Michigan Department of Transportation 5100B (07/07)

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

Exhibit B

Clear Form

MDOT PROJECT MANAGER	JOB NUMBER (JN)	CONTROL SECTION (CS)
Munawar Azam	112614	39022

DESCRIPTION IF NO JN/CS

I-94 @ 40th Ave. EPE / Project Development Studies - Design & Analysis of interchange alternative concepts

MDOT PROJECT MANAGER: Check all items to be included in RFP.

WHITE = REQUIRED
GRAY SHADING = OPTIONAL

Check the appropriate Tier in the box below

CONSULTANT: Provide only checked items below in proposal.

☐ **TIER I ($25,000-$99,999)**	☐ **TIER II ($100,000-$250,000)**	☒ **TIER III (>$250,000)**	
☐	☐	☒	Understanding of Service
☐	☐	☒	*Innovations*
☐	☐	☐	*Safety Program*
N/A	☐	☒	Organization 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**

REQUEST FOR PROPOSAL

Clear Form

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 _____

Prequalifed Services – See page 1 of the attached Scope of Services for required Prequalification Classifications.

☐ **Non-Prequalifed 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
3 + 1 PDF on CD	12/20/11	noon

PROPOSAL AND BID SHEET MAILING ADDRESSES

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

☑ MDOT Project Manager

Munawar Azam
1501 E. Kilgore Road
Kalamazoo, MI 49001

☐ 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.)

MICHIGAN DEPARTMENT OF TRANSPORTATION

SCOPE OF SERVICES
FOR
EARLY PRELIMINARY ENGINEERING
&
DESIGN SERVICES

CONTROL SECTION(S): 39022, 39025

JOB NUMBER(S): 112614

PROJECT LOCATION:

The project is located at I-94 over E. Michigan Ave. / 40th St. interchange in Charleston Township, Kalamazoo County—approximately 7 miles east of the I-94 BL.

PROJECT DESCRIPTION:

Part 1: Development and evaluation of interchange configuration concepts for the proper interchange reconfiguration, including removal and replacement of the existing structure and development of maintenance of traffic concepts. The purpose of this project is to reconfigure the I-94 over E. Michigan Ave. / 40th St. interchange as the existing bridge (S09 or 39022) is in need of replacement due to its deteriorating condition. It is MDOT's intent to realign E. Michigan Ave. and the I-94 exit / entrance ramps, and construct a new bridge carrying 40th Ave. over or under I-94 to better facilitate traffic and ease future bridge repairs. At the conclusion, a recommended set of alternatives for the interchange and corresponding roads and bridge(s) will be developed with a detailed cost estimate for each alternative to allow the project to progress to the next stage of development.

Part 2: Development of construction plans and specifications for the selected alternative.

For information purposes only, this project may be delivered using the Construction Manager / General Contractor (CMGC) contracting method. The selected Consultant would be required to establish and maintain a working relationship with the CMGC to coordinate on design, constructability, maintenance of traffic, and similar suggestions. The optional hiring of a CMGC will be considered when construction funding is obligated. No additional hours will be provided to the Consultant if the CMGC is hired.

ANTICIPATED SERVICE START DATE: January 9, 2012

ANTICIPATED SERVICE COMPLETION DATE: December 31, 2013

PREQUALIFICATION CLASSIFICATION(S):

A. PRIMARY PREQUALIFICATION CLASSIFICATION(S)

1. Project Development Studies
2. Complex Urban Freeway Design

B. SECONDARY PREQUALIFICATION CLASSIFICATION(S)

1. Environmental Assessment and Impact Statements – Surface Transportation
2. Maintaining Traffic Plans and Provisions
3. Right-of-Way Surveys
4. Road Design Surveys
5. Short & Medium Span Bridges
6. Geotechnical Engineering Services
7. Pavement Marking Plans
8. Traffic Capacity Analysis and Geometric Studies
9. Safety Studies

DBE REQUIREMENT: 7%

NOTE:

The selected Consultant will be required to submit a Price Proposal for Part 1 and an "estimate only" for Part 2. In the event the decision is made by MDOT to proceed with Part 2, the Consultant will be informed accordingly and the Part 2 Price Proposal "estimate" will be negotiated. However, Consultants are advised that, pursuant to MDOT discretion, the Department does not guarantee the award or any binding commitment of Part 2.

Consultants are advised that selection for Part 1 of this Contract does not automatically approve authorization for Part 2 upon availability of funding. Consultants must perform satisfactorily on Part 1 to be authorized for Part 2. Determination of satisfactory performance will be at the discretion of the MDOT Project Manager based on the criteria used in the MDOT Service Vendor Evaluation System in CTRAK.

MDOT PROJECT MANAGER:

Munawar Azam
Southwest Region Office
1501 E. Kilgore Road
Kalamazoo, MI 49001
Phone: (269) 337-3920
E-Mail: AzamM@michigan.gov

All inquiries about this Request for Proposal should be directed to the MDOT Project Manager.

CONSULTANT RESPONSIBILITIES:

Part 1
Development and evaluation of interchange configuration alternatives and the impact they will have to the area. Information will need to be gathered, analyzed, evaluated, and documented. The Consultant will be responsible for completing studies and incorporating any information, as requested by MDOT. If new MDOT or federal requirements are issued during the contract, they will be provided to the Consultant and shall be addressed as a part of the project, if applicable. The following will be used to guide the Consultant and shall be completed for each alternative. This will include, but is not limited to:

- Determine preliminary horizontal and vertical alignments, proposed edge of pavements, curb and gutter, and cross-sections.
- Determine ROW impacts.
- Determine and document the potential direct and indirect impacts as a result of the interchange alternative.
- Prepare preliminary cost estimates using MDOT pay items for construction. Estimates should include costs for design, ROW, relocations, and construction improvements.
- Locate and identify any impacts to existing utilities.
- Peform Life Cycle Cost Analysis

It is not anticipated that an Environmental Assessment (EA) will be required for this project, but the Consultant should be familiar with the FHWA Planning & Environmental Linkages (Linking Planning and NEPA). Planning and Environment Linkages represents an approach to transportation decision-making that considers environmental, community, and economic goals early in the planning stage and carries them through project development, design, and construction. This ensures a seamless decision-making process that minimizes duplication of effort, promotes environmental stewardship, and reduces delays in project implementation if it is later determined an EA is required. It is important to document all decisions in a matter that can be later used in an EA, if necessary, without having to duplicate work.

The FHWA Planning & Environmental Linkages Resource Guide can be read here:
http://www.fhwa.dot.gov/hep/pel/pelrpt_final.pdf

1. 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 project by the completion date.

2. Maintain a 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.

3. Provide project development schedule.

4. Perform design survey.

5. Perform soil borings of sufficient depth and number, and a geotechnical analysis/report adequate to perform the foundation and/or embankment design. See MDOT Bridge Design Manual Appendix 5.03.03 A.l.f. and/or PPMS Task 3530 for general scope of work statement for geotechnical services.

6. Perform Safety Analysis.

7. Perform Traffic Analysis.

8. Develop sufficient number of design alternatives. This will include the “no-build” option.

9. Prepare required plans, typical cross-sections, and details as required to identify all Right-of-Way and environmental impacts.

10. Perform Structure Study to level of detail required to determine Right-of-Way and environmental impacts.

11. Develop MOT concepts and identify any potential detour routes.

12. Prepare Engineering Report to determine environmental impacts. Report should include Structure Study, potential ROW needs, utility impacts, permit requirements, detailed cost estimates, and the MDOT Scoping Checklist (**from new MDOT Scoping Manual**).

13. Provide recommendations for private/public utility relocations.

14. Provide solutions to any unique problems that may arise during the study and design of this project.

15. Attend any project related meetings and informational meetings (i.e., public hearings, open houses, etc.) with the general public and public officials to assistant in answering any technical questions or concerns, or as directed by the MDOT Project Manager. Consultant will be required to provide displays and/or photo renderings.

16. The Consultant representative shall record and submit typed minutes for all project related meetings to the MDOT Project Manager within one (1) week of the meeting.

17. The Consultant will provide to MDOT at the scheduled submittal dates, copies of the required materials for distribution by MDOT for all reviews for this project. The

Consultant shall contact the project manager prior to the submittal dates for the exact number of copies that will be required for submittal.

18. The MDOT Project Manager shall be the official MDOT contact person for this project and should be made aware of all communications regarding this project. The Consultant must address or send a copy of all correspondences to the MDOT Project Manager.

19. The Consultant will be required to attend a Pre-Price Proposal Meeting to discuss the project requirements, schedule, and survey requirements.

Part 2

Development of plans and specifications based on the alternative identified in Part 1. The Consultant will be required to complete all necessary design plans for construction. This will include, but is not limited to:

- Refine and finalize horizontal and vertical alignments, proposed edge of pavements, curb and gutter, and cross-sections.
- Design mitigation and/or provide permitting material.
- Develop PROW and FROW plans.
- Develop construction plans and specifications.
- Coordinate and show on plans any utility relocation work.
- Establish working relationship with CMGC (if applicable).

Project includes, but not limited to the following tasks:

1. Maintain a 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.

2. Prepare required plans, typical cross-sections, details, and specifications required for design and construction.

3. Perform / finalize structure study and bridge design

4. Prepare staging plans and special provisions for maintaining traffic during construction.

5. Prepare Right-of-Way and Marked Final Right-of-Way plans as required, to locate, verify, and purchase real estate and/or obtain construction access permits for this project.

6. Compute and verify all plan quantities.

7. Assist MDOT with coordination of private/public utility relocations.

8. Provide solutions to any unique problems that may arise during the study and design of this project.

9. Attend any project related meetings and informational meetings (i.e., public hearings, open houses, etc.) with the general public and public officials to assistant in answering any technical questions or concerns, or as directed by the MDOT Project Manager. Consultant will be required to provide displays and/or photo renderings.

10. The Consultant representative shall record and submit typed minutes for all project related meetings to the MDOT Project Manager within one (1) week of the meeting.

PPMS TASKS

For questions on specific tasks, refer to the PPMS Task Manual located on the MDOT Bulletin Board System. For assistance in accessing this manual, please contact one of following:

Dennis Kelley
Phone: (517) 373-4614
E-Mail: KelleyD2@michigan.gov

MONTHLY PROGRESS REPORT

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

TRAFFIC CONTROL

The Consultant will be responsible for all traffic control required to perform the tasks outlined in the Scope of Work.

MDOT PERMITS

The Consultant will be responsible for obtaining all up to date access permits and pertinent information for tasks in MDOT Right of Way. Any questions regarding MDOT permits should be directed to:

Dan Roberts – Utility & Permit Engineer
Kalamazoo TSC
5372 South 9th Street
Kalamazoo, MI 49009
Phone: (269) 375-8615
E-Mail: RobertsDan@michigan.gov

UTILITIES

The Consultant shall be responsible for obtaining 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 Project Manager. The Consultant shall attend any utility meetings called to ensure that the concerns on the plans involving utilities are addressed. 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.

DELIVERABLES

Consultant is required to use MDOT's current version of Bentley MicroStation for drafting applications and Bentley GEOPAK for road design. Consultant shall comply with all MDOT drafting standards and file naming conventions.

The Consultant shall deliver all computer files associated with the project in their native format (spreadsheets, Microstation files, GEOPAK files, etc.) on DVD, CD, or uploaded to ProjectWise, as directed by the MDOT Project Manager. It is the Consultant's responsibility to obtain up to date MicroStation and GEOPAK seed/configuration files necessary to comply with MDOT's drafting standards which are posted to the bulletin board system. 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 when a hard copy version of a document is all that exists. The use of digital signatures is encouraged when feasible.

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 bookmarks in half size (11" x 17") formats. A half 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.

The project construction, removal, and profile sheets will require a ratio (scale) of **1:40 or as directed by the Project Manager.**

All design for this project will be done in **English Units.**

MDOT RESPONSIBILITIES:

MEETINGS

The MDOT PM will schedule and/or conduct all project related meetings.

DELIVERABLES

1. Special details and pertinent reference materials
2. As-built plans of project area, as available
3. Information on existing pavement structure, as available
4. Pavement core information, as available
5. Traffic analysis
6. Safety analysis

PERMITS

MDOT will be responsible for submitting all required permits.

COORDINATION

MDOT will provide coordination with the following:

7. Utility Company(s)
8. Project Stakeholders
9. FHWA
10. Other MDOT divisions

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.

YES	NO	P/PMS TASK NUMBER AND DESCRIPTION	DATE TO BE COMPLETED BY (MM / DD / YYYY)
EARLY PRELIMINARY ENGINEERING – STUDY			
		EPE Scoping Analysis	
☒	☐	2120 Prepare Traffic Analysis Report	/ /
☐	☒	2130 Prepare Project Justification	/ /
☐	☒	*213M Concurrence by Regulatory Agencies with the Purpose and Need*	/ /
☐	☒	2140 Develop and Review Illustrative Alternatives	/ /
☐	☒	2155 Request/Perform Safety Analysis	/ /
☒	☐	2160 Prepare and Review EIS Scoping Document	/ /
☐	☒	*211M Public Information Meeting*	/ /
		EPE Draft Analysis	
☒	☐	2310 Conduct Technical SEE Studies	/ /
☐	☒	2321 Prepare for Aerial Photography	/ /
☐	☒	2322 Finish/Print Aerial Photography	/ /
☐	☒	2330 Collect EPE Geotechnical Data	/ /
☒	☐	2340 Develop and Review Practical Alternatives	/ /
☐	☒	*233M Aerial Photography Flight*	/ /
☐	☒	2360 Prepare and Review EA or DEIS	/ /
☐	☒	*231M Draft Submission to FHWA*	/ /
☐	☒	2380 Circulate EA or DEIS	/ /
☐	☒	*232M Public Hearing*	/ /
		EPE Final Analysis	
☒	☐	2510 Determine and Review Recommended Alternative	/ /
☐	☒	*250M Concurrence by Regulatory Agencies with Recommended Alternatives*	/ /
☐	☒	2525 Prepare and Review Engineering Report	/ /
☐	☒	2530 Prepare and Review Request for FONSI or FEIS	/ /
☐	☒	*252M Final Submission to FHWA*	/ /
☐	☒	2550 Obtain FONSI or ROD	/ /
		Contamination Investigation	
☐	☒	2810 Project Area Contamination Survey (PCS)	/ /
☐	☒	2820 Preliminary Site Investigation (PSI) for Contamination	/ /

YES	NO	P/PMS TASK NUMBER AND DESCRIPTION	DATE TO BE COMPLETED BY (MM / DD / YYYY)
PRELIMINARY ENGINEERING - DESIGN			
		Design Scope Verification And Base Plan Preparation	
☒	☐	3130 Verify Design Scope of Work and Cost	/ /
☐	☒	3310 Prepare Aerial Topographic Mapping	/ /
☐	☒	3320 Conduct Photogrammetric Control Survey	/ /
☐	☒	3321 Set Aerial Photo Targets	/ /
☒	☐	3330 Conduct Design Survey	/ /
☐	☒	3340 Conduct Structure Survey	/ /
☐	☒	3350 Conduct Hydraulics Survey	/ /
☒	☐	3360 Prepare Base Plans	/ /
☐	☒	*331M Utility Notification*	/ /
☒	☐	3361 Review and Submit Preliminary ROW Plans	/ /
☐	☒	*331M Preliminary ROW Plans Distributed*	/ /
☒	☐	3370 Prepare Structure Study	/ /
☐	☒	3375 Conduct Value Engineering Study	/ /
☒	☐	3380 Review Base Plans	/ /
☐	☒	*332M Base Plan Review (Pre-GI Inspection)*	/ /
☐	☒	3390 Develop the Maintaining Traffic Concepts	/ /
		Preliminary Plans Preparation	
☐	☒	3510 Perform Roadway Geotechnical Investigation	/ /
☐	☒	3520 Conduct Hydraulic/Hydrologic and Scour Analysis	/ /
☒	☐	3522 Conduct Drainage Study, Storm Sewer Design, and use Structural Best Management Practices	/ /
☒	☐	3530 Conduct Structure Foundation Investigation	/ /
☐	☒	3535 Conduct Structure Review for Architectural and Aesthetic Improvements	/ /
☒	☐	3540 Develop the Maintaining Traffic Plan	/ /
☐	☒	3551 Prepare/Review Preliminary Traffic Signal Design Plan	/ /
☒	☐	3552 Develop Preliminary Pavement Marking Plan	/ /
☒	☐	3553 Develop Preliminary Non-Freeway Signing Plan	/ /
☒	☐	3554 Develop Preliminary Freeway Signing Plan	/ /
☐	☒	3555 Prepare/Review Preliminary Traffic Signal Operations	/ /
☒	☐	3570 Prepare Preliminary Structure Plans	/ /
☒	☐	3580 Develop Preliminary Plans	/ /
☒	☐	3581 Review and Submit Final ROW Plans	/ /
☐	☒	*351M Final ROW Plans Distributed*	/ /
☒	☐	3590 Review Preliminary Plans (Plan Review Meeting)	/ /
☐	☒	*352M THE Plan Review (Grade Inspection)*	/ /

Final Posted Scope??

YES	NO	P/PMS TASK NUMBER AND DESCRIPTION	DATE TO BE COMPLETED BY (MM / DD / YYYY)
PRELIMINARY ENGINEERING – DESIGN (Cont'd)			
		Utilities	
☒	☐	3610 Compile Utility Information	/ /
☐	☒	3650 Coordinate RR Involvement for Grade Separations	/ /
☐	☒	3655 Coordinate RR Involvement for At-Grade Crossings	/ /
☒	☐	3660 Resolve Utility Issues	/ /
☐	☒	*360M Utility Conflict Resolution Plan Distribution*	/ /
☐	☒	*361M Utility Meeting*	/ /
☐	☒	3670 Develop Municipal Utility Plans	/ /
☐	☒	3672 Develop Special Drainage Structures Plans	/ /
☐	☒	3675 Develop Electrical Plans	/ /
		Mitigation/Permits	
☒	☐	3710 Develop Required Mitigation	/ /
☒	☐	3720 Assemble Environmental Permit Applications	/ /
☐	☒	3730 Obtain Environmental Permit	/ /
		Final Plan Preparation	
☐	☒	3821 Prepare/Review Final Traffic Signal Design Plan	/ /
☒	☐	3822 Complete Permanent Pavement Marking Plan	/ /
☒	☐	3823 Complete Non-Freeway Signing Plan	/ /
☒	☐	3824 Complete Freeway Signing Plan	/ /
☐	☒	3825 Prepare/Review Final Traffic Signal Operations	/ /
☒	☐	3830 Complete the Maintaining Traffic Plan	/ /
☒	☐	3840 Develop Final Plans and Specifications	/ /
☐	☒	*380M Plan Completion*	/ /
☒	☐	3850 Develop Structure Final Plans and Specifications	/ /
☒	☐	3870 Hold Omissions/Errors Check (OEC) Meeting	/ /
☐	☒	*387M Omissions/Errors Checks Meeting*	/ /
☐	☒	*389M Plan Turn-In*	/ /
☐	☒	3880 CPM Quality Assurance Review	/ /

YES	NO	P/PMS TASK NUMBER AND DESCRIPTION	DATE TO BE COMPLETED BY (MM / DD / YYYY)
PRELIMINARY ENGINEERING – RIGHT OF WAY			
		Early Right of Way Work	
☐	☒	4120 Obtain Preliminary Title Commitments	/ /
☐	☒	4130 Prepare Marked Final Right Of Way Plans	/ /
☐	☒	*413M Approved Marked Final ROW*	/ /
☐	☒	4140 Prepare Property Legal Instruments	/ /
		Right of Way Acquisition	
☐	☒	4411 Preliminary Interviews	/ /
☐	☒	*441M Post-Decision Meeting*	/ /
☐	☒	4412 Real Estate Services Assignment Proposal and Fee Estimate (Form 633s) for Appraisal Work Authorization	/ /
☐	☒	4413 Appraisal Reports	/ /
☐	☒	4420 Appraisal Review Reports	/ /
☐	☒	4430 Acquire Right Of Way Parcels	/ /
☐	☒	4510 Conduct Right Of Way Survey & Staking	/ /
		Right of Way Relocation	
☐	☒	4710 Relocation Assistance	/ /
☐	☒	4720 Prepare Improvement Removal Plan	/ /
☐	☒	*442M ROW Certification*	/ /

ATTACHMENT A
SURVEY SCOPE

A. SURVEY PREQUALIFICATIONS: Road Design and Right of Way Surveys.

B. MAPPING LIMITS: A PORTFOLIO as outlined in this section IS REQUIRED.

C. NOTES:

1. The Consultant shall discuss the scope of this survey with the MDOT Project Manager / Region Surveyor before submitting a Price Proposal:

   - MDOT Project Manager: Munawar Azam
     (269) 337-3920
     AzamM@michigan.gov

   - MDOT Region Surveyor: Erik J. Schnepp, PS
     (269) 337-3922
     SchneppE@michigan.gov

2. The Consultant surveyor must contact the Region Traffic & Safety Engineer for work restrictions and traffic control in the project area prior to submitting a proposal.

3. A **detailed Survey Work Plan** showing timeframe with a **spreadsheet estimate** of hours by specific survey task such as DTM creation, traversing, leveling, mapping, etc., **must** be included in the project Price Proposal

4. 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.

D. BI-WEEKLY PROGRESS REPORT

Every two weeks the Consultant shall submit a project progress report to the Region surveyor. The progress report shall address the following items:

1. Work accomplished during the previous weeks.

2. Anticipated work and goals for the coming weeks.

3. Real problems which occurred during the weeks, and anticipated problems for the coming weeks.

4. Any updates on the project schedule including explanations for any delays or changes in schedule, scope, or work plan.

5. Any early reviews or submittals such as adjustments, computations, or alignment. For this project the timeline is critical. It is important to meet the proposed schedule as listed above.

6. Copy of Verbal Contact Records for the period giving details for the item discussed and date.

E. GENERAL REQUIREMENTS

1. Surveys must comply with **all Michigan law** relative to land surveying.

2. Surveys must be done under the **direct supervision** of a Professional Surveyor licensed to practice in the State of Michigan.

3. Work in any of the following categories of survey: Road Design, Bridge, Hydraulic, Right-of-Way, Ground Control (Photogrammetric), and/or Geodetic control, must be completed by a survey firm which is pre-qualified by MDOT.

4. Surveys must meet all requirements of the Michigan Department of Transportation (MDOT) Design Surveys *Standards of Practice* dated March, 2009. Please contact the Design Survey office to clarify any specific questions regarding these standards.

5. The Consultant is responsible for using the latest MDOT CAiCE Feature Codes, files and tugboat (macro), available on the MDOT File Transfer Protocol (FTP) site. **The CAiCE software used must be Version 10.2 or newer. The Consultant must also use MicroStation Version 8 or newer.**

6. Consultants must obtain all necessary permits required to perform this survey on any public and/or private property. This includes an up-to-date permit from the MDOT Utilities Coordination and Permits Section

7. 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, and an MDOT contact person (the MDOT Project Manager).

8. 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 proposal.

9. 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.

10. Consultants are responsible for a comprehensive and conscientious research of all records, including MDOT records, essential for the completion of this project.

11. Measurements, stationing, recorded data, and computations must be in International Feet.

12. Coordinate values must be based on the Michigan Coordinate System of 1983 (MCS 83), Appropriate Zone. All elevations must be based on the North American Vertical Datum of 1988 (NAVD88).

13. Specific requirements concerning the Control, Alignment, property, mapping, misc., of each survey portfolio is described below.

14. Current MDOT QA/QC CERTIFICATION CHECK LIST dated March 2009 will be used. This can be obtained on the MDOT FTP site.

15. Current MDOT symbology must be used exclusively as shown on the MDOT FTP site.

    The FTP site for consultants is:
    ftp://ftp.michtrans.net
    username: survcons
    password: $urvcon$

16. All data, whether electronic or paper, must be recorded on non-rewritable Compact Discs (CD's). All paper files, including MicroStation files, must be scanned and/or converted to Adobe Acrobat (.pdf) format. 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 ASCII text, CAiCE and MicroStation must have separate access.

17. CD's must be labeled with the route, location, control section, job number, Consultant name, and data type.

18. Each category of survey must be packaged separately (i.e., Structure survey separate from Road survey). All sheets in a portfolio must be marked with the control section, job number, portfolio section name, and page number.

19. The Consultant representative shall record and submit typewritten minutes for all project related survey meetings to the MDOT Project Manager within two weeks of the meeting. The Consultant shall also distribute the minutes to all meeting attendees.

20. The MDOT Project Manager is the official contact for the Consultant. The Consultant must either address, or send a copy of all correspondence to the MDOT Project Manager. The MDOT Project Manager shall be made aware of all communications regarding this project. Any questions regarding this award or any subsequent project should be directed to the Region Surveyor.

21. 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:

    MDOT Design Division
    Erik J. Schnepp, PS
    1501 E. Kilgore,
    Kalamazoo, MI. 49001

    Please use MDOT's Form 222(3/99) 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.

F. WORK RESTRICTIONS

The Consultant must call the MDOT Region or TSC Traffic & Safety Engineer before submitting the Priced Proposal to inform him/her of surveying activity in the area. The Consultant must discuss a Traffic Control and Safety plan with the Traffic & Safety Engineer prior to submitting a proposal. A copy of the Traffic Control and Safety plan must be submitted with the Price Proposal and used as a basis of bid for traffic control devices by at least three sources.

Traffic shall be maintained by the Consultant throughout the project to the satisfaction of the Traffic & Safety Engineer at all times. Any deviation from the Traffic Control and Safety plan without the Traffic and Safety Engineer approval can result in project delays.

The Consultant must call the MDOT Region or TSC Traffic & 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.

<u>The following are the time restrictions for I-94:</u>
Maintain two lanes of traffic in each direction as follows:

- 6:00 a.m. to 8:00 p.m., Monday through Thursday
- 6:00 a.m. to 10:00 p.m., Friday
- 8:00 a.m. to 9:00 p.m., Saturday
- 11:00 a.m. to 10:00 p.m., Sunday

Maintain a minimum of one lane of traffic in each direction during all other times.

Local road time restrictions:
Check with the Kalamazoo County Road Commission.

G. FIELD SURVEY

The purpose of the field survey is to obtain all information and data required by the project design engineer, to leave control in the field for future construction staking, and to provide a sufficient history of the area to enable the MDOT Design Survey Unit to perform dependable surveys in the future.

H. HORIZONTAL CONTROL

A three dimensional coordinate system must be established based on the North American Datum of 1983, NAD83 (CORS96), Michigan State Plane Grid Coordinates- South Zone (2113) in international feet units for this project. The horizontal least squares adjustment statistics must be reported at the 95% confidence level.

There will be two primary control monuments set for this project. The horizontal project control for this project will be classified as intermediate project control according to the MDOT Standards of Practice dated April 1, 1998. For the placement of control the interstate project scenario shall apply. These control points are intended for mapping and should be located outside the proposed construction area to insure their availability for all phases of construction. Each control point must be accurately described and witnessed to at least four nearby features. Please refer to MDOT Standards of Practice for the minimum requirements for these points. Prior to any mapping the horizontal and vertical control must be approved by the Southwest Region Surveyor

OPUS positioning may be used, as long as there are checks, redundancies and controls built into the Consultant's horizontal control system. For any and all OPUS solutions, a RINEX format file with a minimum of two hours of GPS data must be included, as well as the OPUS solution from NGS. All OPUS solutions must be verified within 0.10 foot, either by a separate OPUS position from an independent occupation, or by a NGS/CORS adjustment. OPUS-RS is not acceptable for establishing the control on the project.

A closed traverse must be run and adjusted between two or more known points on the project control traverse. Open traverses are NOT acceptable. Unadjusted traverse measurements must produce an error of closure of not greater than 1:20,000. Any permissible error of closure shall be distributed throughout the traverse by means of a suitable least squares adjustment software program.

All data collection traverse points and the plan centerline alignment must be tied to the control established for this project. All field observations, unadjusted traverse computations and final adjusted coordinates must be included in the notes. A list of all horizontal control points must be developed which includes datum, point designations, descriptions, horizontal coordinates with standard errors, station and offset, witnesses and appropriate scale factors (grid to ground). This

list must be printed on 8.5" x 11" sheets and placed on CD in ASCII format. All data relating to the horizontal component of the system must be included in the control section of the portfolio.

I. VERTICAL CONTROL

The vertical component of this project must be based upon the North America Vertical Datum of 1988 (NAVD 88). The vertical least squares adjustment statistics must be reported at the 95% confidence level.

Upon request, the MDOT Design Survey Unit will supply descriptions of nearby published NGS control bench marks.

New bench marks must be set on massive structures outside the proposed construction area. Each bench mark must be accurately described and its horizontal position referenced by measurement (Northing Easting) and by station plus and offset from the alignment stationing. In addition to the required benchmarks per MDOT guidelines, at 2 additional benchmarks must be set outside of the mapping limits.

Any error of closure must be distributed throughout the level runs by means of a suitable least squares adjustment software program. Open level loops are NOT acceptable.

The bench mark notes must include all field observations, the unadjusted loop closures and the final adjusted elevations. A bench mark list must be developed that includes datum, bench mark designations, descriptions, elevations, and station and offset (left or right) out from centerline. This bench mark list must be printed on 8.5"x 11 sheets and placed on CD, in ASCII format. All data relating to the vertical component of the system must be included in the control section of the portfolio.

The methods used to establish the horizontal and vertical components of the project coordinate control system must be fully discussed in the Surveyor's Project Report.

The consultant will prepare a Survey Information Sheet showing the witnesses and control point locations in relation to the legal alignment.

J. ALIGNMENTS

Any alignment needed to compute the ROW of the project shall be a legal alignment.

Legal alignments are estimated to be needed for Michigan Ave (station 17+04 to station 60+00) Ramp B (0+00 to station to its Easterly ending at 40th Street), Ramp D (18+86.18 to 40th Street), Ramp A (0+00 to its ending at 40th Street), Frontage (40th Street to station 126+64.68), 40th Street (5+00 to station 30+00), ramp B (40th Street going Easterly until it’s ending station per plan). The legal alignment of I-94 shall start at station 988+75.83 to station 1173+54.21). As constructed alignments shall be determined for the ramps DD, CC, and the small connector roadway segment between ramp D and B by station 15+00 of ramp D. A detailed write-up will also be required in the Surveyor’s Project Report on how the legal alignments were determined.

Alignment Chains shall be given logical names in CAiCE. A table of chain names and descriptions shall be included in the Surveyor's Project Report:

CAiCe Chain Name	Chain Description
I94WBCL1	I-94 West Bound – Construction Line
I94EBSL1	I-94 East Bound – Survey Line
I94RACL1	I-94 Ramp A – Construction Line
I94RCCCL1	I-94 Ramp CC – Construction Line

K. LEGAL ROW

All the legal ROW lines will be determined throughout the mapping project limits following MDOT design survey standards. Along I-94 this would be from station 1090+00 to station 1146+47.70. The legal ROW lines of 40th Street shall be determined from station 5+00 to station 30+00. The legal ROW will be determined throughout the interchange by Ramp A (0+00 to its ending at 40th Street) , Frontage Road (40th Street to station 98+00) Ramp B (0+00 to station to its Easterly ending at 40th Street), The ROW for Michigan will begin at station 40+00 and go Easterly until the I-94 ROW by Ramp B and Ramp D, ramp D (18+86.18 Easterly to 40th Street). The limited access line between Frontage Road and Ramp B/I-94 will also be determined to station 98+00. All legal ROW lines will be shown on the final deliverable PL drawing. A detailed write-up will also be required in the Surveyor's Project Report on how the ROW lines were determined.

The selected consultant will obtain all deeds and excess sales to determine the ROW lines by all available resources (courthouse, MDOT records, city records, recorded plats, etc). Tax descriptions are not acceptable. The ROW line coordinates shall be determined every 500 feet, PT, PC, and angle point, by a Professional Surveyor. The ROW coordinates determination shall be made for both sides of the ROW. The selected consultant will also find any existing parcel corners (plat monuments, iron pipes, iron pines, capped irons, along the legal ROW line.

The coordinates for both the found monumentation and ROW coordinates as determined above, shall be shown on a separate ROW alignment dgn file. This would be for all areas were the legal ROW line is determined.

L. GOVERNMENT CORNERS / PARCEL LINES

Any government corner used to establish the legal alignment / legal ROW lines must meet the MDOT's Design Survey Standards. It is anticipated the following section corners will need to be obtained for the project:

A-9, A-10, C-7,C-8, C-9, D-7, D-8, D-9, E-7, E-8, E-9, F-7, F-8, F-9, G-7, G-8, and G-9 of T2S, R9W. L-7, L-9, M-9 and M-10 of T2S, R10W

These corners shall be submitted to the Kalamazoo county re-monumentation group for approval by the selected consultant if not already approved by the county re-monumentation board. This

list will be verified between MDOT and the selected consultant prior to beginning work. The consultant shall begin this step first to try and avoid delays in having the survey delivery date.

Within the project alignment limits parcel lines will be determined/surveyed by the selected consultant. At this time they will not be staked in the field. If no deeds are available the parcels lines can be plotted based on the tax description. Tax maps/descriptions will be obtained for the parcels within the mapping limits. This would include the tax parcel ID, name, address, etc. The tax descriptions maps used must be submitted with the survey portfolio.

M. MAPPING

1. Begin mapping along I-94 at station 1097+00 and end mapping at station 1145+00 with shots taken every 50 feet. Mapping shall take place from ROW line to ROW line.

2. Begin mapping along Michigan Ave at station 40+00 end at 40th Street with shots every 50 feet. Mapping shall take place from ROW line to ROW line.

3. Begin mapping of Frontage Road at 40th Street and map until station 98+00.

4. Begin mapping along 40th street 500 feet south of Frontage Road to the East and end 500 feet North of Ramp A at 40th Street with shots taken every 50 feet. Mapping shall take place from ROW line to ROW line.

5. Map the complete 40th Street and I-94 interchange from ROW to ROW. This would include ramps A, B, CC, DD, D and Frontage Road/Michigan Ave. Shots shall be taken every 50 feet.

6. For the (S04 of 39022) the following will be obtained for the bridge: all reference points elevations/grid coordinates including elevations, bridge seat elevations, under clearance elevations, reference point stationing, photographs, piers, abutment walls, bride schematic (Plan and elevation views showing both substructure and superstructure elements).

7. Sample features for all mapping areas include the following items: any road features (edge of pavement bit, edge pavement concrete, edge of bit shoulder, pavement marking lines, etc) walkways, driveways, all terrain points/lines, drainage features, all visible utilities (overhead electric lines, gas line markers, hydrants, etc), sanitary manholes, guardrail. This list is but a short sample of the possible features/codes located within the mapping limits.

N. DRAINAGE / SEWER

The following information is required for all surface and subsurface drainage and sewer structures:

1. **The station and offset, type, condition, location, size and invert elevation of each drainage structure and culvert**. End treatments must be noted for each culvert. This

information must be printed on 8.5" x 11" sheets and submitted on a CD in **ASCII format or spreadsheet format**.

2. **The station and offset, type, condition, location, size and invert elevation of the pipes of each sanitary manhole**. This information must be printed on 8.5" x 11" sheets and submitted on a CD in **ASCII format or spreadsheet format**.

3. The **location and connectivity** of all catch basins, manholes, and culverts must be shown on the topographic map (PL.dgn). It may be necessary to prepare a separate plot to clearly show the surface drainage systems. Underground storm systems must be mapped to show the connectivity of the structures. Underground sewer lines must be mapped to show connectivity. This will be added to the CADD file and submitted on a separate topographic plot made specifically for this purpose.

4. **Photographs** must be submitted for each culvert, labeled by station and offset. Digital photographs are required.

O. DTM

The Consultant must submit a **CAiCE software file, named MDOTjob#.zip**, utilizing CAiCE's built-in archive feature, of all survey mapping points and data files for the mapping area. A properly edited Digital Terrain Model (DTM), named EXRD and created in CAiCE, must be included for the mapping area. The Consultant is responsible for using the latest MDOT CAiCE Feature Codes, files and tugboat, available on the MDOT File Transfer Protocol (FTP) site. The tugboat can be used to convert CAiCE files into Geopak and MicroStation formats. **The CAiCE software used must be Version 10.5 or newer.**

The Consultant must also submit **files created from CAiCE that are formatted for design in Geopak** software. This can be accomplished by using the MDOT Plans Production CAiCE Tugboat available on the MDOT Design Survey FTP site. The Consultant must submit a 3D MicroStation Triangle file, a Survey Chain (TIN Boundary) around the edited Triangle file with the name and Feature "CLIP", a Job#.dat file, and a Job#.ALI file. Each alignment must be computed separately and uniquely named. These files must be submitted electronically **in a subdirectory outside of the CAiCE archive file** named "Geopak."

P. FINAL REPORT

One complete portfolio and three complete sets of CD's or DVD's must be assembled and delivered in the format outlined in the *Standards of Practice* dated March, 2009. A copy of the MDOT Checklist dated March, 2009 must be included in the final report. This document shall be signed and certified by the Professional Surveyor responsible for the project. 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 shall result in the immediate return of the project portfolio for completion.**

The Consultant must provide an electronic **MicroStation Intergraph Version 8 format file** of the mapping area. This must be named MDOTjob#PL.dgn, for example **112614cpl.dgn,** and must be submitted **in a sub-directory outside of the CAiCE archive file** named "MicroStation." The MicroStation file will be a 2-D file of the planimetric features including contours. This file must be sized appropriately, utilizing the appropriate seed file with working units of 1000, 1., and be compiled in standard MDOT format. The Consultant is responsible for using the latest MDOT Resource files, color table, and cell files, available on the MDOT File Library site under CAD_V8. Go to http://mdotwas1.mdot.state.mi.us/public/bbs/

For a comprehensive list of MicroStation level designations, contents and line attributes, refer to the "MDOTV8LEVEL.pdf" table located on the MDOT ftp site at ftp://ftp.michtrans.net/. The consultant Username is "survcons." The consultant password is $urvcon$. This table replaces the former Attachments AA, C & D. Also in the ftp site, the Consultant should refer to the V8GROUP&ALPHA LIST.pdf file for Data Collection Codes.

Any information that would not be appropriately placed in the control, property or mapping sections should be included in this section. General photographs, local newspaper articles and project-related comments from residents are example of miscellaneous data.

The surveyor must describe, in the final report, the data included in this section.

The final report for this project shall meet the current guidelines outlined in the MDOT Survey Standards of Practice dated March 2009.

Q. SURVEY INFORMATION SHEET

The Consultant shall prepare a MDOT Survey Information Sheet in Microsoft Word (.doc) named 11614_I94_SURVEY.doc. The Survey Information Sheet shall include the following, as applicable:

Survey Notes (Coordinate system, Zone, Horizontal & Vertical Datum, etc.)
Control Points (Primary & Intermediate)
Control Point Witnesses
Benchmarks
Government Corners
Alignment(s) Points

The MDOT Survey Information Sheet template can be found here:

http://www.michigan.gov/documents/mdot/MDOT_SURVEYINFOSHEET_302553_7.doc

ATTACHMENT C

General Construction Manager / General Contractor (CMGC) Overview

This is to simply provide the Consultant a general understanding of the CMGC process. Additional, detailed information can be found by reading the NCHRP Synthesis #402 – Construction Manager-at-Risk Project Delivery for Highway Programs.

The purpose of the Construction Manger / General Contractor (CMGC) project delivery method is to engage construction expertise, including the use of subcontractors, early in the planning and design to minimize changes, enhance constructability, manage risk, and expedite the contracting process by concurrently executing design and construction contracts without requiring the owner to relinquish control over the design details or to be exposed to undue risks.

The CMGC project delivery method is an integrated approach to the design and construction of a project to control the schedule and budget. It also ensures a quality final product for the Owner. CMGC is similar to traditional Design-Bid-Build (DBB) projects, where the owner hires a Designer (or performs the design in-house) to prepare the plans and specifications and then hires a Contractor to deliver the project, but differs in the sequence of events. In CMGC, the Designer and Contractor are hired (under separate contracts, utilizing qualifications-based selection processes) at the start of the project development. This ensures the Contractor is involved in all stages of planning and design to improve quality and minimize costly changes during construction. During the construction phase, the Contractor acts as the CMGC to keep the project within budget and on schedule by establishing a Guaranteed Maximum Price (GMP) to perform the construction when the design is sufficiently advanced and the Contractor can provide a price with minimal contingency.

Another advantage is that the CMGC can start construction before design is finalized by establishing a GMP for a portion of the project and an estimate for the remaining. The CMGC would need to perform 35 percent, or more, of the work described in the GMP, and is permitted to seek bids from subcontractors to perform the remaining work identified in the GMP.

If the GMP is not agreed to the Owner's liking, the project can be delivered using a traditional DBB method, and the project can be opened for bids when the plans and specifications are completed. This provides the Owner an outlet if an agreement cannot be reached with the CMGC on the GMP, by breaking the CMGC contract into two parts: (1) pre-construction services and (2) construction services. The CMGC is paid for their work during the (1) pre-construction phase regardless of the awarding of the (2) construction services. The CMGC would be allowed to bid on the project if the Owner and CGMC could not agree on a GMP and the project was released for bids (Let).

Since a conditional commitment is made to a Contractor for construction early in the process, a premium is placed on the proper selection of the CMGC to provide the best value to the Owner.