conflict and why the conflicts could not be avoided. Attach to the report the detailed report of each meeting with the Utility Companies (item #2 above).

START DEPENDENCIES:

Completion of Activity 100

DELIVERABLES:

1. Preliminary Utility Conflict Report.
2. S.U.E. plans (1 copy.)

ACTIVITY 114 Preliminary Bridge Layout

CORRESPONDING MDT REVIEW ACTIVITY:

586 Preliminary Bridge Layout Review

DEFINITION:

Determine bridge type, size and location (TSL) and prepare preliminary bridge layout and plans.

TASKS:

1. Complete the Bridge Type, Size, and Location Report
   - 1.1. Determine the Bridge Length and Width
   - 1.2. Determine the Bridge Beam Type
   - 1.3. Determine the Geometrics
   - 1.4. Fit of Bridge to Site
   - 1.5. Determine the Proposed Substructure Type
   - 1.6. Determine the Proposed Foundation
2. Determine the Riprap layout and estimate quantity
3. Check for Electronic Compatibility and CADD Standards
4. Preliminary bridge cost estimate

START DEPENDENCIES:

Completion of Activity 100

DELIVERABLES:

Completed MDT review activity 586 checklist.

1. Bridge Type, Size, and Location Report.
2. Preliminary Bridge Layout plans.
3. Preliminary bridge cost estimate

ACTIVITY 115 Utility Conflicts for Plan In Hand

DEFINITION:

Utilize Phase I and Phase II S.U.E. to avoid utility conflicts. Document unavoidable utility conflicts in the Design Utility Conflict report.

OUTPUT PROVIDED:

Design Utility Conflict Report.

TASKS:

Prepare or secure:

1. Provide additional Phase I and Phase II S.U.E. as necessary
2. Integrate and include existing facility data from the SUE Phase 1 investigation and Phase 2 if needed with all design activities including: hydraulic, geotechnical, traffic, road alignment, structural, and environmental. Adjust designs wherever practical to mitigate impact to existing facilities.
3. Prepare a Design Utility Conflict Report which outlines all the utilities in conflicts and why the conflicts could not be avoided. Address the report to the MDT Project Manager.

START DEPENDENCIES:

Activity 266

DELIVERABLES:

Design Utility Conflict report accompanied with Plan-in-Hand Road Plans.

ACTIVITY 116 Preliminary Environmental Document or Categorical Exclusion/Section 4(f) Evaluation

CORRESPONDING MDT REVIEW ACTIVITY:

782 Environmental Review

DEFINITION:

This is an iterative process with MDT to complete the environmental documentation and prepare the preliminary Environmental Document or Categorical Exclusion, and when applicable, Section 4(f) Evaluation.

Note - in some cases, the Categorical Exclusion and/or Section 4(f) Evaluation may be completed during this activity.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

Depending upon complexity of the project, a Focus Group may be established. (Typically for EIS or EA).

116-782 ITERATIVE ACTIVITY TIMELINES

Concurrent activities/Iterative process/Finish-Finish Activities. Total Durations are estimated and may vary on a project basis. Durations are set based on working days (OPX2) not calendar days unless otherwise noted.

NOTE: Iterative process does not apply to Programmatic Categorical Exclusion (d) and Categorical Exclusion (c).

Act. 116	C1		C3		C5	.
Act. 782		E2		E4		E6 .

C1 – Consultant. Prepare Preliminary Environmental Document/Section 4(f) Evaluation - incorporate comments from previous activities. Duration of C1 ends when document is submitted to MDT. Duration determined by negotiation with MDT/FHWA and consultant. C1 distribution aimed at Working Group.

E2 – MDT/FHWA. Review of Preliminary Environmental Document/Section 4(f) Evaluation. Standard 20 day duration.

C3 – Consultant. Modify Document/Section 4(f) Evaluation based on MDT/FHWA review comments. Default duration of 20 days or less (Narrative

CE (d) / EA) or 30 days or less (EIS). C3 distribution aimed at Working Group and design group which includes all applicable Divisions, Bureaus, Sections, etc within MDT.

E4 - MDT/FHWA. FOR Narrative CE (d) ONLY: Approve the documentation or request the Consultant make any necessary changes. FOR EA AND EIS ONLY: Review of Environmental Document/Section 4(f) Evaluation. Standard 20 day duration.

C5 – Consultant. FOR EA AND EIS ONLY. Modify Document/Section 4(f) Evaluation based on MDT/FHWA review comments. Submit a Comment and Response Document that includes proposed document edits based upon comments from the design group. Default duration of 20 days or less. C5 distribution aimed at Working Group plus any interested parties derived from C3 distribution.

E6 - MDT/FHWA. FOR EA AND EIS ONLY. Provide approval to print Administrative Draft. Standard 10 day duration.

Complete when:
1. Administrative Draft of document (EA or EIS) and Section 4(f) Evaluation (if applicable) is approved and ready for publication; or
2. Narrative CE(d) is signed or if comments are received as part of E4, the remaining work will be completed under activity 126.

EIS Total Duration: C1 + 100 days or less.
CE (d) and EA Total Duration: C1 + 90 days or less.

TASKS:

Section 106 Clearance (724)

1. The MDT is solely responsible for completing the Section 106 process. MDT will prepare the determination of effect and prepare and submit to SHPO or THPO, FHWA and ACHP, any memorandum of agreement necessary to complete the Section 106 phase of the project.
2. For Section 106 property determined eligible for a Section 4(f) Evaluation de minimis finding, coordinate with FHWA to prepare the determination of effect for submittal to SHPO or THPO.

Preliminary Site Investigation (746)

Investigate hazardous materials/substances and groundwater contamination sites found in Initial Site Assessment (ISA). Determine extent and levels of contamination as they may impact the project. Contact MDT Environmental Hazardous Waste Section to coordinate with regulatory agencies and responsible parties to develop cleanup and/or monitoring plans. Work with design team to ensure utilities in contaminated areas are protected and to prevent utility/storm drain corridors from exacerbating contamination. Determine quantities of

contaminated material to be handled during construction and best management practices for soil, groundwater, and other solid or hazardous waste issues.

1. Conduct additional historic land use research as needed to fill in any gaps in the Initial Site Assessment (ISA).
2. Conduct a subsurface investigation delimiting the extent and magnitude of soil contamination in R/W along project corridor. Limit investigation to depths and locations likely impacted by construction activities. It may be necessary to install additional, and monitor existing, groundwater wells for water level and water quality information to determine monthly or seasonal fluctuations of groundwater. It may be necessary to report new releases to MDEQ and affected land/business owners.
3. Determine Petro Board eligibility of sites in project corridor.
4. Coordinate with lead designer to minimize or avoid impacts, to add information on project plans, to estimate quantities. Coordinate with City consultants and employees who may be designing utilities and storm drains in conjunction with MDT project. Contaminated soil and groundwater handling, disposal and treatment, the addition of nitrile gaskets and ductile iron pipe, bentonite cutoff walls, or other mitigating measures will likely affect road construction and utility/storm drain work. Costs for these mitigating measures may be the responsibility of the local government, or may be shared by MDT and the local government. Agreements for these cost-shares and responsibilities must be completed. In these agreements, it may be advantageous to encourage the local government to apply for Petro Board reimbursement for eligible costs.
5. Prepare a report describing impacts to highway right-of-way and construction project, and recommendations for avoidance or minimization of impacts. Include documentation of all available information on contamination, water quality and levels, mitigation recommendations, responsible parties, draft special provisions and treatment/disposal options, and recommendations for further work (such as a DSI). A Detailed Site Investigation (DSI) report may be necessary, dependent upon the findings of the PSI, and if additional work is added to the project at a later date, such as a local municipality designing water lines in conjunction with MDT's project**.**
6. Advise interested parties of project findings, such as local municipality, District Engineering Services Supervisor, District Construction Engineer, Right-of-Way, R/W Utilities, Lead Designer.

Develop Preliminary Environmental document or Preliminary Categorical Exclusion.

1. Categorical Exclusion (CE)
   1.1. In general, if analysis of a proposed project indicates that no significant individual or cumulative impact(s) on the environment will result, a CE will be developed.
   1.2. CE(c) – prepare letter stating that unusual circumstance do not exist and that the project meets the requirements of a CE(c)

1.3. Programmatic CE(d) – When adequate information is available, complete the Programmatic CE(d) worksheet and provide all supporting documentation under this activity.
1.4. Narrative CE(d)
1.4.1. Prepare preliminary Narrative CE(d)
1.4.2. As necessary, modify Narrative CE(d) based on MDT/FHWA review comments.
1.4.3. When adequate information is available, complete the Narrative CE(d) under this activity.

2. Environmental Assessment (EA) and Environmental Impact Statement (EIS).
2.1. A proposed project that does not qualify for a CE and also does not clearly require an EIS will require an EA. The EA may also be used to determine the need for an EIS. An EIS will be prepared when the proposed project is likely to cause significant impacts on the environment.
2.2. Prepare Preliminary Environmental Document, incorporate comments from previous activities.
2.3. Make changes to document based on each MDT/FHWA review.

For EA and EIS Only: Receive from MDT Consultant Project Engineer Approval to Print Administrative Draft Environmental Document (Verify with MDT Consultant Project Engineer that MDT Environmental and FHWA approval has been received.)

Section 4(f) Evaluation

The Section 4(f) Evaluation may be done separately, or as part of an environmental document with an EA or EIS. With a CE, the Section 4(f) Evaluation must be in a separate document. The Section 4(f) Evaluation and 6(f) analyses should be coordinated. The Section 4(f) Evaluation and 106 processes should be coordinated.

The Section 4(f) Evaluation requires coordination with the government agencies with jurisdiction over the Section 4(f) property to determine 4(f) applicability and come to an agreement regarding the use of the Section 4(f) site.

1. De Minimis Use Evaluation.
1.1. If minor 4(f) use is anticipated, request a meeting with MDT and FHWA to discuss if the project is eligible.
1.1.1. In coordination with MDT, contact appropriate jurisdictional agencies.
1.1.2. Produce information and materials necessary for FHWA to produce concurrence request letter.
1.1.3. Incorporate de minimis information into appropriate draft environmental document.

1.2. If the use is determined ineligible for de minimis, proceed with the Nationwide Programmatic or Full Section 4(f) Evaluation.

3. **Nationwide Programmatic Section 4(f) Evaluation**.
   1.3. In coordination with MDT, contact appropriate jurisdictional agencies.
   1.4. Fill out appropriate Nationwide Programmatic Section 4(f) Evaluation(s) including supporting documentation.
   1.5. Incorporate comments received into the Nationwide Programmatic Section 4(f) Evaluation(s).
   1.6. Start the above tasks in Activity 116. If necessary, complete those tasks:
      1.6.1. For CE – Activity 126.
      1.6.2. For EA – Activity 192, 195 and 196.
      1.6.3. For EIS - Nationwide Programmatic Section 4(f) Evaluation cannot be used.

4. Full Section 4(f) Evaluation.
   1.7. In coordination with MDT, contact appropriate jurisdictional agencies.
   1.8. Draft the Section 4(f) Evaluation (including supporting documentation) in accordance with comments received during coordination efforts with the government agencies having jurisdiction over the Section 4(f) property being used.
   1.9. Incorporate comments received from each review (including FHWA Legal Review) into the Full Section 4(f) Evaluation.
   1.10. Prepare for public distribution of document. Coordinate notice of availability timelines with MDT and FHWA.
   1.11. Incorporate comments received from public distribution.
   1.12. Incorporate comments received from FHWA Legal Sufficiency Review.
   1.13. Start the above tasks in Activity 116. If necessary, complete those tasks:
      1.13.1. For Categorical Exclusion - Activity 126.
      1.13.2. For Environmental Assessment – Activities 192, 195 and 196.
      1.13.3. For Environmental Impact Statements – Activities 192, 197, 198 and 199.

START DEPENDENCIES:

Completion of MDT Review Activities. 701,717,706,708,710, and 742

DELIVERABLES:

Completed MDT review activity 782 checklist with each transmittal.

1. Draft and final Preliminary Site Investigation report (if applicable).
2. Final Cooperating Agency request letters (if applicable).
3. Draft memo regarding air quality conformity of project (if applicable).
4. Preliminary versions of the Environmental Document (CE, EA, or DEIS) and all supporting documentation. Submit Microsoft WORD file and coordinate with MDT Consultant Project Engineer for number of hard copies.

5. If applicable, preliminary versions of Section 4(f) Evaluation (de minimis, programmatic, and/or Full). Submit Microsoft WORD file and coordinate with MDT Consultant Project Engineer for number of hard copies.
6. If applicable, final versions of Section 4(f) Evaluation (de minimis, programmatic, and/or Full). Submit Microsoft WORD file and coordinate with MDT Consultant Project Engineer for number of hard copies.
7. Preliminary Bridge layout delivered as soon as available during this activity.

ACTIVITY 117 Draft Purpose and Need

CORRESPONDING MDT REVIEW ACTIVITY:

780 Review Draft Purpose and Need

DEFINITION:

For ENVIRONMENTAL ASSESSMENT and ENVIRONMENTAL IMPACT STATEMENT ONLY. Prepare draft table of contents and draft purpose and need statement.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

Default Duration of 20 days or less

TASKS:

1. Review the Preliminary Field Review (PFR) report and other supporting information such as feasibility studies, planning studies, advisory group input, etc.
2. Prepare draft purpose and need statement of the Environmental Document including the following information:
   2.1. Project description and background
   2.2. Needs of the project
   2.3. Purpose of the project
   2.4. Goals and objectives of the project
3. Prepare draft table of contents for the Environmental Document.
4. Incorporate SAFETEA-LU aspect as necessary.

START DEPENDENCIES:

Completion of Activity 100.

DELIVERABLES:

1. Completed MDT review activity 780 checklist.
2. Draft purpose and need statement of the Environmental Document. (Submit Microsoft WORD file and hard copies.)
3. Draft table of contents.

ACTIVITY 118 Roadway Alignment Plan

CORRESPONDING MDT REVIEW ACTIVITY:

262 Roadway Design Review

DEFINITION:

Submit the preliminary plans, specifications, and documentation for the Alignment and Grade meeting. (216)

TASKS:

Preliminary Alignment and Grade

1. Establish major design points.
2. Establish preliminary alignment and grade of the mainline.
3. Establish the preliminary sub-grade template sections.
4. Perform preliminary earthwork runs to achieve near optimum grade and alignment.

Establish Major Control

1. Structures
2. Utilities
3. Irrigation facilities
4. Culverts
5. Wetlands
6. Historic properties
7. Access points
8. Archaeological properties

Preliminary Plans Preparation (212)

Alignment and grade plans must include the following items:

1. Alignment and grade.
2. Typical sections.
3. Shrink and swell factors.
4. Cross sections with road template.
5. Mass diagram.
6. Location and geometric layout for special features.
7. Geometric details (including roundabout details, if applicable)
8. Major drainage and irrigation features.
9. Layouts of structures.
10. Major land service features.
11. Cost estimate.
12. Utilities.
13. Estimate right-of-way requirements.
14. Identify utilities conflicts.
15. Identify areas of wetland impacts and calculate area of cumulative impact. Document avoidance measures.

16. Preliminary strategy for Work Zone Safety and Mobility (WZSM), including Transportation Mobility Plan (TMP) worksheet for Level 1 projects (required) and Level II projects (as appropriate).

START DEPENDENCIES:

Completion of MDT Review Activity 260.

DELIVERABLES:

1. Submit 2 copies of Plans and Specifications for compliance review in accordance to the contract.
2. Completed MDT review activity 262 checklist.
3. Provide copies of plans, specifications and cost estimate to the Consultant Design Bureau for distribution. Contact Consultant Project Engineer for number of required copies.
4. Submit project files on Cd's (CADD files, cost estimates, specials, etc.) All files must follow MDT file naming standards.

ACTIVITY 119 Conceptual Mitigation Design

CORRESPONDING MDT CHECK ACTIVITY:

263-Conceptual Mitigation Design Review

DEFINITION:

Develop Conceptual Mitigation Design Plan alternative for review and comment

TASKS:

1. Incorporate MDT review comments into the Design alternatives.
2. Preparation of conceptual design alternatives.
3. Prepare cross-section for each design alternative.
4. Prepare Conceptual plan layout with topographic contours for each design alternative.
5. Prepare Conceptual plans showing wells and bore hole locations for each design alternative.
6. Incorporation of Water rights, biological, existing wetlands, hazmat, cultural resource, topographic, groundwater depths, geotechnical information acreage of proposed wetland into the report.
7. Prepare Plans
8. Topographic contours
9. Wells and bore holes
10. Existing wetlands
11. Cultural Resources
12. Key resource elements
13. Cross Sections
14. Utilities

START DEPENDENCIES:

Completion of MDT Review Activities 884,794,871,320.

DELIVERABLES:

1. Conceptual Mitigation Design Alternative Report to Include:
2. Hydraulics reports
3. Geotechnical Report
4. Biological Resource and Biological Assessment (BRR/BA)
5. Wetland Finding report
6. Other reports to be included only if they affect the design.
7. Design alternative plans delivered to Consultant Design Project Manager.
8. Haz Mat ISA
9. Cultural Resources Report
10. Completion of MDT Act 263 checklist

ACTIVITY 120 Cadastral Survey

CORRESPONDING MDT REVIEW ACTIVITY:

322- Cadastral Survey Review

DEFINITION:

Cadastral survey information to develop a certificate of survey. (Section ties and retracement of existing right of way.)

TASKS:

Complete cadastral survey.

START DEPENDENCIES:

Completion of Activity 266 for Consultant Wetland Mitigation projects.
Completion of Activity 320 for Consultant Design Flowchart

DELIVERABLES:

1. Completed MDT review activity 322 checklist.
2. Provide original field notes for the survey(s).
3. Survey computations.
4. ASCII coordinate listings and descriptions.
5. Copies of data used to evaluate cadastral survey.
6. Electronic and paper copies of preliminary Certificate of Survey and corner recordations.
7. Calibration baseline reports.
8. Upon Survey Unit approval, provide electronic and paper copies of recorded Certificates of Survey and corner recordation(s).

ACTIVITY 121 Engineering Survey

CORRESPONDING MDT REVIEW ACTIVITY:

323-Engineering Survey Review

DEFINITION:

Provide survey information needed for development of engineering plans from control network or from existing project control.

TASKS:

PHOTOGRAMMETRY JOBS

1. Complete photogrammetric mapping.
2. Complete topographic survey for underground features and features not included in photogrammetric mapping.
3. Complete hydraulic survey information not included in photogrammetric mapping.
4. Complete special or additional engineering surveys.

NON-PHOTOGRAMMETRY JOBS

1. Complete topographic survey of DTM and non-DTM features.
2. Complete conventional cross sections if necessary.
3. Complete hydraulic surveys.
4. Complete special or additional engineering surveys.

START DEPENDENCIES:

Completion of Activity 320.

DELIVERABLES:

1. Completed MDT review activity 323 checklist.
2. Provide original field notes if applicable.
3. Electronic survey files including but not limited to ASCII coordinate listings with features and descriptions, data collection files, etc.
4. Survey mapping files including but not limited to MicroStation dgn files, GeoPak tin and gpk files, etc.
5. For photogrammetry jobs - Photogrammetric mapping products including camera calibration report, cleaned aerial film, map certification, and aerial mapping files, etc.

ACTIVITY 122 Alignment and Grade Traffic

CORRESPONDING MDT REVIEW ACTIVITY:

432-Traffic Review

DEFINITION:

Development of Traffic information for use in Project Plans

TASKS:

Preliminary Geometric Details

1. Prepare preliminary geometrics
   1.1. Preliminary striping
   1.2. Lane dimensioning
   1.3. Preliminary intersection radii with truck turning paths
2. Prepare interchange and intersection grades
3. Prepare preliminary roundabout details (if applicable)
   3.1. Entry angles
   3.2. Entry and exit Radii, widths
   3.3. Calculate fastest paths
   3.4. Typical sections for roundabouts
   3.5. Preliminary striping
   3.6. Lane dimensioning
   3.7. Preliminary intersection radii with truck turning paths

Signing Study

1. Prepare Existing Road Sign Inventory
2. Identify preliminary R/W needs for signing structures
3. Establish preliminary signing needs

Signal Warrant Study

1. Prepare Signal Warrant Study

START DEPENDENCIES:

Completion of Activity 430.

DELIVERABLES:

Completed MDT review activity 432 checklist.

1. Geometric details (Including roundabout details, if applicable)
2. Signing Inventory
3. Traffic Signal Warrant Study
4. Preliminary Right of Way needs for signing structures

ACTIVITY 124 Finalize Alignment and Grade

CORRESPONDING MDT REVIEW ACTIVITY:

264 Approve Alignment and Grade

DEFINITION:

Conduct the Alignment and Grade Review meeting and submit the Alignment and Grade report.

TASKS:

Alignment and Grade Review (216)

1. Conduct the office and field review of the alignment and grade and obtain decisions on the following items:
   - 1.1. Finalize major control design points.
   - 1.2. Finalize preliminary alignment and grade of the mainline.
   - 1.3. Finalize the preliminary sub-grade template sections based on "worst case" typical section.
   - 1.4. Review earthwork runs to achieve optimum grade and alignment.
   - 1.5. Review preliminary alignment and grade plans. Discuss the following items:
     - 1.5.1. Alignment and grade
     - 1.5.2. Typical sections
     - 1.5.3. Cross sections with road template
     - 1.5.4. Mass diagram and shrink-swell factors
     - 1.5.5. Location and geometric layout for special features
     - 1.5.6. Major drainage and irrigation features
     - 1.5.7. Layout of structures
     - 1.5.8. Major land service features
     - 1.5.9. Cost estimate
     - 1.5.10. Right of Way requirements.
     - 1.5.11. Utility conflicts.
     - 1.5.12. Additional soils information needed to finalize typical section.
     - 1.5.13. Preliminary Traffic elements. (402,404,406)
     - 1.5.14. Preliminary Hydraulic elements. (356)
     - 1.5.15 Preliminary Strategy for Work Zone Safety and Mobility (WZSM)/TMP Worksheet
     - 1.5.15.
2. Attend cost estimate meeting for construction projects greater than $15 million.
3. Submit alignment and grade report summarizing the comments and proposed action for approval.
   - 3.1. Revise and submit cost estimate per alignment and grade meeting comments.
   - 3.2 Submit Comment Response Document.

START DEPENDENCIES:

Completion of MDT review of activities 622, 586, 350, 440, 782, 262, 322, 323, 870, 873 and 432.

DELIVERABLES:

Completed MDT review activity 264 checklist.
Alignment and Grade Review Report.

ACTIVITY 125 Finalize Conceptual Mitigation Design Selection Meeting

CORRESPONDING MDT REVIEW ACTIVITY:

265-Distribution of Conceptual Mitigation Design Information

DEFINITION:

Incorporate and address comments from MDT and all permitting resource agencies into a Final conceptual design.

TASKS:

1. Attend Mitigation Meeting to discuss conceptual design comments
2. Finalize Preferred alternatives with MDT.
3. Prepare meeting minutes.
4. Revise Conceptual report.

START DEPENDENCIES:

Completion of MDT Review Activity 263.

DELIVERABLES:

Final Conceptual Design Report.

ACTIVITY 126 Finalize Categorical Exclusion/Section 4(f) Evaluation

CORRESPONDING MDT REVIEW ACTIVITY:

784- Categorical Exclusion/Section 4(f) Evaluation Review

DEFINITION:

Finalize Categorical Exclusion/Section 4(f) Evaluation.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

TASKS:

Programmatic CE(d)

Finalize Programmatic CE(d) worksheet including all supporting documentation. However, if the Programmatic CE(d) was completed under Activity 116, then this task is complete.

Narrative CE(d)

Finalize the Narrative CE(d) including any revisions necessary from comments received during circulation and after alignment and grade review. However, if the Narrative CE(d) was completed under Activity 116, then this task is complete.

Section 4(f) Evaluation

Finalize the Section 4(f) Evaluation. However, if the Section 4(f) Evaluation was completed under Activity 116, then this task is complete.

START DEPENDENCIES:

Completion of MDT Review activity 783 Consultant Wetland Mitigation. Feasibility Study Flowchart.
Completion of MDT Review activity 782 from Consultant Design Flowchart.

DELIVERABLES:

1. Completed MDT review activity 784 checklist.
2. Final memo regarding air quality conformity of project (if applicable.) (Submit Microsoft WORD file and hard copies.)
3. Final version of the CE. (Submit Microsoft WORD file and hard copies.)
4. Final Section 4(f) Evaluation. (Submit Microsoft WORD file and hard copies.)

ACTIVITY 127 Place Existing R/W and Section Lines

CORRESPONDING MDT REVIEW ACTIVITY:

871 Review Existing R/W and Section Lines

DEFINITION:

Place existing public road, street, highway, railroad right-of-way, property lines and section lines.

TASKS:

1. Finalize Existing R/W and Cadastral Retracement Survey(s)
2. Prepare or Secure:
   - 2.1 Recorded Full Size Existing R/W and Cadastral Retracement Survey(s) (including survey coordinate list and descriptions)
   - 2.2 Complete Full Size Set of C.O.S.'s and Subdivision Plats (folded)
   - 2.3 Existing Railroad and Highway R/W Plans (folded) w/ Deeds and Other Documentation
   - 2.4 Existing Public Road Documentation (including intersecting roads to project roadway)
   - 2.5 Copies of GLO Plats (folded)
   - 2.6 Copies of Corner Recordations
3. Prepare R/W Files to Include:
   - 3.1 Existing Railroad, Highway and Intersecting Public Road R/W (including labels, dimensions, found r/w monuments and property pins)
   - 3.2 Ownership Dots and Property Lines (including placement of subdivision plats and C.O.S.'s)
   - 3.3 Section Lines and 1/16 Section Lines (found and unfound)
   - 3.4 Property Controlling Corner Cells (section corners, ¼ corners, etc.)
   - 3.5 Existing Access Control
5.

START DEPENDENCIES:

Receipt of survey comments from MDT (Activity 322), completion of Activity 870 Preliminary R/W Review.

DELIVERABLES:

1. Recorded Full Size Copy of Existing R/W and Cadastral Retracement Survey(s) (including survey coordinate list and descriptions)
2. Complete Full Size Set of C.O.S.'s and Subdivision Plats (folded)
3. Existing Railroad & Highway R/W Plans (folded) with Deeds and Other Documentation
4. Existing Public Road Documentation (including intersecting roads to project roadway)
5. Copies of GLO Plats (folded)
6. Copies of Corner Recordations
7. Geopak GPK and Existing Survey Input File
8. R/W Strip Map

ACTIVITY 128 Prepare Scope of Work

CORRESPONDING MDT REVIEW ACTIVITY:

266 Approve Scope of Work Report

DEFINITION:

Prepare and submit the Scope of Work Report.

TASKS:

1. Prepare the scope of work report per MDT content and format, based on the design mapping, survey data, soils survey, preliminary geotechnical report, typical section, environmental document, preliminary right-of-way and utility report, traffic study, preliminary hydraulics report, transportation management plan worksheet and Alignment and Grade Report comments.
2. Prepare cost estimate.
   2.1. If significant changes have occurred from the alignment and grade report then perform the following:
      2.1.1. Attend cost estimate meeting for construction projects greater than $15 million.
      2.1.2. Revise and submit cost estimate.
3. Prepare design exception request.

START DEPENDENCIES:

Activity 264

DELIVERABLES:

1. Completed MDT review activity 266 checklist.
2. Scope of Work Report with cost estimate.
3. Design Exception Request (when applicable.)

ACTIVITY 130 Final Geotechnical and Materials Report

CORRESPONDING MDT REVIEW ACTIVITY:

442 Geotechnical and Materials Review

DEFINITION:

Perform tasks necessary to prepare and submit the Final Geotechnical and Materials report. This report contains all geotechnical and surfacing design recommendations required to complete the project.

TASKS:

Prepare Final Surfacing Sections (604)

1. Review Preliminary and Primary soil survey and R-values, or other acceptable test method, for completeness.
2. Incorporate primary centerline soil survey information per MT207 and R-values, or other acceptable test method, in design analysis.
3. Determine alternate designs or modifications to preliminary design if necessary.
4. Prepare new or revised cost estimates.
5. Verify design ESAL's are current.

Primary Soils Survey (490)

1. Additional soils information as requested. Additional soils as needed after review of horizontal and vertical alignment and location of "preliminary" soil survey.

Geotechnical Surveys and Field Investigation (462)

1. Conduct field geotechnical exploration and investigation: geologic surveying and mapping, geophysical surveys or other surficial inspections.
2. Perform subsurface exploration to obtain samples, conduct in-place tests for soils or groundwater, install geotechnical monitoring devices.
3. Prepare boring logs of field exploration.
4. Conduct laboratory testing for recovered samples.

Geotechnical Engineering - Alignment (464) and Structures (466)

1. Prepare detailed Geotechnical Engineering Report containing, but not limited to, the following:
   - 1.1. Recommendations regarding the proposed alignment.
   - 1.2. May contain recommendations for additional right of way for landslide areas or re-sloping not discovered or set from Preliminary Geotechnical survey.
   - 1.3. Soil types and testing results with final exploration logs and summaries of laboratory results.
   - 1.4. Geotechnical design recommendations including drawings or sketches, details, and special provisions for:

1.4.1. Pavement subgrade recommendations including identification and delineation of problem areas.
1.4.2. Landslides: excavation/buttressing limits
1.4.3. Rockfalls: slope, ditch, retaining structure design.
1.4.4. Settlement: amount, time rate, surcharge, culvert camber.
1.4.5. Piles/Drilled Shafts: type, size, tip elevation, settlement and negative skin friction considerations, driveability analysis.
1.4.6. Spread Footings: allowable bearing capacity, base elevations and settlement considerations.
1.4.7. Retaining walls: type alternates, basic stability analysis, wall pressures.

1.5. Instrumentation: design recommendations for monitoring.
1.6. Include alternative designs if considered.

START DEPENDENCIES:

Activity 266.

DELIVERABLES:

1. Completed MDT review activity 442 checklist.
2. Final Geotechnical and Materials report. (All reports must be signed by a Professional Engineer licensed in the State of Montana)
3. Design methodology and calculations.

ACTIVITY 134 Prepare Plans for Plan In Hand

CORRESPONDING MDT REVIEW ACTIVITY:

268 Roadway Design Review

DEFINITION:

Submit the plans, specifications and documentation for the Plan in Hand Meeting.

TASKS:

1. Request seeding and weed control special provisions from MDT Reclamation Specialist.
2. If applicable, contact MDT Reclamation Specialist to discuss conceptual landscaping plans.
3. Prepares the plans and related information for the plan-in-hand inspection, including the following:
   - 3.1. Cross sections with topography
   - 3.2. Typical sections of mainline and special features
   - 3.3. Mass diagram
   - 3.4. Shrink and swell factors.
   - 3.5. Preliminary special provisions (including seeding and weed control special provisions)
   - 3.6. Plan and profile sheets
   - 3.7. Proposed access features
   - 3.8. Preliminary grading frame
   - 3.9. Title sheet
   - 3.10. Linear data frame
   - 3.11. Geometric layouts of special features
   - 3.12. Right-of-way
   - 3.13. Utilities
   - 3.14. Preliminary traffic control plan
   - 3.15. Bridge general layouts and footing plans
   - 3.16. Detailed cost estimate per MDT procedures
   - 3.17. Summary frames and quantities
   - 3.18. Erosion control plans
   - 3.19. Contract time estimate per MDT procedures
   - 3.20. Identify areas of wetland impacts and calculate area of cumulative impact. Document avoidance measures.
4. Prepare Commitment and Resolution Document to address commitments made by MDT during the Environmental process. Use MDT Commitment and Resolution Template located on MDT Internet website.
5. Consultant and MDT Project Manager coordinate with WZSM Development Team to include appropriate plans/provisions for level 1 projects and level 2 projects as appropriate.

START DEPENDENCIES:

Activity 266

DELIVERABLES:

1. Submit 2 copies of Plans and Specifications for compliance review in accordance to the contract.
2. Completed MDT review activity 268 checklist.
3. Provide copies of plans, specifications, special provisions and cost estimate to the Consultant Design Bureau for distribution. Contact Consultant Project Engineer for number of required copies.
4. Commitment and Resolution Document (Submit Microsoft WORD file and hard copies).
5. Submit project files on CDs (CADD files, cost estimates, specials, etc.) All files must follow MDT file naming standards.
6. Comment Response Document (submit Microsoft EXCEL file and hardcopy.)
7. Traffic Management Plan Worksheet (submit Microsoft EXCEL file and hardcopy.)

ACTIVITY 135 Prepare Final Mitigation Design

CORRESPONDING MDT REVIEW ACTIVITY:

269- Review Final Mitigation Design

DEFINITION:

Development of the mitigation design plans for the proposed wetland mitigation site.

TASKS:

1. Compile design data for the mitigation design plans.
2. Prepare design plans and specifications of the approved concept for the proposed wetland mitigation site.
3. Request seeding and weed control special provisions from MDT Reclamation Specialist.
4. If applicable, contact MDT Reclamation Specialist to discuss conceptual landscaping plans.
5. Refine cost estimate based on mitigation design plans.
6. Develop timing requirements for construction of wetland project, (e.g. fall/winter const., dry or low water conditions, etc.)
7. Hazardous Materials/Substances (Initial Site Assessment) if applicable based on information provided at the project scoping meeting.
8. Perform Initial Site Assessment (ISA Checklist). May include in-house review of translites, plans (if available), As-Builts, photo log and on-site review (if warranted).
9. Review historic land uses, State and Federal Superfund list, and MDEQ Underground Tank Program files.
10. Consult with appropriate environmental regulatory agencies to determine if hazardous materials/substances or water quality issues are present.
11. Define maintenance requirements for constructed wetland.

START DEPENDENCIES:

Activity 266

DELIVERABLES:

1. Completed MDT Activity 269 checklist
2. Mitigation design plans package, specifications, special provisions, cost estimate and construction timing schedule and maintenance requirements.

ACTIVITY 136 Preliminary Structure Plans for Plan-In-Hand

CORRESPONDING MDT REVIEW ACTIVITY:

588 Preliminary Structure Review

DEFINITION:

Preparation of structure plans (bridge, walls, etc.) for Plan-in-Hand.

TASKS:

1. Perform Preliminary Layout Revisions.
2. Prepare Substructure Recommendations.
3. Prepare Foundation Recommendations.
4. Prepare Footing Plan.
5. Prepare 22”x36” paper plot of Bridge General Layout for plotter line weight and quality review. For other structures, contact Consultant Design Project Manager for plan requirements.
6. Prepare preliminary structures cost estimate.

START DEPENDENCIES:

Activity 266.

DELIVERABLES:

1. Completed MDT review activity 588 checklist.
2. Plan in Hand structure plans (general layout and footing plan)
3. Electronic Compatibility and CADD Standards files
4. 22”X36” Paper Plot of General Layout
5. Preliminary structures cost estimate

ACTIVITY 138 Preliminary R/W Plan for Plan In Hand

CORRESPONDING MDT REVIEW ACTIVITY:

872 R/W Plan Review

DEFINITION:

Prepare R/W Plans for Plan-in-Hand

TASKS:

1. Prepare R/W plans to include:
   1.1. Proposed R/W Design
   1.2. Existing Railroad, Highway and Public Road R/W
   1.3. Property Lines and Ownership Dots
   1.4. Parcel Numbers, Names and Addresses
   1.5. Section Lines
   1.6. Section Corner Ties
   1.7. New and Existing Access Control Symbology and Calls
   1.8. Quarter and U.S. Gov't Lot Calls
2. Finalize Access Management Guidelines and Access Management Plan.
3. Submit Title Commitment Request to Title Company (refer to the R/W Design Manual for guidelines)

START DEPENDENCIES:

Completion of Activity 266 and Activity 871.

DELIVERABLES:

1. Completed MDT Review Activity 872 checklist
2. R/W Plans (Microstation dgn files and hardcopy)
3. Final Access Management Guidelines and Access Management Plan

ACTIVITY 140 Plan In Hand

CORRESPONDING MDT REVIEW ACTIVITY:

270 Plan In Hand Approval

DEFINITION:

Conduct the Plan in Hand Review meeting and submit the Plan in Hand report.

TASKS:

1. Conduct the office and field review of the plan-in-hand plans and obtains decisions on the following items in sufficient detail to prepare final right-of-way and construction plans:
   - 1.1. Alignment.
   - 1.2. Grade.
   - 1.3. Typical section.
   - 1.4. Ditch widths.
   - 1.5. Back slope.
   - 1.6. Shrink and/or swell factors.
   - 1.7. Grading quantities.
   - 1.8. Borrow pit locations.
   - 1.9. Special treatments for sub-excavation, surcharge, under drains and unusual materials or soils conditions.
   - 1.10. Location and geometric layout for special features.
   - 1.11. Separations.
   - 1.12. Location, grade, alignment and typical sections for frontage roads.
   - 1.13. Major irrigation and drainage features.
   - 1.14. Major land service features.
   - 1.15. WZSM strategies including Traffic Control Plan (TCP), Traffic Operation (TO), Public Information (PI) components.
   - 1.16. Gravel sources.
   - 1.17. Connection to PTW.
   - 1.18. Construction and right of way project length characteristics.
   - 1.19. Estimated unit bid prices for grading, drainage, surfacing, guardrail and right-of-way estimate.
   - 1.20. Approach surfacing depths and widths.
   - 1.21. Types of material to be used for guardrail, guardrail posts, pipes, culverts and fences.
   - 1.22. Permanent erosion control features.
   - 1.23. Layouts of bridges and structures.
     - 1.23.1. Type of footing.
     - 1.23.2. Type of bridges and alternative bridge types.
   - 1.24. Commitment and Resolution document.

2. Attend cost estimate meeting for construction projects greater than $15 million.

3. Submit plan in hand report summarizing the comments and proposed action for approval.
   3.1. Revise and submit cost estimate per plan in hand meeting comments.
4. Prepares airport submittal and requests airport clearance from the Federal Aviation Administration for all projects near airports.
5. Identify additional Design Exceptions, prepare Design Exception Request, and obtain Design Exception Approval.
6. Update Commitment and Resolution Document to address commitments made by MDT during the Environmental process and modified during discussions at Plan in Hand Meeting.
7. Update Comment Response Document.

START DEPENDENCIES:

Completion of MDT review of activities 268, 352, 436, 442, 588, 623, 785, 877, 700 and 872.

DELIVERABLES:

1. Completed MDT review activity 270 checklist.
2. Plan in Hand Report with cost estimate.
3. Design Exception Request (when applicable)
4. Updated Commitment and Resolution Document. (Submit Microsoft WORD file and hard copies).
5. Updated Comment Response Document (Submit Microsoft Excel file and hardcopy)
6. Final WZSM plans/strategies
7. Four (4) copies of Preliminary Resource Package information. (See Actiovity 700.)

ACTIVITY 141 Final Mitigation Design Plan In Hand

CORRESPONDING MDT REVIEW ACTIVITY:

271-Final Mitigation Design Plan Review Approval

DEFINITION:

Development of the mitigation design plans for use in Plan In Hand meeting. Conduct the Plan In Hand Review meeting and submit the Plan In Hand Report. Use the information gathered to develop a Final Mitigation Design Plans Package.

TASKS:

1. Conduct the office and field review of the plan in hand plans and obtain decisions on the following items in sufficient detail to prepare final mitigation design plans:
2. Grading quantities.
3. Borrow pit locations.
4. Special requirements for sub-excavation, under drains and unusual materials or soil conditions.
5. Location, grade, alignment and typical sections for all dikes and berms if applicable.
6. Cross sections.
7. Major irrigation and drainage features.
8. Major land service features.
9. Layout of inflow/outflow structures and spillways.
10. Estimated unit bid prices for grading, drainage, fencing and seeding.
11. Types of material to be used for pipes, culverts, weirs and fences.
12. Permanent erosion control features.
13. Prepare landscape and seeding recommendations.
14. Prepare the plan in hand report documenting decisions made and further. studies and investigations agreed upon during the plan in hand meeting.
15. Incorporate MDT and resource agencies comments into P.I.H. report.

START DEPENDENCIES:

Activities 353, 443, 626, 269 and 785

DELIVERABLES:

1. Completed MDT Review Activity 271.
2. Plan in Hand Report.
3. Design Exception Request if applicable.

ACTIVITY 142 R/W Plans

CORRESPONDING MDT REVIEW ACTIVITY:

874 R/W Plans Check

DEFINITION:

Prepare Final R/W Plans

TASKS:

1. Receive and Parcelize Title Commitments
2. Determine Final Construction Limits
3. Complete the Right-of-Way Plans (based on final construction limits, final hydraulics information and final land title information)
4. Include All Areas
5. Prepare Route Description for Filing Plans in County
6. Revise (as necessary) Right-of-Way Cost Estimate

START DEPENDENCIES:

Completion of Activity 270

DELIVERABLES:

1. Completed MDT Review Activity 874 Checklist
2. R/W Plans (Microstation dgn files & one ½ size hard copy)
3. Construction Plans and Cross Sections with Final Construction Limits (Microstation dgn files & one hard copy)
4. Parcelized Title Commitments including Last Instruments of Conveyance and Copies of Schedule B Items Attached OR Last Deeds of Record (one hard copy and one electronic pdf)
5. Hard Copy of Construction Centerline Alignment Data
6. Route Description
7. R/W Cost Estimate (updated/revised)
8. R/W Geopak CADD Files (including gpk, r/w baseline and r/w break ioc, ooc, txt files and section tie ioc, ooc files)

ACTIVITY 144 R/W Plan Revision

CORRESPONDING MDT REVIEW ACTIVITY:

875 R/W Authorization

DEFINITION:

Revisions to R/W Plans as Deemed Necessary by the R/W Plan Check

TASKS:

1. Revise R/W Plans per Check Prints
2. Revise CADD Files as Indicated by R/W Check Prints
3. Prepare Exhibits

START DEPENDENCIES:

Completion of Activity 874

DELIVERABLES:

1. Final R/W Plans (Microstation dgn files & one ½ size hard copy)
2. R/W Geopak CADD Files (including gpk, r/w baseline and r/w break ioc, ooc, txt files and section tie ioc, ooc files)
3. Updated Construction Plans and Cross Sections with Final Construction Limits (Microstation dgn files & one hard copy) (if applicable)
4. Parcel Exhibit Files (Microstation dgn files & one hard copy)

ACTIVITY 146 Structure Design

CORRESPONDING MDT REVIEW ACTIVITY:

590 - Structure Review

DEFINITION:

Preparation of complete structure plans, specifications and estimate.

TASKS:

1. Prepare quantities sheet (Q sheet).
2. Prepare special provisions (include log of borings).
3. Prepare complete structure plans.
4. Prepare 22”x36” paper plot of Bridge General Layout for plotter line weight and quality review and other plots as required.
5. Prepare detailed structures cost estimate using MDT Bridge Bureau Cost Estimate Spreadsheet (request from MDT project manager.)

START DEPENDENCIES:

Activity 270.

DELIVERABLES:

1. Completed MDT review activity 590 checklist.
2. Complete structure plans.
3. Special provisions.
4. Detailed structures Cost estimate.

ACTIVITY 147 Final Bridge Plans

CORRESPONDING MDT REVIEW ACTIVITY:

592 Final Bridge Plan Review

DEFINITION:

Preparation of final bridge plans, specifications and estimate.

TASKS:

1. Finalize quantities sheet (Q sheet).
2. Finalize special provisions (include log of borings).
3. Finalize bridge plans.
4. Request drawing numbers from MDT.
5. Prepare 22”x36” paper plot of Bridge General Layout for plotter line weight and submit for quality review.
6. Finalize detailed Bridge cost estimate using MDT Bridge Bureau Cost Estimate Spreadsheet (request from MDT project manager.)

START DEPENDENCIES:

Activity 590.

DELIVERABLES:

1. Completed MDT review activity 592 checklist.
2. Final bridge plans. At a minimum, the Q sheet needs to be stamped and signed. (Mylars not needed; paper only.)
3. Signed and stamped design calculations.
4. Special provisions.
5. Detailed Bridge Cost estimate.
6. 2 copies of quantity calculations.
7. Rebar summary sheet for material testing.

ACTIVITY 148 Final Environmental Matters and Draft Permits

CORRESPONDING MDT REVIEW ACTIVITY:

786 Final Environmental and Permit Review

DEFINITION:

Preparation of all applicable drafts and clearances for MDT signatures and submittal.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

TASKS:

Environmental Water Quality Permits

1. Compile relevant project information required to submit an accurate SPA 124, Section 404 and 401 certification applications. If necessary, prepare Section 10, ALCO and/or ALPO permit applications.
2. Compile data showing the nature, location and dimensions of existing and proposed structures, method of construction and impacts to wetlands and other waters of the U.S.
3. Complete required application forms, sketches and cover letters for submittal to MDT.

Cultural Mitigation

1. If necessary and upon MDT direction, coordinate with MDT Cultural Resources personnel to provide mitigation field work and Mitigation Document.

Wetlands Finding Report

1. Quantify all unavoidable impacts to wetlands, rivers, streams, and other water resources located throughout a project's construction corridor for illustration on project plans based on final construction limits.
2. Accurately show delineated wetland areas and areas of wetland impact in the plans. Include total area, total impacted area, volume of fill within wetland areas and below the ordinary high water mark, jurisdictional determination, and any proposed on-site mitigation areas. Identify total areas of project wetland impacts as well as specifying permanent versus temporary wetland impacts. Areas should be quantified in a table included in the plan set according to MDT standards. Show clearly defined limits on the plan/profile sheets.
3. The report will outline all of the avoidance and minimization measures that were considered and the methods that were selected to avoid and minimize affects to the wetlands, rivers, streams, and other water resources located at a specific construction site and/or throughout a project's construction corridor.

4. Ensure the appropriate easements, water right acquisitions; permits, etc. are secured for any on-site, project-specific mitigation.

Final Environmental/Biological Review

1. Prepare final plans and specifications for inclusion of appropriate environmental mitigation requirements prior to Final Plan Review.
2. Attend Final Plan Review Meeting to advise on environmental matters.
3. Review project plans, specifications and special provisions to ensure environmental matters have been addressed and that all agreed to mitigation measures and environmental commitments, including erosion control, seeding and noxious weed control, are included or addressed in the completed project contract bid package.
4. Coordinate and review any environmentally related changes to the plans, special provisions or environmental documentation.
5. If necessary, modify the environmental document and/or Section 4(f) Evaluation. This may require a redraft of the original Environmental Document.
6. If requested by MDT, attend the Pre-construction Meeting to review the final plans, specifications, special provisions, environmental commitments and mitigation requirements, including compliance with all applicable environmental regulations and permits with the Project Manager and the Contractor.

Prepare Storm Water Permit NOI and SWPPP (Tribal Lands Only)

1. Compile all data showing nature and location of erosion control best management practices.
2. Complete MPDES or NPDES NOI and SWPPP forms.

START DEPENDENCIES:

Activity 270.

DELIVERABLES:

1. Completed MDT review activity 786 checklist.
2. Wetlands Findings Report. Include MDT Wetland Assessment forms and Routine Wetland Determination Forms (1987 COE Wetlands Delineation Manual) for all unavoidable impacts to wetlands, rivers and streams, and other water resources located at the project site and/or along the project corridor. Include site photographs and relevant plan sheets.
3. Hard copies and electronic copy of water quality permit application cover letters (SPA/404/10/ALCO/ALPO) and application forms. Include as attachments the relevant plan sheets, sketches, project location map, site photographs, Hydraulics Report, etc.
4. If required, Mitigation Document and artifacts if applicable.
5. Environmental specifications, special provisions, mitigation measures and a list of all environmental commitments.
6. Storm Water Permit NOI and SWPPP with Erosion Control Plans and project location map.

7. When drainage sumps are required, complete EPA notification and sketch.

ACTIVITY 149 Final Wetland Mitigation Permits and Clearances

CORRESPONDING MDT REVIEW ACTIVITY:

787-Final Wetland Mitigation permit and Clearance Review.

DEFINITION:

Preparation and submittal of all relevant draft applications and clearances for MDT signatures.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

TASKS:

Environmental Water Quality Permits (728)

1. Compilation of all data showing nature, location, dimensions of existing and proposed structures and encroachments including method of construction.
4. Assemble construction specifications for proposed construction.
5. Development of wetland mitigation credit acreages, performance goals and objectives for mitigation site.
6. Complete relevant application forms (404/10/318/ALPO/ALCO, other) and sketches.
7. Respond to MDT comments.

Compliance w/Stream Protection Act (732) if Applicable

1. Collect information on potential stream modifications/alterations.
2. Prepare draft application SPA 124.
3. Respond to MDT comments.

Cultural Mitigation (730) if applicable

1. Define scope of work.
2. Advertise for bids and select contractor or assign to existing consultant.
3. Monitor field work.
4. Review and submit final report or documentation to SHPO and other identified in MOA.

Prepare, Submit and Coordinate Storm Water Permits (744)

1. Compilation of all data showing nature and location of erosion control best management practices.
2. Complete storm water application forms.
3. Respond to MDT comments.

Final Environmental Review (740)

1. Review project plans, specifications and special provisions to ensure environmental concerns have been addressed and that all agreed to mitigation

measures, including erosion control, seeding and noxious weed control, are included or addressed in the completed project contract bid package.

2. Coordinate and review any environmentally related changes in the plans, special provisions or environmental documentation resulting from changes in the project scope-of-work, or awareness of additional environmental issues.
3. Review project Environmental Documents for completeness and compliance with the Montana Environmental Policy Act and the National Environmental Policy Act.
4. If necessary, as directed by MDT, produce a Supplement to the CE, EA or Section 4(f) Evaluation. The Supplemental Document may cover the issue(s) resulting from the revision to the proposed scope-of-work, or may be a complete redraft of the original Environmental Document.

START DEPENDENCIES:

Activity 271

DELIVERABLES:

Submit all applicable permit applications in electronic form with pertinent supporting documentation submitted hard copies

1. Submit relevant application forms (404/10/318/ALPO/ALCO, other) including plans and specifications pertinent to the application.
2. Submit application SPA 124 including plans and specifications pertinent to the application.
3. Submit final cultural report or documentation.
4. Submit storm water application forms including plans and specifications pertinent to the application.
5. If necessary, submit supplemental documents to the CE, EA or Section 4(f) Evaluation.
6. Completed MDT review activity 787.

ACTIVITY 150 Appraise Right of Way

CORRESPONDING MDT REVIEW ACTIVITY:

834-Appraisal Review

DEFINITION:

A property appraisal is the development and reporting of a supported opinion of Market Value. The value opinion is used by the R/W Bureau in the determination of Just Compensation to be offered to a landowner for the partial or whole acquisition of a property for highway purposes. The appraisal process is also used to estimate the diminution in value of a remainder property in a partial acquisition.

TASKS:

1. Review the Project
   - 1.1. Review plans and documents, including title reports
   - 1.2. Request a pre-appraisal scope of work (PASOW) or determine type(s) of appraisal report required to produce an opinion of Market Value that is not misleading.
   - 1.3. Select a qualified appraiser to complete the assignment
   - 1.4. Establish time frame for completion of project
   - 1.5. Complete Appraisal contracting process, as needed.
2. Prepare Appraisal Reports
   - 2.1. Provide an opinion of value using accepted standards of professional appraisal practice as outlined in the MDT Appraisal Manual, UASFLA, and FHWA guidelines.
3. If requested by MDT, prepare Review Appraiser's Reports (on rare occasions, the Consultant is contracted to provide the appraisal review).

START DEPENDENCIES:

For non-wetland projects-Authorization to start the appraisal process (completion of Activity 875)

For wetland projects-Authorization to start the appraisal process (completion of Activity 854)

DELIVERABLES:

1. Appraisal reports
2. Review Appraiser's Reports, if applicable

ACTIVITY 152 Final Plan Preparation

CORRESPONDING MDT REVIEW ACTIVITY:

272 Final Road Plan Review

DEFINITION:

Prepare final plans based on comments received and decisions made at plan-in-hand.

TASKS:

1. Make revisions to the design based on comments received during the Plan in Hand review as documented in the plan-in-hand Report and complete the design including the following:
   - 1.1. Cross sections with topography
   - 1.2. Typical sections of mainline and special features
   - 1.3. Mass diagram
   - 1.4. Shrink and swell factors.
   - 1.5. Special provisions
   - 1.6. Plan and profile sheets
   - 1.7. Proposed access features
   - 1.8. Grading frame
   - 1.9. Title sheet
   - 1.10. Linear data frame
   - 1.11. Geometric layouts of special features
   - 1.12. Right-of-way
   - 1.13. Utilities
   - 1.14. Traffic Management plan
   - 1.15. Bridge plans
   - 1.16. Detailed cost estimate per MDT procedures
   - 1.17. Summary frames and quantities
   - 1.18. Erosion control plans
   - 1.19. Contract time estimate per MDT procedures
   - 1.20. Areas of wetland impacts and calculate area of cumulative impact. Document avoidance measures.
2. Verify all Design Exceptions have been approved.
3. Incorporate Plan in Hand comments from MDT Traffic. (Geometrics, Electrical, and Signing and Striping Plans).
4. Update Commitment and Resolution Document to address commitments made by MDT during the Environmental process.
5. Update Comment Response Document to follow through and respond to all comments made through the design process.

START DEPENDENCIES:

Activity 270.

DELIVERABLES:

1. Completed MDT review activity 272 checklist.
2. Provide copies of plans, specifications and cost estimate to the Consultant Design Bureau for distribution. Contact Consultant Project Engineer for number of required copies.
3. Submit project files on CDs (CADD files, cost estimates, specials, etc.) All files must follow MDT file naming standards.
4. Commitment and Resolution Document (Submit Microsoft WORD file and hard copies).
5. Comment Response Document (submit Microsoft EXCEL file and hardcopy.)

ACTIVITY 153 Final Mitigation Design Plan

CORRESPONDING MDT REVIEW ACTIVITY:

274-Final Mitigation Design Plan Review

DEFINITION:

Revise, update and finalize wetland design based on comments received and decisions made at Plan in Hand review.

TASKS:

1. Make revisions to the design based on comments received during the Plan in Hand review as documented in the Plan in Hand Report and complete the design of miscellaneous features.
2. Provide erosion control plans.
3. If applicable, prepare a Supplemental Final Materials and Geotechnical Report. This report is required when the final geotechnical design and/or materials selection varies significantly from those identified in the Final Materials and Geotechnical Report. This report is to be signed by the author of the Final Materials and Geotechnical Report.
4. When a Supplemental Final Materials and Geotechnical Report is not deemed necessary, prepare a letter that verifies the final geotechnical design and/or materials selection is consistent with those identified in the Final Materials and Geotechnical Report. This letter is to be signed by the author of the Final Materials and Geotechnical Report.
5. Complete plans package including final plans, details and special provisions ready for final mitigation.

START DEPENDENCIES:

Activity 271

DELIVERABLES:

1. Completion of MDT Review Activity 274 checklist
2. Submittal of Final Mitigation Design Plan Package

ACTIVITY 154 Conduct and Complete Acquisition

CORRESPONDING MDT REVIEW ACTIVITY:

876 Request/Review R/W Plans (Blue Sheets)

DEFINITION:

Acquisitions from landowners, both private and public, of property required for R/W or other highway uses.

TASKS:

Conduct and Complete R/W Acquisition (824)

1. Review maps, deeds, documents, appraisals, title reports.
2. Prepare documents needed for property acquisition.
3. Contact owner (or representative) in person or by mail.
4. Apply for right-of-way over state land, Indian land or federal land.
5. Obtain grant of right-of-way from public agencies.
6. Present offer to property owner and obtain signatures.
7. Obtain mortgage releases, clear taxes and liens.

NOTE: R/W acquisition policy can be found in MDT R/W Operations Manual chapter 4.

Provide and Complete Relocation Assistance (822)

Provide relocation assistance only when directed by MDT.

START DEPENDENCIES:

Completion of MDT activity 834.

DELIVERABLES:

1. Completed acquisition package for each parcel delivered to Field R/W Supervisor.

ACTIVITY 156 R/W Plan Revisions After Authorization (Blue Sheets)

CORRESPONDING MDT REVIEW ACTIVITY:

876 Request/Review R/W Plans (Blue Sheets)

DEFINITION:

This is an iterative process between the consultant and MDT to revise R/W plans as required by design modifications and R/W negotiations.

NOTE:

Modifications to plans occur **ONLY** when directed by MDT R/W Design/Plans Section.

TASKS:

1. Receive/obtain direction from R/W Design/Plans Section to revise R/W plans
2. Revise R/W plans
8. Prepare R/W Form 501 (Blue Sheet)
9. Compile documentation to support revisions
10. Prepare new exhibits
11. Identify additional Design Exceptions, prepare Design Exception Request, and obtain Design Exception Approval (when applicable).

START DEPENDENCIES:

Completion of activity 875 and request for revisions from MDT Right of Way Design/Plans Section.

DELIVERABLES:

1. Revised Right-of-Way plans and exhibits (Hardcopy and Microstation dgn files. If applicable: R/W GEOPAK, input, output, and .txt files for R/W baseline and R/W break).
2. Form 501 (Microsoft WORD file and hard copies).
3. Documentation to support revisions.
4. Design exception request (when applicable).

ACTIVITY 158 Geotechnical and Materials Revisions

CORRESPONDING MDT REVIEW ACTIVITY:

444 Final Geotechnical and Materials Review

DEFINITION:

Finalize geotechnical design and materials based on comments received at Plan in Hand.

TASKS:

1. Incorporate all geotechnical and materials related comments from the Plan in Hand into the Final Plans
2. Review plans to verify all geotechnical design and material selections correspond with those identified in the Final Geotechnical Report
3. Prepare a Supplemental Final Materials and Geotechnical Report (as necessary). This report is required when the final geotechnical design and/or materials selection varies significantly from those identified in the Final Materials and Geotechnical Report. This report is to be signed by the author of the Final Materials and Geotechnical Report.
4. When a Supplemental Final Materials and Geotechnical Report is not deemed necessary, prepare a letter that verifies the final geotechnical design and/or materials selection is consistent with those identified in the Final Materials and Geotechnical Report. This letter is to be signed by the author of the Final Materials and Geotechnical Report.

START DEPENDENCIES:

Activity 270.

DELIVERABLES:

1. Completed MDT review activity 444 checklist.
2. Supplemental Final Materials and Geotechnical Report (as necessary and signed by the author of the Final Materials and Geotechnical Report)
3. Letter as identified in task 4 and signed by the author of the Final Materials and Geotechnical Report.

ACTIVITY 160 Process For Condemnation

CORRESPONDING MDT REVIEW ACTIVITY:

876 Request/Review R/W Plans (Blue Sheets)

DEFINITION:

Prepare and submit right-of-way parcels for condemnation.

TASKS:

Prepare Preliminary Condemnation Report in accordance with the latest edition of the Right of Way Manual.

START DEPENDENCIES:

Completion of Activity 834 and attempted acquisition under Activity 154.

DELIVERABLES:

1. Two copies of Negotiation History.
2. Two copies of all correspondence related to acquisition process.
3. Two copies of the unsigned R/W agreement.
4. Acquisition agent's copy of the appraisal including all applicable R/W forms or two copies of the Waiver Valuation.
5. Copy of the Title Commitment/ownership revisions.
6. Two copies of any unsigned deeds/easements for conveyance of property rights.
7. Two copies of Preliminary Condemnation Report

ACTIVITY 162 Final Plan Revisions

CORRESPONDING MDT REVIEW ACTIVITY:

295-Transmit to Contract Plans

DEFINITION:

Revise project plans package based on comments generated from Final Plan Review.

TASKS:

1. Incorporate all revisions to project plans as requested by the Department throughout the design/review process.
2. Update construction cost estimate.
3. Update special provisions.
4. Update WZSM worksheet.
5. Prepare cost estimate for Context Sensitive Design (CSD) projects.
6. Prepare the environmental mitigation measures cost estimate if applicable.
7. Prepare the cost estimate of construction within 15 m (50 ft.) of Railroad if applicable.
8. On projects with bridges, calculate the walkway or sidewalk and total deck area. (Edge of slab to edge of slab.)
9. On projects where shoulders are widened for walkway/bikeway, calculate the widened area and total roadway area.
10. On projects with bridges, calculate the volume of riprap below the Q2 elev. (normal high water elevation).

START DEPENDENCIES :

For non-wetland projects-completion of MDT review activities 273, 876, 592 (when applicable) and 627.
For wetland projects-completion of MDT review activities 274, 366, 445,624,787, and 825.

DELIVERABLES:

1. Submit one complete hard copies of all plans, non-standard special provisions, cross-sections, Traffic Management plans, quantity calculations and final construction cost estimate. One CD with all current files and a read me file with file descriptions.
2. Submit signed and stamped originals of Title Sheet, other plan sheets that are signed and stamped and original of other non-standard plans, for scanning (i.e. plan sheet not in dgn format).
3. Submit Context Sensitive Design (CSD) cost estimate if applicable.
4. Submit the environmental mitigation measures cost estimate if applicable.
5. Submit the cost estimate of construction within 15 m (50 ft.) of Railroad if applicable.
6. Submit soil borings and bridge borings in PDF format (if applicable).
7. On projects with bridges, submit the walkway and total deck area. (Edge of slab to edge of slab.)

8. On projects where shoulders are widened for walkway/bikeway, submit the widened area and total roadway area.
9. On projects with asphalt walkway, submit the walkway area and roadway area.
10. Submit one set of Erosion Control Plan.
11. On projects with bridges, send three (3) sets of General Layout and Footing plans and the volume of riprap below the Q2 elevation. Submit dated mylars of the Bridge plans: at a minimum, the Q sheet of the Bridge plans is required to be signed and stamped.
12. Completed MDT review activity 295 checklist.
13. Submit contract time documentation.

ACTIVITY 164 Prepare Traffic Plans for Plan In Hand

CORRESPONDING MDT REVIEW ACTIVITY:

436 Traffic Review for Plan In Hand

DEFINITION:

Preparation of traffic plans for Plan-in-Hand.

TASKS:

1. Prepare Electrical Plans
   - 1.1. Electrical Quantity Summaries.
   - 1.2. Electrical Detail Sheets and Drawings.
   - 1.3. Lighting Plans and calculations (photometric calculations, voltage drops, conduit fills, etc.)
     - 1.3.1. Compute preliminary roadway lighting alternates
     - 1.3.2. Identify preliminary R/W needs for electrical features
     - 1.3.3. Verify the location and type of electrical service with power company
   - 1.4. Signal Plans (Refer to the Electrical Section of the Traffic Manual.)
     - 1.4.1. Identify preliminary R/W needs for electrical features
2. Prepare Geometric details (Intersection details, roundabout details, interchange details, etc.)
   - 2.1. Geometric call outs
   - 2.2. Geometric coordinate tables
   - 2.3. Geometric roundabout tables if applicable
   - 2.4. Geometric radius table
3. Prepare Signing and Striping Plans
   - 3.1. Signing and Delineation Quantity Summaries
   - 3.2. Sign Location and Specification Sheets
   - 3.3. Signing Detail Sheets
   - 3.4. Striping Detail Sheets
   - 3.5. Signing Plans
   - 3.6. Sign design calculations
4. Analyze traffic plans and prepare special provisions and cost estimate.
   - 4.1. Analyze plans for conformance with standards (MUTCD, geometric design, lighting, etc.)
   - 4.2. Analyze plans for utility conflicts (underground and overhead)
   - 4.3. Prepare special provisions with an emphasis on constructability.
   - 4.4. Prepare cost estimate for Electrical and Signing.

START DEPENDENCIES:

Activity 266.

DELIVERABLES:

1. Completed MDT review activity 436 checklist.
2. Electrical plans with all supporting documentation (Hard copies and Microstation electronic format)

3. Geometric details with all supporting documentation. (Hard copies and Microstation electronic format)
4. Signing and striping plans with all supporting documentation. (Hard copies and Microstation electronic format)
5. Provide written documentation from the power company verifying the location, type of electrical service and associated costs.

ACTIVITY 165 Final Traffic Design

CORRESPONDING MDT REVIEW ACTIVITY:

439 Final Traffic Design Review

DEFINITION:

Finalize traffic plans.

TASKS:

1. Finalize Electrical Plans. Incorporate MDT Traffic comments.
   1.1. Electrical Quantity Summaries.
   1.2. Electrical Detail Sheets and Drawings.
   1.3. Lighting Plans
   1.4. Signal Plans
2. Finalize Geometric details (Intersection details, roundabout details, interchange details, etc.) Incorporate MDT Traffic comments.
   2.1. Geometric call outs
   2.2. Geometric coordinate tables
   2.3. Geometric roundabout tables if applicable
   2.4. Geometric radius table
3. Finalize Signing and Striping Plans. Incorporate MDT Traffic comments.
   3.1. Signing and Delineation Quantity Summaries
   3.2. Sign Location and Specification Sheets
   3.3. Signing Detail Sheets
   3.4. Striping Detail Sheets
   3.5. Signing Plans
   3.6. Sign design calculations
4. Finalize special provisions and cost estimate. Incorporate MDT Traffic comments.

START DEPENDENCIES:

Activity 438.

DELIVERABLES:

1. Completed MDT review activity 439 checklist.
2. Electrical plans. (Hard copies and MicroStation electronic format).
3. Geometric details. (Hard copies and MicroStation electronic format).
4. Signing and striping plans. (Hard copies and MicroStation electronic format).

ACTIVITY 166 Utility Plans

CORRESPONDING MDT REVIEW ACTIVITY:

882 Utility Plan Review

DEFINITION:

Preparation of utility plans to identify utility conflicts, Right-of-Way requirements and construction items. This information is used to determine utility conflicts and negotiate utility agreements.

TASKS:

1. Complete utility plans based on final construction limits, updated construction plans, final Right-of-Way plans, final hydraulic information and the projects environmental document.
2. Complete the Compliance Review Checklist for Utility Plans on next page.

START DEPENDENCIES:

Activity 270

DELIVERABLES:

1. Completed MDT review activity 882 checklist.
2. Utility Plans.
3. Compliance Review Checklist for Utility Plans.
4. ½ size sets of current construction plans and cross sections (complete with utility topography) check prints.
5. Utility CADD files (including the map file.)

ACTIVITY 170 Preliminary Hydraulics Report

DEFINITION:
Preparation of the preliminary Hydraulics Report which includes sufficient information to establish proposed alignment and grade.

CORRESPONDING MDT REVIEW ACTIVITY:
350 Review Preliminary Hydraulics Report

TASKS:

Prepare Location Hydraulic Study Report (354)

1. Identify and delineate drainage basins, perform preliminary hydrologic evaluations and record research.
2. Evaluation and discussion of: (In accordance with 23 CFR 650)
   2.1. Risks associated with proposed action.
   2.2. Impacts on natural and beneficial floodplain values.
   2.3. Support of probable incompatible floodplain development.
   2.4. Measures to minimize floodplain impacts associated with action.
   2.5. Measures to restore and preserve natural and beneficial floodplain values impacted by the action.
   2.6. Practicability of alternatives.
3. Discuss if proposed action will require involvement with existing and proposed regulatory programs.
   3.1. Floodplain management.
   3.2. Section 404/10 (Hydraulic Aspects.)
4. Write to local floodplain official for rules, copies of flood studies, etc. (Note: Several counties have adopted studies that are independent of FEMA.)
5. Research and discuss irrigation systems.
   5.1. Bureau of Reclamation.
   5.2. Dept. of Natural Resources and Conservation.
   5.3. Canal Companies.
   5.4. Private (Greenfields, FAID, etc.)
6. Write to ditch companies for design information.
7. Identify and discuss urban type problems.
   7.1. Storm Drain
   7.2. Utilities
   7.3. Outfalls
   7.4. Existing ponding or lack of positive drainage due to flat grades, development, etc.
8. Write to city officials for information on Storm Drainage Master Plans.
9. Identify and discuss possible channel modifications.
10. Coordinate, through the Consultant Project Engineer, survey requirements with District and Survey and Mapping Section.
11. Review DNRC High Hazard Dam locations in relation to highway project and discuss and coordinate with DNRC as needed.
12. Obtain pictures to document existing stream and stream bank conditions/stability above and below the proposed stream crossing. This will

assist in making decisions on fish passage. In addition, obtain representative stream bottom sample for gravel and cobble bottom streams at bridge sites to determine d50 and d90 for scour estimating.

13. Obtain a representative active channel width upstream and downstream of stream crossings that will require fish passage design requirements.
14. Discuss and document fish passage issues.

Preliminary Hydraulic Design (356)

1. Estimate of existing pipe capacity and its historical adequacy after discussion with Maintenance Personnel, review of old project files, and review of upstream and downstream structures.
2. Estimate of proposed pipe size if evaluation from (1) indicates existing structure is undersized.
3. Determine cover requirements for proposed pipe and insure minimums can be met.
4. Insure roadway is properly elevated above "Design Flood" highwater elevations for transverse and longitudinal stream encroachments.
5. Evaluate "risk" upstream of proposed crossings and determine impact proposed road grade may have.
6. Identify and discuss impacts of the proposed action on stream channels, irrigation ditches, and other appurtenances. This addendum should include evaluation and discussion of practicability of alternatives to any longitudinal encroachments. Items shall be discussed, commensurate with the significance of the risk or potential environmental impacts. Also identify subsequent impacts on right-of-way limits. Identify any impacts the proposed alignment and grade may have on pipe skew angles.
7. Evaluate potential fish passage requirements and their impact on pipe sizes that may affect road grades.
8. Determine if proposed cuts will result in the elimination of any pipes and what impact this will have on drainage or irrigation. If proposed grades create the need for siphons determine potential impacts (sediment, debris, etc)
9. Estimate remaining pipe-life for resurface projects.
10. Evaluate existing roadside ditch functions and the need to replace for drainage.
11. Evaluate project for irrigation waste ditch requirements to prevent irrigation flows from running in the highway ditch.
12. Insure minimum curb and gutter grades of 0.4% are met.

Size Bridge Openings (370)

1. Determine design, 2, 100, 500 and O.T. flows. (Prior to starting hydraulic design consultant shall submit hydrologic analysis to MDT Hydraulics Section for approval.)
   1.1. Analyze historic flood data for region.
   1.2. Begin developing model of existing conditions (FIS data, etc.)
2. Plot survey information and gather other available information of existing uses and requirements (existing high water marks, overtopping elevations,

backwater influence, fish passage, scour, ice, sediment or debris transport, stream bank stability).

3. Finalize water surface profile for existing structures and develop performance data for **several proposed** trial structures for hydraulic requirements.
4. Consider alternatives.
   4.1. Evaluate risks and constraints.
   4.2. Evaluate costs.
5. Select bridge opening.
6. Complete bridge scour computations. This may include a Level I or II evaluation depending on the scope and complexity of the project. (reconstruction requires detailed analysis).
7. Prepare riprap designs (bridge embankment protection, stream bank protection (including spot improvements), guide banks, special pier protection (for countermeasure only) and appropriate details.
8. Submit bridge recommendation.
9. Complete HYD-4 and/or Hydraulic Report.

START DEPENDENCIES:

Activity 100

DELIVERABLES:

1. Preliminary Hydraulic Report (Including Location Hydraulic Study Report) accompanied with Preliminary Road plans.
2. Completed MDT review activity 350 checklist.

ACTIVITY 171 Preliminary Hydraulics Report

CORRESPONDING MDT REVIEW ACTIVITY:

Activity 351- Preliminary Hydraulics Wetland Report Review

DEFINITION:

Evaluation and discussion of wetland/stream site with regard to practicality and feasibility of available water to sustain wetland/stream hydrology for proposed conceptual mitigation design.

TASKS:

1. Prepare Preliminary Hydraulics Report
2. Provide aerial photos, quad maps, floodplain maps, etc.
3. Evaluate potential floodplain impacts and risk associated with proposed action.
4. Identification and delineation of drainage basins associated with the site.
5. Evaluation and identification of ground and surface water sources including potential irrigation sources and the potential for sources to supply water to the wetland in perpetuity.
6. Development of preliminary water budget utilizing known parameters such as surface runoff, precipitation, evapo-transpiration, infiltration, groundwater, etc. Budget should include analysis of wet and dry years.
7. Evaluation of hydroperiod, including seasonal depth, duration and timing of inundation.
8. Historical hydrology of the proposed mitigation site.
9. Evaluation of available well data information.
10. Estimate of proposed pipe/inflow/outflow structure size and capacity.
11. Evaluation of landowner water rights.

START DEPENDENCIES:

Activity 100

DELIVERABLES:

1. Completion of MDT Review Activity 351 check list.
2. Preliminary hydraulics report to include a water budget

ACTIVITY 172 Final Hydraulics Report

CORRESPONDING MDT REVIEW ACTIVITY:

352 Review Final Hydraulics Report

DEFINITION:

Final Hydraulics Report: This report should be a stand-alone document incorporating all information developed in the Preliminary Hydraulics Report such as hydrology, drainage areas, updated bridge recommendations and reports, and a detailed analysis of all drainage, irrigation and storm drain facilities and recommended size and type of structure. Preliminary estimates made in consultant activity 170 should be refined and final pipe options and materials established. Bridge recommendations and models should reflect established final alignment and grade selected, span arrangement and pier widths.

TASKS:

Storm Drain Design (362)

1. Develop:
   1.1. Runoff patterns.
   1.2. Compute runoff.
   1.3. Compute spread width.
   1.4. Trunkline sizing.
2. Develop plans showing:
   2.1. Existing groundlines and utilities (plan and elevation.)
   2.2. Proposed finished roadway grades.
   2.3. Type, size, spacing of inlets.
   2.4. Trunk-lines and grades.
   2.5. Outfalls.
   2.6. Detention/Sediment basin (if required.)
   2.7. Details and special provisions.
3. Coordinate with the city where appropriate. Coordinate design with Municipal Storm Water Master Plan and MS4 requirements.
4. Identify utility conflicts (DEQ approval may be required.)
5. Prepare final storm drain report.
6. Prepare preliminary storm drain agreement and engineering documentation outlining cities participation, if appropriate, and send to city for concurrence of participatory ratios and area drained.
7. Check location of drop inlets to insure compatibility with ADA requirements, bulb-outs and other road design features

Size Box or Pipe Culverts (364)

1. Plot or layout survey information.
2. Analyze historical flood data and calibrate water surface profiles to existing structures.
3. Compute final runoff values.
4. Analyze alternate structures.

4.1. Evaluate flood risks.
4.2. Evaluate costs.
4.3. Evaluate constraints including constructability and detour configuration.
4.4. Prepare Water Surface Profiles as required.

5. Obtain additional survey data if required.
6. Review structural requirements (fill heights, etc.)
7. Prepare Hydraulic Data Summary Sheet.
8. Complete channel change and riprap designs.
9. Develop preliminary details for fish passage considerations as required (e.g. resting pools, weirs, drops, boulder clusters, baffles, channel change and "specialty" items.)
10. Review soil resistivity and pH results for use in computing estimated pipe life (new pipes and pipe extensions) in accordance with service life guidelines to determine if optional pipe is appropriate. All material selections should be documented in accordance with Department guidelines.

Size Irrigation Structures (368)

1. Plot or layout survey information and determine existing uses and requirements.
2. Review "irrigation justification report".
3. Determine discharges and free-board requirements.
4. Calibrate existing structure capacity and water surface elevations to a known discharge.
5. Determine proposed structure capacity and water surface elevations or profiles as necessary.
6. Determine velocities (ditch and structure.)
7. Obtain additional survey data and coordinate with irrigation districts and operators as required.
8. Determine general layout for proposed system.
9. Prepare details and special provisions.
10. Prepare cost estimates and compare alternates.
11. Review soil resistivity and pH results for use in computing estimated pipe life (new pipes and pipe extensions.) All material selections should be documented in accordance with Department guidelines.

START DEPENDENCIES:

Activity 266

DELIVERABLES:

1. Final Hydraulic Report accompanied with Plan in Hand Road plans.
2. Completed MDT review activity 352 checklist.
3. Hydraulic Data Summary.

ACTIVITY 173 Final Wetlands Hydraulics Report

CORRESPONDING MDT REVIEW ACTIVITY:

353 Final Wetland Hydraulics Report Review

DEFINITION:

Submittal of Final Water Evaluation Plan Revisions that include a final water budget and other information to complete plans, summaries and details for Plan In Hand.

TASKS:

1. Revise preliminary Hydraulics report to incorporate comments received.
2. Finalize water budget to include actual infiltration rates, groundwater flow rates, precipitation rates, irrigation diversion or other water sources if applicable.
3. Finalize surface water runoff, storage requirements, inflow/outflow structures, culverts, water delivery systems and spillway design details.
4. Finalize stream channel and floodplain design if appropriate.
5. Coordinate with city/county officials if appropriate.
6. Identify utility conflicts.
7. Analyze alternate inflow/outflow structures.
8. Evaluate flood risks.
9. Evaluate costs.
10. Evaluate constraints.
11. Develop preliminary details for fish passage considerations (e.g. resting pools, weirs, drops, boulder clusters, channel change and "specialty" items) if applicable.
12. Review soil resistivity and pH results for use in computing estimated pipe life to determine appropriate pipe material.
13. Prepare Draft Water Rights Application.
14. Prepare Draft Flood Plain Permit Application.

START DEPENDENCIES:

Activity 266.

DELIVERABLES:

1. Completion of MDT Review Activity 353 checklist.
2. Final Hydraulics Report to include water budget.
3. Draft Water Rights Application.
4. Draft Flood Plain Permit Application.

ACTIVITY 174 Final Hydraulic Updates, Permits and Revisions

CORRESPONDING MDT REVIEW ACTIVITY:

366 Final Hydraulic Updates

DEFINITION:

Final documentation of permits, agreements, plan updates. Incorporate as addenda to Final Hydraulic Report.

TASKS:

Prepare, Submit, and Coordinate Regulatory Permits (382)

1. Complete floodplain application and draft cover letter. Submit to MDT for review prior to consultant's submission to floodplain administrator.
2. Coordinate and respond to permit application inquiries. Perform any additional modeling required as a result of application inquiries.
3. Coordinate required plan changes and prepare necessary special provisions.
4. Revise and update details that are the direct result of "additional or new" environmental requirements.
5. Coordinate necessary approvals or exceptions with DEQ for storm drain conflicts or waterline adjustments.
6. When drainage sumps are required, complete EPA notification and sketch. (To be submitted with activity 148.)

Revise and Update Hydraulics Recommendations (384)

1. Finalize structure/channel change details and provisions as required.
   1.1. Riprap protection.
   1.2. Guide banks, spurs, bendway weirs etc.
   1.3. Special installation requirements.
   1.4. Low water crossing design (culvert.)
   1.5. Fish rocks or habitat structures.
   1.6. Channel Drops.
2. Provide technical assistance on ordinary high water to Environmental Bureau for 404 Permits, lake shore (Missoula District only.)
3. Finalize irrigation details and special provisions and submit irrigation designs to canal companies, BIA, or Bureau of Reclamation for approval as applicable.
4. Design revisions required due to R/W involvements after PIH.

Final Hydraulic Plans Update (390)

1. Review and revise drainage and irrigation items affected by R/W negotiation as required.
2. Review utility agreements to determine conflicts, relocations and required plan revisions.

START DEPENDENCIES:

For non-wetland projects completion of activity 270.
For wetland projects completion of activity 271.

DELIVERABLES:

1. Draft floodplain application package if applicable.
2. Design documentation incorporating all approvals, changes, revisions, and updates for final plan review.
3. Approved floodplain permit if applicable.
4. Completion of MDT review activity 366.

ACTIVITY 175 Final Plan Review

CORRESPONDING MDT REVIEW ACTIVITY:

Activity 273

DEFINITION:

Attend the Final Plan Review Meeting if necessary. Submit the Final Plan Review report. The Project Engineer will determine if a Final Plans Review meeting is required based on the scope and/or quantity of changes since Plan in Hand.

TASKS:

1. Attend the office and field review of the final plans and obtain decisions in sufficient detail to prepare final construction plans (Activity 162.)
   1.1. Discuss Commitment and Resolution document.
2. Submit Final Plan Review report summarizing comments received and proposed resolution.
   2.1. Revise and submit cost estimate per Final Plan Review comments.
3. Verify all Design Exceptions have been approved.
4. Update Commitment and Resolution Document to address commitments made by MDT during the Environmental process and modified during discussions at Final Plan Review Meeting.
5. Update Comment Response Document based on previous unresolved comments.
6. Update TMP based on any additional meetings held with the WZSM Development Team.

START DEPENDENCIES:

Completion of MDT review of activities 272, 366, 438, 444, 590, 624 and 786.

DELIVERABLES:

1. Completed MDT review activity 273 checklist.
2. Final Plan Review Report with cost estimate.
3. Design Exception Request (when applicable.)
4. Updated Commitment and Resolution Document. (Submit Microsoft WORD file and hard copies).
5. Updated Comment Response Document. (Submit Microsoft EXCEL file and hard copy)
6. Updated TMP.

ACTIVITY 177 Cultural Resource Management

CORRESPONDING MDT REVIEW ACTIVITY:

708 Cultural Resource Management Review

DEFINITION:

Conduct a cultural resource inventory of the project's area of potential environmental impact to identify cultural material, features, or sites. This process will produce a draft and final Cultural Resource Inventory Report.

This is an iterative process with MDT to finalize the Cultural Resources Inventory Report.

TASKS:

1. Perform inventory to determine whether historic properties exist.
2. Evaluate significance of identified sites.
3. Prepare Draft Cultural Resource Inventory Report in accordance with the latest edition of the MDT Cultural Resource Manual detailing survey methods, results including site identification, and evaluation of National Register eligibility.
4. Incorporate MDT comments to prepare final Cultural Resource Inventory Report.

START DEPENDENCIES:

Activity 100.

DELIVERABLES:

1. Complete MDT activity 708 checklist.
2. Draft Cultural Resource Inventory Report.
3. Final Cultural Resource Inventory Report.

ACTIVITY 178 Request Environmental Information

CORRESPONDING MDT REVIEW ACTIVITY:

710-Prepare/Review Enviromental Information Requests

DEFINITION:

This is an iterative process with MDT to prepare draft and final requests for information necessary to assess and forecast related environmental impacts.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

TASK:

Depending on the proposed preliminary scope of work, type of project and geographic/jurisdictional location, MDT sends requests for specific information to various community, city, county, state, tribal and federal agencies. For Environmental Impact Statements, refer to section 6002 SAFETEA-LU for participating agency coordination. Prepare draft and final correspondence to affected agencies or organizations.

DELIVERABLES:

1. Draft request for information letters. (Submit Microsoft WORD file and a hard copies.)
2. Final request for information letters incorporating MDT comments. (Submit Microsoft WORD file and a hard copies.)

START DEPENDENCIES:

Completion of Activity 780.

ACTIVITY 179 Preliminary Traffic Noise Analysis

CORRESPONDING MDT REVIEW ACTIVITY:

717 Preliminary Traffic Noise Analysis Review

DEFINITION:

This activity is referred to as "Highway Traffic Noise Preliminary Screening Procedure" in the MDT Noise Procedure Manual. Preliminary reporting on potential noise impacts are based on existing alignment, projected traffic volumes and measured noise levels.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

TASKS:

Review the PFR to determine need for noise analysis and level of analysis required. If no analysis is needed, this can be documented on the ISA form.

IF A NOISE ANALYSIS IS NECESSARY:

1. Follow the procedures for the Highway Traffic Noise Preliminary Screening Procedure outlined in the MDT Noise Manual. This document can be found on MDT's website.
2. Use FHWA-approved noise modeling software, such as Traffic Noise Model (TNM) or TNM Lookup to calculate existing and design year noise levels for the various options being considered.
3. Document potential noise impacts and make recommendations and/or suggestions for reducing or minimizing those impacts such as changing the horizontal or vertical alignment. Explain if more analysis is or may be needed

START DEPENDENCIES:

Activity 100

DELIVERABLES:

1. Completed MDT review Activity 717 checklist
2. Preliminary Traffic Noise Analysis Report or ISA form.

ACTIVITY 180 Air Quality Conformity Determination

CORRESPONDING MDT REVIEW ACTIVITY:

742- Air Quality Conformity Determination Review

DEFINITION:

Conduct air quality and transportation conformity analysis in non-attainment and maintenance areas to determine if a proposed project will adversely impact ambient air quality levels of carbon monoxide (CO) and particulate matter (PM10 and/or PM2.5).

Air Quality transportation conformity regulations change often, so the following steps may not be up-to-date, but they provide a place to start. Consult most recent regulations pertaining to Transportation Conformity and the Clean Air Act to determine pollutants to be examined (e.g., PM10, PM2.5, and CO), and the most recent regulatory requirements needed to make a determination on project level conformity.

This may be an iterative process with MDT to produce an air quality conformity determination.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

TASKS:

1. Determine if project is in a non-attainment or maintenance area for CO, PM10, and/or PM2.5, and determine if project is exempt from conformity (Table 2, 40 CFR 93.126).
2. Determine if project needs a CO hot-spot analysis. Consult the regulations (93.123) and follow required consultation procedures (Montana Air Quality SIP).
3. Determine need for PM10 or PM2.5 hot-spot analysis. If project is not listed in Table 2 of 40 CFR 93.126, then determine if it is a project of "localized air quality concern." Refer to Transportation Conformity Guidance for Qualitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas (EPA420-B-06-902, March, 2006).
4. Determine need for a discussion of Mobile Source Air Toxics (MSATs). This is not required for projects that are categorically excluded under 23 CFR 771.117(c), or those projects which are exempt under the Clean Air Act (Transportation Conformity, 40 CFR 93.126). All other projects, whether located in a non-attainment area or not, require some level of discussion of MSATs. Refer to FHWA guidance document HEPN-10, dated Feb 3, 2006.
5. Document on ISA form or prepare a memo regarding conformity of project. If necessary to document consultation procedures as outlined in Montana's SIP, prepare a draft letter to appropriate state, local and federal agencies

stating MDT's conformity determination. We do not request concurrence, but assume concurrence unless otherwise notified by a deadline (usually 3-4 weeks from date of letter). Work with MDT Environmental Services Bureau on this task.

DELIVERABLES:

1. Draft ISA form or memo regarding conformity of project. (Submit Microsoft WORD file and hard copies.)
2. Conformity determination letter if required. (Submit Microsoft WORD file and hard copies.)
3. Final ISA form or memo regarding conformity of project as necessary. (Submit PDF file and hard copies.)

ACTIVITY 181 Hazardous Materials / Substances and Water Quality-ISA

CORRESPONDING MDT REVIEW ACTIVITY:

701 Hazardous Materials/Substances and Water Quality-ISA Review

DEFINITION:

Identify potential hazardous materials/substances and water quality contamination issues on a project, and determine if Preliminary Site Investigation (PSI) is necessary.

This may be an iterative process with MDT to finalize the Initial Site Assessment Report.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

TASKS:

1. Perform Initial Site Assessment (ISA Checklist). May include review of translites, plans (if available), As-Builts, photo log and on-site review (if warranted).
2. Review historic land uses including but not limited to State and Federal Superfund list, MDEQ Underground Tank Program files, etc.
3. Consult with appropriate environmental regulatory agencies to determine if hazardous materials/substances or water quality issues are present.
4. Determine necessity for Preliminary Site Investigation.
5. Prepare the draft ISA checklist or report as required.
6. Prepare final ISA checklist or report incorporating MDT comments

START DEPENDENCIES:

Activity 100

DELIVERABLES:

1. Draft ISA checklist or report
2. Final ISA checklist or report

ACTIVITY 182 Biological Resource Report /Biological Assessment

CORRESPONDING MDT REVIEW ACTIVITY:

706 Prepare/Review BRR/BA

DEFINITION:

Evaluation and assessment of a project's affects on the fish, wildlife, critical habitats, rare and/or sensitive plants, wetland, river, stream, and other water resources located at the project site and/or along the project corridor.
An analysis and discussion of a project's affects on threatened and/or endangered species, critical habitats, and sensitive species. Biological Assessment includes proposed Conservation Measures or other relevant mitigation.

If CE is required then prepare only a BRR. If EA or EIS is required, prepare a BRR/BA report.

This is an iterative process with MDT to finalize the Biological Resource Report/Biological Assessment.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

TASKS:

Draft BRR/BA

1. Perform a field and a literature review to identify all general wildlife, fish, critical habitats, vegetative communities and rare and/or sensitive plants located at the project site and/or along the project corridor.
2. Perform a field and literature review to identify all wetlands, rivers, streams, and other water resources located at the project site or not less than 150-feet on either side of the centerline (unless advised otherwise by MDT) along the project corridor.
3. Discuss the location, size, habitat characteristics and the relative functions of all wetlands, rivers, streams, and other water resources that may be affected. Identify and map the ordinary high water mark.
4. Delineate wetlands utilizing both the 1987 Army Corps of Engineers Manual as well as the MDT Functional Assessment Method.
5. Map the wetland areas on a set of plans or through survey or GPS data gathering for inclusion on the plan sheets for the project. Estimate potential impacts to wetlands resulting from the project.
6. Make a preliminary jurisdictional determination of all delineated wetlands and waters of the U.S. Justify the jurisdiction of the delineated wetlands by providing rationale obtained from literature review and "field truthing" and/or discussions with the MDT District Biologist. If necessary, the MDT District

Biologist will schedule field reviews with MT FWP, DEQ, USFS, BLM, DNRC, USFWS, MDT personnel and other pertinent agencies.

7. Identify and discuss potential on-site, project specific, wetland mitigation sites.
8. Request information from MT FWP, DEQ, USFS, BLM, DNRC, USFWS, Tribal staff and any other pertinent agencies that have a management or regulatory interest in the wildlife, fish, critical habitats, rare and/or sensitive plants, wetlands, rivers and streams, and other water resources that may be affected by the project. Requested information from regulatory agencies is to be delivered directly to MDT.
9. Prepare a written assessment of the fish, wildlife, critical habitats, rare and/or sensitive plants, wetland, river, stream, and other water resources located at the project site and/or along the project corridor. The assessment will include a comprehensive analysis and discussion, including suggestions for the avoidance and/or minimization of impacts to, of the fish, wildlife, critical habitats, rare and/or sensitive plants, wetland, river, stream, and other water resources at the project site and/or along the project corridor.
10. Research, analyze, and discuss the threatened and/or endangered species, critical habitats, and sensitive species at a specific construction site or throughout a project's construction corridor including but not limited to species status and distribution, life history and habitat requirements, reasons for decline, occurrence in the project area, analysis, recommended conservation measures, and determination of effect. This may include the appropriate correspondence or early coordination with USFWS staff, or any other cooperating resource agency.
11. Recommend avoidance and minimization measures, special design features, timing restrictions, and other special provisions that should be considered and/or implemented to avoid and minimize affects to a threatened and/or endangered species, critical habitat, or sensitive species at a specific construction site or throughout a project's construction corridor.

Final BRR/BA

1. Incorporate comments received and prepare the Final BRR/BA.

Note: All resource reports submitted under this activity require the signature of the document's author.

START DEPENDENCIES:

Completion of Activity 100

DELIVERABLES:

1. Draft Biological Resource Report.
2. Draft Biological Assessment if necessary.
3. Final Biological Resource Report.
4. Final Biological Assessment if necessary.

ACTIVITY 190 Utility Plan Revisions

CORRESPONDING MDT REVIEW ACTIVITY:

814 Negotiate for Utility Agreements

DEFINITION:

Revisions to Utility Plans that result from R/W revisions.

TASKS:

Revise Utility plans to reflect all R/W changes.

START DEPENDENCIES:

Activity 882

DELIVERABLES:

1. Final Utility CADD files
2. ½ size sets of current construction plans and x-sections (complete with utility topog) check prints.
3. Revised Utility plans

ACTIVITY 192 Prepare Administrative Draft Environmental Document

CORRESPONDING MDT REVIEW ACTIVITY:

787-Review Administrative Draft Environmental Document

DEFINITION:

This is an iterative process with MDT to provide for legal sufficiency and agency review (as necessary) of Administrative Draft environmental document/Section 4(f) Evaluation, address comments received from agencies and legal resources, and produce a document that is acceptable for public review and comment. "Agencies" are defined as resource agencies and/or cooperating agencies. The consultant will coordinate with MDT to determine these agencies.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

192-787 ITERATIVE ACTIVITY TIMELINES

Concurrent activities/Iterative process/Finish-Finish Activities.
Total Durations are estimated and may vary on a project basis.
Durations are set based on working days (OPX2) not calendar days unless otherwise noted.

Act. 192	C1		C3		C5	.
Act. 787		E2		E4	E6	.

C1 – Consultant. Print Administrative Draft Environmental Document/Section 4(f) Evaluation and submit to MDT. Submit draft agency distribution list and cover letter for transmitting Administrative Draft document for MDT review and signature. Default duration of 10 days or less.

E2 – MDT/FHWA. Send Administrative Draft Environmental Document/Section 4(f) to agencies and legal resources (as required). Duration includes: 5 days to transmit, 22 days for agency review (30 calendar days), and 5 days to transmit back to MDT. Default duration is 32 days.

C3 – Consultant. Submit the Comment and Response document that includes proposed document edits based upon comments from agencies and legal reviewers. Prepare responses to address comments from agency reviews. (At a minimum, the response letter will be a courtesy to acknowledge receipt of comments and indicate that comments will be "considered during project development.") Default duration of 20 days or less.

E4 - MDT/FHWA. Review consultant's Comment and Response document and draft agency response letters. Default duration of 20 days.

C5 – Consultant. Modify environmental document/Section 4(f) Evaluation and draft agency response letters accordingly. Default duration of 15 days or less.

E6 – MDT/FHWA. Provide approval to print EA or DEIS. Review, sign and send agency response letters. Default duration of 15 days.

Activity is complete when MDT sends agency response letters and provides print approval.

Total Duration: 112 days or less

TASKS:

1. Prepare for distribution of document/Section 4(f) Evaluation to agencies and legal by:
   1.1. Coordinating review period
   1.2. Printing appropriate number of copies
   1.3. Preparing draft cover letters, distribution list and mailing labels, etc.
2. Prepare responses to address comments from agencies and legal reviews. Use MDT Comment and Response Template located on MDT Internet Website.
3. Prepare draft agency response letters.
4. Make changes to administrative draft document/Section 4(f) Evaluation in preparation for approval for public review and comment (include planned viewing locations). For EA only and in cooperation with MDT, determine if a public hearing will be conducted. Prepare for public review (for example drafting post cards, contacting viewing location, drafting public review distribution list, drafting notice of availability, etc.)
5. Receive from MDT Consultant Project Engineer approval to print signature copies of EA or DEIS Documents (Verify with MDT Consultant Project Engineer that MDT Environmental and FHWA approval has been received.)

DELIVERABLES:

1. Administrative Draft Environmental Document/Section 4(f) Evaluation (Submit PDF file and coordinate with MDT Consultant Project Engineer for number of hard copies.)
2. Draft cover letters to agencies with distribution list and mailing labels, etc. (Submit Microsoft WORD file and hard copies.)
3. Comment and Response document. (Submit Microsoft WORD file and hard copies.)
4. Revised Draft Environmental Document/Section 4(f) Evaluation (Submit Microsoft WORD file using Track Changes and coordinate with MDT Consultant Project Engineer for number of hard copies.)
5. Revised Comment and Response document. (Submit Microsoft WORD file using Track Changes and hard copies.)

6. Draft response letters addressing agency comments. (Submit Microsoft WORD file and hard copies.)

START DEPENDENCIES:

Completion of Activity 116, 262, 322, 332, 350, 432, 440, 586, 622, 870, 873 and 782

ACTIVITY 195 EA Public Comment Period

CORRESPONDING MDT REVIEW ACTIVITY:

788 Review EA

DEFINITION:

FOR ENVIRONMENTAL ASSESSMENTS (EA) ONLY. Public Review and Comment on the Environmental Assessment, including draft Section 4(f) Evaluation(s) if necessary. This is an iterative process with MDT to coordinate the EA for public distribution. Gather comments and conduct public hearing as appropriate.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

195-788 ITERATIVE ACTIVITY TIMELINES

Concurrent activities/Iterative process/Finish-Finish Activities.
Total Durations are estimated and may vary on a project basis.
Durations are set based on working days (OPX2) not calendar days unless otherwise noted.

Act. 195 C1 C3 C5 .
Act. 788 E2 E4

C1 – Consultant. Print copies of the Environmental Assessment (EA) for signature. Submit public availability distribution package. Default duration of 10 days or less.

E2 - MDT/FHWA. Review and MDT/FHWA signatures. Includes: 10 day review and signature by MDT, 5 days transmit from MDT to FHWA, 10 day review and signature by FHWA, 5 days transmit from FHWA to MDT. Standard 30 day duration.

C3 – Consultant. Print signed copies of EA. Submit PDF file five days prior to public availability. Distribute for public review. Default duration of 10 days or less.

E4 - MDT/FHWA. Post PDF file on MDT website. If full Section 4(f) Evaluation applies, then FHWA distributes to appropriate Section 4(f) Evaluation reviewers. Standard 5 day duration

C5 – Consultant. Public comment period and hold public hearing if applicable. Default duration of 22 days (Public availability period of 30 calendar days begins when the document is available for viewing by the public). If full Section 4(f)

Evaluation applies, then default duration of 32 days (includes a 45 calendar day Section 4(f) Evaluation review).

Complete when Public comment period ends.

Total Duration: 77 days or less. (87 days or less if full Section 4(f) Evaluation applies.)

TASKS:

NOTE: For public distribution, refer to Public Distribution Help Sheet.

1. Print copies of Environmental Assessment (EA) for MDT and FHWA signature. If full Section 4(f) Evaluation applies, then bind draft Section 4(f) Evaluation to EA.
2. Prepare for distribution of document. Coordinate notice of availability timelines with MDT and FHWA.
3. Prepare public availability distribution package – including the draft letters for distribution to general inquiry, specific agencies, and viewing locations; draft mailing lists; draft postcards; press releases; and advertisement document. Submit for MDT approval.
4. Receive from MDT Consultant Project Engineer signature pages of EA; all signed distribution letters; mailing list approval; and post card approval for printing.
5. Print appropriate number of signed copies of EA and distribute. If full Section 4(f) Evaluation applies, then bind draft Section 4(f) Evaluation to EA.
6. If public hearing will be held:
   6.1. Coordinate with MDT to prepare for public hearing (MDT Public Information Officer, District, etc.)
   6.2. Produce materials necessary for public hearing (displays, "hand outs", Power Point Presentation etc.)
   6.3. Receive approval on public hearing materials.
   6.4. Facilitate and conduct the public hearing unless otherwise directed by MDT.

DELIVERABLES:

1. Hard copies of EA for signature. (Coordinate with MDT Consultant Project Engineer for number of hard copies.)
2. Draft letters to resource agency.
3. Draft letters and postcards, mailing lists, press releases and advertisements. (Submit Microsoft WORD files and hard copies.)
4. Signed copies of EA (Submit PDF file and coordinate with MDT Consultant Project Engineer for number of hard copies.)
5. Final distribution package- including sample post card, all mailing lists etc. (Submit Microsoft WORD files and coordinate with MDT project manager for number of hard copies.)
6. Materials necessary for public hearing.

START DEPENDENCIES:

Completion of Activity 192 and 787

ACTIVITY 196 Prepare Environmental Decision Document (FONSI, etc.)

CORRESPONDING MDT REVIEW ACTIVITY:

789 Review Environmental Decision Document (FONSI, etc.)

DEFINITION:

FOR ENVIRONMENTAL ASSESSMENTS ONLY, including Section 4(f) Evaluation(s) if necessary. This is an iterative process with MDT to address comments received on the EA and produce the Decision Document for MDT/ FHWA approval. This activity will conclude with either a Finding of No Significant Impact (FONSI) or a letter identifying future actions.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

196-789 ITERATIVE ACTIVITY TIMELINES

Concurrent activities/Iterative process/Finish-Finish Activities.
Total Durations are estimated and may vary on a project basis.
Durations are set based on working days (OPX2) not calendar days unless otherwise noted.

Act. 196 C1 C3 C5 *C7* *C9* C12
Act. 789 E2 E4 *E6* *E8* *E10* /E11 E13

___ - FOR FULL SECTION 4(f) EVALUATION ONLY.

C1 – Consultant. Respond to comments using appropriate Comment and Response document template. Default duration of 20 days or less, or as determined by negotiation with MDT/FHWA.

E2 – MDT/FHWA. Review Comment and Response document. Standard 20 day duration.

C3 – Consultant. Revise Comment and Response document and prepare draft decision document. Default duration of 20 days or less.

E4 – MDT/FHWA. Review Comment and Response Document and draft decision document. Standard 20 day duration.

C5 – Consultant. Address changes to draft decision document. Submit for print approval. Default duration of 15 days or less.

E6-MDT/FHWA. FOR FULL SECTION 4(f) EVALUATION ONLY. Print approval for Full Section 4(f) Evaluation and draft decision document. Default duration of 10 days.

C7 – Consultant. FOR FULL SECTION 4(f) EVALUATION ONLY. Print full Section 4(f) Evaluations and draft decision document for FHWA Legal sufficiency review. Default duration of 10 days or less.

E8 - FHWA. FOR FULL SECTION 4(f) EVALUATION ONLY. FHWA submits for Legal sufficiency review. Includes: 5 days to transmit, 22 day review (30 calendar days), 5 days transmit back to MDT. Default duration of 32 days.

C9 – Consultant. FOR FULL SECTION 4(f) EVALUATION ONLY. Obtain Working Group intent to address Legal sufficiency review comments. Prepare Comment and Response Document using the appropriate template. Modify the draft decision document accordingly. Default duration of 15 days or less.

E10 - MDT/FHWA. FOR FULL SECTION 4(f) EVALUATION ONLY. Review Comment and Response Document and modified decision document addressing Legal sufficiency review comments. Duration included in E11..

E11 – MDT/FHWA. Provide approval to print decision document. Standard 10 day duration.

C12 – Consultant. Print appropriate number of decision documents for signature and draft distribution letters. Default duration of 10 days or less.

E13 – MDT. Review, approve, and submit for signatures. Standard 5 day duration.

The activity is complete when MDT clears the decision document for signature.

Total Duration (With 4(f)): 187 days or less.
Total Duration (Without 4(f)): 120 days or less.

TASKS:

NOTE: For public distribution, refer to Public Distribution Help Sheet.

1. Prepare responses to address comments from the public. Use MDT Comment and Response Template located on MDT Internet Website. (C1)
2. Make changes to Comment and Response document and prepare draft decision document. (C3)
3. Make changes to draft decision document to address comments from MDT/FHWA. (C5)
4. FOR FULL SECTION 4(f) EVALUATION ONLY. Receive from MDT Consultant Project Engineer approval to print decision documents. Print draft decision documents for legal sufficiency review (C7). (Verify with MDT Consultant Project Engineer that MDT Environmental and FHWA approval has been received.)

5. FOR FULL SECTION 4(f) EVALUATION ONLY. Print appropriate number of draft decision documents and final Section 4(f) Evaluation for legal sufficiency review (C7).
6. FOR FULL SECTION 4(f) EVALUATION ONLY. Obtain comments from Working Group regarding how to address Legal sufficiency review comments. A Working Group meeting may be required. Prepare Comment and Response document template. Modify decision document to address legal review comments. (C9)
7. Receive from MDT Consultant Project Engineer approval to print decision documents and print appropriate number of decision documents for signature. (Verify with MDT Consultant Project Engineer that MDT Environmental and FHWA approval has been received.) (C12)
8. Prepare draft public availability distribution package. Submit for MDT approval. Coordinate notice of availability timelines with MDT and FHWA. (C12)
9. COMPLETE TASK AFTER SIGNATURES IN ACTIVITY 223. Receive from MDT Consultant Project Engineer Signature pages of decision document for printing.
10. COMPLETE TASK AFTER SIGNATURES IN ACTIVITY 223. Receive from MDT applicable parts of the public availability distribution package.
11. COMPLETE TASK AFTER SIGNATURES IN ACTIVITY 223. Print appropriate number of signed decision documents. Distribute decision document and final public availability distribution package.

DELIVERABLES:

1. Public review Comment and Response document. (Submit Microsoft WORD file and hard copies.) (C1)
2. Draft decision document and revised public review Comment and Response document. (Submit Microsoft WORD file using Track Changes and hard copies.) (C3)
3. Draft decision document with changes incorporated. (Submit Microsoft WORD file using Track Changes and coordinate with MDT Consultant Project Engineer for number of hard copies.) (C5)
4. FOR FULL SECTION 4(f) EVALUATION ONLY. Draft decision document and final Section 4(f) Evaluation for legal sufficiency review. (Submit PDF file and coordinate with MDT Consultant Project Engineer for number of hard copies.) (C7)
5. FOR FULL SECTION 4(f) EVALUATION ONLY. Modified decision document and Comment and Response document. (Submit Microsoft WORD file and hard copies.) (C9)
6. Decision document for signature. (Coordinate with MDT Consultant Project Engineer for number of hard copies.) Draft public availability distribution package. (Submit Microsoft WORD files and hard copies.) (C12)
7. COMPLETE DELIVERABLE AFTER SIGNATURES IN ACTIVITY 223. PDF files of public availability distribution package and decision document. (Coordinate with MDT Consultant Project Engineer for number of hard copies.)

START_DEPENDENCIES:

Completion of Activity 195 and 788.

ACTIVITY 197 Public Comment Period on Draft EIS

CORRESPONDING MDT CHECK ACTIVITY:

791 Review Draft EIS

DEFINITION:

FOR ENVIRONMENTAL IMPACT STATEMENTS ONLY, including draft Section 4(f) Evaluation(s) if necessary. This is an iterative process with MDT to coordinate the DEIS for public distribution. Conduct public hearing and gather comments.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

197-791 ITERATIVE ACTIVITY TIMELINES

Concurrent activities/Iterative process/Finish-Finish Activities.
Total Durations are estimated and may vary on a project basis.
Durations are set based on working days (OPX2) not calendar days unless otherwise noted.

Act. 197 C1 C3 C4 .
Act. 791 E2

C1 – Consultant. Print copies of the Draft Environmental Impact Statement (DEIS) for signature. Default duration of 10 days or less.

E2 - MDT/FHWA. Review and MDT/FHWA signatures. Includes: 10 day review and signature by MDT, 5 days transmit from MDT to FHWA, 10 day review and signature by FHWA, 5 days transmit from FHWA to MDT. FHWA prepares cover letter for Federal Register. Standard 30 day duration.

C3 – Consultant. Print signed copies of DEIS and distribute to the public. Default duration of 10 days or less.

C4 – Consultant. Public comment period and hold public hearing. Default duration of 32 days (Public Availability period of 45 calendar days begins the date the notice is published in the Federal Register.)

Complete when Public comment period ends.

Total Duration: 82 days or less

TASKS:

NOTE: For public distribution, refer to Public Distribution Help Sheet.

1. Print copies of Draft Environmental Impact Statement (DEIS) for MDT and FHWA signature.
2. Prepare for distribution of document. Coordinate notice of availability timelines with MDT and FHWA.
3. Prepare public availability distribution package – including the draft letters for distribution to general inquiry, specific agencies, and viewing locations; draft mailing lists; draft postcards; press releases; and advertisement document. Submit for MDT approval.
4. Receive from MDT Consultant Project Engineer signature pages of DEIS for printing.
5. Print appropriate number of signed copies of DEIS and distribute.
6. Coordinate with MDT to prepare for public hearing (MDT Public Information Officer, District, etc.)
7. Produce materials necessary for public hearing (displays, Power Point Presentation etc.)
8. Receive approval on public hearing materials.
9. Facilitate and conduct the public hearing unless otherwise directed by MDT.

DELIVERABLES:

1. Hard copies of DEIS for signature. (Coordinate with MDT Consultant Project Engineer for number of hard copies.)
2. Draft letters to general inquiry, specific agencies and viewing locations .
3. Draft public availability distribution package.(Submit Microsoft WORD files and hard copies.)
4. Signed copies of DEIS (Submit PDF file and coordinate with MDT Consultant Project Engineer for number of hard copies.)
5. Final public availability distribution package. (Submit Microsoft WORD files and coordinate with MDT Consultant Project Engineer for number of hard copies.)
6. Materials necessary for public hearing.
7. Provide confirmation of publication in the Federal Register.

START DEPENDENCIES:

Completion of Activity 192 and 787

ACTIVITY 198 Prepare Final EIS

CORRESPONDING MDT REVIEW ACTIVITY:

792 Review Final EIS

DEFINITION:

FOR ENVIRONMENTAL IMPACT STATEMENTS ONLY, including Section 4(f) Evaluation(s) if necessary. This is an iterative process with MDT to produce the Final Environmental Impact Statement (FEIS) for public availability.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

198-792 ITERATIVE ACTIVITY TIMELINES

Concurrent activities/Iterative process/Finish-Finish Activities.
Total Durations are estimated and may vary on a project basis.
Durations are set based on working days (OPX2) not calendar days unless otherwise noted.

Act. 198	C1		C3		C5		C7		C9		C11		C13 C14
Act. 792		E2		E4		E6		E8		E10		E12	

C1 – Consultant. Respond to Comments using Comment and Response document for public comments. Default duration of 20 days or less or as determined by negotiation with MDT/FHWA.

E2 – MDT/FHWA. Review Comment and Response document. Standard 20 day duration.

C3 – Consultant. Revise Comment and Response document and Prepare Final Environmental Impact Statement. Default duration of 20 days or less.

E4 – MDT/FHWA. Review FEIS. Standard 20 day duration.

C5 – Consultant. Address changes. Default duration of 15 days or less.

E6 - MDT/FHWA. Print approval. Standard duration of 10 days.

C7 – Consultant. Print FEIS for FHWA Legal sufficiency. Default duration of 10 days or less.

E8 - FHWA. FHWA submits for Legal sufficiency. Includes: 5 days to transmit, 22 day review (30 calendar days), 5 days transmit back to MDT. Default duration of 32 days.

C9 – Consultant. Respond to comments from Legal sufficiency review using the Comment and Response document template. Default duration of 10 days or less.

E10 - MDT/FHWA. Review the Comment and Response Document and modified draft FEIS. Provide approval to print FEIS. Standard 10 day duration.

C11 – Consultant. Print copies of FEIS for signature and draft distribution letters. Default duration of 10 days or less.

E12 - MDT/FHWA. Review and MDT/FHWA signatures. Includes: 10 day review and signature by MDT, 5 days transmit from MDT to FHWA, 10 day review and signature by FHWA, 5 days transmit from FHWA to MDT. FHWA prepares cover letter for Federal Register requesting publication of Final EIS availability. Standard 30 day duration.

C13 – Consultant. Print signed copies of FEIS and distribute. Default duration of 10 days or less.

C14 - Consultant. Public availability. (Public Availability period of 30 calendar days begins the date the notice is published in the Federal Register.) Default duration of 22 days.

Complete when required Public Availability period ends.

Total Duration: 239 days or less.

TASKS:

NOTE: For public distribution, refer to Public Distribution Help Sheet.

1. Prepare responses to address comments from the public. Use appropriate MDT Comment and Response Template located on MDT Internet Website.
2. Make changes to Comment and Response document and incorporate changes into FEIS in preparation for public availability.
3. Make changes to FEIS to address comments from MDT/FHWA.
4. Receive from MDT Consultant Project Engineer approval to print copies of FEIS for legal sufficiency review (Verify with MDT Consultant Project Engineer that MDT Environmental and FHWA approval has been received.)
5. Print appropriate number of FEIS copies for legal sufficiency review.
6. Prepare responses to address legal review comments. Use appropriate MDT Comment and Response Template located on MDT Internet Website. Modify draft FEIS.
7. Receive from MDT Consultant Project Engineer approval to print copies of FEIS for signatures (Verify with MDT Consultant Project Engineer that MDT Environmental and FHWA approval has been received.)
8. Print appropriate number of FEIS copies for signature.

9. Draft letters for public availability, viewing locations and hard copies distribution. Prepare draft public availability distribution package. Submit for MDT approval
10. Receive from MDT Consultant Project Engineer signature pages of FEIS for printing.
11. Print appropriate number of signed copies of FEIS and distribute.
12. Coordinate notice of availability timelines with MDT and FHWA.
13. Start working on Record of Decision (ROD).

DELIVERABLES:

1. Public review Comment and Response document. (Submit Microsoft WORD file and hard copies.)
2. Draft letters to agencies as required. (Submit Microsoft WORD file and hard copies.)
3. Revised public review Comment and Response document. (Submit Microsoft WORD file using Track Changes and hard copies.)
4. FEIS with changes incorporated. (Submit Microsoft WORD file using Track Changes and coordinate with MDT Consultant Project Engineer for number of hard copies.)
5. FEIS for legal sufficiency print approval. (Submit Microsoft WORD file using Track Changes and hard copies.)
6. Print FEIS for legal sufficiency review. (Submit PDF file and coordinate with MDT Consultant Project Engineer for number of hard copies.)
7. MDT Legal's Comment and Response document. (Submit Microsoft WORD file and hard copies.)
8. Legal sufficiency Comment and Response document and modified draft FEIS. (Submit Microsoft WORD file and hard copies.)
9. Hard copies of FEIS for signature.
10. Draft public availability distribution package. (Submit Microsoft WORD files and hard copies.)
11. Final public availability distribution package. (Submit Microsoft WORD files and coordinate with MDT Consultant Project Engineer for number of hard copies.)
12. Signed copies of FEIS (Submit PDF file and coordinate with MDT Consultant Project Engineer for number of hard copies.)
13. Confirmation of publication in the Federal Register.

START DEPENDENCIES:

Completion of Activity 197 and 791

ACTIVITY 199 Prepare Record of Decision

CORRESPONDING MDT REVIEW ACTIVITY:

793 Revise Record of Decision

DEFINITION:

FOR ENVIRONMENTAL IMPACT STATEMENTS ONLY, including Section 4(f) Evaluation(s) if necessary. This is an iterative process with MDT to address comments received on the FEIS and produce the preliminary Record of Decision (ROD) for MDT/ FHWA use.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

199-793 ITERATIVE ACTIVITY TIMELINES

Concurrent activities/Iterative process/Finish-Finish Activities.
Total Durations are estimated and may vary on a project basis.
Durations are set based on working days (OPX2) not calendar days unless otherwise noted.

Act. 199 C1
Act. 793 E2

C1 – Consultant. Respond to comments using appropriate Comment and Response document template. Prepare preliminary Record of Decision. Default duration of 10 days or less.

E2 – MDT/FHWA. Review comment and response document and preliminary ROD. Attend Working Group meeting. Coordinate and produce a document suitable for MDT and FHWA signatures. Standard 15 day duration.

The activity is complete when ROD is ready for submittal to FHWA for signature.

Total Duration: 25 days or less

TASKS:

NOTE: For public distribution, refer to Public Distribution Help Sheet.

1. Prepare responses to address comments from the public. Use appropriate MDT Comment and Response document template located on MDT Internet Website.
2. Produce preliminary ROD.

3. Draft letters for public availability, viewing locations and hard copies distribution. Prepare draft public availability distribution package.
4. COMPLETE TASK AFTER SIGNATURES IN ACTIVITY 223. Receive signed ROD from MDT Consultant Project Engineer for printing.
5. COMPLETE TASK AFTER SIGNATURES IN ACTIVITY 223. Receive from MDT applicable parts of the public availability distribution package.
6. COMPLETE TASK AFTER SIGNATURES IN ACTIVITY 223. Print appropriate number of signed RODs. Distribute ROD and applicable parts of the final public availability distribution package.

DELIVERABLES:

1. Comment and Response Document
2. Preliminary ROD
3. Draft public availability distribution package. (Submit Microsoft WORD files and hard copies.)
4. COMPLETE DELIVERABLE AFTER SIGNATURES IN ACTIVITY 223. Final ROD. PDF files of ROD, postcards and press releases. (Coordinate with MDT Consultant Project Engineer for number of hard copies.)

START DEPENDENCIES:

Completion of Activity 198 and 792.

ACTIVITY 223 Final Environmental Document Approval (EA/EIS)

DEFINITION:

Obtain necessary signatures and distribute approved environmental document.

Total duration: 10 days or less

TASKS:

FOR ENVIRONMENTAL ASSESSMENT ONLY:

1. Obtain signatures on decision document (MDT signs before FHWA).
2. Receive the signed decision document back from FHWA.
3. Forward signature pages of decision document to consultant for printing.
4. Forward applicable parts of the public availability distribution package to consultant.
5. Distribute decision document internally (including FHWA) and post PDF on MDT website.

FOR ENVIRONMENTAL IMPACT STATEMENT ONLY:

Activity begins when FHWA receives draft ROD for signature.

1. Obtain FHWA signature on ROD.
2. Obtain MDT signature. (Other signatures as required.)
3. Forward signed ROD to consultant for printing.
4. Forward applicable parts of the public availability distribution package to consultant.
5. Distribute ROD internally (including FHWA) and post PDF on MDT website.

START DEPENDENCIES:

Completion of Activities 196 and 789 or Activities 199 and 793.

ACTIVITY 260 Preliminary Roadway Review

DEFINITION:

Confirmation that project as scoped in activity 100 is still consistent with scope of services following public involvement.

TASKS:

Distribute preliminary typical sections to the MDT Pavement Design Engineer in the Materials Bureau Distribute information received from the Consultant.

	Task Checklist Description	Yes	No	N/A	Initial
1	Summary of public meeting input, options, and alternatives.				
2	Options/alternatives being advocated for further development.				
3	Reports received and distributed.				
4	Typical Sections distributed.				

START DEPENDENCIES:

Receipt of deliverables associated with activities 102 and 608.

ACTIVITY 262 Roadway Design Review

DEFINITION:

Review of Alignment and Grade package

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	The following deliverable information received and distributed: 1. Preliminary Hydraulic Report 2. Right-of-way 3. Utilities 4. Geotechnical 5. Bridge 6. Environmental 7. Traffic 8. Additional Survey				
2	Receive complete plans package including cost estimate and TMP worksheet from consultant.				
3	Schedule Alignment and Grade Meeting and transmit plans to				
4	Review plans to ensure compliance with FHWA, department design standards and CADD standards in accordance with attached Alignment Review check list.				
5	Review and adjust cost estimate per MDT procedures for distribution and discussion at alignment and grade meeting.				
6	Schedule cost estimate meeting for construction projects greater than $15 million.				

START DEPENDENCIES:

Receipt of deliverables associated with activities 170, 110, 106, 111, 114, 116, 118, 120, 122, 177, 178, 179, 180, 181, and 182

ACTIVITY 263 Conceptual Mitigation Design Review

DEFINITION:

Review of Conceptual Mitigation Design.
Distribute information received from the Consultant.

TASKS:

The following deliverable information received and distributed:

	Task Checklist Description	Yes	No	N/A	Initial
1	Preliminary Hydraulic Report				
2	Geotechnical				
3	Receive complete Conceptual Mitigation Design including cost estimate from consultant				
4	Schedule the Conceptual Mitigation Design review meeting.				
5	Transmit Conceptual Mitigation Design including cost estimate to FHWA and appropriate MDT Bureaus and sections.				

START DEPENDENCIES:

Receipt of deliverables associated with activities 171, 107, 116 and 119.

ACTIVITY 264 Approve Alignment and Grade

DEFINITION:

Review and approve Alignment and Grade Design and Report.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Review A and G Report to ensure agreement with Consultant's comments/statements.				
2	Transmit A and G Report through the Consultant Plans Engineer to the Consultant Design Engineer for approval and distribute approved report for comments. o o o				
3	Comments transmitted to consultant.				

START DEPENDENCIES:

Completion of Activity 124 (Finalize Alignment and Grade).

ACTIVITY 265 Distribution of Conceptual Mitigation Design Information

DEFINITION:

Approve Conceptual Mitigation Design Meeting Report

TASKS:

Distribute information received from the Consultant.

	Task Checklist Description	Yes	No	N/A	Initial
1	Receive Conceptual Mitigation Design Meeting Report summarizing comments and proposed action from consultant.				
2	Review Conceptual Mitigation Design Meeting Report to ensure agreement with consultant's comments/statements.				
3	Transmit Conceptual Mitigation Design Meeting Report to the Consultant Design Engineer for approval and distribute approved report for comments.				
4	Comments considered and resolved by consultant.				

START DEPENDENCIES:

Completion of Activity 125 (Finalize Conceptual Mitigation Design).

DISTRIBUTION AND USE:

Distribute Conceptual Mitigation Design Meeting Report among the Department’s Districts, Divisions, Sections, bureaus and FHWA.

ACTIVITY 266 Approve Scope of Work Report

DEFINITION:

Approve Scope of Work Report

Note: Do not distribute the Scope of Work report for comment until the Environmental Document has been signed.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Scope of Work Report received.				
2	Review SOW Report.				
3	Submit Scope of Work Report through the Consultant Plans Engineer to the Consultant Design Engineer for distribution and concurrence.				
4	List concurrences and resolve comments in the SOW approval document. Submit through the Consultant Plans Engineer to the Consultant Design Engineer for approval by Chief Engineer.				
5	SOW approval document approved by Chief Engineer.				
6	Distribute signed SOW approval document.				
7	Update PPMS.				
8	Complete Consultant Rating Form.				

START DEPENDENCIES:

Activity 128

ACTIVITY 267 Commence Environmental Document (EA/EIS)

DEFINITION:

Notify FHWA of commencement of the Environmental Document.

NOTE:

Obtain Working Group concurrence prior to FHWA notification to ensure appropriate timing of publication of Notice of Intent. Consider issues that would inhibit appropriate scoping such as seasonal limitations for data collection, etc.

TASKS:

FOR ENVIRONMENTAL ASSESSMENT ONLY:

Prepare letter to FHWA identifying start of NEPA process.

FOR ENVIRONMENTAL IMPACT STATEMENT ONLY:

Notify FHWA to prepare Notice of Intent for publication in the Federal Register.

START DEPENDENCIES:

Completion of activity 100.

ACTIVITY 268 Roadway Design Review

DEFINITION:

Review of Plan-in-Hand package

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	The following deliverable information received and distributed: 1. Final Hydraulic Report 2. Right-of-way 3. Utilities 4. Geotechnical 5. Bridge 6. Environmental 7. Traffic				
2	Receive complete plans package including cost estimate, contract time documentation, Comment Response Document and Commitment and Resolution Document from consultant.				
3	Schedule Plan in Hand Meeting and transmit to Department and FHWA Personnel.				
4	Review plans to ensure compliance with FHWA, department design standards and CADD standards in accordance with attached Plan in Hand Review check list.				
5	Review and adjust cost estimate per MDT procedures for distribution and discussion at Plan in Hand Meeting.				
6	Schedule cost estimate meeting for construction projects greater than $15 million.				
7	Discuss necessity and coordination of local agreements				
8	Update PPMS.				

START DEPENDENCIES:

Receipt of deliverables associated with activities 172, 138, 136, 130, 134,164, and 496 (when applicable).

ACTIVITY 269 Final Mitigation Design Review

DEFINITION:

Review of the Final Mitigation Plans package.

TASKS:

The following deliverable information received and distributed:

	Task Checklist Description	Yes	No	N/A	Initial
1	Final Wetland Hydraulics Report				
2	Final Geotechnical revisions				
3	Receive Final Mitigation Design Plans package including cost estimate				
4	Schedule Final Mitigation Design Plan-in-Hand meeting				
5	Review plans to ensure compliance with FHWA and department design standards and CADD schemes in accordance with attached Compliance Review check lists				
6	Transmit Final Mitigation Design Plans Package including cost estimate to FHWA and appropriate MDT Bureaus and sections				

START DEPENDENCIES:

Receipt of deliverables associated with activities 131, 135, and 173.

ACTIVITY 270 Plan-In-Hand Approval

DEFINITION:

Approval of Plan-in-Hand (PIH) Report

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Review PIH Report to ensure agreement with Consultant's comments/statements.				
2	Transmit PIH Report through the Consultant Plans Engineer to the Consultant Design Engineer for approval and distribute approved report for comments.				
3	Comments transmitted to consultant.				

START DEPENDENCIES:

Completion of Activity 140

ACTIVITY 271 Final Mitigation Design Plan in Hand Approval

DEFINITION:

Approval of Final Mitigation Design Plan-in-Hand (PIH) Report

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Review Final Mitigation Design PIH Report summarizing comments and proposed resolution by consultant.				
2	Receive Final Mitigation Design PIH Report including cost estimate.				
3	Transmit Final Mitigation Design PIH Report to the Consultant Design Engineer for approval and distribute approved report for comments.				
4	Comments from PIH Meeting considered and resolved by consultant. Transmit Final Mitigation Design PIH Report to FHWA and appropriate MDT Bureaus and sections.				
5	Comments from distribution are consolidated and transmitted to the consultant for incorporation into the project design.				

START DEPENDENCIES:

Completion of Activity 141

ACTIVITY 272 Final Road Plan Review

DEFINITION:
Review of Final Plans package

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	The following deliverable information received and distributed: 1. Final Hydraulic Updates 2. Utilities 3. Materials and Geotechnical 4. Bridge 5. Final Environmental and Permits 6. Traffic				
2	Receive complete plans package including cost estimate, contract time documentation and Commitment and Resolution Document, Comment Response Document, and TMP worksheet from consultant.				
3	Schedule Final Plan Review Meeting (if necessary) and transmit plans to Department and FHWA personnel.				
4	Review plans to ensure compliance with FHWA, department design standards and CADD standards in accordance with attached Final Plan Review check list.				
5	Review and adjust cost estimate per MDT procedures for distribution.				
6	Schedule cost estimate meeting for construction projects greater than $15 million (If necessary).				
7	Finalize local agreements.				

START DEPENDENCIES:

Receipt of deliverables associated with activities 146, 148, 152, 158, 166, and 174.

ACTIVITY 273 Final Plan Review Approval

DEFINITION:

Approval of Final Plan Review Report

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Review Final Plan Review to ensure agreement with Consultant's comments/statements.				
2	Transmit Final Plan Review Report through the Consultant Plans Engineer to the Consultant Design Engineer for approval and distribute approved report for comments.				
3	Comments transmitted to consultant.				
4	Update PPMS				

START DEPENDENCIES:

Completion of Activity 175

ACTIVITY 295 Transmit to Contract Plans

DEFINITION:

Receive final plans, special provisions, and cost estimate (PS and E) package ready for a construction contract.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Receive complete plans package including cost estimates from consultant.				
2	Verify design exceptions are approved.				
3	Scan signed title sheet, R/W plans and any other plan sheets as needed.				
4	Review Context Sensitive Design cost estimate				
5	Review mitigation measures cost estimate				
6	Review the cost estimate of construction within 15 m (50 ft.) of Railroad.				
7	Transmit soil borings and bridge borings to Geotech and Contract Plans.				
8	On projects with bridges, review the walk area and total deck area.				
9	On projects where shoulders are widened for walkway/bikeway, review the widened area and total roadway area.				
10	On projects where shoulders are widened for walkway/bikeway, review the widened area and total roadway area				
11	On projects with asphalt walkway, review the walkway area and roadway area				
12	Prepare contract plans books for road plans, cross-sections, sewer and water plans, erosion control plans, and misc. plans (i.e. landscaping, fencing etc.) when applicable.				
13	E-mail transmittal form (745.doc), special provisions, cost estimate, city/county agreements, CSD cost estimate, Mitigation cost estimate and earthwork run to Contract Plans, cc to Bridge Engineer (projects with bridges), Traffic and Safety Engineer, Consultant Engineer, Highways Engineer, and District Administrator.				
14	Review Erosion Control Plans and transmit to the Environmental Bureau				
15	On projects with bridges, send three (3) sets of				

	General Layout and Footing plans and the volume of riprap below the Q2 elev.(normal high water elev.) to the Environmental Bureau.				
16	Submit contract time documentation to Contract Plans				

START DEPENDENCIES:

Activity 162

ACTIVITY 320 Review Consultant Control Survey

DEFINITION:

Review consultant control survey.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Review vertical control survey data conforming to MDT survey standards including: original field notes, electronic field notes, reduction and adjustment sheets if not part of the original field notes, vertical datum, and vertical datum source.				
2	Review horizontal control survey data conforming to MDT survey standards including: original field notes, electronic field notes, GPS files, computation sheets or electronic files with computations in MDT specified format.				
3	ASCII file containing recovery descriptions for benchmarks and control network points.				
4	ASCII coordinate listings for benchmarks and control network points.				
5	Control diagram conforming to MDT standards.				
6	Calibration baseline reports for survey instruments used in control survey.				
7	Peg test notes for survey instruments used in the vertical control survey.				

Materials received and uploaded or filed.

	Task Checklist Description	Yes	No	N/A	Initial
1	Vertical control survey data.				
2	Horizontal control survey data.				
3	Secondary traverse and side tie data.				
4	Instrument calibration reports.				
5	Other control survey data.				

START DEPENDENCIES:

Activity 108.

ACTIVITY 322 Review Consultant Cadastral Survey

DEFINITION:

Review consultant cadastral survey.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Review field survey data for cadastral survey conforming to MDT survey standards including: original field notes, electronic data collection files, and/or GPS files.				
2	Review survey computations for cadastral surveys including all computation sheets and electronic files for cadastral ties.				
3	Review ASCII coordinate listings and descriptions for cadastral survey points.				
4	Review copies of data used to evaluate cadastral survey. (BLM notes, highway plans, RR plans, COS's, plats, corner recordations, etc.).				
5	Review electronic and paper copies of preliminary Certificates of Survey and corner recordations.				
6	Review calibration baseline reports for survey instruments used in the cadastral survey.				
7	Notify MDT Consultant Design Project Manager to forward electronic and paper copies of recorded Certificates of Survey and corner recordations.				

Materials received and uploaded or filed.

	Task Checklist Description	Yes	No	N/A	Initial
1	Cadastral survey data.				
2	Instrument calibration reports.				
3	Other cadastral survey data.				

START DEPENDENCIES:

Activity 120.

ACTIVITY 323 Engineering Survey Review

DEFINITION:

Review consultant engineering survey.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Review original field notes if applicable.				
2	Review electronic survey files including but not limited to ASCII coordinate listings with features and descriptions, data collection files, etc.				
3	Review survey mapping file including but not limited to MicroStation dgn files, GeoPak tin and gpk files, etc.				
4	For photogrammetry jobs – Review photogrammetric mapping products including camera calibration report, cleaned aerial film, map certification, and aerial mapping files, etc				
5	Place electronic files on DMS and notify MDT Consultant Design Project Manager				

Materials received and uploaded or filed.

	Task Checklist Description	Yes	No	N/A	Initial
1	Engineering survey data.				
2	Photogrammetric survey data.				

START DEPENDENCIES:

Activity 121.

ACTIVITY 350 Preliminary Hydraulics Report Review

DEFINITION:

Evaluate Consultants submittal of "Preliminary Hydraulics Report" which should include the major elements outlined in activities (Location Hydraulic Study Report), (Size Bridge Openings) and (Preliminary Hydraulic Design).

TASKS:

Insure that all of the appropriate tasks are included in the preliminary Hydraulics Report. Following are the major elements that should be included in the report.

	Task Checklist Description	Yes	No	N/A	Initial
1	Drainage area delineations				
2	Preliminary hydrologic estimates				
3	Discussion of 23CFR 650 issues (e.g. channel changes, longitudinal encroachments, transverse crossings, irrigation impacts, fish passage requirements if known, floodplains, etc).				
4	Existing pipe capacity estimates.				
5	Estimate of proposed pipe sizes as appropriate to help establish preliminary grades.				
6	Water surface models, alternate bridge openings (including memo outlining recommended bridge opening), riprap calcs, scour calcs, completed Hyd 4/Bridge Hydraulic Report.)				
7	Verify hydraulic recommendations match plans.				

ACTIVITY 351 Preliminary Wetland Hydraulics Report Review

DEFINITION:

Evaluate Preliminary Hydraulics Report.

TASKS:

Insure that all of the appropriate tasks are included in the consultants Preliminary Hydraulics Report. Following are the major elements that should be included in the report.

	Task Checklist Description	Yes	No	N/A	Initial
1	Aerial photos, Quad Maps, Floodplain Maps, etc				
2	Potential floodplain impacts				
3	Drainage area delineations				
4	Determination of all water sources to supply water to the wetland in perpetuity.				
5	Development of Prelim. Water Budget				
6	Evaluation of hydroperiod				
7	Historical hydrology of proposed site				
8	Well data information				
9	Estimate of proposed pipe/ Inflow/Outflow structures				
10	Evaluation of Water Rights				

START DEPENDENCIES:

Activity 119 and 171

ACTIVITY 352 Review Final Hydraulics Report

DEFINITION:

Review and evaluation of the Consultant's submittal.

TASKS:

Insure that all of the following major elements are included in this report.

	Task Checklist Description	Yes	No	N/A	Initial
1	Storm drain design report, including delineated runoff patterns, storm drain modeling calculations, spread widths, drop inlet type and locations, trunkline size and type, outfall recommendations, and plan and profile showing these features.				
2	Preliminary estimates of city participation and agreement regarding storm water runoff.				
3	Final approved hydrology/documented irrigation design flows.				
4	HY-8, standard step, or HEC-RAS runs documenting culvert design recommendations (drainage and irrigation). Include runs for RCP and CMP culverts.				
5	Details and special provisions for fish passage, channel changes, irrigation designs.				
6	Hydraulic Data Summary Sheet.				
7	Service Life Computations.				
8	Cost estimates comparing alternate designs as appropriate.				
9	Verify hydraulic recommendations match plans.				

ACTIVITY 353 Review Final Wetland Hydraulics Report

DEFINITION:

Evaluate Final Wetland Hydraulics Report.

TASKS:

Insure that all of the appropriate tasks are included in the consultants Final Wetland Hydraulics Report. Following are the major elements that should be included in the report.

	Task Checklist Description	Yes	No	N/A	Initial
1	Finalize Water Budget				
2	Final approved hydrology				
3	Design calculations documenting				
4	Inflow/outflow structure design recommendations				
5	Coordination with city/county officials				
6	Evaluation of alternate structures				
7	Details and special provisions for fish passage considerations				
8	Service life computations				
9	Cost estimates comparing alternate pipe/structure designs as appropriate				
10	Draft Flood Plain Permit Application				

START DEPENDENCIES:

Activities 173 and 135

ACTIVITY 366 Final Hydraulic Updates, Permits and Revisions Review

DEFINITION:

These items are addenda to the Final Hydraulics Report.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Irrigation company approvals.				
2	Receipt of floodplain permits.				
3	Final bridge/large culvert details, specials, and technical updates as required				
4	Channel change details and technical updates as required.				
5	Final storm drain plans, details, and technical updates as required.				
6	Final irrigation details and technical updates as required.				
7	Final signed storm drain agreement with city				
8	DEQ approvals for storm drain conflicts and/or waterline construction.				

ACTIVITY 430 Preliminary Traffic Report Review

DEFINITION:

Review of Preliminary Traffic Report.

TASKS:

Preliminary Traffic Review

	Task Checklist Description	Yes	No	N/A	Initial
1	Review traffic volumes				
2	Verify appropriate capacity and Level of Service				
3	Review traffic control features				
4	Review access management features (frontage roads, medians, etc.)				
5	Review special operational needs (truck climbing lanes, intersection sight distance, roadway lighting, etc.)				
6	Review crash data and dominant trends				
7	Review pedestrian/bicycle/school crossing needs				
8	Review traffic recommendations				
9	Rate Consultant performance				

START DEPENDENCIES:

Completion of Activity 112.

ACTIVITY 432 Traffic Review

DEFINITION:

Review of Consultant activities performed under activity 122

TASKS:

Signal Warrant Study

	Task Checklist Description	Yes	No	N/A	Initial
1	Review Signal Warrant Study				

Preliminary Geometrics

	Task Checklist Description	Yes	No	N/A	Initial
1	Review Geometric details				

Preliminary Signing

	Task Checklist Description	Yes	No	N/A	Initial
1	Review Preliminary R/W needs				
2	Review Existing Road Sign Inventory				

Rate Consultant performance

START DEPENDENCIES:

Completion of Activity 122.

ACTIVITY 436 Traffic Review for Plan-In-Hand

DEFINITION:

Review of consultant activities performed under activity 164.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Review plans for standards (mutcd, geometric design, lighting)				
2	Review plans for major departure from uniformity (sign practices, signal configuration, signal phasing, statutory requirements)				
3	Review special provisions for constructability				
4	Review electronic files for conformance to CADD standards (file naming convention, file origin, reference files, sheet format, etc.)				

Electrical

	Task Checklist Description	Yes	No	N/A	Initial
1	Verify Warrant Study completed				
2	Verify list of state furnished materials has been included in quantity summary 2.1 Poles 2.2 Controller				
3	Identify exceptions to normally state furnished material (i.e. oversized pole, mastarms and structures)				

Geometrics

	Task Checklist Description	Yes	No	N/A	Initial
1	Review geometric design details in relation to traffic studies, design standards and uniformity (taper lengths, lane drops, intersection layout, etc.)				
2	Review intersection design in relation to appropriate design vehicles				

Signing and Striping Plans

	Task Checklist Description	Yes	No	N/A	Initial
1	Review sign design calculation sheets for uniformity (fonts, letter size, color, sign size)				
2	Review breakaway devices (uniformity)				
3	Review post type (uniformity)				
4	General sign configuration on plans (uniformity)				

5	Striping policy conformance				
6	Plan configuration (uniformity)				

Rate Consultant performance.

START DEPENDENCIES:

Completion of Activity 164.

ACTIVITY 438 Traffic Review For Final Plans

DEFINITION:

Review traffic plans for Final Plan Review.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Review plans for standards (mutcd, geometric design, lighting). Verify comments from PIH have been incorporated.				
2	Review plans for major departure from uniformity (sign practices, signal configuration, signal phasing, statutory requirements). Verify comments from PIH have been incorporated.				
3	Review special provisions for constructability. Verify comments from PIH have been incorporated.				
4	Review electronic files for conformance to CADD standards (file naming convention, file origin, reference files, sheet format, etc.). Verify comments from PIH have been incorporated.				

Electrical

	Task Checklist Description	Yes	No	N/A	Initial
1	Verify list of state furnished materials has been included in quantity summary 2.1 Poles 2.2 Controller Verify comments from PIH have been incorporated.				
2	Identify exceptions to normally state furnished material (i.e. oversized pole, mastarms and structures). Verify comments from PIH have been incorporated.				

Geometrics

	Task Checklist Description	Yes	No	N/A	Initial
1	Review geometric design details in relation to traffic studies, design standards and uniformity (taper lengths, lane drops, intersection layout, etc.). Verify comments from PIH have been incorporated.				
2	Review intersection design in relation to appropriate design vehicles. Verify comments from PIH have been incorporated.				

Signing and Striping Plans

	Task Checklist Description	Yes	No	N/A	Initial
1	Review sign design calculation sheets for uniformity (fonts, letter size, color, sign size). Verify comments from PIH have been incorporated.				
2	Review breakaway devices (uniformity). Verify comments from PIH have been incorporated.				
3	Review post type (uniformity). Verify comments from PIH have been incorporated.				
4	General sign configuration on plans (uniformity). Verify comments from PIH have been incorporated.				
5	Striping policy conformance. Verify comments from PIH have been incorporated.				
6	Plan configuration (uniformity). Verify comments from PIH have been incorporated.				

START DEPENDENCIES:

Completion of activity 152.

ACTIVITY 439 Final Traffic Design Review

DEFINITION:

Review final traffic plans.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Review plans for standards (mutcd, geometric design, lighting). Verify comments from FPR have been incorporated.				
2	Review plans for major departure from uniformity (sign practices, signal configuration, signal phasing, statutory requirements). Verify comments from FPR have been incorporated.				
3	Review special provisions for constructability. Verify comments from FPR have been incorporated.				
4	Review electronic files for conformance to CADD standards (file naming convention, file origin, reference files, sheet format, etc.). Verify comments from FPR have been incorporated.				

Electrical

	Task Checklist Description	Yes	No	N/A	Initial
1	Verify list of state furnished materials has been included in quantity summary 2.1 Poles 2.2 Controller Verify comments from FPR have been incorporated.				
2	Identify exceptions to normally state furnished material (i.e. oversized pole, mastarms and structures). Verify comments from FPR have been incorporated.				

Geometrics

	Task Checklist Description	Yes	No	N/A	Initial
1	Review geometric design details in relation to traffic studies, design standards and uniformity (taper lengths, lane drops, intersection layout, etc.). Verify comments from FPR have been incorporated.				
2	Review intersection design in relation to appropriate design vehicles. Verify comments from FPR have been incorporated.				

Signing and Striping Plans

	Task Checklist Description	Yes	No	N/A	Initial
1	Review sign design calculation sheets for uniformity (fonts, letter size, color, sign size). Verify comments from FPR have been incorporated.				
2	Review breakaway devices (uniformity). Verify comments from FPR have been incorporated.				
3	Review post type (uniformity). Verify comments from FPR have been incorporated.				
4	General sign configuration on plans (uniformity). Verify comments from FPR have been incorporated.				
5	Striping policy conformance. Verify comments from FPR have been incorporated.				
6	Plan configuration (uniformity). Verify comments from FPR have been incorporated.				

Rate Consultant performance.

START DEPENDENCIES:

Completion of activity 165.

ACTIVITY 440 Preliminary Geotechnical and Materials Review

DEFINITION:

Initial review of Geotech and Materials plan recommendations from consultant designed project.

TASKS:

Preliminary Soil Survey Investigation (450)

	Task Checklist Description	Yes	No	N/A	Initial
1	Log of each test hole.				
2	Location of each test hole noted.				
3	Soil Class shown for each sample(AASHTO).				
4	Moisture/Density curve for each representative soil sample				
5	In place density at each location.				
6	Natural moisture shown for each soil sample.				
7	R-Value or other acceptable test method for each representative soil sample.				
8	Soil survey adequate for entire project.				
9	Chemical and corrosion sample taken at each pipe installation.				
10	Report submitted describing in-place pipe condition.				
11	Test holes plotted on plan and profile sheets.				
12	Narrative describing unusual conditions or potential problems soils or drainage.				

Borrow and Surface Pit Investigation (452)

	Task Checklist Description	Yes	No	N/A	Initial
1	Review Form 92 (Prospected Area Report)				
2	Map showing location of pit submitted.				
3	Pit sketch submitted showing location of test holes, legal description and quantity of aggregate available.				
4	Completed Field Sample Analysis Report submitted.				
5	Log of test holes submitted.				
6	Is the pit satisfactory for use as bituminized or non-bituminized surfacing?				

Preliminary Surfacing Typical Sections (600)

	Task Checklist Description	Yes	No	N/A	Initial
1	Have 3 alternate typical sections been recommended?				
2	Is there an economic analysis for each alternate?				
3	Is the method of design satisfactory?				
4	Are the designs based on subgrade R-Value? Other?				

5	Are the design ESAL's current?				
6	Are the proposed surfacing layer thicknesses reasonable?				
7	Has special borrow or a 2' subgrade cap been considered to reduce surfacing?				
8	Is the recommended typical alternate satisfactory?				

Deflection Analysis

	Task Checklist Description	Yes	No	N/A	Initial
1	Are back calculated layer modulus values needed for this project? (If not, skip 2, 3 and 4)				
2	Was an acceptable back-calculation technique utilized?				
3	Are back calculated moduli values available for all in-place layers?				
4	Are values representative of the area? (Compare to network data)				

Preliminary Geotechnical Evaluation (460)

	Task Checklist Description	Yes	No	N/A	Initial
1	Has a literature and map review been performed?				
2	Has a site visit been completed to look at geology, slopes, roadway, drainage, wetlands and other geotechnical issues?				
3	Have any potential Geotechnical problems been identified?				
4	Has a written report been provided?				

START DEPENDENCIES:

Completion of Activity 106.

ACTIVITY 441 - Geotechnical Review

DEFINITION:

Initial review of Geotechnical data and preliminary recommendations for Consultant Wetland Mitigation Project conceptual design.

TASKS:

Review the Geotechnical Engineering Conceptual Design Report including preliminary recommendations, and results of office review, field observations, subsurface investigation, and groundwater data.

	Task Checklist Description	Yes	No	N/A	Initial
1	Have locations of geologic features such as bedrock outcrops and unstable areas been identified?				
2	Have groundwater/surface interface areas such as springs and seeps been identified and evaluated?				
3	Has an evaluation of terrain and possible effects of excavation and/or embankment placement might produce been completed?				
4	Are general surface soil types within and surrounding the proposed mitigation site identified?				
5	Has an estimate of suitability of soils for the proposed type of wetland mitigation been provided?				
6	Have summary results of the Geotechnical subsurface investigation, including boring logs, boring location map, site cross sections, and laboratory results been provided?				
7	Have preliminary earthwork shrink/swell factors been identified?				
8	Have summary results for groundwater elevations and other monitoring data, including groundwater directional flow maps, been provided?				
9	Have preliminary embankment settlement, structure and culvert foundation, and slope ratio recommendations been completed?				
10	Have preliminary recommendations on Special Provisions for specialty products or construction methods been made?				

START DEPENDENCIES:

Completion of Activity 107.

ACTIVITY 442 Geotechnical and Materials Report Review

DEFINITION:

Review of Geotechnical and Materials report from consultant designed project.

TASKS:

1. Prepare Final Surfacing Sections

	Task Checklist Description	Yes	No	N/A	Initial
1	Have 3 alternate typical sections been recommended?				
2	Is there an economic analysis for each alternate?				
3	Is the design method satisfactory?				
4	Are the designs based on subgrade R-Value? Other? Is this acceptable?				
5	Are the design ESAL's current?				
6	Are the proposed surfacing layer thicknesses reasonable?				
7	Is the recommended typical alternate satisfactory?				

12. Primary Soils Survey

	Task Checklist Description	Yes	No	N/A	Initial
	Log of each test hole.				
	Location of each test hole noted.				
	Soil Class shown for each sample (AASHTO).				
	Moisture/Density curve for each soil sample.				
	In place density at each location.				
	Natural moisture shown for each soil sample.				
	R-Value for each soil sample.				
	Soil survey represents entire project.				
	Chemical and corrosion samples taken at each pipe installation.				
	Report submitted describing in-place pipe condition.				
	Test holes plotted on plan and profile sheets.				
	Additional test holes represent areas of changed grade or alignment?				

13. Geotechnical Surveys and Reports

	Task Checklist Description	Yes	No	N/A	Initial
1	Field and Laboratory Data				
	1.1Exploration Plan.				
	1.2Boring Logs-MDT Format? Soil and Rock.				
	1.3Geophysical Methods.				
	1.4Groundwater Elevations.				

	1.5 Structural Geology/Mapping.				
	1.6 Soil and Rock Lab Testing Results- M/C, PI, Consolidation and Strength Parameters, etc.				
2	Geotechnical Engineering - Alignment				
	2.1 Geological Setting.				
	2.2 Settlement Calculations.				
	2.3 Slope Ratios.				
	2.4 Embankment Foundation Treatments.				
	2.5 Shrink/Swell Factors.				
	2.6 Subexcavation Recommendations.				
	2.7 Geotextile Recommendations.				
	2.8 Surface and Subgrade Drainage Recommendations.				
	2.9 Culvert Foundation Preparation and Bedding Recommendations.				
	2.10 Structural Foundation Recommendations and Alternatives.				
	2.11 Retaining Structure Recommendations and Alternatives.				
	2.12 Instrumentation and Monitoring Recommendations.				
	2.13 Special Provisions for Materials and Construction Methods.				
	2.14 Have design methodology and calculations been submitted?				

START DEPENDENCIES:

Completion of Activity 130.

ACTIVITY 443 Materials and Geotech Wetland Review

DEFINITION:

Final Geotechnical Engineering Design Report to be incorporated into the Final Mitigation Design Plans.

TASKS:

Prepare a final Geotechnical Engineering Design Report including final recommendations.

	Task Checklist Description	Yes	No	N/A	Initial
1	**Field and Laboratory Data**				
	Boring logs for each well in MDT format and submitted with site boring location plan.				
	Soil and Rock Lab Testing Results- Soils Class, Gradation, M/C, PI, Consol and Strength Parameters, etc.				
	Summary of results for groundwater elevations and other monitoring data, including groundwater directional flow maps and hydrograph data.				
2	**Geotechnical Engineering Report**				
	Geological Setting.				
	Settlement Calculations.				
	Slope Ratios.				
	Embankment Foundation Treatments.				
	Shrink/Swell Factors.				
	Geotextile Recommendations.				
	Chemical and corrosion samples taken for each pipe location.				
	Culvert Foundation Preparation and Bedding Recommendations				
	Structural Foundation Recommendations and Alternatives.				
	Retaining Structure Recommendations and Alternatives.				
	Instrumentation and Monitoring Recommendations.				
	Special Provisions for Materials and Construction Methods.				
	Other Geotechnical Issues.				
	Formal Narrative Report with calculations, details, etc.				

Date Received ___ Date Approved

Reviewed by
(Signature/Title) (Date)

START DEPENDENCIES:

Completion of Activity 131.

ACTIVITY 444 Final Geotechnical and Materials Review

TASKS:

Final Surfacing Design Check (610)

	Task Checklist Description	Yes	No	N/A	Initial
1	Are design ESAL's current?				
2	Supplemental soils information used in final design?				
3	Are the cost estimates current?				
4	Have surfacing alternates been presented for consideration?				
5	Is the recommended typical the most economical?				

Geotechnical Engineering - Final Review (468)

	Task Checklist Description	Yes	No	N/A	Initial
1	Review of the Engineering analysis, design, and report on the Earth science environment resulting from changes to design.				

START DEPENDENCIES:

Completion of Activity 158.

ACTIVITY 445 Geotech Final Review - Wetlands

DEFINITION:

Miscellaneous Geotechnical Engineering analysis, design, and reports required or requested after submittal of Final Geotechnical Engineering - Wetland Report.

TASKS:

Geotechnical Engineering - Final Review

	Task Checklist Description	Yes	No	N/A	Initial
1	Supplemental Geotechnical Engineering Report - for preliminary plan review, responding to inquires, and additional work after submittal of Final Geotechnical Engineering - Wetland Report signed by the Geotechnical Consultant.				
2	Or when a Supplemental Final Materials and Geotechnical Report is not deemed necessary, receive a letter that verifies the final geotechnical design and/or materials selection is consistent with those identified in the Final Materials and Geotechnical Report. This letter is to be signed by the author of the Final Materials and Geotechnical Report.				

START DEPENDENCIES:

Activity 153

ACTIVITY 496 Barge Drilling

DEFINITION:

Develop project information relating to foundation conditions using standard drilling procedures as it pertains to drilling from a floating barge.

TASKS:

Drilling, sampling, field testing.

START DEPENDENCIES:

Completion of Activity 100 (MDT/Consultant Interactive Project evaluation, and request by Consultant.

DELIVERABLES:

Provide core logs and drill information to consultant.

ACTIVITY 586 Preliminary Bridge Layout Review

DEFINITION:

Review type, size and location (TSL) and preliminary bridge layout and plans.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Review Bridge Type, Size, and Location Report				
2	Bridge Length and Width				
3	Bridge Beam Type				
4	Geometrics				
5	Riprap				
6	Fit of Bridge to Site				
7	Proposed Substructure Type				
8	Proposed Foundation				
9	Electronic Compatibility and CADD Standards				

START DEPENDENCIES:

Completion of Activity 114 and 118

ACTIVITY 588 Preliminary Structure Review

DEFINITION:

Review of structure plans.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Addressed comments from 586 review				
2	Review Layout				
3	Receive Geotech Report				
4	Receive log of borings				
5	Substructure Recommendations				
6	Foundation Recommendations				
7	Footing Plan				
8	Receive comments from Resource Agencies				
9	Electronic Compatibility and CADD Standards				
10	22”x36” Paper Plots of General Layout				
11	Other plan sheets needed for other types of structures.				

START DEPENDENCIES:

Completion of consultant Activity 136 and 130.

ACTIVITY 590 Structure Review

DEFINITION:

Review of complete structure plans.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Review final structure plans				
2	All bid items accounted for on Q-sheet.				
3	Review Special Provisions.				
4	Notes and Specials are in active voice.				
5	Review detailed structures cost estimate.				
6	Review for constructability problems.				
7	Electronic compatibility and Cadd Standards.				

START DEPENDENCIES:

Completion of Activity 146.

ACTIVITY 592 Final Bridge Plan Review

DEFINITION:

Review of final bridge plans.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Review final bridge plans				
2	All bid items accounted for on Q-sheet.				
3	Review Special Provisions.				
4	Notes and Specials are in active voice.				
5	Review detailed bridge cost estimate.				
6	Electronic compatibility and Cadd Standards.				
7	Review of paper plot for print quality				
8	Verify plans are stamped and signed bridge plans				
9	Received two copies of quantity calculations				
10	Received rebar summary sheet				
11	Received signed and stamped design calculations				
12	Received signed and stamped mylars				

START DEPENDENCIES:

Completion of Activity 147.

ACTIVITY 608 Provide Deflection Testing Data

DEFINITION:

If requested by the consultant at the MDT/Consultant interactive project evaluation meeting, raw deflection testing data will be given to the consultant.

TASK:

Perform deflection testing.

START DEPENDENCIES:

Completion of Activity 100 (MDT/Consultant interactive project evaluation and request by consultant).

DELIVERABLES:

Provide raw deflection test data to consultant.

ACTIVITY 621 Attend Meeting and Provide Input to PFR

DEFINITION:

After a project has been nominated, whether design is to be performed by the District, Preconstruction or by Consultant through Consultant Design Services, the CES Bureau CR Section will provide report/plan constructability reviews following detailed procedures. CES Bureau CR Section will provide constructability review of the PFR Report to confirm review comments have been adjudicated and noted in the report.

TASKS:

1. The PDM invites Constructability Reviewer (CR) to attend and provide input during the PFR site visit and/or meeting. CR provides constructability input at the meeting. If the CR cannot attend the meeting, or if no meeting is held, the CR will provide written comments and maintain an electronic and hard copies of the response. PDM provides two copies of PFR Report to CR Section Supervisor for review, comment and input.
2. CR Section Supervisor will forward one copy to the area CR. CR verifies input was incorporated in meeting minutes and place copy in CR Section project file.
3. Maintain the other copy in Helena files after noting CR name and date forwarded. CR will enter appropriate information on the Report/Plan Review Tracking Log.
4. CR reviews using internal checklist and responds to PDM (originator) via e-mail and copies CR Section electronic project file. The hard copies report approval and concurrence cover sheets will be returned to the originator along with comments.
5. The CR will maintain hard copies and forward hard copies to the CR Section Supervisor for Helena files.

START DEPENDENCIES:

1. After project nomination has been approved and prior to conducting the Preliminary Field Review, CR will attend PFR and provide input.
2. After completion of a draft or final PFR Report, CR will review and provide comments.

DELIVERABLES

1. Provide constructability input to the PDM regarding project intent, potential construction issues, proposed solution strategies and identify high construction cost items that may need special review and consideration.
2. Provide input to the PDM regarding adjudication of constructability review comments and comments provided by other functional units that may affect constructability of the project.

3. Provide oral and/or written constructability review comments to the PDM for inclusion in the PFR.

4. Provide written acknowledgment to the PDM that constructability review comments have been adjudicated and addressed in the PFR Report.

ACTIVITY 622 Attend A/GR Meeting and Provide Input

DEFINITION:

1. After approval and distribution of the PFR Report, the CES Bureau CR Section will attend the A/GR meeting and provide constructability review input to the A/GR Report.
2. CES Bureau CR Section will provide constructability review of the A/GR Report to confirm review comments have been adjudicated and noted in the report.

TASKS:

1. PDM invites CR to attend Preliminary Alignment/Grade Review meeting to provide input. If the CR cannot attend the meeting, or if no meeting is held, the CR will provide written comments and maintain an electronic and hard copies of the response.
2. PDM provides two copies of A/GR Report to CR Section Supervisor for review, comment and input.
3. CR Section Supervisor will forward one copy to the area CR. CR reviews using internal checklist and verifies input incorporated in meeting minutes and copies CR Section project file. Maintain the other copy in Helena files after noting CR name and date forwarded.
4. CR will enter appropriate information on the Report/Plan Review Tracking Log.
5. CR verifies disposition of input and comments provided during A/GR phase. CR reviews using internal checklist and responds to PDM and copies CR Section project file.

START DEPENDENCIES:

1. After approval and distribution of the PFR Report, CR will attend A/GR meeting and provide input.
2. After completion of a draft or final A/GR Report, CR will review and provide comments.

DISTRIBUTION AND USE:

1. Provide constructability input to the PDM regarding project intent, potential construction issues, proposed solution strategies and identify high construction cost items that may need special review and consideration.
2. Provide input to the PDM regarding adjudication of constructability review comments and comments provided by other functional units that may affect constructability of the project.

DELIVERABLES

1. Provide oral and/or written constructability review comments to the PDM for inclusion in the A/GR Report.

2. Provide written acknowledgment to the PDM that constructability review comments have been adjudicated and addressed in the A/GR Report.

ACTIVITY 623 Attend PIH Meeting and Provide Input

DEFINITION:

1. After approval and distribution of the Scope of Work Report, the CES Bureau CR Section will attend the PIH meeting and provide constructability review input to the PIH Report.
2. CES Bureau CR Section will provide constructability review of the PIH Report to confirm review comments have been adjudicated and noted in the report.

TASKS:

1. PDM invites CR to attend Plan-In-Hand (PIH) office and/or field review meeting to provide input. If the CR cannot attend the meeting, or if no meeting is held, the CR will provide written comments and maintain an electronic and hard copies of the response.
2. PDM provides copy of PIH Report to CR for review, comment and input. CR verifies disposition of input and comments provided during previous project development phases.
3. CR responds to PDM and copies Section project file.

START DEPENDENCIES:

1. After approval and distribution of the SOW Report, CR will attend PIH meeting and provide input.
2. After completion of a draft or final SOW Report, CR will review and provide comments.

DISTRIBUTION AND USE:

1. Provide constructability input to the PDM regarding project intent, potential construction issues, proposed solution strategies and identify high construction cost items that may need special review and consideration.
2. Provide input to the PDM regarding adjudication of constructability review comments and comments provided by other functional units that may affect constructability of the project.

DELIVERABLES

1. Provide oral and/or written constructability review comments to the PDM for inclusion in the PIH Report.
2. Provide written acknowledgment to the PDM that constructability review comments have been adjudicated and addressed in the PIH Report.

ACTIVITY 624 Design Follow-Up

DEFINITION:

CR Section Supervisor will coordinate a final constructability review of the plans to verify CR input/comments and those of other functional units have been adequately addressed during preceding project development phases.

TASKS:

1. Contract Plans Bureau provides two copies of Preliminary Plans and Special Provisions (Final Plan Review Report) to CR Section Supervisor for review, comment and verification of previous input and comment disposition.
2. CR Section Supervisor will forward one copy to the area CR and maintain the other copy in Helena files after noting CR name and date forwarded.
3. CR responds to Contract Plans Bureau and copies PDM, CR Section Supervisor and CR Section project file.
4. CR will enter appropriate information on the Report/Plan Review Tracking Log.

START DEPENDENCIES:

After approval and distribution of the PIH Report and before issuing the Blue Sheets.

DISTRIBUTION AND USE:

CES Bureau CR Section will document, disseminate, implement and follow-up on comments and input obtained during the project development process in order to improve future projects, contract uniformity, cost effectiveness and reduce change orders and claims. This "lessons learned" concept will be tracked from PFR phase, through the remaining project development phases, construction phase and ultimately back to the PFR phase of future projects, then start the process over.

DELIVERABLES:

Provide oral and/or written constructability review comments to the PDM for inclusion in the final plans.

ACTIVITY 625 Conceptual Mitigation Design Alternatives Review

DEFINITION:

CES Bureau CR Section will provide constructability review for all consultant submitted Conceptual Design Mitigation alternatives.

TASKS:

1. After approval and distribution of the Conceptual Design Mitigation alternatives, the CES Bureau CR Section will attend any design related meetings and provide constructability review input to the Conceptual Design Mitigation plans.
2. PDM invites CR to attend any meetings related to the Conceptual Design Mitigation alternatives to provide input. If the CR cannot attend the meeting, or if no meeting is held, the CR will provide written comments and maintain an electronic and hard copies of the response.
3. PDM provides two sets of plans for of each Conceptual Design Mitigation alternative to CR Section Supervisor for review, comment and input.
4. CR Section Supervisor will forward one copy to the area CR. CR reviews using internal checklist and verifies input incorporated in meeting minutes and copies CR Section project file. Maintain the other copy in Helena files after noting CR name and date forwarded.
5. CR will enter appropriate information on the Report/Plan Review Tracking Log.
6. CR verifies disposition of input and comments provided during Conceptual Design Mitigation plan review phase. CR reviews using internal checklist and responds to PDM and copies CR Section project file.

START
DEPENDENCIES:

PDM approves and distributes Conceptual Design Mitigation alternatives.

DELIVERABLES:

Provide constructability input to the PDM regarding project intent, potential construction issues, proposed solution strategies and identify high construction cost items that may need special review and consideration.

Provide oral and/or written constructability review comments to the PDM for inclusion in the Conceptual Design Mitigation plans.

Provide input to the PDM regarding adjudication of constructability review comments and comments provided by other functional units that may affect constructability of the project.

Provide written acknowledgment to the PDM that constructability review comments have been adjudicated and addressed in the Conceptual Design Mitigation plans.

ACTIVITY 626 Final Wetland Mitigation Design Constructability Review

DEFINITION:

CES Bureau CR Section will provide constructability review of the final Wetland Mitigation Design plans to confirm previous review comments have been addressed and noted in the plans.

TASKS:

1. CES Bureau CR Section will provide constructability review of the final Wetland Mitigation plans to confirm review comments have been addressed and noted in the plans.
2. After approval and distribution of the SOW Report, the CES Bureau CR Section will attend any design related meetings and provide constructability review input to the final wetland mitigation plans.
3. PDM invites CR to attend any meetings related to the final wetland mitigation plans to provide input. PDM provides two copies final wetland mitigation to CR Section Supervisor for review, comment and input.
4. CR Section Supervisor will forward one copy to the area CR. CR reviews using internal checklist and verifies input incorporated in meeting minutes and copies CR Section project file. Maintain the other copy in Helena files after noting CR name and date forwarded.
5. CR will enter appropriate information on the Report/Plan Review Tracking Log.
6. CR verifies disposition of input and comments provided during final wetland mitigation review phase. CR reviews using internal checklist and responds to PDM and copies CR Section project file.

START

DEPENDENCIES:

Activity135 –Prepare final mitigation design

ACTIVITY 627 Bridge Design Follow-Up

DEFINITION:

CR Section Supervisor will coordinate a final constructability review of the plans to verify CR input/comments and those of other functional units have been adequately addressed during preceding project development phases.

Notes: Activity 627 is used only on MDT projects and Consultant projects with bridge involvement. Road Design and Traffic plans are reviewed using activity 624 "Design Follow-Up".

TASKS:

1. Contract Plans Bureau provides two copies of Preliminary Plans and Special Provisions (Final Plan Review Report) to CR Section Supervisor for review, comment and verification of previous input and comment disposition.
2. CR Section Supervisor will forward one copy to the area CR and maintain the other copy in Helena files after noting CR name and date forwarded.
3. CR responds to Contract Plans Bureau and copies PDM, CR Section Supervisor and CR Section project file.
4. CR will enter appropriate information on the Report/Plan Review Tracking Log.
5. Provide oral and/or written constructability review comments to the PDM for inclusion in the final plans.

START DEPENDENCIES:

After approval and distribution of the PIH Report and before issuing the Blue Sheets.

DISTRIBUTIONAND USE:

CES Bureau CR Section will document, disseminate, implement and follow-up on comments and input obtained during the project development process in order to improve future projects, contract uniformity, cost effectiveness and reduce change orders and claims. This "lessons learned" concept will be tracked from PFR phase, through the remaining project development phases, construction phase and ultimately back to the PFR phase of future projects, then start the process over.

ACTIVITY 700 Conceptual Design Submitted to FWP

DEFINITION:

Submit preliminary resource package and request comments from Montana Department of Fish, Wildlife & Parks (FWP) and the U.S. Fish and Wildlife Service (USFWS), as appropriate.

TASKS:

For In-House Projects:

District Biologist prepares and provides preliminary resource package information:

1. Plan-In-Hand plans and/or type, size, and location report for culverts and bridges in/over jurisdictional waters
2. Preliminary bridge layout
3. Relevant cross-sections if available
4. Final Hydraulic Report
5. Additional design recommendation memos pertinent to structures in/over jurisdictional waters
6. Topographic location map
7. Cover letter to each resource agency that may have jurisdiction soliciting comments relative to a project's preliminary design

For Consultant Design projects:

Consultant prepares and provides four (4) copies of the following preliminary resource package information to MDT:

1. Plan-In-Hand plans, preliminary structure plans, and major drainage and irrigation features for culverts and bridges in/over jurisdictional waters, including cross sections of these areas
2. Final Hydraulic Report
3. Any additional design recommendation memos pertinent to structures in/over jurisdictional waters
4. Topographic location map
5. Cover letter (in Microsoft Word format electronically) to each resource agency that may have jurisdiction soliciting comments relative to a project's preliminary design.

For **All Projects**:

The MDT District Biologist reviews, makes any necessary revisions, and distributes the information to the appropriate Resource Agencies.

ACTIVITY 701 Hazardous Materials / Substances and Water Quality - ISA Review

DEFINITION:

Review consultant's report on potential hazardous materials/substances and water quality contamination issues.

This may be an iterative process with the consultant to finalize the Initial Site Assessment Report.

TASKS:

	Task Checklist Description	Transmittal Date	N/A	Initial Consultant	Initial MDT
1	Review Draft ISA checklist or report.				
2	Review Final ISA checklist or report)				

START_DEPENDENCIES:

Submittal of Draft Initial Site Assessment checklist or report.

ACTIVITY 706 Prepare/Review BRR/BA

DEFINITION:

Evaluation and assessment of a project's affects on the fish, wildlife, critical habitats, rare and/or sensitive plants, wetland, river, stream, and other water resources located at the project site and/or along the project corridor.

This is an iterative process with the consultant to finalize the Biological Resource Report/Biological Assessment.

TASKS:

For In House Projects:

1. Perform a field and/or a literature review to identify all general wildlife, fish, critical habitats, vegetative communities and rare and/or sensitive plants located at the project site and/or along the project corridor.
2. Perform a field and/or literature review to identify all wetlands, rivers, streams, and other water resources located at a specific construction site or throughout a project's construction corridor for survey and illustration on project plans.
3. Discuss the location, size, and the relative functions of all wetlands, rivers, streams, and other water resources that may be affected with the MDT design group or consultant responsible for designing the project and preparing its' Scope of Work.
4. Identify and perform all initial feasibility studies, i.e., field reviews, literature reviews, water rights, ownership studies, etc., for potential on-site, project specific, wetland mitigation sites for further evaluation and development under activity 750.
5. Insure that all potential on-site, project specific, wetland mitigation sites are accurately identified in the project's preliminary field review report and on preliminary plans, whenever possible and appropriate. Alert Right-of-Way agent of potential opportunities so that they can pursue landowner coordination. Selected sites will be included and discussed in the project's Scope of Work Report.
6. Request information from MT FWP, DEQ, USFS, BLM, DNRC, USFWS and any other pertinent agencies that have a management or regulatory interest in the wildlife, fish, critical habitats, rare and/or sensitive plants, wetlands, rivers and streams, and other water resources that may be affected by the project.
7. Prepare and distribute, in-house, a written assessment of the fish, wildlife, critical habitats, rare and/or sensitive plants, wetland, river, stream, and other water resources located at the project site and/or along the project corridor. The assessment will include a comprehensive analysis and discussion, including suggestions for the avoidance and/or minimization of impacts to, of the fish, wildlife, critical habitats, rare and/or sensitive plants, wetland, river, stream, and other water resources at the project site and/or along the project corridor.

For Consultant Projects:

1. Review the draft Biological Resource Report/Biological Assessment and provide comments as necessary.
2. Review the final Biological Resource Report/Biological Assessment.

START DEPENDENCIES:

For in house projects, a scheduled Preliminary field review and/or, a preliminary field review report, and translites and/or as-built plans (if available). A completed preliminary field review report is needed to complete this activity. A District Project Biologist is required to attend Preliminary field reviews.

For Consultant projects submittal of the draft report under Activity 182.

DELIVERABLES:

For In House Projects:

The MDT design group or consultant responsible for preparing a project's preliminary field review report, scope of work, and its' design. To provide the environmental data and assessment evaluation that is necessary to effectively write a project's environmental document for NEPA and/or MEPA. The fish, wildlife, critical habitats, rare and/or sensitive plants, wetland, river, stream, and other water resources analysis will be used to determine all reasonable avoidance and minimization measures that can be taken during the earliest phase of a project's development. This information will be used to help select alignments and grades, design bridges, select culverts, and plan maintenance activities.

ACTIVITY 708 Cultural Resource Management Review

DEFINITION:

Conduct or review cultural resource inventory (in-house or through a consultant) of the project's area of potential environmental impact to identify cultural material, features, or sites.

For consultant projects, this is an iterative process with the consultant to produce the draft and final Cultural Resource Inventory Reports.

TASKS:

For In House Projects:

1. Determine whether historic properties are known to exist.
2. Perform inventory or assign to a cultural resource term consultant.
3. Evaluate significance of identified sites.
4. Prepare the Cultural Resource report.
5. Submit the report to the SHPO with recommendation on eligibility for listing. on the National Register of Historic Places.

For Consultant Projects:

1. Review the draft Cultural Resource report and provide comments as necessary.
2. Review the final Cultural Resource report and submit to the SHPO with recommendation on eligibility for listing on the National Register of Historic Places.

START DEPENDENCIES:

For Consultant projects submittal of the draft report under Activity 177.
For In-house projects Activity 200.

ACTIVITY 710 Prepare/Review Environmental Information Requests

DEFINITION:

Initiate requests for information necessary to assess and project related environmental impacts.

For consultant projects, this is an iterative process with the consultant to prepare draft and final requests for information necessary to assess and forecast related environmental impacts.

TASK:

For In House Projects:

Attend Preliminary Field Reviews and serve as an advisor to the District Engineer, Preconstruction and/or Bridge Area Engineer and others in attendance on matters involving potential environmental impacts associated with the project. Outline areas of environmental issues, concerns, opportunities to be considered for the development of the project design.

Attend and participate in project Scoping and/or Review Meetings to define environmental issues and identify areas of environmental concern.

Depending on the proposed preliminary scope of work, type of project and geographic/jurisdictional location, MDT sends requests for specific information to various community, city, county, state, tribal and federal agencies. For Environmental Impact Statements, refer to section 6002 SAFETEA-LU for participating agency coordination. Prepare draft and final correspondence to affected agencies or organizations. Sign and distribute final request for information letters.

For Consultant Projects:

1. Review the draft request for information letters and provide comments.
2. Review the final request for information letters.
3. Sign and distribute final request for information letters.

START DEPENDENCIES:

For Consultant projects: submittal of the draft letter under Activity 178.

For In-house projects: Preliminary Engineering Authorization; Preliminary Field. Review Attendance/Report; Notification of scheduled Scoping or Review .Meetings, or Report detailing the proceedings of Scoping or Review Meetings.

ACTIVITY 715 Obtain Water Rights

DEFINITION:

Obtain water rights for use/securing hydrology in perpetuity for wetland mitigation project.

TASKS:

1. Review Draft application submitted by consultant.
2. Review point of diversion, historic use, adverse effect, etc. for application for change of use water right.
3. Review basin closure applicability.
4. Submit a correct and complete application to the DNRC.

START DEPENDENCIES:

Activity 173

ACTIVITY 717 Preliminary Traffic Noise Analysis Review

DEFINITION:

This activity is referred to as "Highway Traffic Noise Preliminary Screening Procedure" in the MDT Noise Procedure Manual. Preliminary reporting on potential noise impacts are based on existing alignment, projected traffic volumes and measured noise levels.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Review the PFR to determine need for noise analysis and level of analysis required. If no analysis is needed, this can be documented on the ISA form.				
2	Review preliminary traffic noise analysis.				
3	Do noise impacts exist?				
4	Are design changes possible?				
5	Is a detailed noise analysis necessary?				
6	Provide feedback to MDT Consultant Project Engineer (Finalize draft report.)				

START DEPENDENCIES:

Completion of activity 179.

ACTIVITY 723 Final Environmental Document Approval (CE)

DEFINITION:

Sign and distribute Categorical Exclusion/Section 4(f) Evaluation.

TASKS:

FOR IN-HOUSE PROJECTS:

Upon receipt of signed document from FHWA, scan document and save it to the electronic file. Upload pdf file to DMS. Prepare and send email to announce availability of signed document on DMS. Include in email a hyperlink to the document. Distribute hard copies of the CE.

FOR CONSULTANT DESIGN PROJECTS:

	Task Checklist Description	Transmittal Date	N/A	Initial Consultant	Initial MDT
1	Circulate Categorical Exclusion/Section 4(f) Evaluation for necessary signatures.				
2	Distribute (electronic and hard copy) approved Categorical Exclusion/Section 4(f) Evaluation.				

START DEPENDENCIES:

Completion of Activities 126 and 784

ACTIVITY 725 Detailed Noise Analysis Review

DEFINITION:

Referred to as "Highway Traffic Noise Detailed Analysis" in MDT Noise Procedure Manual. Documentation of noise impacts and analysis of noise abatement alternatives and public involvement as necessary.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Review detailed noise analysis report.				
2	Have design changes been considered?				
3	Are barriers being proposed?				
4	Review neighborhood opinion survey.				
5	Noise abatement recommendations checklist.				
6	Inform consultant to proceed with noise abatement if applicable.				

START DEPENDENCIES:

Completion of activity 109.

ACTIVITY 742 Air Quality Conformity Determination Review

DEFINITION:

Conduct air quality and transportation conformity analysis in non-attainment and maintenance areas to determine if a proposed project will adversely impact ambient air quality levels of carbon monoxide (CO) or particulate matter (PM10 or PM2.5).

For consultant projects, this may be an iterative process to produce an air quality conformity determination.

TASKS:

For In House Projects:

1. Determine if project is in a non-attainment or maintenance area for CO, PM10, and/or PM2.5, and determine if project is exempt from conformity (Table 2, 40 CFR 93.126).
2. Determine if project needs a CO hot-spot analysis. Consult the regulations (93.123) and follow required consultation procedures (Montana Air Quality SIP).
3. Determine need for PM10 or PM2.5 hot-spot analysis. If project is not listed in Table 2 of 40 CFR 93.126, then determine if it is a project of "localized air quality concern." Refer to *Transportation Conformity Guidance for Qualitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas* (EPA420-B-06-902, March, 2006).
4. Determine need for a discussion of Mobile Source Air Toxics (MSATs). This is not required for projects that are categorically excluded under 23 CFR 771.117(c), or those projects which are exempt under the Clean Air Act (Transportation Conformity, 40 CFR 93.126). All other projects, whether located in a non-attainment area or not, require some level of discussion of MSATs. Refer to FHWA guidance document HEPN-10, dated Feb 3, 2006.
5. This process can be documented on MDT's Initial Site Assessment form (see Activity 181.)

For Consultant Projects:

1. Review draft ISA form or air quality memo and provide comments as necessary to MDT Consultant Project Engineer.
2. Review the final consultant submittals.
3. Review and modify the conformity determination letter as necessary and distribute to the agencies.

START DEPENDENCIES:

For consultant projects, submittal of the draft deliverable under activity 180.
For in-house projects, activity 200.

DELIVERABLES:

For In House Projects:

ISA Form or Memo regarding conformity of project. Letter to appropriate state, local and federal agencies stating MDT's conformity determination.

ACTIVITY 780 Review Draft Purpose and Need

DEFINITION:

For ENVIRONMENTAL ASSESSMENT and ENVIRONMENTAL IMPACT STATEMENT ONLY. Review draft table of contents and draft purpose and need statement.

TASKS:

	Task Checklist Description	Transmittal Date	N/A	Initial Consultant	Initial MDT
1	Receive draft purpose and need statement and draft table of contents.				
2	Review and provide comment on draft purpose and need statement and draft table of contents. Ensure draft purpose and need statement includes the following information: 2.1 Project description and background. 2.2 Needs of the project. 2.3 Purpose of the project. 2.4 Goals and objectives of the project.				

START DEPENDENCIES:

Completion of Activity 117.

ACTIVITY 781 Environmental Resource Reports Review

DEFINITION:

Evaluate consultant's submittal of the Environmental Resource Reports that will be utilized for development of the preliminary NEPA/MEPA document.

TASKS:

Insure that all of the appropriate tasks are included in the consultants Environmental Resource Reports. Following are the major elements that should be included in the report.

	Task Checklist Description	Yes	No	N/A	Initial
1	Cultural Resource Report (MDT Generated)				
2	Haz. Mat. ISA				
3	Biological Resource Report				
4	Biological Assessment Report (If applicable)				
5	Wetlands Finding Report				

START DEPENDENCIES:

Activity 105

ACTIVITY 782 Environmental Review

DEFINITION:

This is an iterative process with the consultant to complete the environmental documentation and prepare the preliminary Environmental Document or Categorical Exclusion, and when applicable, Section 4(f) Evaluation.

Note- in some cases, the Categorical Exclusion and/or Section 4(f) Evaluation may be completed during this activity.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

Depending upon complexity of the project, a Focus Group may be established. (Typically for EIS or EA).

116-782 ITERATIVE ACTIVITY TIMELINES

Concurrent activities/Iterative process/Finish-Finish Activities. Total Durations are estimated and may vary on a project basis. Durations are set based on working days (OPX2) not calendar days unless otherwise noted.

NOTE: Iterative process does not apply to Programmatic Categorical Exclusion (d) and Categorical Exclusion (c).

Act. 116	C1		C3		C5	.
Act. 782		E2		E4		E6 .

C1 – Consultant. Prepare Preliminary Environmental Document/Section 4(f) Evaluation - incorporate comments from previous activities. Duration of C1 ends when document is submitted to MDT. Duration determined by negotiation with MDT/FHWA and consultant. C1 distribution aimed at Working Group.

E2 – MDT/FHWA. Review of Preliminary Environmental Document/Section 4(f) Evaluation. Standard 20 day duration.

C3 – Consultant. Modify Document/Section 4(f) Evaluation based on MDT/FHWA review comments. Default duration of 20 days or less (Narrative CE (d) / EA) or 30 days or less (EIS). C3 distribution aimed at Working Group and design group which includes all applicable Divisions, Bureaus, Sections, etc within MDT.

E4 - MDT/FHWA. FOR Narrative CE (d) ONLY: Approve the documentation or request the Consultant make any necessary changes. FOR EA AND EIS ONLY:

Review of Environmental Document/Section 4(f) Evaluation. Standard 20 day duration.

C5 – Consultant. FOR EA AND EIS ONLY. Modify Document/Section 4(f) Evaluation based on MDT/FHWA review comments. Submit a Comment and Response Document that includes proposed document edits based upon comments from the design group. Default duration of 20 days or less. C5 distribution aimed at Working Group plus any interested parties derived from C3 distribution.

E6 - MDT/FHWA. FOR EA AND EIS ONLY. Provide approval to print Administrative Draft. Standard 10 day duration.

Complete when:
1. Administrative Draft of document (EA or EIS) and Section 4(f) Evaluation (if applicable) is approved and ready for publication; or
2. Narrative CE(d) is signed or if comments are received as part of E4, the remaining work will be completed under activity 126.

EIS Total Duration: C1 + 100 days or less.
CE (d) and EA Total Duration: C1 + 90 days or less.

TASKS:

	Task Checklist Description	Transmittal Date	N/A	Initial Consultant	Initial MDT
1	Receive draft and final Preliminary Site Investigation report. (If applicable).				
2	Review draft and final Preliminary Site Investigation report. (If applicable).				
3	Receive final Cooperating Agency request letters (if applicable).				
4	Review final Cooperating Agency request letters (if applicable).				
5	Receive draft memo regarding air quality conformity of project (if applicable).				
6	Review draft memo regarding air quality conformity of project (if applicable).				
7	Receive preliminary versions of the Environmental Document, Section 4(f) Evaluation, and all supporting documentation. (If applicable).				
8	Review Preliminary versions of the Environmental Document and				

	Preliminary Section 4(f) Evaluation. (If applicable).				
9	For EA, EIS or Preliminary Section 4(f) Evaluation (if applicable): Provide recommendation for print approval for Cooperating Agency review to MDT Consultant Project Engineer.				
10	Review Preliminary Bridge layout.				
11	Submit Preliminary Bridge layout to agencies.				
12	Provide agency comments to Bridge Bureau and MDT Consultant Project Engineer (if comments are not received within thirty calendar days, then advise MDT Consultant Project Engineer).				

START DEPENDENCIES:

Submittal of C1 under activity 116.

ACTIVITY 783 Environmental Conceptual Design Review

DEFINITION:

Review drafts of the Conceptual Mitigation Design and other technical reports.

TASKS:

Insure that all of the appropriate tasks are included in the consultant's submittal of Conceptual Mitigation Design Plans, alternatives and reports. Following are the major elements that should be included in the report.

	Task Checklist Description	Yes	No	N/A	Initial
1	Review Design alternatives				
2	Verify MDT comments were incorporated into the design alternatives				
3	Conceptual plan overlayed on topographic contours for each alternative				
4	Incorporation of applicable data (Water Rights, existing wetlands, groundwater depth, geotechnical info., etc.) into the design alternatives				
5	Transmit copies to FHWA and Resource Agencies and others as necessary.				
6	Provide written comments to Consultant Design				
7	Review conceptual design alternatives: Cross-sections Conceptual plan layout with topographic contours Conceptual plan showing wells and bore hole locations				
8	Incorporation of Water rights, biological, existing wetlands, hazmat, cultural resource, topographic, groundwater depths, geotechnical information acreage of proposed wetland into the report.				
9	Review Plans: 1. Topographic contours 2. Wells and bore holes 3. Existing wetlands 4. Cultural Resources 5. Key resource elements				

START DEPENDENCIES:

Activity 119, 171,107,116

ACTIVITY 784 Categorical Exclusion/Section 4(f) Evaluation Review

DEFINITION:

Review finalized Categorical Exclusion/Section 4(f) Evaluation.

TASKS:

	Task Checklist Description	Transmittal Date	N/A	Initial Consultant	Initial MDT
1	Confirm that Haz Mat staff has reviewed the final memo regarding air quality conformity of the project (if applicable).				
2	Review and modify, as necessary, finalized Categorical Exclusion/Section 4(f) Evaluation .				
3	Print for Signatures				

START DEPENDENCIES:

Completion of activity 126.

ACTIVITY 785 Environmental Review for PIH

DEFINITION:

Evaluate consultant's submittal of Plan-in-Hand Plans.

TASKS:

Insure that all of the appropriate tasks are included in the consultant's submittal of the Plan-in-Hand Plans. Following are the major elements that should be included in the report.

For ALL projects:

	Task Checklist Description	Yes	No	N/A	Initial	MDT
1	Review Plan in Hand plans, specs and special provisions.					
2	Review Commitment and Resolution Document to address commitments made by MDT during the Environmental process.					
3	Provide comments to Plan in Hand submittal and Commitment and Resolution Document. Submit comments to MDT Consultant Design Project Manager.					
4	Provide seeding and weed control special provisions if applicable.					
5	Discuss conceptual landscaping plans as necessary					
6	Verify with Haz Mat Section that the Preliminary Site Investigation (PSI) is sufficient for the project.					

For WETLAND MITIGATION PROJECTS ONLY:

	Task Checklist Description	Yes	No	N/A	Initial	MDT
1	Submit Final Mitigation Design Plans and Specs to Resource agencies for review and comment.					
2	Review cost estimate based on approved concept					
3	Review timing requirements for construction of wetland project					
4	Review maintenance requirements for constructed wetland					
5	Review Hydraulic and Geotechnical Design Data					
6	Compile Agency comments for P.I.H.					

START DEPENDENCIES:

For Wetland Mitigation projects: Activities 135,173,131
For all other Consultant Design projects: Activity 134

ACTIVITY 786 Final Environmental Matters and Draft Permit Review

DEFINITION:

Review of final environmental documentation and permits necessary to prepare subject project for contract letting.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Approve Section 404/10/ALCO/ALPO permit applications for submittal. (728) ***				
2	Cultural Mitigation Compliance with MOA (730)**				
3	Approve SPA 124 application for submittal. (732) **				
4	Review Wetlands Finding Report. (778) **				
5	Report all unmitigated wetland impacts to the MDT Wetland Mitigation Specialist for debit at an existing Wetland Mitigation Reserve, or inclusion on the MDT Wetland Ledger. (750)**				
6	Wetlands Mitigation Plan from Section 404 permit. Consider an on-site wetland mitigation monitoring strategy. (750) **				
7	Review Environmental Document. (740)***				
8	Coordinate and review any environmentally related changes in the plans, special provisions or environmental documentation resulting from changes in the project scope-of-work, or awareness of additional environmental issues. (740) ***				
9	Review project plans, specifications and special provisions to ensure environmental concerns have been addressed and that all agreed to mitigation measures and environmental commitments are included or addressed in the completed project contract bid package. (720) **				
10	Approve Storm Water Discharge permit. (744)***				
	Review Commitment and Resolution Document to address commitments made by MDT during the Environmental process. Commitment and Resolution Document (Submit Microsoft WORD file and hard copies).				

START DEPENDENCIES:

Completion of Activity 148.

ACTIVITY 787 Review Administrative Draft Environmental Document

DEFINITION:

This is an iterative process with the consultant to provide for legal sufficiency and agency review (as necessary) of Administrative Draft environmental document/Section 4(f) Evaluation, address comments received from agencies and legal resources, and produce a document that is acceptable for public review and comment.

"Agencies" are defined as resource agencies and/or cooperating agencies. The consultant will coordinate with MDT to determine these agencies.

192-787 ITERATIVE ACTIVITY TIMELINES

Concurrent activities/Iterative process/Finish-Finish Activities.
Total Durations are estimated and may vary on a project basis.
Durations are set based on working days (OPX2) not calendar days unless otherwise noted.

Act. 192 C1 C3 C5 .
Act. 787 E2 E4 E6 .

C1 – Consultant. Print Administrative Draft Environmental Document/Section 4(f) Evaluation and submit to MDT. Submit draft agency distribution list and cover letter for transmitting Administrative Draft document for MDT review and signature. Default duration of 10 days or less.

E2 – MDT/FHWA. Send Administrative Draft Environmental Document/Section 4(f) Evaluation to agencies and legal resources (as required). Duration includes: 5 days to transmit, 22 days for agency review (30 calendar days), and 5 days to transmit back to MDT. Default duration is 32 days.

C3 – Consultant. Submit the Comment and Response document that includes proposed document edits based upon comments from agencies and legal reviewers. Prepare responses to address comments from agency reviews. (At a minimum, the response letter will be a courtesy to acknowledge receipt of comments and indicate that comments will be "considered during project development.") Default duration of 20 days or less.

E4 - MDT/FHWA. Review consultant's Comment and Response document and draft agency response letters. Default duration of 20 days.

C5 – Consultant. Modify environmental document/Section 4(f) Evaluation and draft agency response letters accordingly. Default duration of 15 days or less.

E6 – MDT/FHWA. Provide approval to print EA or DEIS. Review, sign and send agency response letters. Default duration of 15 days.

Activity is complete when MDT sends agency response letters and provides print approval.

Total Duration: 112 days or less

TASKS:

	Task Checklist Description	Transmittal Date	N/A	Initial Consultant	Initial MDT
1	Receive draft distribution list, draft cover letter, mailing labels, and Administrative Draft environmental document/Section 4(f) Evaluation.				
2	Finalize distribution list and cover letters.				
3	Mail Administrative Draft environmental document/Section 4(f) Evaluation to agencies.				
4	Forward comments received from agencies to MDT Consultant Project Engineer. Identify substantive comments that warrant a detailed response. Request MDT Consultant Project Engineer set up meeting to coordinate responses to agency comments, as appropriate.				
5	Review and provide comments on the Comment and Response document and draft agency response letters.				
6	Receive consultant responses and receive draft letters to agencies.				
7	Review, sign, and send response letters to agencies.				
8	EA or Draft EIS ready for approval to distribute. Provide recommendation for print approval to MDT Consultant Project Engineer.				

START DEPENDENCIES:

Submittal of C1 under activity 192.

ACTIVITY 788 Review EA

DEFINITION:

FOR ENVIRONMENTAL ASSESSMENTS (EA) ONLY
Public Review and Comment on the Environmental Assessment, including draft Section 4(f) Evaluation(s) if necessary. This is an iterative process with MDT to coordinate the EA for public distribution. Gather comments and conduct public hearing as appropriate.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

195-788 ITERATIVE ACTIVITY TIMELINES

Concurrent activities/Iterative process/Finish-Finish Activities.
Total Durations are estimated and may vary on a project basis.
Durations are set based on working days (OPX2) not calendar days unless otherwise noted.

Act. 195 C1 C3 C5 .
Act. 788 E2 E4

C1 – Consultant. Print copies of the Environmental Assessment (EA) for signature. Submit public availability distribution package. Default duration of 10 days or less.

E2 - MDT/FHWA. Review and MDT/FHWA signatures. Includes: 10 day review and signature by MDT, 5 days transmit from MDT to FHWA, 10 day review and signature by FHWA, 5 days transmit from FHWA to MDT. Standard 30 day duration.

C3 – Consultant. Print signed copies of EA. Submit PDF file five days prior to public availability. Distribute for public review. Default duration of 10 days or less.

E4 - MDT/FHWA. Post PDF file on MDT website. If full Section 4(f) Evaluation applies, then FHWA distributes to appropriate Section 4(f) Evaluation reviewers. Standard 5 day duration.

C5 – Consultant. Public comment period and hold public hearing if applicable. Default duration of 22 days (Public availability period of 30 calendar days begins when the document is available for viewing by the public). If full Section 4(f) Evaluation applies, then default duration of 32 days (includes a 45 calendar day Section 4(f) Evaluation review).

Complete when Public comment period ends.

Total Duration: 77 days or less. (87 days or less if full Section 4(f) Evaluation applies.)

TASKS:

	Task Checklist Description	Transmittal Date	N/A	Initial Consultant	Initial MDT
1	Receive copies of EA for signature.				
2	Circulate EA for necessary signatures.				
3	Receive public availability distribution package to include postcards, mailing lists, press releases and advertisements.				
4	Review and approve public availability distribution package. Notify MDT Consultant Project Engineer of edits and approvals.				
5	Forward signature pages to MDT Consultant Project Engineer.				
6	Coordinate with MDT Consultant Project Engineer to establish an electronic distribution list for public comments received. Place EA on MDT website.				
7	Review and provide approval of materials necessary for public hearing. (Displays, Power Point Presentations, etc.)				
8	Attend public hearing.				
9	Forward comments received to electronic distribution recipients.				

START DEPENDENCIES:

Submittal of C1 under activity 195.

ACTIVITY 789 Review Environmental Decision Document (FONSI, etc.)

DEFINITION:

FOR ENVIRONMENTAL ASSESSMENTS ONLY, including Section 4(f) Evaluation(s) if necessary. This is an iterative process with MDT to address comments received on the EA and produce the Decision Document for MDT/ FHWA approval. This activity will conclude with either a Finding of No Significant Impact (FONSI) or a letter identifying future actions.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

Act. 196 C1 C3_ C5 *C7* *C9_* C12
Act. 789 E2_ E4 *E6* *E8_* *E10* /E11 E13

___ - FOR FULL SECTION 4(f) EVALUATION ONLY.

C1 – Consultant. Respond to comments using appropriate Comment and Response document template. Default duration of 20 days or less, or as determined by negotiation with MDT/FHWA.

E2 – MDT/FHWA. Review Comment and Response document. Standard 20 day duration.

C3 – Consultant. Revise Comment and Response document and prepare draft decision document. Default duration of 20 days or less.

E4 – MDT/FHWA. Review Comment and Response Document and draft decision document. Standard 20 day duration.

C5 – Consultant. Address changes to draft decision document. Submit for print approval. Default duration of 15 days or less.

E6-MDT/FHWA. FOR FULL SECTION 4(f) EVALUATION ONLY. Print approval for Full Section 4(f) Evaluation and draft decision document. Default duration of 10 days.

C7 – Consultant. FOR FULL SECTION 4(f) EVALUATION ONLY. Print full Section 4(f) Evaluations and draft decision document for FHWA Legal sufficiency review. Default duration of 10 days or less.

E8 - FHWA. FOR FULL SECTION 4(f) EVALUATION ONLY. FHWA submits for Legal sufficiency review. Includes: 5 days to transmit, 22 day review (30 calendar days), 5 days transmit back to MDT. Default duration of 32 days.

C9 – Consultant. FOR FULL SECTION 4(f) EVALUATION ONLY. Obtain Working Group intent to address Legal sufficiency review comments. Prepare Comment and Response Document using the appropriate template. Modify the draft decision document accordingly. Default duration of 15 days or less.

E10 - MDT/FHWA. FOR FULL SECTION 4(f) EVALUATION ONLY. Review Comment and Response Document and modified decision document addressing Legal sufficiency review comments. Duration included in E11.

E11 – MDT/FHWA. Provide approval to print decision document. Standard 10 day duration.

C12 – Consultant. Print appropriate number of decision documents for signature and draft distribution letters. Default duration of 10 days or less.

E13 – MDT. Review, approve, and submit for signatures. Standard 5 day duration.

The activity is complete when MDT clears the decision document for signature.

Total Duration (With 4(f)): 187 days or less.
Total Duration (Without 4(f)): 120 days or less.

TASKS:

	Task Checklist Description	Transmittal Date	N/A	Initial Consultant	Initial MDT
1	Receive Comment and Response document.				
2	Review and provide comments on Comment and Response Document.				
3	Receive Comment and Response document and Draft Decision Document.				
4	Review and provide comments on Comment and Response Document and Draft Decision Document.				
5	FOR FULL SECTION 4(f) EVALUATION ONLY. Regarding full Section 4(f) Evaluation and Decision Document, provide print				

	approval for legal sufficiency review to MDT Consultant Project Engineer.				
6	FOR FULL SECTION 4(f) EVALUATION ONLY. Receive Comment and Response document and modified decision document addressing legal sufficiency.				
7	FOR FULL SECTION 4(f) EVALUATION ONLY. Review and provide comments on Comment and Response document and modified decision document addressing legal sufficiency.				
8	Decision document ready for approval to distribute. Provide recommendation for print approval to MDT Consultant Project Engineer.				
9	Receive draft distribution letters.				
10	Review the draft distribution letters.				
11	Submit decision document for signatures.				

START DEPENDENCIES

Submittal of C1 under activity 196.

ACTIVITY 791 Review Draft EIS

DEFINITION:

FOR ENVIRONMENTAL IMPACT STATEMENTS ONLY, including draft Section 4(f) Evaluation(s) if necessary. This is an iterative process with the consultant to coordinate the DEIS for public distribution. Conduct public hearing and gather comments.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

197-791 ITERATIVE ACTIVITY TIMELINES

Concurrent activities/Iterative process/Finish-Finish Activities.
Total Durations are estimated and may vary on a project basis.
Durations are set based on working days (OPX2) not calendar days unless otherwise noted.

Act. 197 C1 C3 C4 .
Act. 791 E2

C1 – Consultant. Print copies of the Draft Environmental Impact Statement (DEIS) for signature. Default duration of 10 days or less.

E2 - MDT/FHWA. Review and MDT/FHWA signatures. Includes: 10 day review and signature by MDT, 5 days transmit from MDT to FHWA, 10 day review and signature by FHWA, 5 days transmit from FHWA to MDT. FHWA prepares cover letter for Federal Register. Standard 30 day duration.

C3 – Consultant. Print signed copies of DEIS and distribute to the public. Default duration of 10 days or less.

C4 – Consultant. Public comment period and hold public hearing. Default duration of 32 days (Public Availability period of 45 calendar days begins the date the notice is published in the Federal Register.)

Complete when Public comment period ends.

Total Duration: 82 days or less.

TASKS:

	Task Checklist Description	Transmittal Date	N/A	Initial Consultant	Initial MDT
1	Receive copies of DEIS for signature.				
2	Circulate DEIS for necessary signatures.				
3	Receive public availability distribution package to include postcards, mailing lists, press releases and advertisements.				
4	Review and approve public availability distribution package. Notify MDT Consultant Project Engineer of edits and approvals.				
5	Forward signature pages and signed cover letters to MDT Consultant Project Engineer.				
6	Coordinate with MDT Consultant Project Engineer to establish an electronic distribution list for public comments received. Place DEIS on MDT website.				
7	Review and provide approval of materials necessary for public hearing. (Displays, Power Point Presentations, etc.)				
8	Attend public hearing.				
9	Forward comments received to electronic distribution recipients.				

START DEPENDENCIES:

Submittal of C1 under activity 197.

ACTIVITY 792 Review Final EIS

DEFINITION:

FOR ENVIRONMENTAL IMPACT STATEMENTS ONLY, including Section 4(f) Evaluation(s) if necessary. This is an iterative process with the consultant to produce the Final Environmental Impact Statement (FEIS) for public availability.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

198-792 ITERATIVE ACTIVITY TIMELINES

Concurrent activities/Iterative process/Finish-Finish Activities.
Total Durations are estimated and may vary on a project basis.
Durations are set based on working days (OPX2) not calendar days unless otherwise noted.

Act. 198 C1 C3 C5 C7 C9 C11 C13 C14
Act. 792 E2 E4 E6 E8 E10 E12

C1 – Consultant. Respond to Comments using Comment and Response document for public comments. Default duration of 20 days or less or as determined by negotiation with MDT/FHWA.

E2 – MDT/FHWA. Review Comment and Response document. Standard 20 day duration.

C3 – Consultant. Revise Comment and Response document and Prepare Final Environmental Impact Statement. Default duration of 20 days or less.

E4 – MDT/FHWA. Review FEIS. Standard 20 day duration.

C5 – Consultant. Address changes. Default duration of 15 days or less.

E6 - MDT/FHWA. Print approval. Standard duration of 10 days.

C7 – Consultant. Print FEIS for FHWA Legal sufficiency. Default duration of 10 days or less.

E8 - FHWA. FHWA submits for Legal sufficiency. Includes: 5 days to transmit, 22 day review (30 calendar days), 5 days transmit back to MDT. Default duration of 32 days.

C9 – Consultant. Respond to comments from Legal sufficiency review using the Comment and Response document template. Default duration of 10 days or less.

E10 - MDT/FHWA. Review the Comment and Response Document and modified draft FEIS. Provide approval to print FEIS. Standard 10 day duration.

C11 – Consultant. Print copies of FEIS for signature and draft distribution letters. Default duration of 10 days or less.

E12 - MDT/FHWA. Review and MDT/FHWA signatures. Includes: 10 day review and signature by MDT, 5 days transmit from MDT to FHWA, 10 day review and signature by FHWA, 5 days transmit from FHWA to MDT. FHWA prepares cover letter for Federal Register requesting publication of Final EIS availability. Standard 30 day duration.

C13 – Consultant. Print signed copies of FEIS and distribute. Default duration of 10 days or less.

C14 - Consultant. Public availability. (Public Availability period of 30 calendar days begins the date the notice is published in the Federal Register.) Default duration of 22 days.

Complete when required Public Availability period ends.

Total Duration: 239 days or less.

TASKS:

	Task Checklist Description	Transmittal Date	N/A	Initial Consultant	Initial MDT
1	Receive public review Comment and Response Document.				
2	Review and provide comment on the public review Comment and Response Document.				
3	Receive draft FEIS.				
4	Review and provide comment on the draft FEIS.				
5	Receive revised FEIS ready for legal sufficiency review.				
6	Provide print approval of FEIS for legal sufficiency review to MDT Consultant Project Engineer.				
7	Review and provide comments on the legal sufficiency Comment and Response.				

	document and the modified draft FEIS.				
8	Provide recommendation for FEIS print approval to MDT Consultant Project Engineer.				
9	Receive copies of FEIS for signature.				
10	Circulate FEIS and Final Section 4(f) Evaluation if applicable for necessary signatures.				
11	Review and approve public availability distribution package. Notify MDT Consultant Project Engineer of edits and approvals.				
12	Forward signature pages to MDT Consultant Project Engineer.				
13	Coordinate with MDT Consultant Project Engineer to update the electronic distribution list for public comments received. Place FEIS on MDT website.				
14	Receive signed copies of FEIS, cover letters, mailing labels, electronic PDF file, etc..				

START DEPENDENCIES:

Submittal of C1 under activity 198.

ACTIVITY 793 Revise Record of Decision

DEFINITION:

FOR ENVIRONMENTAL IMPACT STATEMENTS ONLY, including Section 4(f) Evaluation(s) if necessary. This is an iterative process with the consultant to address comments received on the FEIS and produce the preliminary Record of Decision (ROD) for MDT/ FHWA use.

NOTE:

Receive MDT approval prior to making contact with any regulatory agencies, State, Federal, Tribal, and/or public entities. Submit the draft versions of all correspondence to MDT for review and approval.

199-793 ITERATIVE ACTIVITY TIMELINES

Concurrent activities/Iterative process/Finish-Finish Activities.
Total Durations are estimated and may vary on a project basis.
Durations are set based on working days (OPX2) not calendar days unless otherwise noted.

Act. 199 C1
Act. 793 E2

C1 – Consultant. Respond to comments using appropriate Comment and Response document template. Prepare preliminary Record of Decision. Default duration of 10 days or less.

E2 – MDT/FHWA. Review comment and response document and preliminary ROD. Attend Working Group meeting. Coordinate and produce a document suitable for MDT and FHWA signatures. Standard 15 day duration.

The activity is complete when the ROD is ready for submittal to FHWA for signature.

Total Duration: 25 days or less

TASKS:

	Task Checklist Description	Transmittal Date	N/A	Initial Consultant	Initial MDT
1	Receive Comment and Response Document and Preliminary ROD.				
2	Review and approve public availability distribution package. Notify MDT ConsultantProject Engineer of edits and approvals.				
3	Coordinate and produce a				

	document suitable for MDT and FHWA signatures.				

START DEPENDENCIES:

Submittal of C1 under activity 199.

ACTIVITY 799 Environmental Outside Agency Approval

DEFINITION:

Receipt of all applicable permits and approvals from the various Federal, state, and tribal agencies needed for the completion of the proposed wetland mitigation project.

TASKS:

1. Receipt of Section 404/10 permit from the Corps.
2. Receipt of SPA 124 from Montana Fish, Wildlife and Parks (As required)
3. Receipt of 318 permit from DEQ.
4. Receipt of ALCO/ALPO permit (As required.)
5. Receipt of FHWA re-evaluated CE or EA or Section 4(f) Evaluation.
6. Receipt of Storm Water Discharge permit.
7. Cultural mitigation compliance with MOA.
8. DNRC Approved Water rights.
9. Receipt of other required permits/approvals for project: _____
10. Incorporate permit conditions and requirements into plans and specials.
11. Incorporate permit conditions and requirements into Commitment and Resolution Document.

START DEPENDENCIES:

Completion of Activity 797.

DELIVERABLES:

Various permits from federal, state and tribal agencies.

ACTIVITY 812 Negotiations for R.R. Agreement and Easements

DEFINITION:

Complete final railroad agreements and easements.

TASKS:

1. Review plans and documents.
2. Establish time frame for completion of railroad involvement.
3. Prepare application for submittal to railroad.
4. Field review and inspection.
5. Coordination during preparation of agreement.
6. Negotiate for railroad R/W.
7. Review, check and accept final agreement.

START DEPENDENCIES:

1. Activity 875 (Consultant Design and Activity 810 (in-house)

ACTIVITY 814 Negotiate for Utility Agreements

DEFINITION:

Complete final Utility Agreements.

TASKS:

1. Review plans, maps and documents.
2. Establish time frame for completion of utility involvement.
3. Make application to affected utility.
4. Field Review and inspection.
5. Review estimate and prepare agreement.
6. Request program for IC Funds from FHWA through Fiscal Programming Section.
7. Negotiate with utility and complete agreement.

START DEPENDENCIES:

Activity 190 (Consultant Design) or Activity 813 (in house) as applicable.

ACTIVITY 815 Access Control Resolution

DEFINITION:

The Access Control Resolution is submitted to the Transportation Commission for their approval during this is activity. A resolution signed by the Commission is required by state statute in order to designate a highway or portion thereof as a Controlled Access Highway and Facility. In order to act on a resolution, the Commission requires the following: background information on the highway and why access control is being proposed, a route description, and assurances that the public involvement process has allowed their constituents time to comment on the possible implementation of access control. On some projects, the Commission also requires confirmation that the local governments are in favor of access control.

TASKS:

1. Within this activity, the Access Manager prepares the Resolution and submits it to the Transportation Commission for their approval and execution.
2. Once the Commission has executed the Resolution, the Access Manager will make the necessary arrangements to have it recorded in the appropriate Counties.

START DEPENDENCIES:

1. Approved Scope of Work.
2. Access Control Guide and Plans.
3. Preliminary R/W Plans.

DELIVERABLES:

Copies of the recorded Resolution should be sent to the R/W Design Supervisor and the District Traffic Engineer.

ACTIVITY 816 Appraise Right of Way

DEFINITION:

1. A property appraisal is the development and reporting of a supported opinion of Market Value. The value opinion is used by the R/W Bureau in the determination of Just Compensation to be offered to a landowner for the partial or whole acquisition of a property for highway purposes. The appraisal process is also used to estimate the diminution in value of a remainder property in a partial acquisition.
2. Appraise the Market Value of project and non-project real property to be acquired by MDT, and the Market Value of MDT owned property for disposition as excess land.

TASKS:

1. Review the Project:
   1.1. Review plans and documents, including title reports
   1.2. Request a pre-appraisal scope of work (PASOW) or determine type(s) of appraisal report required to produce an opinion of Market Value that is not misleading.
   1.3. Select a qualified appraiser to complete the assignment
   1.4. Establish time frame for completion of project
   1.5. Complete Appraisal contracting process, as needed.
2. Prepare Appraisal Reports:
   2.1. Provide an opinion of value using accepted standards of professional appraisal practice as outlined in the MDT Appraisal Manual, UASFLA, and FHWA guidelines.
   2.2. Submit appraisal report for review.

START DEPENDENCIES:

Authorization to start the appraisal process and receipt of right–of-way plans.

DELIVERABLES:

1. Provide the R/W Bureau with acceptable appraisal reports in conformance with FHWA policies and guidelines and Chapter 3 (Appraisal) of the MDT R/W Manual, for determination of Just Compensation.
2. Provide the R/W Bureau with accurate and valid Market Value appraisal reports for non-project properties.
3. Appraisal reports are sent to the Appraisal Section for review

ACTIVITY 820 Prepare Deeds (MDT)

DEFINITION:

Prepare legal property descriptions and deed exhibits.

TASKS:

1. Review plans and request revisions as necessary.
2. Review Memorandum of Title for property description and ownership.
3. Prepare reproducible property plat (exhibit) of each parcel to be acquired. This task will be completed by the consultant for consultant design projects.
4. Prepare written legal description of each parcel.
5. Prepare route descriptions for recording plans in county. This task will be completed by the consultant for consultant design projects.
6. Prepare miscellaneous deed descriptions as requested.
7. Have deeds typed in final form.
8. Check and proofread completed descriptions and deeds to ensure accuracy.

START DEPENDENCIES:

Completion of final right-of-way plan.

DELIVERABLES:

Completed MDT review activity 875 checklist.

ACTIVITY 822 Provide and Complete Relocation Assistance

DEFINITION:

Prepare a Relocation Assistance Plan required by state and federal regulations, determine Displacees benefits and assist them in relocation.

TASKS:

1. Interview all Displacees.
2. Gather market data.
3. Interview other public agencies that may be involved.
4. Write Relocation Assistance Plan and make required plan assurances.
5. Review multiple listings.
6. Canvas neighborhoods adjacent to project.
7. Obtain building estimates.
8. Locate building sites.
9. Contact Realtors.
10. Review appraisals.
11. Compute replacement housing payments.
12. Compute moving expenses.
13. Compute increased mortgage interest payment.
14. Prepare Letter of Offer.
15. Inform Displacee of benefits and payments.
16. Offer relocation services to Displacee.
17. Negotiate on behalf of the Displacee to purchase replacement property.
18. Locate sources of mortgage money.
19. Review purchase agreements, escrow agreements, building contracts, etc.
20. Make inspection of residential properties in order to ensure their compliance with federal guidelines.
21. Assist Displacee in obtaining title insurance.
22. Determine which closing costs the Displacee may be reimbursed for.
23. Compute "In Lieu Of" payments.
24. Review tax forms, affidavits, etc.
25. Compute rental supplements.
26. Compute down payment supplements.
27. Review lease agreements, purchase contract, etc.
28. Issue 90-day and 30-day notices.

START DEPENDENCIES:

1. Authorization to begin appraisals.
2. Completion of relocation assistance plan.
3. Completion of negotiations and/or permanent Order of Entry.
4. Authorization to begin negotiations.

DELIVERABLES:

Used to relocate persons and businesses displaced by R/W acquisition.

ACTIVITY 824 Conduct and Complete Negotiations by MDT

DEFINITION:

Negotiation with landowners, both private and public, for acquisition of property required for right-of-way, or other highway uses.

TASKS:

1. Review maps, documents, appraisals, title reports.
2. Assign negotiator to project.
3. Establish time frame for completion of assignment.
4. Prepare documents needed for property acquisition.
5. Contact owner (or representative) in person or by mail.
6. Apply for right-of-way over state land, Indian land or federal land.
7. Obtain grant of right-of-way from public agencies.
8. Present offer to property owner and obtain signatures.
9. Obtain mortgage releases, clear taxes and liens.
10. Complete documents and submit for closing and payment.
11. Prepare condemnation package and submit to Legal Division.

START DEPENDENCIES:

Receipt of authorization to acquire right-of-way and determinations of compensation.

DELIVERABLES:

Signed Right-of-Way agreements, deeds and other documents or recommendation for condemnation.

ACTIVITY 826 Process Parcels for Condemnation

DEFINITION:

Prepare and submit right-of-way parcels to Legal Division for condemnation.

TASKS:

1. Add condemnation parcel to condemnation tracking spread sheet.
2. Condemnation file reviewed by Acquisition Manager/Operations Manager and if applicable pre-Legal review.
3. Create duplicate legal file.
4. Submit request for R/W plan changes to R/W Plans Section.
5. Prepare final offer letter and send to landowner.
6. Obtain litigation guarantee and necessary R/W plan changes.
7. Prepare condemnation order for signature by Preconstruction Engineer.
8. Notify any lien holder of possible condemnation proceedings.
9. Create R/W Legal file in Oracle.
10. Submit file to Legal Division.

START DEPENDENCIES:

Completion of Activity 834, initiation of activity 824 and receipt of recommendation for condemnation from Field R/W Section for each condemned parcel.

ACTIVITY 834 Appraisal Review

DEFINITION:

Assist appraisers with technical advice and the development of the appraisal plan.
Review appraisal reports for accuracy and conformity with Departmental and Federal Highway Administration policies and guidelines.
Request corrections and/or revisions from the appraiser, when necessary.
Determine just compensation to be paid for property and write Review Appraiser's Report and Determination of Compensation.

TASKS:

1. Review appraisal assignments and appraisal plan with R/W Supervisor.
2. If required, provide a pre-appraisal scope of work (PASOW).
3. If required, contract with independent fee appraisers.
4. Provide technical assistance to appraisers during the appraisal process.
5. Review appraisal reports.
   5.1. Perform field inspection of sales and subject.
   5.2. Check for technical compliance with all requirements.
   5.3. Accept or reject appraisals or obtain necessary corrections.
   5.4. Write conclusion of appraised value and make determination of Just Compensation.
6. Review the Review Appraiser's Reports, if applicable.
7. Distribute appraisal reports with approved Review Appraiser's Reports to appropriate location (Right-of-Way Bureau or MDT Consultant Design Project Manager).

START DEPENDENCIES:

For Consultant projects:

Completion of Activity 875.

For In-house projects:

Completion of Activity 810.

ACTIVITY 846 Relocate Utilities

DEFINITION:

Administer agreements and provide for adjustment of railroad and/or utility facilities.

TASKS:

1. Project familiarization.
2. Review and research agreement and other information.
3. Telephone, letter and personal contact with owners.
4. Field trips to project site with owners. Plans-in-hand.
5. Arrange for staking project.
6. Review and approve utility occupancy forms.
7. Authorize companies to commence relocation.

START DEPENDENCIES:

1. R/W purchase for relocation complete.
2. Utility and railroad agreements received.

DELIVERABLE:

To clear construction area of existing utility and railroad facilities.

Note: This task performed by District Utility Agents.
This activity should be completed when the project is cleared for construction or necessary provisions have been made for contract.

ACTIVITY 854 Wetland R/W Authorization

DEFINITION:

Authorize for Wetland Acquisition.

TASKS:

1. Request funding approval from FHWA.
2. Authorization to commence Right-of-Way Acquisition Activity.Issue work authorization and distribute.

START DEPENDENCIES:

Activity 322, 120, 884

ACTIVITY 870 Preliminary R/W Review

DEFINITION:

Review and distribution of PE Report prepared by consultant

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
	Review PE REPORT (1 hard copy & 1 electronic pdf) for:				
1	Ownership Study:				
	1.1 Last Deed of Record for all Ownerships				
	1.2 Colored Ownership Map				
	1.3 Off Premise Signs				
2	R/W Cost Estimate				
3	Preliminary Areas of Acquisition				
4	Relocation Assistance Conceptual Stage Study				
5	Access Control Study, Preliminary Access Management Guidelines and Plan				
6	Irrigation Study:				
	6.1 Identification and Sufficiency of Water Source				
	6.2 Location, Size and Ownership of Irrigation and Drainage Ditches				
	6.3 Description, Ownership and Acreage of Land Irrigated				
	6.4 Estimate of Depreciation which would Accrue to Each Owner if Land was Deprived of Water				
	6.5 Alternatives to Perpetuate Irrigation Facilities				
	6.6 Feasibility of Terminating Facilities				
	6.7 Maps, Photos and Sketches of Irrigation Facilities				
7	Stockpass study to include ownerships, locations and feasibility of eliminating structures				

START DEPENDENCIES:

Receipt of PE report prepared by consultant.

DELIVERABLES:

1. Notification to consultant of acceptance of elements submitted
2. Distribution e-mail of PE Report to Environmental, Public Information Officer,
   Hydraulics, and Access Management

ACTIVITY 871 Review Existing R/W & Section Lines

DEFINITION:

Check consultant R/W files for accuracy of existing public roads, streets, highway, railroad right-of-way, property and section lines placement and compliance with MDT procedures as defined in the R/W Design Manual.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Determine if necessary items have been delivered:				
	1.1 Recorded full size copy of existing R/W and cadastral retracement survey(s) (including survey coordinate list and descriptions)				
	1.2 Complete full size set of C.O.S.'s and subdivision plats (folded)				
	1.3 Existing railroad and highway plans (folded) with deeds and other documentation				
	1.4 Existing public road documentation (including intersecting roads to project roadway)				
	1.5 Copies of GLO plats (folded)				
	1.6 Copies of Corner Recordations				
	1.7 Geopak GPK and existing survey input file				
	1.8 R/W strip map				
2	Check R/W strip map files for:				
	2.1 Existing railroad, highway and intersecting public roads R/W (including labels, dimensions, found R/W monuments and property pins)				
	2.2 Ownership dots and property lines (including placement of subdivision plats and C.O.S.'s)				
	2.3 Section lines and 1/16th section lines (found and unfound)				
	2.4 Property controlling corner cells (section corners, ¼ corners, etc.)				
	2.5 Existing access control				
	2.6 Microstation and drafting standards (file naming, level and cell use, reference file naming)				

START DEPENDENCIES:

Receipt of R/W CADD strip map and supporting documentation from consultant.
Activity 127

DELIVERABLES:

1. Notification to consultant of acceptance of elements submitted
2. Comments to consultant for necessary revisions

ACTIVITY 872 R/W Plan Review

DEFINITION:

Review of R/W Plans for Plan-in-Hand

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Review R/W Plans for:				
	1.1 Proposed R/W Design				
	1.2 Existing railroad, highway and public roads R/W				
	1.3 Property lines and ownership dots				
	1.4 Parcel numbers, names and addresses				
	1.5 Section Lines				
	1.3 Section Corner Ties				
	1.4 New and existing Access Control symbology and calls				
	1.5 Quarter and U.S. Gov't Lot calls				
2	Review Final Access Management Guidelines and Access Management Plan				

START DEPENDENCIES:

Receipt of R/W Plans for Plan-in-Hand. Activity 138 and Activity 134 Prepare plans for PIH.

DELIVERABLES:

Notification of acceptance of plans for PIH to consultant

ACTIVITY 873 Preliminary Utility Conflict Report Review

DEFINITION:

Review Preliminary Utility Conflict Report/S.U.E. plans.

TASKS:

Prepare or secure:

1. Attend Utility Informational Meeting
2. Attend each individual Utility Coordination meeting
3. Review Preliminary Utility Conflict Report for completeness.
   3.1. Review options on what can be done to avoid potential conflict with the Utilities facility. How much fill/cut can be done over their facility, will placing ditch blocks work, place pipes to avoid conflict, etc.

START DEPENDENCIES:

Activity 113

DELIVERABLES:

Notification to Consultant Design of acceptance of report submitted

ACTIVITY 874 R/W Plan Check

DEFINITION:

Check consultant R/W plans for accuracy and compliance to MDT procedures as defined in the R/W Design Manual.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Determine if necessary items have been delivered:				
	1.1 R/W Plans (CADD Files & one 1/2 size hard copy)				
	1.2 Construction plans and x-sections with final construction limits. (CADD files & one hard copy)				
	1.3 Parcelized Title Commitments including Last Instruments of Conveyance and copies of Schedule B items attached OR last deeds of record (1 hard copy and 1 electronic pdf copy)				
	1.4 Hard Copy of Construction Centerline Alignment Data				
	1.5 Route Description				
	1.6 R/W cost estimate (updated/revised)				
	1.7 R/W Geopak files (including gpk, R/W baseline and R/W break ioc, ooc, txt files and section tie ioc, ooc files)				
2	Check R/W Plans For:				
	2.1 Microstation & Drafting Standards (file structure naming, level & cell use, reference file naming)				
	2.2 R/W Design				
	2.3 Centerline Data				
	2.4 New Access Control				
	2.5 Owner names and addresses				
	2.6 All areas				

START DEPENDENCIES:

Receipt of final R/W plans and Supporting Information. Activity 142

DELIVERABLES:

1. Notification to consultant and acceptance of elements submitted
2. Check prints to consultant for revisions

ACTIVITY 875 R/W Authorization

DEFINITION:

Review revisions to R/W plans for compliance with changes requested during the 874 activity.

TASKS:

	Task Checklist Description	Yes	No	N/A	Initial
1	Review R/W Plans for:				
	1.1 Compliance with requested changes				
2	Authorize R/W Plans.				
3	Receive Exhibit CADD files including hard copies				

START DEPENDENCIES:

Receipt of final R/W plans for authorization. Activity 144 and Activity 815.

DELIVERABLES:

Distribution of Authorization memo and R/W plans.

ACTIVITY 876 Request/Review R/W Plans (Blue Sheets)

DEFINITION:

This is an iterative process between the consultant and MDT to revise R/W plans as required by design modifications and R/W negotiations.

TASKS:

1. Receive documentation from district supporting R/W plan revisions.
   1.1. Verify possible utility conflicts.
2. Notify the consultant to revise R/W plans/exhibits and prepare Blue Sheets.
3. Review R/W plan revisions for omissions or corrections.

START DEPENDENCIES:

Completion of Activity 875

ACTIVITY 877 Review Design Utility Conflict Review

DEFINITION:

Review of Design Utility Conflict Report. .

TASKS:

Prepare or secure:

Review Design Utility Conflict Report.

START DEPENDENCIES:

Activity 115

ACTIVITY 882 Utility Plan Review

DEFINITION:

Review Utility Plans for accuracy and usability for the negotiation of utility agreements.

TASKS:

1. Review the utility plans for utilities affected by construction limits, updated construction plans, Right-of-Way plans, hydraulic information and the projects environmental document.
2. Review Consultant's checklist for activity 166:

COMPLIANCE REVIEW CHECKLIST
FOR UTILITY PLANS

PROJECT DESCRIPTION: _____
PROJECT NUMBER: _____
UNIFORM PROJECT NUMBER: _____
DATE: _____
REVIEWER: _____

Title Sheet:

	Task Checklist Description	Yes	No	N/A	Comment
1	DMS Naming Convention				
2	Utility Plan Sheet Referenced Levels (UPG I.6)				
3	Project Information (UPG I.7)				
4	Design Data				
5	County Map				
6	FHWA\MDT Approval and Authorization				

Table of Contents and **Notes Sheet:**

	Task Checklist Description	Yes	No	N/A	Comment
1	DMS Naming Convention				
2	Utility Plan Sheet Referenced Levels (UPG II.2)				
3	Project Information (UPG II.3)				
4	Table of Contents - Plan Sheet Sequence				
5	Notes Clearly Displayed (UPG II.5,6)				
6	Linear and Level Data Clearly Displayed				
7	Clear Zone Table Included and Displayed				
8	Other Items Clearly Displayed				
9	Symbology Overrides (UPG II.10)				

Control Diagram and Abstract:

	Task Checklist Description	Yes	No	N/A	Comment
1	DMS Naming Convention				
2	Utility Plan Sheet Referenced Levels (UPG III.3)				
3	Project Information (UPG III.7)				
4	Control and Abstract Referenced and displayed Properly (UPG III.8,9,10)				
5	Topography Displayed (UPG III.11,12)				
6	R/W Displayed (UPG III.14,15)				
7	Utilities Displayed (UPG III.17,18)				
8	Reference File levels and Symbology Overrides (UPG III.12,13,15,16,19)				
9	Update Sequence (UPG III.20)				

Ownership Sheet

	Task Checklist Description	Yes	No	N/A	Comment
1	DMS Naming Convention				
2	Utility Plan Sheet Referenced Levels (UPG IV.3)				
3	Project Information (UPG IV.8)				
4	Ownership Cell Displayed (UPG IV.10)				
5	Owners Referenced and Page Numbers Correct (UPG IV.11,12)				
6	Authorization and Map Revised Date Shown (UPG IV.13,14)				
7	Reference File levels and Symbology Overrides (UPG IV.9,15)				

Typical Sections

	Task Checklist Description	Yes	No	N/A	Comment
1	DMS Naming Convention				
2	Utility Plan Sheet Referenced Levels (UPG V.3)				
3	Project Information (UPG V.7)				
4	Typicals Displayed Clearly				
5	Reference File levels and Symbology Overrides (UPG V.12)				

Details

	Task Checklist Description	Yes	No	N/A	Comment
1	DMS Naming Convention				
2	Utility Plan Sheet Referenced Levels (UPG VI.3)				
3	Project Information (UPG VI.8)				
4	Details Displayed Clearly				
5	Reference File Levels and Symbology Overrides (UPG VI) Detail Dependent				

Plan / Profile Sheets

	Task Checklist Description	Yes	No	N/A	Comment
1	DMS Naming Convention				
2	Utility Plan Sheet Referenced Levels and Symbology (UPG VII.4,5,6)				
3	Project Information (UPG VII.10)				
4	Reference File Naming (UPG VII.8)				
5	Profile Clearly Displayed (UPG VII.11,13)				
6	Survey Map Attached (UPG VII.15)				
7	Design Strip Map Attached (UPG VII.19)				
8	R/W Map Attached (UPG VII.22)				
9	R/W Plans Attached (UPG VII.24)				
10	SUE /Utilities Map Attached (UPG VII.26)				
11	Reference File Levels and Symbology Overrides (UPG VII.12,16,17,20,21,23,25,27)				
12	Update Sequence (UPG VIII.28)				
13	Utility Conflicts Identified (UPG VII.30 and VIII.1,2,3,4)				

Miscellaneous Sheets

	Task Checklist Description	Yes	No	N/A	Comment
1	DMS Naming Convention				
2	Utility Plan Sheet Referenced Levels and Symbology				
3	Project Information				
4	Information Displayed Clearly reference File Levels and Symbology.				

START DEPENDENCIES:

Activity 166

DELIVERABLES:

Completed MDT review activity 166 checklist.

ACTIVITY 884 R/W Cost Estimate and Ownership Study

DEFINITION:

MDT Right of Way initiates coordination with landowner on all issues concerning the preparation of preliminary cost estimates and appraisals.

TASKS:

Prepare or secure:

1. Ownership Report to Include all ownerships adjacent to proposed wetland mitigation site around the perimeter.
2. Provide preliminary wetland cost estimate for acquisition.
3. Receive title commitment from Consultant.

START DEPENDENCIES:

Completion of activity 103 Preliminary Conceptual Mitigation Design Plan.

DELIVERABLES:

Distribute items 1,2, 3 to:

1. Consultant
2. R/W Plans
3. Environmental Resource Section