

PID# 113004 State Job # 480988
Scope of Services Meeting Date & Time: _____
Approved Final Scope of Services Date: _____
Location varies

CONSULTANT BRIDGE INSPECTION Scope of Services

1. Bridge Identification

County: Butler Route: SR73 Section: 1682 District: 8
SFN: 0901326 Municipality: Lemon Twp
Facility Carried by Structure: SR73
Feature Intersect: Great Miami River

County: Butler Route: SR122 Section: 0606 District: 8
SFN: 0902209 Municipality: Middletown
Facility Carried by Structure: SR122
Feature Intersect: Great Miami River

County: Butler Route: US127 Section: 0846 District: 8
SFN: 0902772 Municipality: New Miami
Facility Carried by Structure: US127
Feature Intersect: Great Miami River

County: Butler Route: SR 128 Section: 0858 District: 8
SFN: 0903159 Municipality: New Miami
Facility Carried by Structure: SR 128

Feature Intersect: Great Miami River

County: Clermont Route: US 52 Section: 2237 District: 8

SFN: 1302108 Municipality: Franklin Twp

Facility Carried by Structure: US 52

Feature Intersect: Trib Ohio River.

County: Clermont Route: US 52 Section: 2346 District: 8

SFN: 1302140 Municipality: Franklin Twp

Facility Carried by Structure: US 52

Feature Intersect: Bullskin Creek

County: Greene Route: SR 235 Section: 1110 District: 8

SFN: 2902222 Municipality: Bath Twp

Facility Carried by Structure: SR235

Feature Intersect: Mad River

County: Greene Route: SR 444 Section: 0016L District: 8

SFN: 2902524 Municipality: Bath Twp

Facility Carried by Structure: SR 444

Feature Intersect: Mad River

County: Greene Route: SR 444 Section: 0016R District: 8

SFN: 2902559 Municipality: Bath Twp

Facility Carried by Structure: SR 444

Feature Intersect: Mad River

County: Hamilton Route: US27 Section: 1848L District: 8

SFN: 3101894 Municipality: Colerain Twp

Facility Carried by Structure: US27

Feature Intersect: Great Miami River

County: Hamilton Route: US 27 Section: 1848R District: 8

SFN: 3101924 Municipality: Colerain Twp

Facility Carried by Structure: US 27

Feature Intersection: Great Miami River

County: Hamilton Route: US 32 Section: 0127 District: 8

SFN: 3102076 Municipality: Cincinnati

Facility Carried by Structure: US 32

Feature Intersection: Little Miami River

County: Hamilton Route: US 50 Section: 0376L District: 8

SFN: 3102521 Municipality: Whitewater Twp

Facility Carried by Structure: US 50

Feature Intersection: Great Miami River

County: Hamilton Route: US 50 Section: 0376R District: 8

SFN: 3102548 Municipality: Whitewater Twp

Facility Carried by Structure: US 50

Feature Intersection: Great Miami River

County: Hamilton Route: US 50 Section: 3606R District: 8
SFN: 3104184 Municipality: Milford
Facility Carried by Structure: US 50
Feature Intersection: Little Miami River

County: Hamilton Route: US 52 Section: 3154 District: 8
SFN: 3105768 Municipality: Cincinnati
Facility Carried by Structure: US 52
Feature Intersection: Little Miami River

County: Hamilton Route: IR 74 Section: 0838L District: 8
SFN: 3108252 Municipality: Whitewater Twp
Facility Carried by Structure: IR 74
Feature Intersection: Great Miami River

County: Hamilton Route: IR 74 Section: 0838R District: 8
SFN: 3108287 Municipality: Whitewater Twp
Facility Carried by Structure: IR 74
Feature Intersection: Great Miami River

County: Hamilton Route: SR126 Section: 2286 District: 8
SFN: 3105261 Municipality: Symmes Twp
Facility Carried by Structure: SR126

Feature Intersection: Little Miami River

County: Hamilton Route: IR 275 Section: 3500L District: 8

SFN: 3113604 Municipality: Symmest Twp

Facility Carried by Structure: IR 275

Feature Intersection: Little Miami River

County: Hamilton Route: IR 275 Section: 3500R District: 8

SFN: 3113612 Municipality: Symmest Twp

Facility Carried by Structure: IR 275

Feature Intersection: Little Miami River

County: Warren Route: US 22 Section: 0303 District: 8

SFN: 8300038 Municipality: Hamilton Twp

Facility Carried by Structure: US22

Feature Intersection: Little Miami River

County: Warren Route: SR48 Section: 0863 District: 8

SFN: 8301085 Municipality: Hamilton Twp

Facility Carried by Structure: SR48

Feature Intersection: Little Miami River

County: Warren Route: SR73 Section: 1458 District: 8

SFN: 8302855 Municipality: Wayne Twp
Facility Carried by Structure: SR73
Feature Intersection: Little Miami River

County: Warren Route: SR73 Section: 1818L District: 8
SFN: 8303010 Municipality: Massie Twp
Facility Carried by Structure: SR 73
Feature Intersection: Caesar Creek

County: Warren Route: SR 73 Section: 1818R District: 8
SFN: 8303029 Municipality: Massie Twp
Facility Carried by Structure: SR 73
Feature Intersection: Caesar Creek

County: Warren Route: SR 123 Section: 3084 District: 8
SFN: 8304785 Municipality: Franklin
Facility Carried by Structure: SR 123
Feature Intersection: Great Miami River

County: Warren Route: SR350 Section: 0285 District: 8
SFN: 8305080 Municipality: Washington Twp
Facility Carried by Structure: SR350
Feature Intersection: Little Miami River

County: Butler Route: SR129 Section: 1425 District: 8
SFN: 0903345 Municipality: Hamilton
Facility Carried by Structure: SR129
Feature Intersection: Great Miami River

County: Clermont Route: SR126 Section: 0211 District: 8
SFN: 1306146 Municipality: Miami Twp
Facility Carried by Structure: SR126
Feature Intersection: Little Miami River

County: Butler Route: SR4 Section: 2317 District: 8
SFN: 0900397 Municipality: Middletown
Facility Carried by Structure: SR4
Feature Intersection: Great Miami River

County: Hamilton Route: US50 Section: 1927 District: 8
SFN: 3102890 Municipality: Cincinnati
Facility Carried by Structure: US50
Feature Intersection: Cincinnati Storage Sewer

County: Butler Route: 0113 Section: 3803 District: 8
SFN: 0936871 Municipality: Fairfield
Facility Carried by Structure: Liberty Fairfield Road
Feature Intersection: Great Miami River and CSXRR

County: Butler Route: Hamilton Eaton Road Section: _____ District: 8
SFN: 0935360 Municipality: _____
Facility Carried by Structure: Hamilton Eaton Road
Feature Intersection: Four Mile Creek

County: Hamilton Route: IR 75 Section: 0788 District: 8
SFN: 3110028 Municipality: Cincinnati
Facility Carried by Structure: IR 75
Feature Intersection: Ross Run

County: Hamilton Route: SR126 Section: 1006 District: 8
SFN: 3104737 Municipality: Springfield Twp
Facility Carried by Structure: SR126
Feature Intersection: Mill Creek Trib

County: Hamilton Route: SR264 Section: 0810 District: 8

SFN: 3111539 Municipality: Greene Twp
Facility Carried by Structure: SR264
Feature Intersection: Box Sewer

County: Hamilton Route: IR 75 Section: 0828 District: 8
SFN: 3110117 Municipality: Cincinnati
Facility Carried by Structure: IR 75
Feature Intersection: Bloody Run

County: Hamilton Route: US 50 Section: 1903 L District: 8
SFN: 3102807 Municipality: Cincinnati
Facility Carried by Structure: US 50
Feature Intersection: Mill Creek

County: Hamilton Route: US 50 Section: 1903 R District: 8
SFN: 3102815 Municipality: Cincinnati
Facility Carried by Structure: US 50
Feature Intersection: Mill Creek

County: Hamilton Route: US 50 Section: 0208 District: 8
SFN: 3102491 Municipality: Cincinnati
Facility Carried by Structure: US 50
Feature Intersection: Whitewater River

2. Attendance (See Attached Sheet)

Consultant: TBD

Consultant Contracting Officer:

Consultant Project Manager:

ODOT Project Manager:

TBD

Jeff Meyer

3. Project Description

Number of Lanes: varies Year Built: varies ADT: varies

Bridge Type: varies Type of Service: varies

Overall Length: varies Maintenance Responsibility: varies Inspection Resp: varies

4. Available Plans and Inspection Reports:

	Yes	No
Original Construction Plans	x	
As-Built Plans		x
Shop Drawings		x
Repair or Rehabilitation Plans	x	
BR86 Inspection Reports	x	
BR87 Inventory Appraisal	x	
Physical Condition Reports	x	
Structural Analysis		x
Underwater Inspection Reports	x	
Maintenance Manual		x
FCM Inspection Procedure		x
UW Inspection Procedure	x	

All existing information can be found on ODOT's FTP site located at:

[https://ftp.dot.state.oh.us/pub\\$/Districts/D08/Programmatic/2024-January/113004](https://ftp.dot.state.oh.us/pub$/Districts/D08/Programmatic/2024-January/113004)

Other Contact Jeff Meyer (513) 933-6630 for Existing Plans.

5. Inspection Intent:

Activity	BUT-73-1682	BUT-122-0606	BUT-127-0846	BUT-128-0858	CLE-52-2237	CLE-52-2346	GRE-235-1110	GRE-444-0016L	GRE-444-0016R	HAM-27-1848L	HAM-27-1848R	HAM-32-0127	HAM-50-0376L	HAM-50-0376R	HAM-50-3606R	HAM-52-3154	HAM-74-0838L
In-depth Element Level Inspection																	
In-depth Inspection																	
Routine Element Level Inspection																	
Routine Inspection																	
Update Bridge Inventory																	
Scour Critical Evaluation	---	---	-	-	---	---	-	-	-	-	-	-	-	-	-	-	-
Fracture Critical																	
Underwater Inspection	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
Immediate Action #																	
Maintenance Recommendations & Repairs	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Video of Inspection																	
Hydraulic Cross-Sections	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Pre-Inspection Report ^																	
Sonar *	2024	2024	2024	2024		2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024

Activity	HAM-74-0838R	HAM-126-2286	HAM-275-3500L	HAM-275-3500R	WAR-22-0303	WAR-48-0863	WAR-73-1458	WAR-73-1818L	WAR-73-1818R	WAR-123-3084	WAR-350-0285	BUT-129-1425	CLE-126-0211	BUT-4-2317	HAM-50-1927	BUT-0113-3803
In-depth Element Level Inspection															2024	
In-depth Inspection																
Routine Element Level Inspection															X	
Routine Inspection															X	
Update Bridge Inventory																
Scour Critical Evaluation	—	—	-	-	—	—	-	-	-	-	-	-	-	-	-	-
Fracture Critical																
Underwater Inspection	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
Immediate Action #																
Maintenance Recommendations & Repairs	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Video of Inspection																
Hydraulic Cross Sections	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x
Pre-Inspection Report ^																
Sonar *	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024		2024

Activity	HAM-75-0788	HAM-126-1006	HAM-264-0810	HAM-75-0828	HAM-50-1903L	HAM-50-1903R	BUT-Ham/Eat Rd	HAM-50-0208				
In-depth Element Level Inspection	2024	2024	2024	2024	2025	2025	2025	2024 & 2026				
In-depth Inspection												
Routine Element Level Inspection	x	x	x	x								
Routine Inspection	x	x	x	x								
Update Bridge Inventory												
Scour Critical Evaluation	-	-	-	-	-	-	-	-	-	-	-	-
Fracture Critical												
Underwater Inspection	2024	2024	2024	2024	2025	2025	2024	2024 & 2026				
Immediate Action #												
Maintenance Recommendations & Repairs	x	x	x	x	x	x	x	x				
Video of Inspection	x	x	x	x								
Hydraulic Cross Sections												
Pre-Inspection Report ^												
Sonar *					2025	2025	2024	2024 & 2026				

Inspection Requirement for underwater inspection of bridges:

The underwater inspection vendor (diver) shall be one who is currently on the prequalified list maintained by the Office of Structural Engineering. All individuals performing dives shall be a NBIS-Qualified Inspector. All consultants shall have on-site and available for review, a Safe Practices Manual.

The consultant shall furnish all labor, materials, and equipment (including traffic control) necessary to perform an in-depth inspection from the waterline to the mud line of all bridge piers, abutments, fenders, dolphins, etc. A permit from the district will be required for any operations that will affect the flow of traffic. This will require a maintenance of traffic plan to be submitted and a 30 day review period prior to commencing.

These underwater inspections shall be Level II (10% cleaning and measurement). See Sections 17.3.2 and 17.9.7 of the October 2002 edition of the Bridge Inspector's Training Manual/ 02, Federal Highway Administration. (Available from the National Technical Information Service, Springfield, Virginia 22161) Additionally, these underwater inspections shall comply with page 76 of the ODOT's Manual of Bridge Inspection 2014.

Specific items to be inspected should include, but not limited to, the following:

- < Steel, concrete, stone & timber abutments, piers, fenders, and dolphins.
- < Identify and describe any scour in the stream bed adjacent to the above-mentioned items.
- < Identify the typical streambed material (rocks, riprap, silt, sand, gravel, bedrock, etc.) around each substructure.
- < Identify and describe any damage to substructure items as may have been caused by ship collision, ice, debris, etc.
- < Identify and describe any footer which may be exposed (also if bottoms of footers are exposed).
- < If bottoms of footers are exposed, is piling evident (condition of piling)? Include measurements (size of void under footers).
- < Condition of piling of all pile supported structures (waterline to mud line).
- < Identify and describe the condition of any pile protection.
- < Identify and describe any cracks or erosion of concrete or stone piers and abutments.
- < Identify the location and denote condition of underwater power cables and control cables for any movable bridge.

Additional soundings around piers and abutments, both up and downstream shall be taken as necessary to accurately depict any areas of scour or abnormal channel conditions. River

current direction shall be shown on the sounding diagram.

The diver shall make as many dives as necessary to obtain the required information, reporting all conditions observed, whether they are satisfactory or unsatisfactory.

All details of unsatisfactory structural conditions shall be reported in full detail giving all dimensions of size, shape, and exact location. Effective methods of testing and measuring sound or unsound concrete; sound or unsound timber in piles, bents, cribs, or other timber type construction; sound or unsound stone masonry; presence of stream bed scour, alteration, or other conditions; and/ or any other conditions that may affect the substructure units of the structure involved, shall be employed to assure accurate data.

The consultant shall provide voice communication between the diver and assistant capable of interpreting and recording conditions as they are being observed and reported.

The consultant shall notify the ODOT project manager in the event they have any questions concerning conditions at the site of the projects.

The consultant shall notify the ODOT project manager at least three days in advance of the proposed inspection date, and also on the date that the diving inspection begins.

*If authorized, sonar shall be used for each bridge to obtain the necessary topography of the river bottom within 50 feet from upstream and downstream of the structure and accumulated debris collecting on the piers.

6. STRUCTURAL ANALYSIS: N/A

Activity (ex. Gusset Plate, Floorsystem, Appr. Spans etc.)	Year	XXXX	XXXX	XXXX
<i>Ex. Chloride intrusion should be analyzed by method of rotary hammer. Epoxy or similar should be used to fill in remaining hole. Special areas of interest are where as-built overlays are either too thick or thin; See BDM on deck survey methods for quantity and location of chloride intrusion samples.</i>				

Special Notes:

7. Inspection Services

Item	Description
Target Date(s) for Inspection:	Bridges to be inspected completed by Oct 31, 2024
Traffic Control by	N/A
Lane Closure Requirements	N/A
Restrictions to Lane Closure	N/A
Property Owners Involved	N/A
Right of Entry by	ODOT Permits Department
RR Flaggers	N/A
Other (ex. Coast Guard)	N/A
Special Equipment Anticipated for Access to remote areas <ul style="list-style-type: none"> • Snooper Rental • Rope Climbing • Bucket Truck • Man Lift 	N/A
Other:	

8. Consultant Bridge Inspection Requirements

- Prior to submission to ODOT, the reports shall be given an independent review within the diving agency (and so documented) for clarity and completeness.
- Each bridge shall have its own stand-alone report. "Left" and "Right" bridges shall be considered separate bridges if they have their own structure file numbers.
- The consultant shall submit two copies of the final reviewed report to the District Assistant Structure Planning Engineer. In addition to the paper copies, an electronic version of each report shall be provided in a separate .pdf format.
- Reports shall include any necessary scaled sketches describing any defects. All details of unsatisfactory structural conditions shall be reported in full detail giving all dimensions of size, shape, and exact location.
- An Analysis of defects found is not necessary.
- Reports shall be 8.5" x 11". If necessary, foldout pages for sketches will be permitted as part of the report.
- Report shall include the diver's name, a statement that the diver that conducted the inspection meets the qualifications of a Team Leader as defined by the National Bridge Inspection Standards, and how they meet these standards.
- Reports shall be signed and sealed by a Professional Engineer registered in the State of Ohio.

- Inspection of the entire bridge is not expected; however, the report shall provide numerical ratings for the items inspected in accordance with the ODOT Manual of Bridge Inspection. This shall include a rating using both the traditional scale, and the Element Level inspection scale. (Piers, scour, etc.)
- Minimum soil depth over footing as determined from plans.
- Provide a pier elevation of each water pier showing exposed footings, streambed sounding depths along footing, exposed piling, debris, direction of water flow, etc.
- Show measurement in a pier elevation from a known elevation on at least one pier per structure to establish a water surface elevation and depth at the time of inspection.
- Provide soundings at approximate 1/8 span points along the centerline of the bridge.
- Provide soundings at approximate 1/8 span points 15 ft. upstream and 15 ft. downstream of the bridge, parallel to the centerline of the bridge.
- Substructure labeling (rear abutment, forward abutment, Pier 1, Pier 2, etc.) shall be with respect to route stationing and/or original construction plans. Plan views shall show a north arrow, direction of stationing, and direction of flow.

The consultant shall be considered as an independent contractor and save the State of Ohio harmless in the event of any injuries or damage to any persons or property arising from performance of this proposed contract, by the contractor, his employees, or agents.

The consultant shall be in compliance with all State and Federal laws pertaining to the type of service requested, such as Workman's Compensation.

The bridges to be inspected shall be completed by October 31, 2024. Inspection reports shall be submitted within two (2) months from the underwater inspection date.

All subconsultants used in the inspection shall be named in the proposal so that they can be approved as a sub-consultant at the time of the agreement.

The Consultant shall be responsible for identifying and noting all visible defects in the bridge whether as a result of deterioration, original construction or original design. The Consultant shall also be responsible for identifying and noting areas of potential failure as a result of anticipated deterioration, past construction or maintenance practice and/or inadequate original design.

The Consultant will not be responsible for conditions which are not obvious through usual and customary visual inspection or through standard state-of-the-art testing. The Consultant will not be responsible for identifying and evaluating portions of the bridge which comprise of poor-quality materials and/or inadequate structural design unless obviously visible to a trained and experienced bridge inspector/engineer performing the inspection services in accordance with the customary standards of the profession.

The Consultant will not be responsible for structural conditions which occur after the date of the last site visit, providing the condition was not visibly evident at the time of the last visit and the

Consultant used usual and customary procedures to inspect the bridge.

Notification:

- a. The Consultant shall notify the District Bridge Engineer at least four weeks in advance of the start of the actual inspection to allow scheduling of the required traffic control operations at the periods mutually agreed upon by the Consultant and the District; to inform the local authorities involved of the dates of the inspection; and to obtain any necessary right of entry for the Consultant. In some cases, as noted in the special provisions, the Consultant may be required to provide traffic control, notify involved local authorities, and obtain the necessary right of entry.

- b. The Consultant shall notify the District Bridge Engineer of any and all serious deficiencies immediately upon disclosure, in order that they may be observed by the Department from available scaffolding or access equipment.

The State of Ohio may delete or postpone the inspection of a bridge from the contract up until the time that the physical inspection begins.

Underwater inspection, requiring the use of divers, shall not be required unless specifically stated in the S.O.S. minutes. The Consultant will be required to probe around all substructure units located in water, unless the stream velocity or depth is such that probing is not feasible. All such findings shall be reported. The consultant will be required to complete or revise the Underwater Dive Inspection Procedure Checklist on file such that all UW inspection elements are identified, the inspection frequency is identified, inspection procedures are identified, and all underwater elements are inspected according to those procedures.

Any additional destructive testing, other than that previously mentioned, shall not be done unless specifically stated in the S.O.S. meeting.

Where, in the judgment of the Consultant, it is necessary to remove some portion of the structure to achieve complete and adequate inspection, no action shall be taken without prior approval of the District Bridge Engineer.

All invoices for inspection services shall be submitted to the District Contract Manager for processing.

9. PART 1A – Dive Inspections

BUT-73-16.82, SFN 0901326:

An eight span continuous steel beam bridge, east of the City of Trenton. It carries SR 73 over the Great Miami River and was built in 1966. Six of the solid panel T-type concrete piers on steel piling, are in approximately 8' of normal flow water and require underwater inspection. Last underwater inspection was in 2019.

BUT-122-06.06, SFN 0902209:

An eight span continuous steel beam bridge, 616' long by 32' wide partially within the City of Middletown. It carries SR 122 over the Great Miami River and was built in 1947. Six wall type concrete piers on steel piling are in approximately 7' of normal flow water and require underwater inspection. Last underwater inspection was in 2019.

BUT-127-08.46, SFN 0902772:

A six span continuous steel beam bridge 579' long by 52' wide. It carries US 127 over the Great Miami River and was built in 1932 and rehabilitated in 1994. Two of the wall type concrete piers, on timber piling, are in approximately 7' of normal flow water and require underwater inspection. The south pier has additional sheet piling protection. Last underwater inspection was in 2019.

BUT-128-8.58, SFN 0903159:

A five span continuous steel beam bridge in Hamilton carrying SR 128, Persing Ave., over the Great Miami River. It was built in 1965 and has three solid panel concrete piers on concrete pile foundations that require underwater inspection. Maximum average depth of water is approximately 10'. Last underwater inspection was in 2019.

CLE-52-22.37, SFN 1302108:

A 14' wide by 10' high by 80' +/- long, concrete box culvert that carries US 52 over Patterson Run. The culvert was built in 1932, and has approximately 9' of standing water (due to the effects of the Ohio River) within the limits of the structure. Channel soundings are not required for this structure. Last underwater inspection was in 2019.

CLE-52-23.46, SFN 1302140:

A three span continuous steel beam bridge just east of SR 133. It carries US 52 over Bullskin Creek near the Ohio River. This bridge was built in 1993 and has two concrete drilled shaft piers that require underwater inspection. Water depth is approximately 14'. Last underwater inspection was in 2019.

GRE-235-11.10, SFN 2902222:

A four span continuous steel beam bridge 281' long by 41' wide, carrying SR 235 over the Mad River. It has 3 solid wall type concrete piers on timber piles. The bridge was built in 1944. Last underwater inspection was in 2019.

GRE-444-00.16 L, SFN 2902524:

A five span continuous steel beam bridge, 556' long by 33' wide, carrying westbound SR 444 over the Mad River. It was built in 1959. Three solid panel T-type concrete piers on spread footers in water up to 5' deep require underwater inspection. Last underwater inspection was in 2019.

GRE-444-00.16 R, SFN 2902559:

A six span continuous steel beam bridge, 676' long by 33' wide, carrying eastbound SR 444 over the Mad River. It was built in 1959. Three solid panel T-type concrete piers on spread footers in water up to 5' deep require underwater inspection. Last underwater inspection was in 2019.

HAM-27-18.48 L/R, SFNs 3101894/ 3101924:

Twin five span continuous steel beam bridges, each 641' long by 36' wide, carrying US 27 over the Great Miami River at the Hamilton-Butler County Line. They were built in 1970. Two of the concrete T-type piers on concrete piling, in water up to 5' deep, on each bridge requires underwater inspection. Last underwater inspection was in 2019.

HAM-32-01.27, SFNs 3102076:

A five span continuous steel beam bridge, 519' long by 64' wide, carrying SR 32 (Beechmont Ave. in Cincinnati) over the Little Miami River. It was built in 1951. One of the four column open bent concrete piers on steel piling, in water up to 5', requires underwater inspection. Last underwater inspection was in 2019.

HAM-50-03.76 L, SFN 3102521:

A four span steel truss bridge, 893' long by 32' wide, carrying westbound US 50 over the Great Miami River. It was built in 1959. One of the concrete wall piers on steel H-piling, in water up to 15', requires underwater inspection. Last underwater inspection was in 2019.

HAM-50-03.76 R, SFN 3102548:

A six span continuous steel beam bridge, 870' long by 31' wide, carrying eastbound US 50 over the Great Miami River. It was built in 1991. Two of the concrete capped column piers on drilled shafts, in water up to 5', requires underwater inspection. Last underwater inspection was in 2019.

HAM-50-36.06, SFN 3104184:

In Milford, a three span continuous steel beam bridge built in 1980, carrying US 50 over the Little Miami River. It has two concrete tee piers on steel H-piles that require underwater inspection. Maximum average depth of water is approximately 9'. Last underwater inspection was in 2019.

HAM-52-31.54, SFN 3105768:

A four span continuous steel beam bridge, 462' long by 62' wide, carrying US 52 (Kellogg Ave. in Cincinnati) over the Little Miami River. It was built in 1972. Two of the concrete T-type piers on steel H-piles, in water up to 15' require underwater inspection. Last underwater inspection was in 2019.

HAM-74-08.38 L/R, SFNs 3108252/ 3108287:

Twin four span continuous steel beam bridges, each 538' long by 47' wide, carrying Interstate 74 over the Great Miami River. They were built in 1964. Three of the concrete solid wall piers on steel H-pile for each bridge in approximately 7' of water, requires underwater inspection. Last underwater inspection was in 2019.

HAM-126-22.86, SFN 3105261:

A three span continuous steel beam bridge, 329' long by 30' wide, carrying SR 126 over the Little Miami River. It was built in 1985. Two of the concrete T-type piers on steel H-pile, in water up to 5', requires underwater inspection. Last underwater inspection was in 2019.

HAM-275-35.00 L/R, SFNs 3113604/ 3113612:

Twin eight span continuous steel beam bridges, each 860' long by 50' wide, carrying Interstate 275 over the Little Miami River at the Clermont/ Hamilton County Line. They were built in 1971. Two of the concrete tower piers on spread footers for each bridge in approximately 5' of water, requires underwater inspection. Last underwater inspection was in 2019.

WAR-22-03.03, SFN 8300038:

A 11-span concrete arch viaduct, 1356' long by 30' wide, carrying SR 48 over the Little Miami River. It was built in 1937. One of the concrete tower piers on spread footers, in up to 5' of water, requires underwater inspection. Last underwater inspection was in 2019.

WAR-48-08.63, SFN 8301085:

An eight span continuous steel beam bridge, 1028' long by 30' wide, carrying SR 48 over the Little Miami River. It was built in 1964. One of the concrete T-type piers on steel H-pile, in water up to 5' requires underwater inspection. Last underwater inspection was in 2019.

WAR-73-14.58, SFN 8302855:

A four span continuous steel beam bridge, 256' long by 33' wide, carrying SR 73 over the Little Miami River just east of US 42. It was built in 1952. One of the concrete wall type concrete piers on steel H-pile, in water up to 5' deep, require underwater inspections. Last underwater inspection was in 2019.

WAR-73-18.18 L/R, SFNs 8303010/ 8303029:

Twin six span continuous steel beam bridges, each 877' long by 38' wide, carrying SR 73 over Caesar's Creek Lake. They were built in 1977. Four of the concrete wall piers on spread footers for each bridge, in water up to 75' deep, require underwater inspections. Last underwater inspection was in 2019.

WAR-123-30.84, SFN 8304785:

A five span continuous steel beam bridge, in Franklin, carrying SR 123 over the Great Miami River. It has three T-type piers on concrete piling that require underwater inspection. The bridge was built in 1987. Depth of water is approximately 5'. Last underwater inspection was in 2019.

WAR-350-02.85, SFN 8305080:

A three span continuous steel beam bridge, 218' long by 24' wide, carrying SR 350 over the Little Miami River. It was built in 1984. One of the concrete wall type piers on steel H-pile, in water up to 5', requires underwater inspection. Last underwater inspection was in 2019.

BUT-129-14.25, SFN 0903345:

A five span continuous prestressed concrete beam bridge 549' long by 103' wide carrying SR 129 over the Great Miami River. It has four solid concrete wall piers on concrete piling. The bridge was built in 2009. Last underwater inspection was in 2019.

CLE-126-2.11, SFN 1306146:

A four span continuous steel beam bridge 434' long by 44' wide carrying SR 126 over the Little Miami River. It has T-type piers on steel H piles. The bridge was built in 1976. Last underwater inspection was in 2019.

BUT-4-23.17, SFN 0900397:

A eight span continuous steel beam bridge 618' long by 60.5 wide carrying SR 4 over the Great Miami River. It has T-type piers on steel H piles. The bridge was built in 1956. Last underwater inspection was in 2019.

HAM-50-1903L/R, SFN 3102807/3102815:

Multi-span continuous steel girder bridges approximately 1,040 feet long which carries US 50 over a railroad, private drives, the Mill Creek, and Mehring Way. These structures have concrete cap and column piers on steel H piles. The bridges were built in 1962 and the eastbound bridge was re-decked and widened in 2012 which resulted in the construction of the permanent steel sheetpile cofferdams around the eastbound (Right) pier foundations. During construction of these piers and cofferdams, there was significant difficulty due to debris on the river bottom that was believed to be pieces of the previous bridge.

HAM-50-0208, SFN 3102491:

Multi-span continuous steel girder approximately 460 feet long x 71.33 feet wide which carries US 50 the Whitewater River. The bridge is partially founded upon a reinforced concrete substructure supported by steel H-piles constructed in 1941 and partially supported on a reinforced concrete substructure that predates the 1941 bridge. No plans exist for the older bridge, but the abutment was previously found to be undermined back to the face of the abutment with no piling supporting it. There is timber formwork in front of the abutment which hinders inspection.

***HAM-50-1927, SFN 3102890:**

This structure is a 12' diameter brick sewer (combined) that crosses US 50 and is located approximately 500 feet east of the Mill Creek. The structure is approximately 30'+ under US 50 and outlets into the Ohio River at a depth well below the normal pool elevation of the Ohio River. It is the District's understanding that the Metropolitan Sewer District (MSD) uses this structure as a combined sewer overflow storage. The typical

depth of water within the combined sewer storage in the vicinity of US 50 is not known by the District. Work with MSD to inspect the structure within the R-O-W of US 50 per the previously prepared inspection procedure. Last underwater inspection was in 2019.

***HAM-75-0788, SFN 3110028, Feature Intersect: Ross Run**

Twin concrete arch (2 spans @ 20 feet each) combined sewer approximately 1,200 feet in length and runs underneath the Norwood Lateral north and southbound ramps and underneath IR75. Last entry inspection was in 2019.

***HAM-126-1006, SFN 3104737, Feature Intersect: Mill Creek Tributary**

Concrete culvert combined sewer approximately 167 feet in length and runs underneath State Route 126. Last entry inspection was in 2019.

***HAM-264-0810, SFN 3111539, Feature Intersect: Box sewer**

Box combined sewer approximately 3,000 feet in length runs under Bridgetown Road and along Glenway Avenue (SR264). Last entry inspection was in 2019.

***HAM-75-0828, SFN 3110117, Feature Intersect: Bloody Run**

Concrete culvert combined sewer approximately 95 feet in length and runs underneath IR75. Caution, this structure has a tile floor and is very slippery. For the 2024 inspection, we would like the team to go approximately an additional 200 feet downstream to where a supposedly abandoned 48" brick sewer intersects the south/east wall to look for signs of exfiltration. This line was supposed to have been blocked off and filled with grout, but we seem to be getting continuous settlement under NB I-75 in the left and right lanes which is immediately adjacent to where we know a contractor damaged the brick sewer constructing his containment for an underground storm detention system. Last entry inspection was in 2019.

*Note: Structures designated with an asterisk are combined sewers. Perform inspections for the above for these structures and complete the Inspection Field Report in Assetwise for each structure within the limits of the state R/W. Prepare a digital video of the inspection with adequate lighting to see all surfaces. Each structure typically has less than 1 foot of water between storm events except the HAM-50-1927 which is typically completely submerged. The HAM-50-1927 structure does not require a video unless the structure is in a drained or partially drained condition during the time of inspection. Plan drawings and location maps for each structure can be found at the following FTP website: Inspections, a digital video of the entire inspection, and completed Bridge Inspection Field Report per the ODOT Manual of Bridge Inspection shall be completed.

PART 2- Dive Inspection

BUT-0113-38.03, SFN 0936871:

A seven span continuous concrete I-beam bridge 807.91' long by 66' wide carrying

Liberty Fairfield Road (CR 113) over the Great Miami River. It has two piers in the water (piers 3 and 4). It has wall type piers on steel H piles in water up to 13'. The bridge was built in 2009. Last underwater inspection was in 2019. This structure is the maintenance and inspection responsibility of the Butler County Engineers Office.

BUT-Hamilton Eaton Road, SFN 0935360

A three span continuous concrete I-beam bridge approximately 274 feet long carrying Hamilton Eaton Road over Four Mile Creek. The last underwater inspection was in 2020. It has column piers on drilled shafts. This structure is the maintenance and inspection responsibility of the Butler County Engineers Office.

CONTRACT

This project will be a 2 part project separating the bridges as shown herein. The bridge list in PART 2 of this contract is the maintenance and inspection responsibility of the Butler County Engineer's Office (BCEO). All costs associated with inspection of this structure shall be paid for separately. ODOT will be the primary point of contact for all contractual purposes. ODOT will invoice BCEO for these costs.

Agreement between Consultant and: State

Consultant Selected for Price Proposal

10. Final Report

Two hard bound copies and a PDF copy of the underwater Reports should be submitted at the discretion of the District Bridge Engineer. The .PDF shall be sealed and stamped.

11. Completion Time

The consultant shall complete each year's inspection, including submitting the final report, within _____ (ex. Six) months from the date of authorization to proceed. The following dates are targets for report submittals:

A completed Inspection Form (not the entire report) is due in SMS by 90 days after inspection.

Draft due date for the entire report is due in SMS by 90 days after inspection.

The Formal report is due by 90 days after inspection (not to exceed 90 days from the field report or February 28th of the following year).

A report shall not be considered complete until approved by the District Bridge Engineer.

12. Type of Agreement

- Lump sum compensations
- Actual costs plus fixed fee for testing items.
- Snooper or equipment Rental is if authorized.
- Traffic Control is included in lump sum fee.

13. Price Proposal

The consultant's price proposal shall conform to the current Requirements for Consultant Proposals found on Consultant Services website :

<http://www.dot.state.oh.us/Divisions/Engineering/Consultant/Pages/Manuals-and-Contract-Documents-.aspx>

14. Remarks/Special Instructions

The consultant will be required to immediately communicate any change in project management, cost, scope or schedule to the Project Manager. The consultant and ODOT will develop a working schedule for the project. The consultant will be required to produce a recovery schedule if the project falls behind the agreed working schedule. Payment of all invoices will stop until a satisfactory recovery schedule is agreed upon.

No lane closures will be permitted on any of the structures unless approved through the District's permitting process.

Consultant to follow OBM guidelines.

Depending on inspection reports, ODOT may request consultant to prepare plans thru Final Engineering for recommended repairs. To be handled by contract modification.

Payment of Invoices:

Payment of all invoices will stop until a satisfactory recovery schedule is agreed upon and if subconsultants aren't reimbursed up to date.

15. Information Handouts Required by Consultant and Available within ODOT

It is the consultant's responsibility to obtain the information handouts necessary to complete their file. This is not an inclusive listing.

- 1) Audit Requirements, Definitions and Guidelines.
- 2) Office of Accounting and Auditing Supplemental Information for Consulting Engineering Firms.

- 3) Ohio Manual of Uniform Traffic Control Devices.
- 4) Guidelines for Proposals for Consulting Services.
- 5) ODOT DBE/EDGE Requirements for Consultant Agreements.

16. Reference Materials Required by Consultant

It is the consultant's responsibility to obtain the bridge inspection manuals necessary to complete their file. This is not an exhaustive listing.

- Specifications for the National Bridge Inventory, March, 2022.
- National Bridge Inspection Program Metrics, rev. 2013, (Note Report, Inspections and Personnel must meet the UW Metrics 5, 8, 9, 17)
- ODOT Manual for Bridge inspection. 2014
- Hydraulic Engineering Circular No. 18 "Evaluating Scour At Bridges" Fourth Edition Publication No. FHWA NHI 01-001, Date April 2012
- Hydraulic Engineering Circular No. 20 "Stream Stability at Highway Structures"
- Underwater Bridge Inspection, FHWA NHI 10-027, 2010
- The Manual for Bridge Evaluation, 2011, with 2016 Revisions, AASHTO Publication
- Bridge Inspector's Reference Manual, FHWA NHI 12-049, 2012
- ODOT SMS Coding Guide, revision 2014
- Other (ex. Bridge-Specific Maintenance Manual): _____

17. Underwater Dive Inspection Procedure Checklist

The Underwater Dive Inspection Procedure Checklist must be completed by the consultant while performing underwater inspections for each bridge. This can be found in Appendix F in the 2014 Manual of Bridge Inspection. Link provided below.

<http://www.dot.state.oh.us/Divisions/Engineering/Structures/bridge%20operations%20and%20maintenance/Pages/default.aspx>