PID# **115780** State Job # 490304

Scope of Services Meeting Date & Time:

Approved Final Scope of Services Date:

Location **varies**

CONSULTANT BRIDGE INSPECTION

Scope of Services

D09 LAW COUNTY BRIDGE INSPECTION

1. Bridge Identification

County: LAWRENCE Route: SR 7 Section: 2.40 District: 9

SFN: 4400038 Municipality: Chesapeake, OH

Features Intersected: Symmes Creek

NSTM Features: Parker through truss

County: LAWRENCE Route: SR 93 Section: 0.00 District: 9

SFN: 4401263 Municipality: Ironton, OH

Features Intersected: Ohio River

NSTM Features: None

2. Attendance (See Attached Sheet)

Consultant: TBD

Consultant Contracting Officer: **TBD**

Consultant Project Manager: TBD

ODOT Project Manager: Max Francis

3. Project Description

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

Bridge Type: varies Type of Service: varies

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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	LAW-93-0.00	LAW-7-2.40
Maintenance Manual	LAW-93-0.00	LAW-7-2.40
FCM Inspection Procedure	X	
UW Inspection Procedure		X

Previous consultant inspection reports, existing drawings, Load Ratings, and pre-inspection reports have been compiled and are available on our ftp site at:

\\ftp.dot.state.oh.us\pub$\Districts\D09\P&E\Consultant FTP\115780 LAW Bridge Inspection

Primary Contact Max Francis (740) 774-8977

5. Inspection Intent:

Activity	LAW-7-2.40	LAW-93-0.00					
In-depth Element Level Inspection							
In-depth Inspection		2026					
Routine Element Level Inspection	2026	2026					
Update Bridge Inventory							
Scour Critical Evaluation							
Non-Redundant Steel Tension Member (NSTM) Inspection	2026						
Underwater Inspection							
Immediate Action #	#						
Maintenance Recommendations & Repairs	**	**					
Structural Measurements							
Benchmarking/Surveying							
Pre-Inspection Report ^	2026	2026					
Crack Mapping							

Include a nominal amount of 40 hours in the first structure the fee proposal purposes. This may be used on any bridge at the direction of the District Bridge Engineer when findings indicate that further actions is necessary. These actions may include assisting ODOT in determining load restrictions, non-destructive testing, structural evaluation, emergency repair details, etc.

** Maintenance Recommendations and Repairs are expected to be limited to a few bullet items per structure relative to the inspection findings.

^ Pre-Inspection Report: A Pre-Inspection report will be required prior to each inspection that serves as the R/W use permit and the FHWA required Non Redundant Steel Tension (NSTM) Plan for NSTM bridges. The Pre-inspection report shall include a Traffic Control Plan specific to each site in conformance with the Manual of Uniform Traffic Control Devices, the Permitted Lane Closure Policy, and consultation with the District Maintenance of Traffic Coordinator. This report shall include necessary lane closures, MOT scheme, closure limitations (time of day and day of week), railroad involvement, railroad restrictions, anticipated work, identification of NSTM members, anticipated access equipment (bucket truck, ladder, snooper, scaffolding, etc.), inspection plan and confined space entry information. In addition, this report will contain contact information for the Project Manager, Responsible Engineer, Inspection Staff, Maintenance of Traffic Personnel and Railroad Coordinator. The report shall be submitted to the Project Manager in .pdf format 4 weeks prior to the inspection.

Inspection Intent Requirement Details for LAW-93-0.00 Cable Stay:

ROUTINE Inspection of the Oakley Collins Cable Stay bridge will include main span, back spans and approach spans. It is anticipated to utilize snooper to access under the deck on main and back spans. Sounding of the wearing surface of the cable stayed spans for delamination should be included. Interior tower faces are accessible and visible by ladder and scaffold.

IN DEPTH Inspection portions shall include an “arm’s length” inspection of the “upper third” of the exterior of each main cable stay tower. The “upper third” consists of tower head and concrete tower sections surrounding the anchorage housing to tower interfaces. ODOT is specifically concerned with any potential delamination of concrete and potential for any loose/falling debris.

Remove delaminated concrete from any areas loose enough to be removed with a hammer that are over public areas provided safe removal can be accomplished. For areas where safe removal cannot be accomplished, identify these areas in the report with exact location, photos and approximate height.

Arm’s Length inspection along cables and lower 2/3 of tower faces is not required. Use of a drone is acceptable to visually inspect cables and the lower 2/3 of exterior tower faces for defects. If authorized, in depth, arm’s length inspection, can be used to further investigate questionable areas.

In depth inspection of the cable/deck anchorage housing at lower pipe half and friction damper inspection is also required (approximately 25% should be inspected; at least one from the six stay sizes)

Include elevation survey of back spans and main span on downstream and upstream sides at anchorage locations along curb line. The district has an original survey taken in 2020 by district staff; approximately 120 elevation locations.

The In-Depth inspections shall include completion of the routine inspection “Field Report” for the entire structure in Assetwise in addition to the Physical Condition Report.

Underwater inspection was completed in 2024 under a separate contract.

Inspection Intent Requirement Details for LAW-7-2.40 Truss:

NSTM - Inspection for this structure shall include an “arm’s length” inspection of fracture critical members and previously repaired gusset plates. Inspect other areas from a reasonable distance, which will still require use of lift and/or adapted climbing techniques. Lane closures solely for the purposes of sounding the wearing surface are not expected. The In-Depth inspections shall include completion of the routine inspection “Field Report” for the entire structure in Assetwise in addition to the Physical Condition/Fracture Critical Report. It is anticipated most, if not all, work, to be completed with minimal lane

closures. Approach spans receive a routine inspection. No underwater inspection is required.

6. STRUCTURAL ANALYSIS: N/A

Activity (ex. Gusset Plate, Floorsystem, Appr. Spans etc.)	Year	XXXX	XXXX	XXXX
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.	**N/A**			
Ground Penetrating Radar and Infrared Scanning	**N/A**			
Structural Analysis/Load Rating	**N/A**			

Special Notes:

7. Inspection Services

Item	**Description**
Target Date(s) for Inspection:	It is anticipated both structures to be inspected in September of 2026.
Traffic Control by	It is anticipated that ODOT's snooper will be utilized for Bridge LAW-93-0.00. ODOT will provide traffic control for all ODOT snooper operations unless otherwise noted. With the cost proposal, the consultant shall provide the number of days the snooper will be required for each structure. A daytime closure is anticipated for this bridge. All/any traffic control for LAW-7-2.40 will be the responsibility of the consultant.
Lane Closure Requirements	Follow Manual of Uniform Traffic Control Devices.
Restrictions to Lane Closure	Per the Permitted Lane Closure Map (PLCM) (http://plcm.dot.state.oh.us/) for Interstates, US routes, and State Routes including ramps where applicable. Where the PLCM does not apply, lane closures will be prohibited between the hours of 6:00AM to 9:00AM and 3:00PM to 7:00PM unless coordinated otherwise through the permitting process. Consultant shall coordinate directly with local municipalities for local roads, parking lots, US routes, and State Routes within municipalities.
Property Owners Involved	Coordination may be needed with Chesapeake or Ironton with notice of intent for inspection.
Right of Entry by	ODOT Permits Department and local municipalities.
RR Flaggers	CSX; N&S

Other (ex. Coast Guard)	Coast Guard for LAW-93-0.00
Special Equipment Anticipated for Access to remote areas • Rope Climbing • Bucket Truck • Man Lift	ODOT will provide Snooper as listed above. All other access is to be determined by the consultant, but will likely include a combination of bucket trucks, manlifts, and adapted climbing gear.
Other:	

8. Consultant Bridge Inspection Requirements

1. The intent of this contract is for a Professional Engineer (Consultant) to make an in-depth (unless routine, Element Level, and/or fracture critical is specified) condition inspection of the noted bridge(s) and to report such findings in a formal report. The Consultant will complete the inspection in accordance with the latest Ohio Department of Transportation (ODOT) Manual of Bridge Inspection and the Bridge Inspector's Reference Manual (FHWA). Note when the previous inspection report contains Element Level data then an Element Level inspection shall be performed and values updated.
2. The ODOT Bridge Inspection Report shall be filled out for each bridge inspected in ODOT's Assetwise system unless otherwise noted. Final report approval shall be made by the Consultant P.E. with coordination and authorization by the District Bridge Engineer. The report shall be in accordance with the Manual of Bridge Inspection (ODOT).
3. The Consultant shall be responsible to provide all necessary traffic control, including traffic control plans (unless otherwise specified), personnel, equipment, tools, and incidentals including ladders and scaffolding to access to all portions of the site. (The Consultant is only required to provide traffic control plans as necessary to obtain a permit. Traffic control plans from previous inspections are available to use as a starting point, but the consultant is responsible for the traffic control and any modifications needed to accommodate their needs, current conditions, and current restrictions.)
4. 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.
5. The Consultant shall be responsible for identifying and noting all visible defects in the bridge or bridge member they are scoped to inspect whether the defects are 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.
6. 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.
7. 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.

8. If an in-depth inspection is specified, the Consultant will be required to visually inspect all main structural members of the bridge within an arm's reach distance unless otherwise specified. On welded girder type bridges, this will require access to both sides of each girder so that all fatigue prone connections can be inspected within arm's reach. Any steel cracks discovered and or suspected as a result of this hands-on visual inspection shall be documented and shall be further defined with the use of dye penetrant, magnetic particle or ultrasonic devices.

9. Any steel structure with lower lateral bracing, pins and hangers, fatigue prone connections, steel pier caps (either of box section or I section), bridges with transverse floor beams and stringers, or any other unusual connection details, shall be carefully inspected for cracks, poorly designed details, or poorly fabricated details. A recommendation shall be made, if necessary, whether a retrofit program or corrective modification should be taken with a description of the proposed solution, and if any traffic limitations should be initiated. Adequate access shall be provided so that all such details can be visually inspected within arm's reach (even for routine inspections).

10. Any observed section loss on members which are normally analyzed to determine safe load capacity of the bridge, shall be measured and documented quantitatively (ultrasonic thickness gauge, calipers etc.) to allow for subsequent re-analysis of the structure. Analysis of the structure will not be required of the Consultant unless specifically stated in the S.O.S. minutes.

11. Truss and Gusset Plate Inspections:

    a. Inspection, measurements, and data presentation-

        i. The consultant's inspection report shall include a schematic elevation view for each bridge showing all truss elements and gusset plates. This can be derived from original plans. On the schematic elevation the "as designed" and "as measured" net cross sectional area shall be displayed.

        ii. Where there has been no observed section loss, one measurement for each element component or gusset plate shall suffice to verify "as-built" dimensions. Where corrosion has reduced the section of an element or gusset plate, measurements shall be taken at the areas of the least cross-sectional area. Photos and measurements using ultrasonic thickness gauge shall be provided for each area measured.

        iii. For the case of gusset plates with corroded areas, measurements shall be taken across a vertical, horizontal, and block shear plane for all possible failure planes that have loss of section. A minimum of 10 spot measurements shall be taken across each plane. Each measurement location shall be marked with a black "" permanent marker/paint stick on the member and a photo taken of that gusset plate with the marks. The measurement locations shall be spaced such that at least 6 measurements are taken in the corroded areas.

        iv. The report shall include a photo and an elevation of any corroded gusset. The elevation shall include an outline of the corroded area, the location of each measurement, and the value of each measurement (either on the elevation or in a table).

        v. The inspection team shall examine each gusset plate from the side or profile. If it appears any gusset plates or member are "out of plane", measurements shall be taken using a 4' straight edge to quantify the severity of "out of plane".

    b. UT Equipment:

        i. Consultant shall use a UT gauge to acquire section properties. The Department may supply ultrasonic thickness gauge equipment and data collection software for use by the consultant to collect, download and process thickness data as specified by the Department.

12. Notification:

    a. The Consultant shall notify the District Bridge Engineer at least two 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 necessary right of entry. In all cases, the consultant must notify the District Bridge Department when the Consultant intends to begin the inspection, and when the Consultant is finished.

    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. After completion of the inspection, the Consultant's Professional Engineer must review areas of special concern with field personnel and District Bridge personnel at the site.

    c. The consultant will inform the District Bridge Engineer of the work location, number of personnel, any lane closures, the type of equipment, start time and finish times, as well as the number of anticipated working hours the consultant will have at the site that day.

    d. The consultant will update the Department as to any changes from the previous days call if the consultant left early or stayed later than originally intended.

    e. At the completion of physical inspection, the consultant shall provide a spread sheet with all the above information for each day out at the bridge. (The consultant will be given a number to call to leave a message with the information prior to the first day of inspection). This information will be used to keep local law enforcement apprised of who is out at the bridge, and to help us estimate inspection costs for future inspection contract. (It will not affect the cost of the agreed to lump sum payment for this contract)

13. 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.

14. Inspection data, photographs, maintenance recommendations and condition narrative shall be part of the Physical Condition Report. The report can then be uploaded into Assetwise after District comments have been addressed. Physical Condition Report shall be signed and sealed prior to upload.)

15. The consultant shall notify the District Bridge Engineer, as soon as practical after the physical field inspection of the structure is complete. The Draft Report shall not exceed 60 days. The Consultant shall approve the final report in Assetwise after the District Bridge Engineer has reviewed any changes. The approval shall occur whichever happens first:

    a. within 90 days of the field inspection or

    b. January 28th the following year.

16. The consultant shall incorporate the photographs within the report (not at the Asset Level) assigned within the bridge sub-units (ex. Deck Photos, Superstructure Photos). All photographs shall be dated and labeled to indicate the precise day, location and view in which they were taken.

17. At the completion of the physical inspection, the consultant shall provide a spread sheet with a log of the work location, number of personnel, and any lane closures, and type of equipment used each day.

18. 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.

19. If an in-depth inspection is being performed, all unsound concrete shall be delineated by sounding unless stated otherwise. All unsound areas shall be measured and reported in square feet of surface area. Coring or other means of testing shall not be done unless specifically stated in the S.O.S. meeting.

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

21. 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.

22. All invoices for inspection services shall be submitted to the District Contract Manager for processing. Each invoice shall include a spreadsheet showing the percentage complete of each structure, the proposed submittal dates, and the actual submittal dates. The District will provide the format.

23. Assetwise Access:

    i. When ASSETWISE Access is required the consultant must obtain usernames, passwords, bridge-access for all team leaders. All data, commentary and files relevant to the bridge(s) inspected must be input in accordance with the Manual of Bridge Inspection including more recent Addendums. AssetWise Access requests are made through the AssetWise Landing Page:

    https://www.transportation.ohio.gov/working/data-tools/resources/assetwise-inspection-system

    ii. The consultant shall incorporate the photographs within the Physical Condition Report within the bridge sub-units (ex. Deck Photos, Superstructure Photos). All photographs shall be dated and labeled to indicate the precise day, location, and view in which they were taken.

    iii. The ODOT Bridge Inspection Report shall be filled out for each bridge inspected in ODOT's AssetWise unless specified otherwise. Photos, notes and sketches shall be updated on elements within the scope of the inspection, included in the Physical Condition Report, and the entire report uploaded as one document into ASSETWISE. The notes and numbers in all other sections of the inspection filled out in the previous schedule inspection not within the scope of the consultant's inspection shall not be deleted and shall remain unchanged unless specifically permitted by the District Bridge Engineer on a case-by-case basis. Final report approval shall be made by the Consultant P.E. The District Bridge Engineer must be permitted time to review any changes prior to final approval. The report shall be in accordance with the Manual of Bridge Inspection (ODOT). The consultant shall insert inspection notes and condition narrative into ASSETWISE for the District Bridge Engineer to review prior to final approval.

    iv. The consultant shall notify the District Bridge Engineer, as soon as practical after the physical field inspection of the structure is complete. The Consultant shall approve the final report in ASSETWISE after the District Bridge Engineer has reviewed any changes. The approval shall occur whichever happens first:

        1. within 90 days of the field inspection or
        2. February 14th the following year.

24. The State and Consultant agree that the Work to be performed for the bridge inspection, including the field work for each specific bridge included in the Agreement, shall commence and be completed within the same month as the previous calendar year inspection, or the previous NSTM inspection date from 24 months prior, unless otherwise agreed upon in writing. Any deviations from the schedule may require advanced notification and approval by FHWA, and will

therefore require 2 months advanced notice to the District Bridge Engineer in addition to the reasoning for the deviation.

It is not the intent of the State to require the Consultant to perform field work for the bridge inspection during the months of December, January, and February. However, if unusual circumstances arise, the Consultant agrees to perform the required field work during this period upon verbal authorization by the District Bridge Engineer, for a bridge inspection which has been previously authorized by the Director.

The State and the Consultant agree that inclement weather conditions will not be cause for an adjustment to the completion time established in the Agreement.

25. FHWA revised the National Bridge Inspection Standards (NBIS) in 2022 which are being phased into regulation. The consultant shall complete the inspection with regard to the pertinent NBIS requirements that are pertinent at the time of inspection. This includes, but is not limited to, the more stringent qualifications for bridge inspection team leader and Non-redundant Steel Tension Member (NSTM) requirements.

9. Physical Condition Report

A formal report describing the physical condition of the bridge, using photographs, sketches and drawings and including, evaluations, and recommendations is required. The report shall follow the ODOT Manual of Bridge Inspection. Ratings, values, narrative and information shall be typed directly into Assetwise.

Items	**All Bridges**
Field Report with Element Level Data	Yes
Field Report	Yes
Construction and Maintenance History	No
Plan view of bridge with mapped out deficiencies	No
Updated deficiency map	No
Damage and/or Deterioration Evaluation (Include narratives describing the physical conditions, digital photographs, drawings, tables, etc.)	If Necessary
Updated damage and/or deterioration evaluation	
Maintenance/Rehabilitation Recommendations (Include a maintenance schedule and any rehabilitation recommendations)	Yes
Updated recommendations	Yes
Testing Report(s) if authorized	N/A

Subreports:

Underwater	N/A
Mechanical, Electrical	N/A

Scour/Hydraulic/Stream Evaluation (cross channel profile etc.)	N/A
Structural Analysis: N/A	N/A
Pin/Hanger/Hinges Detailed Inspection	N/A

10. Final Report

A PDF copy of the approved Physical Condition Report should be submitted at the discretion of the District Bridge Engineer. The .PDF shall be sealed and stamped with OHIO stamp/seal.

11. 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

12. Remarks / Special Instructions (Permits, Walkthroughs, etc.)

Coordination with District and Snooper/MOT for LAW-93-0.00.

13. Report-In Locations and Travel Regulations

The report-in locations for Consultant personnel shall be the particular project site to which they are assigned or a location thirty (30) miles from the Consultant personnel's home (residence), whichever is less. Consultant personnel travel time from the report-in location to and from the project site may be counted as hours worked on the project and may be billed accordingly.

For Consultant personnel traveling more than one hundred (100) miles to report in location the mileage/travel expense vs. lodging shall be compared to determine the most cost effective approach for the project. This approach should be discussed and agreed to between the Department and the consultant prior to execution of the agreement

Reimbursement of Non-Salary Direct Travel Costs

Consultants that provide leased- or company-owned vehicles shall be compensated on a daily-rate basis. No additional reimbursement for travel to and from the job site will be provided for Consultant vehicles requested and compensated at a fixed daily rate. If company-owned vehicles are provided, the Consultant's indirect cost pool shall be credited in accordance with the company's established, consistent cost allocation procedures, as required by Part 31 of the Federal Acquisition Regulation (FAR), related Cost Accounting Standards (CAS), and recommendations set forth in the AASHTO Uniform Audit & Accounting Guide.

When Consultant personnel are authorized to drive their personal vehicles from the report-in location to a project site, the Department will compensate the Consultant in conformance with the Consultant's normal reimbursement mileage but not in excess of the State Travel reimbursement limits. The Consultant shall provide verification of Consultant personnel's starting location of travel to provide assurance that compensation is being provided with respect to proper report-in locations.

Vehicle usage must be by written authorization from the District Construction Engineer or designee.

The District Construction Engineer or designee may waive in writing the restrictions on compensation for travel.

14. 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.

15. 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.

- 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

- Ohio Bridge Inventory Coding Guide, revision 2021

- National Bridge Inspection Standards 2022 (Officially effective June 2024).

- Other (ex. Bridge-Specific Maintenance Manual): _____

Scope of Services Meeting Attendance

Date: _____, Location:

_____

	Name	Representing	Email	Phone
1)				
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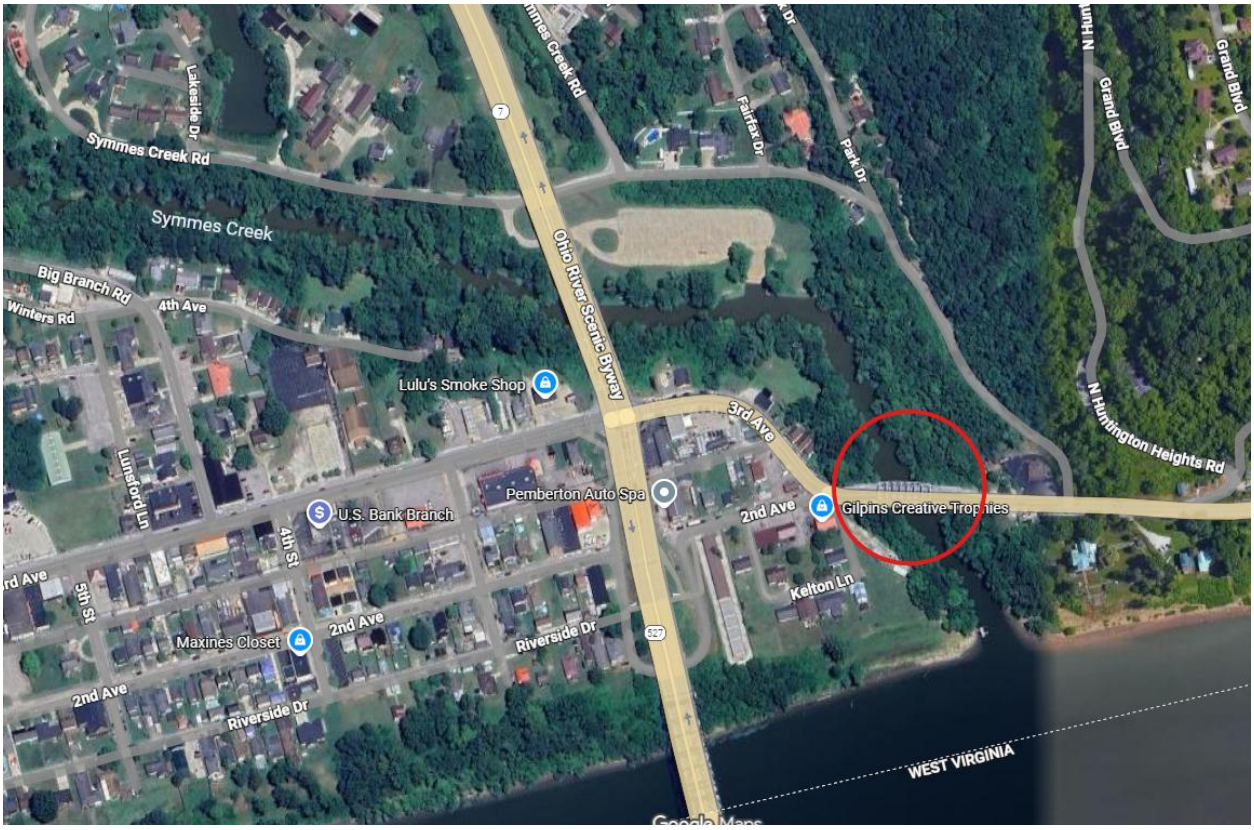

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