

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

MDOT PROJECT MANAGER Erik Tamlyn	JOB NUMBER (JN) 102163	CONTROL SECTION (CS) 25031,25032,25042,25131, 25132,25085
DESCRIPTION IF NO JN/CS		

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 checked="" type="checkbox"/> TIER III (>\$250,000)	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Understanding of Service
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Innovations</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Safety Program</i>
N/A	<input type="checkbox"/>	<input type="checkbox"/>	Organization Chart
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Qualifications of Team
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" 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 checked="" type="checkbox"/> Prequalified Services – See page <u>1</u> 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.
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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 4	PROPOSAL/BID DUE DATE 4/22/08	TIME DUE 12:00 p.m.
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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

Erik Tamlyn
55 E. Morley Dive
Saginaw, Michigan 48601

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
- 5100G** – Certification of Availability of Key Personnel
- 5100I** – Conflict of Interest Statement

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

MICHIGAN DEPARTMENT OF TRANSPORTATION

**SCOPE OF SERVICE
FOR
CONSTRUCTION SERVICES
In Depth Bridge Inspection**

CONTROL SECTION(S): 84914

JOB NUMBER: 102163

PROJECT LOCATION(S):

The bridges are located in the Bay Region in Genesee County.

DESCRIPTION OF WORK:

Section 3 of the Bridge Inspection Reference Manual (BIRM) defines an “In-Depth” inspection as a close-up inspection of one or more members above or below the water level to identify any deficiencies not readily detectable using routine inspection procedures. The work defined in this scope is limited to performing an in-depth inspection of various bridge elements and preparing a report that details the inspection findings.

See attachments for specific bridge numbers, locations, and bridge elements proposed for in-depth inspection.

The anticipated start date of the service is June 15, 2008.

The anticipated completion date for the service is December 15, 2008.

DBE REQUIREMENT: 0%

PRIMARY PREQUALIFICATION CLASSIFICATION:

Bridge Safety Inspections

SECONDARY PREQUALIFICATION CLASSIFICATION:

Bridge Project Scoping

MDOT PROJECT MANAGER

Any questions regarding this Scope of Service can be directed to the MDOT Project Manager.

Erik Tamlyn, P.E.
55 E. Morley Drive
Saginaw, MI 48601
Phone: (989) 754-0878 ext. 243
Fax: (989) 754-8122
E-mail: TamlynE@michigan.gov

GENERAL INFORMATION

The Bridge Management Section of the Bay Region, Michigan Department of Transportation (MDOT) is seeking a proposal from a “Pre-Qualified” Consulting Engineering Firm (Consultant) to perform in-depth inspections of bridge structures on state trunkline roads in accordance with the most recent version of the National Highway Institute Bridge Inspection Reference Manual.

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

The Project Manager / Team Leader will be responsible for writing the Inspection Report and will be the primary contact with MDOT’s project manager.

Submit, in writing, any changes to the Project Manager / Team Leader to MDOT’s Project Manager for review and approval.

DURATION & SCHEDULE

A. Work Plan & Schedule

The consultant must review the Scope of Service to develop a Work Plan that details the process of inspecting the specific elements for a typical bridge. Submittal of the Work Plan is required as part of the Priced Proposal. Submit any changes to the Work Plan in writing to MDOT’s Project Manager for review and approval.

The following is a schedule of target dates for this project:

- | | |
|--------------------------------|-----------------|
| 1. Priced Proposal Submission: | 5/1/08 |
| 2. Anticipated NTP: | 6/10/08 |
| 3. Project Initiation Meeting: | 6/15/08 |
| 4. Project Closeout Meeting | 12/15/08 |

The consultant must be prepared to begin the field inspection work within one week after receiving Notice to Proceed (NTP).

Coordination of lane closures and traffic control will be with the MDOT Project Manager and the local MDOT TSC. Lane closures will not be permitted during special local events/holidays without prior approval.

B. Meeting Dates

The consultant is required to attend a Project Initiation Meeting and Progress Meetings held at the MDOT Bay Region Office or at a mutually agreed location. Shown below are the expected periods for these meetings. MDOT, however, reserves the right to adjust these periods.

Project Initiation Meeting: One week after NTP (prior to any fieldwork)

Progress Meetings: Biweekly during the Field Inspection Phase

The intent of the Project Initiation Meeting is to exchange information regarding the general procedures for communication, review the schedule, discuss emergency procedures and communication, and discuss any open questions that remain. Additional MDOT region and statewide staff may attend the meeting.

The consultant will keep notes of these meetings and provide minutes to the MDOT PM within one week after the meeting.

CONSULTANT RESPONSIBILITIES

The work required for each bridge is separated into two main components:

- A) Site Inspection
- B) Report Preparation including supporting documents

The Consultant will provide a thorough structural inspection for each bridge element as required. The report phase will identify current conditions of the bridge elements, the significance of the findings, and make repair recommendations.

The consultant may elect to suggest activities that will improve the inspection or save costs:

A. SITE INSPECTION

Each bridge must be visited by the consultant PM and/or Inspection Team Leader. The purpose of this visit is to locate all areas of element deterioration, determine feasible repair recommendations, review anticipated traffic control measures, and to ascertain quantities. Ladders, high-reach equipment, and/or an under bridge crane may be necessary to get close enough to adequately inspect and evaluate the structural element (see Sections EQUIPMENT and SAFETY below).

The information collected in the field must be sufficient to determine quantities to document deterioration and locations of repairs and improvements. Detail this information in field notes, forms, sketches, and photographs, as appropriate, to be included in the report.

During the site inspection, the consultant shall immediately notify the MDOT PM of any structural condition that may cause the bridge to be load restricted (such as holes in beams), or which may require other immediate action (such as deck soffit scaling, lane closures, emergency repairs, temporary supports, etc.). The Consultant will provide documentation of the condition (beam measurements, pictures taken, etc.) to MDOT as quickly as possible.

The Consultant must render a professional judgment as to the need for structural analysis of the given structure and recommend any temporary load restrictions and /or changes to the inspection frequency. The need for additional traffic control is occasionally required to perform additional testing at an observed superstructure crack. In this case, the consultant

must notify the MDOT PM by completing a “Request for Action” (RFA) form, documenting the location of the crack and indicating how quickly the additional testing and/or examination must take place.

The Consultant shall make every effort to perform a complete in-depth inspection while on site.

1. Steel Beam End Inspection

Below is a list that includes the minimum requirements for in-depth Steel Beam End Inspection.

- a. Remove all dirt, debris, and rust scale from the ends of each of the steel beams under all joints at piers and abutments. Inspect each beam for section loss. In order to obtain accurate section measurements, clean area of measurement by use of hand tools to a SSPC SP2 degree of cleanliness. Measure thickness on the web and bottom flange at locations with the most section loss within 5 feet of the end of the beam.

Compare the thickness measurements with the original thickness and calculate the percentage of section loss (MDOT will supply the consultant with existing plans, if available). Tabulate measurements and calculations in the format as shown in Attachment No. 2, Detailed Beam Survey Report. If beam end repairs are necessary, show a plan of the super-structure detailing the location of each beam end in need of repair. Present this information with sketches showing size, shape, dimensions, and edge distances for each element with loss of section in the Appendix of the report.

- b. On structures featuring pin and hanger assemblies, clean beam ends as described in section (a). Measure thickness on the web, bottom flange, and pin plates at locations with the most section loss within 5 feet of the end of the beam. If these areas exhibit heavy flaking rust, the clean as necessary to measure for any section loss. Inspect structures with riveted pin plates and measure for section loss. If measurement readings are not feasible with an ultrasonic thickness gage due to material build up or bulging between the plates, notify the MDOT PM and note it in the report. Check pin and hanger assemblies for proper operation. Note whether the pin and hanger assembly meets current standards. Note the condition of the pin plates and if the beam ends are in contact due to pin and hanger closure.
- c. Note the condition of all other steel superstructure elements including, but not limited to, stiffeners, intermediate diaphragms, end diaphragms, pier diaphragms, cross frames, other lateral bracing and bearings including sole plates and masonry plates. Cleaning with use of hand tools may be required to perform inspection of these elements.
- d. Visually inspect for fatigue cracking on fatigue prone details including, but not limited to, welded cover plates, diaphragm connections, or any welding in tension

zones that are transverse to the plane of stress. Dye penetrant use is required at an observed or suspected crack. Document observed or suspected crack with narrative and photographs. Inform the MDOT PM within 24 hours prior to performing any dye penetrant testing.

- e. Coat all surfaces where paint has been removed to bare steel with primer prior to leaving the site.

2. Concrete Deck (Surface / Underside / Fascia)

Below is a list that includes the minimum requirements for in-depth Concrete Deck (surface / underside / fascia) inspection.

- a. Inspect the concrete deck surface, underside, and fascias for wet areas, spalling, map cracking, delamination, rust along beam edges, and any other evidence of deterioration at areas over traffic only.
- b. Sound the concrete deck surface / underside with a hammer or chain drag and mark delaminated, spalled, and cracked areas with paint to be visible in photographs. Sound the deck fascias with a hammer. Take photos to capture the entire deteriorated area and provide documentation of the type and extent of deterioration.
- c. Note the percentage of each type of deck surface and soffit deficiencies.
- d. If applicable, note any type of deck overlay material and date of placement of overlay if documented in past inspection reports.

3. Substructure / Railing

Below is a list that includes the minimum requirements for in-depth Substructure / Railing inspection.

- a. Sound all substructure and railing concrete elements including, but not limited to, pier columns, caps, abutments, and backwalls for delaminated and unsound areas. All delaminated areas are to be marked with paint that will be evident in the photographs. Sketches for each substructure and railing element mapping the areas of distress including, but not limited to, cracks, delaminated areas, and spalling are to be included in the appendix of the report. Calculate the percentage of the total distressed surface area on each sketch.
- b. Visually inspect all substructure and railing units for signs of settlement, lateral movement, cracking, spalling, exposed reinforcement and material defects. Visually examine fractured concrete to determine if it contains slag aggregate. Note the condition of the backwalls and examine the bridge seat for undermining at bearing locations. Examine pier caps flexural and shear cracking. Note areas of previous repairs. Take photos to capture the entire deteriorated area of the substructure and railing elements and provide documentation of the type and extent of deterioration.

4. Non Destructive Testing

The Consultant is to determine if non-destructive testing, beyond what is included in the Scope of Service, is required to make a more accurate assessment of the extent of bridge element deterioration. However, such testing (ultrasonic, magnetic particle testing, acoustic emission, etc.) must be approved by the MDOT PM. If the project manager approves the test, the Consultant is required to submit a testing proposal for approval. Include proposed testing method, the reason(s) additional testing is required, the output data of the testing, and details of data analysis. The MDOT PM will deny proposals submitted with insufficient information.

B. REPORT

The deliverables for this scope of work will be the reports, photographs, printed worksheets, sketches, and notes. The reports must include descriptions and observations of the inspection procedures and conditions found during inspection.

Provide two (2) draft copies of each report to the MDOT PM upon completion of all reports. After reviewing the draft, the MDOT PM will return one copy containing questions and/or comments to the Consultant for review. MDOT representatives will then facilitate a progress meeting with the Consultant to review and discuss comments. The Consultant will then incorporate revisions into the final reports. MDOT reserves the right to request additional drafts for review if, in the opinion of MDOT's Project Manager, the changes required are extensive.

The consultant will submit two (2) 3-ring bound copies of the final report for each bridge. Also, include one Compact Disk (CD) with electronic copies, in Adobe Acrobat (.pdf) format, of the final report and photographs in the final report for each bridge.

1. Photographs

Provide all photos in digital format. A photo log of the bridge and the surrounding areas must be included in the report. Print all photos on 8 ½" x 11" media with a maximum of two photos per sheet with each photo having a labeled description.

2. Recommendations

Submit repair recommendations within the reports for each structure based on the results of the in-depth inspection. The repair recommendations shall include, but not be limited to, the location and the type of repair warranted, the applicable quantities, the level of urgency of the repair, and estimated repair costs.

EQUIPMENT

The Consultant will be responsible for obtaining and operating the high reach equipment for inspection under the bridge. However, MDOT will provide an under bridge inspection crane for the Consultant's use in certain situations (example: high river and railroad crossings). Contact the MDOT PM a minimum of 30 days in advance for scheduling use of the equipment.

The Consultant must provide the following equipment as suitable for the inspection of the bridge. The cost of the use of this equipment during the inspection is considered included in the Not to Exceed price.

1. Bucket Truck

Use a hydraulic man-lift to gain access to the underside of bridges. The unit must be capable of quickly positioning the inspector to any location on the underside of the bridge to perform inspection or to prepare the area for inspection or NDT. Do not use ladders except for situations in which they will be faster than the manlift.

The Consultant is responsible for insuring the vehicle is safe for operation and operated in a safe manner utilizing all required safety equipment.

2. Under Bridge Inspection Reach-All

In the event that MDOT cannot provide an under bridge inspection crane for detailed inspection in areas not accessible by means of bucket truck or ladder, the Consultant will be required to supply a hydraulic “Snooper” or “Reach-All” truck. Include rental cost of Reach-All in estimate for this .

3. Computer

The consultant is required to have a laptop computer for field use featuring Microsoft Excel, Word XP (2002 format), and Adobe Acrobat for use of the electronic forms provided by MDOT.

4. NDT

The inspection process includes sounding concrete for delaminated areas, checking for suspected cracks in steel, and measuring for section loss in areas of heavy corrosion. See above for details regarding Non-Destructive Testing.

The following equipment is necessary to perform the above tests:

- Calipers and thickness gauges
- Dye penetrant test kit
- Chain drag or sounding rod or hammer
- **Cell Phone**

While in the field, the Team Leader must have a cellular telephone. Provide phone numbers to the MDOT PM at the Project Initiation Meeting.

5. GPS

The consultant must have a handheld Global Positioning Satellite (GPS) locator to determine or verify the latitude and longitude of the bridge.

6. Camera

The consultant must have a digital camera that can clearly record the images necessary to convey the condition of the bridge.

7. Hand Tools

The consultant must provide the hand tools necessary to complete the inspection. Some of hand tools include a ladder, waders, hammers, lighting, marking paint, measuring tapes, etc.

TRAFFIC CONTROL

A. Traffic Control & Permits

The traffic control during inspection will be the responsibility of the Consultant. Obtain permits for the traffic control and for working in the MDOT Right of Way from the Davison Transportation Service Center prior to the start of work. Traffic control will follow standard MDOT Maintenance Work Zone Traffic Control Guidelines. The Consultant will be responsible for obtaining all permits and notifying the MDOT PM of the time and location of the work.

Submit requests for nighttime lane closures for deck inspection to the MDOT PM a minimum of 48 hours prior to proposed closure. Obtain approval for nighttime inspection prior to the start of work.

B. Railroad Flagging & Permits

The Consultant will be responsible for obtaining the necessary permits and flagmen required for working at an active railroad. Detail the costs of permits and flagging as an expense on the Consultant invoice.

SAFETY

MDOT requires safe working operations. The Consultant shall perform field operations in accordance with MIOSHA regulations and accepted safety practices.

The Consultant must provide all of the necessary personal safety equipment (hardhat, reflective vest, steel-toed shoes, eye protection, etc.) for each employee at the work site. All equipment must be in sound working order, meeting applicable inspections for safe operation.

It is not the responsibility of MDOT to verify the Consultant's safety practices. However, the MDOT PM has the authority to remove any individual found working unsafely within MDOT Right of Way. The MDOT PM has the authority stop all operations and terminate all work.

MDOT RESPONSIBILITIES

MDOT will provide a list of contact information at the Project Initiation Meeting.

MDOT will furnish the Consultant access to any available, pertinent information related to the structure(s) proposed for in-depth inspection.

Information furnished to the Consultant is not be released or distributed to any outside agency without written permission from MDOT's Project Manager.

PAYMENT SCHEDULE:

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

CONSULTANT PAYMENT:

All invoices/bills 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 Bulletin Board System. This document contains instructions and forms that must be followed and used for invoicing/billing; payment may be delayed or decreased if the instructions are not followed.

Payment to the Consultant for Services rendered shall not exceed the "Actual Cost Plus Fixed Fee, Not to Exceed Maximum Amount" unless an increase is approved in accordance with the with the Consultant. All invoices/bills must be submitted within 14 calendar days of the last date of services being performed for that invoice.

Direct expenses 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 invoice/bill, for all billable expenses on the Project. The only hours that will be considered allowable charges for this 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 Engineer 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 Engineer Manager.

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

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

GENERAL

Release of information: The Consultant may not release any information about the bridge or the inspection 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 PM.

References and Guidelines: The Consultant is to be familiar with the following reference material:

- AASHTO Publications:
 - Manual for Condition Evaluation of Bridges
 - AASHTO Manual for Maintenance Inspection of Bridges
- Federal Highway Administration (FHWA) Publications:
 - Inspection of Fracture Critical Bridge Members
- Manual on Uniform Traffic Control Devices for Streets and Highways
- National Bridge Inspection Standards (NBIS)
- Bridge Inspectors Reference Manual (BIRM)

Attachment Number 1 – Work Package Listing and Location

Attachment Number 2 – Detail Beam Survey Report

WORK PACKAGE LISTING AND LOCATION

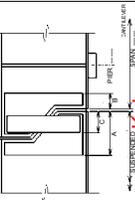
STRUCTURE NO.	BRIDGE	AREAS OF CONCERN
25031-S11	Miller Road over I-75	Beam End, Deck Soffit Inspection
25042-S13	SB I-75 to EB I-69	Deck Soffit Inspection
25031-X02	GTW RR over I-75	Beam End, Deck Soffit Inspection
25131-S07	Grand Blanc Rd over I-75	Deck Soffit Inspection
25132-S02	Hill Road over I-475	Deck Soffit & Fascia Inspection
25132-S04	Bristol Rd over I-475	Deck Soffit & Fascia Inspection
25132-S40	Left Turn Lane NO1 over I-475	Deck Soffit & Fascia Inspection
25132-S05	Hemphill Rd over I-475	Deck Soffit & Fascia Inspection
25132-S41	Left Turn Lane NO2 over I-475	Deck Soffit & Fascia Inspection
25132-S52	14th Street over I-475	Deck Soffit Inspection
25132-S09	12th Street over I-475	Deck Soffit Inspection
25132-S10(3,4,5,6,7)	I-69 over I-475 (Five Bridges)	Deck Soffit Inspection (prioritize 3rd level structure, S10-7)
25132-S06	I-475 over Atherton Rd	Fascia Inspection
25132-S15	Fifth Street over I-475	Deck Soffit Inspection
25132-S16	Court Street over I-475	Deck Soffit Inspection
25132-S21	EB Longway over I-475	Deck Soffit Inspection
25132-S20	WB Longway over I-475	Deck Soffit Inspection
25132-S23	I-475 over Broadway	Deck Soffit Inspection
25132-S46	Ramp B over I-475	Deck Soffit Inspection
25132-S51	Russel Rd over I-475	Deck Soffit Inspection
25132-S29	Carpenter Rd over I-475	Deck Soffit & Fascia Inspection
25132-S31	Coldwater Rd over I-475	Deck Soffit & Fascia Inspection
25085-S01-3	EB I-69 over Hammerburg Dr	Beam End, Deck Soffit Inspection
25085-S01-4	WB I-69 over Hammerburg Dr	Beam End, Deck Soffit Inspection

Form 0267-2 (03/02)



DETAILED BEAM SURVEY REPORT
(WELDED GIRDER OR ROLLED BEAM)

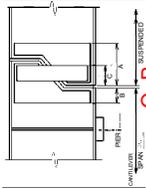
USE this form when TRAFFIC ON BRIDGE IS: **SOUTH or NORTH Bnd.**



IF at pin & hanger... THIS Side of pier



IF at... PIER ...



IF at pin & hanger... THIS Side of pier

PAGE _____ OF _____

FACILITY CARRIED: _____
 INSPECTED BY: _____ DATE: _____
 STRUCTURE NO.: _____ REGION: _____

ALWAYS CIRCLE ABOVE TO NOTE APPLICABLE CASE USED IN FORM

span ex. span 1 S

PIER ex. PIER 1 S

span ex. span 2 S

COMMENTS & references to photos and sections

COMMENTS & references to photos and sections

BEAM LINE #	WEB LOSS MEASUREMENTS		FLANGE LOSS MEASUREMENTS		REPORT		WEB LOSS MEASUREMENTS		FLANGE LOSS MEASUREMENTS		PIER		BEAM LINE #
	THICKNESS	HEIGHT	ACTUAL	DESIGNED	THICKNESS	HEIGHT	THICKNESS	HEIGHT	ACTUAL	DESIGNED	PIER	PIER	
1 W													1 W
2 W													2 W
3 W													3 W
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BRIDGE OPERATIONS UNIT, CONSTRUCTION AND TECHNOLOGY DIVISION, PH. (517) 322 - 1388 FAX (517) 322 - 5664

BRIDGE OPERATIONS UNIT, CONSTRUCTION AND TECHNOLOGY DIVISION, PH. (517) 322 - 1388 FAX (517) 322 - 5664

K M O

L N P

any feedback drawing this span

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