

## 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			
<b>MDOT PROJECT MANAGER:</b> Check all items to be included in RFP  WHITE = REQUIRED ** = OPTIONAL  Check the appropriate Tier in the box below		<b>CONSULTANT:</b> Provide only checked items below in proposal	
<input type="checkbox"/> <b>TIER I</b> (\$50,000 - \$150,000)	<input type="checkbox"/> <b>TIER II</b> (\$150,000-\$1,000,000)	<input type="checkbox"/> <b>TIER III</b> (>\$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 p=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) ( <b>No Resumes</b> )	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 only for firms not currently prequalified with MDOT)

**(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" and "Guideline for Completing a Low Bid Sheet(S)\*, if a low bid is involved as part of the selection process. **Reference Guidelines are available on MDOT's website under Doing Business > Vendor/Consultant Services > Vendor/Consultant Selections.**

**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 \_\_\_\_\_

**Prequalified Services** – See the attached Scope of Services for required Prequalification Classifications.

**Non-Prequalified Services** – If selected, the vendor must make sure that current financial information, including labor rates, overhead computations, and financial statements, if overhead is not audited, 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. **Form 5100J is required with Proposal for firms not currently prequalified with MDOT**

**Qualifications 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.

**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.

**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.

**Low Bid** (no qualifications review required – no proposal required.) See Bid Sheet Instructions below for additional instructions.

**BID SHEET INSTRUCTIONS**

Bid Sheet(s) must be submitted in accordance with the "Guidelines for Completing a Low Bid Sheet(s)\* (available on MDOT's website). 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.

**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.

**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  
INTELLIGENT TRANSPORTATION SYSTEMS  
Design and System Manager Services**

**CONTROL SECTION:** 84913

**JOB NUMBER:** 106329C

**PROJECT LOCATION:** Various locations in the Grand Region,

- I-96, from US-31 to the Ottawa/Kent county line;
- US-31, from M-45 in Ottawa County to M-120 in Muskegon County;
- Up to 10 region wide locations for environmental sensor station (ESS) sites.

**PROJECT DESCRIPTION:**

This scope is to provide design services for an ITS project, develop a final bid package for 100% complete plans, provide a cost estimate for construction, and serve as MDOT representative and System Manager, through construction phase (under separate Authorization).

The consultant will be responsible to scope the project, refine locations of equipment, develop plans to 100% completion, define known or anticipated environmental issues, provide necessary geotechnical information, provide necessary survey work, define known or anticipated utility issues, define known or anticipated maintaining traffic concerns, and develop communication plans for proposed devices. This project consists of all work related to the design of this project. The system which may include, but is not limited to Dynamic Message Signs (DMS), Traffic Surveillance Cameras, Vehicle Detection Systems (VDS), Road Weather Information Systems (RWIS) and related network and communications infrastructure, all of which shall interface with the existing ITS monitoring software and equipment.

This project is targeted for the February 2016 letting.

**ANTICIPATED SERVICE START DATE:** December 2014

**ANTICIPATED COMPLETION DATE:** May 2018

**PRIMARY PREQUALIFICATION CLASSIFICATION:**

Intelligent Transportation Systems – Design and System Manager

**SECONDARY PREQUALIFICATION CLASSIFICATION:**

Geotechnical Engineering Service

Road Design Surveys

Maintaining Traffic Plans and Provisions

**DBE REQUIREMENT:** 0%

**MDOT PROJECT ENGINEER MANAGER:**

Thomas Richer, P.E.  
ITS Project Engineer  
Grand Region Office  
1420 Front Ave., NW  
Grand Rapids, MI 49504  
616-451-2604  
616-451-0707 (FAX)  
[Richert@michigan.gov](mailto:Richert@michigan.gov)

**CONSTRUCTION COST:**

- |    |  |             |
|----|--|-------------|
| A. | The estimated cost of construction is: | \$4,000,000 |
| B. | The estimated cost of real estate is:  | \$0         |

The above construction total is the amount of funding programmed for this project. The Consultant is expected to design the project within the programmed amount.

If at any time the estimated cost of construction varies by more than 5% of the current programmed amount, then the Consultant will be required to submit a letter to the MDOT Project Manager justifying the changes in the construction cost estimate.

**REQUIRED MDOT GUIDELINES AND STANDARDS:**

Work shall conform to current MDOT, FHWA, and AASHTO practices, guidelines, policies, and standards (i.e., Road Design Manual, Standard Plans, Published MDOT Design Advisories, Drainage Manual, Roadside Design Guide, A Policy on Geometric Design of Highways and Streets, Michigan Manual of Uniform Traffic Control Devices, etc.), as well as the National Electrical Code (NEC) and applicable Federal Communications Commission (FCC) regulations. Work shall also conform to the applicable specifications and Federal guidelines with regard to placing underground and overhead communications devices.

The Consultant is required to use the current MDOT1 workspace version of Bentley MicroStation for CADD applications and Bentley GEOPAK for road design. Consultant shall comply with all MDOT CADD standards and file naming conventions.

**GENERAL INFORMATION:**

The consultant shall have substantial ITS conception, design background and experience. The consultant should be prepared to demonstrate their background and experience. This will be a major part of the selection for this RFP. The design team will be required to include someone who is a Cisco Certified Network Associate (CCNA) or a Cisco Certified Design Associate (CCDA) for network design work; and a Registered Communications Distribution Design (RCDD) for communications design work. The proposal should include a description of the project management team and list all key personnel responsible for the project services.

The Michigan Department of Transportation (MDOT) continues to lead the State of Michigan in transportation technology. In an effort to provide a high quality service the current ITS system needs to be maintained and new facilities need to be incorporated.

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 Services described herein are financed with public funds. The Consultant shall comply with all applicable Federal and State laws, rules, and regulations. The Consultant shall perform field operations in accordance with MIOSHA regulations and accepted safety practices. The consultant staff shall conduct themselves with professionalism in carrying out their duties.

The Consultant will notify the MDOT 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 MDOT Project Manager.

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.

All materials submitted in response to this RFP become the property of MDOT, proposals and supporting materials will not be returned to consultants. MDOT reserves the right to reject any or all proposals.

This project shall utilize equipment and facilities already in the project locations to the maximum extent possible.

**MDOT RESPONSIBILITIES:**

- A. Schedule and/or conduct the following:
  - 1. Project related meetings.
  - 2. The Plan Review.
  - 3. Utility Coordination Meetings.
  - 4. Omissions/Errors/Check
  - 5. Final TRANSPORT item cost estimates.
  - 6. Assist with packaging of plans and proposal for letting.
- B. Furnish Special Details and pertinent reference materials.
- C. Furnish prints of an example of a similar project and old plans of the area, if available.
- D. Obtain applicable permits for the project as outlined in the section for MDOT Permits.

- E. Coordinate any necessary utility relocation.
- F. Furnish FTP site for software download and instructions for the MDOT Stand Alone Proposal Estimator's Worksheet (SAPW).
- G. Provide initial project Concept of Operations documents.

**CONSULTANT RESPONSIBILITIES:**

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

The Consultant shall comply with all applicable Federal and State laws, rules and regulations.

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 and perform field operations in accordance with the Department's Personal Protective Equipment (PPE) policy as stated in the MDOT Guidance Document #10118.

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, ROW submittal dates, Railroad coordination requirements, utility conflict resolution, local agency meetings, etc.:

- A. Finalize the provided Concept of Operations documents as refined by project scope.
- B. Provide conceptual layouts for the US-31 and I-96 corridors, including proposed ITS for improving traffic operations on the corridor.
- C. Perform design surveys.
- D. Perform required design and functional technical specification writing to expand the ITS facilities in the project area. The proposed facilities may include, but are not be limited to, traffic surveillance cameras, dynamic message signs, cabinets, vehicle detection systems, communications infrastructure, road weather information systems, and lane control equipment.
- E. Provide communication system design, including any bandwidth evaluation relative to the communications to the MDOT West Michigan Transportation Operations Center (WMTOC) to operate the ITS field devices in the project areas. The existing system is a Cisco-based Layer 3 network. Communication may include fiber optic cable, private wired communication providers, and/or wireless communication. Coordination will be required with MDOT and the Grand Region ITS System Manager team regarding the network topology.
- F. Develop component and acceptance tests and work with MDOT to perform all tests.
- G. Prepare and incorporate all documents for E-Proposal Submittal.

- H. Provide project System Manager services (reviewing shop drawings, system testing, responding to RFI's, etc.) through the construction phase. This will be issued as a separate authorization from the Project Manager, if needed.
- I. 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, design survey, Railroad coordination requirements, utility conflict resolution, local agency meetings, etc.
- J. Prepare required plans, typical cross-sections, details, and specifications required for design and construction.
- K. Compute and verify all plan quantities.
- L. Prepare staging plans and special provisions for maintaining traffic during construction. Submit a Transportation Management Plan (TMP) that meets MDOT's current Safety and Mobility Policy.
- M. Provide solutions to any unique problems that may arise during the design of this project.
- N. 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.
- O. If excavation is required, submit the excavation locations which may contain contamination. Project Manager then can proceed in requesting a Preliminary Project Assessment (PPA).
- P. The Consultant shall be required to prepare and submit a CPM network for the construction of this project.
- Q. The Consultant representative shall record and submit minutes for all project related meetings to the MDOT Project Manager within two weeks of the meeting. The Consultant shall also distribute the minutes to all meeting attendees. MDOT will provide and distribute official meeting minutes for the Plan Review Meeting.
- R. The Consultant will provide to MDOT at the scheduled submittal dates, copies of the required specifications and plan set materials for distribution by MDOT for all reviews for this project with the exception of The Plan Review. The Consultant shall contact the project manager prior to the submittal dates for the exact number of copies that will be required for submittal.
- S. Prepare and submit electronically (native format or Adobe PDF) any information, calculations, hydraulic studies, or drawings required by MDOT for acquiring any permit (i.e. NPDES, DEQ, etc.), approvals (i.e. county drain commission) and related mitigation. MDOT will submit

permit requests.

- T. Attend any project-related meetings as directed by the MDOT Project Manager.
- U. 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.
- V. 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.

## **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 make modifications to the plans or design details and provide assistance as directed by the MDOT Utility Permits Engineer and/or MDOT Project Manager. The Consultant shall attend any utility meetings called 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.

The Consultant is responsible for determining the availability of electric and communication service to the proposed facilities at the locations described previously. Any potential problems with utility electric service shall be brought to MDOT's attention as soon as they are known.

## **TRAFFIC CONTROL**

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

## **MDOT PERMITS**

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 Joe Rios, Utilities/Permits Section, Real Estate Division at (517) 241-2103.

## **PROGRESS REPORT**

The Consultant shall provide at the kick off meeting a detailed schedule of target dates for each step of the design. On the first of each month, the Consultant Project Manager shall submit a monthly project progress report to the Project Manager.

## **DELIVERABLES:**

The Consultant shall deliver all computer files associated with the project in their native format (spreadsheets, CADD files, GEOPAK files, Roadway Designer Templates etc.) on DVD, CD or uploaded to ProjectWise, as directed by the MDOT Project Manager. All

CADD/GEOPAK files shall be created and identified with standard MDOT file names. It is the Consultant's responsibility to obtain up to date MicroStation and GEOPAK seed/configuration files necessary to comply with MDOT's CADD standards which are published monthly to the MDOT website. Any CADD/GEOPAK files that do not conform to MDOT standards will be returned to the Consultant for correction at the Consultant's expense.

All plan sheets required for this project shall be completed by the Consultant. These include, but are not limited to:

- Title Sheet.
- Note Sheet.
- Typical Cross-Sections.
- Plan Sheets.
- Project specific Special Details.
- Construction staging and traffic control plans.
- Detail grade sheets for critical areas.
- Witness and benchmark sheet(s).
- Soil boring log sheet(s).
- Electronic files for each to be provided.

Proposal documents shall be submitted in their native format with standard naming conventions as well as combined into one Adobe PDF file in the sequence specified by MDOT. To provide text search capabilities the combined proposal shall be created by converting native electronic files to PDF. Scanning to PDF is discouraged except in instances where it is necessary to capture a legally signed document or a hard copy version of a document is all that exists.

Plan sheets shall be printed to an Adobe PDF set in 11" x 17" format. For final Plan Turn-In, a title sheet shall be printed, signed, sealed, and then scanned for inclusion with the Adobe PDF set. The original title sheet shall be sent to the MDOT Project Manager.

At final Plan Turn-In, Reference Information Documents (RID) shall be delivered to MDOT with standard naming conventions and content. The RID files included will depend on the design survey and work type of the project. These files range from CADD, existing terrain, proposed cross sections, 3D models and files generated for Automated Machine Guidance (AMG) and automated inspection/stakeout activities.

Stand Alone Proposal Estimator's Worksheet (SAPW) shall be used to generate the txt and csv files necessary for import into the Trns\*port bid letting software. The SAPW files shall be transmitted electronically by the method specified by the MDOT Project Manager.

The project removal, construction, and profile sheets will require a ratio (scale) of **1: 100 (English Units)** or as approved by the Project Manager.

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.

**PROJECT SCHEDULE:**

The Consultant shall use the following events to prepare the proposed implementation schedule as required in the Guidelines for the Preparation of Responses on Assigned Design Services Contracts. These dates shall be used in preparing the Consultant's Monthly Progress Reports.

# MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

For questions on specific tasks, refer to the P/PMS Task Manual located on the [MDOT Website](#).

For assistance in accessing this manual, please contact:

**Dennis Kelley: (517) 373-4614**

Please indicate with a check in the box next to each task number whether you believe that task will require consultant involvement on the job. Milestones (a specific event at a point in time) are italicized and underlined. See the [P/PMS Task Manual](#) for more details. Scheduling assistance may be accomplished with estimated completion dates. While not part of P/PMS, an Authorization Milestone and Post-Design Tasks have been included for your reference.

## 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"/>	<i><u>155M FHWA Approval of Interstate Access Change Request</u></i>	/	/
<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 type="checkbox"/>	<input type="checkbox"/>	2100 Scope Verification and Initiation of EPE Activities	/	/
<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"/>	<i><u>213M Concurrence by Regulatory Agencies with the Purpose and Need</u></i>	/	/
<input type="checkbox"/>	<input type="checkbox"/>	2140 Develop and Review Illustrative Alternatives	/	/
<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 type="checkbox"/>	<input type="checkbox"/>	<i><u>216M Public Information Meeting</u></i>	/	/

# MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

## STUDY (EARLY PRELIMINARY ENGINEERING) (cont'd)

		P/PMS TASK NUMBER AND DESCRIPTION	DATE TO BE COMPLETED BY (mm/dd/yyyy)	
YES	NO			
		<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"/>	233M	<u>Aerial Photography Flight</u>	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2360	Prepare and Review EA	/ /
<input type="checkbox"/>	<input type="checkbox"/>	236M	<u>Approval of EA by FHWA</u>	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2370	Prepare and Review Draft EIS	/ /
<input type="checkbox"/>	<input type="checkbox"/>	237M	<u>Approval of Draft EIS by FHWA</u>	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2380	Distribute EA	/ /
<input type="checkbox"/>	<input type="checkbox"/>	238M	<u>Public Hearing for EA</u>	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2390	Distribute DEIS	/ /
<input type="checkbox"/>	<input type="checkbox"/>	239M	<u>Public Hearing for DEIS</u>	/ /
		<b><u>EPE FINAL ANALYSIS</u></b>		
<input type="checkbox"/>	<input type="checkbox"/>	2510	Determine and Review Recommended Alternative	/ /
<input type="checkbox"/>	<input type="checkbox"/>	250M	<u>Concurrence by Reg Agencies with Recom Alternatives</u>	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2525	Prepare and Review Engineering Report	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2530	Prepare and Review Request for FONSI	/ /
<input type="checkbox"/>	<input type="checkbox"/>	252M	<u>Approval of FONSI by FHWA</u>	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2540	Prepare and Review FEIS	/ /
<input type="checkbox"/>	<input type="checkbox"/>	254M	<u>Approval of FEIS by FHWA</u>	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2550	Obtain ROD	/ /
<input type="checkbox"/>	<input type="checkbox"/>	255M	<u>ROD Issued by FHWA</u>	/ /
<input type="checkbox"/>	<input type="checkbox"/>	2570	ITS Concept of Operations	/ /
		<b><u>CONTAMINATION INVESTIGATION</u></b>		
<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

		P/PMS TASK NUMBER AND DESCRIPTION	DATE TO BE COMPLETED BY (mm/dd/yyyy)	
YES	NO			
<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	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3310	Prepare Aerial Topographic Mapping	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3320	Conduct Photogrammetric Control Survey	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3321	Set Aerial Photo Targets	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3325	Geotechnical Structure Site Characterization	/ /
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3330	Conduct Design Survey	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3340	Conduct Structure Survey	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3350	Conduct Hydraulics Survey	/ /
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3360	Prepare Base Plans	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>311M</u>	<u>Utility Notification</u>	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3361	Review and Submit Preliminary ROW Plans	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>331M</u>	<u>Preliminary ROW Plans Distributed</u>	/ /
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3365	Pre-Conceptual ITS Design and Meeting	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3370	Prepare Structure Study	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3375	Conduct Value Engineering Study	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3380	Review Base Plans	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3385	Preliminary Load Rating	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>332M</u>	<u>Base Plan Review (Pre-GI Inspection)</u>	/ /
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3390	Develop the Maintaining Traffic Concepts	/ /
<b><u>PRELIMINARY PLANS PREPARATION</u></b>				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3500	Develop Transportation Management Plan	/ /
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3510	Perform Roadway Geotechnical Investigation	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3520	Conduct Hydraulic/Hydrologic and Scour Analysis	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3522	Conduct Drainage Study, Storm Sewer Design, and use Structural Best Management Practices	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3530	Geotechnical Foundation Engineering Report	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3535	Conduct Str. Review for Arch. & Aesthetic Improvements	/ /
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3540	Develop the Maintaining Traffic Plan	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3551	Prepare/Review Preliminary Traffic Signal Design Plan	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3552	Develop Preliminary Pavement Marking Plan	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3553	Develop Preliminary Non-Freeway Signing Plan	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3554	Develop Preliminary Freeway Signing Plan	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3555	Prepare/Review Preliminary Traffic Signal Operations	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3570	Prepare Preliminary Structure Plans	/ /
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3580	Develop Preliminary Plans	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3581	Review and Submit Final ROW Plans	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>351M</u>	<u>Final ROW Plans Distributed</u>	/ /

# MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

## PRELIMINARY ENGINEERING - DESIGN (cont'd)

		P/PMS TASK NUMBER AND DESCRIPTION	DATE TO BE COMPLETED BY (mm/dd/yyyy)	
YES	NO			
<b><u>PRELIMINARY PLANS PREPARATION (cont'd)</u></b>				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3585 Final ITS Concept Design and Meeting	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3590 Review Preliminary Plans (Hold Plan Review Meeting)	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>352M THE Plan Review (Grade Inspection)</i>	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3595 Conduct ITS Structure Foundation Investigation	/	/
<b><u>UTILITIES</u></b>				
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3610 Compile Utility Information	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3615 Compile ITS Utility Information	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3650 Coordinate RR Involvement for Grade Separations	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3655 Coordinate RR Involvement for At-Grade Crossings	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3660 Resolve Utility Issues	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>360M Utility Conflict Resolution Plan Distribution</i>	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>361M Utility Meeting</i>	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3670 Develop Municipal Utility Plans	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3672 Develop Special Drainage Structures Plans	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3675 Develop Electrical Plans	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3680 Preliminary ITS Communication Analysis	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3690 Power Design (Power Drop in Field)	/	/
<b><u>MITIGATION/PERMITS</u></b>				
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3710 Develop Required Mitigation	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3720 Assemble Environmental Permit Applications	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3730 Obtain Environmental Permit	/	/
<b><u>FINAL PLAN PREPARATION</u></b>				
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3815 Geotechnical Structure Design Review	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3821 Prepare/Review Final Traffic Signal Design Plan	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3822 Complete Permanent Pavement Marking Plan	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3823 Complete Non-Freeway Signing Plan	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3824 Complete Freeway Signing Plan	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3825 Prepare/Review Final Traffic Signal Operations	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3830 Complete the Maintaining Traffic Plan	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3840 Develop Final Plans and Specifications	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>380M Plan Completion</i>	09/28/2015	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3850 Develop Structure Final Plans and Specifications	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3870 Hold Omissions/Errors Check (OEC) Meeting	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3875 Final Load Rating	/	/

# MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

## PRELIMINARY ENGINEERING - DESIGN (cont'd)

		P/PMS TASK NUMBER AND DESCRIPTION	DATE TO BE COMPLETED BY (mm/dd/yyyy)
YES	NO		
<b><u>FINAL PLAN PREPARATION (cont'd)</u></b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>387M Omissions/Errors Checks Meeting</i>	/ /
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>389M Plan Turn-In</i>	11/23/2015
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3880 CPM Quality Assurance Review	/ /
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3890 Final ITS Communication Analysis	/ /

## PRELIMINARY ENGINEERING – RIGHT OF WAY

<b><u>EARLY RIGHT OF WAY WORK</u></b>			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4120 Obtain Preliminary Title Commitments	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4130 Prepare Marked Final Right Of Way Plans	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>413M Approved Marked Final ROW</i>	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4140 Prepare Property Legal Instruments	/ /
<b><u>ROW ACQUISITION</u></b>			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4411 Preliminary Interviews	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>441M Post-Decision Meeting</i>	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4412 Real Estate Services Assignment Proposal and Fee Estimate (Form 633s) for Appraisal Work Authorization	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4413 Appraisal Reports	/ /
<b><u>ROW ACQUISITION (cont'd)</u></b>			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4420 Appraisal Review Reports	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4430 Acquire Right Of Way Parcels	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4510 Conduct Right Of Way Survey & Staking	/ /
<b><u>ROW RELOCATION</u></b>			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4710 Relocation Assistance	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4720 Prepare Improvement Removal Plan	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>442M ROW Certification</i>	/ /

# MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

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

		P/PMS TASK NUMBER AND DESCRIPTION		DATE TO BE COMPLETED BY (mm/dd/yyyy)
YES	NO			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4810	Complete Acquisition Process	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4820	Manage Excess Real Estate	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4830	Provide Post-Certification Relocation Assistance	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4910	Conduct ROW Monumentation	/ /
<input checked="" type="checkbox"/>	<input type="checkbox"/>	5010	Construction Phase Engineering and Assistance	05/25/2018
<input checked="" type="checkbox"/>	<input type="checkbox"/>	5020	Prepare As-Built Drawings	05/25/2018

**PAYMENT SCHEDULE:**

Compensation for this Scope of Services shall be on an actual cost plus fixed fee basis.

**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. The latest copy of the "Professional Engineering Service Reimbursement Guidelines for Bureau of Highways" is available on MDOT's website. This document contains instructions and forms that must be followed and used for billing. 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

March 2013

**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, according to Public Act 299 of 1980.
3. Work in any of the following categories of survey: Road Design, Structure, Hydraulic, Right-of-Way, Photogrammetric Ground Control, and/or Geodetic Control 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 March 2013. 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. Measurements, stationing, recorded data, and computations must be in **International Feet**, unless specified otherwise by the MDOT Project Manager.
11. Coordinate values shall be based upon the Michigan State Plane coordinate system NAD83. All elevations must be based upon the North American Vertical Datum of 1988 (NAVD88). The datum must be clearly stated in the Survey Work Plan and subsequent submittal.
12. **If paper copies are required**, the survey notes must be submitted to the Design Survey Unit in 10" by 12" divided portfolios with flap covers. As many portfolios should be used as are needed to contain all of the required documents and Compact Discs (CD's) or DVD's. Duplicate CD's must be included in the portfolio, with one set labeled "Region Surveyor". **Electronic submittal only unless specified otherwise.**
13. Each portfolio and CD must be labeled on the outside as in the following example:  
Survey Notes for: Route, Location and Project Limits [ I-94 under Beaubien Street ]  
Control Section [S06 of 82024], Job Number [ 45197D ], Date [ *of submittal* ], By [ *Name of Firm* ], Michigan Professional Surveyor [     ], License # [     ].
14. Each submittal is to be divided into six sections. These sections are to be labeled as follows: **Administrative, Alignment, Control, Property, Mapping, and Miscellaneous.**
15. To be included in the Administrative section shall be a copy of the **Survey Project Portfolio QA/QC Check-off list**, March 2013 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.**
16. **All data**, whether electronic or paper, **must be recorded on non-rewritable Compact Discs (CD's) or DVD's.** All paper files, including MicroStation files, must be scanned and/or converted to Adobe Acrobat .PDF format. It is not necessary to include raw

survey data files in the Adobe file. CD's must be organized in the same manner as the portfolio, such as by Administrative section, Control section, etc. A Table of Contents in Adobe Acrobat format is required that has all .PDF pages of the CD 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 must have separate access in native format outside of the .PDF file.

17. 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, and all research records obtained for this project will be considered the property of MDOT and **must be sent to** the MDOT, Design Division, Supervising Land Surveyor, P.O. Box 30050, Lansing, MI 48909. Please use MDOT's Form 222(5/01) entitled "SURVEY NOTES: RECEIPT AND TRANSMITTAL" for all transmittals. A copy of this transmittal form must also be sent to the MDOT Project Manager for Design.

**Acceptance of this survey by the MDOT Supervising Land Surveyor and/or the MDOT Project Manager 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 Traffic and Safety Engineer at the closest MDOT TSC prior to submitting a priced proposal.

No work shall be performed or lane closures allowed during the Memorial Day, July 4<sup>th</sup>, or Labor Day holiday periods, as defined by the MDOT Project Manager or representative specifically designated by the Project Manager (the Traffic & Safety Engineer at the MDOT TSC).

Work on weekends, if approved, shall be as directed by the MDOT Project Manager or Designate.

The Consultant must call the MDOT Region or TSC Traffic and Safety Engineer before beginning work to inform him or her of surveying activity in the area. The MDOT Region or TSC must be notified at least two weeks prior to lane closures so advance notice can be posted on the Web site.

Traffic shall be maintained by the Consultant throughout the project in accordance with Sections 812, 922, 103.05 and 103.06 of the *Standard Specifications for Construction*, 2012 edition, <http://mdotwas1.mdot.state.mi.us/public/specbook/2012/> and any Supplemental Specifications currently in effect clarifying the Standard Specifications for Construction. All traffic control devices shall conform to the current edition, as revised, of the *Michigan Manual of Uniform Traffic Control Devices* (MMUTCD). All warning signs for maintenance of traffic used on this

project shall be fabricated with prismatic retro-reflective sheeting, and shall be set up five feet above ground.

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://mdotwas1.mdot.state.mi.us/public/tands/plans.cfm>

### **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 Development Engineer at the nearest MDOT 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. 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 work unit scheduled.

### **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: DELIVERABLES**

The final report for this project shall include:

1. In the first directory on the CD, and first pocket of the portfolio if requested, labeled **ADMINISTRATIVE**, the following will appear:
  - a. MDOT’s Form 222(5/01) entitled “SURVEY NOTES: RECEIPT AND TRANSMITTAL”
  - b. The project’s Professional Surveyor’s Report on company letterhead, consisting of:
    - i) A comprehensive synopsis of the work performed on this project, signed and sealed by the project’s Professional Surveyor.
    - ii) The source and methods used to establish the project horizontal and vertical control and alignment(s) for this project.

- iii) A detailed explanation of anything discovered during the survey of this project that may create a problem for the designer or another surveyor.
  - c. CD or DVD with all documents scanned or converted into a Master PDF file, named (JN)123456C\_TaskXXXX. Each Section and sub-section of this PDF file must be bookmarked for easy retrieval. An example can be provided upon request.
  - d. MDOT QA/QC Portfolio Checklist (revised March 2013).
- 2. In the second directory on the CD, and second pocket of the portfolio if requested, labeled **ALIGNMENT**, the following will appear:
  - a. An annotated MicroStation drawing of the alignment(s), showing:
    - i) A statement defining the alignment(s) as **legal or non-legal**, and a key box with description of type and origin of all alignments, such as 1958 Survey Alignment, 1966 Construction Alignment or, 2013 As Constructed Alignment
    - ii) Stationing, source of stationing, and station equation to existing stationing
    - iii) Curve data, including coordinates of P.I.s, P.C.s, and P.T.s.
    - iv) Physical alignment points found or set
    - v) Control points
    - vi) Reference lines and angles of crossing (if appropriate)
    - vii) Government corners with bearing and distance ties to alignment along the government lines.
  - b. Witness list for the alignment points found or set, which shows coordinates, stationing and four witnesses for each alignment point. **WITNESS LISTS MUST USE ONLY UPPER CASE LETTERS.**
  - c. LCRC's for legal alignment points with physical monumentation, found or set.
- 3. In the third directory on the CD, and third pocket of the portfolio if requested, labeled **CONTROL**, the following will appear:
  - a. Documentation of horizontal and vertical datum sources.
  - b. OPUS documentation, long version.
  - c. Least squares adjustments for the horizontal and vertical control.
  - d. It is not necessary to submit electronic raw survey data in hardcopy form, nor in the .PDF file.

- e. Text files which contain the witness lists for the horizontal alignment points, horizontal control points, benchmarks and government corners. All witness lists must note the datum(s), a combined scale factor for state plane grid-to-ground conversion, and an example thereof. WITNESS LISTS MUST USE ONLY UPPERCASE LETTERS.
  - f. An MDOT-formatted Microsoft Word file, **SurveyInfoSheet.doc**, showing the data in e. above, using ONLY UPPERCASE LETTERS.
4. In the fourth directory on the CD, and fourth pocket of the portfolio if requested, labeled **PROPERTY**, the following will appear:
- a. Tax maps and descriptions with owner names, addresses and phone numbers, if Right of Way is to be acquired, or if riparian ownerships are required.
  - b. Maps, plats, and recorded surveys.
  - c. Documents such as plats, Act 132 Certificates and/or tax maps marked with point numbers as property ties, if Right of Way is to be acquired.
  - d. Legible **recorded** copies of all Land Corner Recordation Certificates (LCRC) filed for the government corners (PLSS corners and Property Controlling Corners) used for computations and/or in danger of obliteration by impending construction.
5. In the fifth directory on the CD, and fifth pocket of the portfolio if requested, labeled **MAPPING**, the following will appear:
- a. Mapping files in MDOT MicroStation V8i format in the current MDOT workspace, and also converted to .PDF format. ALL POINT AND LINE DESCRIPTIONS MUST USE ONLY UPPERCASE LETTERS. Naming convention: 123456C\_PL\_3D.dgn and 123456C\_PL\_2D.
  - b. All Geopak design files produced by survey, including: .xml alignment files, triangle.dgn file, .dtm, .tin, and .gpk files.
  - c. All field survey notes and electronic mapping data used for the project. It is not necessary to submit electronic raw survey data in hardcopy form, nor in the .PDF file.
  - d. All supporting and supplemental information or data, such as drainage and utilities, electronically only if possible.
6. In the sixth directory on the CD, and sixth pocket of the portfolio if requested, labeled **MISCELLANEOUS**, the following will appear:
- a. Any photographs taken for clarity of an area.
  - b. Any newspaper clippings related to the project.

- c. Any information not covered in this scope that will be of benefit to the designer or another surveyor.