

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

	REQUISITION NUMBER	DUE DATE	TIME DUE
MDOT PROJECT MANAGER	JOB NUMBER (JN)	CONTROL SECTION (CS)	

DESCRIPTION

MDOT PROJECT MANAGER: Check all items to be included in RFP			CONSULTANT: Provide only checked items below in proposal
WHITE = REQUIRED ** = OPTIONAL Check the appropriate Tier in the box below			
<input type="checkbox"/> TIER I (\$50,000 - \$150,000)	<input type="checkbox"/> TIER II (\$150,000-\$1,000,000)	<input type="checkbox"/> TIER III (>\$1,000,000)	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Understanding of Service **
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Innovations</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Organizational Chart
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Qualifications of Team
Not required as part of Official RFP	Not required as part of Official RFP	<input type="checkbox"/>	Quality Assurance/Quality Control **
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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)	7 pages (MDOT Forms not counted)	14 pages (MDOT forms not counted)	Total maximum pages for RFP not including key personnel resumes. Resumes limited to 2 pages per key staff personnel.

PROPOSAL AND BID SHEET EMAIL ADDRESS – mdot-rfp-response@michigan.gov

GENERAL INFORMATION

Any questions relative to the scope of services must be submitted by e-mail to the MDOT Project Manager. Questions must be received by the Project Manager at least five (5) working days prior to the due date and time specified above. All questions and answers will be placed on the MDOT website as soon as possible after receipt of the questions, and at least three (3) days prior to the RFP due date deadline. The names of vendors submitting questions will not be disclosed.

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal.

MDOT FORMS REQUIRED AS PART OF PROPOSAL SUBMISSION

5100D – Request for Proposal Cover Sheet

5100J – Consultant Data and Signature Sheet (Required for all firms performing non-prequalified services on this project.)

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

REQUEST FOR PROPOSAL

The Michigan Department of Transportation (MDOT) is seeking professional services for the project contained in the attached scope of services.

If your firm is interested in providing services, please indicate your interest by submitting a Proposal, Proposal/Bid Sheet or Bid Sheet as indicated below. The documents must be submitted in accordance with the latest (Consultant/Vendor Selection Guidelines for Services Contracts) **AA**



RFP SPECIFIC INFORMATION

ENGINEERING SERVICES BUREAU OF TRANSPORTATION PLANNING OTHER

THE SERVICE WAS POSTED ON THE ANTICIPATED QUARTERLY REQUESTS FOR PROPOSALS
 NO YES DATED _____ THROUGH _____

<input type="checkbox"/> Prequalified Services – See 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, 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 all firms performing non-prequalified services on this project.
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Qualification Based Selection - Use Consultant/Vendor Selection Guidelines.

For all Qualifications Based Selections, the selection team will review the information submitted and will select the firm considered most qualified to perform the services based on the proposals. The selected firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

For a cost plus fixed fee contract, the selected vendor must have a cost accounting system to support a cost plus fixed fee contract. This type of system has a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the vendor’s job-order accounting system.

Qualification Based Selection / Low Bid – Use Consultant/Vendor Selection Guidelines. See Bid Sheet instructions for additional information.

For Qualification Review/Low Bid selections, the selection team will review the proposals submitted. The vendor that has met established qualification threshold and with the lowest bid will be selected.

Best Value – Use Consultant/Vendor Selection Guidelines, See Bid Sheet Instructions below for additional information. The bid amount is a component of the total proposal score, not the determining factor of the selection.

Low Bid (no qualifications review required – no proposal required.)

BID SHEET INSTRUCTIONS

Bid Sheet(s) are located at the end of the Scope of Services. Submit bid sheet(s) with the proposal, to the email address: mdot-rfp-response@michigan.gov. Failure to comply with this procedure may result in your bid being rejected from consideration.

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PARTNERSHIP CHARTER AGREEMENT

MDOT and ACEC created a Partnership Charter Agreement which establishes guidelines to assist MDOT and Consultants in successful partnering. Both the Consultant and MDOT Project Manager are reminded to review the [ACEC-MDOT Partnership Charter Agreement](#) and are asked to follow all communications, issues resolution and other procedures and guidance’s contained therein.

**NOTIFICATION
MANDATORY ELECTRONIC SUBMITTAL**

Proposals submitted for this project must be submitted electronically.

The following are changes to the Proposal Submittal Requirements:

- Eliminated the Following Requirements:
 - Safety Program
 - Communication Plan
 - Past Performance as *a separate section*
 - Separate section for DBE Statement of goals. Include information in Qualification of Team section

- Implemented the Following Changes:
 - All proposals require an Organization Chart
 - Resumes must be a maximum of two pages
 - Only Key (lead) staff resumes may be submitted
 - Tier III proposal reduced from 19 to 14 pages
 - Forms 5100D, 5100I, and 5100G combined – 5100D
 - Forms 5100B and 5100H combined – 5100B
 - RFP's will be posted on a weekly basis -- on Mondays

The following are Requirements for Electronic Submittals:

- Proposals must be prepared using the most current guidelines
- The proposal must be bookmarked to clearly identify the proposal sections (See Below)
- For any section not required per the RFP, the bookmark must be edited to include “N/A” after the bookmark title.
Example: Understanding of Service – N/A
- Proposals must be assembled and saved as a single PDF file
- PDF file must be 5 megabytes or smaller
- PDF file must be submitted via e-mail to MDOT-RFP-Response@michigan.gov
- MDOT's requisition number and company name must be included in the subject line of the e-mail. The PDF shall be named using the following format:
 - Requisition#XXX_Company Name.PDF
- MDOT will not accept multiple submittals
- Proposals must be *received* by MDOT on or before the due date and time specified in each RFP

If the submittals do not comply with the requirements, they may be determined unresponsive.

The Consultant's will receive an e-mail reply/notification from MDOT when the proposal is received. Please retain a copy of this e-mail as proof that the proposal was received on time. **Consultants are responsible for ensuring the MDOT receives the proposal on time.**

****Contact Contract Services Division immediately at 517-373-4680 if you do not get an auto response****

Required Bookmarking Format:

- I. Request for Proposal Cover Sheet Form 5100D
 - A. Consultant Data and Signature Sheet, Form 5100J (if applicable)
- II. Understanding of Service
 - A. Innovations
- III. Qualifications of Team
 - A. Structure of Project Team
 - 1. Role of Firms
 - 2. Role of Key Personnel
 - B. Organization Chart
 - C. Location
- IV. Quality Assurance / Quality Control Plan
- V. Resumes of Key Staff
- VI. Pricing Documents/Bid Sheet (if applicable)

2/14/12

**NOTIFICATION
E-VERIFY REQUIREMENTS**

E-Verify is an Internet based system that allows an employer, using information reported on an employee's Form I-9, Employment Eligibility Verification, to determine the eligibility of that employee to work in the United States. There is no charge to employers to use E-Verify. The E-Verify system is operated by the Department of Homeland Security (DHS) in partnership with the Social Security Administration. E-Verify is available in Spanish.

The State of Michigan is requiring, under Public Act 200 of 2012, Section 381, that as a condition of each contract or subcontract for construction, maintenance, or engineering services that the pre-qualified contractor or subcontractor agree to use the E-Verify system to verify that all persons hired during the contract term by the contractor or subcontractor are legally present and authorized to work in the United States.

Information on registration for and use of the E-Verify program can be obtained via the Internet at the DHS Web site: <http://www.dhs.gov/E-Verify>.

The documentation supporting the usage of the E-Verify system must be maintained by each consultant and be made available to MDOT upon request.

It is the responsibility of the prime consultant to include the E-Verify requirement documented in this NOTIFICATION in all tiers of subcontracts.

9/13/12

MICHIGAN DEPARTMENT OF TRANSPORTATION

**SCOPE OF SERVICE
FOR
PRE-DESIGN SERVICES
DEVELOPING BRIDGE REPAIR ALTERNATIVES**

CONTROL SECTION: 82194

JOB NUMBER: 131057

LOCATION: B01-82194 and B01-82194-5&6
I-75 over Rouge River: mainline, NB off-ramp, & SB on-ramp
S06-82194 I-75 over Fort Street

These bridges (hence referred to as Rouge River bridge and Fort Street bridge for convenience) are considered “Big Bridges”, as the deck areas that exceed 100,000 square feet. The deck area of the Rouge River mainline structure is more than 1,140,000 sft (1.6 miles long, 8 lanes wide, and 106 spans). The deck area of the Fort Street bridge is approximately 108,800 sft, with 10 spans. The bridges are located in the City of Detroit (MDOT Metro Region) but the scoping project will be administered by the Bridge Management unit in Lansing.

PURPOSE:

Due to the considerable size of these bridges, the scoping and subsequent rehabilitation will focus primarily on substructure elements at this time. The purpose of this service is to develop the scope of work and cost estimate in the form of a Scoping Report for these structures. The information contained in the Scoping Report will be used by the Design Division to prepare substructure repair plans for a proposed 2021 project. The content of the report will need to be sufficient to adequately convey the general physical condition of the substructures and the specific areas in need of repair.

ANTICIPATED SERVICE START DATE: June 13, 2016

ANTICIPATED SERVICE COMPLETION DATE: December 30, 2016

PRIMARY PREQUALIFICATION CLASSIFICATIONS: Design – Bridges: Scoping

SECONDARY PREQUALIFICATION CLASSIFICATIONS: none

DBE REQUIREMENT: N/A

PROJECT MANAGER: Linda Reed, P.E.
Bridge Scoping Engineer
MDOT Design Division
425 W. Ottawa
Lansing, Michigan 48912
reedl@michigan.gov

CONSULTANT RESPONSIBILITIES:

The CONSULTANT PM will be the primary contact with MDOT's PM, and will immediately report any unusual findings to the MDOT PM or her designate. Only one manager level position will be allowed and paid for in this project. The CONSULTANT PM is considered key staff and if he/she is unable to finish the work of the entire project, the authorization may be terminated and incomplete work will not be paid for. The CONSULTANT can submit an alternate PROJECT MANAGER who could take the place of the primary PROJECT MANAGER in the event the latter cannot finish the project for approval with the initial submission of the technical proposal.

The CONSULTANT must assign additional staff necessary to complete the work in the required time frame. The qualifications and experience of these individuals must be suitable for the assigned tasks.

GENERAL INFORMATION:

The work for each bridge in this scope of work is broken down into three main components: A) Field Work, B) Engineering Analysis, and C) Report Development.

A. FIELD WORK

1. General

Plans of the bridge are available on the MDOT ftp site in the directory "Rouge River Fort St Subst". Contact the MDOT PM if you have any problems accessing the file.

The bridge and environs must be visited by the CONSULTANT PM. The purpose of this visit is to locate all areas of deterioration, to determine feasible repair options, associated approach work, maintenance of traffic options, and to determine quantities. Where necessary, high-reach equipment or an under bridge inspection crane must be used to get close enough to evaluate the structural components.

The information collected in the field must be sufficient to determine quantities and locations of repairs and improvements. This information must be detailed in the field notes and/or sketches and these notes are to be included in the report.

Field work includes a close-up visual inspection (within 3 feet) of all substructure elements, sounding of all associated concrete surfaces, visually examining fractured concrete to determine if it contains slag aggregate, and documenting all findings. Items of deterioration (including linear cracks, map cracks, re-cracking, rust stains, spalls, delaminations, leaking or leaching, previous patching, delamination or failure of CFRP wrap, corrosion, section loss, fatigue cracking, evidence of externally-caused damage, unusual movements, etc.) will be documented in written form and diagrammed. Areas to be inspected include:

- a. Abutments, piers, crashwalls, return walls, slope protection, downspouts, etc.
- b. Bearings – While inspecting pier caps, visually inspect bearings for any signs of distress and determine if the bearings are functioning as intended.

- c. Beam Ends – While inspecting pier caps, visually inspect beam ends and measure and document section loss greater than 20%.
- d. The area immediately around the bridge must be closely evaluated to determine if there are any site issues or constraints that may have an impact during construction. These include items such as:
- (1) Utilities attached to or near the bridge substructure.
 - (2) Signs or sign brackets attached to the bridge substructure.
 - (3) ITS components, such as cameras, changeable message signs, conduit, and other ITS elements.
 - (4) Drainage downspouts attached to the substructure. Document any evidence of ponding below the structure or evidence of erosion around pier columns or footings, or abutment slope paving.
 - (5) Roads or parking lots beneath the bridge.
 - (6) Railroad tracks beneath or adjacent to the bridge.
- e. Additionally the following items are some that must be considered:
- (1) Is the bridge eligible for the National Historic Register? (*Answer is yes for the Rouge River structure.*)
 - (2) Does this bridge have special structural design or constructed features which may affect the repair options such as **slag aggregate**?
 - (3) Are there environmental issues that may impact the project?
 - (4) What is the future plan for the corridor and how will that affect rehab recommendations?
- f. Traffic Control - The CONSULTANT will consider and propose potential traffic control schemes and will contact the appropriate MDOT Transportation Service Center (Taylor TSC) Traffic and Safety Engineer for assistance estimating the costs for maintaining traffic. Final detailed traffic control costs for construction will be determined by MDOT.

If, during the site review, the CONSULTANT finds any structural condition that may cause the bridge to be load restricted (such as holes in deck or beams, significant loss of bearing, etc.), or which may require other immediate action (such as lane closures, temporary supports, or emergency repairs, etc.), the CONSULTANT will notify the MDOT PM as soon as possible. The CONSULTANT will also provide documentation of the condition (such as beam section loss measurements, photos, etc.) to the MDOT PM as quickly as possible.

2. Determining Repair Options

The bridge will be evaluated to determine the most appropriate repair option based on the physical condition of the bridge, economic considerations, and engineering judgment. The repair recommendations are to be for the 2021 construction season. The following are the types of repair options that are to be considered:

- a. “Hold”, or Defer work 10-15 years,
- b. Substructure patching or partial replacement, and/or
- c. CFRP column wrapping or other innovative treatment to address complications of patching concrete containing slag aggregate.

3. Photographs

A photo log of the bridge and the surrounding areas must be included in the report. All of the pictures must be mounted on 8 ½" X 11" media (2 photos per page) and are to be captioned with a description of what the picture is intended to show. Each copy of the scoping report must have this series of pictures showing at least the following items and sequenced in the following order:

- a. Abutments, including slope protection and return walls.
- b. Piers, showing all faces.
- c. Beam ends, bearings, or downspouts with distress that warrants repair.
- d. Roadway, RR, and/or Waterway below the bridge.
- e. Major deteriorated areas.
- f. Utilities.
- g. Other items that could affect the cost of rehabilitation.

In addition, pictures must be taken which will support the CONSULTANT's repair recommendations. All pictures must be captioned to describe the picture's general view (such as north elevation, etc.) and to describe the pertinent item or deterioration.

4. Equipment

The CONSULTANT will be responsible for providing necessary high reach equipment and will include the cost as a direct expense. However, MDOT will provide (free of charge) the use of an under bridge inspection truck or Reach-all for access to the top of piers where other high reach equipment is incapable of access, such as over the river. The CONSULTANT will be responsible for contacting the MDOT Operations Field Services Division (Aaron Porter at 517-242-5788 or Jason DeRuyver at 517-322-3320) to schedule one of the Reach-all units a minimum of 14 days in advance. The CONSULTANT will coordinate the use of the Reach-all to ensure the equipment is fully utilized while onsite and released as soon as the high reach areas are inspected. MDOT will provide traffic control during the use of the Reach-all.

The Reach-all is part of the Department's emergency response team and may be called away unexpectedly. The CONSULTANT will plan for this contingency and should this occur, will re-direct the field staff to maintain efficiency and the schedule.

The CONSULTANT will ensure that all personnel have personal protective safety equipment (PPE), including safety shoes, and that it is worn by the staff while onsite.

5. Maintenance of Traffic

Traffic control during the site review (except during the use of the MDOT Reach-all) will be the responsibility of the CONSULTANT. Traffic control will follow standard MDOT procedures. Permits for the traffic control and for working in the MDOT Right of Way must be obtained from the appropriate MDOT Transportation Service Center (Taylor TSC) or Region (Metro Region) prior to the start of work. Allow ample time for permit issuance. Nighttime or weekend work may be required for lane closures on I-75 at this location. Other traffic control restrictions may be imposed by the Region or TSC.

6. Railroad Flagging & Permits

If it is necessary to work over or immediately adjacent to an active railroad during the site review phase, the CONSULTANT will be responsible for obtaining the necessary permits and flagmen. Costs for this will be considered an expense and must be detailed as a direct expense in the proposal and on the invoice. Please allow ample time for Railroad review and permit issuance.

7. Testing

If the CONSULTANT PM feels that material testing is needed to better understand the condition of the bridge elements to evaluate the best repair option, a testing proposal must be submitted to the MDOT PM for approval. The testing proposal will show what tests are to be performed, what specific information is to be gained from the testing, how this information is to be used, and the cost of testing and necessary traffic control. Proposals submitted with insufficient justification for testing will be denied.

The results and analysis of any testing that is approved and performed will be discussed in the Field Site Review Findings section of the report and the actual test reports will be included in the Appendix.

B. ENGINEERING ANALYSIS

The engineering analysis phase will include an evaluation of the field work findings; the preparation of and evaluation of repair strategies, including the estimate of cost of the repair strategies; and the selection of the best repair option.

1. Estimating Various Repair Options

Cost estimates for each of the repair options will be prepared for each bridge. A standard form Bridge Cost Estimate Worksheet with unit prices will be used (Attachment A). The estimates required are “early preliminary estimates” and not the more detailed “engineering estimates.” The object is to determine the most economical method of treatment and to establish the budget. Estimates are to be broken down by work activity and must list the quantity and assumed unit price. *Due to the magnitude of the anticipated construction contract, the unit price on the Scoping Estimate sheet may not be applicable. Please use engineering judgement and provide the logic used to determine a more realistic unit price based on economy of scale.*

C. REPORT DEVELOPMENT

The deliverables for this scope of work will be the Bridge Scoping Report, with Appendix.

1. Format

The report must be submitted in Microsoft Word format, with one copy created in Adobe pdf on CD. All reports must be printed on both sides of the paper. Photographs are to be printed in color with two photographs per page. The reports shall be submitted in a **three-ring binder** as described below. The binder will contain all information pertaining to the site review findings, recommendations, photos, field notes, inspection reports, etc. for each bridge.

2. Drafts & Final Reports

The reports will be submitted in two phases: draft version and final version. The draft report will be a complete report, with **3 hard copies and 1 electronic copy** submitted to the MDOT PM. These

will be reviewed by the Region Bridge Engineer, Lansing Bridge Design, and the Bridge Scoping Engineer. MDOT reserves the right to request additional drafts for review if, in the opinion of the MDOT PM, the changes required are extensive. Comments and questions arising from those reviews will be given to the CONSULTANT to be incorporated into the final report if appropriate, as well as addressed separately and submitted with the final report. Photographs and sketches from the draft reports will be returned to the CONSULTANT, to be incorporated into the final reports. **Four hard copies** of the final report will be submitted, along with **1 electronic** version on CD.

Incomplete final reports or reports with errors will be returned to the CONSULTANT for revision. Failure to make the required changes will be considered a failure to meet the terms of the scope of work.

3. Layout

The Scoping Report will be divided into chapters as follows:

a. Table of Contents

b. General Site Review Procedures

This section will summarize the general procedures used during the site reviews (field work). This information will include the site review dates for each bridge, typical equipment used, typical traffic control procedures, typical site review procedures, etc.

c. Executive Summary

This is to include a statement of the recommended treatment for the bridge(s) and the cost of the initial repair. The executive summary will be a “stand alone” section and will not refer to other sections of the report, nor will the main text refer to information in the executive summary.

d. Field Site Review Findings

This section will include, as a minimum, discussion of the following areas:

- (1) Overall assessment of the condition of the bridge substructure, with other bridge element distress described separately.
- (2) Site issues, such as maintenance of traffic, utilities, access issues, etc. In the case where no site issues that would impact the rehabilitation of the structure were identified, a statement will be made that all areas were investigated and no issues were found.
- (3) Testing results and implications to the repair options.
- (4) The following outline may be used for a consistent presentation format for the body of this section of the report:

- i. Superstructure (girders, bearings)
- ii. Substructure (abutments, wingwalls, piers, crashwalls, slope protection, downspouts)
- iii. Site Issues (maintaining traffic, signs, utilities, access issues, etc.)
- iv. Material Testing (if applicable)

e. Rehabilitation Options

This section will include a discussion of the rehabilitation options. For each option evaluated, a discussion of the necessary improvements and the associated initial costs will be included. The report must discuss and state the reasoning and judgment for selection of the recommended

option. This discussion will also include the reasoning for the elimination of all other options, as appropriate. A table summarizing the initial construction cost for each of the options considered will be included in this section for ease of comparison.

f. Summary with Repair Recommendation

This section will state the recommended course of action for the bridge and the factors used in determining this recommendation. This section will also briefly discuss the effects of postponing the recommended improvements.

g. Appendix

- (1) Photos with descriptions
- (2) Cost Estimate Sheets
- (3) Field notes and sketches, including sketches of substructure repair areas, steel beam repair areas, etc.
- (4) Bridge Inspection Reports (current BSIR & Element Report)
- (5) Lab test reports (if applicable)

DURATION & SCHEDULE:

Authorization for this project and “Notice to Proceed” is expected in June 2016 and the **final report will be due December 30, 2016**. The CONSULTANT will develop a detailed schedule, including specific dates and milestones as described below which will form a part of the contract. Failure to progress in alignment with the schedule will be considered as failing to meet the terms of this contract and may result in the cancellation of the contract.

A. SCHEDULE OF DATES AND MILESTONES

The CONSULTANT is required to develop a Project Schedule in alignment with the project parameters described above, for this work. The Project Schedule must include a Gantt chart showing meeting dates, draft report submissions, etc. as milestones.

A high level Project Schedule must be submitted as part of the Price Proposal. A fully complete Project Schedule will be submitted, to the MDOT PM for approval, at the project initiation meeting.

Once the project begins, the CONSULTANT will be required to adhere to the schedule and any changes to the schedule must be submitted to the MDOT PM for approval prior to the change.

The CONSULTANT must be prepared to begin the field evaluation work within two weeks after receiving Notice to Proceed.

B. MEETING DATES

1. Project Initiation Meeting – Approximately one week after NTP (Notice to Proceed) and before beginning any field work. Location to be determined.
2. Draft Report Review Meeting – After draft report is submitted and reviewed by MDOT. This meeting will be held at the discretion of the MDOT PM.

CONSULTANT PAYMENT – Actual Cost Plus Fixed Fee:

Compensation for this project shall be on an **actual cost plus fixed fee** basis. This basis of payment typically includes an estimate of labor hours by classification or employee, hourly labor rates, applied overhead, other direct costs, subconsultant costs, and applied fixed fee. The fixed fee for profit allowed for this project is 11.0% of the cost of direct labor and overhead.

All billings for services must be directed to the Department and follow the current guidelines. Payment may be delayed or decreased if the instructions are not followed.

Payment to the Consultant for services rendered shall not exceed the maximum amount unless an increase is approved in accordance with the contract with the Consultant. Typically, billings must be submitted within 60 days after the completion of services for the current billing. The final billing must be received within 60 days of the completion of services. Refer to your contract for your specific contract terms.

Direct expenses, if applicable, will not be paid in excess of that allowed by the Department for its own employees in accordance with the State of Michigan's Standardized Travel Regulations. Supporting documentation must be submitted with the billing for all eligible expenses on the project in accordance with the Reimbursement Guidelines. The only hours that will be considered allowable charges for this contract are those that are directly attributable to the activities of this project.

MDOT will reimburse the consultant for vehicle expenses and the costs of travel to and from project sites in accordance with MDOT's Travel and Vehicle Expense Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at http://www.michigan.gov/documents/mdot/Final_Travel_Guidelines_05-01-13_420289_7.pdf?20130509082418. MDOT's travel and vehicle expense reimbursement policies are intended primarily for construction engineering work. Reimbursement for travel to and from project sites and for vehicle expenses for all other types of work will be approved on a case by case basis.

MDOT will pay overtime in accordance with MDOT's Overtime Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at http://www.michigan.gov/documents/mdot/Final_Overtime_Guidelines_05-01-13_420286_7.pdf?20130509081848. MDOT's overtime reimbursement policies are intended primarily for construction engineering work. Overtime reimbursement for all other types of work will be approved on a case by case basis.

ATTACHMENT A

BRIDGE COST ESTIMATE WORKSHEET - CPM, REHAB, REPLACE -

REV. 12/11/2015

2016

REGION: _____ FISCAL YEAR: _____ STRUCTURE ID: (3-5 digits)
 ENGINEER: _____ DATE: _____ BRIDGE ID: XXX-XXXXX
 LOCATION: _____ DECK AREA: SFT STR. TYPE:
 PRIMARY WORK ACTIVITY: _____ DECK DIM: _____

<u>WORK ACTIVITY</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT COST</u>	<u>TOTAL</u>
NEW BRIDGE				
Multiple Spans, Concrete (add demo & road approach & traffic control)		SFT	\$220.00 /SFT	
Multiple Spans, Steel (as above)		SFT	\$250.00 /SFT	
Over Water or Single Span (add to replacement cost)		SFT	\$75.00 /SFT	
Precast 3-sided Culvert or 4-sided Box Culvert (add removal, roadway over, & t. c.)		SFT	\$400.00 /SFT	
Other				
NEW SUPERSTRUCTURE				
Concrete (includes remove exist super, new railing; add t.c. & approach)		SFT	\$140.00 /SFT	
Steel (as above)		SFT	\$180.00 /SFT	
Over Water (add to new superstructure cost)		SFT	\$40.00 /SFT	
Other				
WIDENING				
Added portion only, _____ ft of width (add road approach transition)		SFT	\$280.00 /SFT	
Other				
NEW DECK				
Includes remove exist deck & new railing (add traffic control & approach)		SFT	\$75.00 /SFT	
Other				
DEMOLITION				
Entire bridge, grade separation		SFT	\$32.00 /SFT	
Entire bridge, over water		SFT	\$42.00 /SFT	
Other				
SUPERSTRUCTURE REPAIR				
Concrete Deck Patch (includes hand chipping)		SFT	\$38.00 /SFT	
Full Depth Patch		SFT	\$80.00 /SFT	
HMA Cap (no membrane, add bridge rail if req'd)		SFT	\$1.50 /SFT	
HMA Overlay with WP membrane (add bridge rail if req'd)		SFT	\$5.50 /SFT	
Removal of Concrete Wearing Course (latex) or HMA Overlay		SFT	\$1.50 /SFT	
Healer Sealer		SYD	\$22.00 /SFT	
Epoxy Overlay		SYD	\$34.00 /SYD	
Shallow Overlay (includes joint repl & hydro; add bridge rail if req'd)		SFT	\$30.00 /SFT	
Deep Overlay (includes joint repl & hydro; add bridge rail if req'd)		SFT	\$32.00 /SFT	
High Load Hit Repair (PCI Beam)		SFT	\$260.00 /SFT	
PCI Beam End Repair (\$2700-\$5400 per beam end)		EA	\$4,200.00 EA	
Repair Structural Steel (\$4800 bolted, \$6800 welded)		EA	\$6,000.00 EA	
Paint Structural Steel (includes clean & coat)		SFT	\$12.00 /SFT	
Partial Painting (includes clean & coat)		SFT	\$24.00 /SFT	
Pin & Hanger replacement (includes temporary supports)		EA	\$9,000.00 EA	
Other				
SUBSTRUCTURE REPAIR				
Pier repair (measured x 2) Replace unit if spalled area > 30%		CFT	\$310.00 /CFT	
Pier repair over water (measured x 2)		CFT	\$350.00 /CFT	
Pier replacement		CFT	\$90.00 /CFT	
Abutment repair (measured x 2)		CFT	\$310.00 /CFT	
Temporary Supports for Substructure Repair		EA	\$1,800.00 EA	
Slope Protection repairs		SYD	\$100.00 /SYD	
Other				
MISCELLANEOUS				
Expansion or Construction Joints (includes removal)		FT	\$560.00 /FT	
Bridge Railing, remove and replace (\$230 Type 4, \$290 Aesthetic Parapet)		FT	\$290.00 /FT	
Thrie Beam Railing retrofit		FT	\$40.00 /FT	
Deck Drain Extensions		EA	\$500.00 EA	
Articulating Concrete Block System (ACB)		SYD	\$130.00 /SYD	
Scour Countermeasures		LSUM	LSUM	
Other				
ROAD WORK				
Approach Pavement, 12" RC (add C & G, GR, Slope, Shldr.) 40' ea. end		SFT	\$16.00 /SFT	
Approach Curb & Gutter (18' ea. quad.)		FT	\$55.00 /FT	
Guardrail Anchorage to Bridge (<40')		quads	\$1,600.00 /quad	
Guardrail, Type B or T (beyond GR anchorage to bridge, <200')		FT	\$23.00 /FT	
Guardrail Ending (end section)		EA	\$1,750.00 /EA	
Roadway Approach work (beyond approach pavement)		LSUM	LSUM	
Utilities		LSUM	LSUM	
Other				
TRAFFIC CONTROL <i>Unit Cost to be determined by Region or TSC T&S</i>				
Part Width Construction		LSUM	LSUM	
Crossovers		EA	\$275,000.00 EA	
Temporary Traffic Signals		set	\$22,000.00 /set	
RR Flagging		LSUM	LSUM	
Detour		LSUM	LSUM	
Other				
CONTINGENCY (10% - 20%) (use higher contingency for small projects)				
MOBILIZATION (estimate at 10%)		10	%	\$0.00
INFLATION (assume 5% per year, beginning in 2017)			%	\$0.00

(DOES NOT INCLUDE PE & CE)

CONSTRUCTION TOTAL \$0