

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				
<input type="checkbox"/> TIER I (\$25,000-\$99,999)	<input type="checkbox"/> TIER II (\$100,000-\$250,000)	<input type="checkbox"/> TIER III (>\$250,000)		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Understanding of Service	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Innovations</i>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Safety Program</i>	
N/A	<input type="checkbox"/>	<input type="checkbox"/>	Organizational Chart	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Qualifications of Team	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Past Performance	
Not required As part of Official RFP	Not required As part of Official RFP	<input type="checkbox"/>	Quality Assurance/Quality Control	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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	<input type="checkbox"/>	Presentation	
N/A	N/A	<input type="checkbox"/>	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 _____

<input type="checkbox"/> Prequalified Services – See page ___ of the attached Scope of Services for required Prequalification Classifications.	<input type="checkbox"/> 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 Required with Proposal)
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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
<input type="checkbox"/> 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
<input type="checkbox"/> 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

The following two American Recovery and Reinvestment Act of 2009 (ARRA) notifications, **ARRA MONTHLY EMPLOYMENT REPORTS** and **REQUIRED CONTRACT PROVISIONS TO IMPLEMENT AMERICAN RECOVERY AND REINVESTMENT ACT (ARRA) SECTIONS 902 AND 1515**, are attached to this Request For Proposal for your understanding. These two notifications are only applicable for those projects/contracts funded with ARRA funds and will be included in contract Exhibits.

MDOT FORMS REQUIRED AS PART OF PROPOSAL SUBMISSION

- 5100D** – Request for Proposal Cover Sheet
- 5100G** – Certification of Availability of Key Personnel
- 5100I** – Conflict of Interest Statement
- 5100J** - Consultant Data and Signature Sheet (Required only for Non-Prequalified Work)

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

Michigan Department of Transportation

SCOPE OF SERVICE FOR TRAFFIC & SAFETY SERVICES Traffic Signal Optimization

CONTROL SECTION(S): Multiple

JOB NUMBER(S): 104457C

PROJECT LOCATION:

Up to two consultants will be selected as part of this project.

69 Signalized Intersections in Jackson & Hillsdale Counties, University Region:

#	CS	SN	Intersection Name	City/Twp.
1	30032	001	M-99 @ WEST STREET	Hillsdale
2	30032	003	M99 @ LAKE WILSON RD & WALMART DR	Jonesville
3	30032	004	M99 @ ARCH RD	Hillsdale Twp.
4	30032	006	M99 (WILL CARLETON) @ FAYETTE ST	Hillsdale
5	30041	002	M99 (BROAD) @ MCCOLLUM ST	Hillsdale
6	30041	003	M99 (BROAD) @ BACON ST	Hillsdale
7	30041	013	M99 (WILL CARLETON) @ M-99(BROAD)	Hillsdale
8	30061	001	US12 (CHICAGO) @ WEST, WATER	Hillsdale
9	30061	003	US12 (CHICAGO) @ M99 (OLDS) & WALNUT	Jonesville
10	30062	001	US12 (CHICAGO) @ M99 (EVANS)	Jonesville
11	38051	003	M106 (COOPER) @ GANSON	Jackson
12	38051	005	M106 (COOPER) @ NORTH ST	Jackson
13	38051	007	M106 (COOPER) @ PARNALL RD	Blackman Twp.
14	38051	008	OLD M-106(FRANCIS) @ GANSON	Jackson
15	38051	013	M-106 (COOPER) @ FRANCIS/LEROY	Jackson
16	38061	006	M60 @ SPRING ARBOR RD	Summit Twp.
17	38061	011	M60 @ REYNOLDS RD	Spring Arbor Twp.
18	38071	002	US127BR,M50 (COOPER) @ SOUTH ST	Jackson
19	38071	009	US127BR,M50 (COOPER) @ MORRELL	Jackson
20	38071	011	US127BR,M50 (COOPER) @ HIGH ST	Jackson
21	38071	015	US127BR,M50 (COOPER) @ I-94BL/US-127BR/M-50 (WASHINGTON)	Jackson
22	38072	002	US127BR,M50 (WEST) @ I94BL (MICHIGAN)	Jackson
23	38072	003	US127BR,M50 (WEST) @ WILDWOOD AVE	Jackson
24	38072	004	US127BR,M50 (WEST) @ GANSON	Jackson
25	38072	005	US127BR,M50 (WEST) @ ANDREWS,BOARDMAN	Blackman Twp.
26	38072	008	US127BR,M50 (WEST) @ NORTH	Jackson
27	38072	009	US127BR,M50 (WEST) @ ARGYLE	Jackson
28	38072	011	US127BR,M50 (WEST) @ W MONROE	Jackson

29	38073	003	M50 (CLINTON) @ RIVES JUNCTION RD	Blackman Twp.
30	38082	003	I94BL (MICHIGAN) @ BROWN ST	Blackman Twp.
31	38082	005	I94BL (MICHIGAN) @ WISNER ST	Jackson
32	38082	006	I94BL (MICHIGAN) @ WILDWOOD & ROBINSON	Blackman Twp.
33	38082	008	I94BL (MICHIGAN) @ LAURENCE	Blackman Twp.
34	38083	001	I94BL (MICHIGAN) @ WATERLOO AVE	Jackson
35	38083	002	I94BL (MICHIGAN) @ PERRINE ST	Jackson
36	38083	003	US127BR,I94BL (GLICK) WB @ FRANCIS ST.	Jackson
37	38083	006	I94BL (MICHIGAN) @ M106/M-50/US-127BR (COOPER)	Jackson
38	38083	007	I94BL (MICHIGAN) @ EAST AVE	Jackson
39	38083	008	I94BL (MICHIGAN) @ ELM ST	Jackson
40	38083	009	I94BL (MICHIGAN) @ GORHAM ST	Jackson
41	38083	010	I94BL (MICHIGAN) @ HORTON	Jackson
42	38083	011	I94BL (MICHIGAN) @ DETTMAN	Blackman Twp.
43	38083	012	I94BL (MICHIGAN) @ PAGE AVE	Jackson
44	38083	013	I94BL (MICHIGAN) @ US127 NB OFF RAMP	Leoni Twp.
45	38083	018	I94BL,US127BR (WASHINGTON) @ JACKSON	Jackson
46	38083	020	I94BL,US127BR (WASHINGTON) @ BLACKSTONE	Jackson
47	38083	022	I94BL,US127BR (WASHINGTON) @ FRANCIS	Jackson
48	38083	023	I94BL,US127BR (WASHINGTON) @ MECHANIC	Jackson
49	38083	027	I94BL,US127BR (GLICK) @ MECHANIC	Jackson
50	38083	028	I94BL,US127BR (GLICK) @ JACKSON	Jackson
51	38083	029	I94BL,US127BR (GLICK) @ BLACKSTONE	Jackson
52	38083	035	I94BL,US127BR (GLICK) @ STEWARD ST	Jackson
53	38083	036	I94BL,US127BR (WASHINGTON) @ FIRST ST	Jackson
54	38083	041	I94BL (MICHIGAN) @ MEIJERS,MCDONALDS DRS	Jackson
55	38083	042	I94BL (GLICK) WB @ WILDWOOD AVE	Jackson
56	38101	004	I94 WB OFF RAMP @ US127,M50	Blackman Twp.
57	38101	007	I94 EB & WB OFF RAMPS @ ELM AVE	Blackman Twp.
58	38101	008	I94 EB OFF RAMP @ AIRPORT RD	Blackman Twp.
59	38101	104	I94 EB OFF RAMP @ US127,M50	Leoni Twp.
60	38101	108	I94 WB OFF RAMP @ AIRPORT RD	Blackman Twp.
61	38111	002	US127 @ JEFFERSON RD	Liberty Twp.
62	38111	005	US127 SB OFF RAMP @ PAGE AVE	Leoni Twp.
63	38111	007	US127 SB OFF RAMP @ M50 (MC DEVITT), OAKLANE	Vandercook Lake
64	38111	008	US127 NB OFF RAMP @ SOUTH ST	Leoni Twp.
65	38111	107	US127 NB OFF RAMP @ M50 (MC DEVITT), OAKLANE	Summit Twp.
66	38131	004	US127 SB OFF RAMP @ SPRINGPORT,INN DR	Blackman Twp.
67	38131	005	US127 NB OFF RAMP @ PARNALL,MORRILL RD	Blackman Twp.
68	38171	003	M50 (MAIN) @ MONROE & CHICAGO	Brooklyn
69	38171	006	M50 (MAIN,BROOKLYN) @ M124 (WAMPLERS LAKE)	Brooklyn

PROJECT DESCRIPTION:

Traffic Signal Optimization on various corridors in the University Region. This project will provide MDOT with updated corridor signal progression plans with optimized traffic signal operations along each corridor. The consultant team will provide this information on MDOT timing permits forms. New timings will be implemented by MDOT. Follow-up analysis of the network and recommendation of adjustments to the system after implementation is required, as is a before and after study of the effectiveness. All work will follow the Michigan Signal Optimization Guidelines, the Michigan Timing Plan Preparation Guidelines timing guidelines and other documents provided by MDOT.

Because of some overlapping corridors, coordination between consultants will be required. MDOT is requesting qualifications and a proposal for providing engineering services for signal optimization on various state trunk lines in University Region.

ANTICIPATED SERVICE START DATE: September 9, 2011

ANTICIPATED SERVICE COMPLETION DATE: December 7, 2012

PRIMARY PREQUALIFICATION CLASSIFICATION(S):

Complex Traffic Signal Operations

SECONDARY PREQUALIFICATION CLASSIFICATION(S):

None

DBE REQUIREMENT: N/A

MDOT PROJECT ENGINEER MANAGER:

Thomas Fisher
Michigan Department of Transportation
Division of Operations – Traffic Signals Section
425 West Ottawa Street
Lansing, MI 48913
Email: fisherth@michigan.gov
Tel: (517) 335-1207
Fax: (517) 241-2567

CONSULTANT RESPONSIBILITIES:

Schedule a pre-project initiation meeting to discuss the overall project schedule including data collection and to coordinate project activities and to determine signal timing objectives and issues.

Conduct as needed status meetings at MDOT facilities. Provide written monthly project status reports to MDOT detailing progress towards completion of the project's goals and objectives. Also provide the meeting minutes.

Obtain and review the current signal timing plans. It may be necessary for the consultant to obtain and review the signal timing plans of the existing signals immediately upstream/adjacent to the project signals to evaluate continued progression along a given corridor.

All intersections will require development of timings plans for the A.M. peak, P.M. peak, noon-peak and nighttime periods.

In addition to the normal timing, a [special event, emergency, holiday weekend, summer, etc...] timing plan may also be necessary depending on the specific corridor.

All traffic counts in Jackson County will be given to the consultant in an Excel spreadsheet. Some minor changes maybe required to match MDOT format.

For Hillsdale County, field collection of the 2-hour A.M. peak period, 4-hour P.M. peak period, and 2-hour mid-day off-peak turning movement volumes including pedestrian counts. Unless otherwise approved, all counts will be taken on Tuesday, Wednesday, or Thursday. No counts will be taken while schools are in summer vacation or during major holiday periods. Exact periods will be determined during the project and approved by the MDOT project manager.

For Hillsdale County, 24-hour machine counts for each intersection approach shall be completed to determine schedules for peak periods and flash schedule. **For Jackson County, MDOT will supply 24-hour machine counts.**

Field collection of lane geometry, posted speed limits, intersection widths, travel distance between signalized locations, grades, lane widths, no turn on red signs, pedestrian facilities (heads and pushbuttons) will be required. A review of the ambient light at each location shall also be noted.

Take a digital photograph of each intersection approach.

Input 24-hour and turning counts into an Excel spreadsheet in MDOT's standard format, for storage and future use.

Optimize traffic signal operations to improve traffic flow and reduce delay at each intersection using *Synchro (Version 7)* software.

Simulate the results using *SimTraffic (Version 7)* software.

Calculate vehicle and pedestrian clearance intervals at each location based on traffic signal timing standards provided by MDOT's Change Interval Guidelines.

Compile a summary of system Measures of Effectiveness and a cost/benefit analysis for the project area.

Identify any potential improvements in the existing signal equipment, lane assignment or roadway geometry that will provide better operational and safety characteristics, if corrected.

Perform a Warrant Analysis on all signals. All applicable warrants shall be reviewed. Graphs shall be created and supplied to MDOT for locations that do not meet warrants. The warrant analysis spreadsheet will be provided by MDOT.

Obtain most recent 3-year traffic crash summaries from MDOT for a 250-ft radius around each signalized location. Evaluate the crash data to determine if there are any crash patterns. Report on crash patterns to the MDOT project manager for future analysis by MDOT. Operational improvements deemed necessary by the crash analysis shall be incorporated into the timing plans developed by the consultant. Crash diagram should be created for the top 10% high crash locations.

Conduct review of nearby signals on cross streets that are within 500 feet of the corridor being retimed and provide suggested timing plans. These signals should also be included in the Synchro models.

Provide the MDOT timing permits to the applicable local agency for the corridor being retimed so they can utilize them to adjust their own timing permits for those affected signals. The local agency should be given enough time to allow for the installation to be implemented at the same time as MDOT.

Develop and submit for review computer simulations and "red-lined" signal-timing plans for each location in accordance with MDOT's and each road agency's format. Revise these timing plans in accordance with MDOT, the road agency's and local communities' comments.

Conduct a follow-up field critique of the new timing plans and recommend adjustments as required. Where required, submit revised signal timing plans.

Perform before and after analysis using actual travel time runs and prepare a brief summary outlining the benefits derived from the project. The following bullets will give an overview of the details that will be involved:

Data Collection:

The consultant will be required to collect and evaluate detailed point-to-point travel time data using PC Travel or similar approved data collection and processing software. Collection of travel time data using PC Travel requires use of a laptop computer, with data collected from one of the following two sources:

- Using a GPS receiver coupled with the GPS Travel Time software package, or;
- Using a vehicle-mounted transmission sensor coupled with a TDC-8 traffic count board.
- For locations where there are 3 or fewer signals along a corridor utilize the equivalent output from SimTraffic to generate existing and optimized measures of effectiveness.

Utilize the Michigan Signal Optimization Guidelines and the Michigan Timing Plan Preparation Guidelines throughout the contract, as a tool. Any unusual locations shall be discussed with the Project Manager for direction on how to proceed.

Utilize the MDOT supplied spreadsheet model for conducting benefit/cost evaluations on signal optimization projects. This is in electronic format.

PROJECT DELIVERABLES:

Provide MDOT electronic copies of the *Synchro 7* existing and optimized simulation files so that they can be updated and used for future analysis.

Provide MDOT an electronic copy of all project documentation.

Provide a written final report (2 paper copies of the report, 5 electronic copies including the report and appendices) that includes all identified roadway geometry, lane assignments, speed limits, equipment/roadway deficiencies and recommended improvements, turning movement count data, 24 hour approach counts, flash schedule analysis, clearance interval analysis, collision diagrams, crash analysis & recommendations, summary of measures of effectiveness, benefit-cost analysis and summary of each local meeting.

MDOT RESPONSIBILITIES:

Host a project initiation meeting to discuss the overall project schedule including data collection and to coordinate project activities and to determine signal timing objectives and issues.

Furnish to the Consultant the following:

The most recent 3-year traffic crash summaries from MDOT in a 250 ft radius around each signalized location.

Existing timing plans and signal drawings of each intersection.

Conduct final reviews and provide comments on proposed timing permits, computer models and reports.

PAYMENT SCHEDULE:

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

CONSULTANT PAYMENT:

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 "then 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.