

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

MDOT PROJECT MANAGER			JOB NUMBER (JN)	CONTROL SECTION (CS)
DESCRIPTION				
MDOT PROJECT MANAGER: Check all items to be included in RFP WHITE = REQUIRED GRAY SHADING = OPTIONAL			CONSULTANT: Provide only checked items below in proposal	
Check the appropriate Tier in the box below				
TIER I (\$25,000-\$99,999)	TIER II (\$100,000-\$250,000)	TIER III (>\$250,000)		
			Understanding of Service	
			<i>Innovations</i>	
			<i>Safety Program</i>	
N/A			Organizational Chart	
			Qualifications of Team	
			Past Performance	
Not required As part of Official RFP	Not required As part of Official RFP		Quality Assurance/Quality Control	
			Location: 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		Presentation	
N/A	N/A		Technical Proposal (if Presentation is required)	
3 pages (MDOT Forms not counted) (No Resumes)	7 pages (MDOT Forms not counted)	19 pages (MDOT Forms not counted)	Total maximum pages for RFP not including key personnel resumes	

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

RFP SPECIFIC INFORMATION

BUREAU OF HIGHWAYS

BUREAU OF TRANSPORTATION PLANNING **

OTHER

THE SERVICE WAS POSTED ON THE ANTICIPATED QUARTERLY REQUESTS FOR PROPOSALS

NO

YES

DATED _____ THROUGH _____

Prequalified Services – See page ___ of 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 section team will review the information submitted and will select the firm considered most qualified to perform the services based on the proposals. The selected vendor will be contacted to confirm capacity. Upon confirmation, that firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

****For RFP's that originate in Bureau of Transportation Planning only**, a priced proposal must be submitted at the same time as, but separate from, the proposal. Submit directly to the Contract Administrator/Selection Specialist, Bureau of Transportation Planning (see address list, page 2). The priced proposal must be submitted in a sealed envelope, clearly marked "**PRICE PROPOSAL.**" The vendor's name and return address MUST be on the front of the envelope. The priced proposal will only be opened for the highest scoring proposal. Unopened priced proposals will be returned to the unselected vendor(s). Failure to comply with this procedure may result in your priced proposal being opened erroneously by the mail room.

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.

Qualifications Review / 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 and post the date of the bid opening on the MDOT website. The notification will be posted at least two business days prior to the bid opening. Only bids from vendors that meet proposal requirements will be opened. The vendor with the lowest bid will be selected. The selected vendor may be contacted to confirm capacity.

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

A bid sheet(s) must be submitted in accordance with the "Guideline for Completing a Low Bid Sheet(s)" (available on MDOT's website). The Bid Sheet(s) is located at the end of the Scope of Services. Submit bid sheet(s) separate from the proposal, to the address indicated below. The bid sheet(s) must be submitted in a sealed manila envelope, clearly marked "**SEALED BID.**" The vendor's name and return address MUST be on the front of the envelope. Failure to comply with this procedure may result in your bid being opened erroneously by the mail room and the bid being rejected from consideration.

PROPOSAL SUBMITTAL INFORMATION

REQUIRED NUMBER OF COPIES FOR PROJECT MANAGER	PROPOSAL/BID DUE DATE	TIME DUE
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PROPOSAL AND BID SHEET MAILING ADDRESSES

Mail the multiple proposal bundle to the MDOT Project Manager or Other indicated below.

MDOT Project Manager

MDOT Other

Mail one additional stapled copy of the proposal to the Lansing Office indicated below.

Lansing Regular Mail	OR	Lansing Overnight Mail
Secretary, Contract Services Div - B470 Michigan Department of Transportation PO Box 30050 Lansing, MI 48909		Secretary, Contract Services Div - B470 Michigan Department of Transportation 425 W. Ottawa Lansing, MI 48933
Contract Administrator/Selection Specialist Bureau of Transportation Planning B470 Michigan Department of Transportation PO Box 30050 Lansing, MI 48909		Contract Administrator/Selection Specialist Bureau of Transportation Planning B470 Michigan Department of Transportation 425 W. Ottawa Lansing, MI 48933

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 four (4) 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.)

NOTIFICATION WORKFORCE DEVELOPMENT PILOT PROJECT

This project has been selected as a Workforce Development Pilot project. The purpose of the pilot project is to demonstrate how the overall development of a professional technical transportation workforce could be better facilitated at the project level. The Consultant shall submit a proposed Workforce Development Plan (WDP) concept as part of the Proposal. The concept shall identify at least one (1) key role for mentoring or training or 'job shadowing'. The WDP concept shall provide for the development of at least one (1) consultant employee, either prime or subconsultant. The mentoring, training or 'job shadowing' performed by the Consultant in connection with the WDP shall be considered to be 'cost-neutral'.

Prime consultants who submit proposals for Workforce Development pilot projects will be expected to develop and implement a WDP. Evaluation of the prime's proposal for the WDP will be included in the Understanding of Service: Innovations section of the selection criteria. A total of five (5) points shall be allocated to this portion of the Proposal for purposes of scoring and qualifying the Consultant's Proposal for selection. Firms that do not include a WDP concept in pilot projects will be determined to be unresponsive to that RFP, and will not be considered for selection for a pilot project.

Upon selection, the Consultant shall develop and implement a detailed Workforce Development Plan (WDP) for this project including expected outcomes – goals and objectives and integrate the WDP with their overall Quality Control (QC) plan for the project. The WDP shall identify the roles, and for each role, the tasks targeted for training, mentoring or 'job shadowing'. The WDP shall provide for the participation of at least one (1) consultant employee, either prime or sub. The participants may also include full or part-time Department employees, as determined by the Department at scope verification, in consultation with the consultant. The consultant is fully responsible for all work performed on this project, and is responsible to oversee, direct, and ensure that the work of all persons participating in this pilot project is acceptable and meets MDOT standards and specifications. The consultant is also fully responsible for Quality Control (QC) for all work performed by any persons participating in the Workforce Development pilot.

The consultant shall provide a mentor/working supervisor for each person participating in the Workforce Development Pilot and will work closely with them to provide them a meaningful learning experience and exposure to the duties and responsibilities associated with the role(s) identified for them in the approved Workforce Development plan.

Michigan Department of Transportation

SCOPE OF SERVICE FOR DESIGN SERVICES

WORKFORCE DEVELOPMENT PILOT PROJECT **Revised 2/3/2012**

CONTROL SECTION(S): 41025

JOB NUMBER(S): 112943D

PROJECT LOCATION:

The project is located at I-96 under Cascade Road (S14 of 41025), Grand Rapids Township, Kent County.

The project length is 0.238 miles.

PROJECT DESCRIPTION:

Work involved in the design of the project consists of: Deck replacement, substructure repairs, full bridge painting, bridge widening, bridge approaches, steel beam repairs, and slope protection repairs.

The consultant shall prepare structure widening plans and specifications to facilitate widening as determined by the Bridge Design Manual for bridge cross sections, and the addition of a dedicated left turn lane for the eastbound Cascade Road to westbound I-96 movement. The consultant shall have these plans and specifications completed through the Plan Review stage.

ANTICIPATED SERVICE START DATE: 05/20/2012

ANTICIPATED SERVICE COMPLETION DATE: 06/09/2015

PRIMARY PREQUALIFICATION CLASSIFICATION(S):

Short & Medium Span Bridges

SECONDARY PREQUALIFICATION CLASSIFICATION(S):

Maintaining Traffic Plans & Provisions
Roads & Streets
Road Design Surveys
Structure Surveys
Geotechnical Engineering Services
Pavement Marking Plans
Permanent Freeway Traffic Signing Plans
*Municipal Utilities (***Precautionary**)
Simple Traffic Signal Operations
Traffic Signal Design

DBE REQUIREMENT: 7%

MDOT PROJECT ENGINEER MANAGER:

Sam Guerrazzi P.E., Lansing Bridge Consultant Coordinator
Van Wagoner Building
425 W. Ottawa
P.O. Box 30050
Lansing, MI 48909
517-373-0737
guerrazzis@michigan.gov

MDOT PROJECT ROAD DESIGN:

~~Jason R. Minkus, Grand Rapids TSC Consultant Coordinator
Grand Rapids TSC
2660 Leonard St, NE
Grand Rapids MI 49525
616-464-1800
minkusj@michigan.gov~~

Charlie Stein, P.E.
Grand Rapids TSC Consultant Coordinator
2660 Leonard St Ne
Grand Rapids MI 49525
PH: 616-464-1783
steingc@michigan.gov

CONSTRUCTION COST:

A. The estimated cost of construction is:

1.	Mainline Pavement	\$292,600
2.	Geometric Improvement (Widening)	\$592,200
3.	Environmental	\$
4.	Drainage	\$
5.	Safety	\$
6.	Non Motorized	\$
7.	Maintaining Traffic	\$500,000
8.	Bridge Cost	\$1,755,600
9.	Miscellaneous Bridge Cost	\$724,490
10.	Detours and Maintaining Traffic	\$
11.	Permanent Pavement Markings/Signs/Signals	\$
12.	Miscellaneous	<u>\$1,083,110</u>
	CONSTRUCTION TOTAL	\$4,948,000

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, Drainage Manual, Roadside Design Guide, A Policy on Geometric Design of Highways and Streets, Michigan Manual of Uniform Traffic Control Devices, etc.).

NOTE: A process change mandated by federal audit of MDOT's design process puts the Omissions and Errors Check Meeting after the Plan Completion. Please keep this in mind when preparing your schedule. See MDOT Road Design Manual, Chapter 14 – Procedures – Section 14.54 for corroboration. See “For Your Information” contacts at the end of this document for more info or questions.

Consultant is required to use MDOT's current 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.

CONSULTANT RESPONSIBILITIES:

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

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. The consultant shall develop and implement a Workforce Development Plan (WDP) for this project, and shall integrate the WDP with their overall Quality Control (QC) plan for the project. The WDP shall identify the roles, and for each role, the tasks targeted for training, mentoring or 'job shadowing'. The WDP shall also identify the

resources allocated for development for each participant by role or task (hours or materials and equipment) and shall provide feedback, in a manner and form determined by the Department, on the pilot project. The consultant is fully responsible for all work performed on this project, and is also responsible to oversee, direct and ensure that the work of all persons participating in this pilot project is acceptable and meets MDOT standards and specifications. The consultant is also fully responsible for Quality Control (QC) for all work performed by persons participating in the WDP.

- B. The consultant shall provide a mentor/working supervisor for each person participating in the WDP and will work closely with them to provide them a meaningful learning experience and exposure to the duties and responsibilities associated with the role(s) identified for them in the approved Workforce Development plan.

A short survey which identifies the goals of the pilot and allows for specific responses and general comments will be provided by the MDOT Small Business Development Subcommittee (MSBDS) to request feedback from the Consultant Project Manager, Trainee, Trainer and the MDOT project manager. The goal of the survey is to measure the effectiveness of the Workforce Development Pilot process only. All project performance evaluation criteria will remain consistent with the current department processes.

Each of the above named individuals will also be asked to meet, once, with the MSBDS to give feedback on the pilot process. Both the completion of the survey and the interview are required for this project.

Specific survey results will be confidential with evaluations by committee members only for the purpose of evaluating the pilot, not the performance of the firm.

- C. Perform design surveys. (See Attachment A)
- D. Perform and Prepare roadway pavement and soils investigations. The Consultant will be responsible for compiling and preparing the investigation results into report format for the project pavement design and construction information to be developed.

The Consultant will be responsible for obtaining any necessary permits to perform this work within MDOT ROW and abide by working hour restrictions and use proper signing per TSC traffic engineer. This includes providing all Traffic Control Devices and Flaggers when needed.

Bridge borings will be needed at all the substructure units as defined in P/PMS task 3530 and in accordance with MDOT's Geotechnical

Investigations and Analysis Requirements For Structures and current AASHTO LRFD Design Methodologies.

In addition, pavement cores in the existing inside and outside HMA shoulders of EB and WB I-96 and possibly Cascade Road for MOT purposes will be required. A minimum of two cores with 5 feet hand auger will be needed in each of the shoulders of I-96 in each direction for a total of 8 cores. Cores to be located east and west of bridge within MOT influence area.

- E. The Consultant shall be required to complete a Capacity and Geometric Study to generate a report to determine any necessary capacity needs as a part of the proposed bridge work.
- F. The Consultant is required to develop the project plans through the Plan Review stage assuming that any geometric widening for additional capacity improvements. If these capacity improvements are not able to be funded the project shall be changed to provide for only the necessary widening as determined by the Bridge Design Manual for bridge cross sections.
- G. Prepare required plans, typical cross-sections, details, and specifications required for design and construction.
- H. Compute and verify all plan quantities.
- I. Prepare construction and signal staging plans and special provisions for maintaining traffic during construction.
- J. Provide solutions to any unique problems that may arise during the design of this project.
- K. 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.
- L. 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.
- M. If excavation is required, submit the excavation locations which may contain contamination. Project Manager then can proceed in requesting a Preliminary Project Assessment (PPA).
- N. The Consultant shall be required to prepare and submit a CPM network for the construction of this project.

- O. Prior to submitting Proposal for Indefinite Delivery of Services, inspect the job site to determine the need for any additional work not included in the “Description of Work”. If possible changes to the description of work are needed; submit a letter with your proposal detailing the changes that are recommended. (MDOT will not be reimbursing the consultant for the initial site visit, as the consultant is not yet authorized to do work.)
- P. Consider other alternatives, at the study phase that may deviate from the “Description of Work” to determine the most cost effective option. A **detailed** cost estimate is required for each option. A cost per square foot estimate is **not** acceptable. The vertical clearance must be considered. A draft design exception, if required, should be submitted to MDOT with the structure study.
- Q. The Consultant shall submit a Pre-Final Design Package which shall consist of the following: all final detail sheets approximately 75% complete, all special provisions revised as requested at the GI meeting, and an updated cost estimate. GI comments should be reflected in all sheets. Slab and Screed sheets, and Bar Schedule sheets are not required.
- R. The Consultant shall analyze all Pedestrian movements and incorporate that data into the design of this project and verify compliance with A.D.A. requirements.
- S. The Consultant shall analyze crash data and prepare a crash analysis for the project as a whole as well as for any Design Exceptions for the project and submit them for review by the MDOT GRTSC Traffic and Safety Engineer.
- T. Prepare Design Exception Requests if necessary for road and/or bridge issues (ie: superelevation transition rates, SSD, shoulder widths, under clearance, etc.) a list of possible design exceptions will be required at the Base Plan Review, with final drafts being submitted at the Plan Review Meeting.
- U. The consultant shall prepare staging plans and special provisions for Maintaining Traffic. As part of the Maintaining Traffic, conduct a comprehensive mobility analysis and investigate alternative maintenance of traffic schemes. If the threshold criteria contained in MDOT's Work Zone Safety and Mobility Policy are exceeded, mitigation measures shall be analyzed and recommended. The consultant shall prepare a Transportation Management Plan per the Work Zone Safety and Mobility Manual which shall include a Temporary Traffic Control Plan, a Transportation Operations Plan and a Public Information Plan. The Consultant shall submit these items prior to the OEC submittal.

- V. 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. The Consultant shall also distribute the minutes to all meeting attendees. MDOT will provide and distribute official meeting minutes for the Plan Review Meeting.
- W. The Consultant will be required to submit final OEC plans to the Grand Rapids TSC Office for a two week QA review with one week for corrections prior to the scheduling of the OEC. The consultant will be required to perform all changes required from the Region's QA review and then re-submit the package to the Project Manager for distribution to the final OEC attendees for their 2 week review prior to the OEC meeting. The Consultant shall incorporate this time into their design schedule.
- X. 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. The following is an estimate of the number of copies that will be needed; 5 sets – Pre-OEC, 5 sets - OEC Review.
- Y. Prepare and submit electronically (native format or Adobe PDF) any information, calculations, hydraulic studies, or drawings required by MDOT for acquiring any permit (ie. NPDES, DEQ, etc), approvals (i.e. county drain commission) and related mitigation. MDOT will submit permit requests.
- Z. Attend any project-related meetings as directed by the MDOT Project Manager.
- AA. Attend information meetings (i.e., public hearings, open houses, etc.) with the public and public officials to assist in responding to concerns and questions. May require the preparation of displays such as maps, marked-up plans, etc.
- BB. The Consultant shall assist in the review of utility permit requests, incorporate the information in the design plans, and respond within 2 weeks from receipt of the permit.
- CC. 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.

- DD. 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 existing utility plans from MDOT and showing on the proposed design 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 and Permits Engineer and/or Project Manager. The Consultant shall attend any utility meetings called to ensure that the concerns are addressed on the plans involving utilities and provide minutes and action item lists from those meetings. The Consultant shall assist in the review of utility permit requests to ensure compatibility with the project. The Consultant shall provide for the survey staking of various proposed facilities, and existing ROW so as to locate potential utility conflicts and aid in the completion of utility relocation plans for all municipal and private utility companies. The Consultant shall verify any utility information (location, size, type, etc.) through researching historical as-built information for the project area.

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.

MONTHLY PROGRESS REPORT

On the first of each month, the Consultant Project Manager shall submit a monthly project progress report to the Project Manager.

MDOT RESPONSIBILITIES:

- A. Schedule and/or conduct the following:
1. Project related meetings.
 2. The Plan Review
 3. Utility Meetings.
 4. Quantity summary sheets and final item cost estimates.

5. Packaging of plans and proposal.

- 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. Furnish the E.A.
- D. Obtain all permits for the project as outlined in previous section.
- 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. Identify any full or part-time MDOT employees who are to be included in the Consultant's Workforce Development Plan.

DELIVERABLES:

The Consultant shall deliver all computer files associated with the project in their native format (spreadsheets, CADD files, GEOPAK files, 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 as shown in Appendix A of the Road Design Manual. 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 posted to the bulletin board system. When the use of GEOPAK road design software is necessary to develop plans all pay items shall be placed into the CADD file using GEOPAK's Design and Computation Manager so that Quantity Manager can be used to transfer pay item information to SAPW/Trns*port. Any CADD/GEOPAK files that do not conform to MDOT standards will be returned to the Consultant for correction at the Consultant's expense.

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 capturing a legally signed document or a hard copy version of a document is all that exists.

Plan files shall be submitted in their native dgn format with standard naming conventions as well as plotted into a combined Adobe PDF file. Plan sheets shall be plotted to Adobe PDF with full text search and level on/off capabilities in half size (11" x 17") formats. A full size title sheet shall be plotted stamped and signed then scanned for inclusion with the Adobe PDF set. The original title sheet will be sent to the MDOT Project Manager.

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 construction, removal and profile sheets will require a ratio (scale) of **1:40 (English Units)**.

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

- A. The title sheet. MDOT will provide a map of the area on a disk in our workstation format. If the map is not available, MDOT will provide a map that could be used. The Consultant shall be responsible for any revisions to the title sheet and the title sheet and map shall meet MDOT format and layout guidelines.
- B. Note Sheet.
- C. Typical Cross-Sections.
- D. Project specific Special Details.
- E. Construction staging and traffic control plans.
- F. Detail grade sheets for critical areas.
- G. Pavement marking plan(s).
- H. Witness and benchmark sheet(s).
- I. Soil boring log sheet(s).
- J. Structure plan(s).

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	
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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.

STUDY (EARLY PRELIMINARY ENGINEERING)

		P/PMS TASK NUMBER AND DESCRIPTION	DATE TO BE COMPLETED BY
YES	NO		(mm/dd/yyyy)
		<u>EPE SCOPING ANALYSIS</u>	
<input type="checkbox"/>	<input type="checkbox"/>	2120 Prepare Traffic Analysis Report	__/__/__
<input type="checkbox"/>	<input type="checkbox"/>	2130 Prepare Project Justification	__/__/__
<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	__/__/__
<input type="checkbox"/>	<input type="checkbox"/>	2160 Prepare and Review EIS Scoping Document	__/__/__
<input type="checkbox"/>	<input type="checkbox"/>	<i><u>211M Public Information Meeting</u></i>	__/__/__
		<u>EPE DRAFT ANALYSIS</u>	
<input type="checkbox"/>	<input type="checkbox"/>	2310 Conduct Technical SEE Studies	__/__/__
<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"/>	<i><u>233M Aerial Photography Flight</u></i>	__/__/__
<input type="checkbox"/>	<input type="checkbox"/>	2360 Prepare and Review EA or DEIS	__/__/__
<input type="checkbox"/>	<input type="checkbox"/>	<i><u>231M Draft Submission to FHWA</u></i>	__/__/__
<input type="checkbox"/>	<input type="checkbox"/>	2380 Circulate EA or DEIS	__/__/__
<input type="checkbox"/>	<input type="checkbox"/>	<i><u>232M Public Hearing</u></i>	__/__/__
		<u>EPE FINAL ANALYSIS</u>	
<input type="checkbox"/>	<input type="checkbox"/>	2510 Determine and Review Recommended Alternative	__/__/__
<input type="checkbox"/>	<input type="checkbox"/>	<i><u>250M Concurrence by Regulatory Agencies with Recommended Alternatives</u></i>	__/__/__
<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 or FEIS	__/__/__
<input type="checkbox"/>	<input type="checkbox"/>	<i><u>252M Final Submission to FHWA</u></i>	__/__/__
<input type="checkbox"/>	<input type="checkbox"/>	2550 Obtain FONSI or ROD	__/__/__
		<u>CONTAMINATION INVESTIGATION</u>	
<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
YES	NO		(mm/dd/yyyy)
		<u>DESIGN SCOPE VERIFICATION AND BASE PLAN PREPARATION</u>	
<input type="checkbox"/>	<input type="checkbox"/>	3130 Verify Design Scope of Work and Cost	_/_/____
<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 checked="" type="checkbox"/>	<input type="checkbox"/>	3330 Conduct Design Survey	03/22/2012
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3340 Conduct Structure Survey	03/22/2012
<input type="checkbox"/>	<input type="checkbox"/>	3350 Conduct Hydraulics Survey	_/_/____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3360 Prepare Base Plans	04/20/2012
<input type="checkbox"/>	<input type="checkbox"/>	<i>331M Utility Notification</i>	_/_/____
<input type="checkbox"/>	<input type="checkbox"/>	3361 Review and Submit Preliminary ROW Plans	_/_/____
<input type="checkbox"/>	<input type="checkbox"/>	<i>331M Preliminary ROW Plans Distributed</i>	_/_/____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3370 Prepare Structure Study	08/07/2012
<input type="checkbox"/>	<input type="checkbox"/>	3375 Conduct Value Engineering Study	_/_/____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3380 Review Base Plans	05/14/2012
<input type="checkbox"/>	<input type="checkbox"/>	<i>332M Base Plan Review (Pre-GI Inspection)</i>	_/_/____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3390 Develop the Maintaining Traffic Concepts	05/07/2012
		<u>PRELIMINARY PLANS PREPARATION</u>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3510 Perform Roadway Geotechnical Investigation	06/11/2012
<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 Conduct Structure Foundation Investigation	06/11/2012
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3535 Conduct Structure Review for Architectural and Aesthetic Improvements	08/21/2012
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3540 Develop the Maintaining Traffic Plan	08/08/2012
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3551 Prepare/Review Preliminary Traffic Signal Design Plan	07/25/2012
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3552 Develop Preliminary Pavement Marking Plan	07/24/2012
<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	07/24/2012
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3555 Prepare/Review Preliminary Traffic Signal Operations	08/06/2012
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3570 Prepare Preliminary Structure Plans	09/13/2012
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3580 Develop Preliminary Plans	09/13/2012
<input type="checkbox"/>	<input type="checkbox"/>	3581 Review and Submit Final ROW Plans	_/_/____
<input type="checkbox"/>	<input type="checkbox"/>	<i>351M Final ROW Plans Distributed</i>	_/_/____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3590 Review Preliminary Plans (Hold Plan Review Meeting)	10/10/2012
<input type="checkbox"/>	<input type="checkbox"/>	<i>352M THE Plan Review (Grade Inspection)</i>	_/_/____

MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

PRELIMINARY ENGINEERING - DESIGN (cont'd)

		P/PMS TASK NUMBER AND DESCRIPTION	DATE TO BE COMPLETED BY
YES	NO		(mm/dd/yyyy)
		UTILITIES	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3610 Compile Utility Information	06/04/2012
<input type="checkbox"/>	<input type="checkbox"/>	3650 Coordinate RR Involvement for Grade Separations	__/__/__
<input type="checkbox"/>	<input type="checkbox"/>	3655 Coordinate RR Involvement for At-Grade Crossings	__/__/__
<input type="checkbox"/>	<input type="checkbox"/>	3660 Resolve Utility Issues	
<input type="checkbox"/>	<input type="checkbox"/>	<i>360M Utility Conflict Resolution Plan Distribution</i>	__/__/__
<input type="checkbox"/>	<input type="checkbox"/>	<i>361M Utility Meeting</i>	__/__/__
<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	__/__/__
		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"/>	3821 Prepare/Review Final Traffic Signal Design Plan	01/15/2013
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3822 Complete Permanent Pavement Marking Plan	01/29/2013
<input type="checkbox"/>	<input type="checkbox"/>	3823 Complete Non-Freeway Signing Plan	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3824 Complete Freeway Signing Plan	01/29/2013
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3825 Prepare/Review Final Traffic Signal Operations	02/06/2013
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3830 Complete the Maintaining Traffic Plan	02/20/2013
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3840 Develop Final Plans and Specifications	03/28/2013
<input type="checkbox"/>	<input type="checkbox"/>	<i>380M Plan Completion</i>	__/__/__
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3850 Develop Structure Final Plans and Specifications	03/28/2013
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3870 Hold Omissions/Errors Check (OEC) Meeting	05/08/2013
<input type="checkbox"/>	<input type="checkbox"/>	<i>387M Omissions/Errors Checks Meeting</i>	__/__/__
<input type="checkbox"/>	<input type="checkbox"/>	<i>389M Plan Turn-In</i>	__/__/__
<input type="checkbox"/>	<input type="checkbox"/>	3880 CPM Quality Assurance Review	__/__/__

MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

PRELIMINARY ENGINEERING – RIGHT OF WAY

		P/PMS TASK NUMBER AND DESCRIPTION	DATE TO BE COMPLETED BY (mm/dd/yyyy)
YES	NO		
		<u>EARLY RIGHT OF WAY WORK</u>	
<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 Approved Marked Final ROW</i>	_/_/____
<input type="checkbox"/>	<input type="checkbox"/>	4140 Prepare Property Legal Instruments	_/_/____
		<u>ROW ACQUISITION</u>	
<input type="checkbox"/>	<input type="checkbox"/>	4411 Preliminary Interviews	_/_/____
<input type="checkbox"/>	<input type="checkbox"/>	<i>441M Post-Decision Meeting</i>	_/_/____
<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	_/_/____
<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	_/_/____
		<u>ROW RELOCATION</u>	
<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"/>	<i>442M ROW Certification</i>	_/_/____

FOR YOUR INFORMATION

For questions on specific tasks, refer to the P/PMS Task Manual located on the MDOT Bulletin Board System.

For assistance in accessing this manual, please contact one of following:

Dennis Kelley: (517) 373-4614

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.

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.

The use of overtime hours is not acceptable unless prior written approval is granted by the MDOT Region Engineer/Bureau Director and the MDOT Project Manager. Reimbursement for overtime hours that are allowed will be limited to time spent on this project in excess of forty hours per person per week. Any variations to this rule should be included in the priced proposal submitted by the Consultant and must have prior written approval by the MDOT Region Engineer/Bureau Director and the MDOT Project Manager.

The fixed fee for profit allowed for this project is 11.0% of the cost of direct labor and overhead.

CONSULTANT SURVEY REQUIREMENTS

The survey requirements listed below are needed to be performed under the direction of a Professional Surveyor working for a prequalified company for Road Design Surveys. General information for the survey must conform to the latest version of the MDOT “Design Survey Standards of Practice.” Questions can be directed to:

Michael C. Barger, PS	Survey Consultant Project Manager	517-241-3431
Joe Bowman, PS	Grand Region Surveyor	616-451-4098
Bart Franklin, PE	Grand Region Development Manager	616-451-4448
Twila Geiger	Grand Region Survey Technician	616-451-8557

JOB NUMBER: 112943C CONTROL SECTION: 41025
ROUTE: I-96

TYPE OF SURVEY: Structure Design Survey Task 3340

SPECIFIC LIMITS: Cascade Road over I-96. The width of the survey extends 15 feet outside of the ROW (or toe of slope), 500 feet from each reference line and 500 feet from the drip line of the bridge deck. Ramps in the area need to be shown at least 200 feet from the gore areas.

PROJECT DESCRIPTION: Structure Design Survey for S14 of 41025, Cascade Road over I-96 in Grand Rapids Township, Kent County to be used for Structure widening.

Research: Existing bridge plans are available. The following documents and subsequent section corners or plats will be provided or must be obtained at the courthouse:

Document	Liber - Page	MDOT Provided	Consultant to obtain
259	1891-191		*
C-258E	1887-90	*	
C-258	1887-90	*	
C-260	1887-92	*	
C-255	1902-119	*	
C-255E	1902-119	*	

Project 109666c was recently done in the area. The CAiCE zip file will be provided to the successful consultant before the price proposal is due for analysis of time required to augment previous fieldwork. Please consult with the Region Surveyor for control, alignment, right-of-way and mapping data that may be available for this project.

Control: Control exists in the area and is to be used for the project. Additional control may need to be set for mapping.

Alignment: Alignments along Cascade Road and I-96 have been computed. As-constructed alignments are required along I-96. The legal and as-constructed alignments along Cascade Road are required.

Property: ROW must be determined so additional ROW can be obtained if necessary. The ROW must also be shown in the drawing file. ROW in the Northeast quadrant has been computed. The remaining quadrants must be shown.

Government Corners that exist within the project limits and/or have been located and used to calculate alignments and/or right-of-way are required on the MDOT Survey Info Sheet.

Mapping: Topographic mapping specifics are required in the project area. Some may be previously located by Region Survey forces, but all must be verified for accuracy.

- Hard surface is to include lane joint crown (LJC), any lane joint lines (LJL) the edge of bit or concrete (EPB or EPC) and the back of curb (BC) and gutter (GUT) at least one every 50 feet or less where significant terrain, drainage, slopes or other survey related items exist. An additional cross section must be at the reference lines along Cascade Road and at the drip lines along I-96. PAINT LINES ARE NOT ACCEPTABLE.
- Soft surface includes top of bank (TB), bottom of bank (BB), ditch centerline (DCH), and any breaklines (BRK) as needed to model the existing features. The use of random shots (XYZ) should be minimized and completely documented.
- Beginning 500 feet to a point 1500 feet from the reference lines, mapping is to extend from the edge of pavement to the ROW line. Mapping should extend 200 feet down any cross roads.
- Locate all permanent signs, guard rail and trees (trees include size & species) within the project limits. Tree lines may be used to depict the locations of all dense areas of trees.
- Locate buildings and parking lots with the paint striping denoting a car space.
- The requested map SCALE is 1"=40'.
- All evidence of utilities must be located in the defined area. Inverts, type and condition are required in ASCII or spreadsheet format. Connectivity must be determined and shown on the drawing.
- Abutment footprint must be located, as well as any retaining walls, guard rail and other features that may need to be removed for a new structure. Keep in mind the drawing will be used to determine existing substructure and superstructure measurements, as well as quantity computations.
- Three sketches of the bridge are to be provided with the following elements shown:
 - Profile sketch looking North & Profile sketch looking South
 - Bridge seat elevation
 - Reference point elevations at abutments and piers
 - Underclearance dimensions at lane lines and edge of shoulder
 - Face to face existing substructure measurements
 - Plan sketch
 - Angle of crossing rounded to the nearest minute of angle
 - Reference point stationing & elevation, including piers
 - Dimensions of existing substructure elements
 - Dimensions of existing superstructure elements
- Photographs of features the surveyor feels critical for the engineer to be aware

Traffic & Safety: It is up to the consultant to contact the Traffic & Safety Engineer, Jeremy

Wiest at 616-464-1800 to discuss traffic control and any safety issues that may arise. All costs for traffic control must be included in the price proposal.

PROJECT DELIVERABLES:

CAiCE and GeoPak files and PDF portfolio showing research, control, drawings and Surveyor's Report are required. MicroStation files are also required. Control is to be submitted to MDOT upon its completion before mapping is started for approval.

SURVEY PROJECT DURATION: Based on a comparable project, the above project should take a 2-person crew and one CADD operator with Professional Surveyor oversight roughly 350 total hours to complete if nothing is reused from the previous survey.