

## CHECKLIST TO DESIGNATE AREAS OF EVALUATION FOR REQUESTS FOR PROPOSAL (RFP)

	REQUISITION NUMBER	DUE DATE	TIME DUE
MDOT PROJECT MANAGER	JOB NUMBER (JN)	CONTROL SECTION (CS)	

DESCRIPTION

MDOT PROJECT MANAGER: Check all items to be included in RFP			CONSULTANT: Provide only checked items below in proposal
WHITE = REQUIRED ** = OPTIONAL			
Check the appropriate Tier in the box below			
<input type="checkbox"/> TIER I (\$50,000 - \$150,000)	<input type="checkbox"/> TIER II (\$150,000-\$1,000,000)	<input type="checkbox"/> TIER III (>\$1,000,000)	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Understanding of Service **
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Innovations</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Organizational Chart
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Qualifications of Team
Not required as part of Official RFP	Not required as part of Official RFP	<input type="checkbox"/>	Quality Assurance/Quality Control **
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Location:</b> The percentage of work performed in Michigan will be used for all selections unless the project is for on-site inspection or survey activities, then location should be scored using the distance from the consultant office to the on-site inspection or survey activity.
N/A	N/A	<input type="checkbox"/>	Presentation **
N/A	N/A	<input type="checkbox"/>	Technical Proposal (if Presentation is required)
3 pages (MDOT Forms not counted)	7 pages (MDOT Forms not counted)	14 pages (MDOT forms not counted)	Total maximum pages for RFP <b>not including key personnel resumes.</b> Resumes limited to 2 pages per key staff personnel.

**PROPOSAL AND BID SHEET EMAIL ADDRESS – [mdot-rfp-response@michigan.gov](mailto:mdot-rfp-response@michigan.gov)**

### GENERAL INFORMATION

Any questions relative to the scope of services must be submitted by e-mail to the MDOT Project Manager. Questions must be received by the Project Manager at least five (5) working days prior to the due date and time specified above. All questions and answers will be placed on the MDOT website as soon as possible after receipt of the questions, and at least three (3) days prior to the RFP due date deadline. The names of vendors submitting questions will not be disclosed.

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal.

### MDOT FORMS REQUIRED AS PART OF PROPOSAL SUBMISSION

**5100D** – Request for Proposal Cover Sheet

**5100J** – Consultant Data and Signature Sheet (Required for all firms performing non-prequalified services on this project.)

**(These forms are not included in the proposal maximum page count.)**

# REQUEST FOR PROPOSAL

The Michigan Department of Transportation (MDOT) is seeking professional services for the project contained in the attached scope of services.

If your firm is interested in providing services, please indicate your interest by submitting a Proposal, Proposal/Bid Sheet or Bid Sheet as indicated below. The documents must be submitted in accordance with the latest (Consultant/Vendor Selection Guidelines for Services Contracts) **AA**

**AAAA**  
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## RFP SPECIFIC INFORMATION

ENGINEERING SERVICES                       BUREAU OF TRANSPORTATION PLANNING                       OTHER

THE SERVICE WAS POSTED ON THE ANTICIPATED QUARTERLY REQUESTS FOR PROPOSALS  
 NO                       YES                      DATED \_\_\_\_\_ THROUGH \_\_\_\_\_

<input type="checkbox"/> <b>Prequalified Services</b> – See the attached Scope of Services for required Prequalification Classifications.	<input type="checkbox"/> <b>Non-Prequalified Services</b> – If selected, the vendor must make sure that current financial information, including labor rates, overhead computations, and financial statements, is on file with MDOT’s Office of Commission Audits. This information must be on file for the prime vendor and all sub vendors so that the contract will not be delayed. <b>Form 5100J is required with proposal for all firms performing non-prequalified services on this project.</b>
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**Qualification Based Selection** - Use Consultant/Vendor Selection Guidelines.

**For all Qualifications Based Selections**, the selection team will review the information submitted and will select the firm considered most qualified to perform the services based on the proposals. The selected firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

**For a cost plus fixed fee contract**, the selected vendor must have a cost accounting system to support a cost plus fixed fee contract. This type of system has a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the vendor’s job-order accounting system.

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**Qualification Based Selection / Low Bid** – Use Consultant/Vendor Selection Guidelines. See Bid Sheet instructions for additional information.

For Qualification Review/Low Bid selections, the selection team will review the proposals submitted. The vendor that has met established qualification threshold and with the lowest bid will be selected.

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**Best Value** – Use Consultant/Vendor Selection Guidelines, See Bid Sheet Instructions below for additional information. The bid amount is a component of the total proposal score, not the determining factor of the selection.

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**Low Bid** (no qualifications review required – no proposal required.)

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## BID SHEET INSTRUCTIONS

Bid Sheet(s) are located at the end of the Scope of Services. Submit bid sheet(s) with the proposal, to the email address: [mdot-rfp-response@michigan.gov](mailto:mdot-rfp-response@michigan.gov). Failure to comply with this procedure may result in your bid being rejected from consideration.

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## PARTNERSHIP CHARTER AGREEMENT

MDOT and ACEC created a Partnership Charter Agreement which establishes guidelines to assist MDOT and Consultants in successful partnering. Both the Consultant and MDOT Project Manager are reminded to review the [ACEC-MDOT Partnership Charter Agreement](#) and are asked to follow all communications, issues resolution and other procedures and guidance’s contained therein.

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**NOTIFICATION  
MANDATORY ELECTRONIC SUBMITTAL**

**Proposals submitted for this project must be submitted electronically.**

**The following are changes to the Proposal Submittal Requirements:**

- Eliminated the Following Requirements:
  - Safety Program
  - Communication Plan
  - Past Performance as *a separate section*
  - Separate section for DBE Statement of goals. Include information in Qualification of Team section
  
- Implemented the Following Changes:
  - All proposals require an Organization Chart
  - Resumes must be a maximum of two pages
  - Only Key (lead) staff resumes may be submitted
  - Tier III proposal reduced from 19 to 14 pages
  - Forms 5100D, 5100I, and 5100G combined – 5100D
  - Forms 5100B and 5100H combined – 5100B
  - RFP's will be posted on a weekly basis -- on Mondays

**The following are Requirements for Electronic Submittals:**

- Proposals must be prepared using the most current guidelines
- The proposal must be bookmarked to clearly identify the proposal sections (See Below)
- For any section not required per the RFP, the bookmark must be edited to include “N/A” after the bookmark title.  
**Example:** Understanding of Service – N/A
- Proposals must be assembled and saved as a single PDF file
- PDF file must be 5 megabytes or smaller
- PDF file must be submitted via e-mail to [MDOT-RFP-Response@michigan.gov](mailto:MDOT-RFP-Response@michigan.gov)
- MDOT's requisition number and company name must be included in the subject line of the e-mail. The PDF shall be named using the following format:
  - Requisition#XXX\_Company Name.PDF
- MDOT will not accept multiple submittals
- Proposals must be *received* by MDOT on or before the due date and time specified in each RFP

**If the submittals do not comply with the requirements, they may be determined unresponsive.**

The Consultant's will receive an e-mail reply/notification from MDOT when the proposal is received. Please retain a copy of this e-mail as proof that the proposal was received on time. **Consultants are responsible for ensuring the MDOT receives the proposal on time.**

**\*\*Contact Contract Services Division immediately at 517-373-4680 if you do not get an auto response\*\***

**Required Bookmarking Format:**

- I. Request for Proposal Cover Sheet Form 5100D
  - A. Consultant Data and Signature Sheet, Form 5100J (if applicable)
- II. Understanding of Service
  - A. Innovations
- III. Qualifications of Team
  - A. Structure of Project Team
    - 1. Role of Firms
    - 2. Role of Key Personnel
  - B. Organization Chart
  - C. Location
- IV. Quality Assurance / Quality Control Plan
- V. Resumes of Key Staff
- VI. Pricing Documents/Bid Sheet (if applicable)

**2/14/12**

**NOTIFICATION  
E-VERIFY REQUIREMENTS**

E-Verify is an Internet based system that allows an employer, using information reported on an employee's Form I-9, Employment Eligibility Verification, to determine the eligibility of that employee to work in the United States. There is no charge to employers to use E-Verify. The E-Verify system is operated by the Department of Homeland Security (DHS) in partnership with the Social Security Administration. E-Verify is available in Spanish.

The State of Michigan is requiring, under Public Act 200 of 2012, Section 381, that as a condition of each contract or subcontract for construction, maintenance, or engineering services that the pre-qualified contractor or subcontractor agree to use the E-Verify system to verify that all persons hired during the contract term by the contractor or subcontractor are legally present and authorized to work in the United States.

Information on registration for and use of the E-Verify program can be obtained via the Internet at the DHS Web site: <http://www.dhs.gov/E-Verify>.

The documentation supporting the usage of the E-Verify system must be maintained by each consultant and be made available to MDOT upon request.

It is the responsibility of the prime consultant to include the E-Verify requirement documented in this NOTIFICATION in all tiers of subcontracts.

9/13/12

## Michigan Department of Transportation

### SCOPE OF SERVICE FOR DESIGN SERVICES (EPE/PE) INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

**CONTROL SECTION:** 63022

**JOB NUMBER:** 112096, 124103

**PROJECT LOCATION:**

I-96 from Livingston County Line to I-275 in Oakland County in Michigan.

**DESCRIPTION OF WORK:**

The project entails all work necessary to provide a detailed design of ITS and connected vehicles infrastructure, communication, and power service necessary to deploy an ATM system as described above. The work included are as follows:

**Phase 1**

Early Preliminary Engineering:

- Provide early preliminary engineering for an ATM system using Lane Control System (LCS).
- Noise impact analysis
- Update existing Concept of Operations
- Benefit Cost Analysis

Upon completion of the Early Preliminary Engineering, the consultant has satisfactorily performed and completed all asks in Phase 1 and the deliverables are accepted by MDOT, the consultant may proceed to Phase 2. Note, the consultant shall receive approval in writing from the MDOT Project Manager prior to starting Phase 2.

**Phase 2**

Preliminary Engineering:

- Road Survey
- Drainage study
- Develop 100% Plans, Specifications and Estimates.
- Telecommunications, fiber optic, and ITS network design support.
- Public outreach

The Consultant will be responsible to scope the project using a systems engineering process, follow the established concept of operations, refine locations of equipment, develop plans and proposal information to 100% completion, refer to the draft Environmental Classification (form 1775) as a baseline for anticipated concerns (note, this is a draft version and for your information only), provide necessary geotechnical information related to the ITS system, define known or anticipated utility issues or traffic concerns related to the ITS devices, perform survey, and other tasks as assigned by MDOT as related to the development of the 100% complete plans.

MDOT intends to post a different request for proposal (RFP) for system engineering services for this project. **No consultant selected on the system engineering team shall be selected on the full design team.**

MDOT reserves the right to interview the primary consultant firms responding to the RFP.

**PRIMARY PREQUALIFICATION CLASSIFICATION(S):**

Design - Traffic: ITS – Design & System Manager  
Design: Project Development Studies  
Design – Roadway: Intermediate

**SECONDARY PREQUALIFICATION CLASSIFICATION(S):**

Design – Traffic: Work Zone Maintenance of Traffic  
Design – Traffic: Work Zone Mobility & Safety  
Design – Traffic: Signing – Freeway  
Design – Traffic: Signal  
Design – Traffic: Capacity & Geometric Analysis  
Design – Traffic: Pavement Markings  
Design – Geotechnical  
Design - Utilities: Roadway Lighting  
Design – Hydraulics 1  
Environmental: Noise Assessment  
Surveying, Road Design

**ANTICIPATED START DATE:** June 1, 2016

**Phase 1**

EPE –  
Ant. Start date 06/01/16  
Ant. End Date 10/01/16

**Phase 2**

PE-  
Ant. Start – 10/01/16  
Ant. Comp Date – 12/31/21

**ANTICIPATED COMPLETION DATE:** December 31, 2021

**DBE REQUIREMENT:** 5%

**MDOT PROJECT MANAGER:**

Dayo Akinyemi  
MDOT- Southeastern Michigan Transportation Operations Center (SEMTOC)  
1060 W. Fort Street  
Detroit, MI 48226  
Phone: 313-256-9802  
[AkinyemiO@michigan.gov](mailto:AkinyemiO@michigan.gov)

The existing I-96 feasibility studies and concept of Operations can be found at this link below:  
<ftp://ftpmidot.state.mi.us/I-96%20ATM/>

**REQUIRED MDOT GUIDELINES AND STANDARDS:**

Work shall conform to current MDOT, FHWA, and AASHTO practices, guidelines, policies, and standards (i.e., Road Design Manual, Bridge Design Manual, Standard Plans, Drainage Manual, Roadside Design Guide, A Policy on Geometric Design of Highways and Streets, Michigan Manual of Uniform Traffic Control Devices, the Design Survey Manual, Highway Noise Handbook, etc.). The software integration portion of the project will be done using the Michigan Department of Technology, Management & Budget (DTMB) project methodology, as applicable.

**GENERAL INFORMATION:**

This is an ITS project that consists of all work related to the design of an Active Traffic Management (ATM) System using Lane Control Signs (LCS) along the I-96 corridor in Oakland county. The systems shall include, but are not limited to lane control gantries with LCS, Dynamic Message Signs (DMS), vehicle detection, and closed circuit televisions (CCTVs) cameras all of which shall be interoperable with all of the existing ITS Automated Traffic Monitoring Systems (ATMS) software and equipment, MDOT's communication network and existing ITS infrastructure including connected vehicles infrastructure.

**The Consultant shall have substantial ITS conception, design background and experience as well as national experience with the design of lane control gantries and the application of ATM systems. The Consultant shall also have experience in software development and integration for ATM systems. The Consultant shall be prepared to demonstrate their background and experience with a presentation, as this may be a part of the scoring.**

**The system will require modification to the existing ATMS to monitor and control the Lane Control System using Active Traffic Management system. An interface between the LCS and the new ATMS will be completed as part of this project. The Consultant may be responsible for contracting with the current ATMS Software vendor, Parsons Corporation, as a sub-consultant for tasks associated with the design and integration with the ATMS software.**

The Consultant shall furnish all services and labor necessary to conduct and complete the services described herein. The Consultant shall also furnish all materials, equipment, supplies, and incidentals necessary to perform the Services (other than those designated in writing to be furnished by the Department) and check and/or test the materials, equipment, supplies and incidentals as necessary in carrying out this work. The Services shall be performed to the satisfaction of the Department consistent with applicable professional standards.

The Consultant shall comply with all applicable Federal and State laws, rules, and regulations. The Consultant staff shall conduct themselves with professionalism in carrying out their duties.

The Consultant shall notify the Project Manager, in writing, prior to any personnel changes from those specified in the Consultant's original approved proposal. Any personnel substitutions are subject to review and approval of the Project Manager.

The Consultant shall contact the Project Manager (PM) prior to beginning any work on the project.

At the request of the Department, the Consultant, during the progress of the Services, shall furnish information or data relating to the Services described herein that may be required by the Department to enable it to carry out or to proceed with related phases of the Project not described herein, or which may be necessary to enable the Department to furnish information to the Consultant upon which to proceed with further Services.

### **Noise Analysis**

A noise analysis will be completed in compliance with the requirements of the Michigan Department of Transportation (MDOT) *Highway Noise Analysis and Abatement Handbook*, July 13, 2011 (Handbook). Field measurements will be collected in conformance with the procedures outlined in FHWA's *Measurements of Highway Traffic Noise* for the purpose of confirming that the FHWA Traffic Noise Model® (TNM2.5) represents the actual sound environment. A calibrated noise meter conforming to ANSI Standard S1.4-1983 will be used. Field monitoring sites will be recommended to MDOT that provide a good representation of study area and land uses.

Before initiating the noise analysis the Consultant conducting the noise analysis shall meet with the MDOT Project Manager and Highway Noise Specialists to review project, location of data sources and contact persons, and review relevant MDOT operations. The Consultant shall review and clarify project issues, data needs and availability, and the sequence of events and team meetings that are essential to complete the analysis by the completion date.

A noise impact analysis will be done by comparing existing to future design year build condition sound levels. Predictions will be determined for the existing traffic hour generating the worst case condition as derived by the modeling effort and posted speed limits. Impact analysis will be completed for undeveloped lands adjacent to the proposed build alternative. An assessment will be completed for undeveloped lands with a building permit issued as if the properties were developed. For undeveloped vacant lands without a building permit, contour lines will be done to illustrate buffer zones to the extent of a potential impact where future land development should be avoided and noted. Predicted

noise impacts will be identified and included in the technical report. A noise compatible land use report will be written in accordance with 23 CFR 772.17.

The noise analysis will include the identification of land uses along the extent project corridor. The impact and abatement analysis will focus on the land uses with outdoor areas with evidence of frequent human use which will be agreed upon in the previously identified meeting.

A general, qualitative assessment and summary regarding roadway construction noise with construction noise reduction measures will be included in the document.

The analysis may result in no feasible or reasonable noise abatement. If this is the case, then the analysis is complete. The Consultant will then complete a draft document summarizing the analysis and results to be review by MDOT Highway Noise Specialists. The Consultant will revise the document based on MDOT comments then provide each the MDOT Project Manager and Highway Noise Specialists the final document in hard copy and MS Word.

### **CONSULTANT RESPONSIBILITIES:**

Complete a design of this project including, but not limited to the following:

- Provide a risk analysis for this project.
- Review existing preliminary studies completed by others.
- Establish a requirement traceability matrix at the onset of the project to expedite reviews and minimize conflicts for issue resolution
- Provide early preliminary engineering for ATM using LCS; including developing a conceptual layout for the corridor, including gantry location, power location, communication layout, and preliminary cost estimate.
- Provide a recommendation to MDOT on the design of the gantry system for the LCS as well as a recommendation for other ATMS strategies (such as dynamic parking information) that could be incorporated as part of this project.
- The Consultant will be required to revise the I-96 (Livingston County Line to I-275) Concept of Operations for any changes to the ATM concept that are determined through the design process.
- Perform the required design and functional technical specification writing and/or modification for the ATM System. The proposed facilities shall include but are not limited to DMS, CCTVs, vehicle detection, and gantries with LCS.
- Develop a final bid package based on 100% complete plans and provide a cost estimate for construction.
- Connected vehicle technologies and infrastructure shall be included as part of this project. This includes but not limited to all necessary equipment and communication systems needed to operate and communicate with the roadside unit (RSU) and then transmitted to the Southeast Michigan Transportation Operations Center, vehicles, and other infrastructure.
- Develop utility conflict matrix and provide in the bi-weekly progress report.
- Develop Maintenance of Traffic plans and specifications.
- Develop Transportation Maintenance Plan (TMP).
- Schedule and conduct utility meetings for the resolution of conflicts between existing utility facilities and proposed construction.
- Coordinate all electrical power feeds to ITS equipment and facilities with the respective utility company.

- Develop meeting notes and provide to MDOT PM for all utility coordination meetings.
- Public outreach – prepare documents, presentations, and other items of work as it relates to public outreach.
- Conduct a noise analysis.
- Prepare any required illustrations, evaluations, details, graphics, presentation materials, attendance at meetings and others as needed to assist with analysis and recommendation development.
- Submit TNM2.5 input and output data in electronic format.
- Attend any project-related meetings as directed by the MDOT Project Manager.
- Attend any other meetings, as directed by MDOT, to assist in responding to concerns and/or questions, if needed. This may require assistance with preparation of graphics, maps, etc.
- The Consultant will provide to MDOT at scheduled dates, copies of draft and final documents summarizing the analysis and results. The Consultant shall contact the Project Manager prior to that submittal date for the exact number of hard copies needed. Electronic copies in Word format will also be required at the conclusion of the study.
- Prepare and submit electronically (native format or Adobe PDF) any information, reports, illustrations, associated analysis or drawings.
- Provide solutions to any unique problems that may arise.
- The Consultant representative shall record and submit type-written minutes for all project related meetings to the MDOT Project Manager within two weeks of the meeting. MDOT will provide and distribute official meeting minutes, as needed.
- The Consultant shall incorporate pertinent information from the analysis in the report as required.
- The MDOT Project Manager shall be the official MDOT contact person for the Consultant **and shall be made aware of all communications regarding this project**. The Consultant must either address or send a copy of all correspondence to the MDOT Project Manager. This includes all Subcontractor correspondence and verbal contact records.
- The Consultant shall contact the MDOT Project Manager whenever discoveries have the potential to require changes in the scope.
- Fill out the pertinent sections of MDOT Form #1697 *Noise Abatement Details* to provide essential information for the FHWA noise barrier inventory requirement (23 CFR 772.13(f)).
- Perform all necessary survey in order to develop a complete set of plans. Please specify and explain the anticipated surveying method(s) in the proposal.
- Responsible for utility coordination. See Utility Coordination “Attachment B.”

## STUDY (EARLY PRELIMINARY ENGINEERING)

		P/PMS TASK NUMBER AND DESCRIPTION	DATE TO BE COMPLETED BY (mm/dd/yyyy)
		CONSULTANT CONTRACT AUTHORIZATION/EXECUTION	/ /
YES	NO		
<b><u>INFORMATION GATHERING/STUDIES</u></b>			
<input type="checkbox"/>	<input type="checkbox"/>	1115 Traffic Data Collection for Studies	/ /
<input type="checkbox"/>	<input type="checkbox"/>	1120 Prepare Traffic Analysis Report for Studies	/ /
<input type="checkbox"/>	<input type="checkbox"/>	1125 Traffic Capacity Analysis for Studies	/ /
<input type="checkbox"/>	<input type="checkbox"/>	1155 Request/Perform Safety Analysis for Studies	/ /
<input type="checkbox"/>	<input type="checkbox"/>	1300 Traffic Impact Study	/ /
<input type="checkbox"/>	<input type="checkbox"/>	1350 Determine Need for Interstate Access Change Request	/ /
<input type="checkbox"/>	<input type="checkbox"/>	1400 Feasibility Study	/ /
<input type="checkbox"/>	<input type="checkbox"/>	1500 Corridor Study	/ /
<input type="checkbox"/>	<input type="checkbox"/>	1555 Interstate Access Change Request	/ /
<input type="checkbox"/>	<input type="checkbox"/>	<u>155M FHWA Approval of Interstate Access Change Request</u>	/ /
<input type="checkbox"/>	<input type="checkbox"/>	1600 Access Management Study Plan	/ /
<input type="checkbox"/>	<input type="checkbox"/>	1700 Other Miscellaneous Studies	/ /
<b><u>EPE SCOPING ANALYSIS</u></b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2100 Scope Verification and Initiation of EPE Activities	9/1/2016
<input type="checkbox"/>	<input type="checkbox"/>	2115 Prepare Traffic Analysis Report for EPE/Design	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2120 Traffic Data Collection for EPE/Design	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2125 Traffic Capacity Analysis for EPE/Design	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2130 Prepare Project Purpose and Need	/ /
<input type="checkbox"/>	<input type="checkbox"/>	<u>213M Concurrence by Regulatory Agencies with the Purpose and Need</u>	/ /
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2140 Develop and Review Illustrative Alternatives	02/01/2017
<input type="checkbox"/>	<input type="checkbox"/>	2155 Request/Perform Safety Analysis for EPE/Design	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2160 Prepare and Review EIS Scoping Document	/ /
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>216M Public Information Meeting</u>	08/01/2016
<b><u>EPE DRAFT ANALYSIS</u></b>			
<input type="checkbox"/>	<input type="checkbox"/>	2310 Conduct Technical SEE Studies	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2311 Cultural Resources Survey	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2312 Recreational Survey – Section 4(f)/6(f)	/ /
<b><u>EPE DRAFT ANALYSIS (cont'd)</u></b>			
<input type="checkbox"/>	<input type="checkbox"/>	2313 Endangered Species Survey	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2314 Wetland Assessment	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2315 Wetland Mitigation	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2316 Other Technical Reports	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2321 Prepare for Aerial Photography	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2322 Finish/Print Aerial Photography	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2330 Collect EPE Geotechnical Data	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2340 Develop and Review Practical Alternatives	/ /

<input type="checkbox"/>	<input type="checkbox"/>	<u>233M Aerial Photography Flight</u>	/	/
<input type="checkbox"/>	<input type="checkbox"/>	2360 Prepare and Review EA	/	/
<input type="checkbox"/>	<input type="checkbox"/>	<u>236M Approval of EA by FHWA</u>	/	/
<input type="checkbox"/>	<input type="checkbox"/>	2370 Prepare and Review Draft EIS	/	/
<input type="checkbox"/>	<input type="checkbox"/>	<u>237M Approval of Draft EIS by FHWA</u>	/	/
<input type="checkbox"/>	<input type="checkbox"/>	2380 Distribute EA	/	/
<input type="checkbox"/>	<input type="checkbox"/>	<u>238M Public Hearing for EA</u>	/	/
<input type="checkbox"/>	<input type="checkbox"/>	2390 Distribute DEIS	/	/
<input type="checkbox"/>	<input type="checkbox"/>	<u>239M Public Hearing for DEIS</u>	/	/

**EPE FINAL ANALYSIS**

<input checked="" type="checkbox"/>	<input type="checkbox"/>	2510 Determine and Review Recommended Alternative	03/01/2017
<input type="checkbox"/>	<input type="checkbox"/>	<u>250M Concurrence by Reg Agencies with Recom Alternatives</u>	/ /
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2525 Prepare and Review Engineering Report	03/01/2017
<input type="checkbox"/>	<input type="checkbox"/>	2530 Prepare and Review Request for FONSI	/ /
<input type="checkbox"/>	<input type="checkbox"/>	<u>252M Approval of FONSI by FHWA</u>	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2540 Prepare and Review FEIS	/ /
<input type="checkbox"/>	<input type="checkbox"/>	<u>254M Approval of FEIS by FHWA</u>	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2550 Obtain ROD	/ /
<input type="checkbox"/>	<input type="checkbox"/>	<u>255M ROD Issued by FHWA</u>	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2570 ITS Concept of Operations	/ /

**CONTAMINATION INVESTIGATION**

<input type="checkbox"/>	<input type="checkbox"/>	2810 Project Area Contamination Survey (PCS)	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2820 Preliminary Site Investigation (PSI) for Contamination	/ /

**MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST**

**PRELIMINARY ENGINEERING - DESIGN**

		<b>P/PMS TASK NUMBER AND DESCRIPTION</b>	<b>DATE TO BE COMPLETED BY</b>
<b>YES</b>	<b>NO</b>		<b>(mm/dd/yyyy)</b>
<b><u>DESIGN SCOPE VERIFICATION AND BASE PLAN PREPARATION</u></b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3130 Verify Design Scope of Work and Cost	07/31/2016
<input type="checkbox"/>	<input type="checkbox"/>	3310 Prepare Aerial Topographic Mapping	/ /
<input type="checkbox"/>	<input type="checkbox"/>	3320 Conduct Photogrammetric Control Survey	/ /
<input type="checkbox"/>	<input type="checkbox"/>	3321 Set Aerial Photo Targets	/ /
<input type="checkbox"/>	<input type="checkbox"/>	3325 Geotechnical Structure Site Characterization	/ /
<input type="checkbox"/>	<input type="checkbox"/>	3330 Conduct Design Survey	/ /
<input type="checkbox"/>	<input type="checkbox"/>	3340 Conduct Structure Survey	/ /
<input type="checkbox"/>	<input type="checkbox"/>	3350 Conduct Hydraulics Survey	/ /
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3360 Prepare Base Plans	10/01/2017
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>311M Utility Notification</u>	11/31/2016
<input type="checkbox"/>	<input type="checkbox"/>	3361 Review and Submit Preliminary ROW Plans	/ /
<input type="checkbox"/>	<input type="checkbox"/>	<u>331M Preliminary ROW Plans Distributed</u>	/ /
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3365 Pre-Conceptual ITS Design and Meeting	05/31/2016

<input type="checkbox"/>	<input type="checkbox"/>	3370	Prepare Structure Study	/	/
<input type="checkbox"/>	<input type="checkbox"/>	3375	Conduct Value Engineering Study	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3380	Review Base Plans	10/14/2017	
<input type="checkbox"/>	<input type="checkbox"/>	3385	Preliminary Load Rating	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>332M</u>	<u>Base Plan Review (Pre-GI Inspection)</u>	10/14/2017	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3390	Develop the Maintaining Traffic Concepts	10/14/2017	

**PRELIMINARY PLANS PREPARATION**

<input type="checkbox"/>	<input type="checkbox"/>	3500	Develop Transportation Management Plan	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3510	Perform Roadway Geotechnical Investigation	12/01/2017	
<input type="checkbox"/>	<input type="checkbox"/>	3520	Conduct Hydraulic/Hydrologic and Scour Analysis	/	/
<input type="checkbox"/>	<input type="checkbox"/>	3522	Conduct Drainage Study, Storm Sewer Design, and use Structural Best Management Practices	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3530	Geotechnical Foundation Engineering Report	12/01/2017	
<input type="checkbox"/>	<input type="checkbox"/>	3535	Conduct Str. Review for Arch. & Aesthetic Improvements	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3540	Develop the Maintaining Traffic Plan	04/05/2018	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3551	Prepare/Review Preliminary Traffic Signal Design Plan	04/05/2018	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3552	Develop Preliminary Pavement Marking Plan	04/05/2018	
<input type="checkbox"/>	<input type="checkbox"/>	3553	Develop Preliminary Non-Freeway Signing Plan	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3554	Develop Preliminary Freeway Signing Plan	10/31/2017	
<input type="checkbox"/>	<input type="checkbox"/>	3555	Prepare/Review Preliminary Traffic Signal Operations	/	/
<input type="checkbox"/>	<input type="checkbox"/>	3570	Prepare Preliminary Structure Plans		
<input type="checkbox"/>	<input type="checkbox"/>	3580	Develop Preliminary Plans	/	/
<input type="checkbox"/>	<input type="checkbox"/>	3581	Review and Submit Final ROW Plans	/	/
<input type="checkbox"/>	<input type="checkbox"/>	<u>351M</u>	<u>Final ROW Plans Distributed</u>	/	/

**MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST**

**PRELIMINARY ENGINEERING - DESIGN (cont'd)**

		<b>P/PMS TASK NUMBER AND DESCRIPTION</b>		<b>DATE TO BE COMPLETED BY</b>
<b>YES</b>	<b>NO</b>			<b>(mm/dd/yyyy)</b>
<b><u>PRELIMINARY PLANS PREPARATION (cont'd)</u></b>				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3585	Final ITS Concept Design and Meeting	04/05/2018
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3590	Review Preliminary Plans (Hold Plan Review Meeting)	04/05/2018
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>352M</u>	<u>THE Plan Review (Grade Inspection)</u>	04/05/2018
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3595	Conduct ITS Structure Foundation Investigation	12/23/2017
<b><u>UTILITIES</u></b>				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3610	Compile Utility Information	02/01/2018
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3615	Compile ITS Utility Information	02/01/2018
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3650	Coordinate RR Involvement for Grade Separations	02/01/2018
<input type="checkbox"/>	<input type="checkbox"/>	3655	Coordinate RR Involvement for At-Grade Crossings	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3660	Resolve Utility Issues	07/01/2018
<input type="checkbox"/>	<input type="checkbox"/>	<u>360M</u>	<u>Utility Conflict Resolution Plan Distribution</u>	05/01/2018
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>361M</u>	<u>Utility Meeting</u>	05/01/2018

<input type="checkbox"/>	<input type="checkbox"/>	3670	Develop Municipal Utility Plans	/	/
<input type="checkbox"/>	<input type="checkbox"/>	3672	Develop Special Drainage Structures Plans	/	/
<input type="checkbox"/>	<input type="checkbox"/>	3675	Develop Electrical Plans	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3680	Preliminary ITS Communication Analysis	04/05/2018	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3690	Power Design (Power Drop in Field)	04/05/2018	

**MITIGATION/PERMITS**

<input type="checkbox"/>	<input type="checkbox"/>	3710	Develop Required Mitigation	/	/
<input type="checkbox"/>	<input type="checkbox"/>	3720	Assemble Environmental Permit Applications	/	/
<input type="checkbox"/>	<input type="checkbox"/>	3730	Obtain Environmental Permit	/	/

**FINAL PLAN PREPARATION**

<input checked="" type="checkbox"/>	<input type="checkbox"/>	3815	Geotechnical Structure Design Review	03/01/2018	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3821	Prepare/Review Final Traffic Signal Design Plan	07/01/2018	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3822	Complete Permanent Pavement Marking Plan	07/01/2018	
<input type="checkbox"/>	<input type="checkbox"/>	3823	Complete Non-Freeway Signing Plan	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3824	Complete Freeway Signing Plan	07/01/2018	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3825	Prepare/Review Final Traffic Signal Operations	07/01/2018	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3830	Complete the Maintaining Traffic Plan	07/01/2018	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3840	Develop Final Plans and Specifications	07/01/2018	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>380M</i>	<i>Plan Completion</i>	07/01/2018	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3850	Develop Structure Final Plans and Specifications	07/01/2018	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3870	Hold Omissions/Errors Check (OEC) Meeting	08/01/2018	
<input type="checkbox"/>	<input type="checkbox"/>	3875	Final Load Rating	/	/

**MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST**

**PRELIMINARY ENGINEERING - DESIGN (cont'd)**

		<b>P/PMS TASK NUMBER AND DESCRIPTION</b>	<b>DATE TO BE COMPLETED BY (mm/dd/yyyy)</b>
<b>YES</b>	<b>NO</b>		
		<b><u>FINAL PLAN PREPARATION (cont'd)</u></b>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>387M</i> Omissions/Errors Checks Meeting	07/01/2018
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>389M</i> Plan Turn-In	09/01/2018
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3880 CPM Quality Assurance Review	09/01/2018
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3890 Final ITS Communication Analysis	09/01/2018

**PRELIMINARY ENGINEERING – RIGHT OF WAY**

		<b><u>EARLY RIGHT OF WAY WORK</u></b>	
<input type="checkbox"/>	<input type="checkbox"/>	4120 Obtain Preliminary Title Commitments	/ /
<input type="checkbox"/>	<input type="checkbox"/>	4130 Prepare Marked Final Right Of Way Plans	/ /
<input type="checkbox"/>	<input type="checkbox"/>	<i>413M</i> Approved Marked Final ROW	/ /
<input type="checkbox"/>	<input type="checkbox"/>	4140 Prepare Property Legal Instruments	/ /

**ROW ACQUISITION**

<input type="checkbox"/>	<input type="checkbox"/>	4411 Preliminary Interviews	/	/
<input type="checkbox"/>	<input type="checkbox"/>	<u>441M Post-Decision Meeting</u>	/	/
<input type="checkbox"/>	<input type="checkbox"/>	4412 Real Estate Services Assignment Proposal and Fee Estimate (Form 633s) for Appraisal Work Authorization	/	/
<input type="checkbox"/>	<input type="checkbox"/>	4413 Appraisal Reports	/	/

**ROW ACQUISITION (cont'd)**

<input type="checkbox"/>	<input type="checkbox"/>	4420 Appraisal Review Reports	/	/
<input type="checkbox"/>	<input type="checkbox"/>	4430 Acquire Right Of Way Parcels	/	/
<input type="checkbox"/>	<input type="checkbox"/>	4510 Conduct Right Of Way Survey & Staking	/	/

**ROW RELOCATION**

<input type="checkbox"/>	<input type="checkbox"/>	4710 Relocation Assistance	/	/
<input type="checkbox"/>	<input type="checkbox"/>	4720 Prepare Improvement Removal Plan	/	/
<input type="checkbox"/>	<input type="checkbox"/>	<u>442M ROW Certification</u>	/	/

**MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST**

**POST LETTING/AWARD TASKS (for reference only)**

		<b>P/PMS TASK NUMBER AND DESCRIPTION</b>		<b>DATE TO BE COMPLETED BY</b> (mm/dd/yyyy)
<b>YES</b>	<b>NO</b>			
<input type="checkbox"/>	<input type="checkbox"/>	4810	Complete Acquisition Process	/ /
<input type="checkbox"/>	<input type="checkbox"/>	4820	Manage Excess Real Estate	/ /
<input type="checkbox"/>	<input type="checkbox"/>	4830	Provide Post-Certification Relocation Assistance	/ /
<input type="checkbox"/>	<input type="checkbox"/>	4910	Conduct ROW Monumentation	/ /
<input checked="" type="checkbox"/>	<input type="checkbox"/>	5010	Construction Phase Engineering and Assistance	12/31/2021
<input type="checkbox"/>	<input type="checkbox"/>	5020	Prepare As-Built Drawings	/ /

**OTHER TASKS**

- Meet with the MDOT Project Manager to review project, location of data sources and contact persons, and review relevant MDOT operations. The Consultant shall review and clarify project issues, data needs and availability, and the sequence of events and team meetings that are essential to complete the design by the project plan completion date. Attention shall be given to critical target dates that may require a large lead time, such as geotechnical requirements, utility conflict resolution, local agency meetings, etc.
- Maintain a Design Project Record which includes a history of significant events (changes, comments, etc.) which influenced the development of the plans, dates of submittals and receipt of information.
- The Consultant shall evaluate vertical elevations and design the depth of any proposed ITS facilities so as not to be in conflict with the existing or proposed utilities.
- The Consultant may be required to provide Design Services during the construction phase of this project. If Construction Assistance is required, then a separate

authorization for those services will be issued. The Consultant will not be compensated for performing work due to errors or omissions.

- The Consultant shall be required to prepare and submit a CPM network for review and use for preparing the progress schedule for the project.
- Attend any project-related meetings as directed by the MDOT Project Manager.
- The Consultant representative shall record and submit minutes for all project related meetings to the MDOT Project Manager within one week of the meeting. The Consultant shall also distribute the minutes to all meeting attendees.
- The MDOT Project Manager shall be the official MDOT contact person for the Consultant and shall be made aware of all communications regarding this project. The Consultant must either address or send a copy of all correspondence to the MDOT Project Manager. This includes all Subcontractor correspondence and verbal contact records.
- The Consultant shall contact the MDOT Project Manager whenever discoveries or design alternatives have the potential to require changes in the scope, limits, quantities, costs, or right-of-way of the project.
- The Consultant shall determine all potential utility conflicts with the proposed facility placement. The Consultant shall also define solutions to the various utility conflicts and have them reviewed by MDOT before they are designed and placed on the construction plans.
- The Consultant is also responsible for determining and coordinating the availability of electric and communication service to the proposed facilities at the locations described previously. Any potential problems with utility electric and communication service shall be brought to MDOT's attention as soon as they are known.
- All plans, special provisions, estimates, and other project related items shall meet all MDOT requirements and detailing practices (i.e., format, materials, symbols, patterns, and layout) or as otherwise directed by the Project Manager.
- All plans, specifications, and other project related items are subject to review and approval by MDOT.

**BI-WEEKLY PROGRESS REPORT:**

The Consultant shall submit bi-weekly project progress reports to the MDOT Project Manager (or designee). The reports shall include work accomplished during the previous 2 weeks; anticipated work items for the upcoming 2 weeks; real or anticipated problems on the project; update of previously approved detailed project schedule, including explanations for any delays or changes; items needed from MDOT; copy of Verbal Contact Records for the period.

**MDOT RESPONSIBILITIES (GENERAL):**

- A. Schedule and/or conduct the following:
  - 1. Project related meetings
  - 2. The Plan Review
  - 3. Utility Meetings
  - 4. Stakeholder engagement meetings
  - 5. Final item cost estimates, as necessary
  
- B. Make decisions or provide input for the following items:
  - 1. Resolve political issues
  - 2. Resolve issues related to funding
  - 3. Review of Final packaging of the Proposal after the consultant's review of the final package
  - 4. Determine which letting date will be used for the project
  - 5. Coordinate with local Contractor's association (MITA)
  
- C. Furnish existing plans.
  
- D. Provide environmental clearance.
  
- E. Coordinate any necessary utility relocation with the exception of electrical and communication feeds.
  
- F. Safety Reviews for any required design exceptions.
  
- G. Review and approve all external communications.
  
- H. Review and approve all budget, schedule, and design aspects.
  
- I. DTMB will be responsible for IT work including hardware and software, as applicable to the State of Michigan Network.

**DELIVERABLES:**

All plan sheets required for this project shall be completed by the Consultant provided to MDOT for inclusion into the road design plan set and proposal. This includes all information and sheets related to the design items above but not limited to:

- Title Sheet
- Project overview sheet
- Note Sheet
- Communications details
- Typical Cross-Sections
- Plan Sheets
- Project specific Special Details
- Electronic files for each to be provided

### **TRAFFIC CONTROL AND MDOT PERMITS**

The Consultant shall be responsible for all traffic control required to perform the tasks as outlined in this Project Scope of Design Services.

The Consultant shall be responsible for obtaining up to date access permits and pertinent information for tasks in MDOT Right of Way (ROW). This information can be obtained through the Utilities/Permits Section, Real Estate Division at (517) 373-7680.

### **UTILITIES**

The Consultant shall be responsible for obtaining from MDOT and showing on the plans the location and names of all existing utilities within the limits of the project. In the course of resolving utility conflicts, the Consultant shall provide a utility conflict matrix and make modifications to the plans or design details and provide assistance as directed by the MDOT Utility Permits Engineer and/or Project Manager. The Consultant shall conduct a utility coordination meeting with MDOT and utility companies to ensure that the concerns are addressed on the plans involving utilities. The Consultant shall assist in the review of utility permit requests to ensure compatibility with the project. The Consultant shall provide for the staking of various proposed facilities so as to locate potential utility conflicts and aid in the completion of utility relocation plans for and private utility companies.

### **SCHEDULE:**

Achievement of the project milestones will require a concentrated effort by both the Consultant and MDOT. Timely communications, receipt of information, and development and approval of deliverables will be critical to the success of the assigned deliverables.

The schedule will be determined on a task by task basis as set forth in each task.

The start date for the Consultant services will be immediately upon notice to proceed (NTP). The duration of the services will be at the discretion of MDOT project manager. The Consultant shall provide at the kick off meeting a detailed schedule of target dates for each step of the design.

### **PROJECT MANAGEMENT:**

This project will require close interaction and good communication between the Consultant and MDOT.

If there are any major deviations from the original scope of this assignment, these changes must be documented and jointly approved by the Consultant and MDOT. The selected Consultant shall provide all necessary project management services, including monthly and quarterly progress reports, developing and maintaining a project schedule, and providing invoices in a timely manner.

Consultants should provide a description of their management team for this project and list all key personnel responsible for the deliveries of this RFP.

**STATUS REPORTS/ MEETINGS:**

There will be periodic, regular meetings between MDOT representatives and the selected Consultant to review work product, and to communicate progress, issues, ideas, and expectations.

The selected Consultant shall provide copies of all project reports, correspondence, meeting announcements, and meeting minutes which shall be delivered by email to the MDOT Manager. The Consultant shall provide the minutes of all meetings attended. These shall be distributed by email to the MDOT Project Manager.

**PROJECT DOCUMENTATION:**

All documentation and reports shall be delivered in the current version of Microsoft Word or Adobe Acrobat (whichever applies) being used by MDOT. All documentation delivered shall be clear, concise, complete, and in compliance with standards required by the MDOT Project Manager. All CADD files shall be delivered in the current version of MicroStation being used by MDOT.

**CONSULTANT PAYMENT – Actual Cost Plus Fixed Fee:**

Compensation for this project shall be on an **actual cost plus fixed fee** basis. This basis of payment typically includes an estimate of labor hours by classification or employee, hourly labor rates, applied overhead, other direct costs, subconsultant costs, and applied fixed fee. The fixed fee for profit allowed for this project is 11.0% of the cost of direct labor and overhead.

All billings for services must be directed to the Department and follow the current guidelines. Payment may be delayed or decreased if the instructions are not followed.

Payment to the Consultant for services rendered shall not exceed the maximum amount unless an increase is approved in accordance with the contract with the Consultant. Typically, billings must be submitted within 60 days after the completion of services for the current billing. The final billing must be received within 60 days of the completion of services. Refer to your contract for your specific contract terms.

Direct expenses, if applicable, will not be paid in excess of that allowed by the Department for its own employees in accordance with the State of Michigan’s Standardized Travel Regulations. Supporting documentation must be submitted with the billing for all eligible expenses on the project in accordance with the Reimbursement Guidelines. The only hours that will be considered allowable charges for this contract are those that are directly attributable to the activities of this project.

MDOT will reimburse the consultant for vehicle expenses and the costs of travel to and from project sites in accordance with MDOT’s Travel and Vehicle Expense Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at [http://www.michigan.gov/documents/mdot/Final\\_Travel\\_Guidelines\\_05-01-13\\_420289\\_7.pdf?20130509082418](http://www.michigan.gov/documents/mdot/Final_Travel_Guidelines_05-01-13_420289_7.pdf?20130509082418). MDOT’s travel and vehicle expense reimbursement

policies are intended primarily for construction engineering work. Reimbursement for travel to and from project sites and for vehicle expenses for all other types of work will be approved on a case by case basis.

MDOT will pay overtime in accordance with MDOT's Overtime Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at [http://www.michigan.gov/documents/mdot/Final\\_Overtime\\_Guidelines\\_05-01-13\\_420286\\_7.pdf?20130509081848](http://www.michigan.gov/documents/mdot/Final_Overtime_Guidelines_05-01-13_420286_7.pdf?20130509081848). MDOT's overtime reimbursement policies are intended primarily for construction engineering work. Overtime reimbursement for all other types of work will be approved on a case by case basis.

## ATTACHMENT A

### SCOPE OF SERVICE FOR DESIGN SURVEYS

October 2015

Survey Limits: As needed for Design, Right of Way, and Construction. A description of survey limits detailing length, width and cross roads must be included in the Survey Work Plan.

**NOTES:** The Selected Consultant shall discuss the scope of this survey with an MDOT Region Surveyor or an MDOT Lansing Design Surveyor before submitting a priced proposal.

The Selected Consultant surveyor must contact the Region or TSC Traffic and Safety Engineer for work restrictions in the project area prior to submitting a priced proposal.

A **detailed Survey Work Plan must** be included in the project proposal. A **spreadsheet estimate** of hours by specific survey task such as horizontal control, leveling, mapping, alignment determination, etc., **must** be included in the **priced proposal**.

It is the responsibility of the Professional Surveyor to safeguard all corners of the United States Public Land Survey System, published Geodetic Control and any other Property Controlling corners that may be in danger of being destroyed by the proposed construction project.

#### GENERAL REQUIREMENTS:

1. Surveys must comply with **all Michigan law** relative to land surveying.
2. Surveys must be done under the **direct supervision** of a Professional Surveyor licensed to practice in the State of Michigan.
3. Work in any of the following Survey Services Categories: Surveying: Hydraulics, Surveying: Right of Way, Surveying: Road Design, Surveying: Structure and Surveying: Geodetic Control and Leveling must be completed by a survey firm which is pre-qualified by MDOT for that category.
4. Surveys must meet all requirements of the Michigan Department of Transportation (MDOT) Design Surveys *Standards of Practice* dated May 2014, except for naming conventions. Please contact the MDOT Design Survey office to clarify any specific questions regarding these standards.

5. Consultants must obtain all necessary permits required to perform this survey on any public and/or private property, including an up-to-date permit from the MDOT Utilities Coordination and Permits Section.
6. Prior to performing the survey, the Consultant must contact all landowners upon whose lands they will enter. The contact may be personal, phone or letter, but must be documented. This notice must include the reasons for the survey on private land, the approximate time the survey is to take place, the extent of the survey including potential brush cutting (which must be minimized), and an MDOT contact person (the MDOT Project Manager or designate).
7. The Consultant must contact any and all Railroads prior to commencing field survey on railroad property. The cost for any permit, flaggers and/or training that is required by the Railroad will be considered as a direct cost, but only if included in the Consultant's priced proposal.
8. The Consultant must adhere to all applicable OSHA and MIOSHA safety standards, including the appropriate traffic signs for the activities and conditions for this job.
9. Consultants are responsible for a comprehensive and conscientious research of all records, including MDOT records, essential for the completion of this project.
10. The Horizontal and Vertical datums and coordinate system must be clearly stated in the Survey Work Plan and subsequent submittal. For acceptable datums and coordinate systems refer to the MDOT Design Surveys *Standards of Practice*, which can be found on the MDOT Design Survey ftp site.
12. **Electronic submittal only in ProjectWise.** Each structure must be submitted separately.
13. Each Survey Project Folder is divided into six sections. These sections are as follows: **Admin, Align & ROW, Control, Mapping, Misc,** and **RID** (Reference Information Documents).
14. To be included in the **Admin** section shall be a copy of the **Survey Project Portfolio QA/QC Check-off list**, May 2014 revision, available from the MDOT Survey Support Unit. This document shall be signed and certified by the Professional Surveyor responsible for the project QA/QC. It is highly recommended that the consultant become familiar with this document prior to preparing the proposal and again prior to assembling the final portfolio. **Failure to use and include this document may result in the immediate return of the project portfolio for completion.**
15. All submitted files must be scanned and/or converted to one PDF format file. A Table of Contents in PDF format is required that has all PDF files bookmarked/linked so each place in the PDF archive can be accessed with a single

click of the computer mouse. Specified format files such as Microsoft Word and MicroStation GEOPAK must have separate access in native format outside of the PDF file.

16. The MDOT Project Manager is the official contact for the Consultant. The Consultant must send a copy of all project correspondence to the MDOT Project Manager. The MDOT Project Manager shall be made aware of all communications regarding this project. Any survey related questions regarding this project should be directed to an MDOT Survey Consultant Project Manager or MDOT Region Surveyor. **The MDOT Project Manager must be copied on any and all correspondence.**

At the completion of this survey for this project, legible copies of all field survey notes, all electronic data other than raw survey data, and all research records obtained for this project will be considered the property of MDOT. Please include MDOT's Form 222(5/01) entitled "SURVEY NOTES: RECEIPT AND TRANSMITTAL" for all transmittals. A copy of this transmittal form must be sent to the MDOT Project Manager for Design and the MDOT Supervising Land Surveyor.

**Acceptance of this survey by the MDOT Project Manager and/or the MDOT Supervising Land Surveyor does not relieve the Consultant of any liability for the content of the survey.**

## **WORK RESTRICTIONS**

The Selected Consultant, and the Selected Consultant only, is advised to discuss Traffic Control scenarios with the MDOT Oakland TSC Traffic Operations Engineer Courtney DeFauw at DeFauwC@michigan.gov prior to submitting a priced proposal. Traffic Control costs not included in the priced proposal will not be paid by MDOT.

The Consultant must submit a five (5) day advanced notice through the permit system prior to work.

No work shall be performed or lane closures allowed during the Memorial Day, Independence Day, Thanksgiving, Christmas, New Year or Labor Day holiday periods. The holiday periods will be defined by the local Traffic and Safety Engineer which has jurisdiction over the project area.

All work on the road shall be conducted during daylight hours Monday through Saturday only. Lane closures may only occur between the hours of 9:00 am and 2:00 pm, shoulder closures may only occur between the hours of 9:00 am and 3:00 pm. Weekend work is permitted on Saturdays between the hours of 7:00 am and 5:00 pm. Double lane closures are only permitted on Saturdays. *Example; NOT Typical – to be discussed with Traffic & Safety Engineer*

All traffic control devices shall conform to the current edition, as revised, of the *Michigan Manual of Uniform Traffic Control Devices* (MMUTCD) available on line at [http://mdotcf.state.mi.us/public/tands/Details\\_Web/mmutcdcompleteinteractive.pdf](http://mdotcf.state.mi.us/public/tands/Details_Web/mmutcdcompleteinteractive.pdf). All warning signs for maintenance of traffic used on this project shall be fabricated with prismatic retro-reflective sheeting. Sign covers shall be placed over existing regulatory signs that are not applicable during Survey work.

The Consultant shall use MDOT standard “maintaining traffic” typicals for any and all closures. Typical MDOT traffic control diagrams are available on line at <http://mdotcf.state.mi.us/public/tands/plans.cfm>

The Consultant may also use MDOT Maintenance Work Zone Traffic Control Guidelines, found on line at [http://www.michigan.gov/documents/zonecontrol\\_112912\\_7.pdf](http://www.michigan.gov/documents/zonecontrol_112912_7.pdf).

The Consultant must have a vehicle with markings/logo that identifies the company within sight distance of survey activity and must have a 360 degree flashing strobe light on the top of the vehicle whenever they are working on or near the road.

Traffic control on city streets and county roads is under the jurisdiction of the local authorities where the project is located.

## **COORDINATION WITH OTHER CONTRACTS IN THE VICINITY**

The Consultant shall coordinate operations with contractors performing work on other projects within or adjacent to the Construction Influence Area (CIA).

MDOT maintenance crews and/or Contract Maintenance Agencies may perform maintenance work within or adjacent to the CIA. The Maintenance Division of MDOT and/or Contract Maintenance Agency will coordinate their operations with the MDOT Project Manager or Designate to minimize the interference to the Consultant.

The Consultant must contact the Operations Engineer at the MDOT Oakland TSC for information regarding project coordination.

The Consultant’s attention is called to the requirements of cooperation with others as covered in Article 104.08 of the 2012 Standard Specifications for Construction <http://mdotcf.state.mi.us/public/specbook/2012/>. Other contracts or maintenance operations may occur during the life of the project.

No claim for extra compensation or adjustment in contract unit prices will be allowed on account of delay or failure of others to complete scheduled work.

## **POST SURVEY CLEAN-UP**

Once the survey is complete, all stakes must be removed from the MDOT median and ROW to aid the maintenance crews and adjacent property owners. All benchmarks and control points and their witnesses must remain in place.

## **FINAL REPORT: ELECTRONIC SUBMITTAL in ProjectWise**

The final report for this project shall include:

1. In the **Admin** subfolder, the following will appear:

- **XXXXXX\_Survey\_Notes\_Receipt\_and\_transmittal-20YY-MM**
- **XXXXXX\_Survey\_20YY-MM-DD.pdf**
  - An Adobe PDF with all of the contents of the portfolio scanned into it and bookmarked for ease of location within the PDF file. Table of Contents – should appear bookmarked on the left side of the Adobe screen. Note: Upon completion, use Adobe’s “Reduce File Size” command.
- **XXXXXX\_Surveyors\_Report\_20YY-MM-DD.pdf**
  - Surveyor’s Project Report, divided into subsections, containing a complete synopsis of project survey including, but not limited to:
    - Explanation of any deviation from the Scope and/or the Standards
    - Basis of horizontal and vertical control, with specific emphasis on datum sources used (list CORS and NAVD benchmarks tied), equipment, software, methods used to establish the coordinates and methods used to detect errors and eliminate them. If RTK is used, explain the methodology, equipment and procedure used. Include a detailed explanation relating to CORS usage or site calibration (Base Station) (for level loops, Primary and Intermediate Control networks)
    - Provide a complete discussion of all Alignments relative to the project. Include all information and methods used to determine the location and designation of each.
    - Property boundary issues addressed, with specific information that may be useful for a surveyor to retrace or an engineer during design. If necessary, include a summary of conversations with property owners and their concerns.
    - Any mapping issues encountered, with specific information that may be useful for an engineer during design.
    - Any information obtained regarding drainage issues observed or reported by local authorities or residents should be discussed.
    - Discuss the contents of anything that appears in the miscellaneous section.
    - The signed, sealed, and dated “PROFESSIONAL SURVEYOR’S CERTIFICATION FOR MDOT PROJECTS” as detailed in the MDOT Design Survey Standards of Practice.
      - Alignment information must be certified, signed and sealed by the Professional Surveyor as described in the Alignment section of the Standards of Practice.

- Mapping information for the project should be summarized per the Standards of Practice.
- Explanation of how the Reference Point locations were determined.
- **XXXXXX\_Vicinity\_Map.pdf**
  - Screen capture from Street Atlas, Google Maps, or some other resource, with the POB and POE labeled.
- **XXXXXX\_QA/QC\_Certification\_20YY-MM-DD.pdf**
  - QA/QC Certification, signed and sealed by the lead QA/QC person (See the Standards of Practice Quality Assurance/Quality Control section – Page 24).
- **XXXXXX\_MDOT\_QA/QC\_Checklist\_20YY-MM-DD.pdf**
  - MDOT QA/QC Checklist and Certification Statement is filled out, signed and sealed by the Survey QA/QC Manager

A. **Correspondence** (subfolder):

- **XXXXXX\_emails.pdf**
  - Copy of all correspondence pertaining to the project saved as a .pdf file.
- **XXXXXX\_Phone\_Log.pdf**
  - Transcript of all phone conversations pertaining to the project in a .pdf file format.
- **XXXXXX\_Meeting\_Minutes.pdf**
  - Copy of all Meeting Minutes pertaining to the project in a .pdf file format.

B. **Scopes** (subfolder):

- **Work\_Permit\_Permit\_Name.pdf**
  - Copy of all work permits required for the project.
- **XXXXXX\_Advanced\_Notice\_XXXXX\_20YY-MM-DD.pdf**
  - Notice to proceed with work on the project.
- **XXXXXX\_Form5102\_Change\_of\_Scope\_20YY-MM-DD.pdf**
  - Change of scope form.
  - This forms only needs to be filled out if the scope actually changes
- **XXXXXX\_Notice\_to\_Proceed.pdf**
  - MDOT Form 5180 filled out and added to Scopes Folder
- **XXXXXX\_Price\_Proposal.pdf**
  - MDOT Price Proposal Package saved as a .pdf, wages and costs redacted
- **XXXXXX\_Traffic\_Control\_Quotes.pdf**
  - Copies of the quotes obtained for traffic control in .pdf format.

- **XXXXXX\_Work\_Plan.pdf**
  - Detailed Description of the work that will be performed on the project.

2. In the **Align & ROW** subfolder, the following will appear:

- **XXXXXX\_132\_Survey\_Owner\_Name.pdf**
  - Final Certificate of Survey saved as a .pdf file.
  - If multiple surveys are required for a project they should each have a unique name.
- **Deed\_C-123.pdf**
  - Copy of each deed used for the project.
  - Each deed saved as a separate file.
- **LCRC\_J-10\_TXXN\_RXXE.pdf**
  - Copy of all LCRC Documents used for the project.
  - Each LCRC saved as a separate document.
- **Plat\_Westgate\_Park.pdf**
  - Copy of all Plats used for the project.
  - Each Plat saved as a separate document.
- **Tax\_Desc\_07-26-100-001.pdf**
  - Copy of all Tax Descriptions used for the project.
  - Each Tax Description saved as a separate Document.
- **Tax\_Map\_10-13H.pdf**
  - Copy of all Tax Maps used for the project.
  - Each Tax Map saved as a separate Document.
- **XXXXXX\_Prop\_20YY-MM-DD.doc**
  - Document containing all found property monumentation.
- **XXXXXX\_Prop\_20YY-MM-DD.txt**
  - Text document containing all found property monumentation.
  - Data saved in a comma separated format (csv).
  - Point Number, Northing, Easting, Elevation, Description.

3. In the **Control** subfolder, the following will appear:

- **XXXXXX\_GPS\_EDM\_Control\_Comparison.xls**
  - Table comparing GPS grid and EDM ground observations for primary control as described in the Standards of Practice – Item 7 Control
- **XXXXXX\_NGS\_Mark\_Recovery\_Form.pdf**
  - Form detailing the NGS marks recovered during the project.

- **XXXXXX\_MDOT Monument Establishment**
  - MDOT Monument Establishment Data Sheets of all Primary Control Points established and or used as part of this project (Contact Lansing Survey Office for template).
  
- A. **Horizontal** (subfolder);
  - **XXXXXX\_Intermediate\_Control\_Plot.pdf**
    - Plot(s) of the GPS network(s) from GPS software and sketch(s) or plot(s) of network or traverse with legible point numbers.
  
  - **XXXXXX\_Primary\_Control\_Plot.pdf**
    - Plot(s) of the GPS network(s) from GPS software and sketch(s) or plot(s) of network or traverse with legible point numbers.
  
  - **XXXXXX\_Primary\_Minimally\_Constrained\_Adjustment\_Report.pdf**
    - Input parameters: a-priori, centering error, etc.
    - Raw unadjusted closures,
    - Final coordinates with standard deviations (2 sigma)
    - Vector input data and analysis.
    - Histograms.
    - Error ellipses.
    - Traverse closures.
    - Statistical test results.
    - Horizontal and vertical datums, ellipsoid, SPC zone, and units (International Feet)
    - Name of the adjustment program used with version or release.
    - Only Non-trivial vectors used
  
  - **XXXXXX\_Primary\_Fully\_Constrained\_Adjustment\_Report.pdf**
    - Input parameters: a-priori, centering error, etc.
    - Raw unadjusted closures,
    - Final coordinates with standard deviations (2 sigma)
    - Vector input data and analysis.
    - Histograms.
    - Error ellipses.
    - Traverse closures.
    - Statistical test results.
    - Horizontal and vertical datums, ellipsoid, SPC zone, and units (International Feet)
    - Name of the adjustment program used with version or release.
    - Only Non-trivial vectors used
  
  - **XXXXXX\_Intermediate\_Minimally\_Constrained\_Adjustment\_Report.pdf**
    - Input parameters: a-priori, centering error, etc.

- Raw unadjusted closures,
  - Final coordinates with standard deviations (2 sigma)
  - Vector input data and analysis.
  - Histograms.
  - Error ellipses.
  - Traverse closures.
  - Statistical test results.
  - Horizontal and vertical datums, ellipsoid, SPC zone, and units (International Feet)
  - Name of the adjustment program used with version or release.
  - Only Non-trivial vectors used
- **XXXXXX\_Intermediate\_Fully\_Constrained\_Adjustment\_Report.pdf**
    - Input parameters: a-priori, centering error, etc.
    - Raw unadjusted closures,
    - Final coordinates with standard deviations (2 sigma)
    - Vector input data and analysis.
    - Histograms.
    - Error ellipses.
    - Traverse closures.
    - Statistical test results.
    - Horizontal and vertical datums, ellipsoid, SPC zone, and units (International Feet)
    - Name of the adjustment program used with version or release.
    - Only Non-trivial vectors used
- **XXXXXX\_OPUS\_Observation\_Logs.pdf**
    - All OPUS log sheets combined together into one .pdf file
- **XXXXXX\_OPUS\_Manual\_Conversion.pdf**
    - Manual conversion of OPUS Solution from Meters to International Feet.
- **XXXXXX\_OPUS\_Extended.pdf**
    - Extended output solution from OPUS for all Control Points that have been submitted to OPUS.
- NOTE: The Consultant is responsible to archive raw data for a period of five (5) years.

**B. Vertical** (subfolder):

- **XXXXXX\_Data\_Sheets.pdf**
  - A copy of all NGS Data Sheets used for the project
- **XXXXXX\_V\_Minimally\_Constrained\_Adjustment\_Report.pdf**
  - input parameters

- raw unadjusted closures,
  - final elevations with standard deviations
  - loop closures.
  - Statistical test results.
  - Horizontal and vertical datums, ellipsoid, SPC zone, and units (International Feet)
  - Name of the adjustment program used with version or release.
    - OR supply all written calculations to support the final results.
  - Provide separate subfolders for each adjustment which contain the files used in the processing and analysis software. e.g.: Levproc, StarLev, MicroSurvey's StarNet only.
- **XXXXXX\_V\_Fully\_Constrained\_Adjustment\_Report.pdf**
    - input parameters,
    - raw unadjusted closures
    - final elevations with standard deviations
    - loop closures.
    - Statistical test results.
    - Horizontal and vertical datums, ellipsoid, SPC zone, and units (International Feet)
    - Name of the adjustment program used with version or release.
      - OR supply all written calculations to support the final results.
    - Provide separate subfolders for each adjustment which contain the files used in the processing and analysis software. e.g.: Levproc, StarLev, MicroSurvey's StarNet only.
- NOTE: The Consultant is responsible to archive raw data for a period of five (5) years.

4. In the **Mapping** subfolder, the following will appear:

- **XXXXXX\_Struc\_Inventory\_20YY-MM-DD.xls**
  - Drainage structure inventory report compatible with MDOT software and correlated to the connectivity drawing in Excel spreadsheet format
- **XXXXXX\_Connectivity\_20YY-MM-DD.dgn**
  - Map of the project area generated from PowerGEOPAK that shows all the drainage structures collected for the project, with lines connecting each structure.
- **XXXXXX\_Images\_20YY-MM-DD.zip**
  - Digital photos of the structure(s) and end sections or headwalls with names or tags correlating the photo with the information in Drainage Structure Inventory Report. (**Note: If deliverables are generated with SS3 the image should be integrated into the 3D.dgn**)

- **XXXXXX\_Utility\_List.doc**
  - Word document containing a utility company listing to include company name, address, phone number, and contact person, if required.
- **XXXXXX\_Feature\_Code.txt**
  - Individual utility / drainage station and offset reports generated by Feature Code in .dgn format drawing.
  - e.g.: Catch Basin.txt, if required.

5. In the **RID** (Reference Information Documents) subfolder, the following will appear:

- **S-XXXXXX\_Align\_ROW\_20YY-MM-DD.dgn**
- **S-XXXXXX\_Align\_LandXML\_20YY-MM-DD.xml**
- **S-XXXXXX\_Survey\_Info\_Sheet\_20YY-MM-DD.doc**
- **S-XXXXXX\_ControlPts\_20YY-MM-DD.txt**
- **S-XXXXXX\_ExTriangle\_20MM-YY-DD.dgn**
- **S-XXXXXX\_ExTriangle\_LandXML\_20YY-MM-DD.xml**
- **S-XXXXXX\_Survey\_2D\_20YY-MM-DD.dgn**
- **S-XXXXXX\_Survey\_3D\_20YY-MM-DD.dgn**

6. In the **Misc** subfolder, the following will appear:

- Data not assignable to one of the other sections may be placed here and must be discussed in the survey report. Examples of appropriate site specific information might be: newspaper articles, photos of the project site looking up and down the roadway, various aspects of a structure, up and down stream and side to side at Hydro chains, etc. Photos shall be submitted in native format and annotated. All items must be included in the master PDF.
- **Images** (subfolder)
  - This folder contains all pictures taken for the project.
  - All pictures should be sorted into separate sub folders and labeled according to their content for example:
    - XXXXXX\_Hydro\_Photos
    - XXXXXX\_Drainage\_Structures

**ATTACHMENT B**  
**SCOPE OF SERVICE**  
**FOR**  
**UTILITY COORDINATION**

The Consultant is directly responsible for all aspects of the project's utility coordination. The Consultant is expected to provide technical assistance to MDOT, utilities and other stakeholders regarding utility identification, project utility coordination and utility conflict resolution.

A utility is defined as any privately, publicly, municipal or cooperatively owned line, facility, or system for producing, transmitting, or distributing communication, cable television, power, electricity, light, heat, gas, oil, crude products, water, steam, waste, or any other similar commodity, including any fire or police signal system or street lighting system.

MDOT shall -

- Provide a preliminary list of utilities, with contact information, that may have facilities located within the project limits. This list may not be 100% accurate and/or complete.
- Provide assistance, if necessary, in contacting utilities to obtain facility records.
- Provide Consultant with utility responses and facility records if utility information solicitation has been performed.
- Organize and host a kick-off meeting with Consultant and MDOT prior to Consultant beginning utility coordination services.

Consultant shall -

- Develop and maintain a Utility Conflict Matrix\* spreadsheet and deliver as the bi-weekly status report.
- Distribute form letters, plans, etc. as outlined in 14.16 (Request for Utility Information) and 14.26 (Distribution of Preliminary Plans to Utilities and Utility Coordination Meeting) of the MDOT Road Design Manual.
  - Identify existing/proposed utility owners and facilities.
  - Collect and compile utility responses.
  - Follow up with non-responsive utilities.
  - Identify and coordinate the availability of electric and communication services for the proposed facilities.
  - Provide staking, if needed, of proposed facilities as to locating potential utility conflicts and aid in the completion of utility relocation plans.
- Schedule and conduct utility meetings for the resolution of conflicts between utility facilities and proposed construction.
  - Identify conflicts, discuss possible design modifications, develop utility relocation schemes, discuss reimbursable relocations, and discuss project scope and schedule.
  - Identify the utility's design and construction contacts and ensure the plan's note sheet utility contact information is accurate.

- Record meeting minutes and distribute to all attendees.
- Schedule and conduct field meetings with individual utilities to resolve conflicts.
- Schedule and conduct meetings convened for the purpose of utility betterments.
- Ensure municipal utility relocations, betterments, and reimbursements follow Chapter 9 of the MDOT Road Design Manual.
- Identify eligible reimbursable utility relocations, for public/private utilities, as outlined in 23 Code of Federal Regulations (CFR) Part 645 Subparts A and B – Utilities and ensure 23 CFR Part 635.410 - Buy America Requirements are met.
  - Collect documentation to evaluate reimbursable utility relocations.
- Evaluate utility relocation plans for compatibility with the proposed project.
- Determine all potential utility conflicts with the proposed facility placement.
  - Plot all utility facilities on MDOT plans.
- Ensure utility relocation schedules do not impact the project schedule.
- Confirm utility relocation permit applications are submitted to the TSC.
  - Evaluate permit plans.
- Prepare the “Utilities Status Report” (MDOT Form 2286) and “Notice to Bidders - Utility Coordination” documents.
- Track and monitor utility relocation progress.

Deliverables (Provided to the TSC Utility Coordinator and Project Manager):

- Courtesy copies of all correspondence with the utilities
- Utility Conflict Matrix
- Utility coordination meeting minutes
- Reimbursable utility relocation documentation
- Utilities Status Report and Notice to Bidders - Utility Coordination

\* The Utility Conflict Matrix (UCM) is located on the <http://www.trb.org/Main/Blurbs/166731.aspx> website under Training materials > Prototype 1 – Stand-alone UCM. The UCM was developed as part of the Transportation Research Board’s (TRB) second Strategic Highway Research Program (SHRP 2) Report S2-R15B-RW-1: Identification of Utility Conflicts and Solutions which provides concepts and procedures to identify and resolve utility conflicts. Tools described in the report include utility conflict matrices that enable users to organize, track, and manage conflicts that frequently arise.