

# INVITATION TO BID

BID DATE: 02/20/2020

**PLEASE REFER TO BID NO. 2020-010**

**QUOTE NOT LATER THAN: 03/11/2020 BY 4:00 PM  
(EST)**

TO:  
VENDOR NAME:  
ADDRESS:

FROM:  
PURCHASING DEPARTMENT  
COUNTY OF BERRIEN, MICHIGAN  
ADMINISTRATION CENTER  
701 MAIN STREET  
ST. JOSEPH, MICHIGAN 49085

CONTACT:  
TELEPHONE #:  
EMAIL:

**PLEASE INDICATE "BID NO. 2020-010" ON OUTSIDE OF SEALED ENVELOPE TO INSURE PROPER  
BID PLACEMENT.** DELIVERY REQUIREMENTS: AS PER SPECIFICATIONS

*The Berrien County Board of Commissioners reserves the right to reject any and all bids or make any deviations  
deemed in the best interest of Berrien County.*

Quality: All materials/services furnished must be the best of their respective kinds (unless otherwise specified) and will be subject to our inspection and approval after delivery. If materials are rejected it will be held for disposition at your risk and expense.

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
	<b><u>REQUEST FOR BID ON THE FOLLOWING:</u></b>		
1 LUMP SUM	BRIDGE INSPECTIONS  PLEASE SEE ATTACHED SPECIFICATIONS		
	<b><u>TOTAL COST OF PROJECT :</u></b>		
	<b><u>PLEASE SEND TWO (2) COPIES OF BID PROPOSAL EMAILED PROPOSALS WILL NOT BE ACCEPTED</u></b>		

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
	<p>PURSUANT TO MICHIGAN PUBLIC ACT 517 OF 2012, AN IRAN-LINKED BUSINESS IS NOT ELIGIBLE TO SUBMIT A BID FOR THIS RFP. FURTHER, <b>EACH BID SUBMISSION <u>MUST</u> INCLUDE WRITTEN CERTIFICATION BY THE BIDDER THAT THE BIDDER IS NOT AN IRAN LINKED BUSINESS (SEE ATTACHED FORM).</b> A BID SUBMISSION WITHOUT THE REQUIRED WRITTEN CERTIFICATION MAY BE REJECTED AS INCOMPLETE AND VIOLATIVE OF LAW. A SUSTAINED DETERMINATION BY THE COUNTY THAT A BIDDER HAS SUBMITTED A FALSE CERTIFICATION OF BEING AN IRAN LINKED BUSINESS MAY RESULT IN THE CANCELLATION OF AN EXISTING CONTRACT, A CANCELLATION OF INTENT TO ENTER INTO A NEW CONTRACT, AND/OR REPORTING OF THE BIDDER TO THE STATE ATTORNEY GENERAL, AND POSSIBLE FINES AND COSTS, AND BAR FROM FURTHER BIDDING ON COUNTY RFP'S FOR AN ADDITIONAL 3 YEARS, AS PROVIDED UNDER P.A. 517 OF 2012.</p> <p>MEMBER OF HPS (HOSPITAL PURCHASING SERVICES), STATE OF MICHIGAN MIDEAL PURCHASING PROGRAM, AND NATIONAL JOINT POWERS ALLIANCE</p> <p>ANY QUESTIONS REGARDING BID SPECIFICATIONS, PLEASE CONTACT DAVID JUNTUNEN AT 517-512-3120 OR <a href="mailto:djuntunen@kerchergroup.com">djuntunen@kerchergroup.com</a></p> <p>ALL OTHER QUESTIONS REGARDING THE BID PROCESS, PLEASE CONTACT THE PURCHASING DEPT. AT 269-983-7111 EXT. 8020</p>		

*Cheri Vance*

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CHERI VANCE  
 ACCOUNTING COORDINATOR  
 PHONE: 269-983-7111 EXT. 8020  
 FAX #: 269-982-8668  
 (cvance@berriencounty.org)

BIDDERS NAME: \_\_\_\_\_

BIDDERS PHONE NUMBER: \_\_\_\_\_

BID DATE: \_\_\_\_\_



# BERRIEN COUNTY

## ROAD DEPARTMENT

### PROPOSAL AND SPECIFICATIONS

FOR

BRIDGE INSPECTIONS

PROJECT NO.

Local Bridges - P20010

Primary Bridges - P20011

**Berrien County Road Department**  
**2860 EAST NAPIER AVENUE**  
**BENTON HARBOR, MI 49022**  
**1-269-925-1196**

[www.berriencounty.org](http://www.berriencounty.org)

**BERRIEN COUNTY ROAD DEPARTMENT**  
**SCOPE OF SERVICES**  
**FOR**  
**BRIDGE SAFETY INSPECTION**

February 19, 2020

The Berrien County Road Department is seeking a proposal from qualified consulting engineering firms (CONSULTANT) to perform in-service safety inspection of bridge structures” on local owned bridges in accordance with National Bridge Inspection Standards (NBIS). This is termed “Bridge Inspection.” This project will be under the direction of the Berrien County Road Department Bridge Management Owner’s Representative (BMOR), Mr. David Juntunen, The Kercher Group, phone: (517) 512-3120, email: djuntunen@kerchergroup.com .

**I.     LOCATION**

The bridges for this project are situated in various locations within Berrien County. See attached WORK PACKAGE LIST for specific bridge numbers.

**II.    PURPOSE**

In accordance with the Code of Federal Regulations 23-CFR-650, subpart C, each bridge under Berrien County Road Department jurisdiction is periodically inspected following the Federal Highway Administration (FHWA) National Bridge Inspection Standards (NBIS). For the bridges identified on the WORK PACKAGE LIST, a “Routine” inspection will be performed by a qualified consultant. There are several steps in the process of this work and there may be a need for follow-up action.

The deliverable for this authorization will be the “Inspection Report.” This report will have several components as noted below and will be attested to be accurate and complete under seal of a professional engineer.

**III.   DURATION & SCHEDULE**

**A.    Schedule of Dates and Milestones**

The CONSULTANT is required to develop a project schedule for the inspection of the bridges shown on the attached WORK PACKAGE LIST. Each bridge must be inspected within the month of the due date, as established by the date of the previous inspection, and the frequency determined by the previous inspector. These dates are shown on the WORK PACKAGE LIST. In no case shall the inspection date exceed 24 months from the previous date.

Any changes to the schedule must be submitted to the BMOR for approval prior to the change. Failure to progress in alignment with the schedule will be considered as failing to meet the terms of this authorization and may result in the cancellation of the contract.

The CONSULTANT must be prepared to begin the field inspection work within one week after receiving the notice to proceed or an executed contract.

#### **IV. STAFF QUALIFICATION REQUIREMENTS**

Each bridge on the WORK PACKAGE LIST must be inspected by a CONSULTANT team composed of a Qualified Team Leader (QTL) and a staff person. The CONSULTANT must have these two individuals present on site during the inspection to fulfill the requirements of the contract. The CONSULTANT may utilize additional personnel on any given team, but the Berrien County Road Department will not pay for the additional staff. The CONSULTANT is required to have as many teams as necessary to complete the inspections by the required dates.

Following are the minimum qualifications necessary for the required personnel. This must be documented with resumes and submitted with the Fee Proposal.

##### **A. CONSULTANT Project Manager**

1. Administrative manager with authoritative control over the inspection teams and demonstrated project management experience.
2. Primary contact between the Berrien County Road Department and the CONSULTANT. One of the inspection QTLs may be delegated Project Manager responsibility.
3. Will perform project contract Quality Control as stipulated in VI-C

##### **B. CONSULTANT Qualified Team Leader, QTL(s):**

1. Must meet the requirements of NBIS for a QTL. See Code of Federal Regulations, 23-CFR-650 §650-309.
2. Professional registration as an engineer, licensed to practice in the State of Michigan.
3. Minimum of three years of documented experience in the in-service safety inspections of bridges.
4. Completed the NHI # 130055 "Safety Inspection of In-Service Bridges" class within the last five years. If the QTL(s) has attended this class more than five years ago, he / she must have taken the NHI #130053A three-day Bridge Inspection Refresher course within the preceding five years, or attended 24 hours of bridge inspection professional development in the preceding five years.

**C. Field Staff assisting the CONSULTANT QTL(s):**

1. A technical staff person with three years' experience in inspection, design, or construction of bridges or:
2. Recent graduate engineer working at the staff engineer or entry level position.

The above listed classes for the QTL(s) are encouraged, but not required for the field staff.

If the QTL(s) that is approved under this authorization is unable to finish the work of the entire project, the authorization may be terminated. The CONSULTANT can submit a backup QTL(s) for approval with the initial submission of the proposal. However, if any one person identified in the proposal is rejected by Berrien County Road Department, the entire proposal will be considered non-responsive and rejected.

**V. GENERAL DESCRIPTION OF THE WORK**

Bridge safety inspections are done to insure the safe use of the structures by the motoring public. To accomplish this, the National Bridge Inspection Standards (NBIS), AASHTO, *Manual for Condition Evaluation of Bridges* and, the *Bridge Inspection Reference Manual* are to be used as guidance to complete the inspection and provide necessary information. Additional guidance documents and manuals are listed in the appendix.

For the purposes of this project, bridge inspection is divided into four phases: bridge file review, inspection of the bridge in the field, completion of the reports, and communication of the findings to Berrien County Road Department. Each of these phases must be completed for successful completion of the project.

**A. Bridge File review**

In this phase of the work the CONSULTANT will take several steps to review the documentation for each bridge and register on-line to be assigned the forms to complete.

1. The QTL must register on-line with the MDOT MiLogin/MiBridge bridge data collection application, at the "New Consultant / Inspector Registration". This person's name will appear on all inspection documents.
2. Find the Berrien County Road Department bridge owner's name and add it to the list on the right.
3. Review the bridge files, and become familiar with the documentation on the structures and the respective load analysis for each bridge at the Berrien County Road Department office.

4. Obtain paper copies of the previous inspection reports for use in the field.

## **B. Field Inspection**

The CONSULTANT team will visit each bridge site and perform an inspection according to the NBIS and AASHTO Manual For Bridge Evaluation description for a “Routine” inspection. This will be done with a visual inspection and non-destructive tests (NDT).

Due to past deficiencies noted on the Napier Avenue Bridge over the St. Joseph River, Walton Road Bridge over the St. Joseph River, the Bertrand Road Bridge over the St. Joseph River a “Snooper” truck will be required to assist in the inspections. This truck will be arranged for and paid for on these three bridges by the Berrien County Road Department. Reports, described below, will be completed by the QTL while performing this inspection.

### 1. Observations

The CONSULTANT QTL will observe all of the bridge components and elements and record General Condition Ratings (0 to 9 scale) for all major components as collected by the Michigan Department of Transportation (MDOT) and elements condition states for the appropriate elements on the structure. Findings will be marked in red ink on the appropriate inspection report. This information will be entered into the respective form using the Web based application MiBridge. The data can be downloaded to a laptop computer for use in the field, but this is not mandatory.

There must be sufficient comments for each element in the reports to outline its condition and to justify the rating given. Some of the previous reports may not have complete comments. The lack of previous information does not exempt the CONSULTANT QTL from providing sufficient comments for each component and element to outline its condition. Follow the rating guidelines provided in the system, unless there are circumstances, particularly if they are safety related, that in the judgment of the QTL do not fit within these guidelines. In this case, the inspector will document the reason for the deviation in the respective comment section.

NBIS sets a maximum of 24 months between inspection intervals. However, structures in poor condition or with rapidly changing conditions may require inspection sooner than 24 months. It is the responsibility of the CONSULTANT QTL to determine the inspection frequency and notify the Berrien County Road Department PM when a frequency is to be changed. The MDOT *Bridge Inspection Frequency Guidelines* will assist the CONSULTANT QTL in setting the frequency.

The CONSULTANT QTL must render a professional judgment as to the need for structural analysis or loading rating of the given structure. It may also be necessary to recommend temporary load restrictions and/or changes to the inspection frequency.

If there is an area of concern that requires traffic control or special inspection / testing, the CONSULTANT must notify the Berrien County Road Department PM with a "Request for Action" (RFA) form. See "Notification for Unusual Situations" below.

Stream and riverbed scour must be evaluated to ensure the foundation for the bridge has adequate support. The CONSULTANT QTL will perform a scour inspection around all structural elements that are located in water up to six feet deep utilizing the wade and probe or the boat and probe methods. Substructure elements in water over six feet will be inspected by a diver under a separate contract.

Information on scour must be reported on the Bridge Safety Inspection Report (BSIR). If there is loss of bearing or undermining of a footing that is safety concern, this must be reported to the Berrien County Road Department PM using the RFA. If the loss of bearing is sufficient to be of immediate concern for the component to structurally support the bridge, the CONSULTANT will notify the Berrien County Road Department PM on an emergency basis (See Section V-A-2, "Notification for Unusual Situations" below).

In addition, for every other routine inspection (maximum of every four years), the elevation of the stream or riverbed relative to an established datum must be measured for all structures over water. These measurements must be taken at locations along the length of the bridge spans that are over a stream or riverbed, and recorded on the "Stream Cross Section Report" form (See Worksheet Instructions). This information must be compared to the previous data in the form of a graph. Bridges requiring cross-sectioning are listed on the attached list.

The CONSULTANT QTL must determine if the structure has been hit by a vehicle and damaged. If the damage has occurred since the last inspection, this damage must be documented with a description and photographs.

During the inspection, the CONSULTANT QTL will evaluate the structure for long and short term maintenance and repairs, and record this information on the "Work Recommendations" form of the BIR.

## 2. Notification for Unusual Situations

One of the primary reasons for bridge inspection is to determine if there are any unusual circumstances or situations that could affect the continued safe operation of the bridge, or where it could be costly if repair action is delayed. The CONSULTANT QTL must determine whether the bridge can safely remain in service until the next inspection date. The CONSULTANT QTL must identify the cause of any unusual circumstances or situations and notify the Berrien County Road Department PM within a time frame appropriate for the situation.

Communication of these situations is accomplished formally by using an RFA. The CONSULTANT must properly complete this form and deliver it to the Berrien County Road Department PM in a timely manner to ensure this communication takes place.



This form does not preclude advising the Berrien County Road Department PM immediately by phone, or other means, of imminent circumstances. However, the CONSULTANT is still obligated to complete the form. If the situation warrants, the form should be delivered on an expedited basis, faxed or e-mailed, and the CONSULTANT must get confirmation of the delivery.

The RFA should not be used to convey the ordinary information that belongs on the BIR. Below are some of the situations that may trigger a RFA:

- Deficient Structural Conditions

If a condition exists on a structural component that warrants a structural analysis (see “Load Analysis” §V-C below) or further investigation to determine if the capacity of the component or element in question is capable of safely carrying the intended loads, the CONSULTANT is required to inform the Berrien County Road Department PM with a RFA form. An example is an exposed or broken prestressing strand in PCI beams or box beam super-structures.

- Functional Conditions

Situations that exist in and around the structure that are not a part of a structural Components or elements, but could require immediate attention are termed functional problems. Some of these are damaged approach guardrail, erosion of the shoulder, settled approach pavement, missing load posting or height restriction signs, damaged or broken light poles and sign supports.

- Suspect Conditions Requiring Further Consideration or Testing

The CONSULTANT QTL will perform the routine inspection in the best manner possible on these structures and document any areas that need further consideration or testing.

The CONSULTANT QTL will inform the Berrien County Road Department PM using an RFA form of the need to perform supplemental in-depth inspections on structures for such things as:

- ◆ Where a portion of the structure cannot be inspected by routine inspection methods.
- ◆ Where there are many structural members in need of measurement for excessive loss of section, or need NDT for evaluation.
- ◆ Where there is a need to mechanically remove a lot of scale to get measurements.
- ◆ Where there is a need to coordinate with others’, such as closing a lane, to closely examine the structure.
- ◆ If there is a crack or suspected crack in a structural steel component, the

CONSULTANT must clearly document this on paper with narrative and photographs.

If testing is to be performed in conjunction with the routine inspection, the CONSULTANT must inform the Berrien County Road Department PM prior to the testing so arrangements may be made to witness the process. The Berrien County Road Department PM will not delay the CONSULTANT in performing this work and will not require a return trip to perform the test.

### **C. Inspection Reports**

As stated in Section II, "PURPOSE", the deliverable for this authorization will be the Inspection Report. The CONSULTANT will be assigned the structures for inspection in MiBridge. The assignment will last for 90 days.

A Bridge Inspection Report (BIR) has several components that will vary from bridge to bridge, but that will include at least the "*Bridge Safety Inspection Report*", MDOT form 2502 (BSIR), the "*Culvert Safety Inspection Report*" (CSIR), the "*Structure Inventory and Appraisal*", MDOT Form 1717a (SI & A), and the "*Work Recommendations*". Additional documents may also be necessary depending on the circumstances at the bridge and its condition. Some of these are the RFA form, the "*Streambed Profile*" form, field notes, sketches, and pictures. The BSIR, SI&A, and the work recommendations are to be completed and the data saved on-line in MiBridge. All of the documents created by the inspection will be assembled in a binder and presented under cover of a letter stating that the inspections have been performed in accordance with this scope of services, and that all appropriate procedures and guidelines have been followed. This letter will also have the professional registration seal of the QTL or CONSULTANT PM. An additional unbound black and white copy will be presented with the information separated for each bridge for the bridge owner's bridge files.

The following documents are typical for each bridge. Other reports may be necessary as conditions warrant.

#### **1. Bridge Safety Inspection Report (BSIR), MDOT form 2502**

This is the primary inspection report form and is incorporated into MiBridge. The CONSULTANT QTL must complete this form in the field at the specific bridge site. This is usually done by red-lining a copy of the previous report. MiBridge has a "Field Copy" print option that creates white space on the previous report for noting changed conditions at the site. It is recommended that the CONSULTANT retain this copy in their records as backup in case of failure of the electronic copy.

A new inspection record is created in MiBridge using the information from the site visit. This can be done in the field using the field application with downloaded data or entered in the office using the on-line application.

## 2. Structure Inventory & Appraisal Form (SI&A), MDOT form 1717a

A copy of the previous SI&A will be available to the CONSULTANT from MiBridge. The CONSULTANT QTL will verify the information on the SI&A during the inspection. Most of the data on the SI&A is static from inspection to inspection; therefore, MiBridge will bring the data forward for the new inspection. However, the CONSULTANT QTL is responsible and accountable for all the information as though entered directly at the time of the inspection.

## 3. Work Recommendations Report

A key element of the NBI program is the communication of the inspector's judgment of the need for maintenance or rehabilitation work necessary to keep the structure in service. The Work Recommendation Report is completed in MiBridge.

## 4. Stream Cross Section Report Form

The CONSULTANT will record the elevation of the stream bed with reference to an established datum on this form. The data collected must be entered on the form electronically, and the hard copy and electronic form will be submitted to the Berrien County Road Department and input into MiBridge document storage.

## 5. Photographs and Posting Document

Photographs must be taken and submitted as part of the Inspection Report to document deficiencies and any unusual conditions. The photographs will be digital images insert into a document with a description of what the photo is showing. Photos that are over or under exposed so the details in question cannot be seen will be returned to the CONSULTANT, and will have to be taken again until the photos are legible. A copy of the electronic files will also be submitted in .pdf format on flash drive with the Inspection Report, and they shall be uploaded to the MiBridge document storage.

Bridges that are load posted must have a digital picture taken of the correct load posting sign with the bridge in the background. The digital picture will be uploaded to MiBridge along with the "*Load Analysis Summary*" form.

## 6. Request for Action Report

As noted above, the CONSULTANT will use this report to document communication to the Berrien County Road Department of circumstances that need more urgent attention than otherwise noted in the Work Recommendations.

## **D. Load Analysis**

The NBIS requires that all bridges have an initial load rating calculated, and the rating re-evaluated when the condition or loading of the bridge has changed. Deterioration of

structural components over time may get to the point where the structure may have to be load restricted. Overlays, attachment of appurtenances, or situations may also trigger the need to re-evaluate the load rating. It is the Inspection QTL's responsibility to assess the overall condition of the structure, render a judgment as to need for a reevaluation, and document his/her judgment in the general comments section of the BSIR.

Load rating analysis is not required at every routine inspection and is dependent on conditions determined during the inspection. Therefore, the Berrien County Road Department PM will evaluate the inspector's recommendations and decide on the best course of action based on the circumstances. The CONSULTANT will not proceed with the calculations until authorized by the Berrien County Road Department BMOR. If the load rating is necessary, based on the information provided during the inspection, the CONSULTANT will provide the Berrien County Road Department PM the information below.

1. Qualifications of load rating engineer;  
NBIS requires a registered professional engineer be responsible for load rating calculations.
2. Statement of need;  
The CONSULTANT QTL will document the deterioration or conditions that are the cause of the need for load rating the structure. This will include all measurements of loss of section and location on the members where the deterioration is evident. This will be recorded in narrative and sketches with dimensions in sufficient detail that the load analysis can be completed.  
Photographs will be taken, both panoramic and close-up with a ruler or other object in the frame which will give proportion. The photographs will be annotated with a description what is in the photo and it's location.
3. Provide an estimate of engineering hours to complete the necessary calculations. This will be used with the hourly rate stipulated in §VII-A.
4. Procedure  
The procedures in the MDOT Bridge Analysis Guide (BAG), latest edition, will be used to determine the Operating and Inventory ratings.
5. Documentation  
An Assumption Sheet and a Summary sheet will be completed. The Summary Sheet will be sealed by the professional Engineer doing the calculations. All calculation sheets / computer output sheets, etc. become the property of the bridge owner and will be delivered under letter of transmittal for inclusion in the Bridge File.

## **VI. CONTRACT ADMINISTRATION**

### **A. Project Quality Control**

The CONSULTANT will submit a project quality control plan with their proposal that will accomplish at a minimum the following:

1. Confirm that all QTLs have the required documents and certificates to substantiate their qualifications.
2. Confirm that the inspection process and procedures meet the requirements of the NBIS.
3. Review 10% of the completed work to ensure that all reports are complete, accurate, and consistent.

### **B. Responsibilities of Berrien County Road Department**

The following activities and information will be provided by the Berrien County Road Department PM, where applicable, to the CONSULTANT.

- Assign the structures to be inspected to the CONSULTANT in MiBridge.
- Provide access to electronic or hard copy bridge files which will have:
  - Previous stream bed cross section reports.
  - Previous work recommendations.
- Blank "Request for Action" form

The Consultant will be responsible for performing QC evaluations on ten percent of the bridges inspected. These evaluations are to be forwarded to the Berrien County Road Department upon completion.

Provide access for the CONSULTANT to any pertinent information in the Berrien County Road Department bridge files and database that may be necessary to complete the inspection. See Section VII-D, **Release of Information**, for restrictions on dissemination of the material.

## **VII. PROPOSAL AND AUTHORIZATION GUIDELINES**

### **A. Contract Terms**

#### Lump Sum Authorization

This will be a "LUMP SUM" type of contract based on each structure shown on the "Work Package List" below, with payment upon the completion of all services required on each bridge. The Lump Sum price will include all of the engineering costs and expenses to inspect a given bridge as well as provide the report(s) required above. No added cost will be paid for overtime, weekend, or holiday work.

## Stream Bed Cross-Sectioning

Stream bed cross-sectioning will be done on structures as shown on the WORK PACKAGE LIST, and reimbursed for each structure cross-sectioned.

## Bridge Load Rating

Bridge Load Rating will be done on bridges as recommended by the Consultant and approved by the Berrien County Road Department.

## Load Rating calculations

Provide an hourly rate for a registered Professional Engineer (Michigan) for the purpose of performing load rating calculations. This will be utilized on a case by case basis and only after approval of the need and estimate by the Berrien County Road Department PM.

## Additional Inspection Needs

It is recognized that the inspection process may uncover the need for additional investigation requiring special non-destructive testing and traffic control. The CONSULTANT will submit a recommendation with justification and documentation of the need for this work, and an estimated cost after completion of the routine inspection.

If approved by the Berrien County Road Department Project Manager, a separate contract for this work will be issued. The CONSULTANT will be required to perform this work expeditiously utilizing the same inspection team. Failure to respond in the necessary time frame will cause Berrien County Road Department to get the work done by other means and could result in cancellation of the remaining work of this contract.

The Berrien County Road Department reserves the right to seek a new RFP for this work.

## **B. Proposal Requirements**

The following information is required of the CONSULTANT in response to this Scope of Services. Failure to provide all of the information will be cause to consider the proposal non-responsive and reject the proposal.

### 1. Proposal Letter and Fee Estimate

The CONSULTANT must submit a letter agreeing to the stipulations in this Scope of Services. The letter must be signed by officer of the company as stated in the "Guidelines"

## 2. Resumes

Resumes of the CONSULTANT's staff who will be assigned to the project must be appended to the Proposal Letter. These resumes must document the requirements stated in Section IV, STAFF QUALIFICATION REQUIREMENTS.

Copies of training certificates attesting to re-current training requirements are required.

Previous project information should not be included.

## 3. Equipment

Appended to the Proposal Letter must be a description or fact sheet of the equipment that will be used during the inspection.

## 4. Schedule

The CONSULTANT must develop a schedule for the inspections as stated in Section III-A, "Schedule of dates and milestones" and append this to the Proposal Letter.

### **C. Billing Submittals**

The CONSULTANT must submit all invoices to the Berrien County Road Department for approval. Payment will be monthly based on the work complete to that date.

All invoices will be numbered sequentially and will indicate the invoice period. They must also indicate the Work Package number and the Berrien County Road Department work order number. All invoices are to include the specific bridges completed and a listing of hours and rates for additional services, such as load ratings. Invoices must separate Primary Road Bridges and Local Road Bridges for the Berrien County Road Department to clearly see the invoice amount for all Primary and Local bridges.

All invoices will be sent to:

Kevin Stack  
Berrien County Road Department  
2860 E Napier Avenue  
Benton Harbor, MI 49022

Questions pertaining to billing and payment may be directed to Berrien County Road Department.

## **VIII. GENERAL**

### **A. Personal Safety Equipment**

The CONSULTANT will be required to provide all personal safety equipment for those people working in the field. Some of the required items are hardhats, safety shoes,

safety vests, gloves, safety harnesses, eye protection, etc.

Any person found to not have the required safety equipment will be asked to leave the Berrien County Road Department right of way. If there are repeated cases of this, the authorization with the CONSULTANT will be terminated.

## **B. Inspection Equipment**

The CONSULTANT must provide the following equipment as suitable for the inspection of the bridge. The use of this equipment during the inspection is considered part of the Lump Sum price.

### 1. Inspection Vehicle

The CONSULTANT will provide a vehicle with high visibility marking and or lighting for use during inspection. This vehicle will provide transportation for the inspection staff and the necessary equipment.

### 2. Boat

The CONSULTANT is required to have a small boat with a motor available for the purpose of inspecting those bridges which are over water and are too deep to wade. This is typically a small aluminum boat or inflatable Zodiac style of boat with a small motor.

The CONSULTANT will be responsible for ensuring the boat is safe for operation and is operated in a safe manner utilizing all required safety equipment.

### 3. Computer

The CONSULTANT is required to have a computer with internet connection. A laptop computer for use in the field would be helpful but is not required. The computer must have access to a printer to print the report documents for the field and the final report.

### 4. Non-Destructive Testing (NDT)

The inspection process does not require a lot of testing but spot checking by sounding concrete for delamination's, checking for suspected cracks in steel, and measuring for section loss in areas of heavy corrosion is required.

The following equipment is necessary to perform these tests:

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

### 5. Cell Phone



While in the field, the QTL must have a cellular telephone. The phone numbers must be provided to the Berrien County Road Department BMOR.

6. GPS

The CONSULTANT must have a handheld Global Positioning Satellite (GPS) locator to determine the latitude and longitude of the bridge. This will be penned on to the SI&A form for the Berrien County Road Department PM to forward to MDOT, Bridge Management Unit.

7. Camera

The CONSULTANT must have a digital camera that can clearly record images of pertinent items found during the inspection.

8. Hand Tools

The CONSULTANT must provide the hand tools necessary to complete the inspection. Some of these are ladders, waders, hammers, lighting, marking paint, measuring tapes, etc.

**C. Traffic Control**

Traffic control for closing a lane is not required for this project. The inspection is expected to be done from the shoulders or the median. Some safety equipment for working on the shoulder is necessary such as traffic cones, flashers on the vehicles, flexible roll-up sign for "Men Working Ahead", etc. If the shoulders are too narrow to do the inspection safely, the CONSULTANT is to recommend a supplemental in-depth inspection.

**D. Release of Information**

The CONSULTANT may not release any information about the bridge or the Inspection to anyone outside of Berrien County Road Department or the BMOR. Failure to abide by this stipulation could result in penalties as a result of the Homeland Security Act.

The CONSULTANT is not allowed to make copies of the information in the bridge files unless given written approval from the Berrien County Road Department.

**E. References**

The CONSULTANT is to have the following reference material and be familiar with the content.

1. National Bridge Inspection Standards (NBIS) Federal Code of Regulations, 23 CFR 650.

2. AASHTO Manual for Condition Evaluation of Bridges, latest edition including interim updates.
3. Michigan Structure Inventory and Appraisal Coding Guide, latest edition.
4. FHWA Publications:
  - a. Bridge Inspector's Reference Manual (BIRM), latest edition.
  - b. Culvert Inspection Manual, Report No. FHWA-IP-86-2.
  - c. Inspection of Fracture Critical Bridge Members, Report No. FHWA-IP-86-26.
  - d. Recording and Coding Guide for the Structure Inventory and Appraisal of Nation's Bridges, Report No. FHWA-PD-96-001, December 95.

## **F. Terms and definitions**

The following terms and definitions apply to this Scope of Services

1. **Bridge Owner (Owner)**  
The person within the local agency responsible for ensuring bridge inspection is completed to the requirements of the Nation Bridge Inspection Standards.
2. **Berrien County Road Department**  
The local government agency issuing the contract.
3. **Berrien County Road Department PM (Project Manager)**  
The person administering the contract for the local government agency.
4. **CONSULTANT PM (Project Manager)**  
The person responsible for administration of the contract for the consulting firm.
5. **Inspection QTL**  
Person meeting the qualifications of the NBIS to do bridge inspection.
6. **NBIS**  
National Bridge Inspection Standards, 23-CFR-650
7. **MiBridge**  
A MDOT web site for the entry of Bridge inspection reports and for the retrieval of bridge inspection data and standard reports.
8. **Bridge Inspection**  
Periodic safety inspection of bridge structures to "Routine"

standards of the NBIS.

## APPENDICES

### **Forms**

Sample Bridge Safety Inspection Report (BSIR), MDOT form 2502

Sample Structure Inventory & Appraisal (SIA), MDOT form 1717a

Sample Work Recommendation Form

Sample Request for Action Form

**The following Publications and Guidelines can be found at the Michigan Department of transportation, Bridge Operations Manuals and Guides Webpage**  
[https://www.michigan.gov/mdot/0,4616,7-151-9625\\_24768\\_24773---,00.html](https://www.michigan.gov/mdot/0,4616,7-151-9625_24768_24773---,00.html)

MDOT Bridge Analysis Guide, including Assumption & Summary Sheets.

MDOT Bridge Inspection advisory notes.

MDOT Bridge Inspection Frequency Guidelines.

MDOT Bridge Deck Repair Matrix.

MDOT Bridge preservation work activity list.

MDOT Bridge Scour Cross Section Worksheet.

**SWORN AND NOTARIZED AFFIDAVIT OF COMPLIANCE  
IRAN ECONOMIC SANCTIONS ACT  
Michigan Public Act No. 517 of 2012**

All bidders must submit the following certification statement in compliance with Public Act No.517 of 2012 (the "Iran Economic Sanctions Act") and attach this form to the bid; bidders may file a certification statement with the County of Berrien that confirms compliance for all bids submitted in fiscal year 2020. By submitting this form to the County of Berrien, you are confirming that you are in compliance with the Act in relation to the submitted bid(s). **The County of Berrien shall not accept a bid unless, and until, this sworn and notarized certification statement is submitted to the County of Berrien either as an attachment to a given bid, or, as filed with the County of Berrien to confirm compliance during fiscal year 2020.** A certification statement filed with the County of Berrien for fiscal year 2020 will only be effective for bids submitted and dated from 1/1/20 to 12/31/20. The completed form will be kept on file in the purchasing department. The undersigned, the owner or authorized officer of

\_\_\_\_\_ (the "Bidder"), pursuant to the compliance certification requirement provided in the County of Berrien Request for Proposal, hereby certifies, represents and warrants that the Bidder (including its officers, directors and employees) is not an "Iran linked business" within the meaning of the Iran Economic Sanctions Act, and that in the event the Bidder is awarded a contract as a result of the aforementioned Request for Proposal, the Bidder will not become an "Iran linked business" at any time during the course of performing the work or any services under the contract. The Bidder further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than \$250,000.00 or 2 times the amount of the contract or proposed contract for which the false certification is made, whichever is greater, the cost of the County of Berrien's investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on a request for proposal for three (3) years from the date it is determined that the person has submitted the false certification.

**BIDDER:**

\_\_\_\_\_  
Name of Bidder

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

STATE OF \_\_\_\_\_ )

)ss

COUNTY OF \_\_\_\_\_ )

This instrument was acknowledged before me on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,

by \_\_\_\_\_.

\_\_\_\_\_  
, Notary Public

\_\_\_\_\_ County, \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

Acting in the County of: \_\_\_\_\_

## WORK PACKAGE LIST

Structure #	Road Name	Location	Class	Inspection Due Date	X-Section Req'd 2020
965	Glendora Road	E Br Galien River	P	4/2/2020	
13096	Lincoln Ave	Hickory Drain	P	4/2/2020	
983	Basswood Road	Deer Creek	P	4/23/2020	
982	Basswood Road	Spring Creek	P	4/23/2020	
956	Forest Lawn Road	S Br Galien River	P	4/23/2020	
957	Forest Lawn Road	Spring Creek	P	4/23/2020	
959	Kruger Road	S Br Of Galien River	P	4/23/2020	
960	Kruger Road	Dowling Creek	P	4/23/2020	
981	Lakeside Road	Galien River	P	4/23/2020	
979	Red Arrow Highway	Nat Rail Pass Co Amtrak	P	4/23/2020	
984	Three Oaks Road	Chamberlain Drain	P	4/23/2020	
13094	Jericho Road	Keelo Creek	P	4/24/2020	
978	Carmody Road	Mill Creek	P	6/11/2020	
993	Hillandale Road	Pipestone Creek	P	6/11/2020	
999	N Watervliet Road	Paw Paw Lake Outlet	P	6/11/2020	
974	Naomi Road	Pipestone Creek	P	6/11/2020	
997	Park Road	Pipestone Creek	P	6/11/2020	
13092	Paw Paw Lake Road	Derby Drain	P	6/11/2020	
996	Red Arrow Highway	Blue Creek	P	6/11/2020	
13193	Sodus Parkway	Pipestone Creek	P	6/11/2020	
976	Territorial Road	Blue Creek	P	6/11/2020	
973	Glenlord Road	Hickory Creek	P	6/12/2020	
13095	Linco Road	Keelo Creek	P	6/12/2020	
987	Stevensville Barod	Hickory Creek	P	6/12/2020	
1000	Washington Ave	Hickory Creek	P	6/12/2020	
986	Avery Rd (Mill)	Galien River	P	6/19/2020	
13484	Deans Hill Road	Love Creek	P	6/19/2020	
967	Glendora Road	E Br Galien River	P	6/19/2020	
980	Red Arrow Highway	Galien River	P	6/19/2020	
995	Third Street	Brandywine Creek	P	6/19/2020	
985	Three Oaks Road	Galien River	P	6/19/2020	
13097	Walton Road	Spring Valley Drain	P	6/19/2020	
963	Warren Woods Road	Galien River	P	6/19/2020	
962	Warren Woods Road	Galien River	P	6/19/2020	
988	Cleveland Ave	Hickory Creek	P	6/20/2020	
972	Hinchman Road	Hickory Creek	P	6/20/2020	

13093	Hinchman Road	Hickory Drain	P	6/20/2020	
992	River Road	Pipestone Creek	P	6/20/2020	
970	Shawnee Road	Fowler Drain	P	6/20/2020	
971	Shawnee Road	Hickory Creek	P	6/20/2020	
969	Snow Road	Hickory Creek	P	6/20/2020	
964	Pucker Street	Dowagiac Creek	P	7/11/2020	
989	Cleveland Ave	Hickory Creek	P	7/19/2020	
977	Coloma Road	Paw Paw River	P	7/19/2020	
998	Paw Paw Lake Road	Paw Paw River	P	7/19/2020	
975	Napier Avenue	St Joseph River	P	7/25/2020	
994	Walton Road	St Joseph River	P	7/25/2020	
958	Bertrand Road	St Joseph River	P	7/26/2020	
990	Hollywood Road	Big Feather Drain	P	12/5/2020	
991	Dayton Road	Nat Rail Pass Co Amtrak	P	7/25/2021	
14316	John Beers Rd	Big Meadow Drain	P	7/25/2021	
966	Glendora Road	E Br Galien River	P	8/6/2021	
1036	Hess Road	Galien River	S	4/2/2020	
1032	Lakeside Road	S Branch Galien River	S	4/2/2020	X
1039	Log Cabin Road	East Branch Galien River	S	4/2/2020	X
13099	Rickerman Road	Dowling Creek	S	4/2/2020	X
13101	Date Road	Keelo Creek	S	4/24/2020	X
1037	Elm Valley Road	Dowling Creek	S	4/24/2020	X
1008	Flynn Road	Galien River	S	4/24/2020	X
1043	Holden Road	Troy Meadow Outlet	S	4/24/2020	X
1016	Marquette Woods Rd	Hickory Creek	S	6/12/2020	
1022	15th Street	Brandywine Creek	S	7/11/2020	X
1005	Copp Road	Mei Li Creek	S	7/11/2020	X
1028	Dohm Road	Pipestone Creek	S	7/11/2020	X
1004	Hipps Hollow Road	Farmers Creek	S	7/11/2020	X
1024	Hochberger Road	Pipestone Creek	S	7/11/2020	X
1021	Kinzie Road	Dowagiac River	S	7/11/2020	X
1027	Watson Road	Pipestone Creek	S	7/11/2020	X
1020	Weiser Road	Amtrak Railroad	S	7/11/2020	
1006	Boyle Lake Road	Weaver & Harroff Drain	S	7/17/2020	X
1044	Gardner Road	E Br Galien River	S	7/17/2020	X
1042	Holden Road	Galien River	S	7/17/2020	X
1038	Kaiser Road	Galien River	S	7/17/2020	X
13098	Kinne Road	Spring Creek	S	7/17/2020	X
1030	Martin Road	Spring Creek	S	7/17/2020	X
1031	Martin Road	Spring Creek	S	7/17/2020	
1040	Pardee Road	Galien River	S	7/17/2020	X

1041	Pardee Road	East Branch Galien River	S	7/17/2020	X
12823	Starr Road	Spring Creek	S	7/17/2020	X
1033	Witt Road	Spring Creek	S	7/17/2020	X
1007	Elm Valley Road	Galien River	S	7/18/2020	X
1019	Glassman Road	Galien River	S	7/18/2020	X
1017	Holden Road	Hickory Creek	S	7/18/2020	X
1015	Linco Road	Hickory Creek	S	7/18/2020	X
1002	Marrs Road	Hickory Creek	S	7/18/2020	X
1009	Minnich Road	Galien River	S	7/18/2020	
13485	Tower Hill Ped	Painterville Drain	S	7/18/2020	
1026	Yellow Creek Drive	Yellow Creek	S	7/18/2020	X
1014	Bundy Road	Paw Paw River	S	7/19/2020	X
1010	Defield Road	Paw Paw River	S	7/19/2020	X
1003	Euclid Avenue	Blue Creek	S	7/19/2020	
1029	Maiden Lane	Hickory Creek	S	7/19/2020	X
1018	Roosevelt Road	Hickory Creek	S	7/19/2020	X
1025	Bailey Road	Pipestone Creek	S	7/25/2020	
1034	Dan Smith Road	Mill Creek	S	7/25/2020	X
1023	Ferndale Street	Brandywine Creek	S	7/25/2020	
1001	Hill Avenue	Mill Creek	S	7/25/2020	X
13147	Holden Road	E Br Galien River	S	7/25/2020	X
1013	Island Court	Paw Paw Lake Channel	S	7/25/2020	X
1035	John Goff Road	Mill Creek Branch	S	7/25/2020	X
1011	North Maple Drive	Paw Paw Lake Channel	S	7/25/2020	X
1012	Wil-O-Paw Road	Paw Paw Lake Channel	S	7/25/2020	X
13100	Nye Road	Dowling Creek	S	9/10/2020	
13091	Browntown Road	Clymer County Drain	S	7/25/2021	X



## Cost Estimating Worksheet

### STRUCTURES ON PRIMARY ROUTES

2020 Bridge Inspections and Reports 49 each @ \$ \_\_\_\_\_ = \$ \_\_\_\_\_

2020 Cross Sections 0 each @ \$ \_\_\_\_\_ = \$ \_\_\_\_\_

Meetings 1 lump sum @ \$ \_\_\_\_\_ = \$ \_\_\_\_\_

TOTAL \$ \_\_\_\_\_

Load Ratings \$ \_\_\_\_\_ per hour

### STRUCTURES ON SECONDARY ROUTES

2020 Bridge Inspections and Reports 51 each @\$ \_\_\_\_\_ = \$ \_\_\_\_\_

2020 Cross Sections 42 each @\$ \_\_\_\_\_ =\$ \_\_\_\_\_

Meetings 1 lump sum @\$ \_\_\_\_\_ =\$ \_\_\_\_\_

TOTAL \$ \_\_\_\_\_

Load Ratings \$ \_\_\_\_\_ per hour