

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 Required with Proposal)**

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
---	-----------------------	----------

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 Non-Prequalified Work)

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

Michigan Department of Transportation

**SCOPE OF SERVICE
FOR
AS NEEDED CONSTRUCTION SERVICES
Bridge Underclearance Measurements**

CONTROL SECTION: Various

JOB NUMBER: Various

PROJECT LOCATION: Statewide

DESCRIPTION OF WORK: This is an as needed assignment to update MDOT's records of bridge underclearance measurements and is broken into two tasks:

1. Annually determine bridges that had underclearance measurement changes due to construction activities over the prior year. This will be accomplished by reviewing MDOT's construction bid letting files and by direct contacts to the affected TSC office's. The major criteria for triggering measurement requirements include bridge replacements; deck widening and road construction under the bridge. MDOT may elect to perform this task in lieu of the contractor.
2. Perform bridge underclearance measurements for those bridges identified in the first task.

The work associated with this project includes measuring minimum bridge underclearance using MDOT's high-speed bridge underclearance measurement system.

This system uses equipment developed and provided by MDOT, and determines the underclearance as the vehicle passes under the structure at highway speed. The process requires the CONSULTANT to provide a minimum of two individuals during the measurement process. One person will operate the vehicle and one person will operate the equipment.

The professional registered engineer (Engineer Assistant) is responsible for insuring Underclearance measurements are taken and reported in accordance with the federal and state requirements.

PRIMARY PREQUALIFICATION CLASSIFICATION:

Engineering Assistance

SECONDARY PREQUALIFICATION CLASSIFICATION:

None

ANTICIPATED START DATE: January 1, 2012

ANTICIPATED COMPLETION DATE: December 31, 2014

DBE REQUIREMENT: N/A

MDOT PROJECT MANAGER:

Jagjit Khanuja
Construction & Technology
Secondary Complex
8885 Ricks Road
Lansing, MI 48909
517-636-4204
517-322-5664 Fax
E-mail: khanujaj@michigan.gov

CONSULTANT RESPONSIBILITIES:

Work Plan & Schedule

The CONSULTANT needs to be aware that this work is dependent upon weather conditions.

The CONSULTANT must develop a work plan detailing the process for obtaining the underclearance measurements for the structures listed.

The CONSULTANT is also required to develop a project schedule showing major tasks to complete the project. The project schedule must be submitted in the form of a Gantt chart showing meeting dates, report submissions, etc. as milestones.

In addition to the Project Schedule, the CONSULTANT will develop a field work schedule. The field work schedule will consist of a list of showing the control sections and bridge numbers that are anticipated to be completed during a two-week period. This schedule will be updated during the project and submitted to the MDOT project manager for review and approval on a bi-weekly basis.

The CONSULTANT must be prepared to begin the project after receiving the Notice to Proceed (NTP) to meet the completion date. Field schedules are subject to change by MDOT when traffic disruption occurs.

The CONSULTANT must staff the project with the number of personnel necessary to complete the project in the allotted time.

Meeting Dates

The CONSULTANT is required to attend a project initiation meeting, equipment installation and training, and progress meetings. The anticipated period for these meetings is shown

below; however, these may be adjusted as mutually agreed to by MDOT's project manager and the CONSULTANT.

Project Initiation Meeting: As soon as possible after the NTP is issued (before beginning any field work).

Equipment Installation and Training: Prior to field work.

Progress Meetings: Every week or once in every two weeks, as decided by MDOT's project manager.

See Section MEETINGS for a description of the CONSULTANT's responsibilities.

Project Manager/Team Leader

The project manager/team leader will be responsible to provide the progress reports every week, and be the primary contact with MDOT's project manager.

One manager level position will be allowed and paid for on this project.

Field Staff

A team comprised of technical staff with experience using a laptop computer with a window operating system, and in taking field measurements. Staff shall have good driving records.

Equipment

1. The CONSULTANT will use MDOT's high speed bridge underclearance measurement equipment for this project. The basic measurement equipment consists of software, cables, and a truck mounted laser. The CONSULTANT will be trained in the use and calibration of the equipment.
2. A laptop computer with software will be provided by MDOT to collect the underclearance data.
3. The CONSULTANT must provide all of the necessary personal safety equipment for each employee at the work site. All safety equipment must be in sound working order, meeting applicable inspections for safe operation.
4. The CONSULTANT shall send their field staff to attend a 1-day training session for the use and handling of the underclearance equipment, and how to interpret the data. The training session will be completed after the installation of the equipment. The training session and equipment installation will be completed at MDOT's Construction and Technology Building, 8885 Ricks Road, Lansing, Michigan.

5. The CONSULTANT is responsible for any damaged or stolen MDOT equipment while in their possession. Upon completion of the project, the CONSULTANT shall return the underclearance measurement device and laptop computer to MDOT in good condition. It is the responsibility of the CONSULTANT to have insurance for the equipment. The cost of the lasers and other parts are around \$11,000, and the cost of the laptop with software is \$3,300.
6. The CONSULTANT is responsible for furnishing the vehicle, which must have a two inch trailer hitch to install the equipment. For adjustments and stability, several holes may need to be drilled in the vehicle for equipment mounting. MDOT will not reimburse the CONSULTANT for any damage to the vehicle caused by the installation of the underclearance measuring devices.

Note: This will involve drilling the holes in the vehicle.

7. The CONSULTANT shall perform daily calibration checks by driving the vehicle under two structures. The first structure shall be around 18.5 feet and the second structure around 12 feet. These two structures must be accurately measured so the measurements can be entered into the calibration software. If the unit fails to calibrate and measurements can not be taken, the unit must be returned to the Construction and Technology Support Area for repair.

UNDERCLEARANCE BRIDGE MEASUREMENTS

The CONSULTANT may elect to suggest activities in the proposal that will improve the process or to save costs.

The basic tasks involved with obtaining the underclearance measurements are as follows:

1. The CONSULTANT shall plan the route, and correctly identify the bridge structure numbers. If needed, the CONSULTANT should physically examine the bridge structures to confirm identification.
2. The underclearance data for each structure will be collected along each pavement marking. The numbers of lanes under the structure, plus one, is the total number of passes required to obtain the measurements (i.e. two lanes under will require three passes). See Attachment A for an example of underclearance data processing and reporting.
3. The CONSULTANT shall process the data to determine the bridge underclearance. This process involves reviewing each pass for each structure using the underclearance software. The person in charge of the data collection should also perform the data analysis. The data processing should occur as soon as possible to reduce the number of errors, i.e. at the end of each day or the beginning of the following day. The CONSULTANT shall complete Form 1190, Structure Clearance Measurements, for each bridge, and sign and date it.

4. The CONSULTANT shall generate a spreadsheet that clearly identifies the findings and underclearance measurements. A sample spreadsheet will be provided during the training process. The CONSULTANT will be responsible to verify the data with existing structure sheets or previous underclearance measurements to verify it is reasonable. If the data is not reasonably correct, the CONSULTANT must recheck or re-measure the underclearance measurement for the same bridge.
5. Underclearance measurements **should not be taken** in the rain and the laser accuracy is only guaranteed to 32°F. Measurement **shall not be taken** below this point.
6. The CONSULTANT will provide a log of existing clearance measurements displayed on the bridge and indicate if an underclearance sign is missing.
Note: Bridges having underclearance greater than 16 feet and 2 inches do not require signs
7. The CONSULTANT shall submit a quality control plan to MDOT describing the method used for measurements to ensure the correct underclearance is measured and recorded for each bridge.
8. The CONSULTANT shall provide general monitoring and quality auditing inspection to assure the work performed to date is correct and in conformance with the scope of work before submitting progress payments.
9. The CONSULTANT must submit an electronic copy of the data to MDOT's project manager after the task is completed.
10. The final deliverable will be the minimum underclearance report. All units measurements in the report must be presented in English units.

TRAFFIC CONTROL

Due to the technology of the measuring equipment, MDOT does not anticipate the need for traffic control. However, the consultant may propose traffic control options to MDOT for review and approval.

Permits for the traffic control and working in MDOT's right-of-way must be obtained from the appropriate MDOT Transportation Service Center (TSC) or region prior to the start of work. Allow ample time for permit issuance. The CONSULTANT will be responsible for obtaining all permits and notifying the region engineer in writing (with a copy to the MDOT project manager) of the time and location of the work.

MEETINGS

A mandatory project initiation meeting will be held with the CONSULTANT **before** the start of the site fieldwork. The project manager will be required to attend the meeting, which will be held at

MDOT's Construction and Technology Building, 8885 Ricks Road, Lansing, Michigan, 48909, or at a location mutually agreed to.

This meeting is intended to exchange information regarding the general procedures for communication, review the schedule, discuss emergency procedures and communication, and discuss any open questions that remain. The meeting will be attended by MDOT region and statewide staff.

Progress meetings will be held as needed.

The CONSULTANT will keep notes of these meetings and provide minutes to MDOT's project manager within one week after the meeting.

SAFETY

The services described herein are financed with public funds. The vendor shall comply with applicable federal and state laws, rules and regulations. The vendor shall perform field operations in accordance with MIOSHA regulations and accepted safety practices.

It is not the responsibility of MDOT to verify the CONSULTANT's safety practices; however, MDOT's project manager has the authority to have any individual found working unsafely removed from the MDOT right-of-way. If the CONSULTANT is found to be working unsafely, MDOT's project manager can stop all operations and terminate the contract.

It is the responsibility of the CONSULTANT for the safety of their workers, and MDOT is not liable in failure to comply with MIOSHA regulations and MDOT required safety standards.

EXISTING RECORDS AND DATA

Information and equipment furnished to the CONSULTANT will not be released or distributed to any outside agency without written permission from MDOT's project manager.

Release of information: The CONSULTANT may not release any information about the structures to anyone outside of MDOT. The CONSULTANT is not allowed to make copies of the information in the bridge files, unless given written approval from the MDOT project manager.

MDOT RESPONSIBILITIES:

MDOT will provide any information needed about location of bridges, existing underclearance measurements, or other applicable bridge information in spreadsheet format.

MDOT personnel will mount the equipment to the CONSULTANT's vehicle.

MDOT will also provide contact information for technical support.

MDOT will furnish the CONSULTANT access to any available pertinent information related to the

structures being measured.

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.

The hours provided are only an estimate. The Consultant will be reimbursed a proportionate share of the fixed fee based on the portion of the authorized total hours in which services have been provided to the Department. Fixed fee on "as needed" projects is computed by taking the percent of actual labor hours billed to labor hours authorized, then applying that percentage to the total fixed fee authorized.

MDOT reserves the right to request services on other projects located in the Region/TSC area that are not listed above, under the conditions of this "as needed" scope of services.

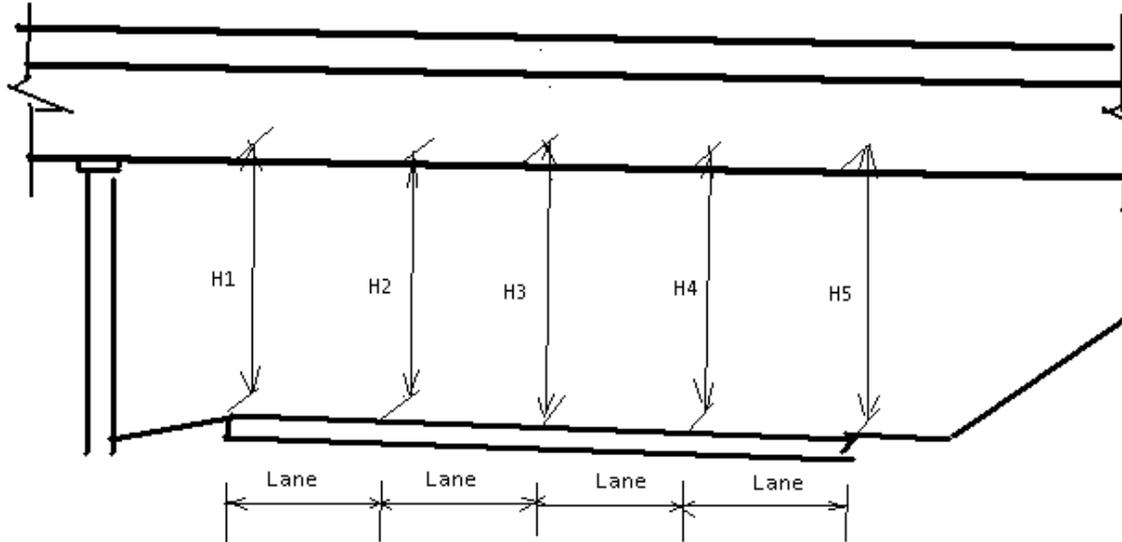
Full time services may not be required on all projects at all times. This scope is for "as needed" services, based on the intermittent needs of MDOT. It must be noted that this is not a guarantee

that MDOT will use the Consultant's services.

The hours billed for inspectors will not begin until the inspectors report to the project site or to the project office.

UNDERCLEARANCE DATA PROCESSING AND REPORTING

The CONSULTANT shall make and record $N+1$ passes under each structure opening where N represents the number of lanes under the structure opening. The minimum underclearance over each lane line shall be measured and recorded as shown below.



The example shows four lanes but for N lanes measurements $H1, H2, H3, \dots, H(N+1)$ shall be recorded.

Definitions:

Right Opening When two roadways are present under a structure, the NB or EB roadway is in the right opening. If only one roadway is present under a structure, the right opening data columns are filled and the left opening data columns are null.

Left Opening When two roadways are present under a structure, the SB or WB roadway is in the left opening. If only one roadway is present under a structure, the right opening data columns are filled and the left opening data columns are null.

Minimum Vertical Clearance, Right The minimum of the measured clearances over the right opening. In the example above, it is the minimum value of ($H1, H2, H3, H4,$ and $H5$).

Minimum Vertical Clearance, Left The minimum of the measured clearances over the right opening. In the example above, it is the minimum value of ($H1, H2, H3, H4,$ and $H5$). If there is no left opening, then zero is recorded for this item.

Minimum Clearance Under Bridge The minimum non-zero value of the right and left minimum vertical clearances.

Best 10' Clearance, Right Opening The maximum of the lane clearances under the right opening. In the example above, first each minimum lane clearance needs to be computed, then the maximum of these lane clearances is recorded as the best 10' clearance. In other words, best 10' clearance = $\text{MAX} (\text{MIN} (H1,H2), \text{MIN} (H2,H3), \text{MIN} (H3,H4), \text{MIN} (H4,H5))$

Best 10' Clearance, Left Opening The maximum of the lane clearances under the left opening. In the example above, first each minimum lane clearance needs to be computed, then the maximum of these lane clearances is recorded as the best 10' clearance. In other words, best 10' clearance = $\text{MAX} (\text{MIN} (H1,H2), \text{MIN} (H2,H3), \text{MIN} (H3,H4), \text{MIN} (H4,H5))$ If there is no left opening, then zero is recorded for this item.

Best 10' Clearance Under Bridge The maximum of the best 10' clearances for the left and right openings.

Reporting Results

Results will be reported on a spreadsheet having the following columns:

Structure Number
MDOT ID (e.g. 82024-S19)
Min Clearance, Left (Zero if no left opening)
Min Clearance, Right
Min Clearance Under Bridge
Best 10' Clearance, Left (Zero if no left opening)
Best 10' Clearance, Right
Best 10' Clearance Under Bridge
Existing Sign Underclearance

Measurements to be reported in feet with 2 decimal accuracy (e.g. 15.47')