

Date: October 9, 2024

Subject: **Request for Proposals**  
2024-2027 Bundled Bridge Inspection Term Contracts

To Whom It May Concern:

The Montana Department of Transportation (MDT) is accepting proposals from consulting firms interested in a term contract for performing bridge inspection services at various locations throughout Montana. Bridge inspection services are broken up into the following categories:

**Standard Inspection Categories**

1. National Bridge Inspection Standards (NBIS) or Specifications for the National Bridge Inventory (SNBI) and Element-Level Inspections
2. Nonredundant Steel Tension Members (NSTM) Inspections

**Specialty Inspection Categories**

3. Timber Boring Inspections
4. Climbing Inspections
5. Underwater Diving Inspections and Bridge Scour Monitoring
6. Non-Destructive Testing (NDT) Inspections

All consultants must have experience in both standard inspection categories and at least one specialty category.

Consultants with expertise in one or more of the specialty inspection categories are encouraged to demonstrate their expertise in these categories in their proposal. Consultants do not need to have expertise in all specialty categories.

Including different types of bridge inspections in one contract will allow MDT to conduct bridge inspections more efficiently. For example, some bridges may need multiple types of inspections. It is in the best interest of MDT to use one contract for these bridges.

MDT intends to establish term contract(s) to utilize consultants on an "as-needed" basis for the work described herein. At this time, the intention is to award six (6) agreements that will be approximately \$1,500,000 each, for a four-year period from January 2025 through December 2028. MDT reserves the right to revise the number of term contracts, the contract values, or contract timeframes, depending on the responses received. Extension(s) of contracts, by mutual agreement of both parties, may be made at one (1) year intervals, or any interval that is

advantageous to MDT. Contracts, including any renewals, may not exceed a total of five (5) years.

Teams may be established as necessary; however, it is expected that the prime consultant will be capable of completing the vast majority of the work. As a rule, the prime consultant must complete at least 50% of the work for a specific task assignment unless written exception is given.

Montana professional engineering licensure is required for this work and must be in-hand at the time your proposal is submitted. If this requirement is not met and clearly identified in the proposal, your proposal will be considered non-responsive.

If your firm is interested, please submit a proposal as described herein.

## **SCOPE OF WORK**

Consultant will provide bridge inspection services in both standard categories and one or more of the specialty categories listed below:

### **Standard Bridge Inspection Categories**

1. National Bridge Inspection Standards (NBIS) or Specifications for the National Bridge Inventory (SNBI) and Element-Level Inspections
2. Nonredundant Steel Tension Members (NSTM) Inspections

### **Specialty Bridge Inspection Categories**

3. Timber Boring Inspections
4. Climbing Inspections
5. Underwater Diving Inspections and Bridge Scour Monitoring
6. Non-Destructive Testing (NDT) Inspections

Regardless of which specialty inspection categories consultants are interested in, they must be able to meet the general requirements outlined below and have expertise in performing NBIS or SNBI and element-level inspections and NSTM inspections.

When doing a routine inspection, some additional services may be included within a term assignment scope, such as drones, modeling, tunnel inspection, confined space entry, electrical system testing, and sump pump testing. For example, MDT has one tunnel and including the tunnel inspection with bridge inspections occurring nearby and/or in one mobilization will result in increased efficiency.

## **General Requirements**

All the general requirements outlined in this section apply to all bridge inspection services (standard and specialty categories) being performed.

1. General
  - A. Provide the necessary personnel, equipment, and expertise to complete a thorough inspection of all requested visible deck, superstructure, and substructure elements.
  - B. Provide and operate any specialized equipment needed to fully inspect all requested parts of bridges except for the under-bridge inspection vehicle (UBIV), which will be provided and operated by MDT.
  - C. Provide all necessary traffic control and ensure that it complies with the requirements in the Manual on Uniform Traffic Control Devices (MUTCD).
  - D. Provide all necessary coordination with railroads for inspections involving railroad right-of-way.
2. Personnel
  - A. Provide a Montana licensed professional engineer for oversight and assurance of inspection quality.
  - B. The bridge inspection team leader must meet one of the qualifications stated in the MDT Bridge Inspection Manual in Chapter 2 and in Appendix 2A. For

NSTM non-redundant steel tension member work, the team leader must also be NHI Fracture Critical Inspection Certified, as per requirements in Appendix 2A.

- C. The bridge inspection team leader will be on site at all times during the inspection. This person will be responsible for the evaluation and documentation of each structure and will be considered the inspector of record who signs each inspection.
  - D. All bridge inspection team leader certification documentation will be submitted to and approved by MDT, before a term assignment notice to proceed is issued. Consultant will upload certifications to each team member's user profile in MDT's Bridge Structure Management System (BrM) for approval.
3. Coordination and Scheduling
- A. Provide a tentative schedule of the inspections to the MDT Bridge Inspection Engineer, the affected District Bridge Inspection Manager(s), and the term assignment manager by the date specified in the term assignment. Any significant changes made to the tentative schedule must be reported to the MDT Bridge Inspection Engineer and the affected District Bridge Inspection Manager.
  - B. Unless otherwise indicated by MDT, all inspections will be completed within the month they are due as listed in the scope of services for the term assignment.
4. Bridge Inspection
- A. Conduct all inspection operations in accordance with the following:
    - i. Occupational Safety and Health Administration (OSHA) safety standards
    - ii. NBIS or SNBI, as specified in the term assignment
    - iii. National Tunnel Inspection Standards (NTIS)
    - iv. MDT's Manuals and Guidance
      - 1. MDT Bridge Inspection Manual
      - 2. MDT Timber Bridge Inspection Guide
      - 3. MDT Tunnel Inspection Manual
      - 4. All interim guidance posted at <https://www.mdt.mt.gov/business/contracting/bridge/inspection/guidance.shtml>
    - v. Federal Highway Administration (FHWA) Bridge Inspector's Reference Manual (BIRM)
    - vi. American Association of State Highway and Transportation Officials (AASHTO) Manual for Bridge Element Inspection, Second Edition, 2019, or most current version
  - B. Provide all the equipment and gear (ladders, waders, etc.) necessary to access and complete the inspections. This does not include UBIV units, which are provided by MDT.
  - C. Inspect all elements visually. Perform National Bridge Inventory (NBI) element level and fracture critical inspections in accordance with MDT and FHWA standards. Provide SNBI inspections in accordance with MDT and FHWA standards when directed to do so in inspection assignments.
  - D. Fracture critical inspections require submission and approval of a bridge-specific fracture critical inspection procedure prior to the inspection.

- E. Inspect all primary steel elements and details from a distance not greater than arm's length.
- F. Notify the MDT Bridge Inspection Engineer, the term assignment manager, and the affected District Bridge Inspection Manager immediately of any serious or critical findings that affect the serviceability of the bridge. MDT will provide a call-down list specific to each term assignment.
- G. Consultant will create inspection within term assignment in BrM within the week that inspection is performed.
- H. Consultant will use clear and concise photographs, sketches, measurements, and notes to accurately and consistently document the condition and characteristics of each bridge inspected.
- I. Upon completion of each inspection trip, the consultant will email the MDT term assignment manager a brief summary of any notable findings (i.e. NBI condition ratings that are downgraded to four or less, repair items that may be deemed high priority but not critical, etc.).
- J. For timber elements, if rot is suspected, bore or drill a representative sampling of the suspect elements (piles, caps or girders) to determine the extent of rot present. Plug holes left by this operation with treated hardwood dowels. Use of a timber boring resistivity drill instead of traditional timber boring is encouraged.
- K. When placing elements in the appropriate element condition state, follow the condition state language in the AASHTO Manual for Bridge Element Inspection or the SNBI, depending on the term assignment requirements. Record all defects and their quantities regardless of overlap. Defects must be recorded in adherence with the element rating guidance in the MDT Bridge Inspection Manual.
- L. Perform probe and wade channel inspections for those bridges identified in the term assignment. Include channel comments, channel appraisal, and photos looking upstream and downstream of any channel defects. Follow all requirements of the MDT Bridge Inspection Manual.
- M. Complete channel cross sections for those bridges identified in the term assignment and update in BrM. Update or create the substructure profile from plans or field survey. Compare historical cross sections with current cross sections and notify term assignment manager if the historical views are not correct.
- N. For nonredundant steel tension members (NSTM) inspections, the fracture critical (FC) / NSTM guidance contained in the MDT Bridge Inspection Manual must be followed.
- O. For each steel or timber bridge that does not have measurements dated within the last 5 years available in BrM, perform measurements on all superstructure and all substructure units. Use the appropriate MDT measurement form(s) which can be downloaded from the MDT website at <https://www.mdt.mt.gov/publications/forms.aspx#brg>. Attach additional drawings to the measurement forms as necessary.
- P. When adding new Work Candidates or updating Work Candidates follow the guidance in the MDT Bridge Inspection Manual.

## 5. Photography

- A. Use photography to document the findings of the inspection. Photograph areas of distress as well as locations showing the typical condition of the components. MDT requires photo documentation of all condition state 3 (CS3) and condition state 4 (CS4) defects, even if the distress in the CS3 or CS4 defects are not visibly apparent.
- B. Photographs shall not include a date stamp.
- C. In addition to the photography used to present a structure's condition, the following additional photos are required at each bridge:
  - i. A portal view at one end
  - ii. An elevation view from one side
  - iii. A view of the underside of the superstructure
  - iv. In the case where a bridge is load posted, a photo is required of each posting sign, showing the bridge in the background
  - v. A photo of each abutment and bent showing all piles and caps
  - vi. At least one photo showing the full bent where it has been determined to have a timber pile or timber cap in element CS3 or CS4. The photo(s) must convey an understanding of the conditions surrounding and under the defective elements (mud, rocks, water, vegetation, general height above ground, cross bracing, etc.) to help facilitate any necessary repair or rehabilitation planning and permitting.
  - vii. Do not include time stamps on photos.

## 6. Notification Requirements

### A. Critical Findings

- i. If there are critical/imminent structural deficiencies found during inspection that affect structural stability of the bridge or endanger safety of the traveling public, call down the list of MDT contacts (and continue re-calling if necessary) until someone is reached live and notified verbally. MDT will provide consultant with a call-down list after notice to proceed.

### B. Debris

- i. Remove any small debris that can be removed from around the piles or other elements by hand (using only hand saws, shovels, or other hand tools). Debris must only be removed/moved to allow for proper inspection. Do not remove debris from the bridge site. Limit this effort to a maximum of one man-hour per bridge.
- ii. Notify the MDT Bridge Inspection Engineer at the end of each inspection trip via email of any debris buildup or other issues that impede a full inspection of the bridge or that may cause issues during future periods of high runoff. Provide photos of the debris as part of the notification.

## 7. Quality Control Plan

- A. For inspections, submit a quality control plan to MDT for approval 30 days prior to the first inspection trip. Include all methods and procedures that will be used before, during, and after the inspection and detail the reporting process to ensure

project deliverables are completed correctly and meet the contract-specific requirements.

- i. Pre-inspection deliverables meet contract requirements
- ii. Coordination with MDT personnel, and county bridge owners
- iii. Bridge inspections are accurate and consistent
- iv. Inspection reports clearly and concisely communicate the bridge inspection observations.
- v. All bridge inspection deliverables are completed within timelines stated in contract and term assignment.

## 8. Data Entry

- A. Enter the new inspection in BrM. Inspection entry includes review and updates to inspection data attributes, uploading photos and all other relevant documents, entering repair items, and entering all required elements and defects. To access BrM, the consultant will be required to obtain Okta credentials through MDT and the Montana Department of Administration. MDT staff will assist with this process. Training on the use of BrM will be provided through online services or written tutorials as needed.
- B. Consultant will enter all data into BrM.
  - i. Review and update (if necessary) components associated with the inspection.
  - ii. Review and update inventory attributes (see MDT Bridge Inspection Manual Appendix 2B and 2E).
  - iii. Upload photos and all other relevant documents.
  - iv. Enter inspection notes and defect data.
  - v. Include comments for all defects, and photo documentation for all defects in CS3 and CS4 (except for corrosion).
  - vi. Add any relevant repair items.

## 9. Reporting

- A. All inspections and reporting will be completed in accordance with the MDT Bridge Inspection Manual.
- B. Create inspection within Assignment in BrM within the week that Inspection is performed.
- C. Consultant will complete quality control (QC) processes and submit all data entry, including upload of the inspection report. Complete inspection data entry (including inspection report upload) and QC processes and submit for review by the 28th day of the month following the inspection, unless otherwise approved by the term assignment manager. Notify term assignment manager by email when complete for review. Incorporate any MDT review comments in the “Pending Inspection Review” module and resubmit within two weeks of receiving comments. Follow MDT guidance for BrM QC process changes when it becomes available.

## **Specialty Bridge Inspection Categories**

Additional requirements specific to the specialty bridge inspection categories are outlined below.

### **Timber Boring Inspections**

#### **1. Timber Boring Inspections**

- A. In addition to standard visual and sounding methods of inspecting timber, use of a timber boring resistivity drill with the ability to digitally record graphs to obtain full cross section evaluations is required at the locations listed below:
- i. On each timber pile with a previously reported CS3 or CS4 decay defect.
  - ii. Additional random piles above and beyond the CS3 or CS4 piles equal to a minimum of 10% of the total pile quantity. This random sampling shall be of piles that are not in CS3 or CS4 and piles that were not bored on the previous inspections.
  - iii. On all timber caps with a previously reported CS3 or CS4 decay defect. Conduct as many borings as necessary to determine the limits (length of cap) of decay in the cap.
  - iv. At any additional location of timber pile, cap, or girder where visual or sounding inspection methods indicated possible decay.
  - v. On any element where CS4 decay has been confirmed. Perform additional borings to locate the limits of decay.
  - vi. On all timber piles that have been repaired with steel or fiber-reinforced polymer (FRP) jackets, at least one boring above and below the FRP jackets. Do not bore through jackets. It is not required to expose timber piles for boring below jacket sections that extend into the ground unless a failure or other deteriorated condition is suspected. It is not required to bore into the top of jacketed piles that have less than 6" of exposed pile below a cap.
- B. Using a brightly colored grease pen, mark the location of each boring with an "R" for borings that indicate rot and an "X" if no rot was found.
- C. Process or review all boring information at the bridge site prior to leaving the site to verify boring results and do additional borings as needed. Re-bore any location or element that has anomalous boring results.
- D. Timber piles will require additional assessment at a minimum of 8-12" below the groundline under the following conditions:
- i. On all timber piles where standard visual and sounding methods or borings done at the groundline of the pile indicate severe decay.
  - ii. On all timber piles with CS3 or CS4 splits or checks at or near the groundline.
  - iii. On all timber piles under areas of suspected settlement.
  - iv. Additional random piles above and beyond the piles described above on bridges with a history of below groundline issues equal to a minimum of 10% of the total pile quantity.

#### **2. Coordination and Scheduling**

- A. Schedule bridges containing elements that are inaccessible for a portion of the year due to deep water for inspection during periods of low water when the elements are accessible.



### 3. Supplemental Report Data

- A. Provide a single document in PDF format for the entire substructure on each timber bridge with the following data:
- i. Sketches of each bent, looking in the direction of increasing bridge inventory with the bent number and pile #1 labeled.
  - ii. Location of borings on the timber piles and caps. Mark each location on the sketch with an “R” for borings indicating rot and an “X” for borings indicating no rot.
    1. Each boring shall have a unique bore number consisting of the MDT Structure ID#, the year of inspection, and a 3-digit boring number that starts at 001 for each bridge (Example: 052692021003).
    2. At each boring with rot, use a series of letters and numbers to indicate the depths at which rotten timber was found. Use an “X” to indicate sound timber and an “R” to indicate rot, with a number following each letter to indicate the thickness of each type of material in inches. (Example: “X2R4X4” indicates 2 inches of solid material followed by 4 inches of rot, then another 4 inches of solid material).
  - iii. The location of each pile boring in relation to the bottom of the cap and the distance between those two points.
  - iv. The location of each cap boring in relation to the left end of the cap and the distance between those two points.
  - v. A resistivity boring output graph for each boring where rot was indicated. Label each output graph to correspond with its boring on the sketch. Do not include resistivity boring output graphs for borings with no rot indicated.
- B. Provide a second document in PDF format for timber girders, showing the location of any borings. Follow the same labeling methodology described in A (above) for the substructure. The contents of the PDF shall be organized in the following order:
- i. Sketches of each bent, starting with Abutment 1 and proceeding up station.
  - ii. Layout sketches of girders, if applicable.
  - iii. Any other supplemental sketches.
  - iv. All resistivity drill graphs that indicated rot, in order of boring.
- C. Provide editable electronic file(s) of all sketches described in A and B (above) for MDT to use in future inspections. Sketch files must be created in MicroStation or AutoCAD. Confirm with the MDT Bridge Inspection Engineer on which software to use.

### 3. Reporting

- A. By the 28th day of the month following the completion of final field inspections, submit to MDT a summary spreadsheet of condition states for all bridges inspected. Include the following data for each bridge ID:
  - i. Total inspection quantities for piles, caps, and girders.
  - ii. Quantities for condition state 2 (CS2), CS3, and CS4 for:
    - 1. Pile checking
    - 2. Pile decay
    - 3. Cap checking
    - 4. Cap decay
    - 5. Girder cracking
  - iii. NBI rating for deck, superstructure, and substructure
  - iv. Comments for any CS3 or CS4 of the pile, cap, or girder elements

### **Climbing Inspections**

- 1. Reporting
  - A. For each bridge inspected, submit a report in electronic format following the guidance provided in MDT's Climbing Bridge Inspection Guidance document, located in Appendix 4G of the MDT Bridge Inspection Manual.
- 2. Climbing Fracture Critical Inspection Procedures
  - A. Review fracture critical inspection procedures on file for each bridge.
    - i. If document is unavailable or is not in accordance with guidance in the MDT Bridge Inspection Manual (Chapter 9, Section 3 and Appendix 9A), create and submit a new bridge-specific fracture critical inspection procedure upon completion of inspection.
      - 1. Update as needed each FC procedures file with expanded inspection procedures following the guidance in the MDT Bridge Inspection Manual, Chapter 9, Section 3.
  - B. Upon completion of inspection, notify MDT if the existing fracture critical inspection procedures need to be updated based on inspection findings. Update procedures accordingly and upload revised procedures to **BrM: Multimedia > Bridge (XXXXX) > Inspection Procedures**
    - i. MDT Commentary – editable documents for revision, if available/on file in BrM Multimedia
  - C. Upon completion of inspection, update the following editable documents in BrM Multimedia, "Procedures" folder, and term assignment manager via email when updated. Make copy of original version and update, then upload updated version. MDT will remove previous version after receiving notification that documents are updated.
    - i. New or updated inspection procedures
    - ii. New or updated floor beam inspection and reporting templates (blank except for span and panel numbers)
    - iii. New or updated CAD files used to develop defect diagrams (do not need defects included)

### 3. Reports and Data Entry

#### A. Enter all data into BrM.

- i. Review and update (if necessary) components associated with the inspection.
- ii. Review and update inventory attributes (see MDT Bridge Inspection Manual Appendix 4E and 4F).
- iii. Upload photos and all other relevant documents.
- iv. Enter inspection notes and defect data.
  1. Include comments for all defects, and photo documentation for all CS3 and CS4 defects (except for corrosion).
- v. Add any relevant repair items.

#### B. Complete a written report documenting inspection findings, and upload to BrM. Format report per MDT Bridge Inspection Manual Appendix 9A and the current Climbing Bridge Inspection Guidance, Appendix 4G. Include a fracture critical member diagram showing all defects.

## **Underwater Diving Inspections and Bridge Scour Monitoring**

### 1. Probe and Wade Inspections

#### A. Perform probe and wade inspections at the same time as the regular inspections on all bridges requiring a probe and wade inspection as described in the MDT Bridge Inspection Manual.

- i. If the bridge has never received an underwater inspection, notify the term assignment manager and request the inspection type be added to the BrM schedule.
- ii. If the bridge requires a probe and wade inspection, it must be performed during each routine inspection.
- iii. If water levels are too high to perform a probe and wade inspection at the time of the regular inspection, notify the MDT Bridge Inspection Engineer to schedule a follow-up probe and wade inspection at a later date. If a low water inspection is not possible at any time of the year, notify the MDT Bridge Inspection Engineer of the need for an underwater inspection on that structure.

#### B. Do not perform probe and wade inspections on any elements requiring an underwater inspection as part of this term contract.

#### C. Complete probe and wade inspections from the mud line to the water surface for various substructure types.

#### D. The inspections will involve:

- i. A thorough visual inspection, if possible (tactile if not), of each substructure element.
- ii. A determination of the amount of scour in the area of the bridge, indicating to what extent, if any, that the footings are exposed or undermined.
- iii. Noting the existence of any other condition which may adversely affect the structure or require remedial attention. Examples of this would be noting the presence and type of drift present in the stream, estimating the chances of the drift hanging up on substructure units, and noting the

existence and location of any underwater foreign or unexpected objects in the vicinity of the bridge.

- iv. A complete and detailed written report documenting the results of the inspection. The report will include detailed cross-sections and a contour map of the area under the bridge produced using soundings or other approved methods.

## 2. Coordination and Scheduling

- A. Before the inspections begin, a tentative schedule of diving operations will be provided to the Bridge Management Section so that the district office(s) can be notified in advance when the divers will be in their district(s). Updates to the schedule will be provided to MDT as adjustments are made. The lines of communication between the diving contractor and MDT will remain open at all times.
- B. Contact the Montana Fish, Wildlife & Parks (FWP) Fisheries Division at 406-444-2449 prior to transportation of a boat or marine equipment, including, but not limited to, barges, dredges, docks, piers, backhoes, etc. into Montana. Montana FWP will inspect all vessels and equipment before they are allowed in or near the water. Provide adequate notice prior to equipment coming on-site so FWP can arrange for this inspection. Contact FWP to request how much prior notice is needed. It is illegal to transport aquatic invasive species into Montana. Wash all equipment thoroughly with high-pressure hot water, and ensure the equipment is drained and dried prior to entrance into Montana to avoid delays.

## 3. Underwater Inspection

- A. Conduct all diving operations in accordance with the applicable OSHA safety standards. Submit a copy of your firm's OSHA-mandated safe practices manual.
- B. Provide all the equipment necessary to complete the inspection.
- C. Inspect all underwater elements visually where possible. Perform a tactile inspection when low visibility prevents a visual inspection.
- D. Provide a description of the streambed in general terms (mud, sand, gravel, rock, or a combination thereof).
- E. Inspect all substructure elements and document observations in accordance with the BIRM and the MDT Bridge Inspection Manual.
- F. Clean off all concrete surfaces and sound all concrete with a hammer for incipient spalls. Document location and dimension of all observed spalls. Note unusual cracking; the location, number and size of exposed reinforcement; and the conditions of exposed footing piles.
- G. Locate and dimension all section loss in steel piles or shells. A representative sampling of approximately 10 percent of the steel pipe piles will be measured for wall thickness of the steel pipe. An ultrasonic thickness-measuring device will be required for this operation. The diver will clean the steel of all marine growth and any loose protective coating before placing the transducer against the pile.
- H. A representative sampling of timber piles will be bored or drilled to determine the extent of rot present. The holes left by this operation shall be plugged with treated hardwood dowels.

4. Scour

- A. Sounding will be taken in the areas under and adjacent to the structure, using either lead lines or ultrasonic depth sounding equipment. The soundings will be made along the circumference of all substructure components and along lines directly under the upstream and downstream edge of the bridge deck and parallel lines 50 and 100 feet upstream and downstream of the bridge. The soundings will be taken continuously if a recording depth sounder is used or at 10-to-20-foot intervals if spot sounding is used. Additional soundings will be made as necessary to identify change in slope locations. A contour map and a set of cross sections will be developed from the recorded data.
- B. Soundings will be referenced to the water surface, which shall be referenced to a point of known elevation on the bridge.
- C. If a footing is found to be exposed or undermined, the volume of the void must be dimensioned within an accuracy of 6 inches in each direction.
- D. If inspection also includes annual bridge scour monitoring, do not duplicate these soundings/surveys.

5. Photography

- A. For identification purposes, photographs of the portal and profile views of each bridge inspected will be taken.
- B. Underwater photography will be used to document the findings of the inspection. Photographs will be required to illustrate the typical condition of substructure components as well as areas of substructure component distress. Where severe deterioration exists, photographs must fully document the condition.
- C. Existing scour problems or conditions that show a potential for scour shall also be included in the photography. This includes photographs of undermined footings, adjacent scour holes and debris that may be on or near the bridge.
- D. A clearwater box will be used if turbidity makes normal photography impossible.

6. Reporting

- A. For each bridge inspected, a report will be prepared which will include the following:
  - i. An evaluation of the overall condition of the underwater components including photographs, sketches, and diagrams used to substantiate the findings.
  - ii. Recommendations for any short-term or long-term repairs or maintenance.
  - iii. Review of most recent routine inspection notes and defects for substructure elements and comment on NBI Item 60 condition rating for bridge.
  - iv. Conclusions as to the condition of the streambed (amount of scour, need for riprap, etc.). Included will be the contour map and cross sections mentioned above. Input cross-sections into the BrM Cross-Section module.”

7. Cross Sections
  - A. When performing probe and wade inspections and underwater inspections, complete channel cross sections and update in BrM. Update or create the substructure profile from plans or field survey. Compare historical cross sections with current cross sections and notify term assignment manager if the historical views are not correct. Follow Cross Section guidance in the MDT Bridge Inspection Manual, Appendix 7A.
  
8. Annual Bridge Scour Monitoring
  - A. Annual bridge scour monitoring consists of the following at select scour critical bridges, bridges with scour countermeasures, and/or bridges with scour issues:
    - i. Survey

Conventional, single beam, imaging, and/or multibeam bathymetric surveys in conjunction with conventional and drone surveys above the water surface. Bathymetric survey method(s) to be determined by site conditions such as depth and velocity. The purpose of these surveys is to monitor the underwater and channel conditions at each bridge for comparison to previous surveys with respect to changes to the channel bottom, presence and condition of scour countermeasures, footing/pile exposure and/or undermining, and channel migration over time.
    - ii. Field Review

Field review to evaluate the condition of the channel, debris, scour countermeasures, piers, and abutments. Document condition using photos, sketches, and as-builts. If scour countermeasures are in-place, inspect the condition of the scour countermeasures with underwater photos/videos at sites where the water depth and clarity allow.
    - iii. Annual Scour Monitoring Report

Annual monitoring report for each bridge documenting information from the survey and field review observations relating to scour and stream stability with a discussion of changes from the previous year's survey. Include data collection procedures for each bridge, consisting of waterway access information, engineering survey methods/equipment used, and site conditions at the time the survey was performed.

## **Non-Destructive Testing Inspections**

1. General
  - A. Consultant will provide the necessary personnel, tools, and expertise to complete accurate and consistent NDT bridge inspections on in-service pin-and-hanger assemblies and other steel members as required.
  - B. MDT will provide traffic control and UBIV to allow consultant to access NDT locations.
  - C. Consultant will ensure accurate and consistent defect identification results through:
    - i. Properly calibrated testing equipment
    - ii. Inspection processes that are both proven and well

documented

- D. NDT inspections require submission and approval of a bridge-specific NDT inspection procedure to the term assignment manager. Consultant may submit ultrasonic inspection procedures and calibration requirements that differ from what is required in the MDT Bridge Inspection Manual for approval by MDT. MDT understands that some of the procedures and calibration requirements in MDT Bridge Inspection Manual may not apply to current NDT methods or equipment.
- 2. Personnel
    - A. NDT personnel must be qualified in accordance with American Society of Nondestructive Testing (ASNT) Recommended Practice No. SNT-TC-1A as prescribed by 2020 edition of American Welding Society (AWS) D1.5. Bridge inspection team leader will meet the standards of American National Standards Institute (ANSI) / ASNT CP-189-2020 at Level II or higher.
  - 3. Coordination and Scheduling
    - A. The consultant will coordinate the inspection schedule, including the use of the UBIV and all necessary traffic control with MDT.
    - B. MDT will provide a district bridge inspector to operate the UBIV bucket for the consultant.
    - C. MDT District Bridge Inspection Managers will be responsible to coordinate with the railroads when bridge inspection involves railroad right-of-way. MDT will directly pay for all railroad traffic control costs.
    - D. Prior to each mobilization, request a call-down list from MDT.
    - E. Consultant will provide a tentative inspection schedule to MDT contract manager 30 calendar days prior to performing inspections.
    - F. The NDT inspection procedure is required to be submitted 45 calendar days prior to performing inspections.

By submitting a proposal, it is understood that acceptance of an assignment will indicate that your firm has the capacity to complete the work requested in accordance with the schedule negotiated for that assignment.

### **LOCATION**

Various – Statewide

### **PROJECT/TASK SCHEDULE AND DELIVERABLES**

The project schedule will be developed and negotiated separately for each individual term/task assignment. At this time, it is anticipated that deliverables will generally follow those described in MDT's Consultant Activity Descriptions (as applicable):

[http://www.mdt.mt.gov/other/webdata/external/cdb/ACTIVITY\\_DESCRIPTIONS/CONSULTANT\\_DESIGN\\_2500\\_MU.PDF](http://www.mdt.mt.gov/other/webdata/external/cdb/ACTIVITY_DESCRIPTIONS/CONSULTANT_DESIGN_2500_MU.PDF)

## **STANDARDS, SPECIFICATIONS, AND POLICIES**

Work is expected to follow MDT's various Manuals, Guides, and Policies. These items may be found on MDT's Design Consulting web page at: <http://www.mdt.mt.gov/business/consulting/>.

## **PROPOSAL SUBMITTAL**

**Submit one (1) electronic version (Adobe PDF format) of the proposal. Hard copy proposals will not be accepted.**

Submit the electronic version by uploading to the State of Montana File Transfer Service (FTS) site, which can be accessed at this link: <https://transfer.mt.gov>. To upload to FTS, an account must be created unless the person who is uploading already has an account. Uploading instructions can be accessed at <https://transfer.mt.gov/Home/Instructions>. When your proposal has been uploaded, the FTS system will prompt you for an email address to send to. Please send this email of your uploaded proposal to the following individuals:

Sheryl Tangen: [stangen@mt.gov](mailto:stangen@mt.gov)

Kelly Williams: [kwilliams@mt.gov](mailto:kwilliams@mt.gov)

Phillip Luebke: [pluebke@mt.gov](mailto:pluebke@mt.gov)

**The Department must receive the proposals for this RFP no later than 3:00 PM MST, October 23, 2021.**

Regardless of cause, late proposals will not be accepted and will automatically be disqualified from further consideration. It shall be solely the vendor's responsibility to assure delivery at the specified office by the specified time. Offeror may request the State return late proposals at vendor's expense or the State will dispose of late proposals if requested by the offeror. (See Administrative Rules of Montana (ARM) 2.5.509.). If no request is made, late proposals become the property of the Department. All proposals submitted on time become the property of the Department.

The costs for developing and delivering responses to this solicitation are entirely the responsibility of the offeror. The State is not liable for any expense incurred by the offeror in the preparation and presentation of this submittal.

## **TENTATIVE RFP/SELECTION SCHEDULE**

The anticipated schedule for consultant solicitation and selection for this contract is as follows (subject to change):

October 9, 2024: RFP released  
October 23, 2021: Proposals due to be submitted to MDT Consultant Design  
November 26, 2024: Proposals reviewed, rated, and ranked by the evaluation committee  
December 4, 2024: Consultant Selection Board meeting to select consultant(s)

There are three (3) members on the evaluation committee for this RFP (subject to change):

1. MDT Bridge Inspection Engineer
2. MDT Bridge Bureau Civil Engineering Specialist
3. MDT Bridge Bureau Structural Engineer



## **PROPOSAL CONTENTS**

The proposal must contain the information listed in this section. **The proposal is limited to six (6) pages for the Standard Inspection Categories and General Requirements and two (2) pages for each of the Specialty Inspection Categories**, not including the required Appendices. Consultants must clearly state on the form attached to this RFP which specialty categories they are proposing on. Any consultants that do not select at least one specialty category will be disqualified from further consideration. A single cover jacket/title page is allowed if desired and will not count in the page limit. Each page is defined as one side of a letter size sheet (no larger than 8 ½” x 11”), minimum font size of 10. Evaluation of information will begin with the first page immediately following the cover jacket/title page, and every page will be counted, in order, from that point forward, including any table of contents or divider pages the firm wishes to include. Once the page limit is reached, any information included thereafter will be removed and not considered or scored. Please organize your proposal in the same order and numbering format as shown below, which will assist MDT in reviewing your proposal:

### **Questions**

#### **1) Team Qualifications**

Provide a discussion on how the team you propose to use for this contract (including subconsultants, if used) is best qualified to respond to the requirements of this contract. Discussion should focus on the requirements for this specific contract, particularly your team’s expertise and experience, as it relates to the work described in the “Scope of Work” section above. Provide examples of previous related experience as it relates to these services. Identify professional licensure of staff that satisfy the requirements for this contract. Include an organization chart that indicates the staff identified for this contract, their area of expertise, registration, and office location(s). Also briefly discuss your compatibility of systems, software, and equipment (i.e. CADD software, word processing software, etc.), and experience with these systems, software, and equipment. The Department’s standard design software is Autodesk® technology included in the Architecture, Engineering & Construction (AEC) Collection. Describe any special equipment or software you intend to use. Resumes may be considered as supplemental information for scoring this question.

#### **2) Approach to Task Assignments**

Transportation work has many challenging aspects, and the development and delivery of a successful work product that addresses and mitigates specific challenges is of utmost interest to MDT. Discuss the challenges you foresee as they relate to this type of work, your strategy for addressing these challenges, and your specific experience in implementing the strategies identified. Describe your quality assurance/quality control process. Provide a discussion on your overall strategy for delivering work in a timely manner, including fast-tracked or emergency tasks and changing priorities.

### **Appendix A: Resumes**

Include brief resumes for the key personnel to be assigned to the contract. **Resumes are limited to one (1) page per person.**

## **Appendix B: Cover Page Form**

Include a completed version of MDT's standard cover page form, available at the following location:

<http://www.mdt.mt.gov/other/webdata/external/cdb/MDT-CDB-002-Proposal-SOQ-Cover-Sheet.pdf>

Information presented in the cover page form will not be considered in proposal scoring.

## **Appendix C: Inspection Categories Form**

Include a completed version of this form (available at the end of this RFP) with your proposal.

## **Appendix D: References**

Submit references that includes a minimum of five (5) separate contracts from the past three (3) years. If applicable, you may submit multiple contracts for a single client. Each contract must pertain to work similar to the proposed scope of services. Include client name, a currently employed primary contact person, an alternative contact person, corresponding valid phone numbers and emails for both contacts, a range of contract value, and a brief description of the work performed. If MDT needs to use these references for the Past Performance Score (as described in the "Evaluation of Proposals" section below) and is unable to contact the required number of references after a reasonable effort, the firm will receive a zero for the missing reference(s).

## **EVALUATION OF PROPOSALS**

All proposals will be evaluated in accordance with the following factors:

- 1) Team Qualifications (50 points possible for each of the standard categories and 100 points possible for the specialty categories)**
  - 2) Approach to Task Assignments (25 points possible for each of the standard categories and 50 points possible for the specialty categories)**
  - 3) Record of past performance (30 points possible)**
    - a) If two (2) or more MDT evaluations specific to the disciplines for this contract are available for the consultant, the average score of these evaluations will be used. Evaluations for Project Management & Overall Performance will also be included.
    - b) If fewer than two (2) MDT evaluations specific to the disciplines for this contract are available for the consultant, but there are two (2) or more MDT evaluations are available for other work disciplines, the consultant's current overall past performance score from MDT evaluations will be used.
    - c) If there is only one (1) MDT evaluation available for the consultant, the record of past performance score will be an average of the MDT evaluation and one (1) reference check from the references provided in the unbound attachment.
    - d) If no MDT evaluations are available, the average score of two (2) reference checks from the references provided in the unbound attachment will be used for this score.
- Regardless of partnership/teaming relationships, the past performance of the prime consultant will be the past performance score that will be used for this score.

Evaluations of team qualifications and approach to task assignments will be conducted by category. Past performance will be evaluated across all categories.

To arrive at a ranking for each specialty category, a consultant's past performance score will be added to their scores for the two (required) standard inspection categories and their score for that specialty category.

<b>Evaluation Factor</b>	<b>Points</b>
Team Qualifications - Category 1	50
Approach to Task Assignments - Category 1	25
Team Qualifications - Category 2	50
Approach to Task Assignments - Category 2	25
Past Performance	30
Team Qualifications - Specialty Category	100
Approach to Task Assignments - Specialty Category	50
<b>TOTAL</b>	<b>330</b>

Example:

Scores

	<b>Cat. 1</b>	<b>Cat. 2</b>	<b>Past Perf.</b>	<b>Cat. 3</b>	<b>Cat. 4</b>	<b>Cat. 5</b>	<b>Cat. 6</b>
<b>Consultant A</b>	70	70	29	133	139	150	128
<b>Consultant B</b>	63	64	27	144			139
<b>Consultant C</b>	69	71	28	148	136	135	
<b>Consultant D</b>	66	67	28		138	136	
<b>Consultant E</b>	68	69	26				133

Timber Boring Inspections (Category 3)

	<b>TOTAL</b>
<b>Consultant C</b>	316
<b>Consultant A</b>	302
<b>Consultant B</b>	298

Climbing Inspections (Category 4)

	<b>TOTAL</b>
<b>Consultant A</b>	308
<b>Consultant C</b>	304
<b>Consultant D</b>	299

Underwater Diving Inspections and Bridge Scour Monitoring (Category 5)

	<b>TOTAL</b>
<b>Consultant A</b>	319
<b>Consultant C</b>	303
<b>Consultant D</b>	297

NDT Inspections (Category 6)

	<b>TOTAL</b>
<b>Consultant A</b>	297
<b>Consultant E</b>	296
<b>Consultant B</b>	293

Subconsultants will be considered on a case-by-case basis for specific projects or term assignments; however, proposals will be scored only on the prime consultant's qualifications.

All Proposals will be evaluated using the following basic scoring methodology:

- Outstanding/Exceptional response: 90-100% of the available points
- Good response: 70-90% of the available points
- Average response: 50-70% of the available points
- Poor response: 30-50% of the available points
- Qualifications not clearly met: 0-30% of the available points

Following the review, evaluation, and rating of all proposals, the final results will be presented to the Consultant Selection Board at the MDT Headquarters Building. At this time, the Consultant Selection Board will select the most qualified firm(s) for TERM CONTRACT(S). The Board may consider any proposal scoring within 2% of another proposal as equally qualified and take into account its knowledge of the firms' workload, past performance, and familiarity with the specific work to be performed in selecting the most-qualified consultant(s).

**SELECTION OF CONSULTANTS FOR TASK ASSIGNMENTS**

If multiple consultants are selected and multiple term contracts are awarded, task or work orders (term assignments) will be awarded through an additional qualifications-based selection procedure. This selection procedure will be comprised of selecting a firm in accordance with the following weighted factors:

**1) Qualifications for specific Task Assignment (60 points possible)**

- a) Using the proposals submitted in response to this RFP and work performed with MDT since the submittal of this proposal: an evaluation of the consultant's qualifications as related to the specific knowledge, skills, and abilities required for the individual task assignment, including familiarity with the region in which the task assignment is located. Firm office location is not the determining factor for this score. (50 points possible)
- b) As relating to this type of work, the firm's current workload and amount of recent work with MDT. (10 points possible)

## **INDIRECT COST RATE REQUIREMENTS**

Proof of the firm's Indirect Cost Rate (overhead rate) is ***not required*** with this proposal submittal. However, an Indirect Cost Rate may be required prior to executing a contract according to MDT's Indirect Cost Rate Requirements:

All submitted indirect cost rates must be calculated in accordance with 23 CFR 172 for the cost principles of 48 CFR part 31 and include the required items identified in the MDT Indirect Cost Rate Policy located in Appendix A of the Consultant Services Manual on the MDT Internet website.

[http://www.mdt.mt.gov/other/webdata/external/cdb/consultant\\_manual/consultant-design-manual\\_combined.pdf](http://www.mdt.mt.gov/other/webdata/external/cdb/consultant_manual/consultant-design-manual_combined.pdf)

***Do not show any actual numerical financial information such as the overhead rate or personnel rates within your proposal. Specific cost information of the firm or team should not be part of the proposal.***

## **AGREEMENT REQUIREMENTS**

Contract agreements will generally be administered on a cost plus fixed fee basis. The contracts will have negotiated cost ceilings. If a consulting firm is selected for a specific contract and a contract agreement is successfully negotiated, certain financial information will be required as part of the contract agreement. As described in the Indirect Cost Rate Requirements section above, all Consultants and subconsultants must provide the Department with an Indirect Cost Rate (as applicable) audited (when applicable) in accordance with 23 CFR 172 for the cost principles of 48 CFR Part 31 and based on the firm's latest completed fiscal year's costs. Personnel rates, profit, and direct expenses must be clearly outlined and provided to the Department. The standard MDT agreement can be found at the following address:

<http://www.mdt.mt.gov/other/webdata/external/cdb/forms/pdf/General-Terms-and-Conditions.pdf>

***Do not submit actual numerical financial information within this proposal.***

## **STATE OPTION TO AWARD**

While the State has every intention to award a contract resulting from this RFP, issuance of the RFP in no way constitutes a commitment by the State to award and execute a contract. Upon a determination such actions would be in its best interest, the State, in its sole discretion, reserves the right to:

- Cancel or terminate this RFP (18-4-307, MCA);
- Reject any or all proposals received in response to this RFP (ARM 2.5.602);
- Waive any undesirable, inconsequential, or inconsistent provisions of this RFP that would not have significant impact on any proposal (ARM 2.5.505);
- Not award a contract, if it is in the State's best interest not to proceed with contract execution (ARM 2.5.602); or
- If awarded, terminate any contract if the State determines adequate funds are not available (18-4-313, MCA).

**SINGLE POINT OF CONTACT**

From the date this solicitation is issued until the consultant selection is finalized by MDT at the Consultant Selection Board meeting, offerors are not allowed to communicate with any state staff or officials regarding this solicitation, except at the direction of the Consultant Design Engineer. If unauthorized contact is made and the Consultant Design Engineer determines the context of the contact gives the firm an unfair advantage, the firm will be disqualified from the solicitation. Contact information for the single point of contact is as follows:

**Kelly Williams**  
Consultant Design Engineer  
Montana Department of Transportation  
(406) 444-7964 (Direct Line)  
[kwilliams@mt.gov](mailto:kwilliams@mt.gov)

**DBE GOALS**

There are no DBE goals for this work, but firms are strongly encouraged to utilize DBE firms if applicable. A Montana certified DBE list is available and can be found on the MDT web page, <http://www.mdt.mt.gov/business/contracting/civil/dbe.shtml>.

**NONDISCRIMINATION COMPLIANCE**

Consultants will be subject to Federal and Montana nondiscrimination laws and regulations (see attached notice titled “MDT NONDISCRIMINATION AND DISABILITY ACCOMMODATION NOTICE”).

If you have any questions, please contact me at (406) 444-7964, or by email at [kwilliams@mt.gov](mailto:kwilliams@mt.gov). I look forward to receiving your proposal.

Sincerely,

*Kelly M Williams*  
Kelly Williams, P.E.  
Consultant Design Engineer

Attachment

e-copies:

- |  |  |
|--|--|
| Mary Erchul, ACEC Executive Director-Montana Chapter | Jason Senn, MDT Consultant Plans Engineer                |
| Dustin Rouse, MDT Chief Engineer                     | Dave Holien, MDT TA Engineer                             |
| Ryan Dahlke, MDT Preconstruction Engineer            | MDT Consultant Design Bureau file                        |
| Damian Krings, MDT Highways Engineer                 | Andy Cullison, MDT Bridge Engineer – Bridge Bureau Chief |
| Charles Horinek, MDT Civil Engineering Specialist    | Jarrod Plummer, MDT Bridge Engineer                      |
| Megan Handl, MDT Civil Rights Bureau Chief           | Henry Henning, MDT Bridge Inspection Engineer            |