

FHWA-Indiana Environmental Document
CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM
GENERAL PROJECT INFORMATION

Road No./County:	Cement Plant Road/Lawrence
Designation Number(s):	2002973
Project Description/Termini:	Lawrence County Bridge 172/Approx. 200 feet south and 200 feet north of Lawrence County Bridge 172

	Categorical Exclusion, Level 2 – Required Signatories: INDOT DE and/or INDOT ESD
	Categorical Exclusion, Level 3 – Required Signatories: INDOT ESD
X	Categorical Exclusion, Level 4 – Required Signatories: INDOT ESD and FHWA
	Environmental Assessment (EA) – Required Signatories: INDOT ESD and FHWA
	Additional Investigation (AI) – The proposed action included a design change from the original approved environmental document. Required Signatories must include the appropriate environmental approval authority

Approval

_____	_____
INDOT DE Signature and Date	INDOT ESD Signature and Date

FHWA Signature and Date	

Release for Public Involvement

_____	_____
INDOT DE Initials and Date	INDOT ESD Initials and Date

N/A

ADWP

March 12, 2024

Certification of Public Involvement

INDOT Consultant Services Signature and Date

INDOT DE/ESD Reviewer Signature and Date: _____

Name and Organization of CE/EA Preparer: _____

Elizabet Biggio, Butler, Fairman, & Seufert, Inc.

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Part I – Public Involvement

Every Federal action requires some level of public involvement, providing for early and continuous opportunities throughout the project development process. **The level of public involvement should be commensurate with the proposed action.**

Does the project have a historic bridge processed under the Historic Bridges PA*?	Yes	No
	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If No, then:		
Opportunity for a Public Hearing Required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**A public hearing is required for all historic bridges processed under the Historic Bridges Programmatic Agreement between INDOT, FHWA, SHPO, and the ACHP.*

Discuss what public involvement activities (legal notices, letters to affected property owners and residents (i.e. notice of entry), meetings, special purpose meetings, newspaper articles, etc.) have occurred for this project.

Notice of Entry letters were mailed to potentially affected property owners near the project area on March 1, 2022, notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of Entry letter is included in Appendix G, G1.

To meet the public involvement requirements of Section 106, a legal notice of FHWA’s finding of “Adverse Effect” was published in the *Bedford Times-Mail* on September 5, 2023, offering the public an opportunity to submit comments pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4). The public comment period closed on October 5, 2023. The text of the public notice and the affidavit of publication appear in Appendix D, D57-D58. No comments were received.

The project will meet the minimum requirements described in the current Indiana Department of Transportation (INDOT) *Project Development Public Involvement Procedures Manual* which requires the project sponsor to offer the public an opportunity to submit comments and/or request a public hearing. Therefore, a legal notice will appear in a local publication contingent upon the release of this document for public involvement. This document will be revised after the public involvement requirements are fulfilled.

Public Controversy on Environmental Grounds

Discuss public controversy concerning community and/or natural resource impacts, including what is being done during the project to minimize impacts.

At this time, there is no substantial public controversy concerning impacts to the community or to natural resources.

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Part II - General Project Identification, Description, and Design Information

Sponsor of the Project: Lawrence County INDOT District: Vincennes

Local Name of the Facility: Cement Plant Road

Funding Source (mark all that apply): Federal [X] State [] Local [X] Other* []

*If other is selected, please identify the funding source:

PURPOSE AND NEED:

The need should describe the specific transportation problem or deficiency that the project will address. The purpose should describe the goal or objective of the project. The solution to the traffic problem should NOT be discussed in this section.

Need:

The need for the project derives from the deterioration of both the superstructure and substructure of the existing bridge, including:

- Heavy spalling, cracking, and delamination and exposed reinforcement;
• Spalling and disintegration of the historic concrete bridge railing;
• Approach roadway geometry that does not meet Indiana Design Manual (IDM) Criteria.

The bridge currently has condition ratings of "poor", or 4 (out of 9) for the deck, superstructure, and substructure and a rating of "serious", or 3 (out of 9) for the approach roadway (Appendix J, J13-J24). It has been closed since June 2018 due to the poor condition of the structure and a large hole in the deck (Appendix J14). The Bedford Fire Department has requested Lawrence County reopen the bridge to facilitate faster responses to the growing residential population on the east side of Leatherwood Creek.

Purpose:

The purpose of the project is to address the condition of Lawrence County Bridge 172 and to provide a crossing of Leatherwood Creek accessible to emergency vehicles. The minimum clear roadway width should be 20 feet, per American Association of State Highway and Transportation Officials (AASHTO) recommendations for emergency vehicles on very low volume roads. Condition ratings should be improved to "good", at least a 7 (out of 9) and the useful life of the bridge extended at least 25 years. The approach sight distances should be improved to meet the IDM Criteria of 200 feet.

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PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Lawrence Municipality: City of Bedford

Limits of Proposed Work: Approx. 200 feet south and 200 feet north of Bridge 172.

Total Work Length: 0.16 Mile(s) Total Work Area: 2.73 Acre(s)

Is an Interstate Access Document (IAD)¹ required?
 If yes, when did the FHWA provide a Determination of Engineering and Operational Acceptability?

Yes ¹	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
Date: <input style="width: 100%;" type="text"/>	

¹If an IAD is required; a copy of the approved CE/EA document must be submitted to the FHWA with a request for final approval of the IAD.

Describe location of project including township, range, city, county, roads, etc. Existing conditions should include current conditions, current deficiencies, roadway description, surrounding features, etc. Preferred alternative should include the scope of work, anticipated impacts, and how the project will meet the Purpose and Need. Logical termini and independent utility also need discussed.

Location:

The project is located on Cement Plant Road over Leatherwood Creek. The project area is on the east side of the City of Bedford, Lawrence County, Indiana. It is within Shawswick Township on the USGS Bedford East Quadrangle, in Section 24, Township 5 North, Range 1 West. Refer to graphics in Appendix B, pages B1-B3.

Existing Conditions:

Lawrence County Bridge 172 is a continuous concrete girder bridge constructed in 1909. It is rated "Non-Select" in the Indiana Historic Bridge Inventory. Lawrence County is not eligible to participate in the Programmatic Agreement Regarding Management and Preservation of Indiana's Historic Bridges (Historic Bridge PA). See the Section 4(f) Section below.

The two-span bridge is approximately 72.2 feet long with an out-to-out coping width of 15 feet. The one-lane bridge has a clear roadway width of 11.9 feet with no shoulders. The bridge sits on concrete piers. The deck is paved with asphalt. The bridge has been closed to traffic since June 1, 2018 due to its poor condition. Before its closure, the structure had a weight limit of 15 tons.

The bridge deck is rated 4 out of 9, or "poor" (Appendix J, J16). The concrete wearing surface has extensive cracking and debris buildup on the edges. The bridge has historic low integral cast concrete bridge railings. The topcoat has worn away from the tops of the rails, leaving the aggregate visible. There are several rectangular holes through the railing measuring approximately 2.5 by 0.75 inches. There are 2-inch diameter drainage pipes approximately midway across the bridge. A hole on the east side of the bridge deck was filled with concrete by an unknown party prior to March 1, 2022. The railing is also experiencing cracking and scaling and has exposed and warped 0.5-inch reinforcement on both sides (Appendix J, J14). There is a large rust stain on the interior side of the north rail. The concrete guardrail is not crash-tested. The bridge has been overtopped during 100-year flood events.

The superstructure is rated 4 out of 9, or "poor" (Appendix J, J17), leading to the June 1, 2018 bridge closure (Appendix J, J24). A large portion of the underside of the deck and girders has exposed corroded reinforcement, including primary bars. Heavy spalling is also occurring (Appendix J, J16). Thin diagonal cracks are present at both ends of the east girder and the south end of the west girder in span A (north span). The cracks began at the bottom of the girder and extended up towards the abutment/pier. One piece of reinforcement is hanging down from span B (south span).

The substructure is rated 4 out of 9, or "poor" (Appendix J, J17). Deep scaling is present on the footing of the exposed center pier. The abutments are cracking and spalling. There is heavy scaling in some areas near the waterline. The center pier has cracks up to 1/8 in. wide and exhibits severe efflorescence. Heavy, deep spalling is also occurring. There is section loss on the bottom of the north and south sides of the pier. Debris builds up on the upstream (north) side. The concrete footings are visible on top of the stream bed. There is biological growth on the pier and wingwalls. There is moderate erosion behind the wingwalls.

The approach roadway is rated 3 out of 9, or "serious" and is said to be "intolerable" (Appendix J, J17). Cement Plant Road is an asphalt-paved road which runs on a winding alignment southeast from Bedford. The road is 18-foot wide, consisting of two 9-foot wide through lanes. There is currently no approach guardrail on either side of the bridge. There are no approach slabs. Visibility on the approaches is very poor due to the curving road alignment, elevation changes, and heavy vegetation, particularly on the east

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side of the creek (Photos 1-4 and 7-11, Appendix B, B5-B6 and B8). The approach sight distances do not meet IDM criteria. Land use in the area is residential, agricultural, and forested. Leatherwood Creek flows north to south underneath the bridge.

Preferred Alternative:

The preferred alternative is to replace Lawrence County Bridge 172 on a straightened alignment to improve sight distances. The existing structure will be completely removed.

The new one-lane bridge will be constructed approximately 30 feet east of the existing alignment. The bridge will have a clear roadway width of 20 feet (Appendix B, B25). It will have three spans and be approximately 212 feet long (Appendix B, B24). Approximately 75 cubic yards of silt will be removed from the waterway in order to clear the existing north span and accommodate the new bridge. The bridge will have a skew of approximately 30° to allow straightening of the approach alignments. The bridge will have side-mounted TS-1 railings. Approximately 165 linear feet of riprap over geotextile will be installed along the spill through slopes to protect the abutments from future scour (Appendix B, B23). Downstream regrading will be conducted on the banks of Leatherwood Creek in order to increase ground elevation. In combination with the larger hydraulic opening in the new bridge, this will ensure overtopping will not occur. Approximately 490 cubic yards of fill will be added to the west bank and 388 cubic yards of fill added to the east bank.

A new approach roadway with two 9-foot travel lanes and 1-foot shoulders will be constructed to serve the new bridge, tapering back to the existing alignment (Appendix B, B13). Approximately 200 feet of roadway approach work south of the bridge and 200 feet north of the bridge will be needed to tie the new bridge into the existing roadway with an adjusted vertical alignment. Approach guardrail will be installed (Appendix B, B17). Excess pavement will be removed. Two approximately 4-foot-wide riprap flat bottom drainage ditches will be constructed, approximately 125-foot long in the northwest quadrant of the bridge and 165-foot long in the northeast quadrant. The ditches will prevent ponding on the adjacent properties. Approximately 5,106 cubic yards of borrow will be required in order to construct the new approach. Approximately 0.367 acre of tree clearing is anticipated.

The project area will be approximately 850 feet long. Approach sight distances will be raised to approximately 531 feet. Approximately 1.38 acres of permanent and 1.12 acres of temporary right-of-way (ROW) acquisition is anticipated. Construction is anticipated to begin in 2026. Construction will take approximately eight months. Traffic will remain detoured during construction. A more detailed discussion of the detour route can be found in the Maintenance of Traffic section of this document.

This alternative meets the project's purpose and need by providing Lawrence County with a crossing of Leatherwood Creek accessible to emergency vehicles with a condition rating greater than 7 (out of 9).

Logical Termini/Independent Utility:

The logical termini are on Cement Plant Road approximately 200 feet north and 200 feet south of Lawrence County Bridge 172 because this distance is sufficient to tie the new bridge into the existing roadway. This project provides independent utility by meeting the purpose and need by providing Lawrence County with a crossing of Leatherwood Creek accessible to emergency vehicles with a condition rating greater than 7 (out of 9) and sight distances meeting IDM criteria without relying on other projects.

OTHER ALTERNATIVES CONSIDERED:

Provide a header for each alternative. Describe all discarded alternatives, including the No Build Alternative. Explain why each discarded alternative was not selected. Make sure to state how each alternative meets or does not meet the Purpose and Need and why.

The following alternatives were evaluated in further detail in the Historic Bridge Alternatives Analysis (HBAA, Appendix I, I1-I13).

Alternative A: No Build/Do-Nothing Alternative

This alternative proposes no work takes place, leaving all elements of Lawrence County Bridge 172 in their current state. No federal funds would be expended. This alternative would result in no environmental impacts and no impact on the historic bridge. No ROW acquisition would be required. This is a feasible alternative. However, this alternative does not meet the project's stated purpose and need. This alternative would allow the condition of the bridge to continue to deteriorate. Lawrence County Bridge 172 would remain closed. As a result, no stream crossing would be provided, and motorists and emergency vehicles would likely continue using CR 100 South, Poor Farm Road, Tunnelton Road, Saddlebarn Drive, Valley View Drive, Sycamore Drive, Saddler Drive, and Cement Plant Road. This detour would be approximately 3.74 miles long and add 2.04 miles to a through trip. This alternative does not meet the purpose and need. Therefore, Alternative A is not considered prudent.

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Alternative B1: Rehabilitation for Continued Vehicular Use (One-Way) Meeting the Secretary of Interior's Standards for Rehabilitation

Alternative B1 proposes to rehabilitate Lawrence County Bridge 172 following the *Secretary of the Interior's Standards for Rehabilitation*. Work on the existing structure would use in-kind materials, without widening, in order to preserve those characteristics which, make the bridge eligible for the National Register, while allowing for continued vehicular use. A detailed analysis of the structural integrity of the concrete components of the structure would be required to identify all areas requiring treatment.

The bridge would maintain its existing dimensions and would continue to be posted as a one-lane bridge. An approximately 1.75-inch latex concrete overlay would be applied to the bridge deck. Approximately 105 feet of asphalt wedge and leveling would be performed on the approaches to tie back the bridge into existing grades.

The existing hole in the bridge deck would be repaired utilizing full depth patching procedures. Remaining portions of the deck that have exposed rusted reinforcing steel would be repaired utilizing concrete patching procedures. The unsound concrete would be removed by hand and patched according to best practices found in the National Park Service Preservation Brief No. 15. Custom concrete of like physical properties as well as consistency, texture, and color would be used. The existing bridge clear roadway width of 11.9 feet would be maintained and continue not to meet IDM minimum standards for one-lane clear roadway width and would require a design exception. To be sympathetic to the historic material, a new concrete railing that meets current state crash test standards would be installed on the bridge. The railing would be attached to the existing bridge deck utilizing field drilled holes and dowels.

Cracking and exposed reinforcing steel in the foundations and abutments would be repaired using concrete patching procedures and epoxy injection to repair. Footings which currently exhibit scouring would be remediated utilizing the placement of riprap in front of the toes of the exposed footings.

No permanent or temporary ROW acquisition would be required. This alternative would extend the life of the historic bridge approximately 20 years with routine maintenance and result in an overall condition rating of 7 (out of 9). The total cost would be approximately \$445,665 (Appendix I, I8-I9).

This alternative would meet the *Secretary of the Interior's Standards for Rehabilitation*. The character-defining concrete deck and superstructure would be maintained. Some material and workmanship integrity would be compromised, as the installation of a crashworthy railing would be required. Materials would be replaced only where necessary and would replicate the historic concrete. Integrity of location, feeling, association, and setting would be retained.

This alternative is feasible. This alternative is the least expensive of all the studied alternatives. However, this alternative would not meet the project's purpose and need because the bridge would continue to be too narrow for use by emergency vehicles. The bridge's useful life would be increased by less than 25 years. Therefore, Alternative B1 is not considered prudent.

Alternative B2. Rehabilitation for Continued Vehicular Use (Two-Lane) NOT Meeting Secretary of Interior's Standards for Reconstruction

Alternative B2 proposes to rehabilitate Lawrence County Bridge 172 by widening the existing reinforced slab superstructure and substructure in order to address the geometry of the structure and approaches, which do not meet current IDM standards. A detailed analysis of the structural integrity of the concrete components of the structure would be required to identify all areas requiring treatment.

In order to accommodate emergency vehicles, the bridge deck would be widened to carry a 20-foot-wide clear roadway by extending each side of the bridge approximately 4.0 feet. The new concrete deck would be connected to the existing structure through the use of field drill holes and clean and straightened existing reinforcing steel. An approximately 1.75-inch latex modified concrete bridge deck would be applied to the new and existing portions of the deck.

The existing bridge deck and abutments would be left in place and patched to replace lost material. Cracks would be filled utilizing epoxy injection. Portions of the existing deck would be removed exposing portions of the existing reinforcing steel. New epoxy coated reinforcing bars would be lapped with the existing steel to widen the bridge deck 4.0 feet each direction. The existing railing would be removed and replaced with a crash-tested side mounted steel bridge railing. The existing abutments would be widened by removing the existing concrete wing walls and drilling into the existing abutments utilizing field drilled holes and dowels. Each abutment would be widened 4.0 feet in each direction and will have new full height wingwalls turned back at 45 degrees to limit fill.

Approximately 200 feet of approach work on each side of the bridge would be required to widen the existing roadway to match the proposed increase in clear roadway width on the bridge deck and bring up the new fill. This would include approximately 105 feet of wedge and leveling with asphalt on each of the approaches. The approach width would be widened by approximately 6 feet to a total

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width of 24 feet to accommodate the newly widened bridge section through the installation of new full depth asphalt on either side of the existing roadway. Approximately 500 cubic yards of borrow would be required in order to match the existing ground topography for the widened sections of roadway. Approximately 0.9 acre of tree clearing would be required.

Approximately 1.25 acres of permanent ROW acquisition would be anticipated at a cost of approximately \$75,000.00 This alternative would extend the life of the historic bridge approximately 25-35 years and result in an overall condition rating of 7 (out of 9). The estimated total cost for this alternative is \$969,296 (Appendix I, I9-110).

This alternative would not meet the Secretary of the Interior's Standards for Rehabilitation. The character-defining rail would be removed and replaced. Material and workmanship integrity would be compromised by the use of modern replacement materials where necessary. Integrity of design would also be impacted by the widening. Integrity of location, feeling, association, and setting would be retained.

This alternative is feasible. This alternative would meet the project's stated purpose and need by raising the bridge's condition rating to a 7 (out of 9) and facilitating emergency vehicle use by widening the bridge to 20 feet. However, this alternative would have significant adverse effects to the integrity of the historic bridge. Additional ROW acquisition would be required. In addition, the cost for this alternative is greater than 40% of the replacement option, which is the standard comparison set in the IDM Chapter 412-5.04(02) for Non-Select bridges on low volume roads. The total cost is approximately 52% of the total replacement cost. Therefore, Alternative B2 is not considered prudent.

Alternative C. Rehabilitation for Continued Vehicular Use (One-Way Pair) Meeting Secretary of Interior's Standards for Reconstruction

Alternative C proposes to rehabilitate Lawrence County Bridge 172 in-place to carry one lane of traffic, maintaining the characteristics of the structure for which it is eligible for the National Register while allowing for continued vehicular use. A new single span concrete beam bridge would be built adjacent to the existing bridge to carry the other lane of traffic.

This alternative is feasible. However, given the average daily traffic count of 240 vehicles per day, a two-lane crossing is not necessary or desired by Lawrence County at this location. Lawrence County Bridge 172 is currently a single-lane bridge. Constructing a second, unneeded bridge would add frivolous additional cost to the project. It would require a longer project area than previous alternatives, adding permanent ROW acquisition impacting more parcels as well as significant additional tree clearing. Additionally, all the same issues outlined in Alternative B1 will be affecting the structure. Therefore, Alternative C is not considered prudent (Appendix I, I10-11).

Alternative D. By-Pass Structure (Vehicular Use) Without Affecting Historical Integrity

Alternative D proposes to rehabilitate Lawrence County Bridge 172 in-place, preserving the characteristics of the structure which make it eligible for the National Register, while allowing for continued use as a pedestrian bridge. A new bridge would be constructed east of the existing bridge to carry one lane of vehicular traffic.

The existing bridge would undergo a limited rehabilitation to allow for non-vehicular use. The bridge would maintain its existing dimensions. The existing deck and substructure units would receive concrete patching to address the exposed rusted reinforcing steel. The existing hole in the deck would receive full depth patching in order to maintain safety on the bridge. Unsound concrete would be removed by hand and patched according to best practices found in the National Park Service Preservation Brief No. 15. Custom concrete of like physical properties as well as consistency, texture, and color would be used. The existing concrete railing would have steel tube railing installed on top of it at pedestrian height in order to safely carry pedestrians that may want to use the structure. Bollards would be installed to prevent vehicular traffic from using the bridge.

The new bridge would be offset approximately 30 feet east from the existing bridge since the proposed new bridge would have a clear roadway width of 20 feet. The new bridge would have three spans and be approximately 212 feet long. Approximately 75 cubic yards of silt would be removed from the waterway in order to clear the existing north span and accommodate the new bridge. Approximately 0.9 acres of tree clearing would be required. The bridge would have a skew of approximately 30° to allow straightening of the approach alignments. The bridge will have side-mounted T-1 railings.

A new one-lane roadway with two 9-foot travel lanes would be constructed to serve as the approach for the new bridge, tapering back to the existing alignment. Approximately 5,106 cubic yards of borrow would be required in order to construct the new approach.

The project area would be approximately 750 feet long due to the increased distance required between the new and existing bridges. Approximately 1.6 acres of ROW acquisition would be anticipated, at a cost of approximately \$30,000. This alternative would extend the life of the historic bridge approximately 15-20 years with a condition rating of approximately 7 (out of 9) while the new bridge would have a service life of approximately 80-100 years and an overall condition rating of 9 (out of 9). The estimated construction

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cost for this alternative is \$1,657,310.

This alternative would meet the Secretary of the Interior's Standards for Rehabilitation for the historic bridge. The bridge's character-defining concrete rail and girders would be maintained. Loss of material and workmanship integrity would be limited, as less materials would need to be replaced to rehabilitate the bridge for non-vehicular use only. Integrity of setting and feeling would be impacted by the addition of a contemporary bridge 30 feet away, but the overall rural nature of the area would be maintained. Integrity of design, location, and association would be retained.

Alternative D is feasible. This alternative meets the purpose and need by raising the bridge's condition rating to a 7 (out of 9). The increased project length would create added ROW impacts and costs as well as more affected parcels. Given the setting of the bridge and the lack of nearby bike and pedestrian facilities, few non-vehicular users would be anticipated. The useful life of the historic bridge would be increased by less than 25 years. Therefore, Alternative D is not considered prudent (Appendix I, I11-112).

The No Build Alternative is not feasible, prudent or practicable because (Mark all that apply):

It would not correct existing capacity deficiencies;

It would not correct existing safety hazards;

It would not correct the existing roadway geometric deficiencies;

It would not correct existing deteriorated conditions and maintenance problems; or

It would result in serious impacts to the motoring public and general welfare of the economy.

Other (Describe):

X
X

ROADWAY CHARACTER:

If the proposed action includes multiple roadways, complete and duplicate for each roadway.

Name of Roadway	<u>Cement Plant Road</u>			
Functional Classification:	<u>Urban local</u>			
Current ADT:	<u>240</u>	VPD (2016)	Design Year ADT:	<u>346</u> VPD (2046)
Design Hour Volume (DHV):	<u>N/A</u>	Truck Percentage (%)	<u>4%</u>	
Designed Speed (mph):	<u>20</u>	Legal Speed (mph):	<u>20</u>	

	Existing		Proposed*	
Number of Lanes:	2		2	
Type of Lanes:	Through		Through	
Pavement Width:	18	ft.	20	ft.
Shoulder Width:	0	ft.	1	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:	<input type="checkbox"/>	Urban	<input checked="" type="checkbox"/>	Suburban	<input type="checkbox"/>	Rural
Topography:	<input type="checkbox"/>	Level	<input checked="" type="checkbox"/>	Rolling	<input type="checkbox"/>	Hilly

*Approaches only. Outside the bridge approaches the width of the road will not change.

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BRIDGES AND/OR SMALL STRUCTURE(S):

If the proposed action includes multiple structures, complete and duplicate for each bridge and/or small structure. Include both existing and proposed bridge(s) and/or small structure(s) in this section.

Structure/NBI Number(s): 47-00172/ 4700114 Sufficiency Rating: 16.0 (Bridge Inspection Report)
(Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	Concrete girder		Composite steel beam	
Number of Spans:	2		1	
Weight Restrictions:	HS-15	ton	HL-93	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	11.9	ft.	20	ft.
Outside to Outside Width:	15	ft.	20.5	ft.
Shoulder Width:	0	ft.	1	ft.

Describe impacts and work involving bridge(s), culvert(s), pipe(s), and small structure(s). Provide details for small structure(s): structure number, type, size (length and dia.), location and impacts to water. Use a table if the number of small structures becomes large. If the table exceeds a complete page, put it in the appendix and summarize the information below with a citation to the table.

The subject of this project is Lawrence County Bridge 172, carrying Cement Plant Road over Leatherwood Creek. The bridge is a two-span, 72.2-foot-long concrete girder structure with an out-to-out width of 15 feet. Lawrence County Bridge 172 is a historic, "Non-Select" bridge according to INDOT's HBI, meaning it was not considered a "relatively better candidate for preservation". The project will replace Lawrence County Bridge 172 with a wider three-span bridge approximately 212 feet long on a straightened horizontal alignment. Approximately 165 linear feet of riprap over geotextile will be installed along the spill through slopes to protect the abutments from future scour. See the project description for further details.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

	Yes	No
Is a temporary bridge proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is a temporary roadway proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the project involve the use of a detour or require a ramp closure? (describe below)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for access by local traffic and so posted.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for through-traffic dependent businesses.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made to accommodate any local special events or festivals.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will the proposed MOT substantially change the environmental consequences of the action?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there substantial controversy associated with the proposed method for MOT?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discuss closures and/or facilities (if any) that will be provided for maintenance of traffic. Any known impacts from these temporary measures should be quantified to the extent possible, particularly with respect to properties such as Section 4(f) resources and wetlands. Any local concerns about access and traffic flow should be detailed as well.

The MOT for the project will require Cement Plant Road to remain closed to traffic during construction. The local detour for this bridge is approximately 3.74 miles and utilizes Cement Plant Road, Tunnelton Road, North Poor Farm Road, and County Road 100 South (Appendix B, B16).

The official through detour is approximately 9.42 miles and will likely utilize Tunnelton Road, County Road 250 S (Vinegar Hill Road/Sand Pit Road), Mitchell Road, and US 50 (Appendix B, B15). Construction will last approximately eight months. Access to adjacent properties will be maintained at all times.

The closures/lane restrictions will pose a temporary inconvenience to traveling motorists (including school buses and emergency services); however, no significant delays are anticipated, and all inconveniences and delays will cease upon project completion.

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ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$ 290,000 (2022) Right-of-Way: \$ 55,000 (2025) Construction: \$ 1,850,000 (2026)

Anticipated Start Date of Construction: Spring 2026

RIGHT OF WAY:

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	0.44	0.92
Commercial	0.00	0.00
Agricultural	0.94	0.20
Forest	0.00	0.00
Wetlands	0.00	0.00
Other:	0.00	0.00
Other:		
TOTAL	1.38	1.12

Describe both Permanent and Temporary right-of-way and describe their current use. Typical and Maximum right-of-way widths (existing and proposed) should also be discussed. Any advance acquisition, reacquisition or easements, either known or suspected, and their impacts on the environmental analysis should be discussed.

The project requires approximately 1.38 acres of permanent ROW acquisition, including acquisition of the existing road. Permanent ROW acquisition will consist of approximately 0.94 acre of agricultural property and 0.44 acre of residential property. The project requires approximately 1.12 acres of temporary ROW acquisition consisting of approximately 0.92 acre from residential properties and 0.20 acre from agricultural properties. Temporary ROW will be used for grading, bank stabilization, and driveway reconstruction. Approximately 0.21 acre of apparent existing ROW that is currently under pavement will be reacquired.

There is currently no recorded ROW width. The proposed ROW width east of Lawrence County Bridge 172 is approximately 43 feet, 18 feet south and 25 feet north of the centerline. The proposed ROW width west of Lawrence County Bridge 172 tappers from approximately 84 feet, 40 feet south and 44 feet north of the centerline to approximately 50 feet, 25 feet south and 25 feet north of the centerline.

If the scope of work or permanent or temporary ROW amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately.

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Part III – Identification and Evaluation of Impacts of the Proposed Action

SECTION A - EARLY COORDINATION:

List the date(s) coordination was sent and all resource agencies that were contacted as a part of the development of this Environmental Study. Also, include the date of their response or indicate that no response was received.

Early coordination letters were sent on September 11, 2023 and October 3, 2023 (Appendix C, C1-C3).

<u>Agency</u>	<u>Date Sent</u>	<u>Date Response Received</u>	<u>Appendix</u>
INDOT-ESD	September 11, 2023	No Response	-
Indiana Department of Natural Resources	September 11, 2023	October 11, 2023	C11-C13
INDOT Aviation Office	September 11, 2023	September 14, 2023	C6
U.S. Department of Housing and Urban Development	September 11, 2023	No Response	-
U.S. Fish and Wildlife Service (USFWS)	September 11, 2023	September 13, 2023	C4-C5
Indiana Geological & Water Survey	October 3, 2023	October 3, 2023	C9-C10
Indiana Department of Environmental Management	September 11, 2023	No Response	-
National Park Service	September 11, 2023	No Response	-
USDA-Natural Resources Conservation Service	September 11, 2023	September 15, 2023	C7-C8
U.S. Army Corps of Engineers	September 11, 2023	No Response	-
Lawrence County Sheriff's Department	September 11, 2023	No Response	-
Lawrence County Council	September 11, 2023	No Response	-
Lawrence County Highway Department	September 11, 2023	No Response	-
Lawrence County Surveyor	September 11, 2023	No Response	-
Lawrence County Commissioners	September 11, 2023	No Response	-
Bedford Street Department	September 11, 2023	No Response	-
Bedford City Council	September 11, 2023	No Response	-
Bedford Planning-Zoning Department	October 3, 2023	No Response	-
Bedford MS4 Coordinator	October 3, 2023	No Response	-
Hoosier National Forest	September 11, 2023	No Response	-

All applicable recommendations are included in the Environmental Commitments section of this CE document.

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SECTION B – ECOLOGICAL RESOURCES:

Streams, Rivers, Watercourses & Other Jurisdictional Features

- Federal Wild and Scenic Rivers
- State Natural, Scenic or Recreational Rivers
- Nationwide Rivers Inventory (NRI) listed
- Outstanding Rivers List for Indiana
- Navigable Waterways

Presence

X

Impacts

Yes	No
X	

Total stream(s) in project area: 425 Linear feet Total impacted stream(s): 165 Linear feet

Stream Name	Classification	Total Size in Project Area (linear feet)	Impacted linear feet	Comments (i.e. location, flow direction, likely Water of the US, appendix reference)
Leatherwood Creek	R2UBH	425	165	Flows south; Likely Waters of the US (Appendix F, F3)

Describe all streams, rivers, watercourses and other jurisdictional features adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if the streams or rivers are listed on any federal or state lists for Indiana. Include if features are subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial map of the project area, and the Red Flag Investigation (RFI) report (Appendix E, E1-E9) there are 16 streams, rivers, watercourse, or other jurisdictional features within the 0.5-mile search radius. There is one stream present within or adjacent to the project area. That number was confirmed by the site visit on November 9, 2023, by Butler, Fairman, & Seufert, Inc. (BF&S).

There are no Federal, Wild and Scenic Rivers; State Natural, Scenic, and Recreational Rivers; Outstanding Rivers for Indiana; navigable waterways or National Rivers Inventory waterways present in the project area.

Leatherwood Creek is located within the project area. It has an ordinary high-water mark (OHWM) approximately 1.8 feet high and 61.7 feet wide. Approximately 165 linear feet of Leatherwood Creek will be permanently impacted by removal of the existing bridge, construction of the new bridge, and the placement of riprap. No temporary impacts are expected. Approximately 165 linear feet of riprap over geotextile will be installed along the spill through slopes to protect the abutments from future scour. Approximately 140 linear feet of downstream bank regrading will be conducted on the west bank of Leatherwood Creek to increase the ground elevation to prevent overtopping of the new bridge. All regrading will take place above the OHWM.

Leatherwood Creek is listed as impaired for *E. coli*. Workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.

Filter socks will be installed at the toe of slope throughout the construction limits to prevent sediment from leaving the site. Temporary seeding will be installed on areas disturbed for more than three days. Permanent seeding will be installed at the conclusion of construction after the areas have been roughened. Designated areas will be used for concrete washouts and stabilized construction entrances. Mitigation for stream impacts is not anticipated. Permits will be required.

A Waters of the U.S. Determination / Wetland Delineation Report was completed by BF&S on November 13, 2023. Please refer to Appendix F for the Waters of the U.S. Determination / Wetland Delineation Report. It was determined that Leatherwood Creek is likely a Waters of the U.S. The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

The United States Fish and Wildlife Service (USFWS) responded to early coordination on September 14, 2023, with standard recommendations to limit impacts to waterways through erosion control and containing work within the construction limits (Appendix C, C5). The Indiana Department of Natural Resources-Division of Fish and Wildlife (IDNR-DFW) responded on October 11, 2023, with recommendations to stabilize the streambank using native vegetation and geotextiles or vegetated geogrids or soil lifts if needed. The IDNR also provided standard measures to limit stream disturbance (Appendix C, C11-C13).

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Open Water Feature(s)	Presence	Impacts	
		Yes	No
Reservoirs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Farm Ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Retention/Detention Basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storm Water Management Facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Describe all open water feature(s) identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if features are subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial map of the project area, and the RFI report (Appendix E, E1-E9), there are three open water features within the 0.5-mile search radius. That number was confirmed by the site visit on November 13, 2023, by BF&S. No open water features are present within or adjacent to the project area, therefore, no impacts are expected.

The IDNR-DFW responded to early coordination on October 11, 2023, and did not have any comments specific to open water features (Appendix C, C11-C13).

Wetlands	Presence	Impacts	
		Yes	No
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total wetland area: 0 Acre(s) Total wetland area impacted: 0 Acre(s)

(If a determination has not been made for non-isolated/isolated wetlands, fill in the total wetland area impacted above.)

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments (i.e. location, likely Water of the US, appendix reference)
N/A	N/A	N/A	N/A	N/A

Wetlands (Mark all that apply)	Documentation	ESD Approval Dates
	Wetland Determination	<input checked="" type="checkbox"/>
Wetland Delineation	<input type="checkbox"/>	
USACE Isolated Waters Determination	<input type="checkbox"/>	

Improvements that will not result in any wetland impacts are not practicable because such avoidance would result in (Mark all that apply and explain):

- Substantial adverse impacts to adjacent homes, business or other improved properties;
- Substantially increased project costs;
- Unique engineering, traffic, maintenance, or safety problems;
- Substantial adverse social, economic, or environmental impacts, or
- The project not meeting the identified needs.

Describe all wetlands identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if features are subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial map of the project area, and the RFI report (Appendix E, E1-E9), there are six wetlands within the 0.5-mile search radius. That number was confirmed by the site visit on November 9, 2023, by BF&S. No wetlands are

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present within or adjacent to the project area, therefore, no impacts are expected.

A Waters of the U.S. Determination / Wetland Delineation Report was completed by BF&S on November 13, 2023. Please refer to Appendix F for the Waters of the U.S. Determination / Wetland Delineation Report. It was determined that no wetlands are present within the study area. The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

The IDNR-DFW responded to early coordination on October 11, 2023, and did not provide any comments specific to wetlands (Appendix C, C11-C13).

	<u>Presence</u>	<u>Impacts</u>	
Terrestrial Habitat	<input type="checkbox"/>	<u>Yes</u>	<u>No</u>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Total terrestrial habitat in project area: 2.0 Acre(s) Total tree clearing: 0.367 Acre(s)

Describe types of terrestrial habitat (i.e. forested, grassland, farmland, lawn, etc.) adjacent or within the project area. Include whether or not impacts will occur to habitat identified. Include total terrestrial habitat impacted and total tree clearing that will occur. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the site visit on May 17, 2022, by BF&S, and the aerial map of the project area there is forested habitat in all quadrants of the project area. The dominant tree species are American elm (*Ulmus americana*), green ash (*Fraxinus pennsylvanica*), and northern hackberry (*Celtis occidentalis*). The understory and ground surface consists largely of boxelder maple (*Acer negundo*) saplings, riverbank wild rye (*Elymus riparius*), Myrtle (*Vinca minor*), New England aster (*Symphotrichum novae-angliae*), multiflora rose (*Rosa multiflora*), and ground ivy (*Glechoma hederacea*). Approximately 0.367 acre of tree clearing is expected, consisting of approximately 0.307 acre less than 100 feet from existing pavement and 0.060 acre from between 100 and 300 feet of existing pavement. Forested habitat will be impacted due to the realignment of the bridge approaches and grading required for hydraulic requirements.

There is a forested habitat along Leatherwood Creek. There is maintained grass along Cement Plant Road, which provides limited habitat for small mammals, reptiles/amphibians, birds, and insects. This habitat is not considered to be unique or of high quality. Approximately 1.3 acre of maintained grass habitat will be impacted largely due to the realignment of the bridge approaches.

The IDNR-DFW responded to early coordination on October 11, 2023, with recommendations for wildlife crossings and monitoring for bird nest activity. The IDNR-DFW also provided standard commitments limiting terrestrial habitat impacts, restoring the project area, and mitigating tree clearing (Appendix C, C11-C13). All applicable recommendations are included in the Environmental Commitments section of this CE document.

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Protected Species

Federally Listed Bats

Information for Planning and Consultation (IPaC) determination key completed
 Section 7 informal consultation completed (IPaC cannot be completed)
 Section 7 formal consultation Biological Assessment (BA) required

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Determination Received for Listed Bats from USFWS: NE NLAA LAA

Other Species not included in IPaC

Additional federal species found in project area (based on IPaC species list)
 State species (not bird) found in project area (based upon consultation with IDNR)

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Migratory Birds

Known usage or presence of birds (i.e. nests)
 State bird species based upon coordination with IDNR

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discuss IDNR coordination and species identified. Describe USFWS Section 7 consultation and determination received for Indiana bat and northern long-eared bat impacts. Discuss if other federally listed species were identified. If so, include consultation that has occurred and the determination that was received. Discuss if migratory birds have been observed and any impacts.

Based on a desktop review and the RFI report (Appendix E, E1-E9), completed by BF&S on September 16, 2022, the IDNR Lawrence County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR-DFW early coordination response letter dated October 11, 2023 (Appendix C, C11-C13), the Natural Heritage Program's Database has been checked and no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity.

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, C14-C20). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and northern long-eared bat (NLEB) (*Myotis septentrionalis*). The official species list generated from IPaC indicated four other species, the Salamander mussel (*Simpsonia ambigua*), listed as proposed endangered, the monarch butterfly (*Danaus plexippus*), which is listed as a candidate species, the Tricolored bat (TCB; *Perimyotis subflavus*), which is listed as proposed endangered, and the whooping crane (*Grus americana*), a non-essential experimental population, were present within the project area. As candidate, proposed, and experimental species, the salamander mussel, monarch butterfly, tricolored bat, and whooping crane are not given any statutory protection under the Endangered Species Act.

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB)*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. A bridge inspection occurred on November 9, 2023, and no evidence of bats was observed (Appendix C, C36). USFWS Bridge/Structure Assessments are only valid for two years. If construction will begin after November 9, 2023, inspection of the structure by a qualified individual, must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. This firm commitment is included in the Environmental Commitments of this document.

An effect determination key was completed on November 19, 2023, and based on the responses provided, the project was found to "Likely to Adversely Affect (LAA)" the Indiana bat and/or the NLEB (Appendix C, C21-C35) due to tree clearing between 100 feet and 300 feet from the existing roadway. INDOT reviewed and verified the effect finding on November 21, 2023, and requested USFWS's review of the finding. On December 5, 2023, the USFWS concurred with the LAA finding for endangered bats (Appendix C, C37-C41). Avoidance and Minimization Measures (AMMs), in general, concern the limitation of tree removal, notification for workers, and best management practices for avoiding impacts to possible hibernacula in karst areas. AMMs are included as firm commitments in the Environmental Commitments section of this document.

Additionally, a "Reinitiation Notice" is required if: more than 0.367 acre of suitable habitat is to be cleared or more than 0.060 acre of suitable habitat between 100-300 feet from edge of pavement is to be cleared during the inactive season (which would exceed the incidental take); new information about listed species is encountered; the project is modified in a manner that causes an effect to the

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listed species; or a new species or critical habitat is listed that the project may affect. These requirements, and the AMMs from the Project Submittal Form, are included as firm commitments for this project.

Lawrence County shall satisfy the compensatory mitigation requirements of the formal consultation with USFWS through one of the conservation options outlined on page 41 of the May 20, 2016, Programmatic Biological Opinion for Transportation Projects in the Range of the Indiana bat and NLEB. The amount to be paid to the Range-wide In-lieu Fee Program, to be administered by The Conservation Fund, shall be \$ 1,021.50. This amount was determined by the Habitat Block Method. The area of suitable habitat to be cleared, multiplied by the mitigation ratio for inactive season tree clearing for Lawrence County, and the compensatory price per acre; 0.060 acre X 1.5 X \$ 11,350.

Lawrence County Bridge 172 carrying Cement Plant Road over Leatherwood Creek and the project's surrounding habitat is conducive for use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA). Prior to the start of nesting season (May 1) the structure must be inspected for birds or signs of birds. If birds or signs of birds are found during the inspection avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the "Potential Migratory Bird on Structure" USP/RSP.

The bridge replacement project is not anticipated to significantly impact the monarch butterfly or its habitat. The project is not anticipated to significantly impact the Salamander mussel or its habitat. The project is not anticipated to significantly impact the whooping crane or its habitat.

The USFWS Indiana Ecological Services Field Office recommends that the effects of projects on TCBs and their habitat be analyzed pending the final determination of status for the TCB, as regulations would take effect within 30 days of publication of the final rule. The TCB typically overwinters in caves and abandoned mines and tunnels and spends the rest of the year in forested habitats, typically roosting among leaf clusters. This project will not clear trees during the active season and does not contain winter habitat. Therefore, jeopardy to the TCB is not anticipated.

Commitments are included in the Environmental Commitments section of this document. This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act, as amended. If new information on endangered species at the site becomes available, or if project plans are changed, USFWS will be contacted for consultation.

Geological and Mineral Resources

Project located within the Potential Karst Features Area of Indiana
 Karst features identified within or adjacent to the project area
 Oil/gas or exploration/abandoned wells identified in the project area

Yes	No
X	
	X
	X

Date Karst Study/Report reviewed by INDOT EWPO (if applicable): N/A

Discuss if project is located in Potential Karst Features Area of Indiana and if any karst features have been identified in the project area (from RFI). Discuss response received from IGWS coordination. Discuss if any mines, oil/gas, or exploration/abandoned wells were identified and if impacts will occur. Describe if any impacts will occur to any karst features. Include discussion of karst study/report was completed and results. (Karst investigation must comply with the current Karst MOU and coordinated and reviewed by INDOT EWPO)

Based on a desktop review, the project is located inside the designated karst region of Indiana as outlined in the October 13, 1993, Karst Memorandum of Understanding (MOU). According to the topo map of the project area (Appendix B, B2) and the RFI report (Appendix E, E1-E9), there are no karst features identified within or adjacent to the project area. In the early coordination response dated October 3, 2023, the Indiana Geological and Water Survey (IGWS) did indicate there are potential karst features within the project area (Appendix C, C9-C10). A geotechnical investigation by GeoSolutions Inc. in the Summer of 2023 did not locate any karst features in the project area. No impacts are expected.

Due to the possible presence of karst features, the "Discovery of Karst Features" unique special provision (USP) will be added to the contract and a firm commitment and is included in the Environmental Commitments section of this CE document. IGS also indicated a high potential for bedrock resources and abandoned industrial minerals quarries. Limestone quarries are known to be located in the vicinity of Bedford, but none are within the project area. The response from IGWS has been communicated to the designer on October 9, 2023.

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SECTION C – OTHER RESOURCES

Drinking Water Resources

- Wellhead Protection Area(s)
- Source Water Protection Area(s)
- Water Well(s)
- Urbanized Area Boundary
- Public Water System(s)

Presence

X
X

Impacts

Yes	No
	X
	X

- Is the project located in the St. Joseph Sole Source Aquifer (SSA):
- If Yes, is the FHWA/EPA SSA MOU Applicable?
- If Yes, is a Groundwater Assessment Required?

Yes	No
	X

Check the appropriate boxes and discuss each topic below. Provide details about impacts and summarize resource-specific coordination responses and any mitigation commitments. Reference responses in the Appendix.

The project is located in Lawrence County, which is not located within the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the state of Indiana. Therefore, the FHWA/EPA Sole Source Aquifer Memorandum of Understanding (MOU) is not applicable to this project, a detailed groundwater assessment is not needed, and no impacts are expected.

The Indiana Department of Environmental Management (IDEM)'s Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead/>) was accessed on October 3, 2023, by BF&S. In accordance with the website, the project is located within a Source Water Area and is not located within a Wellhead Protection Area. The features will not be impacted because the project will adhere to INDOT best management practices (BMPs) with regards to erosion and sediment control during construction.

The IDNR Water Well Record Database website (<https://www.in.gov/dnr/water/3595.htm>) was accessed on October 3, 2023, by BF&S. No wells are located near this project. Therefore, no impacts are expected.

Based on a desktop review and the RFI report (Appendix E, E1-E9), completed by BF&S on September 16, 2022, this project is located in an Urban Area Boundary. An early coordination letter was sent to the City of Bedford MS4 coordinator on October 3, 2023. The MS4 coordinator did not respond within the 30-day time frame. Filter socks will be installed at the toe of slope throughout the construction limits to prevent sediment from leaving the site and designated areas will be used for concrete washouts and stabilized construction entrances. No impacts are expected.

Based on a desktop review, a site visit on May 17, 2022, by BF&S, coordination with Lawrence County and the City of Bedford, and the aerial map of the project area (Appendix B, B3) no public water systems were identified. Therefore, no impacts are expected.

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Floodplains

Project located within a regulated floodplain
 Longitudinal encroachment
 Transverse encroachment
 Homes located in floodplain within 1000' up/downstream from project

Presence

X
X

Impacts

Yes	No
X	
X	

If applicable, indicate the Floodplain Level?

Level 1 Level 2 Level 3 Level 4 Level 5

Use the IDNR Floodway Information Portal to help determine potential impacts. Include floodplain map in appendix. Discuss impacts according to the classification system. If encroachment on a flood plain will occur, coordinate with the Local Flood Plain Administrator during design to insure consistency with the local flood plain planning.

The IDNR Indiana Floodway Information Portal website (<https://indnr.maps.arcgis.com/apps/webappviewer/index.html?id=05026dabc2e8461983e196d56a213c1e>) was accessed on October 3, 2023 by BF&S. This project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, 13). An early coordination letter was sent on October 3, 2023, to the local Floodplain Administrator. The floodplain administrator did not respond within the 30-day time frame. This project qualifies as a Category 4 per the current INDOT CE Manual, which states:

Zero homes are located within the base floodplain within 1,000 feet upstream and zero homes are located within the base floodplain within 1,000 feet downstream. The proposed structure will have an effective capacity such that backwater surface elevations are not expected to substantially increase. As a result, there will be no substantial adverse impacts on natural and beneficial floodplain values; there will be no substantial change in flood risks; and there will be no substantial increase in potential for interruption or termination of emergency service or emergency evacuation routes; therefore, it has been determined that this encroachment is not substantial. A hydraulic design study that addresses various structure size alternatives was completed during the preliminary design phase. A summary of this study will be included with the Field Check Plans.

Farmland

Agricultural Lands
 Prime Farmland (per NRCS)

Presence

X
X

Impacts

Yes	No
X	
X	

Total Points (from Section VII of CPA-106/AD-1006*) 117
**If 160 or greater, see CE Manual for guidance.*

Discuss existing farmland resources in the project area, impacts that will occur to farmland, and mitigation and minimization measures considered.

Based on a desktop review, a site visit on May 17, 2022, by BF&S and the aerial map of the project area (Appendix B, B3), the project will convert 0.85 acre of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on September 11, 2023, to the Natural Resources Conservation Services (NRCS). NRCS responded on September 15, 2023 and stated the project will cause a conversion of prime farmland (Appendix C, C7). Coordination with NRCS resulted in a score of 117 on the AD 1006 Form (Appendix C, C8). NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

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SECTION D – CULTURAL RESOURCES

Minor Projects PA Category(ies) and Type(s) INDOT Approval Date(s) N/A

Full 106 Effect Finding
 No Historic Properties Affected No Adverse Effect Adverse Effect

Eligible and/or Listed Resources Present
 NRHP Building/Site/District(s) Archaeology NRHP Bridge(s)
 ESD Approval Date(s) SHPO Approval Date(s)

Documentation Prepared (mark all that apply)	ESD Approval Date(s)	SHPO Approval Date(s)
APE, Eligibility and Effect Determination	<input checked="" type="checkbox"/>	August 28, 2023
800.11 Documentation	<input checked="" type="checkbox"/>	August 28, 2023
Historic Properties Report or Short Report	<input checked="" type="checkbox"/>	July 13, 2022
Archaeological Records Check and Assessment	<input type="checkbox"/>	July 27, 2022
Archaeological Phase Ia Survey Report	<input checked="" type="checkbox"/>	September 27, 2022
Archaeological Phase Ic Survey Report	<input type="checkbox"/>	December 5, 2022
Other:	<input type="checkbox"/>	<input type="checkbox"/>

Memorandum of Agreement (MOA) **MOA Signature Dates** (List all signatories)
 Lawrence Co. Commissioners- December 5, 2023
 SHPO- November 29, 2023
 INDOT- November 2, 2023
 FHWA- December 7, 2023

If the project falls under the MPPA, describe the category(ies) that the project falls under and any approval dates. If the project requires full Section 106, use the headings provided. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of the paper(s) and the comment period deadline. Include any further Section 106 work which must be completed at a later date, such as mitigation from a MOA or avoidance commitments.

Lawrence County is not eligible to participate in the Indiana Historic Bridges PA due to the 2012 demolition of two "Select" bridges, Lawrence County Bridge 20, and Lawrence County Bridge 80, using local funds. According to Stipulation IV.G of the Historic Bridge PA, "if FHWA or Indiana SHPO determinate a bridge owner intentionally demolishes or otherwise diminishes the historic integrity of a Select Bridge under the bridge owner's jurisdiction with non-Federal-aid funds, then FHWA will comply with 36 CFR Part 800 for any future federal-aid bridge project proposed by that bridge owner." Therefore, the project underwent full Section 106 review.

Area of Potential Effect (APE):
 The Area of Potential Effects (APE) includes the existing and proposed ROW, immediately adjacent properties, and those areas where a visual differentiation may occur between an existing structure and the project area. The APE is an irregular trapezoid around the project area, accounting for the more open agricultural landscape on the east side of Leatherwood Creek (Appendix D, D17).

Coordination with Consulting Parties:
 The Indiana State Historic Preservation Officer (SHPO) is considered an automatic consulting party. The following individuals/organizations were sent early coordination via email on May 17, 2022 (Appendix D, D23-D29):

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Consulting Party	Response
Indiana Landmarks Southern Regional Office	None
Lawrence County Historian	None
Lawrence County Museum of History & Edward L. Hutton Research Library	None
Historic SPANs Taskforce	None
Historic Bridge Foundation	None
Historic Hoosier Bridges	None
Historicbridges.org	None
Lawrence County Commissioners	None
Lawrence County Highway Department	None
Eastern Shawnee Tribe of Oklahoma	June 6, 2022
Miami Tribe of Oklahoma	May 23, 2022
Peoria Tribe of Indians of Oklahoma	May 18, 2022
Pokagon Band of Potawatomi Indians	None
Delaware Tribe of Indians, Oklahoma	None
Shawnee Tribe	June 9, 2022

The Peoria Tribe of Oklahoma responded on May 18, 2022, indicating they were not aware of a direct link between the Peoria Tribe and the project area and had no objections at this time (Appendix D, D30).

The Miami Tribe of Oklahoma responded on May 23, 2022, stating they had no objection to the project. The letter also noted the Tribe's connections to the area and their interest if any archaeological resources were uncovered (Appendix D, D31).

The SHPO responded on May 24, 2022, and requested the Bedford Historic Review Board and Bedford Revitalization, Inc. be invited to be consulting parties (DHPA # 29263; Appendix D, D32-D33). These parties were invited with the distribution of the Historic Property Short Report (HPSR).

The Eastern Shawnee Tribe of Oklahoma responded on June 6, 2022, stating the project would cause no adverse effects to known sites of interest to the Eastern Shawnee Tribe (Appendix D, D34).

The Shawnee Tribe responded on June 9, 2022, accepting consulting party status, and stating no known historic properties will be negatively impacted by this project (Appendix D, D35).

No other responses to consulting party invitation were received.

Archaeology:

In regard to archaeology, a Phase Ia archaeological reconnaissance conducted on June 9th, June 10th, and June 22nd, 2022, located three archaeological sites within the project area. No sites were recommended eligible for the National Register. No further work was recommended in the resulting archaeological report (Appendix D, D21-D22).

The Indiana Department of Transportation-Cultural Resources Office (INDOT-CRO) approved the archaeological report on September 27, 2022, and it was sent to consulting parties on October 3, 2022 (Appendix D, D46-D50). The SHPO responded to the archaeology report on December 5, 2022, stating, in part, "*we concur with the opinion of the archaeologist [...] that no further archaeological investigations appear necessary at the proposed project area,*" (Appendix D, D51-D52).

The Eastern Shawnee Tribe responded on June 7, 2023, and stated the project would cause no adverse effects to known sites of interest to the Eastern Shawnee Tribe (Appendix D, D53).

No other responses to the archaeological report were received.

Historic Properties:

A site visit was conducted by an Indiana Division of Historic Preservation and Archaeology (DHPA)-Qualified Professional with BF&S on May 17, 2022. Information from the site visit and research regarding historic resources, which include buildings, structures, districts, and objects, was compiled into an HPSR (Appendix D, D18-D20). Lawrence County Bridge 172 had previously been determined eligible for the National Register. The HPSR was approved by INDOT-CRO on July 13, 2022. Consulting parties were sent instructions on how to access the HPSR in INSCOPE, INDOT's Section 106 Consultation and Outreach Portal Enterprise, on July 13, 2022 (Appendix D, D36-D40).

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Lawrence County Bridge 172 is a two-span continuous concrete girder bridge constructed in 1909. It is eligible for the National Register under Criterion C for Engineering as an early example of reinforced concrete construction.

The Miami Tribe of Oklahoma responded on July 18, 2022, stating they had no objection to the project (Appendix D, D41).

The SHPO responded on July 27, 2023, stating the size of the APE was adequate and concurring that Lawrence County Bridge 172 was the only property within the APE eligible for the National Register (Appendix D, D42-D43).

The Shawnee Tribe responded on August 18, 2022, stating no known historic properties will be negatively impacted by this project (Appendix D, D44).

The Eastern Shawnee Tribe of Oklahoma responded on September 13, 2022, and stated the project would cause no adverse effects to known sites of interest to the Eastern Shawnee Tribe (Appendix D, D45).

No other responses to the HPSR were received.

Lawrence County is not eligible to participate in the Indiana Historic Bridges PA. Therefore, an alternatives analysis adhering to the *Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges* was completed. A draft HBAA was prepared by BF&S, with the preferred alternative as Replacement (Appendix I, I1-I13). See the next section for a description of Section 4(f) alternatives and coordination.

Documentation Findings:

Lawrence County Bridge 172, which is eligible for the National Register under Criterion C for significance in Engineering, will be demolished as a result of this project. Therefore, this project will have an "Adverse Effect" on Lawrence County Bridge 172.

FHWA signed an 800.11(e) finding of "Adverse Effect" on August 28, 2023 (Appendix D, D10-D16). In order to resolve the "Adverse Effect", a Memorandum of Agreement (MOA) was drafted and was reviewed by INDOT-CRO on August 30, 2023. The 800.11(e) finding and MOA were distributed to consulting parties on August 30, 2023 (Appendix D, D54-D55).

The SHPO responded in a letter dated September 29, 2023, stating, in part, "*we concur with FHWA's August 28, 2023, Section 106 finding of "Adverse Effect" for this federal undertaking. We are satisfied with the draft MOA (August 30, 2023, version). Unless another consulting party disagrees with the effects assessment or the language of the draft MOA, it might be appropriate now to finalize the MOA and circulate it for signature.*" (Appendix D, D56-D57).

The Advisory Council on Historic Preservation (ACHP) was notified of the "Adverse Effect" finding on October 4, 2023 (Appendix D, D62-D63). The ACHP did not respond to the "Adverse Effect" notification.

The MOA was sent to consulting parties for signature on November 1, 2023 (Appendix D, D60). The MOA stipulates that Lawrence County will fund the creation and installation of interpretive signage that highlights Lawrence County Bridge 172 and/or the area of Lawrence County served by the bridge (Appendix D, D1-D9). The stipulations have been included as firm commitments in the Environmental Commitments Section of this document. Please refer to the next section for further information concerning MOA coordination and stipulations.

The Eastern Shawnee Tribe of Oklahoma responded to the MOA on February 9, 2024, and stated the project would cause no adverse effects to known sites of interest to the Eastern Shawnee Tribe (Appendix D, D64).

No other responses to the finding or MOA were received.

The MOA was signed by INDOT on November 2, 2023, the Lawrence Co. Commissioners on December 5, 2023, the SHPO on November 29, 2023, and the FHWA on December 7, 2023 (Appendix D, D6-D9).

Public Involvement:

To meet the public involvement requirements of Section 106, a legal notice of FHWA's finding of "Adverse Effect" was published in the *Bedford Times-Mail* on September 5, 2023, offering the public an opportunity to submit comment pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4). The public comment period closed on October 5, 2023. The text of the public notice and the affidavit of publication appear in Appendix D, D58-D59. No comments were received. The executed MOA was sent to the ACHP on December 7, 2023 (Appendix D, D60). Therefore, the Section 106 process has been completed and the FHWA's Section 106 responsibilities have been fulfilled.

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SECTION E – SECTION 4(f) RESOURCES/ SECTION 6(f) RESOURCES

	<u>Presence</u>	<u>Use</u>	
		<u>Yes</u>	<u>No</u>
Parks and Other Recreational Land			
Publicly owned park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Publicly owned recreation area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (school, state/national forest, bikeway, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wildlife and Waterfowl Refuges			
National Wildlife Refuge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
National Natural Landmark	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Wildlife Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Nature Preserve	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Historic Properties			
Site eligible and/or listed on the NRHP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Evaluations Prepared

Programmatic Section 4(f)	<input checked="" type="checkbox"/>
“De minimis” Impact	<input type="checkbox"/>
Individual Section 4(f)	<input type="checkbox"/>
Any exception included in 23 CFR 774.13	<input type="checkbox"/>

Discuss Programmatic Section 4(f) and “de minimis” Section 4(f) impacts in the discussion below. Individual Section 4(f) documentation must be included in the appendix and summarized below. Discuss proposed alternatives that satisfy the requirements of Section 4(f). FHWA has identified various exceptions to the requirement for Section 4(f) approval. Refer to 23 CFR § 774.13 - Exceptions.

Section 4(f) Resources

Section 4(f) of the U.S. Department of Transportation Act of 1966 prohibits the use of certain public and historic lands for federally funded transportation facilities unless there is no feasible and prudent alternative. The law applies to significant publicly owned parks, recreation areas, wildlife / waterfowl refuges, and National Register-eligible or listed historic properties. Lands subject to this law are considered Section 4(f) resources.

Based on a desktop review, a site visit on March 1, 2022, by BF&S and the aerial map of the project area (Appendix B, B3), coordination with the SHPO, and the RFI report (Appendix E, E1-E9), there are three potential 4(f) resources located within the 0.5-mile search radius. There is one Section 4(f) resource located within or adjacent to the project area. Lawrence County Bridge 172 is eligible for the National Register.

Historic Bridge Alternatives Analysis

Lawrence County Bridge 172 will be demolished as a result of this project, which is a direct Section 4(f) use of the property because the historic integrity, which qualifies the bridge for Section 4(f) protection, will be lost. Lawrence County is not eligible to participate in the Indiana Historic Bridges PA due to the 2012 demolition of two “Select” bridges using local funds. Therefore, an alternatives analysis adhering to the *Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges* was completed. A draft HBAA was prepared by BF&S, with the preferred alternative as Replacement (Appendix I, I1-I13).

The alternatives included the following (an expanded description of each alternative may be found in the OTHER ALTERNATIVES CONSIDERED section of this document):

- A. No Build/Do Nothing
- B1. Rehabilitation for Continued Vehicular Use (One-Lane) Meeting Secretary of Interior’s Standards for Rehabilitation
- B2. Rehabilitation for Continued Vehicular Use (Two-Lane) Not Meeting Secretary of Interior’s Standards for Rehabilitation
- C. Rehabilitation for Continued Vehicular Use (One-Way Pair) Meeting Secretary of Interior’s Standards for Rehabilitation
- D. By-Pass Structure (Vehicular Use) Without Affecting Historical Integrity
- E. Replacement Structure, Demolition of Historic Bridge with New Bridge Construction

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The HBAA found the preferred alternative to be Alternative E, Replacement (Appendix I, I12).

Section 4(f) Coordination

Review of the draft HBAA was completed by INDOT-CRO and INDOT Bridge Design on April 10, 2023. Instructions on accessing the HBAA via INSCOPE were distributed to consulting parties via email on April 11, 2023 (Appendix I, I14-I18).

The Miami Tribe of Oklahoma responded on April 24, 2023, stating they had no objection to the project. The letter also noted the Tribe's connections to the area and their interest if any archaeological resources were uncovered (Appendix I, I19).

The SHPO responded to the HBAA on May 8, 2023, stating, in part:

- *"The SHPO notes that Alternative D - Bypass (non-vehicular use)/Build New Structure without Affecting the Historic Integrity is at a lower cost than Alternative E. While preferable to keep the bridge in its current setting and location, the SHPO understands that Lawrence County currently has no plans to construct a shared-use path along Cement Plant Road. While Alternative D does keep the bridge in situ, the SHPO comprehends the logic that the bridge would likely not see much pedestrian or bicycle traffic without a connecting shared-use/pedestrian path, thus it would be less likely to receive regular maintenance such as a bridge serving a trail system would receive."*
- *We are interested to learn of the views of other consulting parties on the alternatives presented, and potential mitigation measures for the demolition of Lawrence County Bridge No. 172. Accordingly, unless another consulting party expresses a different opinion about the project's effects on historic properties, it might now be appropriate to ask INDOT for a finding."* (Appendix I, I20-I22).

The Shawnee Tribe responded on May 12, 2023, stating no known historic properties will be negatively impacted by this project (Appendix I, I23).

The Eastern Shawnee Tribe of Oklahoma responded on June 7, 2023, and stated the project would cause no adverse effects to known sites of interest to the Eastern Shawnee Tribe (Appendix D, D53).

No other responses to the HBAA were received.

Bridge information was posted to INDOT's bridge marketing website on March 1, 2023.

Photographic documentation of Lawrence Co. Bridge 172 according to DHPA standards was completed by BF&S. The SHPO accepted the photographic documentation on February 9, 2024. Copies of the documentation were provided to the Indiana State Archives and the Lawrence County Historical Society. Further mitigation will be conducted according to the MOA signed by FHWA on December 7, 2023 (Appendix D D1-D9). The stipulations of the MOA have been included as firm commitments in the Environmental Commitments Section of this document. FHWA approval of this CE document is approval of the Section 4(f) evaluation.

No other potential Section 4(f) resources were identified within or adjacent to the project area.

Section 6(f) Involvement

Presence

Use

Section 6(f) Property

Yes

No

Discuss Section 6(f) resources present or not present. Discuss if any conversion would occur as a result of this project. If conversion will occur, discuss the conversion approval.

The U.S. Land and Water Conservation Fund Act of 1965 established the Land and Water Conservation Fund (LWCF), which was created to preserve, develop, and assure accessibility to outdoor recreation resources. Section 6(f) of this Act prohibits conversion of lands purchased with LWCF monies to a non-recreation use.

A review of 6(f) properties on the on the INDOT ESD revealed a total of three properties in Lawrence County (Appendix J, J1). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources.

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SECTION F – Air Quality

STIP/TIP and Conformity Status of the Project

	Yes	No
Is the project in the most current STIP/TIP?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is the project located in an MPO Area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the project in an air quality non-attainment or maintenance area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If Yes, then:		
Is the project in the most current MPO TIP?	<input type="checkbox"/>	<input type="checkbox"/>
Is the project exempt from conformity?	<input type="checkbox"/>	<input type="checkbox"/>
If No, then:		
Is the project in the Transportation Plan (TP)?	<input type="checkbox"/>	<input type="checkbox"/>
Is a hot spot analysis required (CO/PM)?	<input type="checkbox"/>	<input type="checkbox"/>

Location in STIP: Page 120

Name of MPO (if applicable): N/A

Location in TIP (if applicable): N/A

Level of MSAT Analysis required?

Level 1a Level 1b Level 2 Level 3 Level 4 Level 5

Describe if the project is listed in the STIP and if it is in a TIP. Describe the attainment status of the county(ies) where the project is located. Indicate whether the project is exempt from a conformity determination. If the project is not exempt, include information about the TP and TIP. Describe if a hot spot analysis is required and the MSAT Level.

This project is included in the Fiscal Year (FY) 2024-2028 Statewide Transportation Improvement Program (STIP) (Appendix H, H1-H2). The project is located in Lawrence County, which is currently in attainment for all criteria pollutants according to the Environmental Protection Agency (<https://www.epa.gov/green-book>). Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

This project is of a type qualifying as a categorical exclusion (Group 1) under 23 CFR 771.117(c), or exempt under the Clean Air Act conformity rule under 40 CFR 93.126, and as such, a Mobile Source Air Toxics analysis is not required.

SECTION G - NOISE

Noise	Yes	No
Is a noise analysis required in accordance with FHWA regulations and INDOT's traffic noise policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Date Noise Analysis was approved/technically sufficient by INDOT ESD: _____

Describe if the project is a Type I or Type III project. If it is a Type I project, describe the studies completed to date and if noise impacts were identified. If noise impacts were identified, describe if abatement is feasible and reasonable and include a statement of likelihood.

This project is a Type III project. In accordance with 23 CFR 772 and the current *Indiana Department of Transportation Traffic Noise Analysis Procedure*, this action does not require a formal noise analysis.

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SECTION H – COMMUNITY IMPACTS

Regional, Community & Neighborhood Factors

- Will the proposed action comply with the local/regional development patterns for the area?
- Will the proposed action result in substantial impacts to community cohesion?
- Will the proposed action result in substantial impacts to local tax base or property values?
- Will construction activities impact community events (festivals, fairs, etc.)?
- Does the community have an approved transition plan?
If No, are steps being made to advance the community's transition plan?
- Does the project comply with the transition plan? (explain in the discussion below)

Yes	No
X	
	X
	X
	X
X	
X	

Discuss how the project complies with the area's local/regional development patterns; whether the project will impact community cohesion; and impact community events. Discuss how the project conforms with the ADA Transition Plan.

This project is not of regional significance and will not have a significant impact on community cohesion or property values. The Lawrence County, Limestone County, and Spring Mill State Park websites were reviewed on October 4, 2023, by BF&S and no community events were identified. The project is in a suburban environment, and it is not anticipated to divide a community or impact any areas where the community hosts events. Lawrence County Bridge 172 is currently closed; therefore, the project will not create new impediments to event access.

It is not anticipated that the proposed project will result in substantial impacts to community cohesion, viewshed, property values, or community events. All funds will come from the FHWA and established accounts (Appendix H, H1-H2). The project does not divide a community or impair any areas where the community hosts events. Access to public spaces will not be impacted.

There are no pedestrian facilities in the area and there are no proposed pedestrian facilities included in this project. Therefore, ADA compliance is not applicable to this project.

No response to early coordination was received from the Bedford Street Department, Bedford City Council, Bedford Planning-Zoning Department, Lawrence County Council, or the Lawrence County Commissioners.

Based on the above investigations and coordination, no community or economic impacts are anticipated from this project.

Public Facilities and Services

Discuss what public facilities and services are present in the project area and impacts (such as MOT) that will occur to them. Include how the impacts have been minimized and what coordination has occurred. Some examples of public facilities and services include health facilities, educational facilities, public and private utilities, emergency services, religious institutions, airports, transportation or public pedestrian and bicycle facilities.

Based on a desktop review, a site visit by BF&S on May 17, 2022, and the RFI report (Appendix E, E1-E9), completed by BF&S on September 16, 2022, there are five public facilities within the 0.5-mile search radius. There are no public facilities within or adjacent to the project area, which was confirmed by the site visit on May 17, 2022, by BF&S. Therefore, no impacts are expected. Access to all properties will be maintained during construction.

No utility relocations are anticipated.

It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access.

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Environmental Justice (EJ) (Presidential EO 12898)

During the development of the project were EJ issues identified?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Does the project require an EJ analysis?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------

If YES, then:

Are any EJ populations located within the project area?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------

Will the project result in adversely high and disproportionate impacts to EJ populations?

<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	-------------------------------------

Indicate if EJ issues were identified during project development. If an EJ analysis was not required, discuss why. If an EJ analysis was required, describe how the EJ population was identified. Include if the project has a disproportionately high and adverse effect on EJ populations and explain your reasoning. If yes, describe actions to avoid, minimize and mitigate these effects.

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT Categorical Exclusion Manual, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent ROW. The project will require approximately 1.38 acres of permanent ROW acquisition. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city or town and is called the community of comparison (COC). In this project, the COC is Shawswick Township, Lawrence County, Indiana (Appendix J, J3). The community that overlaps the project area is called the affected community (AC). In this project, the ACs are Census Tracts 9510 (AC1) and 9511 (AC2), Lawrence County, Indiana (Appendix J, J4). The ACs are divided by Leatherwood Creek. An AC has an EJ population of concern if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the U.S. Census Bureau 2021 ACS 5-year Estimates was obtained from the U.S. Census Bureau website on October 9, 2023, by BF&S. The data collected for minority and low-income populations within the COC and ACs are summarized in the below table.

	COC – Shawswick Township, Lawrence County, IN	AC1 – Census Tract 9510, Lawrence County, IN	AC2 – Census Tract 9511, Lawrence County, IN
Percent Low-Income	13.3 %	16.1 %	20.0 %
125% of COC	16.6 %	AC < 125% COC	AC > 125% COC
EJ Population of Concern		No	YES
Percent Minority	8.3 %	5.5 %	13.8 %
125% of COC	10.3 %	AC < 125% COC	AC > 125% COC
EJ Population of Concern		No	YES

Census Tract 9510 has a percent low-income of 16.1%, which is below 50% and is below the 125% COC threshold of 16.6%. Therefore, AC1 does not contain a low-income population of EJ concern. Census Tract 9511 has a percent low-income of 20.0%, which is above the 125% COC threshold. Therefore, AC2 contains a low-income population of EJ concern.

Census Tract 9510 has a percent minority population of 5.5%, which is below 50% and is below the 125% COC threshold. Therefore, AC1 does not contain a minority population of EJ concern. Census Tract 9511 has a percent minority population of 13.8%, which is above the 125% COC threshold. Therefore, AC2 contains a minority population of EJ concern.

Census Tract 9511 contains low-income and minority populations of EJ concern. The project will impact portions of backyard areas of two residential properties of the north side of Leatherwood Creek, one on either side of Cement Plant Road. These properties were valued at \$206,900 and \$248,300 by Lawrence County in 2023. The median home value for Lawrence County in 2023 was \$155,900. The properties have been held by their current owners for at least two years. Therefore, it is not likely these properties are included in the low-income population of EJ concern.

Approximately 0.42 acre of permanent and 0.03 acre of temporary ROW will be acquired from one (1.35 acre) property in Census Tract 9511 in order to straighten the bridge's alignment and provide for drainage. Roadside drainage ditches are necessary to prevent ponding on both properties. Approximately 0.80 acre of temporary ROW will be acquired from the other (2.53 acre) property in Census Tract 9511 for driveway reconstruction and grading. These areas are residential lawn. The use of the remainder of the properties will not be impacted. Temporary ROW acquisition rather than permanent is being utilized wherever possible. The acquisition program will be conducted in accordance with 49 CFR 24 of the Uniform Relocation Assistance and Real Property

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Acquisition Policies Act of 1970 as amended.

Avoidance alternatives are not practical because they do not fulfill the project's purpose of reopening the crossing over Leatherwood Creek. Impacts on EJ populations are expected to be minor. The project will not impede or encumber the unacquired parcels from their current land use. The project will not have any direct impact on residential dwellings or other buildings or structures. The project will restore Lawrence County Bridge 172 to vehicular use, which will allow residents easier access in and out of Bedford, including the affected community. MOT will maintain access to all properties at all times and all existing access points will be maintained following construction. INDOT-ES approved the EJ analysis on January 31, 2024 (Appendix J, J7). Therefore, the project is not expected to have a disproportionately high and adverse impact on the low-income or minority populations of EJ concern.

Relocation of People, Businesses or Farms

Will the proposed action result in the relocation of people, businesses or farms?
Is a BIS or CSRS required?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Number of relocations: Residences: 0 Businesses: 0 Farms: 0 Other: 0

Discuss any relocations that will occur due to the project. If a BIS or CSRS is required, discuss the results in the discussion below.

No relocations of people, businesses, or farms will take place as a result of this project.

SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)

- Red Flag Investigation (RFI)
- Phase I Environmental Site Assessment (Phase I ESA)
- Phase II Environmental Site Assessment (Phase II ESA)
- Design/Specifications for Remediation required?

Documentation

<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Date RFI concurrence by INDOT SAM (if applicable): March 30, 2020

Include a summary of the potential hazardous material concerns found during review. Discuss in depth sites found within, directly adjacent to, or ones that could impact the project area. Refer to current INDOT SAM guidance. If additional documentation (special provisions, pay quantities, etc.) will be needed, include in discussion. Include applicable commitments.

Based on a review of GIS and available public records, a RFI was completed by BF&S on September 16, 2022, and INDOT Site Assessment & Management (SAM) provided their concurrence on the same day (Appendix E, E1-E9). Three sites, one NPDES pipe location and two Leaking Underground Storage Tank (LUST) sites, are located within 0.5 mile of the project area. None of the hazmat sites identified will impact the project. Further investigation into hazardous material concerns is not required at this time.

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Part IV – Permits and Commitments

PERMITS CHECKLIST

Permits (mark all that apply)

Likely Required

Army Corps of Engineers (404/Section10 Permit)

Nationwide Permit (NWP)	<input checked="" type="checkbox"/>
Regional General Permit (RGP)	<input type="checkbox"/>
Individual Permit (IP)	<input type="checkbox"/>
Other	<input type="checkbox"/>

IN Department of Environmental Management (401/Rule 5)

Nationwide Permit (NWP)	<input checked="" type="checkbox"/>
Regional General Permit (RGP)	<input type="checkbox"/>
Individual Permit (IP)	<input type="checkbox"/>
Isolated Wetlands	<input type="checkbox"/>
Rule 5	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

IN Department of Natural Resources

Construction in a Floodway	<input checked="" type="checkbox"/>
Navigable Waterway Permit	<input type="checkbox"/>
Other	<input type="checkbox"/>

Mitigation Required

US Coast Guard Section 9 Bridge Permit

Others (Please discuss in the discussion below)

List the permits likely required for the project and summarize why the permits are needed, including permits designated as "Other."

It is anticipated an IDEM Construction Stormwater General Permit (CSGP) will be required, as the project will disturb more than 1 acre of land. This permit was formerly referred to as Rule 5.

A Section 401 permit from IDEM and a Section 404 permit from USACE will be required for the installation of riprap below the OHWM of Leatherwood Creek.

A Construction in a Floodway permit from the IDNR will be necessary due to the impact on the regulated floodway associated with Leatherwood Creek. Mitigation related to floodway habitat impacts will likely be required and will be determined during the permitting process.

Applicable recommendations provided by resource agencies are included in the Environmental Commitments section of this document. If permits are found to be necessary, the conditions of the permit will be the requirements of the project and will supersede these recommendations.

It is the responsibility of the project sponsor to identify and obtain all required permits.

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ENVIRONMENTAL COMMITMENTS

List all commitments and include the name of agency/organization requesting/requiring the commitment(s). Listed commitments should be numbered.

Firm:

1. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT-Vincennes District)
2. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
3. Include the Unique Special Provision (USP) "Discovery of Karst Features" into this project's contract which outlines the procedures to follow if unknown karst features are found during construction. (INDOT- Ecology, Waterway Permitting, & Stormwater Office)
4. (General AMM 1) Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)
5. (Tree Removal AMM 1) Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)
6. (Tree Removal AMM 3) Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits). (USFWS)
7. (Lighting AMM 1) Direct temporary lighting away from suitable habitat during the active season. (USFWS)
8. (Hibernacula AMM 1) For projects located within karst areas, on-site personnel will use best management practices, secondary containment measures, or other standard spill prevention and countermeasures to avoid impacts to possible hibernacula. Where practicable, a 300 foot buffer will be employed to separate fueling areas and other major containment risk activities from caves, sinkholes, losing streams, and springs in karst topography. (USFWS)
9. A "Reinitiation Notice" is required if: more than 0.367 acre of trees are to be cleared; the amount or extent of incidental take of Indiana bat and/or northern long-eared bat is exceeded; new information about listed species is encountered; new species is listed or critical habitat designated that the project may affect more than 0.060 acre of habitat suitable for Indiana bat between 100-300 feet from edge of pavement during the inactive season; the project is modified in a manner that causes an effect to the listed species; the project takes more than five Indiana bats and/or five NLEBs resulting from bridge, culvert, or structure activity; or, new information reveals that the project may affect listed species or critical habitat in a manner not considered in the BO or the project information. (USFWS)
10. The FHWA, its State/Local cooperators, and any contractors must take care when handling dead or injured Indiana bats and NLEBs, or any other federally listed species that are found at the project site to preserve biological material in the best possible condition and to protect the handler from exposure to diseases, such as rabies. Project personnel are responsible for ensuring that any evidence about determining the cause of death or injury is not unnecessarily disturbed. Reporting the discovery of dead or injured listed species is required in all cases to enable the Service to determine whether the level of incidental take exempted by this BO has been exceeded, and to ensure that the terms and conditions are appropriate and effective. Parties finding a dead, injured, or sick specimen of any endangered or threatened species must promptly notify this Service Office. (USFWS)
11. The INDOT Project Manager will assure that \$ 1,021.50 of Preliminary Engineering funds will be allocated to the Rangewide In-Lieu Fee Program, administered by The Conservation Fund, to resolve formal consultation under the Rangewide Programmatic. Payment shall be in process for Ready for Contracts (RFC) date. Mitigation must be paid within one year of the USFWS concurrence letter, issued March 28, 2022, or prior to the start of construction, whichever comes first. (USFWS)
12. A bridge inspection occurred on November 9, 2023, and no evidence of bats was observed. USFWS Bridge/Structure Assessments are only valid for two years. If construction will begin after November 9, 2025, inspection of the structure by a qualified individual, must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. (INDOT-ESD)
13. Before construction activities commence, Lawrence County will complete photographic documentation of Lawrence County Bridge 172 in accordance with the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology Minimum Architectural Documentation Standards. (FHWA)
 - a. The photographic documentation shall be prepared by a qualified professional who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61.
 - b. Digital photographs in color shall be taken using a digital SLR camera or device that can produce at least 5.0-

This is page 29 of 31 Project name: Lawrence County Bridge 172 Date: March 11, 2024

Indiana Department of Transportation

County Lawrence Route Cement Plant Rd Des. No. 2002973

- megapixel quality. The photographs will be saved as uncompressed .TIF (Tagged Image File format).
- c. A photo log shall be written, including, for each photo, the property name, location, the direction of the camera, a description of view, and the date of photograph. A photo key will be included.
 - d. A description of the structure and its condition shall accompany the documentation in PDF format. The description should include architectural or engineering style, plan, building materials, organization of major elevations, details, and significant elements.
 - e. The history and significance of the structure shall be explained using the equivalent of one to two standard pages of text in PDF format. The statement shall begin with a summary paragraph that succinctly discusses the date or era of construction and why the resource is important. Enough history and background shall be presented to establish the bridge's importance. The statement will indicate how the bridge is an outstanding example of an advance in engineering and the work of a significant engineer/building. This section will include a list of bibliographic sources, including author, title, place of publication and publisher, and the date of publication.
 - f. If available, architectural or engineering drawings in PDF format will be included. If architectural/engineering drawings are not available, a sketch plan of the site will be substituted.
 - g. The completed documentation shall be submitted to the Indiana SHPO for a 30-day review period prior to the start of construction. Any requested revisions to the documentation shall be completed and submitted to the Indiana SHPO prior to the start of construction. Documentation will be submitted on CD, flash drive, or any other approved storage device or online transfer method.
 - h. The completed documentation shall be offered to interested local groups, including the Lawrence County Museum of History & Edward L. Hutton Research Library.
14. Within ten years of project letting, Lawrence County will fund the creation of interpretive signage that highlights Lawrence County Bridge 172 and/or the area of Lawrence County served by the bridge. (FHWA)
- a. The interpretive signage shall be installed in a location where it can safely and easily be viewed by the public on foot within 1.0 mile of the bridge location.
 - b. The content of the signage will be prepared by a qualified professional who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. The completed design shall be submitted to the Indiana SHPO prior to the project's construction letting.
 - c. Lawrence County and/or its designated representative ("consultant") shall submit the proposed location of the sign and draft signage design to the Indiana SHPO for a 30-day comment period. Lawrence County and or its consultant shall be responsible for revising the text of the signage to address comments requested by the Indiana SHPO.
 - d. Lawrence County, or its consultant, shall provide a written response to Indiana SHPO comments before proceeding. If comments are not received within 30 days, Lawrence County, or its consultant, may assume agreement from the Indiana SHPO on the draft design. Lawrence County will provide photographs of the installed sign to the Indiana SHPO for their files, and as confirmation that this mitigation item has been completed.
15. Lawrence County Bridge 172 carrying Cement Plant Road over Leatherwood Creek and the project's surrounding habitat is conducive for use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA). Prior to the start of nesting season (May 1) the structure must be inspected for birds or signs of birds. If birds or signs of birds are found during the inspection avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the "Potential Migratory Bird on Structure" USP. (INDOT-ES)
16. Leatherwood Creek is listed as impaired for *E. coli*. Workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. (INDOT SAM)

For Further Consideration:

17. Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. (USFWS)
18. Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When an open-bottom culvert or arch is used in a stream, which has a good natural bottom substrate, such as gravel, cobbles and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community. (USFWS)
19. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat. (USFWS)
20. Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) during

Indiana Department of Transportation

County Lawrence

Route Cement Plant Rd

Des. No. 2002973

the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below Ordinary High-Water Mark during this time unless the machinery is within the caissons or on the cofferdams. (USFWS)

21. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing. (USFWS)
22. The new/replacement/rehabilitated crossing structure, and any bank stabilization under or around the structure, must not create conditions that are less favorable for wildlife passage when compared to existing conditions. Upgrading wildlife passage for replacement/rehabilitated structures is recommended whenever possible to improve wildlife/vehicle safety. (IDNR-DFW)
23. White-tailed deer passage must be incorporated into all new structures where no structure previously existed. Minimum structure dimensions for white-tailed deer passage are 20 feet of width clearance (overall span of the structure) and 8 feet of height clearance measured from the ordinary highwater mark (OHWM). (IDNR-DFW)
24. Bank lines must be maintained or restored within structures to allow for wildlife passage above the OHWM. All wildlife passage designs must include a smooth level pathway a minimum of 1-3 feet in width composed of natural substrate (soil, sand, gravel, etc.) or compacted aggregate fill over riprap (#2, #53, #73, etc.) tied into existing elevations both upstream and downstream. The width and location of the wildlife pathway is dependent on the wildlife species using the area. (IDNR-DFW)
25. Coordination with a Regional Environmental Biologist to address wildlife passage issues before submitting a permit application (if required) is encouraged to avoid delays in the permitting process. (IDNR-DFW)
26. Riprap or other hard bank stabilization materials should be used only at the toe of the sideslopes up to the OHWM with the exception of areas directly under bridges for instance. The banks above the OHWM should be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion (IDNR-DFW)
27. Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. Impacts to non-wetland forest under one (1) acre but at least 0.10 acre in a rural or urban area should be mitigated at a minimum 1:1 ratio based on area of impact. Impacts under 0.10 acre in a rural area typically do not require mitigation or additional plantings beyond seeding and stabilizing disturbed areas, though there are exceptions for high quality habitat sites. Impacts under 0.10 acre in an urban area should be mitigated by replacing trees that are 10" diameter-at-breast height (dbh) or greater by planting five trees, 1" to 2" in dbh, for each tree which is removed that is 10" dbh or greater. Seeding and stabilizing disturbed areas is required regardless of the impact amount and location. If floodway impacts to forested wetland and non-wetland habitat areas combine to be 0.10 acres or more, mitigation should be done and coordinated with the biologist, as needed. (IDNR-DFW)
28. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR-DFW)
29. Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
30. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. Maintain the natural shape of the channel. (IDNR-DFW)
31. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30. (IDNR-DFW)

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Des. No. 2002973

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Appendix A

INDOT Supporting Documentation

Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4 ¹
Section 106	Falls within guidelines of Minor Projects PA	“No Historic Properties Affected”	“No Adverse Effect”	-	“Adverse Effect” Or Historic Bridge involvement ²
Stream Impacts³	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	USACE Individual 404 Permit ⁴
Wetland Impacts³	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
Right-of-way⁵	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations⁶	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)*	“No Effect”, “Not likely to Adversely Affect” (With select AMMs ⁷)	“Not likely to Adversely Affect” (With any AMMs or commitments)	-	“Likely to Adversely Affect”	Project does not fall under Species Specific Programmatic ⁸
Threatened/Endangered Species (Any other species)*	Falls within guidelines of USFWS 2013 Interim Policy or “No Effect”	“Not likely to Adversely Affect”	-	-	“Likely to Adversely Affect”
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential ⁹
Sole Source Aquifer	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Section 4(f) Impacts	None	-	-	-	Any ¹⁰
Section 6(f) Impacts	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes ¹¹
Approval Level <ul style="list-style-type: none"> • District Env. (DE) • Env. Serv. Div. (ESD) • FHWA 	Concurrence by DE or ESD	DE or ESD	DE or ESD	DE and/or ESD	DE and/or ESD; and FHWA

¹ Coordinate with INDOT Environmental Services Division. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.

² Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.

³ Total permanent impacts to streams (linear feet) and wetlands (acres).

⁴ US Army Corps of Engineers Individual 404 Permit

⁵ Total permanent and temporary right-of-way. This does not include reacquisition of existing apparent right-of-way.

⁶ If any relocations are within an area with a known or suspected Environmental Justice (EJ) or disadvantaged population, or has greater than 5 relocations, a conversation with FHWA, through INDOT ESD, is needed to confirm NEPA classification and outreach plan for the project.

⁷ Avoidance and Mitigation Measures (AMMs) determined by the IPAC determination key to be required that are not tree AMMs, bridge AMMs, or structure AMMs.

⁸ Projects that do not fall under a Species Specific Programmatic and results in a “Likely to Adversely Affect”. Other findings can be processed as a lower-level CE.

⁹ Potential for causing a disproportionately high and adverse impact.

¹⁰ Section 4(f) use resulting in an Individual, Programmatic, or *de minimis* evaluation. The only exception is a *de minimis* evaluation for historic properties (Effective January 2, 2020). If a historic property *de minimis* and no other use, mark the *None* column.

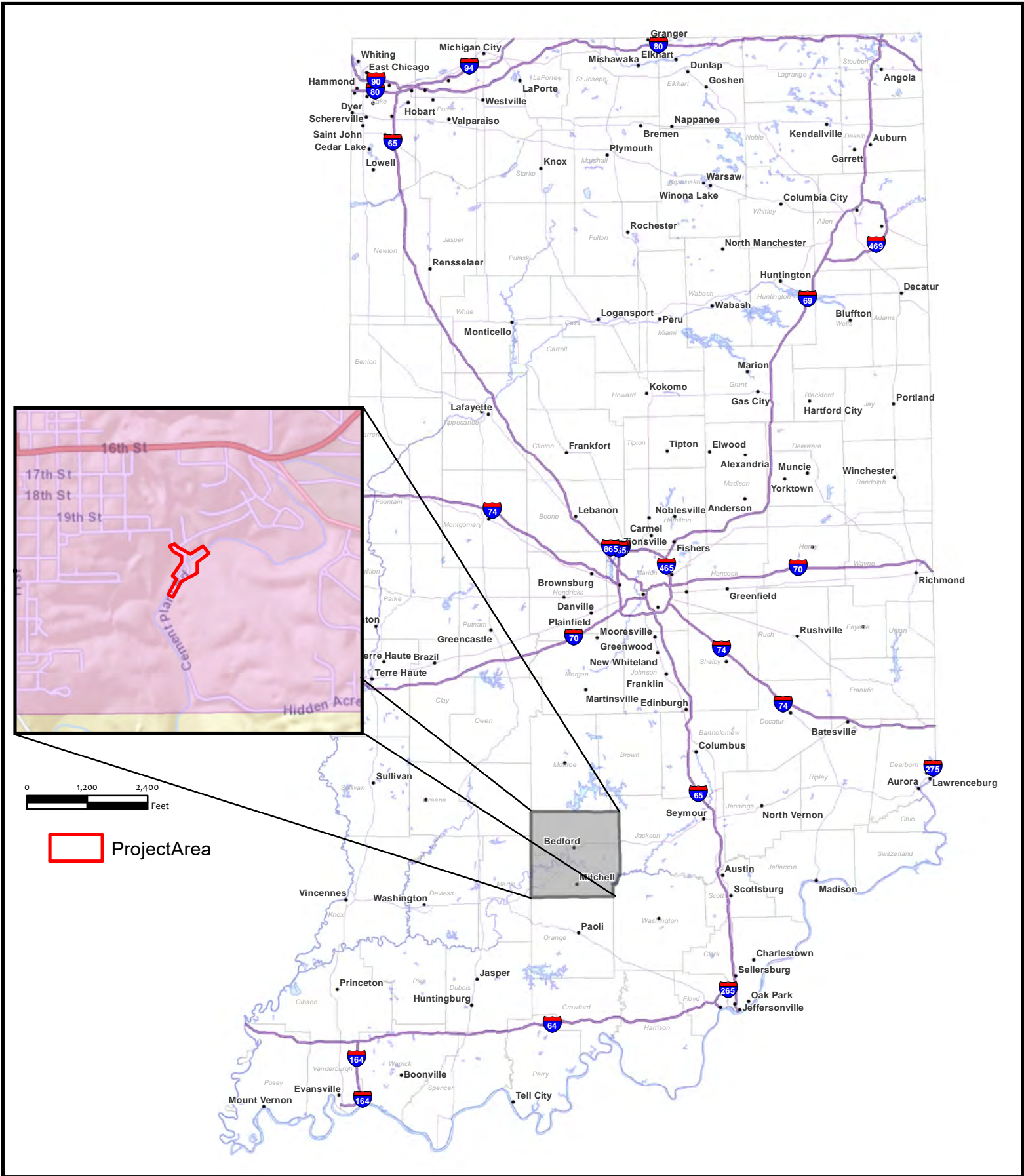
¹¹ Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

* Includes the threatened/endangered species critical habitat

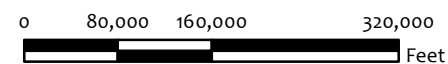
Note: Substantial public or agency controversy may require a higher-level NEPA document.

Appendix B

Graphics



 Project Area

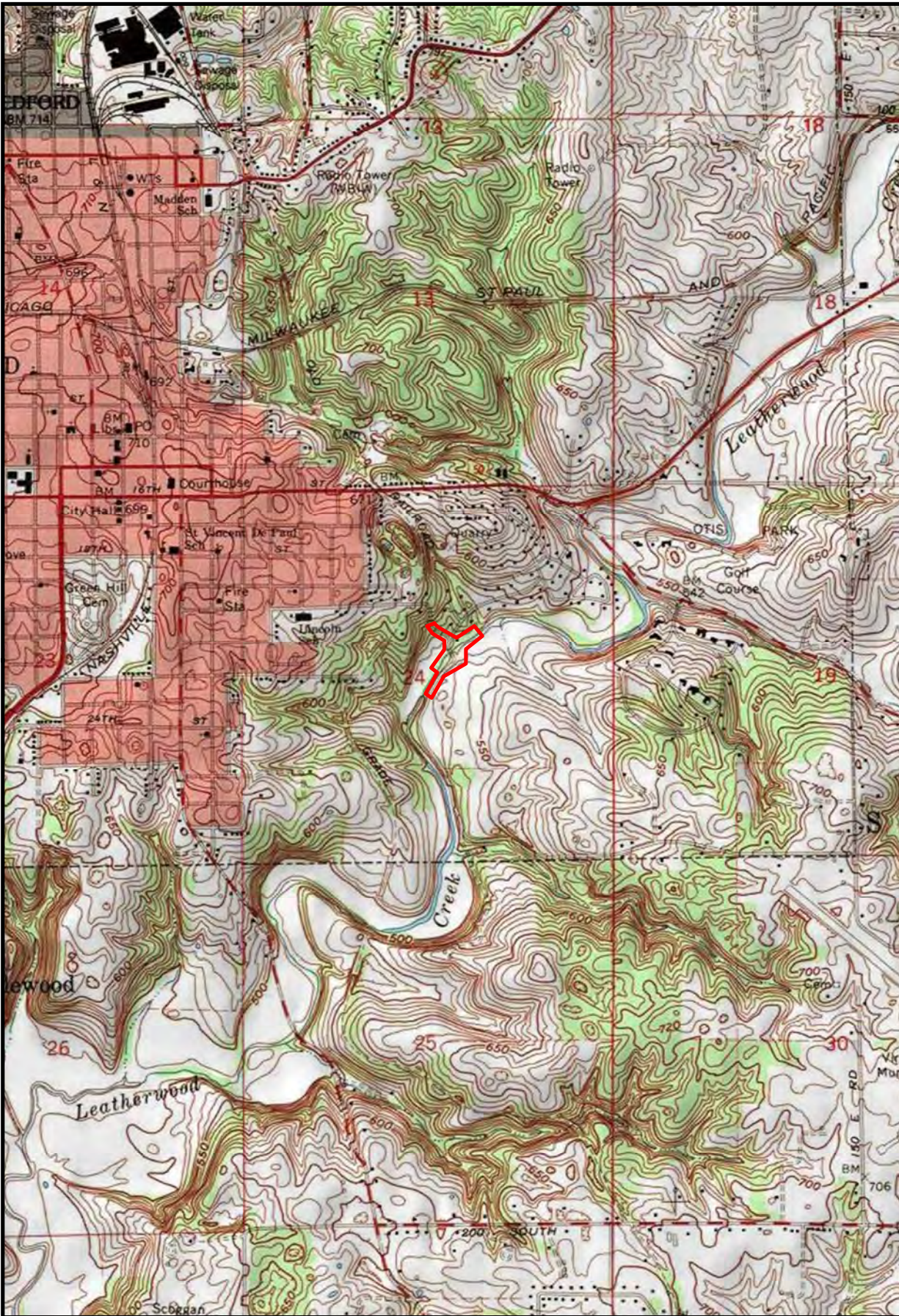


State Map

Lawrence County Bridge 172, Cement Plant Rd over Leatherwood Creek
 Des. No. 2002973, Bridge Project
 Lawrence County, Indiana



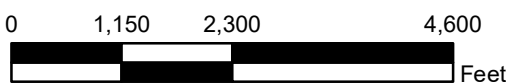
Map Source: Indiana Map



Legend

 Project Area

Map Source: Indiana Geological Survey (IGS), IndianaMap, ArcGIS Online (ESRI) World Imagery.



USGS Bedford East 7.5-minute Quadrangle



Lawrence County Bridge 172, Cement Plant Rd over Leatherwood Creek
 Des. No. 20002973, Bridge Project
 Lawrence County, Indiana

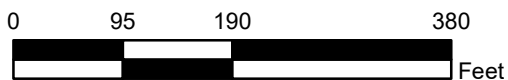


Legend

 ProjectArea



Map Source: Indiana Geological Survey (IGS), IndianaMap, ArcGIS Online (ESRI) World Imagery.



Aerial Map

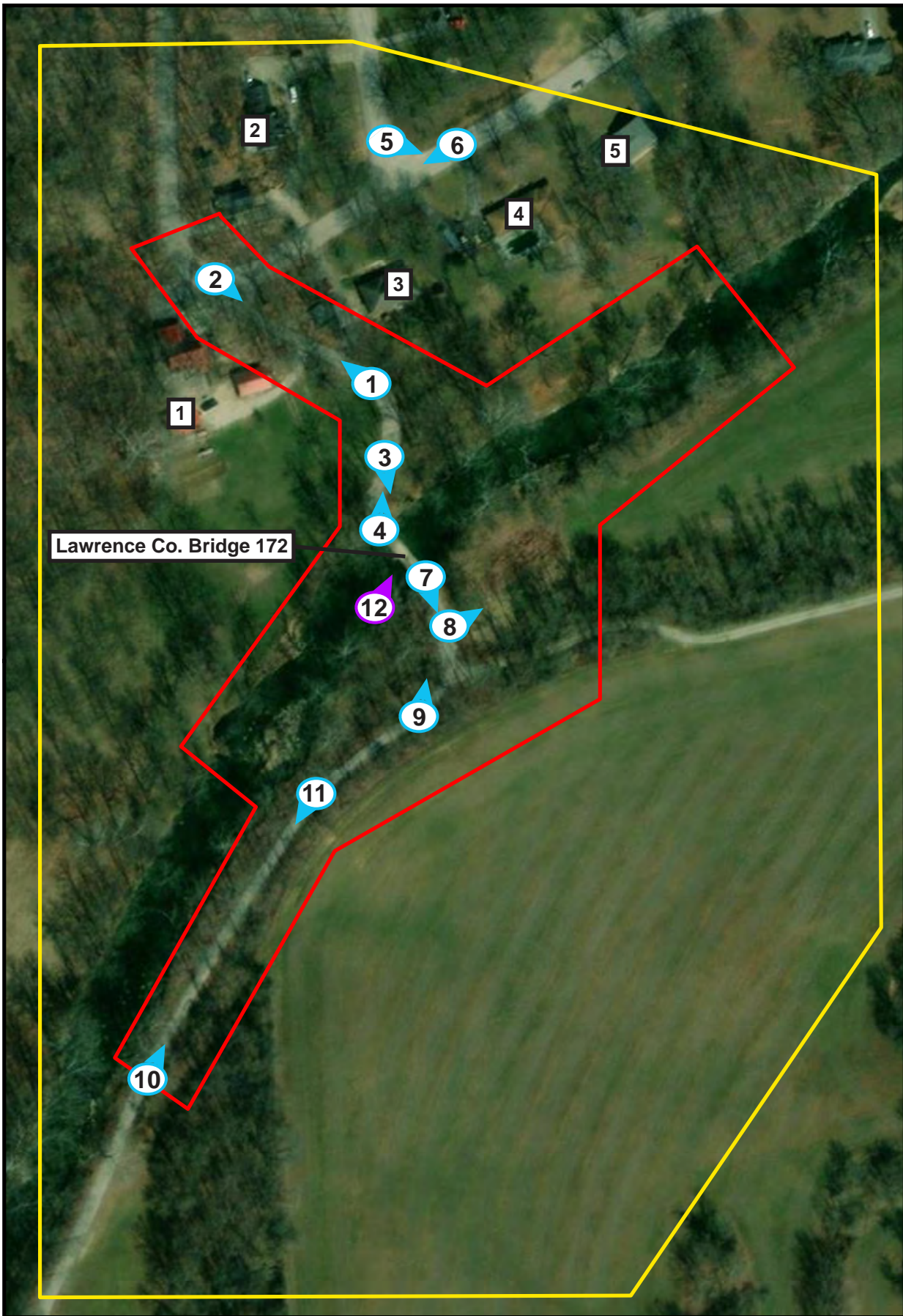


Lawrence County Bridge 172,
Cement Plant Rd over Leatherwood Creek
Des. No. 2002973, Bridge Project
Lawrence County, Indiana



Legend

- Project Area
- Area of Potential Effects
- Property Nos.
- Photo No. (Deck Level)
- Photo No. (Creek Level)



Lawrence Co. Bridge 172

Map Source: Indiana Geological Survey (IGS), IndianaMap, ArcGIS Online (ESRI) World Imagery.

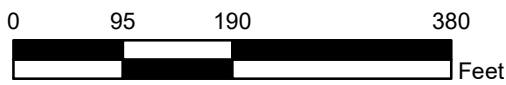


Photo Key

Lawrence County Bridge 172
Cement Plant Rd over Leatherwood Creek
Des. No. 2002973, Bridge Project
Lawrence County, Indiana





Photo 1: Looking northwest along Cement Plant Road, away from Lawrence County Bridge 172.



Photo 2: Looking southeast along Cement Plant Road from Saddler Drive, towards Lawrence County Bridge 172.



Photo 3: Looking southeast along Cement Plant Road towards Lawrence County Bridge 172.



Photo 4: Looking northeast from Lawrence County Bridge 172.



Photo 5: Looking southeast along Saddler Drive from Saddler Court.



Photo 6: Looking west along Saddler Drive towards Cement Plant Road.



Photo 7: Looking southeast along Cement Plant Road from Lawrence County Bridge 172.



Photo 8: Looking northeast from Cement Plant Road east of Leatherwood Creek.



Photo 9: Looking northwest along Cement Plant Road towards Lawrence County Bridge 172.



Photo 10: Looking northeast along Cement Plant Road from the farthest potential eastern terminus of the project area.



Photo 11: Looking southwest along Cement Plant Road towards the southern project terminus.

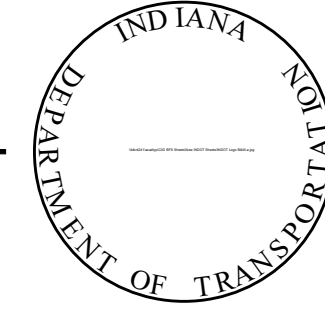


Photo 12: Looking north at the south elevation of Lawrence County Bridge 172.

PROJECT	DESIGNATION
2002973	2002973
CONTRACT	BRIDGE FILE
B-43605	47-00172

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN & SKEW	OVER	STATION
47-00172	PRESTRESSED COMPOSITE CONCRETE I-BEAM BRIDGE	1 @ 71'-0", 1 @ 68'-3", 1 @ 69'-10 5/8" SKEW 30°00'00" RT.	LEATHERWOOD CREEK	16+64.50 LINE "PR-A"

INDIANA DEPARTMENT OF TRANSPORTATION



BRIDGE PLANS

FOR SPANS OVER 20 FEET

ROUTE: CEMENT PLANT ROAD OVER LEATHERWOOD CREEK

PROJECT NO. 2002973 P.E.
2002973 CONST.
2002973 R/W

TRAFFIC DATA		
A.A.D.T.	(2016)	240 V.P.D.
A.A.D.T.	(2046)	346 V.P.D.
DIRECTIONAL DISTRIBUTION		50 %
COMMERCIAL VEHICLES		4% A.A.D.T.
DESIGN DATA		
DESIGN SPEED	20 M.P.H.	
PROJECT DESIGN CRITERIA	3R NON-FREEWAY	
FUNCTIONAL CLASSIFICATION	LOCAL ROAD	
RURAL/URBAN	URBAN	
TERRAIN	LEVEL	
ACCESS CONTROL	NONE	

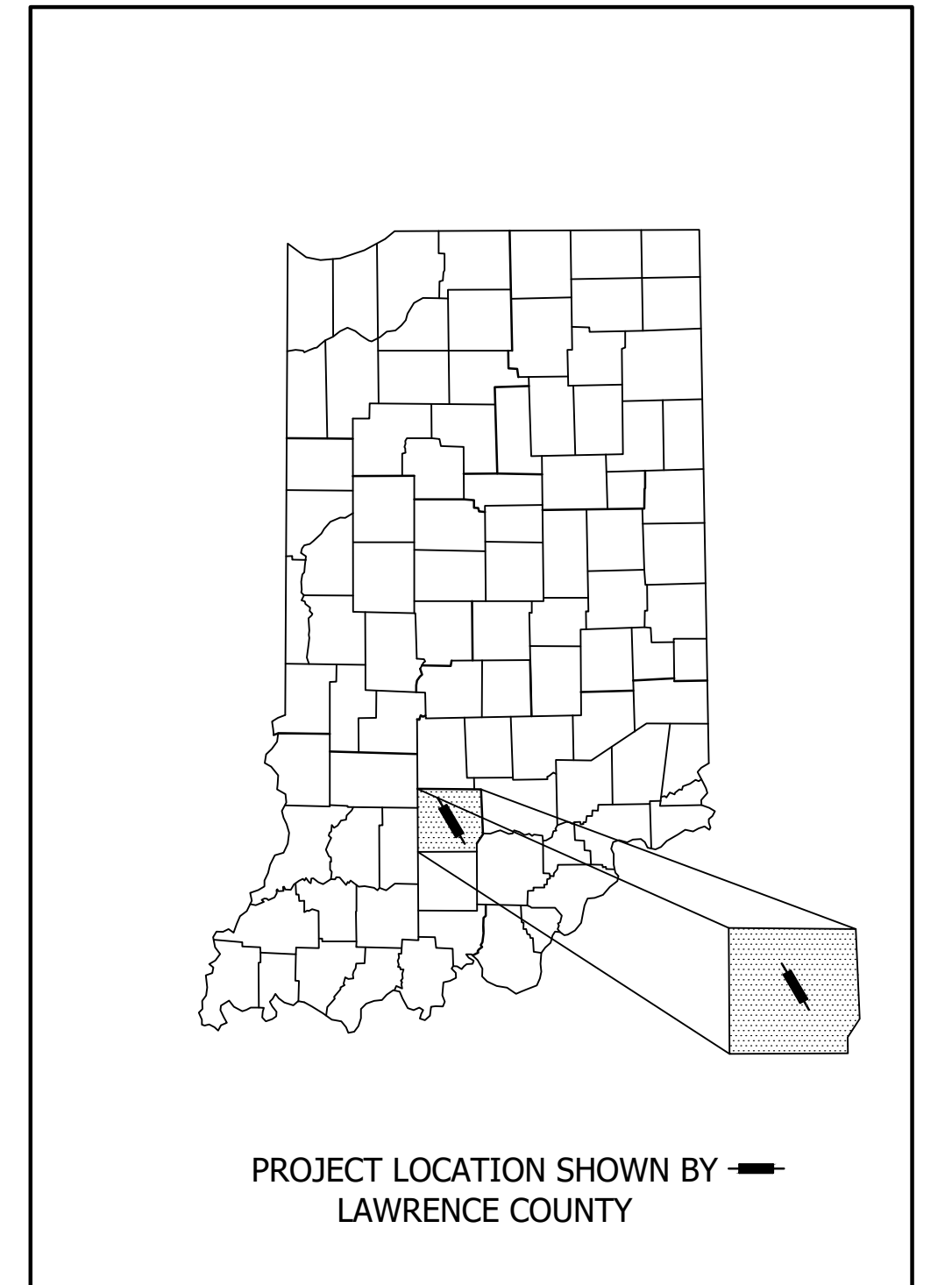
RODNEY FISH, Commissioner _____ Date _____

DUSTIN GABHART, Commisisoner _____ Date _____

WALLY BRONHAM, Commissioner _____ Date _____

BRANDI WEBB, Employee In Responsible Charge _____ Date _____

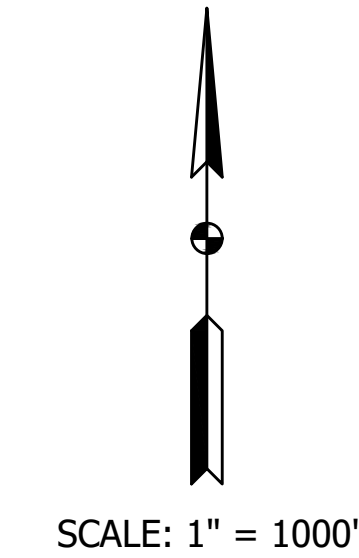
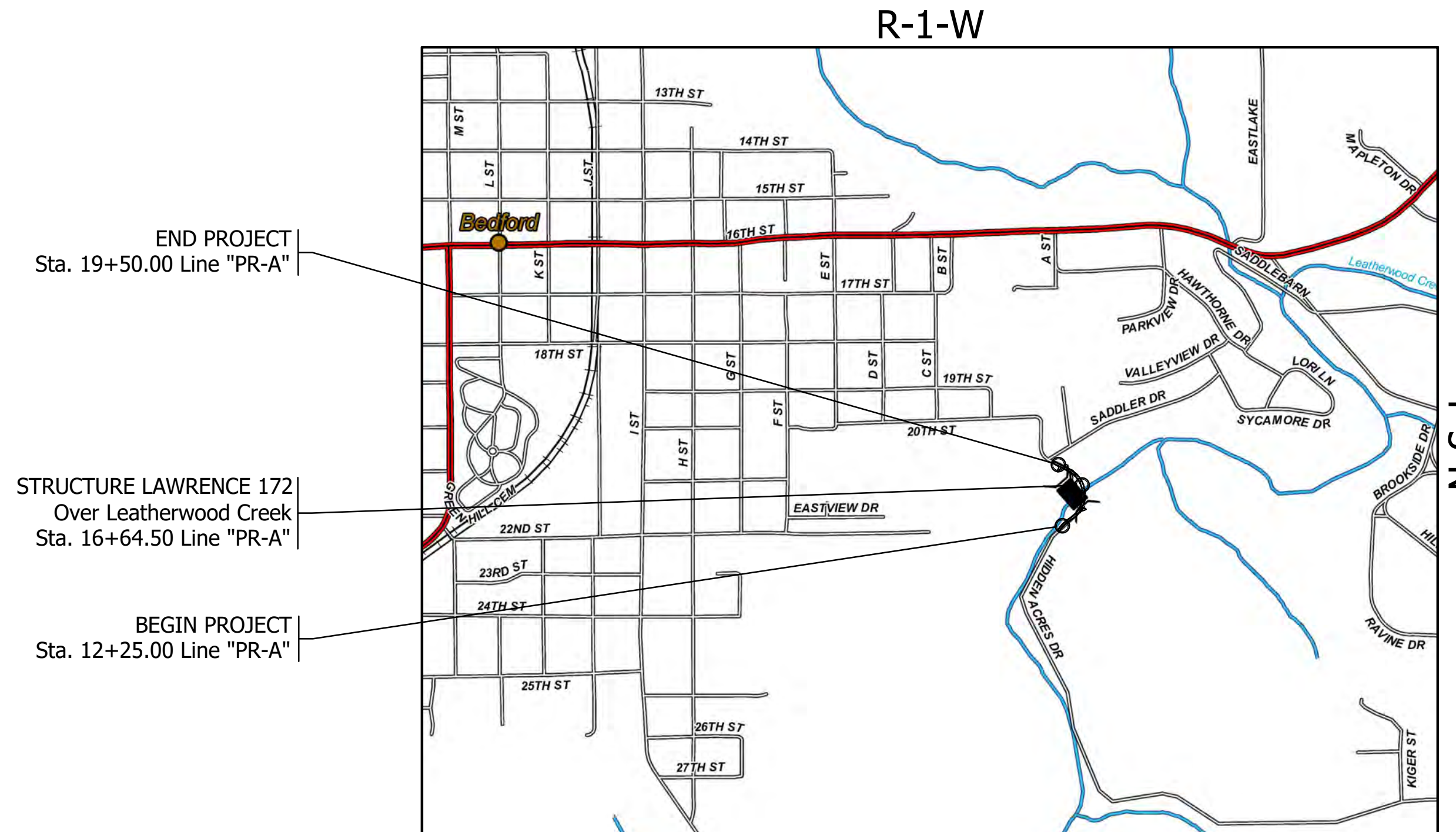
REPLACEMENT OF BRIDGE CARRYING CEMENT PLANT ROAD OVER LEATHERWOOD CREEK
PROJECT IS LOCATED 0.33 MILES EAST OF C STREET
SECTION 24, TOWNSHIP 5 NORTH, RANGE 1 WEST
SHAWSWICK TOWNSHIP, LAWRENCE COUNTY, INDIANA



LATITUDE: 35°51'17.6"N LONGITUDE: 86°28'10"W

BRIDGE LENGTH:	0.040 MI.
ROADWAY LENGTH:	0.097 MI.
TOTAL LENGTH:	0.137 MI.
MAX. GRADE:	7.94 %

HUC12: 051202081003



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES.

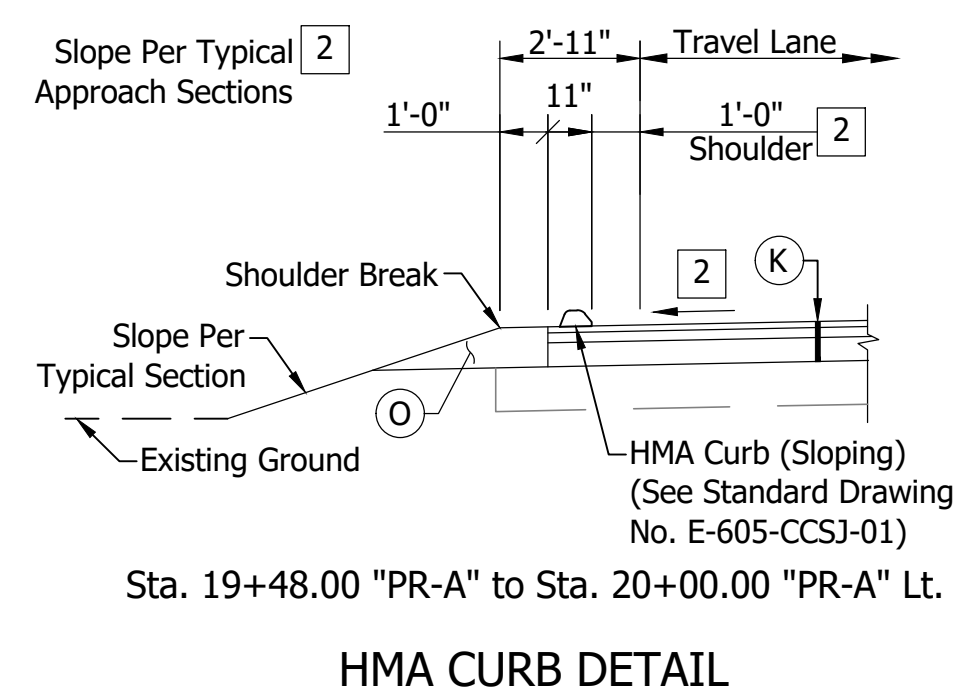
PLANS PREPARED BY:	Butler Fairman and Seufert Inc.	(317)713-4615
CERTIFIED BY:	_____	PHONE /
APPROVED FOR LETTING:	_____	DATE /
	INDIANA DEPARTMENT OF TRANSPORTATION	DATE

BRIDGE FILE	
47-00172	
DESIGNATION	
2002973	
SURVEY BOOK	SHEET
ELECTRONIC	1 OF 32
CONTRACT	PROJECT
B-43605	2002973

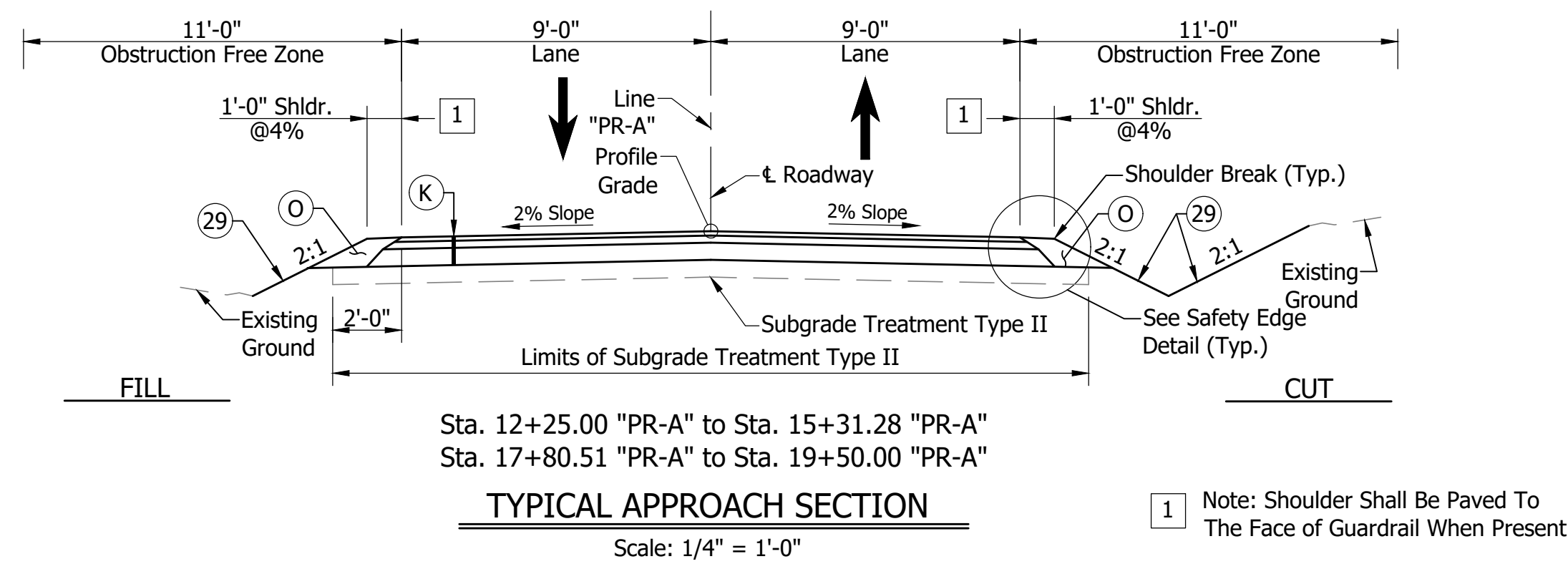
I:\b\m\1241\j\jbs5\1678500\0000\ProDevelopment\Drawings\678559101.dwg Dylan Piercefield Plot:8/22/2023 10:28 AM Save:3/22/2023 8:57 AM

6785

I:\bns1241\jbs5\678500.0000\Development\Design\Drawings\6785211.dwg Dylan Piercefield Plot:8/22/2023 10:28 AM Scale:1/11/2023 8:34 AM



Sta. 19+48.00 "PR-A" to Sta. 20+00.00 "PR-A" Lt.

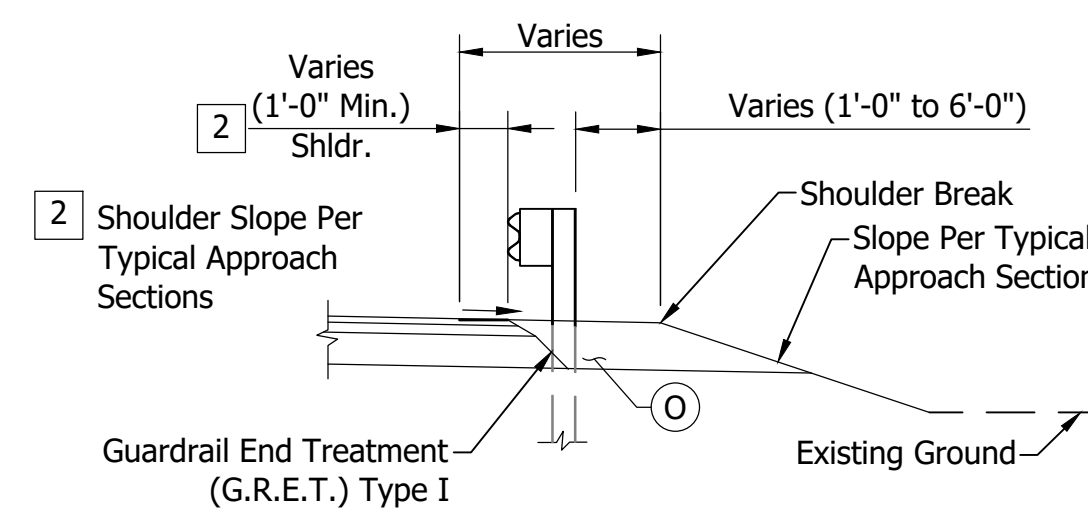


Sta. 12+25.00 "PR-A" to Sta. 15+31.28 "PR-A"
Sta. 17+80.51 "PR-A" to Sta. 19+50.00 "PR-A"

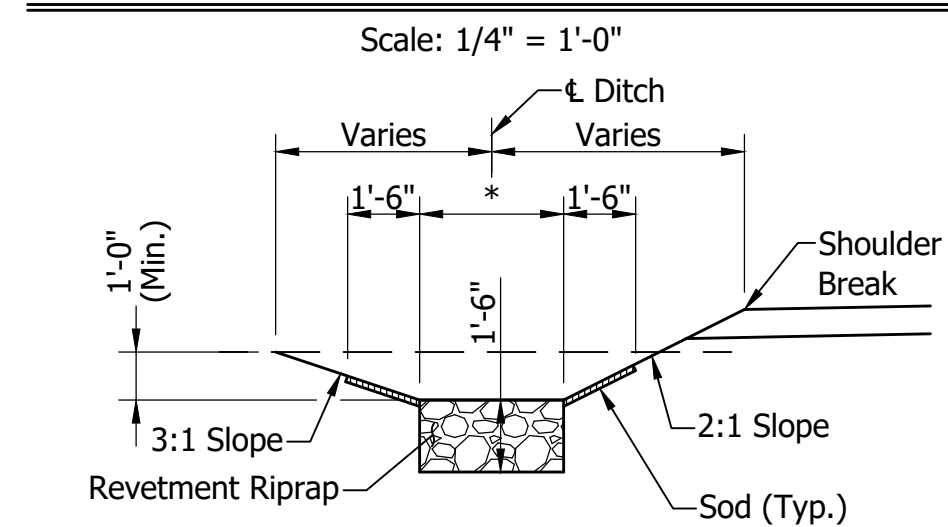
1 Note: Shoulder Shall Be Paved To The Face of Guardrail When Present

- LEGEND**
- (K) HMA Pavement
165#/SYS QC/QA HMA, 2, 64 Surface 9.5mm over
275#/SYS QC/QA HMA 2, 64 Int. 19.00mm over
6" Compacted Aggregate No. 53
 - (O) Variable Depth Compacted Aggregate, No. 53
 - (29) Mulched Seeding, R

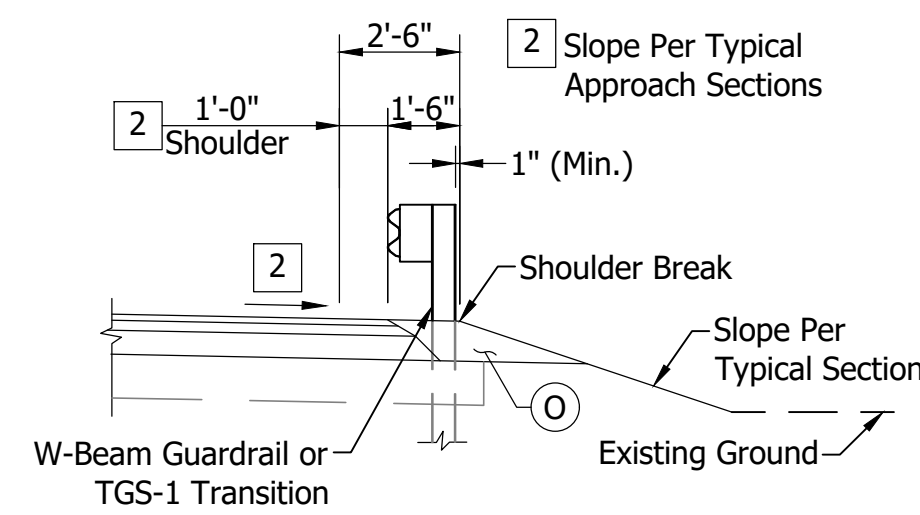
NOTE:
A safety edge shall be placed in the surface and intermediate layers of all edges of pavements that are not adjacent to a guardrail.



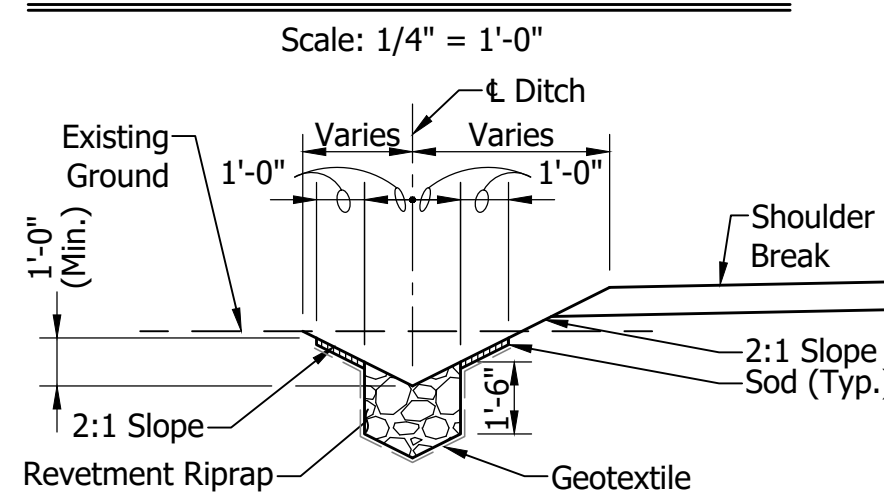
G.R.E.T. TYPE I GUARDRAIL HALF SECTION



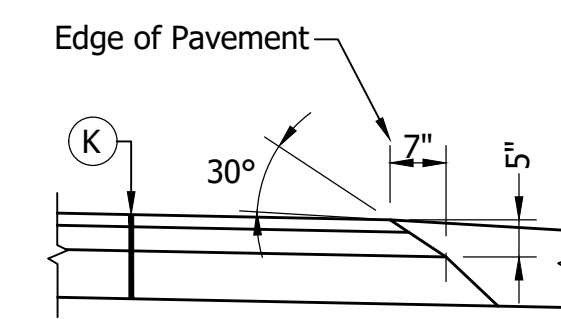
* Sta. 17+50 "PR-A" to Sta. 18+62 "PR-A" Rt. (2' Btm.)
* Sta. 19+37 "PR-A" to Sta. 19+95 "PR-A" Rt. (2' Btm.)



W-BEAM GUARDRAIL HALF SECTION

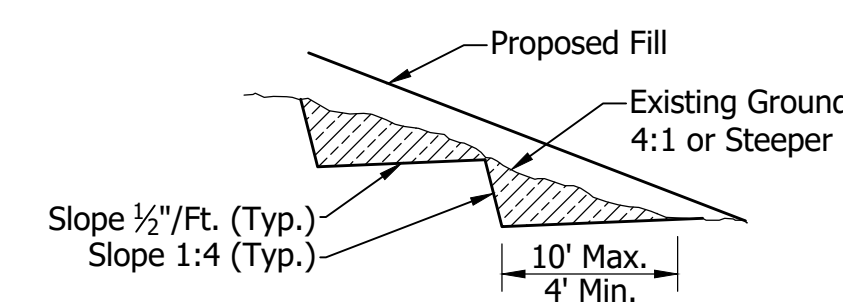


Sta. 14+75 "PR-A" to Sta. 16+00 "PR-A" Rt.



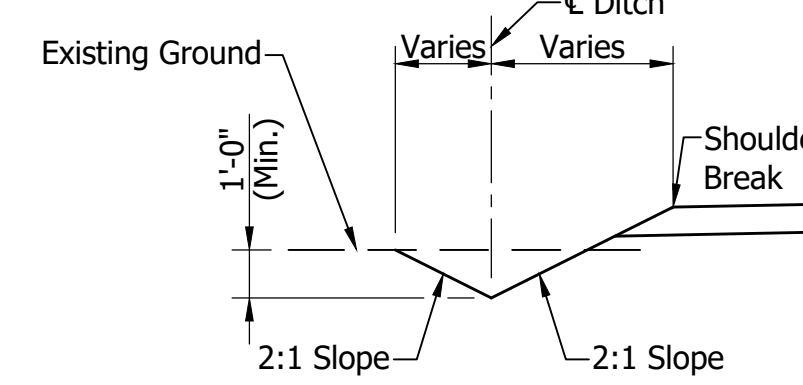
SAFETY EDGE DETAIL

Scale: 1/2" = 1'-0"



TYPICAL BENCHING DETAIL

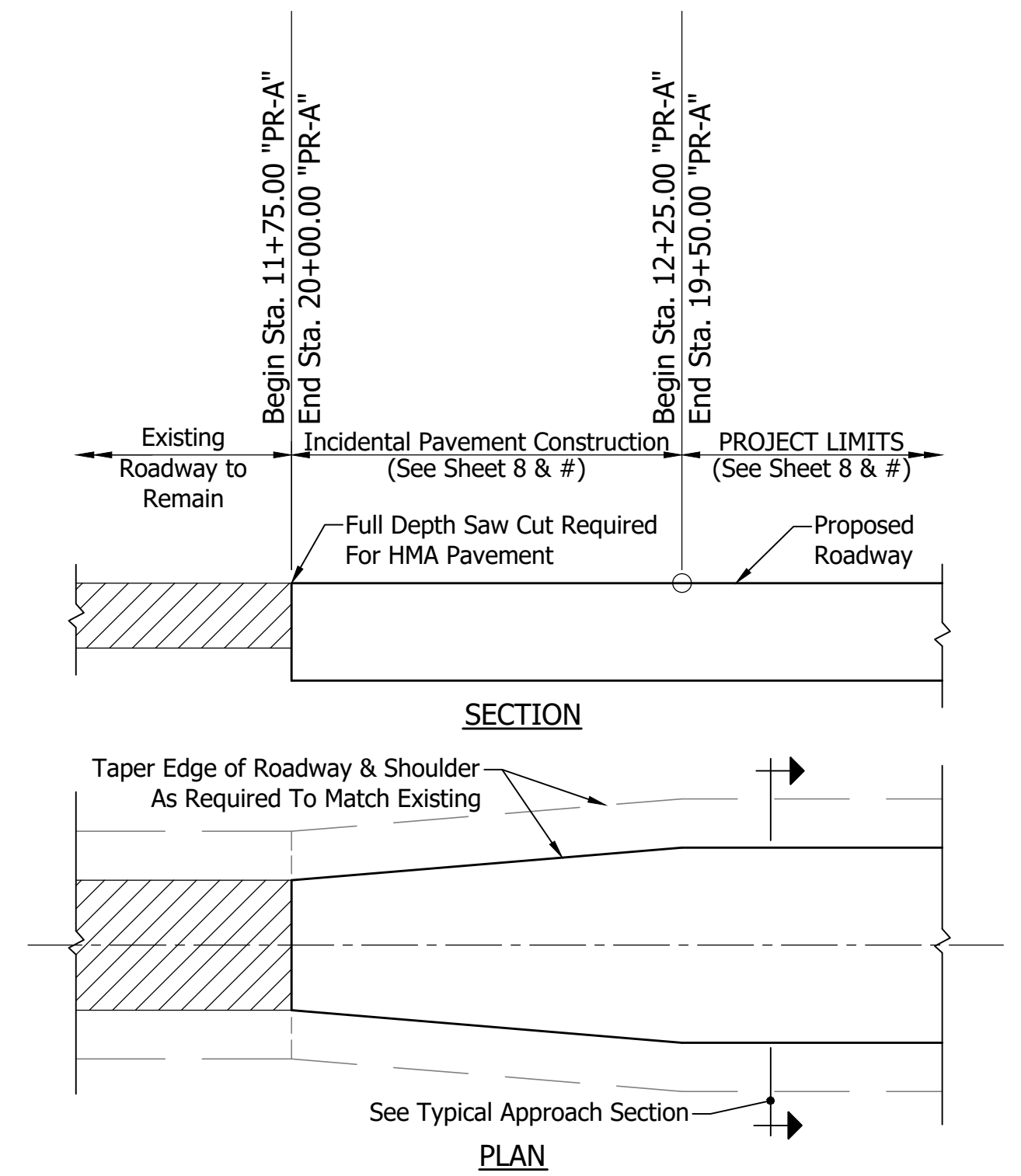
Not to Scale



Sta. 11+75 "PR-A" to Sta. 14+10 "PR-A"

TYPICAL "V" DITCH DETAIL

Scale: 1/4" = 1'-0"



TYPICAL INCIDENTAL CONSTRUCTION DETAILS

Not to Scale

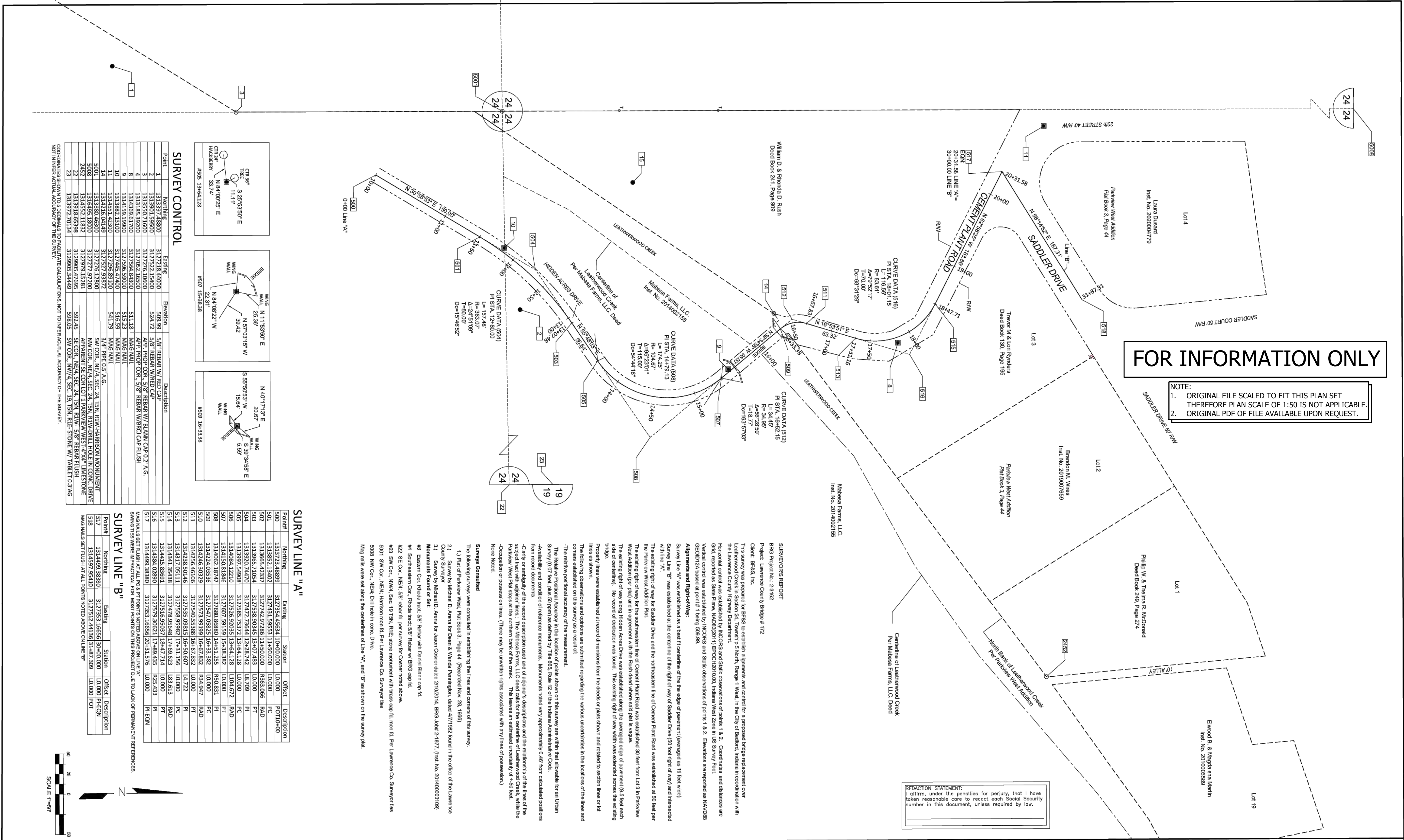
<p>RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER DATE</p>		<p>INDIANA DEPARTMENT OF TRANSPORTATION</p>		<p>HORIZONTAL SCALE AS NOTED</p>		<p>BRIDGE FILE 47-00172</p>	
<p>DESIGNED: AS NOTED DRAWN: L. KIRSCH</p>		<p>TYPICAL APPROACH DETAIL</p>		<p>VERTICAL SCALE N/A</p>		<p>DESIGNATION 2002973</p>	
<p>CHECKED: L. FEGARAS CHECKED: B. WRIGHT</p>				<p>SURVEY BOOK ELECTRONIC 3</p>		<p>SHEET OF 32</p>	
				<p>CONTRACT B-43605</p>		<p>PROJECT 2002973</p>	

6785
BFS NO.

FOR INFORMATION ONLY

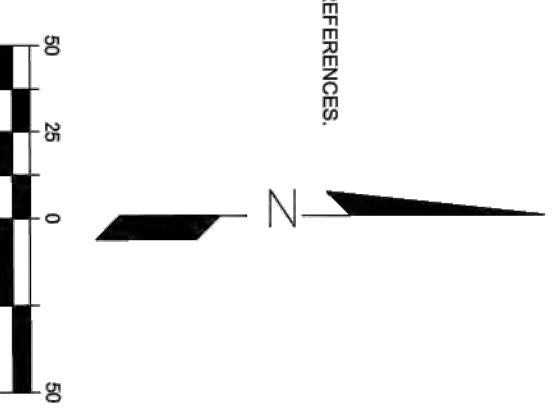
NOTE: 1. ORIGINAL FILE SCALED TO FIT THIS PLAN SET THEREFORE PLAN SCALE OF 1:50 IS NOT APPLICABLE. 2. ORIGINAL PDF OF FILE AVAILABLE UPON REQUEST.

REDACTION STATEMENT: I affirm, under the penalties for perjury, that I have taken reasonable care to redact each Social Security number in this document, unless required by law.



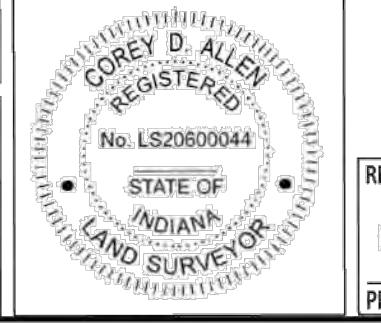
SURVEY CONTROL table with columns: Point, Northing, Easting, Elevation, Description.

SURVEY LINE "A" table with columns: Point#, Northing, Easting, Station, Offset, Description.



FIELD SURVEYOR STATEMENT

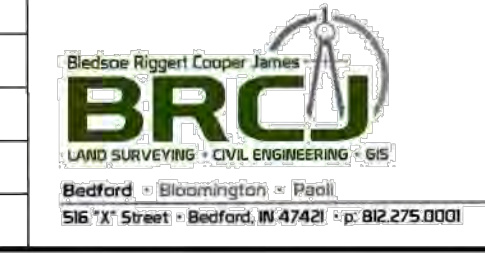
THIS SURVEY, TO THE BEST OF MY KNOWLEDGE AND BELIEF, IS EXECUTED ACCORDING TO THE PROVISIONS OF 865 I.A.C. 1-12-20 THROUGH 1-12-25 REGARDING ROUTE SURVEYS, EXCEPT THAT ANY DATA SHOWN REGARDING THE LOCATION OR DESCRIPTION OF ANY NEW PARCELS TO BE ACQUIRED OR THE EXISTING PARCELS IS NOT A PART OF THIS SURVEY.



RECOMMENDED FOR APPROVAL: [Signature] DATE: 6/20/2022

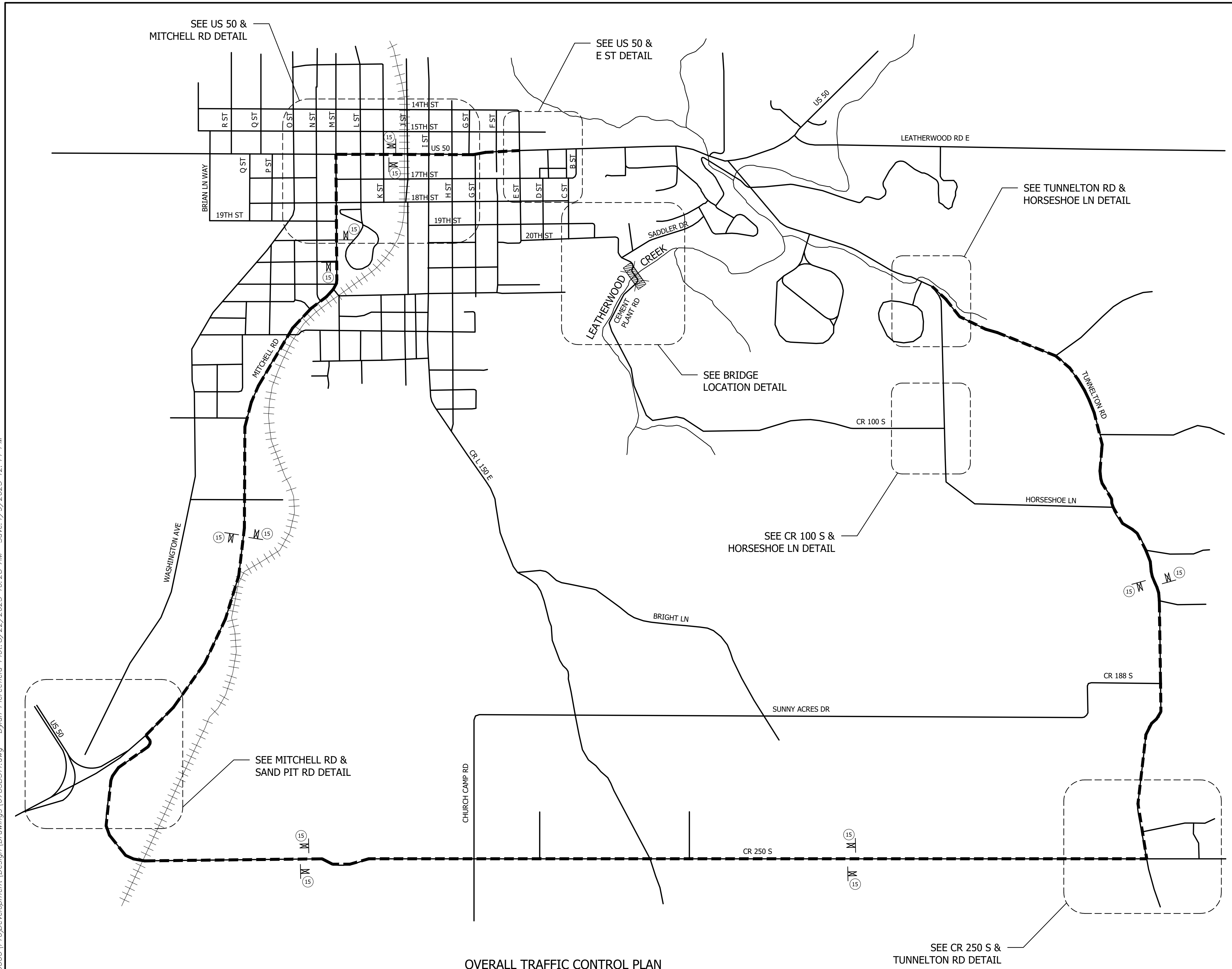
Butler, Fairman & Seufert, Inc. LOCATION CONTROL ROUTE SURVEY Lawrence County Bridge #172 Section 24, T5N, R1W, Lawrence County, Indiana. Includes scale and sheet information.

Project summary table with columns: SURVEY STARTED, SURVEY COMPLETED, ROUTE PLAT SHEET.



JOB NUMBER: 2-3162

\\bos1241\jobs5\6785500\0000\ProDevelopment\Design\Drawings\67855311.dwg - Dylan_Piercefield_Plot:8/22/2023 10:28 AM - Saves:1/9/2023 12:44 PM



OVERALL TRAFFIC CONTROL PLAN
Not to Scale

CONSTRUCTION SIGN SUMMARY				
SYMBOL	MESSAGE	NUMBER	TYPE	REQ'D.
①	ROAD CLOSED 1.5 MILES AHEAD LOCAL TRAFFIC ONLY	R11-3	A	1
	DETOUR	XM4-10(L)	B	
②	ROAD CLOSED 1 MILES AHEAD LOCAL TRAFFIC ONLY	R11-3	A	*
	DETOUR	XM4-10(R)	B	
③	ROAD CLOSED 1000 FT.	XW20-3	A	4
④	ROAD CLOSED 500 FT.	XW20-3	A	4
⑤	DETOUR ROUTE MARKER ASSEMBLY (LEFT)			3
⑥	DETOUR ROUTE MARKER ASSEMBLY (RIGHT)			3
⑦	ROAD CLOSED AHEAD	XW20-3	A	-
⑧	STANDARD BARRICADE (TYPE III-A) (36'-0" SECTION) [⊗]			2
	ROAD CLOSURE SIGN ASSEMBLY (R11-2)			2
⑨	STANDARD BARRICADE (TYPE III-B) (12' SECTION)			5
	ROAD CLOSURE SIGN ASSEMBLY (R11-2)			5
⑩	STANDARD BARRICADE (TYPE III-B) (12' SECTION)			-
⑪	ROUTE CLOSURE NOTICE	XG20-5	A	⊕ 1
⑫	DETOUR AHEAD	XW20-2	A	1
⑬	ROAD CONSTRUCTION AHEAD	XW20-1	A	-
⑭	DETOUR ROUTE MARKER ASSEMBLY (ADVANCE TURN)			6
⑮	DETOUR ROUTE MARKER ASSEMBLY (CONFIRMING)			19
⑯	WORKSITE ADDED PENALTY SIGN	XG20-7	A	-
⑰	END DETOUR	M4-8a	B	2
⑱	PORTABLE CHANGEABLE MESSAGE SIGN			-

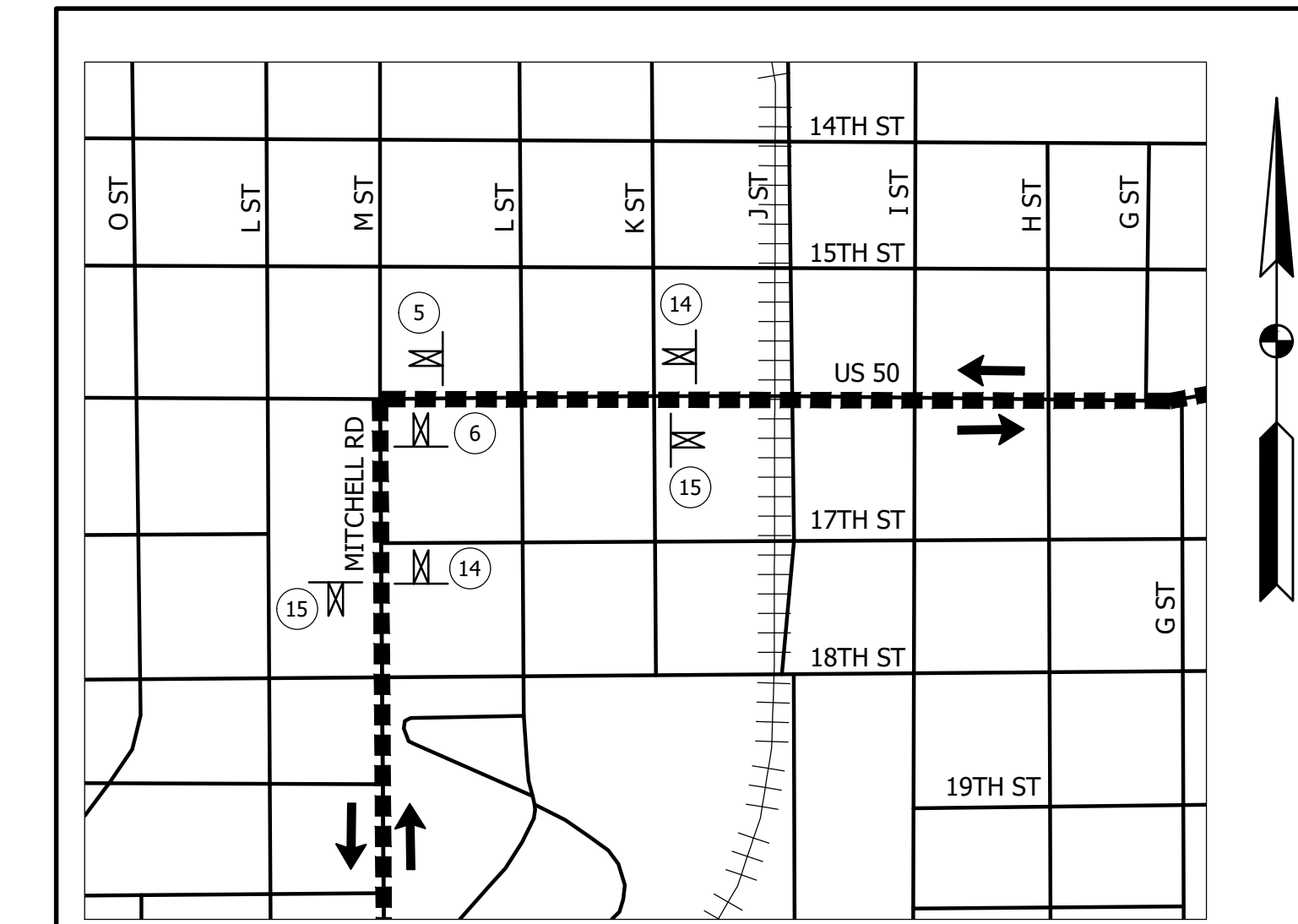
* INDICATES SIGN TO BE INCLUDED WITH ROAD CLOSURE SIGN ASSEMBLY.
⊗ 2 BARRICADES REQUIRED PER LOCATION. TOTAL QUANTITY = 48'-0"
⊕ TO BE PLACED 2 WEEKS PRIOR TO ROAD CLOSURE

LEGEND

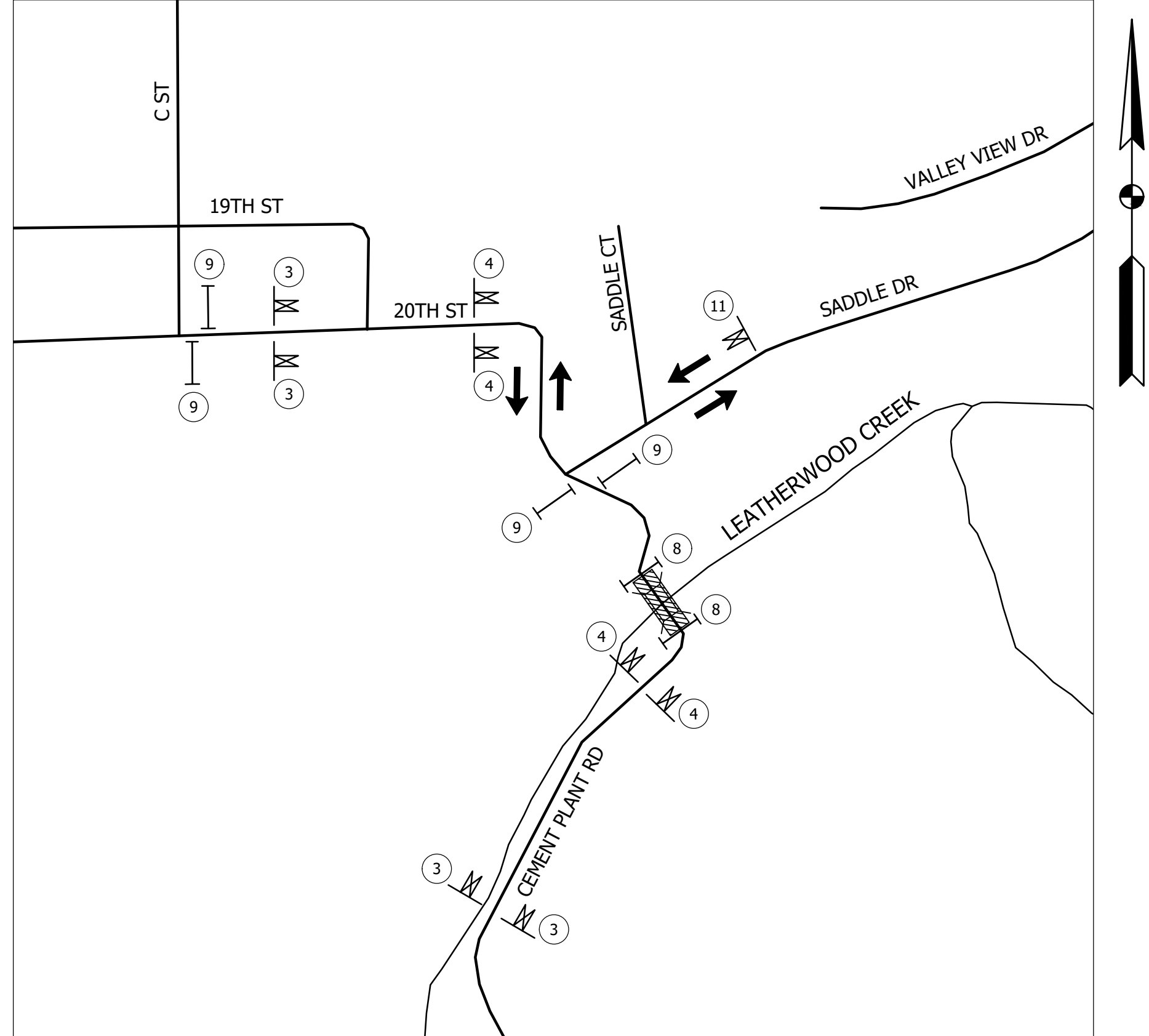
- ▬▬▬▬▬▬▬ DETOUR ROUTE
- ⌈⌋ BRIDGE LOCATION
- ▨▨▨▨▨▨▨ AREA OF CONSTRUCTION
- |— TYPE III-A/III-B BARRICADE
- ⊠ CONSTRUCTION SIGN TYPE AS SHOWN
- SYMBOL

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE AS NOTED VERTICAL SCALE N/A SURVEY BOOK ELECTRONIC CONTRACT B-43605	BRIDGE FILE 47-00172 DESIGNATION 2002973 SHEET 5 OF 32 PROJECT 2002973	DETOUR
DESIGNED: B. WRIGHT DRAWN: K. COFFMAN CHECKED: K. AZNARAN CHECKED: B. WRIGHT	6785 BFS NO.			

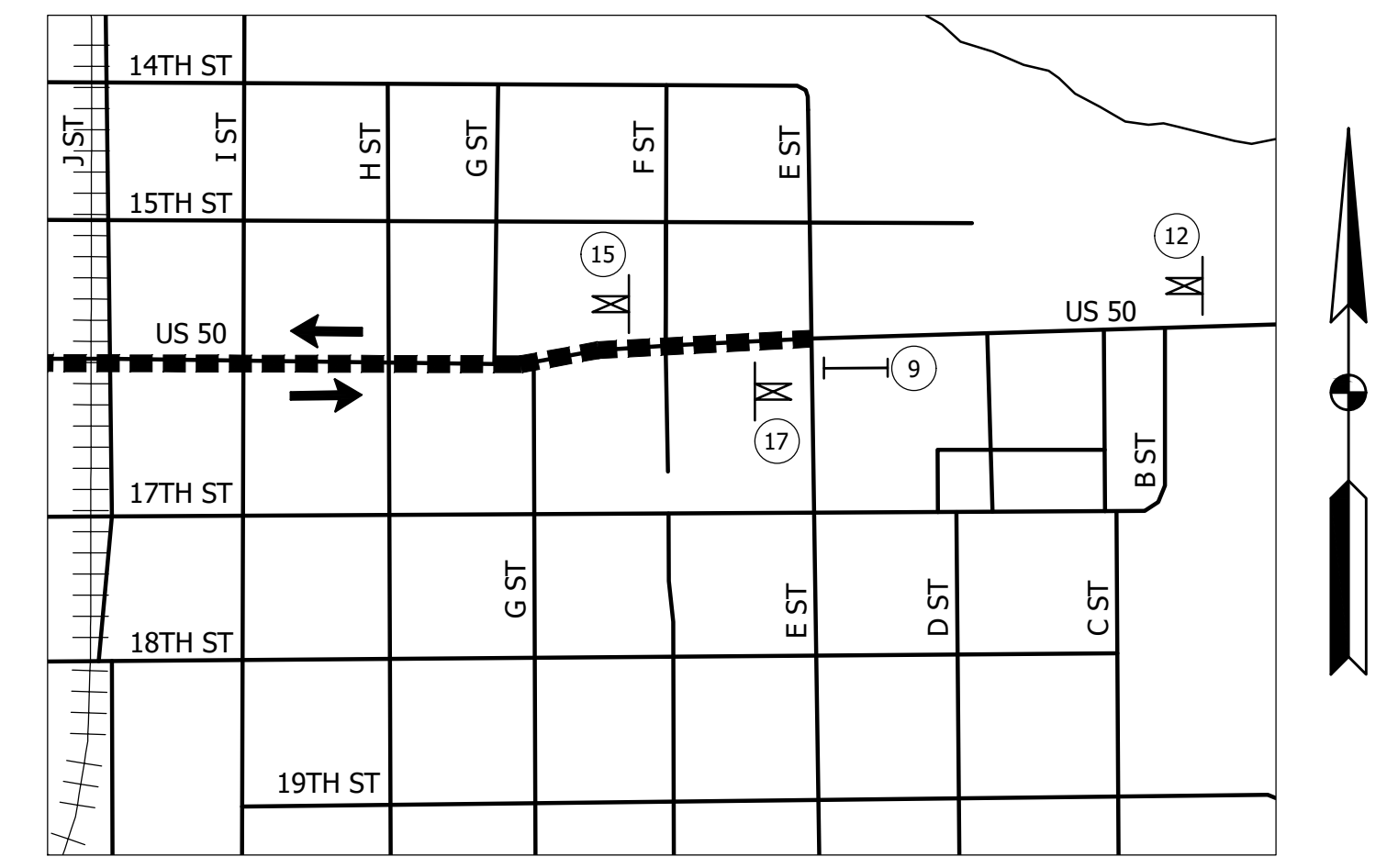
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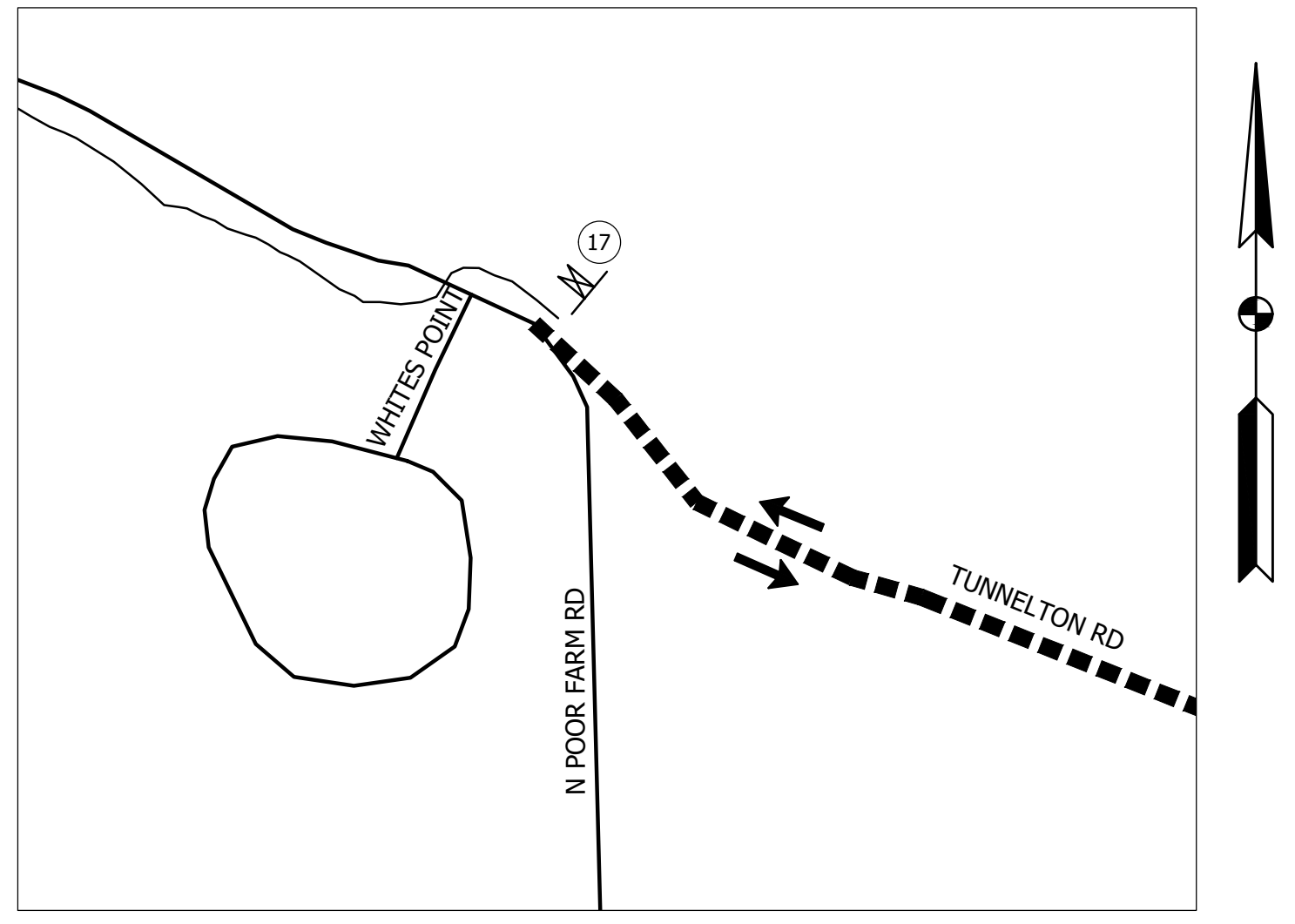
US 50 & MITCHELL RD
Not to Scale



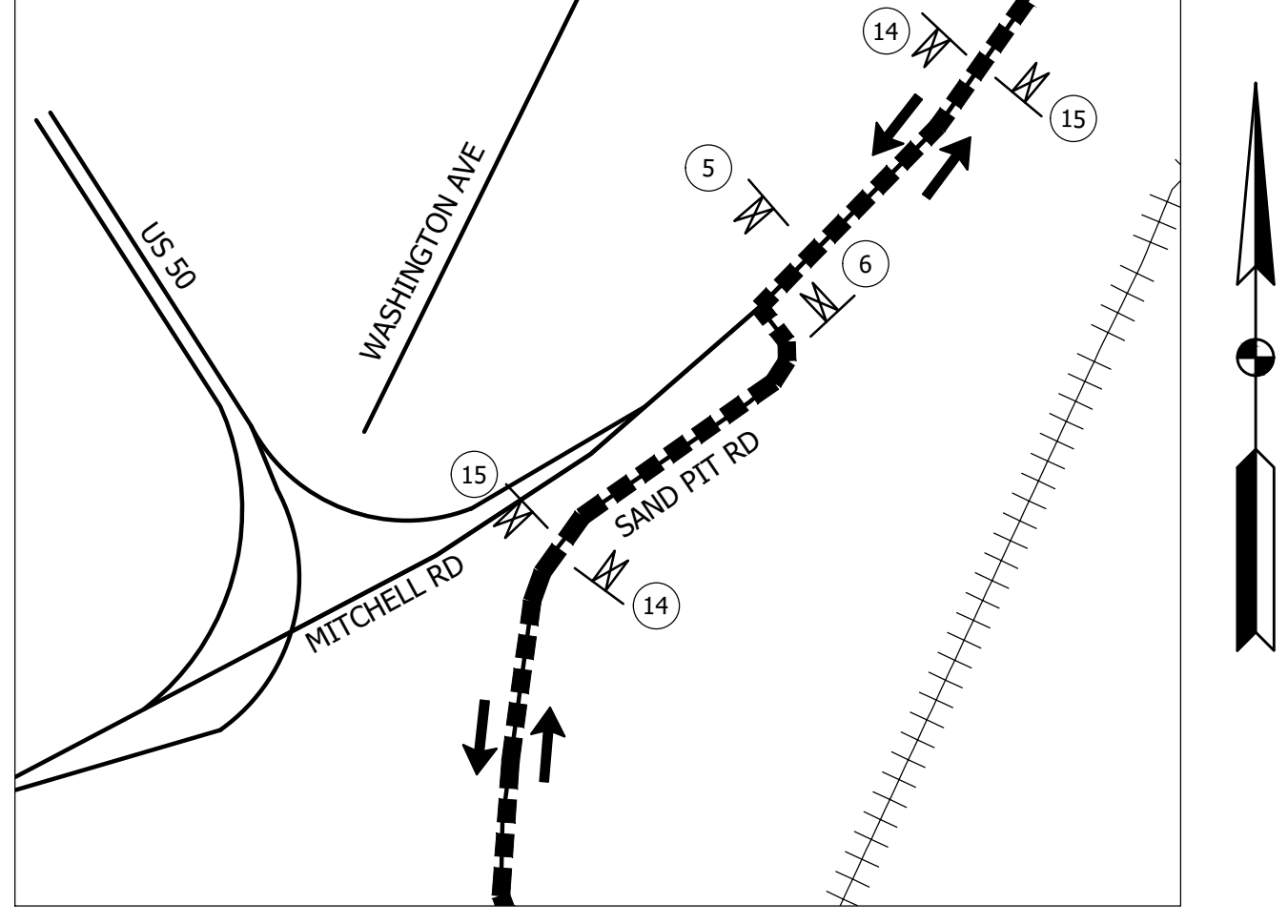
BRIDGE LOCATION DETAIL
Not to Scale



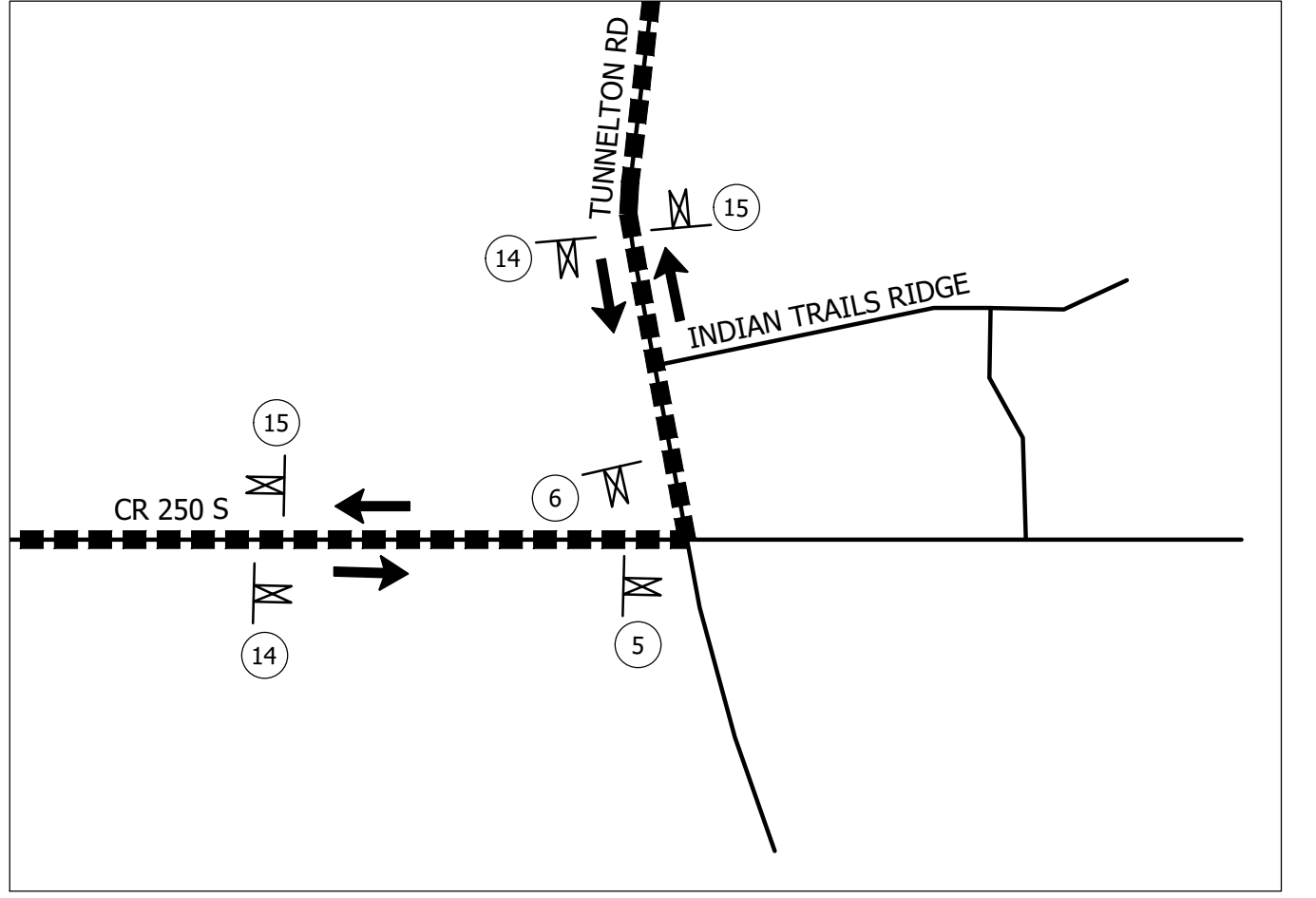
US 50 & E ST
Not to Scale



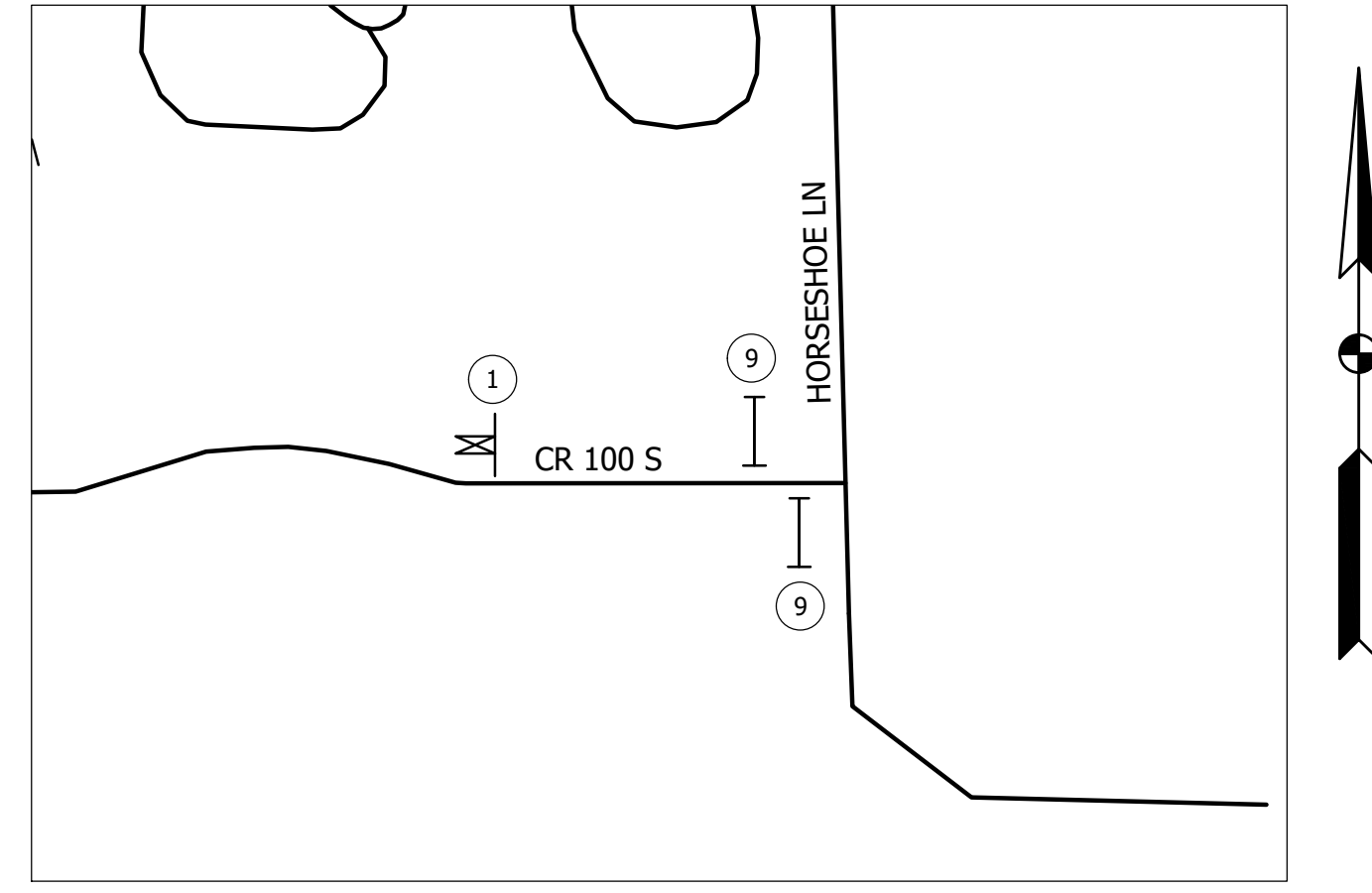
N. POOR FARM RD & TUNNELTON RD
Not to Scale



MITCHELL RD & SAND PIT RD
Not to Scale



CR 250 S & TUNNELTON RD
Not to Scale



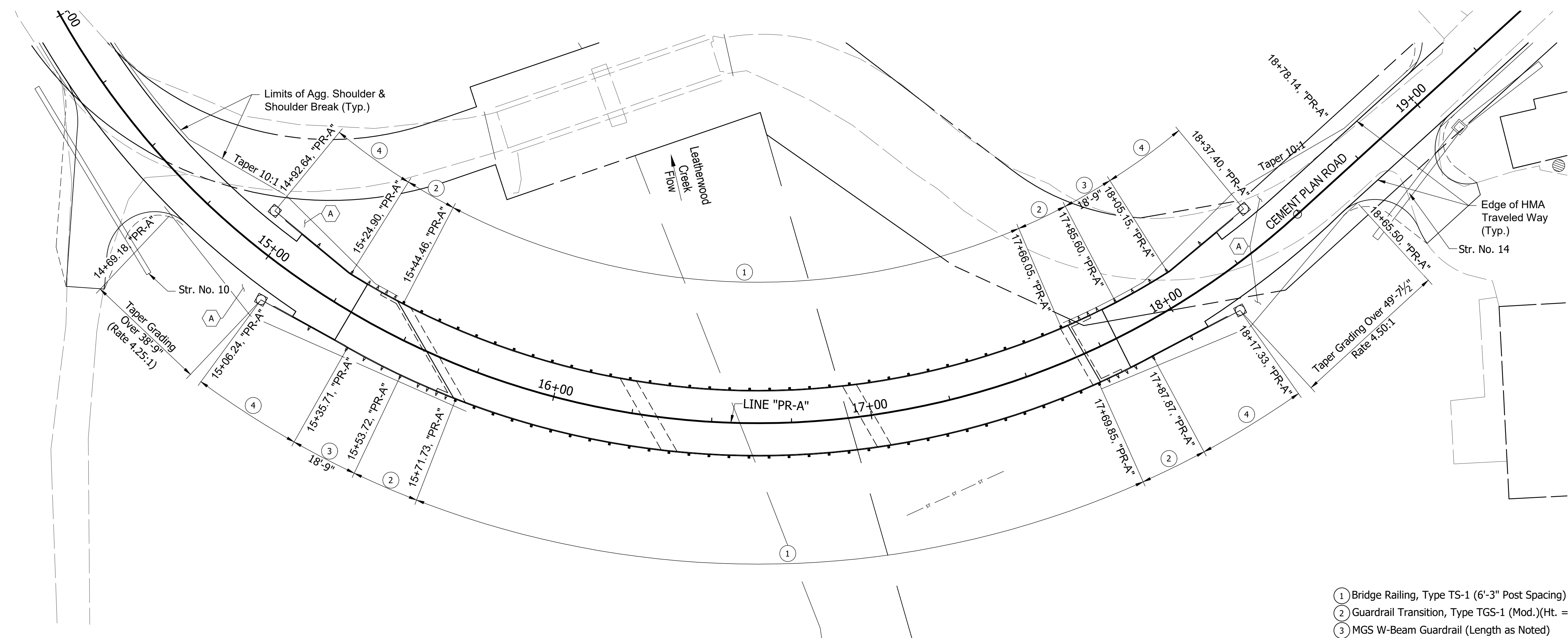
CR 100 S & HORSESHOE LN
Not to Scale

LEGEND

- DETOUR ROUTE
- ▨ BRIDGE LOCATION
- ▨ AREA OF CONSTRUCTION
- TYPE III-A/III-B BARRICADE
- TRAFFIC FLOW
- M CONSTRUCTION SIGN TYPE AS SHOWN
- SYMBOL

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION DETOUR	HORIZONTAL SCALE AS NOTED	BRIDGE FILE 47-00172
DESIGNED: B. WRIGHT DRAWN: K. COFFMAN		VERTICAL SCALE N/A	DESIGNATION 2002973
CHECKED: L. FEGARAS CHECKED: B. WRIGHT		SURVEY BOOK ELECTRONIC	SHEET 6 OF 32
		CONTRACT B-43605	PROJECT 2002973

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GUARDRAIL LAYOUT DETAIL

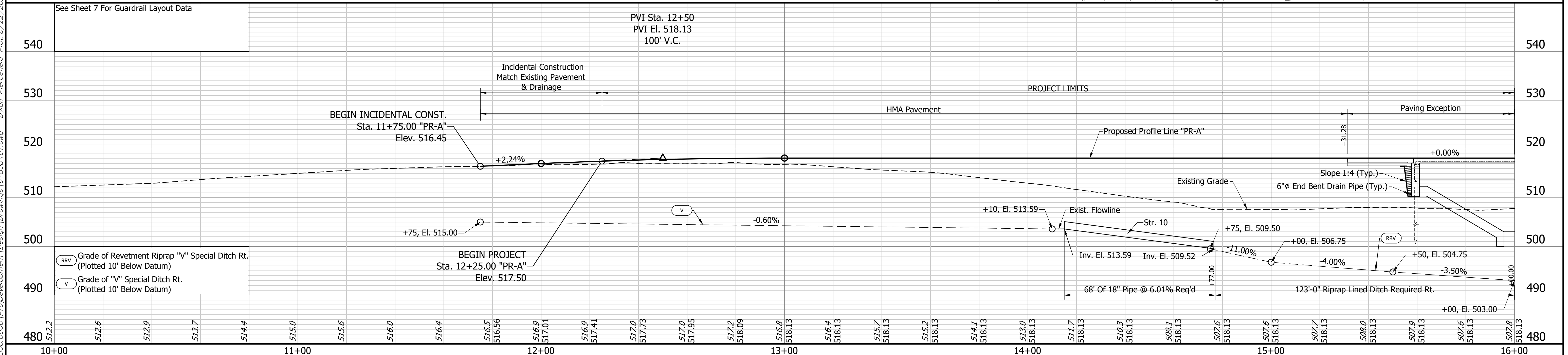
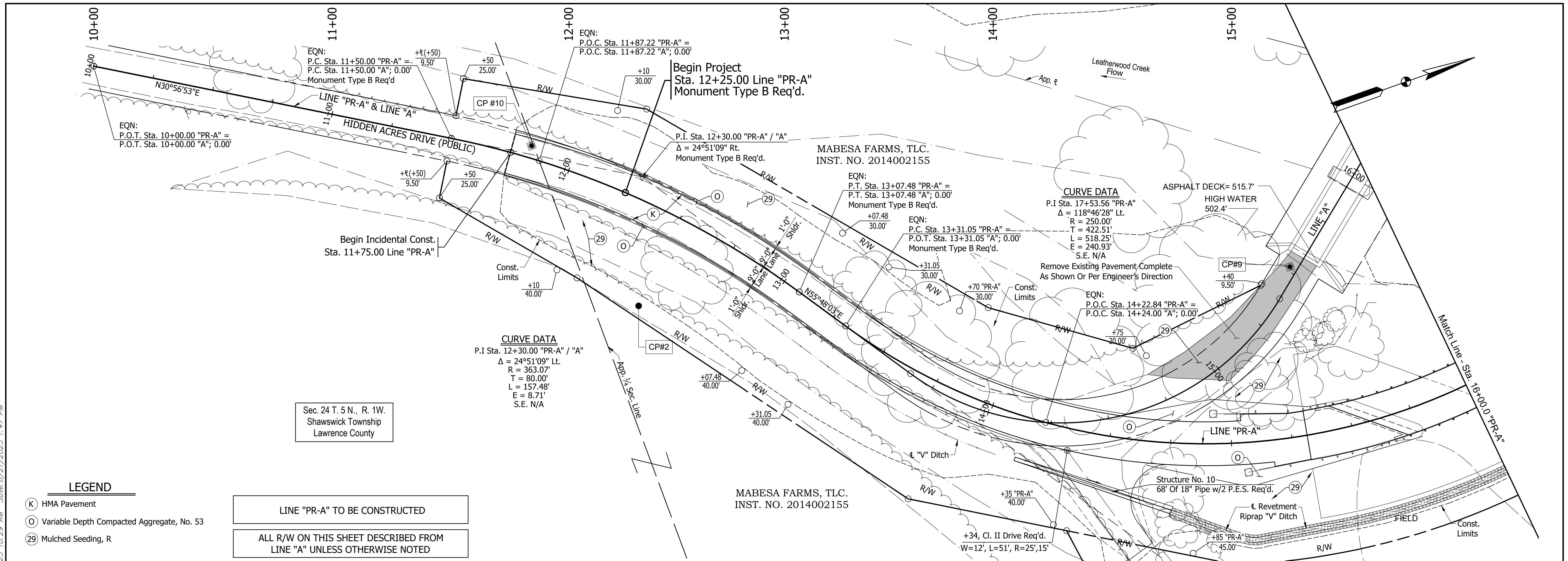
Scale: 1" = 20'

- ① Bridge Railing, Type TS-1 (6'-3" Post Spacing)
- ② Guardrail Transition, Type TGS-1 (Mod.)(Ht. = 31", L = 18'-9")
- ③ MGS W-Beam Guardrail (Length as Noted)
- ④ Guardrail End Treatment (G.R.E.T.), Type 1 (Ht. = 31", L = 31'-3")
- Ⓐ See INDOT Std. Drawing E-601-GRET-06 for Grading Requirements

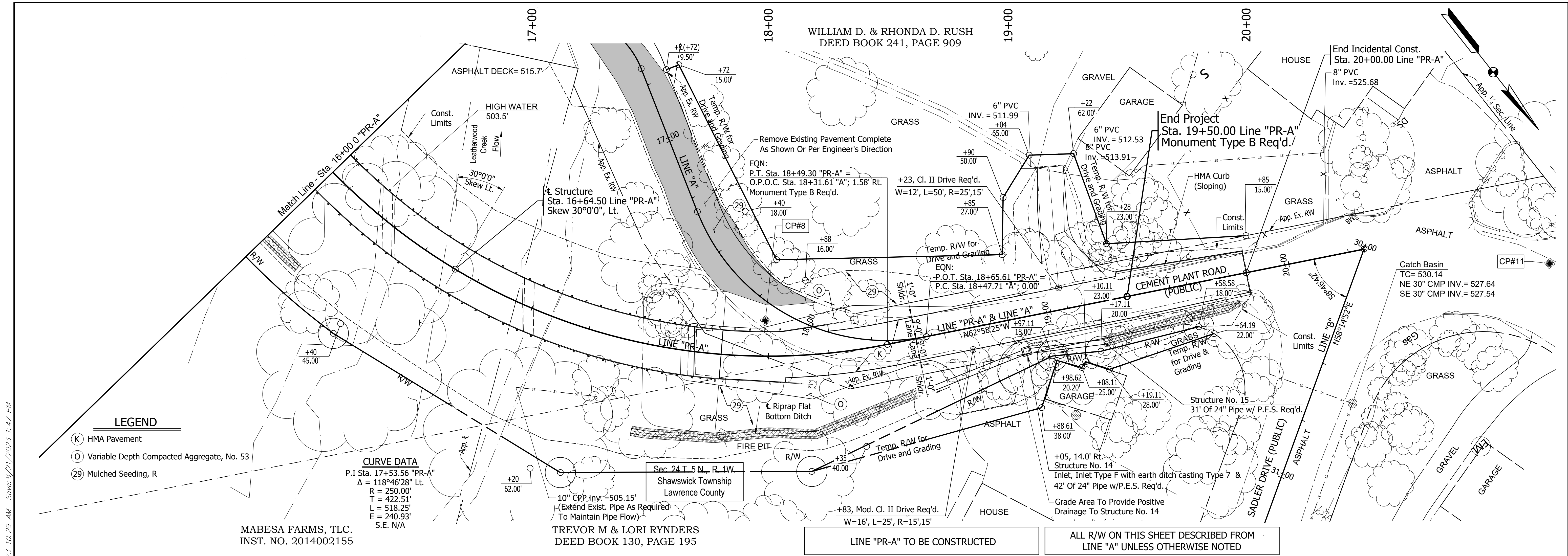
RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE As Noted VERTICAL SCALE N/A	BRIDGE FILE 47-00172 DESIGNATION 2002973
DESIGNED: B. WRIGHT DRAWN: L. KIRSCH CHECKED: L. FEGARAS CHECKED: B. WRIGHT	GUARDRAIL LAYOUT	SURVEY BOOK ELECTRONIC 7 OF 32 CONTRACT B-43605	SHEET PROJECT 2002973

BFS NO. 6785

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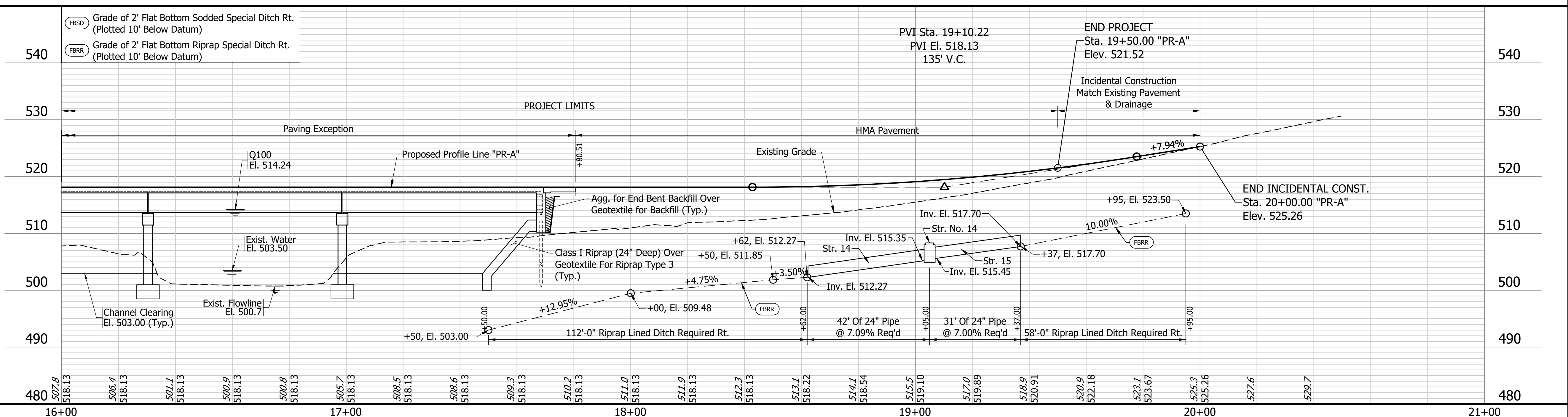
NOTE: See Sheet 4 For Line "A" Horizontal Layout Data See Sheet 4 For Project Horizontal & Vertical Control Data		RECOMMENDED FOR APPROVAL: DESIGN ENGINEER: _____ DATE: _____ DRAWN: L. KIRSCH CHECKED: L. FEGARAS CHECKED: B. WRIGHT		INDIANA DEPARTMENT OF TRANSPORTATION PLAN & PROFILE - LINE "PR-A"		HORIZONTAL SCALE 1" = 20'-0" VERTICAL SCALE 1" = 10'-0"		BRIDGE FILE 47-00172 DESIGNATION 2002973	
				SURVEY BOOK ELECTRONIC 8 OF 32 CONTRACT B-43605 2002973					



MABESA FARMS, TLC.
INST. NO. 2014002155

TREVOR M & LORI RYNDERS
DEED BOOK 130, PAGE 195

LINE "PR-A" TO BE CONSTRUCTED
ALL R/W ON THIS SHEET DESCRIBED FROM
LINE "A" UNLESS OTHERWISE NOTED



NOTE:
See Sheet 4 For Line "A" Horizontal
Layout Data
See Sheet 4 For Project Horizontal &
Vertical Control Data

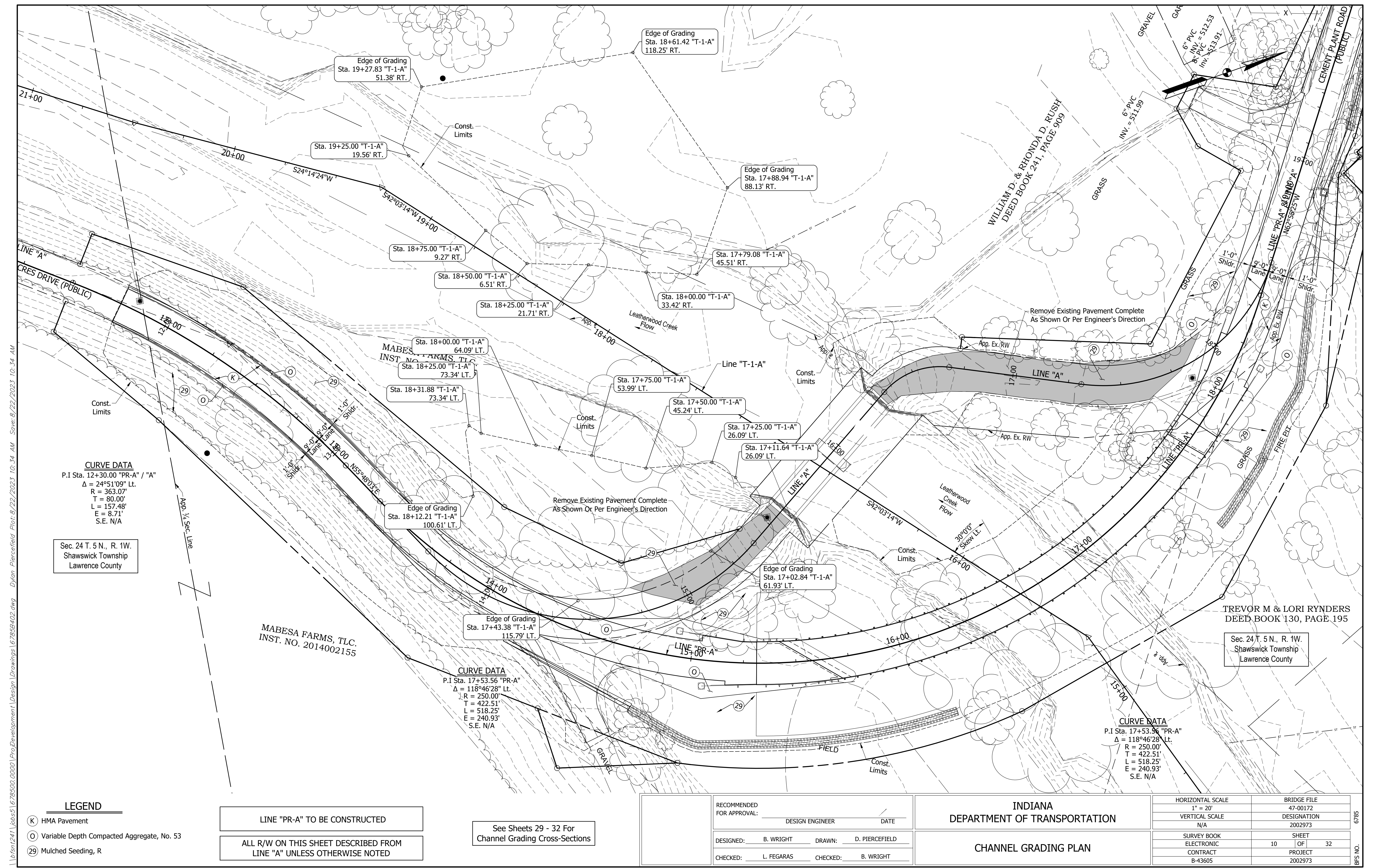
RECOMMENDED
FOR APPROVAL: _____ DATE _____
DESIGNED: B. WRIGHT DRAWN: L. KIRSCH
CHECKED: L. FEGARAS CHECKED: B. WRIGHT

INDIANA
DEPARTMENT OF TRANSPORTATION
PLAN & PROFILE - LINE "PR-A"

HORIZONTAL SCALE 1" = 20'-0"	BRIDGE FILE 47-00172
VERTICAL SCALE 1" = 10'-0"	DESIGNATION 2002973
SURVEY BOOK ELECTRONIC CONTRACT B-43605	SHEET 9 OF 32 PROJECT 2002973

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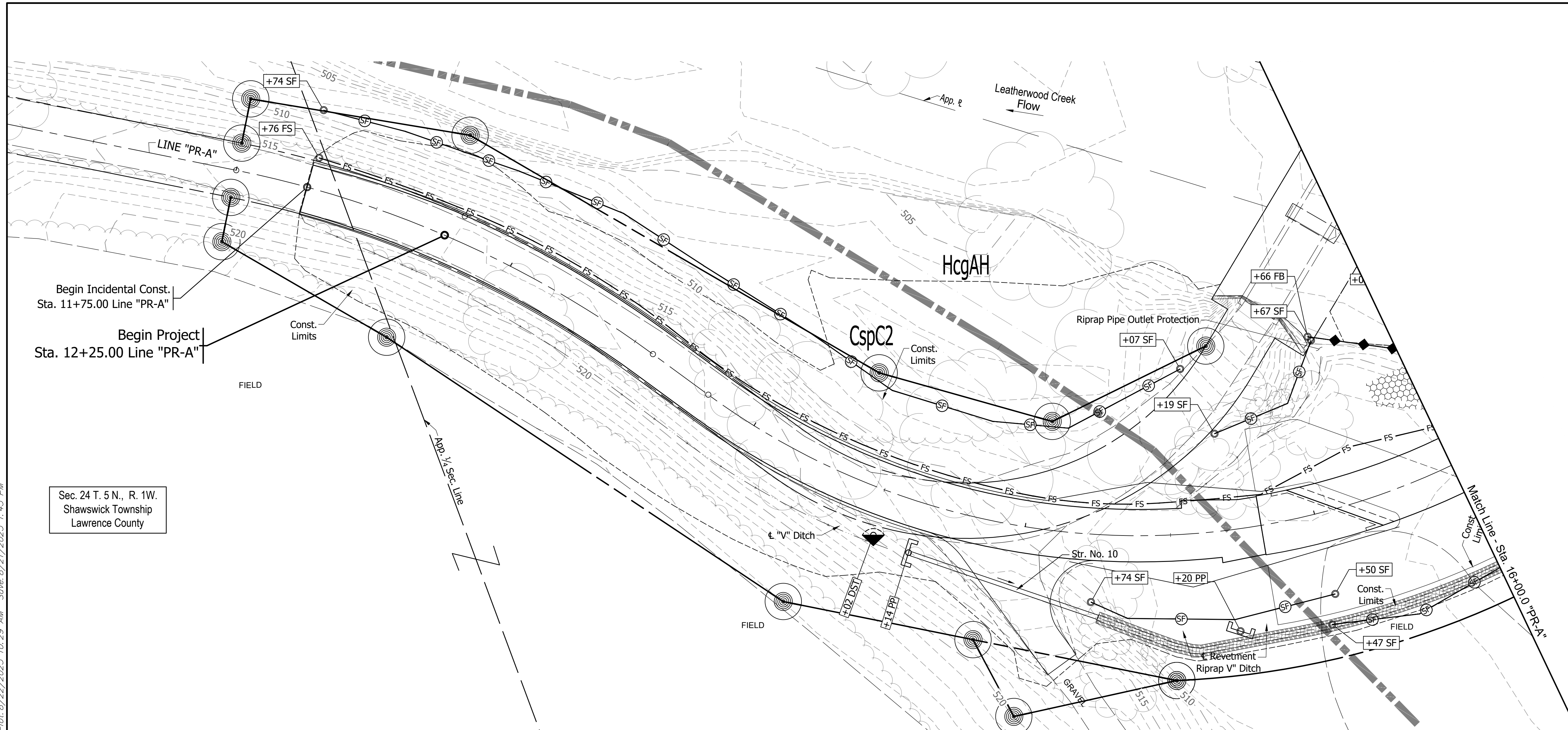
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Sec. 24 T. 5 N., R. 1W.
 Shawswick Township
 Lawrence County

LEGEND

- PERIMETER PROTECTION / SILT FENCE (SF)
- PERIMETER PROTECTION / FILTER SOCK (FS)
- PROPOSED DITCH
- TEMPORARY FILTER BERM (FB)
- CULVERT PIPE PROTECTION (PP)
- DITCH SEDIMENT TRAP (DST)
- DROP INLET PROTECTION (IP)
- PERMANENT RIPRAP
- CONCRETE WASHOUT
- SOIL TYPE DELINEATOR
- CspC2 SOIL TYPE

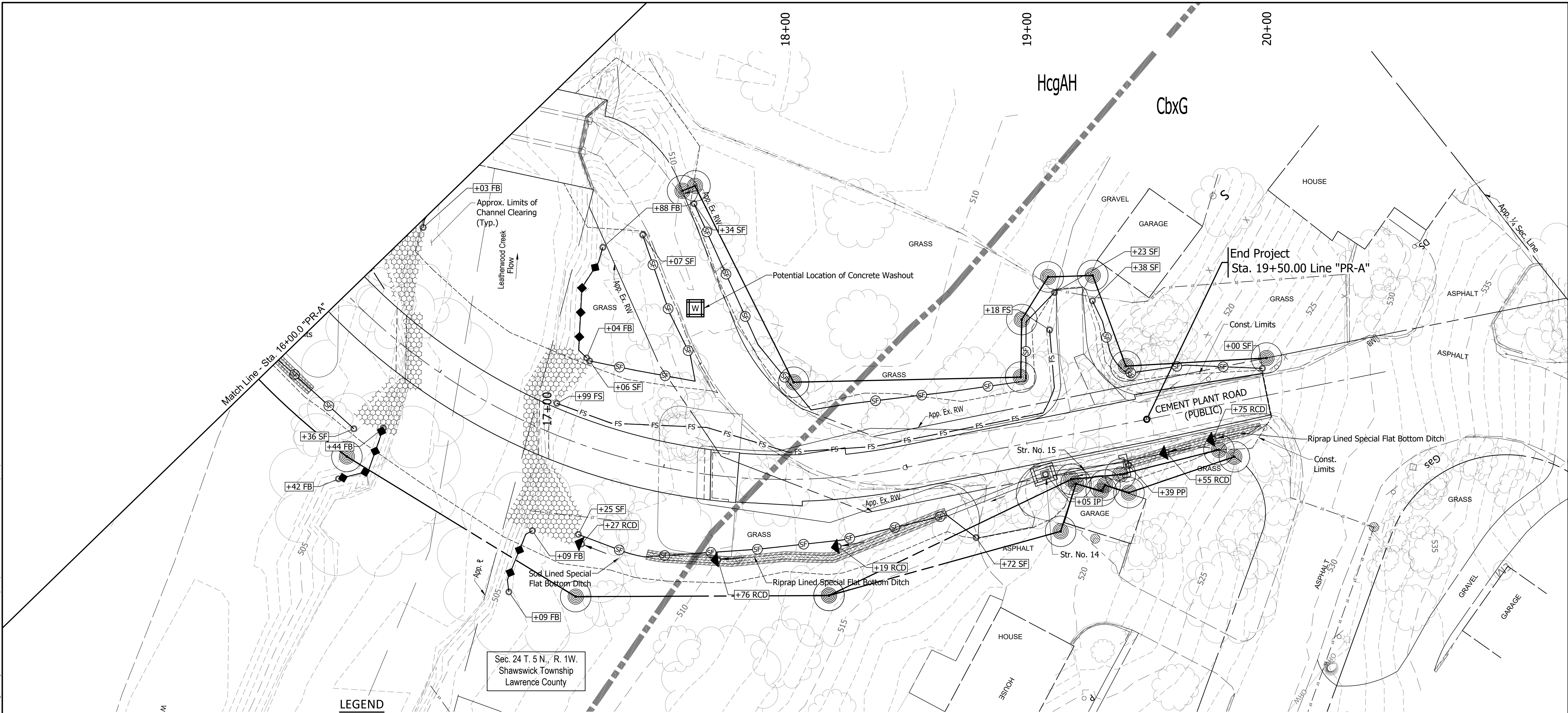
- NOTES:**
1. Survey Line "A" Not Shown For Reference.
 2. All Station Calls Reference Line "PR-A".
 3. Approximately ___ lbs of Temporary Seed and ___ tons of Fertilizer is anticipated.
 4. All quantities on this sheet are included in the Pay Item "Stormwater Management Budget".
 5. 100 Tons of No.2 Stone And ___ Sys. of Temporary Geotextile Type ___ provided for the Construction of Stable Construction Entrances onto the Project Site. Location of Construction Entrances to be Determined.
 6. All disturbed areas shall be seeded with mulched seeding, R (See Sheets 8 & #).

All Temporary Erosion Control Measures shall be Removed when Appropriate as Directed by the Engineer.

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE As Noted VERTICAL SCALE N/A	BRIDGE FILE 47-00172 DESIGNATION 2002973
DESIGNED: B. WRIGHT DRAWN: L. KIRSCH CHECKED: ACE CHECKED: ACE	EROSION CONTROL DETAILS	SURVEY BOOK ELECTRONIC CONTRACT B-43605	SHEET 11 OF 32 PROJECT 2002973

BFS NO. 6785

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LEGEND

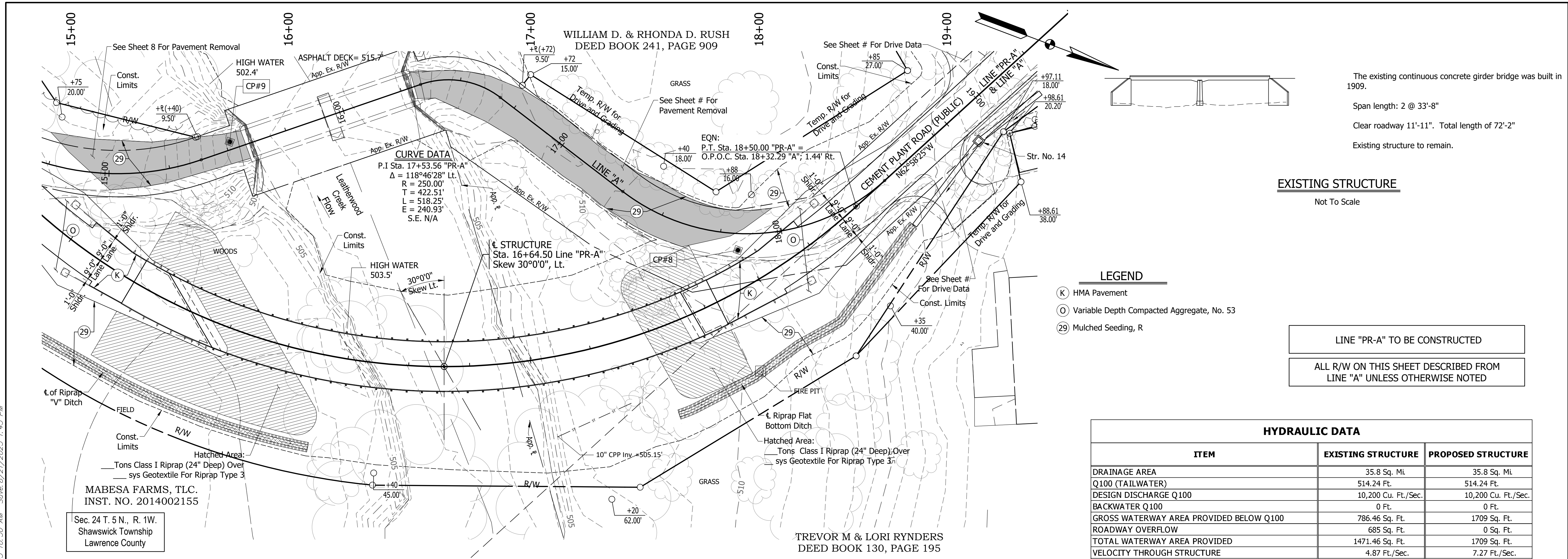
- PERIMETER PROTECTION / SILT FENCE (SF)
- PERIMETER PROTECTION / FILTER SOCK (FS)
- PROPOSED DITCH
- TEMPORARY FILTER BERM (FB)
- CULVERT PIPE PROTECTION (PP)
- DITCH SEDIMENT TRAP (DST)
- ROCK CHECK DAM (CD)
- DROP INLET PROTECTION (IP)
- PERMANENT RIPRAP
- CONCRETE WASHOUT
- SOIL TYPE DELINEATOR
- SOIL TYPE

- NOTES:**
1. Survey Line "A" Not Shown For Reference.
 2. All Station Calls Reference Line "PR-A".
 3. Approximately ___ lbs of Temporary Seed and ___ tons of Fertilizer is anticipated.
 4. All quantities on this sheet are included in the Pay Item "Stormwater Management Budget".
 5. 100 Tons of No.2 Stone And ___ Sys. of Temporary Geotextile Type ___ provided for the Construction of Stable Construction Entrances onto the Project Site. Location of Construction Entrances to be Determined.
 6. All disturbed areas shall be seeded with mulched seeding, R (See Sheets 8 & #).

All Temporary Erosion Control Measures shall be Removed when Appropriate as Directed by the Engineer.

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 20'-0" VERTICAL SCALE N/A	BRIDGE FILE 47-00172 DESIGNATION 2002973
DESIGNED: B. WRIGHT DRAWN: L. KIRSCH CHECKED: ACE CHECKED: ACE	EROSION CONTROL DETAILS	SURVEY BOOK ELECTRONIC CONTRACT B-43605	SHEET OF 32 PROJECT 2002973

BFS NO. 6785



The existing continuous concrete girder bridge was built in 1909.
 Span length: 2 @ 33'-8"
 Clear roadway 11'-11". Total length of 72'-2"
 Existing structure to remain.

EXISTING STRUCTURE

Not To Scale

LEGEND

- (K) HMA Pavement
- (O) Variable Depth Compacted Aggregate, No. 53
- (29) Mulched Seeding, R

LINE "PR-A" TO BE CONSTRUCTED
 ALL R/W ON THIS SHEET DESCRIBED FROM LINE "A" UNLESS OTHERWISE NOTED

HYDRAULIC DATA		
ITEM	EXISTING STRUCTURE	PROPOSED STRUCTURE
DRAINAGE AREA	35.8 Sq. Mi.	35.8 Sq. Mi.
Q100 (TAILWATER)	514.24 Ft.	514.24 Ft.
DESIGN DISCHARGE Q100	10,200 Cu. Ft./Sec.	10,200 Cu. Ft./Sec.
BACKWATER Q100	0 Ft.	0 Ft.
GROSS WATERWAY AREA PROVIDED BELOW Q100	786.46 Sq. Ft.	1709 Sq. Ft.
ROADWAY OVERFLOW	685 Sq. Ft.	0 Sq. Ft.
TOTAL WATERWAY AREA PROVIDED	1471.46 Sq. Ft.	1709 Sq. Ft.
VELOCITY THROUGH STRUCTURE	4.87 Ft./Sec.	7.27 Ft./Sec.
LOW STRUCTURE ELEVATION	514.69 Ft.	513.43 Ft.

SCOUR DATA	
Q100 DISCHARGE	10,200 Cu. Ft./Sec.
Q100 ELEVATION	514.24 Ft.
Q100 MAX VELOCITY	9.54 Ft./Sec.
Q100 CONTRACTION SCOUR	0.00 Ft.
Q100 TOTAL SCOUR	4.80 Ft.
Q100 LOW SCOUR ELEVATION	496 Ft.
Q500 DISCHARGE	14,280 Cu. Ft./Sec.
Q500 ELEVATION	517.02 Ft.
Q500 MAX VELOCITY	13.09 Ft./Sec.
Q500 CONTRACTION SCOUR	2.65 Ft.
Q500 TOTAL SCOUR	4.8 Ft.
Q500 LOW SCOUR ELEVATION	496 Ft.

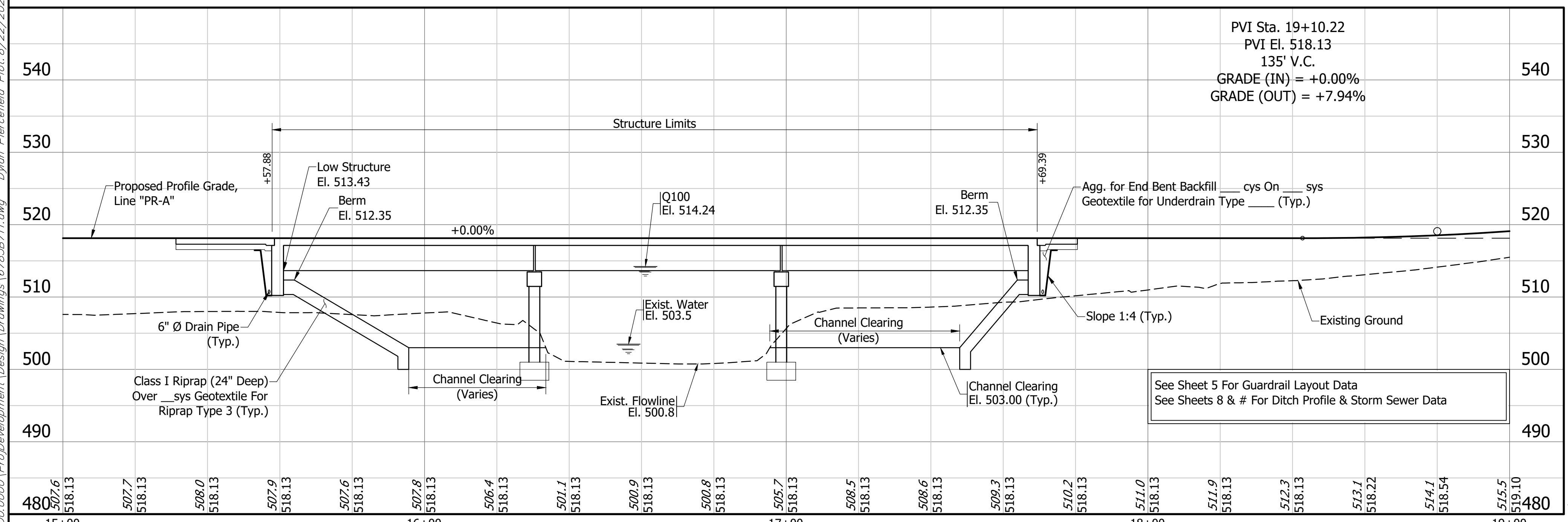
EARTHWORK	
ITEM	QUANTITY
FILL + 15%	Cys.
COMMON EXCAVATION	Cys.
USABLE WATERWAY EXCAVATION (30%)	Cys.
BORROW	Cys.

STRUCTURE EXCAVATION	
ITEM	QUANTITY
WATERWAY EXCAVATION	Cys.
WET EXCAVATION	Cys.
FOUNDATION EXCAVATION (UNCLASSIFIED)	Cys.
DRY EXCAVATION	Cys.

Note: Above Quantities Do Not Include ### Cys. For Benching. Estimated Benching Will Not Be Paid For Directly. Cost Of Benching Shall Be Included In Cost Of Common Excavation.

PRESTRESSED COMPOSITE CONCRETE I-BEAM BRIDGE
 1 @ 71'-0", 1 @ 68'-3", 1 @ 69'-10 5/8"
 20'-0" CLEAR ROADWAY; SKEW 30°00'00" RT.
 CEMENT PLANT ROAD OVER LEATHERWOOD CREEK
 LAWRENCE COUNTY

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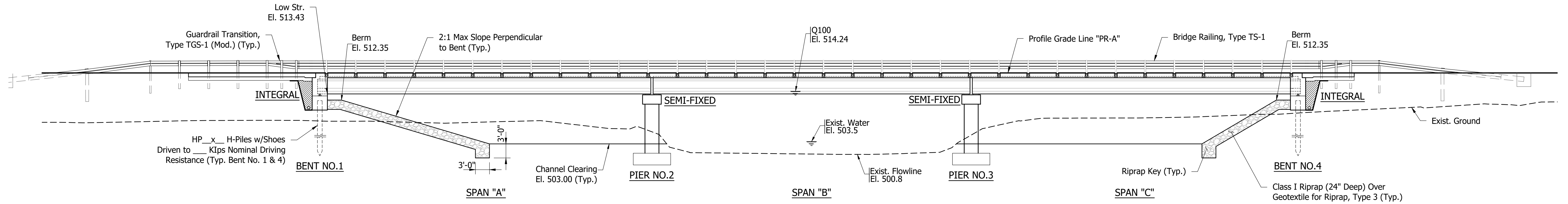


See Sheet 5 For Guardrail Layout Data
 See Sheets 8 & # For Ditch Profile & Storm Sewer Data

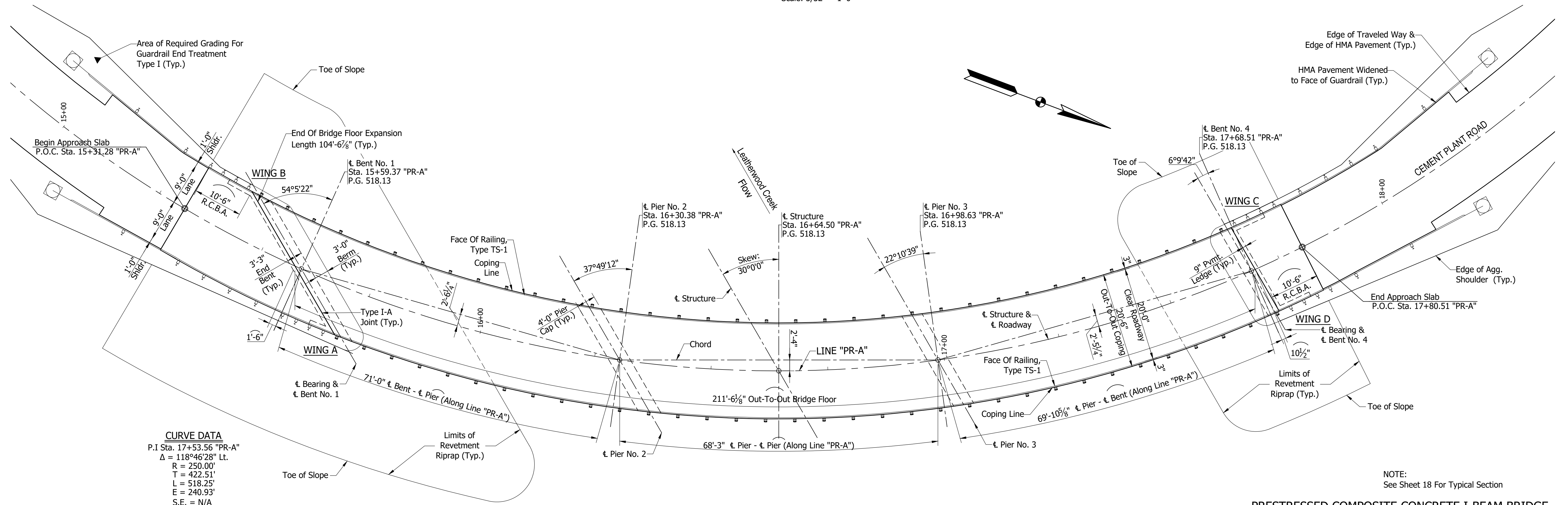
NOTES
 See Sheet 2 For Utility Owners

<p>NOTE: See Sheet 4 For Line "A" Horizontal Layout Data See Sheet 4 For Project Horizontal & Vertical Control Data</p>	<p>RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER DATE</p>	<p>INDIANA DEPARTMENT OF TRANSPORTATION</p>	<table border="1"> <tr> <td>HORIZONTAL SCALE</td> <td>BRIDGE FILE</td> </tr> <tr> <td>1" = 20'-0"</td> <td>47-00172</td> </tr> <tr> <td>VERTICAL SCALE</td> <td>DESIGNATION</td> </tr> <tr> <td>1" = 10'-0"</td> <td>2002973</td> </tr> <tr> <td>SURVEY BOOK</td> <td>SHEET</td> </tr> <tr> <td>ELECTRONIC</td> <td>16 OF 32</td> </tr> <tr> <td>CONTRACT</td> <td>PROJECT</td> </tr> <tr> <td>B-43605</td> <td>2002973</td> </tr> </table>	HORIZONTAL SCALE	BRIDGE FILE	1" = 20'-0"	47-00172	VERTICAL SCALE	DESIGNATION	1" = 10'-0"	2002973	SURVEY BOOK	SHEET	ELECTRONIC	16 OF 32	CONTRACT	PROJECT	B-43605	2002973
HORIZONTAL SCALE	BRIDGE FILE																		
1" = 20'-0"	47-00172																		
VERTICAL SCALE	DESIGNATION																		
1" = 10'-0"	2002973																		
SURVEY BOOK	SHEET																		
ELECTRONIC	16 OF 32																		
CONTRACT	PROJECT																		
B-43605	2002973																		
<p>DESIGNED: B. WRIGHT CHECKED: C. O'BRIEN</p>	<p>DRAWN: L. KIRSCH CHECKED: ACE</p>	<p>LAYOUT</p>	<p>6785</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">BFS NO.</p>																

STRUCTURE TO BE BUILT ON A 0.00% GRADE



ELEVATION
Scale: 3/32" = 1'-0"



CURVE DATA
 P.I Sta. 17+53.56 "PR-A"
 $\Delta = 118^\circ 46' 28''$ Lt.
 R = 250.00'
 T = 422.51'
 E = 518.25'
 L = 240.93'
 S.E. = N/A

NOTE:
See Sheet 18 For Typical Section

PLAN
Scale: 3/32" = 1'-0"

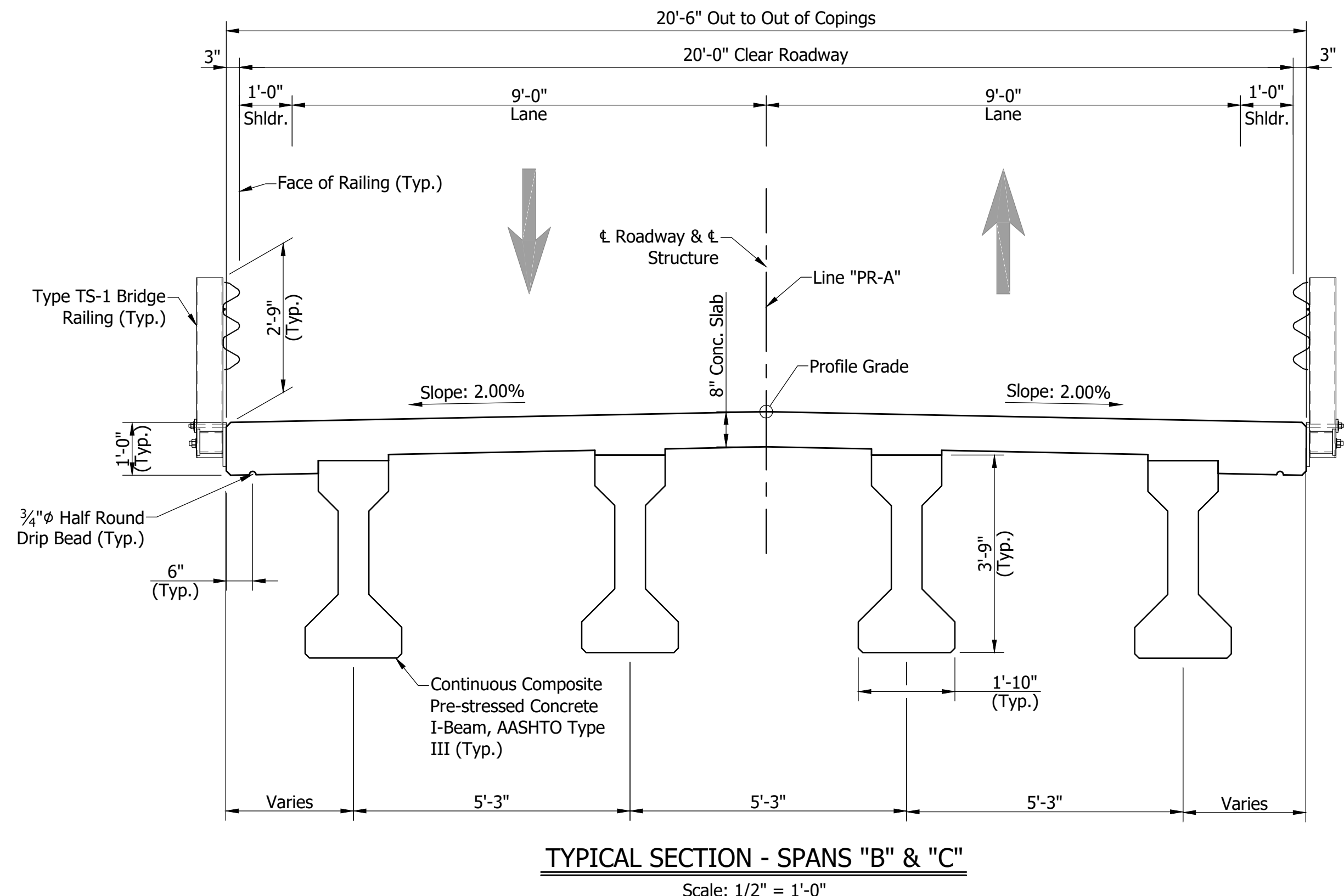
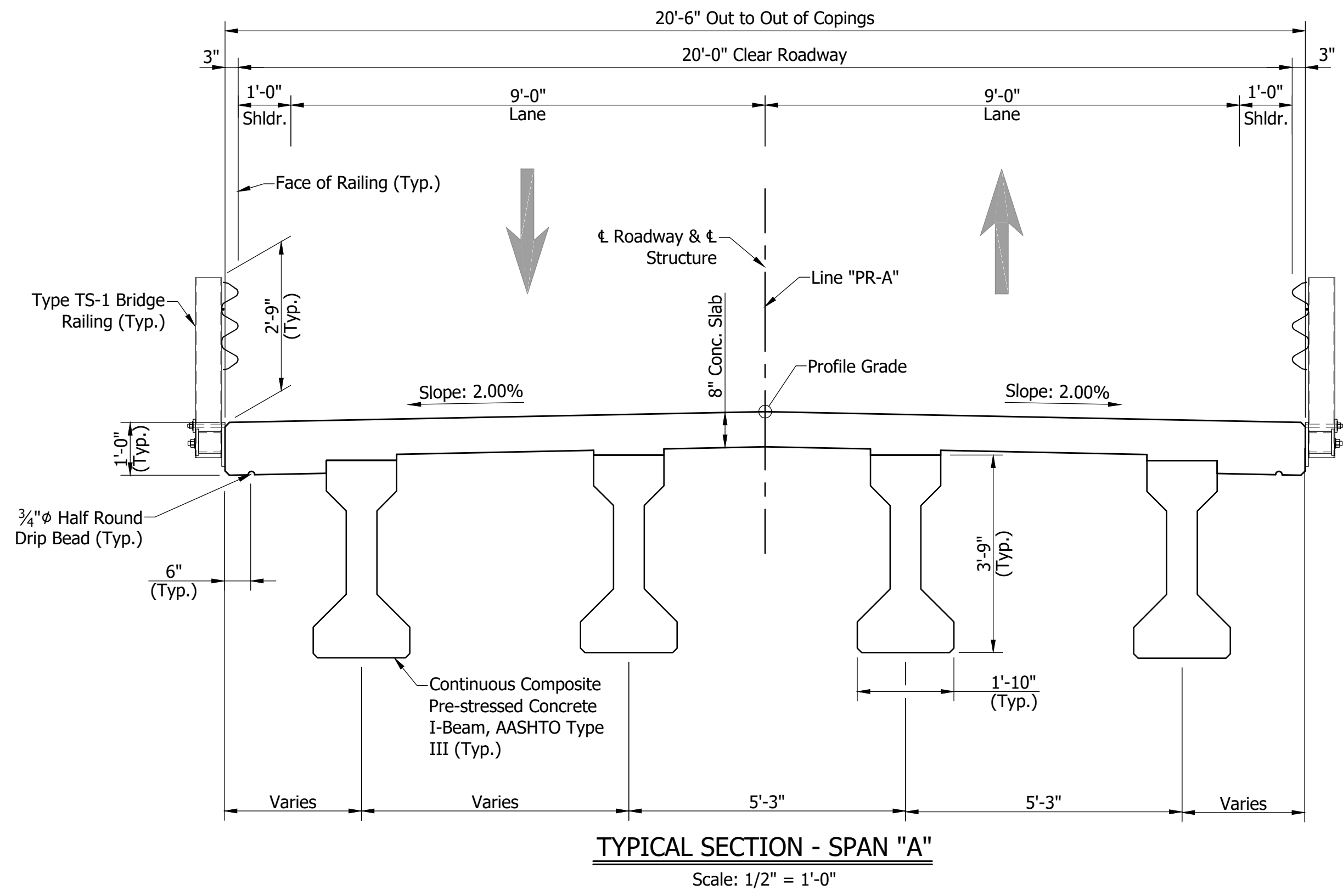
PRESTRESSED COMPOSITE CONCRETE I-BEAM BRIDGE
 1 @ 71'-0", 1 @ 68'-3", 1 @ 69'-10 5/8"
 20'-0" CLEAR ROADWAY; SKEW 30°00'00" RT.
 CEMENT PLANT ROAD OVER LEATHERWOOD CREEK
 LAZELLE COUNTY

RECOMMENDED FOR APPROVAL: DESIGN ENGINEER: _____ DATE: _____	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
		As Noted	47-00172
DESIGNED: B. WRIGHT DRAWN: D. PIERCEFIELD	GENERAL PLAN - PLAN & ELEVATION VIEW	VERTICAL SCALE	DESIGNATION
CHECKED: L. FEGARAS CHECKED: B. WRIGHT		N/A	2002973
		SURVEY BOOK	SHEET
		ELECTRONIC	17 OF 32
		CONTRACT	PROJECT
		B-43605	2002973

I:\bent241\jobs5\678500.0000\ProDevelopment\Design\Drawings\67859221.dwg Dylan Piercefield Plot: 8/22/2023 10:30 AM Save: 8/21/2023 1:43 PM

6785
BFS NO.

I:\b5m1241\jobs5\678500.0000\ProDevelopment\Design\Drawings\67859722.dwg Dylan Piercefield Plot: 8/22/2023 10:30 AM Save: 8/21/2023 1:43 PM



GENERAL NOTES

- Epoxy coated reinforcing bars shall be required in various portions of the structure as shown.
- Reinforcing bars covering shall be 2 1/2" in top of approach slabs.
- Reinforcing bars covering shall be 2 1/2" in top and 1" in bottom of floor slabs and 2" in all other areas unless noted.
- Reinforcing bars shall be A.S.T.M. A615, Grade 60.
- Concrete shall be Class "C" in end bents and floor slab.
- Concrete shall be Class "B" in footing.
- Concrete shall be Class "A" in all portions of the project not noted above.
- Chamfer exposed corners of concrete 1" unless noted.
- Permanent metal deck pans may be used as an alternative to removable deck forms.

DESIGN DATA

- LIVE LOAD:**
Designed for HL-93 loading, in accordance with the AASHTO LRFD Bridge Design Specifications, 8th Edition, 2017 and its subsequent revisions.
- DEAD LOAD:**
Actual weight plus 35 psf (composite) for future wearing surface and 15 psf for permanent metal deck forms.
- FLOOR SLAB:**
Designed with a structural depth of 7 1/2" plus 1/2" sacrificial wearing surface.

SEAT ELEVATIONS

All bridge seat elevations were calculated using design camber of beams, dead load deflection of slab and, where applicable, an allowance for Profile Grade Vertical curve and beam notches so that the top of beam will be 3/4" minimum below the bottom of slab at the center of span unless otherwise noted on the floor details.

Fillet depth to vary along length of beam to compensate for residual camber of beams, beam notches and Profile Grade Vertical Curve. Actual cambers which are greater or less than design cambers will be accounted for by reducing or increasing the fillets. The beams shall not extend into the slab more than 1"

DESIGN STRESSES

- MATERIAL DESIGN STRENGTHS:**
- | | | |
|------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Class "C" Concrete | F _c = 4,000 p.s.i. | bottom flange and web. |
| Class "B" Concrete | F _c = 3,000 p.s.i. | DECK FALSEWORK LOADS: |
| Class "A" Concrete | F _c = 3,500 p.s.i. | Designed for 15 psf for permanent metal stay-in-place deck forms, removable deck forms, and 2 ft. exterior walkway. |
| Reinforcing Steel (Grade 60) | F _y = 60,000 p.s.i. | CONSTRUCTION LIVE LOAD: |
- SEISMIC DESIGN DATA:**
- | | | |
|---------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Seismic Performance Zone | TBD | Designed for 20 psf extending 2 ft. past the edge of coping and 75 lb/ft vertical force applied at a distance of 6 in. outside the face of coping over a 30 foot length of the deck centered with the finishing machine. |
| Acceleration Coefficient | TBD | FINISHING-MACHINE LOAD: |
| Seismic Soil Profile Type | TBD | 4500 lb distributed over 10 ft. along the coping. |
- WIND LOAD:**
Designed for 70 mph horizontal wind load in accordance with LRFD 3.8.1.
- CONSTRUCTION LOADING:**
The exterior girder has been checked for strength, deflection, and overturning using the construction loads shown. Cantilever overhang brackets were assumed for support of the deck overhang past the edge of the exterior girder. Finishing machine was assumed to be supported 6 in. outside the vertical coping form. The top overhang brackets were assumed to be located 6 in. past the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the girder

PRESTRESSED COMPOSITE CONCRETE I-BEAM BRIDGE
 1 @ 71'-0", 1 @ 68'-3", 1 @ 69'-10 5/8"
 20'-0" CLEAR ROADWAY; SKEW 30°00'00" RT.
 CEMENT PLANT ROAD OVER LEATHERWOOD CREEK
 LAWRENCE COUNTY

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE AS NOTED VERTICAL SCALE N/A SURVEY BOOK ELECTRONIC 18 OF 32 CONTRACT B-43605	BRIDGE FILE 47-00172 DESIGNATION 2002973 SHEET PROJECT 2002973
DESIGNED: B. WRIGHT DRAWN: L. KIRSCH CHECKED: L. FEGARAS CHECKED: B. WRIGHT	GENERAL PLAN - TYPICAL SECTION		

6785

Appendix C

Early Coordination

September 11, 2023

Sample Early Coordination Letter

Re: Des. Nos.: 2002973, Lawrence County Bridge 172 carrying Cement Plant Road over Leatherwood Creek,
Lawrence County, Indiana.

Dear Interested Agency:

The Lawrence County Commissioners and the Federal Highway Administration (FHWA) intend to proceed with a project involving the aforementioned bridge in Lawrence County, Indiana. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above designation numbers and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

This project is located on Cement Plant Road over Leatherwood Creek in the City of Bedford, Lawrence County, Indiana. It is within Shawswick Township on the USGS Bedford East Quadrangle, in Section 24, Township 5 North, Range 1 West. This section of Leatherwood Creek is a one lane Urban Local Road. Lawrence County Bridge 172 is classified as "Non-Select" in the 2010 Indiana Historic Bridge Inventory (HBI). The existing Cement Plant Road approach cross section consists of one 18 ft. lane without usable shoulders. The existing bridge (National Bridge Inventory (NBI) Number 4700114) is a single-span, 72.2 foot long reinforced concrete girder structure built in 1909. It has an 11.9-foot clear roadway width. The bridge railing is not crash tested. The approximate existing right-of-way on Cement Plan Road on the west side of the bridge is 10-15 ft. on each side of centerline. There is no documented right-of-way on the east side of the bridge.

The need for the project derives from the deterioration of both the superstructure and substructure of the existing bridge, including:

- Heavy spalling, cracking, and delamination and exposed reinforcement
- Spalling and disintegration of the historic concrete bridge railing
- Intolerable approach roadway geometry

The bridge currently has condition ratings of "poor", or 4 (out of 9) for the deck, superstructure, and substructure. See also the Bridge Inspection Report. The Bedford Fire Department has requested Lawrence County reopen the bridge to facilitate faster responses to the growing residential population on the east side of Leatherwood Creek. The current detour for emergency vehicles adds approximately 20 minutes to response times. The City of Bedford Police Department, the Lawrence County Sheriff, and the City of Bedford Fire Department have each stated the closure of Lawrence County Bridge No. 172 hampers the ability to provide emergency services in this area.

The purpose of the project is to address the condition of Lawrence County Bridge 172 and to provide a crossing of Leatherwood Creek accessible to emergency vehicles. The minimum clear roadway width should be 20 feet, per American Association of State Highway and Transportation Officials recommendations for emergency vehicles on very low volume roads. Condition ratings should be improved to “good”, at least a 7 (out of 9) and the useful life of the bridge extended at least 25 years.

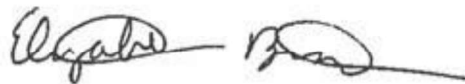
The currently proposed project would replace the Lawrence County Bridge 172 with a new one-lane new bridge built on a straightened alignment to improve sight distances. The new bridge would have three spans and be approximately 212 feet long with a clear roadway width of 20 feet. Approximately 0.9 acres of tree clearing would be required. The bridge would have a skew of approximately 30° to allow straightening of the approach alignments. The bridge would have side-mounted T-1 railings. Approximately 1.6 acres of right-of-way acquisition would be anticipated.

Proposed right-of-way widths along Cement Plant Road would be 15 ft. each side of centerline on the west side of the bridge and 30-50 ft. on the east side of the bridge. The project area would be approximately 750 feet long. Land use in the vicinity of the project is forested and residential. Lawrence County Bridge 172 is currently closed; therefore, a continued detour is anticipated for maintenance of traffic. Construction is anticipated to begin in Spring 2026.

The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to “Using the USFWS’s Information for Planning and Consultation (IPaC) System for Listed Bat Consultation for INDOT Projects”. Butler, Fairman, & Seufert, Inc. will perform waters and wetlands determinations and a biological assessment to identify any ecological resources that may be present. Butler, Fairman, & Seufert, Inc. will also investigate the areas of additional right-of-way for archaeological and historic resources for Section 106 compliance. The results of this investigation will be forwarded to the State Historic Preservation Officer (SHPO) for review and concurrence.

Should we not receive your response within thirty (30) calendar days from the date of this letter, it will be assumed that your agency feels that there will be no adverse effects incurred as a result of the proposed project. However, should you find that an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions regarding this matter, please feel free to contact Elizabet Biggio, Architectural Historian II at ebiggio@bfsengr.com, or (317) 713-4615, or 8450 Westfield Blvd, Suite 300, Indianapolis, IN 46240. Alternatively, you may contact Brandi Webb, Lawrence County Highway Superintendent, at 812-275-2644 or bwebb@lawrencecounty.in.gov. Thank you in advance for your input.

Sincerely,
Butler, Fairman, & Seufert,



Elizabet Biggio
Architectural Historian II

Enclosures:

*State Map
Aerial Map*

*USGS Bedford East Quadrangle Map
Site Photographs
Photo Key*

See Appendix B for Graphics

C:

Federal Highway Administration-Indiana Division
INDOT-Environmental Services Division
INDOT-Aviation
Indiana Department of Natural Resources
Indiana Department of Environmental Management
U.S. Department of Housing and Urban Development
U.S. Fish and Wildlife Service (USFWS)
Indiana Geological Survey
Indiana Department of Environmental Management
National Park Service
USDA-Natural Resources Conservation Service
U.S. Forest Service, Hoosier National Forest
U.S. Army Corps of Engineers
Lawrence County Sheriff's Department
Lawrence County Highway Department
Lawrence County Surveyor
Lawrence County Commissioners
Lawrence County Council
Bedford Street Department
Bedford City Council

Elizabeth Biggio

From: McWilliams, Robin <robin_mcwilliams@fws.gov>
Sent: Wednesday, September 13, 2023 1:58 PM
To: Elizabeth Biggio
Subject: Fw: [EXTERNAL] INDOT Des2002973_Lawrence Co. Bridge 172_Early Coordination_2023-09-11
Attachments: Des2002973_Lawrence 172_Early Coordination_2023-09-11.pdf

Dear Elizabeth,

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The project is within the range of the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*; NLEB) and should follow the Indiana bat/NLEB Federal Highway Administration, Federal Rail Administration, and Federal Transit Administration's programmatic consultation process, if applicable (*i.e.* a federal transportation nexus is established). The Service has 14 days after a “not likely to adversely affect” determination letter is generated to review the project and provide additional comments or request additional information (there is no review for projects with a "no effect" determination); if you do not receive a response from us within 14 days, we have no additional comments. **Please note**, if tree-clearing extends beyond 100 feet of the edge of pavement, compensatory mitigation may be required, and, if beyond 300 feet, additional consultation may be needed.

Other Species of Concern

Tricolored Bat

On September 14, 2022, the Service published a proposal in the Federal Register to list the tricolored bat (*Perimyotis subflavus*; TCB) as endangered under the Endangered Species Act (ESA). The Service has up to 12 months from the date the proposal was published to make a final determination, either to list the tricolored bat under the Act or to withdraw the proposal. The Service determined the bat faces extinction primarily due to the range-wide impacts of WNS. Because TCB populations have been greatly reduced due to WNS, surviving bat populations are now more vulnerable to other stressors such as human disturbance and habitat loss. Species proposed for listing are not afforded protection under the Act; however, as soon as a listing becomes effective (typically 30 days after publication of the final rule in the Federal Register), the prohibitions against jeopardizing its continued existence and “take” will apply. Therefore, if this project or other future or existing projects have the potential to adversely affect the TCB after the potential new listing goes into effect, we recommend that the effects of the project on TCBs and their habitat be analyzed to determine whether authorization under ESA section 7 or 10 is necessary. Projects or programs with an existing section 7 biological opinion may require reinitiation of consultation, and projects with an existing section 10 incidental take permit may require an amendment to provide uninterrupted authorization for covered activities. Contact your local U.S. Fish and Wildlife Service Ecological Services Office for assistance.

The TCB is a small insectivorous bat that typically overwinters in caves, abandoned mines and tunnels, and road-associated culverts (southern portion of the range) and spends the rest of the year in forested habitats, typically roosting among live and dead leaf clusters in tree branches. For more information on TCB and the proposed rule, please see: <https://www.fws.gov/species/tricolored-bat-perimyotis-subflavus> and for more information on WNS, please see: <https://www.whitenosesyndrome.org/>

Wetland and stream impacts may require permits from the U.S. Army Corps of Engineers, the Indiana Department of Environmental Management's Water Quality Certification program, and the Indiana Department of Natural Resources. Wetland impacts should be avoided, and any unavoidable impacts should be compensated for in accordance with agency mitigation guidelines.

The project may be in a area that contains karst features. Please re-coordinate with our office if sinkholes, springs, or other karst features are encountered during construction.

Based on a review of the information you provided, the U.S. Fish and Wildlife Service has no other comments on the projects as currently proposed. However, should new information arise pertaining to project plans or a revised species list be published, it will be necessary for the Federal agency to reinitiate consultation. Standard recommendations are provided below.

We appreciate the opportunity to comment at this early stage of project planning. If you have any questions about our recommendations, please contact me at robin_mckilliams@fws.gov or you may call 812-334-4261 x. 207.

Sincerely,
Robin McWilliams Munson

Standard Recommendations:

1. Do not clear trees or understory vegetation outside the construction zone boundaries. **(This restriction is not related to the "tree clearing" restriction for potential Indiana Bat habitat.)**
2. Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap.
Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When an open-bottom culvert or arch is used in a stream, which has a good natural bottom substrate, such as gravel, cobbles and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community.
3. Restrict channel work and vegetation clearing to the minimum necessary for installation of the stream crossing structure.
4. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat.
5. Implement temporary erosion and sediment control methods within areas of disturbed soil. All disturbed soil areas upon project completion will be vegetated following INDOT's standard specifications.
6. Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) during the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below Ordinary High-Water Mark during this time unless the machinery is within the caissons or on the cofferdams.
7. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing.

Robin McWilliams Munson
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
620 South Walker Street
Bloomington, IN 47403

Elizabet Biggio

From: Lewandowski, Tyler <TLewandowski@indot.IN.gov>
Sent: Thursday, September 14, 2023 12:16 PM
To: Elizabet Biggio
Subject: RE: INDOT Des2002973_Lawrence Co. Bridge 172_Early Coordination_2023-09-11

Good afternoon,

After review, no tall structure permit is required for the project if all equipment being used is under 200 feet in height. Please let our office know if you have any further questions.

Thank you,

Tyler Lewandowski
Project Manager
INDOT Office of Aviation
(317) 495-4875
tlewandowski@indot.in.gov
www.aviation.indot.in.gov



September 15, 2023

Elizabeth Biggio
Butler, Fairman & Seufert
8450 Westfield Boulevard, Suite 300
Indianapolis, Indiana 46240

Dear Ms. Biggio:

The proposed Lawrence County Bridge 172 carrying Cement Plant Road over Leatherwood Creek in Lawrence County, Indiana, (Des. No. 2002973) as referred to in your letter received September 11, 2023, will cause a conversion of prime farmland.

The attached packet of information is for your use competing Parts VI and VII of the AD-1006. After completion, the federal funding agency needs to forward one copy to NRCS for our records.

If you need additional information, please contact John Allen at 317-295-5859 or john.allen@usda.gov.

Sincerely,

JOHN ALLEN

Digitally signed by JOHN ALLEN
Date: 2023.09.18 07:55:29 -04'00'

JOHN ALLEN
State Soil Scientist

Enclosures

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request				
Name of Project DES2002973 Lawrence Co Bridge 172		Federal Agency Involved				
Proposed Land Use		County and State Lawrence County, Indiana				
PART II (To be completed by NRCS)		Date Request Received By NRCS		Person Completing Form: JRA		
Does the site contain Prime, Unique, Statewide or Local Important Farmland? <i>(If no, the FPPA does not apply - do not complete additional parts of this form)</i>		YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Acres Irrigated	Average Farm Size 175 ac	
Major Crop(s) Corn	Farmable Land In Govt. Jurisdiction Acres: 200607 % 69	Amount of Farmland As Defined in FPPA Acres: 74044 % 26				
Name of Land Evaluation System Used LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS 09/15/2023				
PART III (To be completed by Federal Agency)		Alternative Site Rating				
		Site A	Site B	Site C	Site D	
A. Total Acres To Be Converted Directly						
B. Total Acres To Be Converted Indirectly						
C. Total Acres In Site						
PART IV (To be completed by NRCS) Land Evaluation Information						
A. Total Acres Prime And Unique Farmland		0.50				
B. Total Acres Statewide Important or Local Important Farmland		0.00				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		<0.001				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		40				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)		74				
PART VI (To be completed by Federal Agency) Site Assessment Criteria <i>(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)</i>		Maximum Points	Site A	Site B	Site C	Site D
1. Area In Non-urban Use		(15)	10			
2. Perimeter In Non-urban Use		(10)	5			
3. Percent Of Site Being Farmed		(20)	8			
4. Protection Provided By State and Local Government		(20)	0			
5. Distance From Urban Built-up Area		(15)	0			
6. Distance To Urban Support Services		(15)	15			
7. Size Of Present Farm Unit Compared To Average		(10)	0			
8. Creation Of Non-farmable Farmland		(10)	0			
9. Availability Of Farm Support Services		(5)	5			
10. On-Farm Investments		(20)	0			
11. Effects Of Conversion On Farm Support Services		(10)	0			
12. Compatibility With Existing Agricultural Use		(10)	0			
TOTAL SITE ASSESSMENT POINTS		160	43	0	0	0
PART VII (To be completed by Federal Agency)						
Relative Value Of Farmland (From Part V)		100	74	0	0	0
Total Site Assessment (From Part VI above or local site assessment)		160	43	0	0	0
TOTAL POINTS (Total of above 2 lines)		260	117	0	0	0
Site Selected: A	Date Of Selection Oct. 4, 2023	Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>				
Reason For Selection:						
Name of Federal agency representative completing this form: Elizabet Biggio					Date: 10/4/2023	

(See Instructions on reverse side)

Organization and Project Information

Project ID: 6785
Des. ID: 2002973
Project Title: Lawrence Co. Bridge 172
Name of Organization: Butler, Fairman, & Seufter
Requested by: Elizabet Biggio

Environmental Assessment Report

1. Geological Hazards:
 - Potential Karst
 - Floodway
2. Mineral Resources:
 - Bedrock Resource: High Potential
 - Sand and Gravel Resource: None documented in the area
3. Active or abandoned mineral resources extraction sites:
 - Abandoned Industrial Minerals Quarries

*All map layers from Indiana Map (maps.indiana.edu)

DISCLAIMER:

This document was compiled by Indiana University, Indiana Geological Survey, using data believed to be accurate; however, a degree of error is inherent in all data. This product is distributed "AS-IS" without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use. No attempt has been made in either the design or production of these data and document to define the limits or jurisdiction of any federal, state, or local government. The data used to assemble this document are intended for use only at the published scale of the source data or smaller (see the metadata links below) and are for reference purposes only. They are not to be construed as a legal document or survey instrument. A detailed on-the-ground survey and historical analysis of a single site may differ from these data and this document.

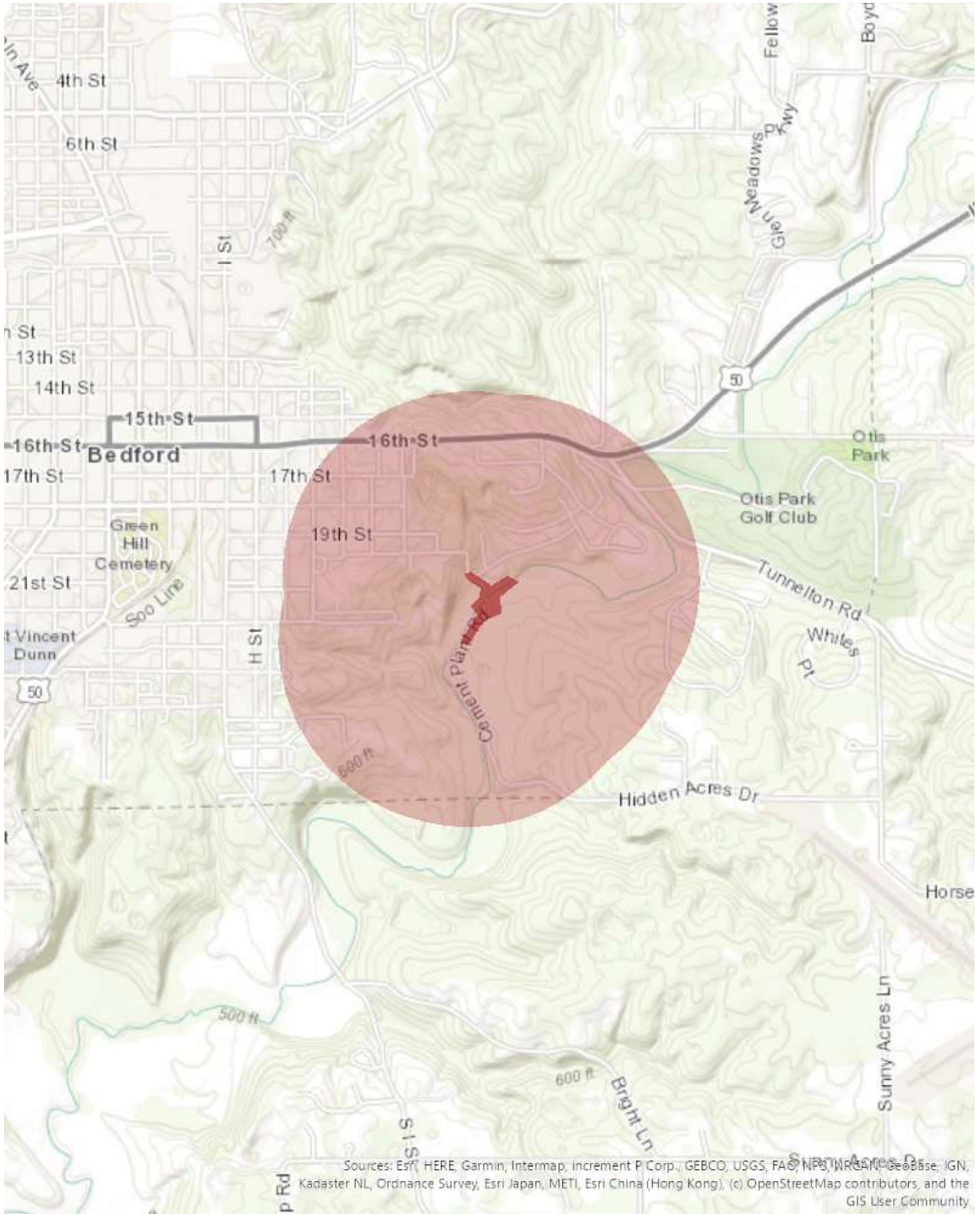
This information was furnished by Indiana Geological Survey

Address: 1001 E. 10th St., Bloomington, IN 47405

Email: IGSEnvir@indiana.edu

Phone: 812 855-7428

Date: October 03, 2023



Metadata:

- https://portal.igs.indiana.edu/arcgis/rest/services/Karst_Cave_Density/MapServer/info/metadata/metadata.xml?format=default&output=html
- https://portal.igs.indiana.edu/arcgis/rest/services/Industrial_Minerals_Quarries_Abandoned/MapServer/info/metadata/metadata.xml?format=default&output=html
- https://gisdata.in.gov/server/rest/services/Hosted/FIRM_Flood_Hazard_Zones_2023/FeatureServer/info/metadata
- https://portal.igs.indiana.edu/arcgis/rest/services/Bedrock_Geology/MapServer/info/metadata/metadata.xml?format=default&output=html

THIS IS NOT A PERMIT

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

DNR#: ER-25937

Request Received: September 11, 2023

Requestor:

Elizabeth Biggio
Butler Fairman and Seufert Inc.
8450 Westfield Boulevard, Suite 300
Indianapolis, IN 46240

Project:

Cement Plant Road historical bridge (#172 / NBI 4700114) replacement over Leatherwood Creek, City of Bedford; Des #2002973

County/Site Info: Lawrence County

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.

Regulatory Assessment:

This proposal will require the formal approval of our agency for construction in a floodway pursuant to the Flood Control Act (IC 14-28-1), unless it qualifies for a bridge exemption (see enclosure). Please include a copy of this letter with the permit application if the project does not meet the bridge exemption criteria.

Natural Heritage Database:

The Natural Heritage Program's data have been checked. To date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity.

Fish and Wildlife Comments:

Avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The following are recommendations that address potential impacts identified in the proposed project area:

A) Wildlife Passage

The new/replacement/rehabilitated crossing structure, and any bank stabilization under or around the structure, must not create conditions that are less favorable for wildlife passage when compared to existing conditions. Upgrading wildlife passage for replacement/rehabilitated structures is recommended whenever possible to improve wildlife/vehicle safety. White-tailed deer passage must be incorporated into all new structures where no structure previously existed. Minimum structure dimensions for white-tailed deer passage are 20 feet of width clearance (overall span of the structure) and 8 feet of height clearance measured from the ordinary high-water mark (OHWM). Bank lines must be maintained or restored within structures to allow for wildlife passage above the OHWM. All wildlife passage designs must include a smooth level pathway a minimum of 1-3 feet in width composed of natural substrate (soil, sand, gravel, etc.) or compacted aggregate fill over riprap (#2, #53,

#73, etc.) tied into existing elevations both upstream and downstream. The width and location of the wildlife pathway is dependent on the wildlife species using the area.

There are several techniques and materials for incorporating wildlife passage into the design of a crossing structure if maintaining or restoring banklines is not possible. Coordination with a Regional Environmental Biologist to address wildlife passage issues before submitting a permit application (if required) is encouraged to avoid delays in the permitting process. The following links are good resources to consider in the design of stream crossing structures to maintain fish and wildlife passage:

<https://www.fs.usda.gov/ccrc/tool/fishxing-fish-passage-learning-systems>

<https://www.fs.usda.gov/wildlifecrossings/library/index.php>

https://www.fhwa.dot.gov/clas/ctip/wildlife_crossing_structures/

<https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf>

B) Streambank Stabilization

Some form of bank stabilization is almost always needed with the construction, repair, replacement, or modification of a stream channel or crossing structure. For streambank stabilization and erosion control, regrading to a stable slope (2:1 or shallower) and establishing native vegetation along the banks are typically the most effective techniques. A variety of methods to accomplish this include planting plugs, whips, container stock, seeding, and live stakes. In addition to vegetation establishment, some additional level of bioengineered bank stabilization may be needed under certain circumstances (inability to regrade to a stable slope, flow velocities that exceed the limits of vegetation alone, etc.). Combining vegetation with any of the following bank stabilization methods can provide additional bank protection while not compromising benefits to fish, wildlife, and botanical resources:

- Geotextiles (erosion control blankets and/or turf reinforcement mats that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles)
- Vegetated geogrids or soil lifts, fiber rolls, glacial stone, or riprap.

Riprap or other hard bank stabilization materials should be used only at the toe of the sideslopes up to the OHWM with the exception of areas directly under bridges for instance. The banks above the OHWM should be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. Information about bioengineering techniques can be found at the following link to a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization: https://efotg.sc.egov.usda.gov/references/public/IA/Chapter-16_Streambank_and_Shoreline_Protection.pdf.

C) Riparian Habitat

The Division of Fish and Wildlife recommends a mitigation plan be developed (and submitted with the permit application, if required) for any unavoidable habitat impacts that will occur. The DNR's Habitat Mitigation Guidelines (and plant lists) can be found online at: <https://www.in.gov/nrc/files/IB-17.pdf>.

Impacts to non-wetland forest of one (1) acre or more in a rural or urban area should be mitigated at a minimum 2:1 ratio based on area of impact. Impacts to non-wetland forest under one (1) acre but at least 0.10 acre in a rural or urban area should be mitigated at a minimum 1:1 ratio based on area of impact. Impacts under 0.10 acre in a rural area typically do not require mitigation or additional plantings beyond seeding and stabilizing disturbed areas, though there are exceptions for high quality habitat sites. Impacts under 0.10 acre in an urban area should be mitigated by replacing trees that are 10" diameter-at-breast height (dbh) or greater by planting five trees, 1" to 2" in dbh, for each tree which is removed that is 10" dbh or greater. Seeding and stabilizing disturbed areas is required regardless of the impact amount and location. If floodway impacts to forested wetland and non-wetland habitat areas combine to be 0.10 acres or more, mitigation should be done and coordinated with the biologist, as needed.

The mitigation site should be located in the floodway, downstream of the one (1) square mile drainage area of that stream (or another stream within the 8-digit HUC, preferably as close to the impact site as possible) and adjacent to existing forested riparian habitat.

D) Bird Nests

Monitor the bridge for bird nesting activity prior to construction. If any bird nests with eggs or young are found on the existing structure, do not work on the bridge from April 1 through September 7. If construction is planned during this time and active nests are present, prior approval from the USDA must be secured by contacting: Wildlife Services State Director, USDA Wildlife Services, 901 W. State Street, W. Lafayette, IN 47907; (765) 494-6229; request Form 37 and any other required documentation and follow the USDA's instructions.

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

1. Revegetate all bare and disturbed areas that are not currently mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Southern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only. A native herbaceous seed mixture must include at least 5 species of grasses and sedges and 5 species of wildflowers.
2. Minimize and contain within the project limits in-channel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana Bat or Northern Long-eared Bat roosting (3 inches or greater diameter-at-breast height, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.
6. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds.
7. Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
8. Do not use broken concrete as riprap.
9. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
10. Minimize the movement of resuspended bottom sediment from the immediate project area.
11. Do not deposit or allow construction/demolition materials or debris to fall or otherwise enter the waterway. Any incidental fallen material or debris in the waterway must be removed within 24 hours using best management practices, particularly lifting material out of the waterway and not dragging it across the streambed whenever possible.
12. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the waterbody or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
13. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

Contact Staff:

Our agency appreciates this opportunity to be of service. Please contact me at RVanVoorhis@dnr.IN.gov or (317) 232-8163 if we can be of further assistance.

Rachel Van Voorhis

Rachel Van Voorhis
Environmental Coordinator
Division of Fish and Wildlife

Date: October 11, 2023



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

In Reply Refer To:

November 21, 2023

Project Code: 2024-0015002

Project Name: Lawrence Co. Bridge 172; Bridge Project, Lawrence Co., IN; Des 2002973

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - <http://www.fws.gov/midwest/endangered/section7/s7process/index.html>. This website contains step-by-step instructions which will help you

determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process. For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of

Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.**

Attachment(s):

- Official Species List
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Indiana Ecological Services Field Office

620 South Walker Street
Bloomington, IN 47403-2121
(812) 334-4261

PROJECT SUMMARY

Project Code: 2024-0015002
Project Name: Lawrence Co. Bridge 172; Bridge Project, Lawrence Co., IN; Des 2002973
Project Type: Road/Hwy - Maintenance/Modification
Project Description: Lawrence County proposes to replace Lawrence County Bridge 172 (National Bridge Inventory No. 4700114) on a straightened alignment to improve sight distances. The existing structure will be completely removed.

The new one-lane bridge will be constructed approximately 30 feet east of the existing alignment. The bridge will have a clear roadway width of 20 feet. It will have three spans and be approximately 212 feet long. Approximately 75 cubic yards of silt will be removed from the waterway in order to clear the existing north span and accommodate the new bridge. The bridge will have a skew of approximately 30° to allow straightening of the approach alignments. The bridge will have side-mounted T-1 railings. Approximately 165 linear feet of riprap over geotextile will be installed along the spill through slopes to protect the abutments from future scour. Downstream regrading will be conducted on the west bank of Leatherwood Creek in order to increase ground elevation. In combination with the larger hydraulic opening in the new bridge, this will ensure overtopping will not occur.

A new approach roadway with two 9-foot travel lanes and 1-foot shoulders will be constructed to serve the new bridge, tapering back to the existing alignment. Approximately 200 feet of roadway approach work east of the bridge and 200 feet west of the bridge will be needed to tie the new bridge into the existing roadway with an adjusted vertical alignment. Approximately 5,106 cubic yards of borrow will be required in order to construct the new approach.

The project area will be approximately 750 feet long. Approximately 1.38 acres of permanent and 1.12 acres of temporary right-of-way acquisition is anticipated. No permanent lighting exists and none will be added. Temporary lighting may be used during construction. Construction is anticipated to begin in Spring 2026. Construction will take approximately eight months. Traffic will remain detoured during construction.

Suitable summer habitat is present within the project area. The USFWS database check on January 25, 2022 did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The bridge was inspected on November 9, 2023, and no bats or signs thereof were present. Approximately 0.367 acre of tree clearing during the

inactive bat season is anticipated in order to accommodate the new structure. Approximately 0.307 acre of tree clearing will be from within 100 feet of the existing road. Approximately 0.060 acre will be from between 100 feet and 300 feet of the existing pavement. A In-Lieu Fee Program fee of 0.60 acres x 1.5 (40.78% Lawrence Co. forest cover) x \$11,350 = \$1,021.50 will be required . The dominant tree species are American Elm (*Ulmus americana*), Green Ash (*Fraxinus pennsylvanica*), and hackberry (*Celtis occidentalis*).

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.8548212,-86.46919991004637,14z>



Counties: Lawrence County, Indiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

CLAMS

NAME	STATUS
Salamander Mussel <i>Simpsonaias ambigua</i> There is proposed critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/6208	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The [Bald and Golden Eagle Protection Act](#) of 1940.
2. The [Migratory Birds Treaty Act](#) of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

In Reply Refer To:

November 14, 2023

Project code: 2024-0015002

Project Name: Lawrence Co. Bridge 172; Bridge Project, Lawrence Co., IN; Des 2002973

Subject: Consistency letter for the 'Lawrence Co. Bridge 172; Bridge Project, Lawrence Co., IN; Des 2002973' project under the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (NLEB).

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated November 14, 2023 to verify that the **Lawrence Co. Bridge 172; Bridge Project, Lawrence Co., IN; Des 2002973** (Proposed Action) may rely on the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures. **At least one of the qualification interview questions indicated an activity or portion of your project is consistent with a likely to adversely affect therefore, the overall determination for your project is, may affect, and is likely to adversely affect the endangered Indiana bat (*Myotis sodalis*) and/or the endangered northern long-eared bat (*Myotis septentrionalis*).** Consultation with the Service pursuant to section 7(a)(2) of the ESA (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required.

This "may affect - likely to adversely affect" determination becomes effective when the lead Federal action agency or designated non-federal representative requests the Service rely on the PBO to satisfy the agency's consultation requirements for this project. Please provide this consistency letter to the lead Federal action agency or its designated non-federal representative for review, and as the agency deems appropriate, transmit to this Service Office for verification that the project is consistent with the PBO.

This Service Office will respond by letter to the requesting Federal action agency or designated non-federal representative within 30 calendar days after receiving request for verification to:

- verify that the Proposed Action is consistent with the scope of actions covered under the PBO;
- verify that all applicable avoidance, minimization, and compensation measures are included in the action proposal;
- identify any action-specific monitoring and reporting requirements, consistent with the monitoring and reporting requirements of the PBO, and
- identify anticipated incidental take.

ESA Section 7 compliance for this Proposed Action is not complete until the Federal action agency or its designated non-federal representative receives a verification letter from the Service.

If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat and/or Northern long-eared bat in a manner or to an extent not considered in the PBO, further review to conclude the requirements of ESA Section 7(a)(2) may be required.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities: If your initial bridge/culvert or structure assessments failed to detect Indiana bats, but you later detect bats prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office. In these instances, potential incidental take of Indiana bats may be exempted provided that the take is reported to the Service.

If the Proposed Action may affect any other federally-listed or proposed species and/or designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please advise the lead Federal action agency accordingly.

The following species may occur in your project area and **are not** covered by this determination:

- Monarch Butterfly *Danaus plexippus* Candidate
- Salamander Mussel *Simpsonaias ambigua* Proposed Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

PROJECT DESCRIPTION

The following project name and description was collected in IPaC as part of the endangered species review process.

NAME

Lawrence Co. Bridge 172; Bridge Project, Lawrence Co., IN; Des 2002973

DESCRIPTION

Lawrence County proposes to replace Lawrence County Bridge 172 on a straightened alignment to improve sight distances. The existing structure will be completely removed.

The new one-lane bridge will be constructed approximately 30 feet east of the existing alignment. The bridge will have a clear roadway width of 20 feet. It will have three spans and be approximately 212 feet long. Approximately 75 cubic yards of silt will be removed from the waterway in order to clear the existing north span and accommodate the new bridge. Approximately 0.9 acres of tree clearing will be required. The bridge will have a skew of approximately 30° to allow straightening of the approach alignments. The bridge will have side-mounted T-1 railings. Approximately 165 linear feet of riprap over geotextile will be installed along the spill through slopes to protect the abutments from future scour. Downstream regrading will be conducted on the west bank of Leatherwood Creek in order to increase ground elevation. In combination with the larger hydraulic opening in the new bridge, this will ensure overtopping will not occur.

A new approach roadway with two 9-foot travel lanes and 1-foot shoulders will be constructed to serve the new bridge, tapering back to the existing alignment. Approximately 200 feet of roadway approach work east of the bridge and 200 feet west of the bridge will be needed to tie the new bridge into the existing roadway with an adjusted vertical alignment. Approximately 5,106 cubic yards of borrow will be required in order to construct the new approach. Approximately 0.90 acre of tree clearing is anticipated.

The project area will be approximately 750 feet long. Approximately 1.38 acres of permanent and 1.12 acres of temporary right-of-way acquisition is anticipated. Construction is anticipated to begin in 2026. Construction will take approximately eight months. Traffic will remain detoured during construction. A more detailed discussion of the detour route can be found in the Maintenance of Traffic section of this document.

Suitable summer habitat is present within the project area. The USFWS database check on January 25, 2022 did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The bridge was inspected on November 9, 2023, and no bats or signs thereof were present. Approximately 0.90 acre of tree clearing from within 100 feet of the existing road during the inactive bat season is anticipated in order to accommodate the new structure. The dominant tree species are hackberry (*Celtis occidentalis*), sugar maple (*Acer saccharum*), black walnut (*Juglans nigra*), and pine (*Pinus*).

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.8548212,-86.46919991004637,14z>



DETERMINATION KEY RESULT

Based on your answers provided, this project is likely to adversely affect the endangered Indiana bat and/or the endangered northern long-eared bat. Therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required. However, also based on your answers provided, this project may rely on the conclusion and Incidental Take Statement provided in the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

QUALIFICATION INTERVIEW

1. Is the project within the range of the Indiana bat^[1]?

[1] See [Indiana bat species profile](#)

Automatically answered

Yes

2. Is the project within the range of the northern long-eared bat^[1]?

[1] See [northern long-eared bat species profile](#)

Automatically answered

Yes

3. Which Federal Agency is the lead for the action?

A) *Federal Highway Administration (FHWA)*

4. Are *all* project activities limited to non-construction^[1] activities only? (examples of non-construction activities include: bridge/abandoned structure assessments, surveys, planning and technical studies, property inspections, and property sales)

[1] Construction refers to activities involving ground disturbance, percussive noise, and/or lighting.

No

5. Does the project include *any* activities that are **greater than** 300 feet from existing road/rail surfaces^[1]?

[1] Road surface is defined as the actively used [e.g. motorized vehicles] driving surface and shoulders [may be pavement, gravel, etc.] and rail surface is defined as the edge of the actively used rail ballast.

No

6. Does the project include *any* activities **within** 0.5 miles of a known Indiana bat and/or NLEB hibernaculum^[1]?

[1] For the purpose of this consultation, a hibernaculum is a site, most often a cave or mine, where bats hibernate during the winter (see suitable habitat), but could also include bridges and structures if bats are found to be hibernating there during the winter.

No

7. Is the project located **within** a karst area?

No

8. Is there *any* suitable^[1] summer habitat for Indiana Bat or NLEB **within** the project action area^[2]? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the [User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat](#).

Yes

9. Will the project remove *any* suitable summer habitat^[1] and/or remove/trim any existing trees **within** suitable summer habitat?

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

Yes

10. Will the project clear more than 20 acres of suitable habitat per 5-mile section of road/rail?

No

11. Have presence/probable absence (P/A) summer surveys^{[1][2]} been conducted^{[3][4]} **within** the suitable habitat located within your project action area?

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] Presence/probable absence summer surveys conducted within the fall swarming/spring emergence home range of a documented Indiana bat hibernaculum (contact local Service Field Office for appropriate distance from hibernacula) that result in a negative finding requires additional consultation with the local Service Field Office to determine if clearing of forested habitat is appropriate and/or if seasonal clearing restrictions are needed to avoid and minimize potential adverse effects on fall swarming and spring emerging Indiana bats.

[3] For projects within the range of either the Indiana bat or NLEB in which suitable habitat is present, and no bat surveys have been conducted, the transportation agency will assume presence of the appropriate species. This assumption of presence should be based upon the presence of suitable habitat and the capability of bats to occupy it because of their mobility.

[4] Negative presence/probable absence survey results obtained using the [summer survey guidance](#) are valid for a minimum of two years from the completion of the survey unless new information (e.g., other nearby surveys) suggest otherwise.

No

12. Does the project include activities **within documented Indiana bat habitat**^{[1][2]}?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

13. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors?

Yes

14. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors occur^[1]?

[1] Coordinate with the local Service Field Office for appropriate dates.

B) During the inactive season

15. Does the project include activities **within documented NLEB habitat**^{[1][2]}?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

16. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors?

Yes

17. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors occur?

B) During the inactive season

18. Will *any* tree trimming or removal occur **within** 100 feet of existing road/rail surfaces?

Yes

19. Will *any* tree trimming or removal occur **between** 100-300 feet of existing road/rail surfaces?

Yes

20. Are *all* trees that are being removed clearly demarcated?
Yes
21. Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing **permanent** lighting?
No
22. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?
No
23. Does the project include slash pile burning?
No
24. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?
Yes
25. Is there *any* suitable habitat^[1] for Indiana bat or NLEB **within** 1,000 feet of the bridge? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's current [summer survey guidance](#) for our current definitions of suitable habitat.

Yes

26. Has a bridge assessment^[1] been conducted **within** the last 24 months^[2] to determine if the bridge is being used by bats?

[1] See [User Guide Appendix D](#) for bridge/structure assessment guidance

[2] Assessments must be completed no more than 2 years prior to conducting any work below the deck surface on all bridges that meet the physical characteristics described in the Programmatic Consultation, regardless of whether assessments have been conducted in the past. Due to the transitory nature of bat use, a negative result in one year does not guarantee that bats will not use that bridge/structure in subsequent years.

Yes

SUBMITTED DOCUMENTS

- *Bridge Culvert Bat Assessment Form April 2020 - fillable - Lawrence 172.pdf*
<https://ipac.ecosphere.fws.gov/project/QPL7YOFVTJEGLGDFEMH5LU7QY/projectDocuments/134598833>

27. Did the bridge assessment detect *any* signs of Indiana bats and/or NLEBs roosting in/under the bridge (bats, guano, etc.)^[1]?

[1] If bridge assessment detects signs of *any* species of bats, coordination with the local FWS office is needed to identify potential threatened or endangered bat species. Additional studies may be undertaken to try to identify which bat species may be utilizing the bridge prior to allowing *any* work to proceed.

Note: There is a small chance bridge assessments for bat occupancy do not detect bats. Should a small number of bats be observed roosting on a bridge just prior to or during construction, such that take is likely to occur or does occur in the form of harassment, injury or death, the PBO requires the action agency to report the take. Report all unanticipated take within 2 working days of the incident to the USFWS. Construction activities may continue without delay provided the take is reported to the USFWS and is limited to 5 bats per project.

No

28. Will the bridge removal, replacement, and/or maintenance activities include installing new or replacing existing **permanent** lighting?

No

29. Does the project include the removal, replacement, and/or maintenance of *any* structure other than a bridge? (e.g., rest areas, offices, sheds, outbuildings, barns, parking garages, etc.)

No

30. Will the project involve the use of **temporary** lighting *during* the active season?

Yes

31. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **temporary** lighting will be used?

Yes

32. Will the project install new or replace existing **permanent** lighting?

No

33. Does the project include percussives or other activities (**not including tree removal/trimming or bridge/structure work**) that will increase noise levels above existing traffic/background levels?

No

34. Are *all* project activities that are **not associated with** habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

Examples: lining roadways, unlighted signage, rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

Yes

35. Will the project raise the road profile **above the tree canopy**?

No

36. Are the project activities that are not associated with habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives consistent with a No Effect determination in this key?

Automatically answered

Yes, other project activities are limited to actions that DO NOT cause any additional stressors to the bat species as described in the BA/BO

37. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal/trimming that occurs outside of the Indiana bat's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

38. Is the habitat removal portion of this project consistent with a Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal that occurs outside the Indiana bat's active season is 100-300 feet from the existing road/rail surface, and is not in documented roosting/foraging habitat or travel corridors.

39. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal/trimming that occurs outside of the NLEB's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

40. Is the habitat removal portion of this project consistent with a Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal that occurs outside the NLEB's active season is 100-300 feet from the existing road/rail surface, and is not in documented roosting/foraging habitat or travel corridors.

41. Is the bridge removal, replacement, or maintenance activities portion of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the bridge has been assessed using the criteria documented in the BA and no signs of bats were detected

42. **General AMM 1**

Will the project ensure *all* operators, employees, and contractors working in areas of known or presumed bat habitat are aware of *all* FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures?

Yes

43. **Tree Removal AMM 1**

Can *all* phases/aspects of the project (e.g., temporary work areas, alignments) be modified, to the extent practicable, to avoid tree removal^[1] in excess of what is required to implement the project safely?

Note: Tree Removal AMM 1 is a minimization measure, the full implementation of which may not always be practicable. Projects may still be NLAA as long as Tree Removal AMMs 2, 3, and 4 are implemented and LAA as long as Tree Removal AMMs 3, 5, 6, and 7 are implemented.

[1] The word “trees” as used in the AMMs refers to trees that are suitable habitat for each species within their range. See the USFWS’ current summer survey guidance for our latest definitions of suitable habitat.

Yes

44. **Tree Removal AMM 3**

Can tree removal be limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits)?

Yes

45. **Lighting AMM 1**

Will *all* **temporary** lighting be directed away from suitable habitat during the active season?

Yes

46. For Indiana bat, if applicable, compensatory mitigation measures are required to offset adverse effects on the species (see Section 2.10 of the BA). Please select the mechanism in which compensatory mitigation will be implemented:

6. Not Applicable

PROJECT QUESTIONNAIRE

1. Have you made a No Effect determination for *all* other species indicated on the FWS IPaC generated species list?

Yes

2. Have you made a May Affect determination for *any* other species on the FWS IPaC generated species list?

No

3. How many acres^[1] of trees are proposed for removal between 0-100 feet of the existing road/rail surface?

[1] If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

0.45

4. How many acres^[1] of trees are proposed for removal between 100-300 feet of the existing road/rail surface?

[1] If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

0.45

5. **Please verify:**

All tree removal will occur greater than 0.5 mile from any hibernaculum.

Yes, I verify that all tree removal will occur greater than 0.5 miles from any hibernaculum.

6. Is the project location 0-100 feet from the edge of existing road/rail surface?

Yes

7. Is the project location 100-300 feet from the edge of existing road/rail surface?

Yes

8. **Please verify:**

No documented Indiana bat roosts or surrounding summer habitat within 0.25 mile of documented roosts will be impacted between May 1 and July 31.

Yes, I verify that no documented Indiana bat roosts or surrounding summer habitat within 0.25 mile of documented roosts will be impacted during this period.

9. **Please verify:**

No documented NLEB roosts or surrounding summer habitat within 150 feet of documented roosts will be impacted between June 1 and July 31.

Yes, I verify that no documented NLEB roosts or surrounding summer habitat within 150 feet of documented roosts will be impacted during this period.

10. Please describe the proposed bridge work:

The preferred alternative is to replace Lawrence County Bridge 172 on a straightened alignment to improve sight distances. The existing structure will be completely removed. The new one-lane bridge will be constructed approximately 30 feet east of the existing alignment. The bridge will have a clear roadway width of 20 feet. It will have three spans and be approximately 212 feet long. Approximately 75 cubic yards of silt will be removed from the waterway in order to clear the existing north span and accommodate the new bridge. Approximately 0.9 acres of tree clearing will be required. The bridge will have a skew of approximately 30° to allow straightening of the approach alignments. The bridge will have side-mounted T-1 railings. Approximately 165 linear feet of riprap over geotextile will be installed along the spill through slopes to protect the abutments from future scour. Downstream regrading will be conducted on the west bank of Leatherwood Creek in order to increase ground elevation. In combination with the larger hydraulic opening in the new bridge, this will ensure overtopping will not occur.

11. Please state the timing of all proposed bridge work:

Spring 2026

12. Please enter the date of the bridge assessment:

November 9, 2023

13. You have indicated that the following Avoidance and Minimization Measures (AMMs) will be implemented as part of the proposed project:

- *Tree Removal AMM 1*
- *Lighting AMM 1*
- *Tree Removal AMM 3*
- *General AMM 1*

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

This determination key result includes the commitment to implement the following Avoidance and Minimization Measures (AMMs):

TREE REMOVAL AMM 1

Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal.

LIGHTING AMM 1

Direct temporary lighting away from suitable habitat during the active season.

TREE REMOVAL AMM 3

Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

GENERAL AMM 1

Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs.

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING NLEB OR INDIANA BAT

This key was last updated in IPaC on October 30, 2023. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) for the endangered **Indiana bat** (*Myotis sodalis*) and the endangered **northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's [amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion \(dated March 23, 2023\) for Transportation Projects](#). The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: Butler, Fairman, & Seufert
Name: Elizabet Biggio
Address: 8450 Westfield Boulevard
Address Line 2: Suite 300
City: Indianapolis
State: IN
Zip: 46240
Email: ebiggio@bfsengr.com
Phone: 3177134615

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

Date & Time of Assessment 11/09/2023 11:00am		DOT Project Number 2002973		Route/Facility Carried Cement Plant Road		County Lawrence	
Federal Structure ID 4700114		Structure Coordinates 38.85489 / -86.46944 (latitude and longitude)		Structure Height (approximate) ~15 ft.		Structure Length 72 ft.	
Structure Type (check one)				Structure Material (check all that apply)			
Bridge Construction Style				Deck Material		Beam Material	
<input checked="" type="radio"/> Cast-in-place		<input type="radio"/> Pre-stressed Girder		<input type="checkbox"/> Metal		<input type="checkbox"/> None	
<input type="radio"/> Flat Slab/Box		<input type="radio"/> Steel I-beam		<input checked="" type="checkbox"/> Concrete		<input checked="" type="checkbox"/> Concrete	
<input type="radio"/> Truss		<input type="radio"/> Covered		<input type="checkbox"/> Timber		<input type="checkbox"/> Steel	
<input type="radio"/> Parallel Box Beam		<input type="radio"/> Other:		<input type="checkbox"/> Open grid		<input type="checkbox"/> Timber	
				<input type="checkbox"/> Other:		<input type="checkbox"/> Other:	
Culvert Type				Culvert Material		End/Back Wall Material	
<input type="radio"/> Box		<input type="radio"/> Other Structure		<input type="checkbox"/> Metal		<input checked="" type="checkbox"/> Concrete	
<input type="radio"/> Pipe/Round				<input type="checkbox"/> Concrete		<input type="checkbox"/> Timber	
<input type="radio"/> Other:				<input type="checkbox"/> Plastic		<input type="checkbox"/> Stone/Masonry	
				<input type="checkbox"/> Stone/Masonry		<input type="checkbox"/> Other:	
				<input type="checkbox"/> Other:		Creosote Evidence	
						<input type="radio"/> Yes <input checked="" type="radio"/> No	
						<input type="radio"/> Unknown	
						Notes:	
Crossings Traversed (check all that apply)				Surrounding Habitat (check all that apply)			
<input type="checkbox"/> Bare ground		<input checked="" type="checkbox"/> Open vegetation		<input type="checkbox"/> Agricultural		<input checked="" type="checkbox"/> Grassland	
<input type="checkbox"/> Rip-rap		<input type="checkbox"/> Closed vegetation		<input type="checkbox"/> Commercial		<input type="checkbox"/> Ranching	
<input checked="" type="checkbox"/> Flowing water		<input type="checkbox"/> Railroad		<input type="checkbox"/> Residential-urban		<input type="checkbox"/> Riparian/wetland	
<input type="checkbox"/> Standing water		<input type="checkbox"/> Road/trail - Type:		<input checked="" type="checkbox"/> Residential-rural		<input type="checkbox"/> Mixed use	
<input type="checkbox"/> Seasonal water		<input type="checkbox"/> Other:		<input checked="" type="checkbox"/> Woodland/forested		<input type="checkbox"/> Other:	
Areas Assessed (check all that apply)							
Check all areas that apply. If an area is not present in the structure, check the "not present" box.							
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.							
Area (check if assessed)		Assessment Notes		Evidence of Bats (include photos if present)			
<input checked="" type="checkbox"/> All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas		<input type="checkbox"/> Not present		<input type="checkbox"/> Visual - live # dead #		<input type="checkbox"/> Audible	
				<input type="checkbox"/> Guano		<input type="checkbox"/> Odor	
				<input type="checkbox"/> Staining		<input type="checkbox"/> Photos	
						<input type="checkbox"/> Species	
<input checked="" type="checkbox"/> Concrete surfaces (open roosting on concrete)		<input type="checkbox"/> Not present		<input type="checkbox"/> Visual - live # dead #		<input type="checkbox"/> Audible	
				<input type="checkbox"/> Guano		<input type="checkbox"/> Odor	
				<input type="checkbox"/> Staining		<input type="checkbox"/> Photos	
						<input type="checkbox"/> Species	
<input checked="" type="checkbox"/> Spaces between concrete end walls and the bridge deck		<input type="checkbox"/> Not present		<input type="checkbox"/> Visual - live # dead #		<input type="checkbox"/> Audible	
				<input type="checkbox"/> Guano		<input type="checkbox"/> Odor	
				<input type="checkbox"/> Staining		<input type="checkbox"/> Photos	
						<input type="checkbox"/> Species	
<input checked="" type="checkbox"/> Crack between concrete railings on top of the bridge deck		<input type="checkbox"/> Not present		<input type="checkbox"/> Visual - live # dead #		<input type="checkbox"/> Audible	
				<input type="checkbox"/> Guano		<input type="checkbox"/> Odor	
				<input type="checkbox"/> Staining		<input type="checkbox"/> Photos	
						<input type="checkbox"/> Species	
<input type="checkbox"/> Vertical surfaces on concrete I-beams		<input checked="" type="checkbox"/> Not present		<input type="checkbox"/> Visual - live # dead #		<input type="checkbox"/> Audible	
				<input type="checkbox"/> Guano		<input type="checkbox"/> Odor	
				<input type="checkbox"/> Staining		<input type="checkbox"/> Photos	
						<input type="checkbox"/> Species	
<input checked="" type="checkbox"/> Spaces between walls, ceiling joists		<input type="checkbox"/> Not present		<input type="checkbox"/> Visual - live # dead #		<input type="checkbox"/> Audible	
				<input type="checkbox"/> Guano		<input type="checkbox"/> Odor	
				<input type="checkbox"/> Staining		<input type="checkbox"/> Photos	
						<input type="checkbox"/> Species	
<input checked="" type="checkbox"/> Weep holes, scupper drains, and inlets/pipes		<input type="checkbox"/> Not present		<input type="checkbox"/> Visual - live # dead #		<input type="checkbox"/> Audible	
				<input type="checkbox"/> Guano		<input type="checkbox"/> Odor	
				<input type="checkbox"/> Staining		<input type="checkbox"/> Photos	
						<input type="checkbox"/> Species	
<input checked="" type="checkbox"/> All guiderails		<input type="checkbox"/> Not present		<input type="checkbox"/> Visual - live # dead #		<input type="checkbox"/> Audible	
				<input type="checkbox"/> Guano		<input type="checkbox"/> Odor	
				<input type="checkbox"/> Staining		<input type="checkbox"/> Photos	
						<input type="checkbox"/> Species	
<input type="checkbox"/> All expansion joints		<input checked="" type="checkbox"/> Not present		<input type="checkbox"/> Visual - live # dead #		<input type="checkbox"/> Audible	
				<input type="checkbox"/> Guano		<input type="checkbox"/> Odor	
				<input type="checkbox"/> Staining		<input type="checkbox"/> Photos	
						<input type="checkbox"/> Species	
Name: Neal Bennett				Signature:			



United States Department of the Interior Fish and Wildlife Service



Indiana Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

December 5, 2023

Ms. Karstin Carmany-George
Federal Highway Administration
575 N. Pennsylvania Street, Room 254
Indianapolis, Indiana 46204
(Sent via email)

USFWS Project Code #: 2024-0015002

RE: Lawrence County Bridge #172 Replacement; Des 2002973

Dear Ms. Carmany-George:

The U.S. Fish and Wildlife Service (Service) is responding to your request dated November 21, 2023 to verify that the proposed Lawrence County Bridge 172 Replacement Project (the Project) may rely on the amended February 5, 2018, Programmatic Biological Opinion (BO) (dated March 23, 2023) for federally funded or approved transportation projects that may affect the federally listed endangered Indiana bat (*Myotis sodalis*) and/or federally listed endangered northern long-eared bat (NLEB) (*Myotis septentrionalis*). We received your request and the associated Likely to Adversely Affect (LAA) Consistency Letter on the same day, November 21, 2023.

This letter provides the Service's response as to whether the Federal Highway Administration (FHWA) may rely on the BO to comply with Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) for the Project's effects to the Indiana bat and NLEB.

The FHWA has determined that the Project is *likely to adversely affect* the Indiana bat and/or the NLEB.

Conclusion

The Service has reviewed the effects of the proposed Project, which includes the FHWA's commitment to implement any applicable mitigation measures as indicated on the LAA Consistency Letter. We confirm that the proposed Project's effects are consistent with those analyzed in the BO. The Service has determined that projects consistent with the conservation measures and scope of the program analyzed in the BO are not likely to jeopardize the continued existence of the Indiana bat or the NLEB. In coordination with your agency and the other sponsoring Federal Transportation Agencies, the Service will reevaluate this conclusion annually in light of any new pertinent information under the adaptive management provisions of the BO.

Incidental Take

Indiana Bat and Northern Long-eared Bat

Tree Removal

The Service anticipates that tree removal associated with the proposed Project will cause incidental take of Indiana bats and NLEBs. As described in the Incidental Take (IT) Statement of the BO, quantifying the specific number of individuals affected is not practicable. Therefore, the Services uses a surrogate (acreage of tree removal) to prove a means of expressing and monitoring take of the Indiana bat and the NLEB.

The proposed Project will remove **0.367 acre(s)** of trees from habitat that is suitable for the Indiana bat and NLEB. All tree removal will occur in winter and comply with all other conservation measures in the BO. Based on the BO, 0.307 acres of the removal are not anticipated to result in any adverse effects, and **0.060 acres** are anticipated to result in adverse effects.

The FHWA used the mitigation ratio of 1.5 from Table 3 of the BO¹ to calculate the compensatory mitigation required to offset adverse impacts to the Indiana bat for a total of 0.09 acres² of trees that is suitable for the Indiana bat. **Mitigation is not required for the NLEB.**

To comply with the mitigation requirements of the BO, the FHWA will contribute **\$1,021.50** to The Conservation Fund (TCF), the Program Sponsor, within 1 year of this letter or prior to the start of construction, whichever is earliest. These calculations are based on the mitigation identified above² and the 2023 Land Use Values in Table 2 of Exhibit E in TCF's In Lieu Fee Instrument³. If payment is made later than 1 year from the date of this letter, the mitigation cost may change as a result of updated land use values in Table 2 of Exhibit E. The FHWA or designated non-federal representative must notify TCF at least five days prior to payment so that TCF can verify that the appropriate land value has been used. At the time of payment, the FHWA or designated non-federal representative shall notify the Service of compliance with the compensatory mitigation requirements as described above.

The purchase of species conservation credits and/or in-lieu fee contributions shall occur prior to construction of a transportation project covered under this programmatic BO. Exceptions to this program stipulation include emergency projects that do not require a letting prior to construction. In these cases, purchase of credits and/or in-lieu fee contributions shall occur within three months of completion of the project. This timeframe allows for measuring the acres of habitat affected by the emergency project and for financial processing.

¹ <https://www.fws.gov/media/compensatory-mitigation-ratios-indiana-bat-table-3-biological-opinion>

² XX acres * XX ratio

³ <https://www.fws.gov/sites/default/files/documents/IBAT-NLEB-ILF-Exhibit-E-Fee-Schedule-2023-01-04.pdf>

Bridge, Culvert, and/or Structure Activities

The Service estimates that IT of a small number of Indiana bats and/or NLEBs is reasonably certain to occur at up to 10 bridges/culverts or structures range-wide in a 12-month period when signs of bat use or occupancy are observed. This take may be covered under the IT Statement in this programmatic BO. Furthermore, some take may occur if initial bridge/culvert or structure bat assessments failed to detect Indiana bat and/or NLEB use or occupancy, yet bats are later detected prior to, or during construction. If this occurs, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office within 2 working days of the incident. In these instances, potential incidental take of Indiana bats and/or NLEBs may be exempted provided that the take is reported to the Service.

Tricolored Bat

On September 13, 2022, the Service published a proposal in the Federal Register to list the tricolored bat (*Perimyotis subflavus*) as endangered under the ESA. The Service has up to 12-months from the date the proposal was published to make a final determination, either to list the tricolored bat under the ESA or to withdraw the proposal. The Service determined the bat faces extinction primarily due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across North America. Because tricolored bat populations have been greatly reduced due to WNS, surviving bat populations are now more vulnerable to other stressors such as human disturbance and habitat loss. Species proposed for listing are not afforded protection under the ESA; however, as soon as a listing becomes effective (typically 30 days after publication of the final rule in the Federal Register), the prohibitions against jeopardizing its continued existence and “take” will apply. Therefore, if this project or other future or existing projects have the potential to adversely affect tricolored bats after the potential new listing goes into effect, we recommend that the effects of the project on tricolored bat and their habitat be analyzed to determine whether authorization under ESA Section 7 is necessary. Projects or programs with an existing Section 7 biological opinion may require reinitiation of consultation.

The tricolored bat is a small insectivorous bat that typically overwinters in caves, abandoned mines and tunnels, and road-associated culverts (southern portion of the range) and spends the rest of the year in forested habitats, typically roosting among live and dead leaf clusters. For more information on tricolored bats and the proposed rule, please see:

<https://www.fws.gov/species/tricolored-bat-perimyotis-subflavus>

and for more information on WNS, please see: <https://www.whitenosesyndrome.org/>

Reasonable and Prudent Measures

The Service will add the acreage of Project-related tree removal to the annual total acreage attributed to the BO as a surrogate measure of Indiana bat and NLEB incidental take and exempted from the prohibitions of Section 9 of the ESA. Such exemption is effective as long as your agency implements the reasonable and prudent measure (RPM) and accompanying terms and conditions of the BO’s IT Statement.

The sole RPM of the BO's IT Statement requires the Federal Transportation Agencies to ensure that State/Local transportation agencies, who choose to include eligible projects under the programmatic action, incorporate all applicable conservation measures in the project proposals submitted to the Service for ESA section 7 compliance using the BO. The implementing terms and conditions for this RPM require the Federal Transportation Agencies to offer training to appropriate personnel about using the BO, and promptly report sick, injured, or dead bats (regardless of species) or any other federally listed species located at the project site.

Reporting Dead or Injured Bats

The FHWA, its State/Local cooperators, and any contractors must take care when handling dead or injured Indiana bats and NLEBs, or any other federally listed species that are found at the project site to preserve biological material in the best possible condition and to protect the handler from exposure to diseases, such as rabies. Project personnel are responsible for ensuring that any evidence about determining the cause of death or injury is not unnecessarily disturbed. Reporting the discovery of dead or injured listed species is required in all cases to enable the Service to determine whether the level of incidental take exempted by this BO has been exceeded, and to ensure that the terms and conditions are appropriate and effective. Parties finding a dead, injured, or sick specimen of any endangered or threatened species must promptly notify this Service Office.

Reinitiation Notice

This letter concludes consultation for the Project, which qualifies for inclusion in the BO issued to the Federal Transportation Agencies. To maintain this inclusion, a reinitiation of this Project-level consultation is required where the FHWA's discretionary involvement or control over the Project has been retained (or is authorized by law) and if:

1. the amount or extent of incidental take of Indiana bats or NLEBs is exceeded;
2. new information reveals that the Project may affect listed species or critical habitat in a manner or to an extent not considered in the BO;
3. the Project is subsequently modified in a manner that causes an effect to listed species or designated critical habitat not considered in the; or
4. a new species is listed or critical habitat designated that may be affected by the Project.

Per condition #1 above, the anticipated incidental take is exceeded when:

- the Project removes more than 0.060 acres of suitable Indiana bat and/or NLEB habitat; and/or
- the Project takes more than 5 Indiana bats and/or 5 NLEBs resulting from bridge, culvert, or structure activity⁴.

⁴ Annual reports will be completed each year as described in the *Monitoring and Reporting* section of the BO to track the number of projects range-wide where IT of Indiana bat and/or NLEB is reasonably certain to occur from bridge, culvert, or structures activities per annual reporting year.

In instances where the amount or extent of incidental take is exceeded, the FHWA is required to immediately request a reinitiation of this Project-level consultation.

We appreciate your continued efforts to ensure that this Project is fully consistent with all applicable provisions of the BO. If you have any questions regarding our response or if you need additional information, please contact Robin McWilliams Munson at Robin_McWilliams@fws.gov.

Sincerely,

ROBIN MCWILLIAMS
MUNSON

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For Susan E. Cooper
Field Office Supervisor

Appendix D

Section 106 of the National Historic Preservation Act (NHPA)

**MEMORANDUM OF AGREEMENT
BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION AND
THE INDIANA STATE HISTORIC PRESERVATION OFFICER
SUBMITTED TO THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
PURSUANT TO 36 C.F.R. Section 800.6(b)(iv)
REGARDING THE LAWRENCE COUNTY BRIDGE 172 PROJECT
IN MARION TOWNSHIP, LAWRENCE COUNTY, INDIANA
DES. NO. 2002973**

WHEREAS the Federal Highway Administration ("FHWA") proposes to fund the construction for the demolition and replacement of Lawrence County Bridge 172 in the City of Bedford, Shawswick Township, Lawrence County, Indiana; and

WHEREAS the FHWA, in consultation with the Indiana State Historic Preservation Officer ("Indiana SHPO"), has defined the Lawrence County Bridge 172 project's area of potential effects ("APE"), as the term is defined in 36 C.F.R. Section 800.16(d), to be the area within the boundaries depicted in Attachment A; and

WHEREAS the FHWA, in consultation with the Indiana SHPO, has found that Lawrence County Bridge 172 is within the APE; and

WHEREAS the FHWA, in consultation with the Indiana SHPO, has determined, pursuant to 36 C.F.R. Section 800.4(c), that Lawrence County Bridge 172 is eligible for inclusion in the National Register of Historic Places ("National Register"); and

WHEREAS the FHWA, in consultation with the Indiana SHPO, has determined pursuant to 36 C.F.R. Section 800.5(a) that the Lawrence County Bridge 172 project will have an adverse effect on Lawrence County Bridge 172; and

WHEREAS the FHWA has consulted with the Indiana SHPO in accordance with Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R. Section 800) to resolve the adverse effect on Lawrence County Bridge 172; and

WHEREAS the public was given an opportunity to comment on the undertaking's adverse effect in a notice published on September 5, 2023 in the *Bedford Times-Mail*; and

WHEREAS the FHWA has notified the Advisory Council on Historic Preservation ("Council") of the adverse effect and invited the Council's participation in the project, pursuant to 36 CFR Section 800.6(a)(1), on October 4, 2023 and

WHEREAS the Council declined to participate in consultation through lack of response to the FHWA's invitation within fifteen (15) days; and

WHEREAS the FHWA, in consultation with the Indiana SHPO, has invited the Indiana Department of Transportation ("INDOT") to participate in the consultation and to become a signatory to this memorandum of agreement; and

WHEREAS the FHWA, in consultation with the Indiana SHPO, has invited Lawrence County to participate in the consultation and to become a signatory to this memorandum of agreement; and

WHEREAS the FHWA has consulted with the Indiana SHPO in accordance with Section 106 of the National Historic Preservation Act (16 U.S.C. 470f) and its implementing regulations (36 C.F.R. Part 800) concerning the scope of work as presented in the materials and plans dated January 16, 2023, and has agreed to proceed with the project as proposed; and

NOW, THEREFORE, the FHWA and the Indiana SHPO agree that, upon the submission of a copy of this executed memorandum of agreement, as well as the documentation specified in 36 C.F.R. Section 800.11(e) and (f) to the Council pursuant to 36 C.F.R. Section 800.6[b][1][iv] and upon the FHWA's approval of the Lawrence County Bridge 172 project, the FHWA shall ensure that the following stipulations are implemented in order to take into account the effect of the Lawrence County Bridge 172 project on historic properties.

I. MITIGATION STIPULATIONS

- A. Before construction activities commence, Lawrence County will complete photographic documentation of Lawrence County Bridge 172 in accordance with the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology Minimum Architectural Documentation Standards as follows:
 - i. The photographic documentation shall be prepared by a qualified professional who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61.
 - ii. Digital photographs in color shall be taken using a digital SLR camera or device that can produce at least 5.0-megapixel quality. The photographs will be saved as uncompressed .TIF (Tagged Image File format).
 - iii. A photo log shall be written, including, for each photo, the property name, location, the direction of the camera, a description of view, and the date of photograph. A photo key will be included.
 - iv. A description of the structure and its condition shall accompany the documentation in PDF format. The description should include architectural or engineering style, plan, building materials, organization of major elevations, details, and significant elements.
 - v. The history and significance of the structure shall be explained using the equivalent of one to two standard pages of text in PDF format. The statement shall begin with a summary paragraph that succinctly discusses the date or era of construction and why the resource is important. Enough history and background shall be presented to establish the bridge's importance. The statement will indicate how the bridge is an outstanding example of an advance in engineering and the work of a significant engineer/building. This section will include a list of bibliographic sources, including author, title, place of publication and publisher, and the date of publication.
 - vi. If available, architectural or engineering drawings in PDF format will be included. If architectural/engineering drawings are not available, a sketch plan of the site will be substituted.

- vii. The completed documentation shall be submitted to the Indiana SHPO for a 30-day review period prior to the start of construction. Any requested revisions to the documentation shall be completed and submitted to the Indiana SHPO prior to the start of construction. Documentation will be submitted on CD, flash drive, or any other approved storage device or online transfer method.
 - viii. The completed documentation shall be offered to interested local groups, including the Lawrence County Museum of History & Edward L. Hutton Research Library.
- B. Lawrence County will fund the creation of interpretive signage that highlights Lawrence County Bridge 172 and/or the area of Lawrence County served by the bridge.
- i. The interpretive signage shall be installed in a location where it can safely and easily be viewed by the public on foot within 1.0 mile of the bridge location.
 - ii. The content of the interpretive signage shall be prepared by a qualified professional who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. The completed design shall be submitted to the Indiana SHPO prior to the project's construction letting.
 - iii. Lawrence County and/or its designated representative ("consultant") shall submit the proposed location of the sign and draft signage design to the Indiana SHPO for a 30-day comment period. Lawrence County and or its consultant shall be responsible for revising the text of the signage to address comments requested by the Indiana SHPO. Lawrence County, or its consultant, shall provide a written response to Indiana SHPO comments before proceeding. If comments are not received within 30 days, Lawrence County, or its consultant, may assume agreement from the Indiana SHPO on the draft design.
 - iv. Lawrence County, or its consultant, shall provide photographs of the installed sign to the Indiana SHPO for their files, and as confirmation that this mitigation item has been completed.

II. OBJECTION RESOLUTION PROVISION

Disagreement and misunderstanding about how this memorandum of agreement is or is not being implemented shall be resolved in the following manner:

- A. If the Indiana SHPO or any invited signatory to this memorandum of agreement should object in writing to the FHWA regarding any action carried out or proposed with respect to the Lawrence County Bridge 172 project or implementation of this memorandum of agreement, then the FHWA shall consult with the objecting party to resolve this objection. If after such consultation the FHWA determines that the objection cannot be resolved through consultation, then the FHWA shall forward all documentation relevant to the objection to the Council, including the FHWA's proposed response to the objection. Within 45 days after receipt of all pertinent documentation, the Council shall exercise one of the following options:

- i. Provide the FHWA with a staff-level recommendation, which the FHWA shall take into account in reaching a final decision regarding its response to the objection; or
 - ii. Notify the FHWA that the objection will be referred for formal comment pursuant to 36 C.F.R. Section 800.7(c), and proceed to refer the objection and comment. The FHWA shall take into account the Council's comments in reaching a final decision regarding its response to the objection.
- B. If comments or recommendations from the Council are provided in accordance with this stipulation, then the FHWA shall take into account any Council comments or recommendations provided in accordance with this stipulation with reference only to the subject of the objection. The FHWA's responsibility to carry out all actions under the memorandum of agreement that are not the subjects of the objection shall remain unchanged.

III. POST-REVIEW DISCOVERY

In the event that one or more historic properties other than Lawrence County Bridge 172 are discovered or that unanticipated effects on historic properties are found during the implementation of this memorandum of agreement, the FHWA shall follow the procedure specified in 36 C.F.R. Section 800.13, as well as IC 14-21-1-27 and IC 14-21-1-29, by stopping work in the immediate area and informing the Indiana SHPO and the INDOT Cultural Resources Office of such unanticipated discoveries or effects within two (2) business days. Any necessary archaeological investigations will be conducted according to the provisions of IC 14-21-1 and 312 IAC 21, and the most current *Guidebook for Indiana Historic Sites and Structures Inventory – Archaeological Sites*.

IV. AMENDMENT

Any signatory to this memorandum of agreement may request that it be amended, whereupon the parties shall consult to consider the proposed amendment. 36 C.F.R. 800.6(c)(7) shall govern the execution of any such amendment.

V. TERMINATION

- A. If the terms of this memorandum of agreement have not been implemented by August 30, 2033 (within 10 years), then this memorandum of agreement shall be considered null and void. In such an event, the FHWA shall so notify the parties to this memorandum of agreement and, if it chooses to continue with the Lawrence County Bridge 172 project, then it shall reinitiate review of the Lawrence County Bridge 172 project in accordance with 36 C.F.R. Sections 800.3 through 800.7.
- B. Any signatory to this memorandum of agreement may terminate it by providing thirty (30) days notice to the other parties, provided that the parties shall consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. In the event of termination, the FHWA shall comply with 36 C.F.R. Sections 800.3 through 800.7 with regard to the review of the Lawrence County Bridge 172 project.

- C. In the event that the FHWA does not carry out the terms of this memorandum of agreement, the FHWA shall comply with 36 C.F.R. Sections 800.3 through 800.7 with regard to the review of the Lawrence County Bridge 172 project.

The execution of this memorandum of agreement by the FWHA, the Indiana SHPO, and Lawrence County, the submission of it to the Council with the appropriate documentation specified in 36 C.F.R. Section 800.11(e) and (f), and the implementation of its terms evidence that the FHWA has afforded the Council an opportunity to comment on the Lawrence County Bridge 172 project and its effect on historic properties and that the FHWA has taken into account the effects of the Lawrence County Bridge 172 project on historic properties.

SIGNATORIES (required):

FEDERAL HIGHWAY ADMINISTRATION
INDIANA STATE HISTORIC PRESERVATION OFFICER

INVITED SIGNATORIES:

INDIANA DEPARTMENT OF TRANSPORTATION
LAWRENCE COUNTY

REQUIRED SIGNATORY

FEDERAL HIGHWAY ADMINISTRATION

PATRICK ALLEN
CARPENTER

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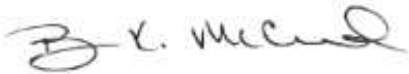
By:

Jermaine R. Hannon
Division Administrator

Date:

REQUIRED SIGNATORY

INDIANA STATE HISTORIC PRESERVATION OFFICER

By: 

Beth K. McCord
Deputy State Historic Preservation Officer

Date: 11/29/23

INVITED SIGNATORY

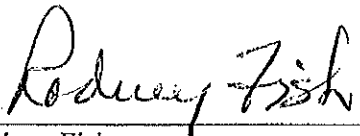
INDIANA DEPARTMENT OF TRANSPORTATION

By: 
Laura Hilden, Environmental Services Director

Date: 11/2/2023

INVITED SIGNATORY

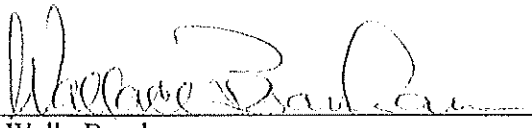
LAWRENCE COUNTY

By: 
Rodney Fish
Lawrence County Commissioner

Date: 12-5-23


Dustin Gabhart
Lawrence County Commissioner

Date: 12-5-23


Wally Branham
Lawrence County Commissioner

Date: 12-5-23

**FEDERAL HIGHWAY ADMINISTRATION'S
SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties) AND
SECTION 106 FINDINGS AND DETERMINATIONS
AREA OF POTENTIAL EFFECT
ELIGIBILITY DETERMINATIONS
EFFECT FINDING
LAWRENCE COUNTY BRIDGE 172
CARRYING CEMENT PLANT ROAD over LEATHERWOOD CREEK
DES. NO.: 2002973**

**AREA OF POTENTIAL EFFECTS
(Pursuant to 36 CFR Section 800.4(a)(1))**

The Area of Potential Effects (APE) includes the existing and proposed right-of-way (ROW), immediately adjacent properties, and those areas where a visual differentiation may occur between an existing structure and the project area. The APE is an irregular trapezoid around the project area, accounting for the more open agricultural landscape on the east side of Leatherwood Creek. (Appendix B, B3). The Archaeological APE is represented by the 6.9 acre survey area that includes the project footprint.

**ELIGIBILITY DETERMINATIONS
(Pursuant to 36 CFR 800.4(c)(2))**

The APE contains one property previously determined eligible for listing in the National Register of Historic Places (National Register),

Lawrence County Bridge 172: carrying Cement Plant Road over Leatherwood Creek; continuous concrete girder bridge, 1909; National Register-eligible under Criterion C for significance in Engineering.

EFFECT FINDING

Lawrence County Bridge 150: "Adverse Effect"

FHWA has determined an "Adverse Effect" finding is appropriate for this undertaking. FHWA respectfully requests the Indiana State Historic Preservation Officer provide written concurrence with the Section 106 determination of effect for each property and the project's overall effect finding.

SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties)

Lawrence County Bridge 172 - This resource is used for transportation purposes. This undertaking will have an "Adverse Effect" on Lawrence County Bridge 172, a Section 4(f) historic property; the FHWA has determined the appropriate Section 106 finding is "Adverse Effect"; and therefore, Lawrence County Bridge 172 will be evaluated through the *Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges*.

PATRICK ALLEN
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For

Jermaine R. Hannon,
Division Administrator
FHWA-IN Division

Approved Date

**FEDERAL HIGHWAY ADMINISTRATION
DOCUMENTATION OF SECTION 106 FINDING OF
ADVERSE EFFECT
SUBMITTED TO THE STATE HISTORIC PRESERVATION OFFICER
PURSUANT TO 36 CFR Section 800.6(a)(3)
LAWRENCE COUNTY BRIDGE 172
DES. NO.: 2002973**

1. DESCRIPTION OF THE UNDERTAKING

The Lawrence County Board of Commissioners, with funding from the Federal Highway Administration (FHWA), proposes a project involving Lawrence County Bridge 172 in Lawrence County, Indiana (Des. No. 2002973). Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. The federal involvement in the project is funding received from the FHWA.

The project is approximately 0.14 mile long. The proposed undertaking is on Cement Plant Road over Leatherwood Creek in the City of Bedford, Lawrence County, Indiana. It is within Shawswick Township on the USGS Bedford East Quadrangle, in Section 24, Township 5 North, Range 1 West. Lawrence County Bridge 172 is a 1909 continuous concrete girder bridge and is rated "Non-Select" in the Indiana Historic Bridge Inventory.

Lawrence County is not eligible to participate in the Indiana Historic Bridges Programmatic Agreement due to the 2012 demolition of two "Select" bridges, Lawrence County Bridge 20 and Lawrence County Bridge 80, using local funds. Therefore, according to Stipulation IV.G of the Historic Bridge PA the project is undergoing full Section 106 review.

The need for the project derives from the deterioration of both the superstructure and substructure of the existing bridge, including:

- Heavy spalling, cracking, and delamination and exposed reinforcement
- Spalling and disintegration of the historic concrete bridge railing
- Intolerable approach roadway geometry

The bridge currently has condition ratings of "poor", or 4 (out of 9) for the deck, superstructure, and substructure. It has been closed since June 2018. The Bedford Fire Department has requested Lawrence County reopen the bridge to facilitate faster responses to the growing residential population on the east side of Leatherwood Creek. The current detour for emergency vehicles adds approximately 20 minutes to response times. The City of Bedford Police Department, the Lawrence County Sheriff, and the City of Bedford Fire Department have each stated the closure of Lawrence County Bridge 172 hampers the ability to provide emergency services in this area. Letters from these agencies stating their concerns were provided in the Section 4(f) Historic Bridge Alternatives Analysis document (BFS, March 2023), which can be downloaded from IN SCOPE at <http://erms12c.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE).

The purpose of the project is to address the condition of Lawrence County Bridge 172 and to provide a crossing of Leatherwood Creek accessible to emergency vehicles. The minimum clear roadway width should be 20 feet, per American Association of State Highway and Transportation Officials (AASHTO) recommendations for emergency vehicles on very low volume roads. Condition ratings should be improved to "good", at least a 7 (out of 9) and the useful life of the bridge extended at least 25 years.

The project consists of the replacement of Lawrence County Bridge 172 on a straightened alignment to improve sight distances. The existing structure will be completely removed. The new bridge will be offset approximately 30 feet east of the existing bridge and will have a clear roadway width of 20 feet. The new bridge will have three spans and be approximately 212 feet long. Approximately 75 cubic yards of silt will

be removed from the waterway in order to clear the existing north span and accommodate the new bridge. The bridge will have a skew of approximately 30° to allow straightening of the approach alignments. The bridge will have side-mounted TS-1 railings.

The project length will be approximately 750 feet long. Approximately 0.9 acre of tree clearing will be required. Approximately 1.6 acres of permanent right-of-way (ROW) acquisition will be required. The bridge is currently closed and will remain closed during construction.

The Area of Potential Effects (APE) includes the existing and proposed ROW, immediately adjacent properties, and those areas where a visual differentiation may occur between an existing structure and the project area. The APE is an irregular trapezoid around the project area, accounting for the more open agricultural landscape on the east side of Leatherwood Creek (Appendix B, B3). The Archaeological APE is represented by the 6.9-acre survey area that includes the project footprint.

2. EFFORTS TO IDENTIFY HISTORIC PROPERTIES

The National Register of Historic Places (National Register) and the Indiana Register of Historic Sites and Structures (State Register) were consulted by Butler, Fairman, & Seufert, Inc. (BF&S) on February 15, 2022. No listed properties were found within the APE.

The 1992 *Lawrence County Interim Report* and the Indiana State Historic Architectural and Archaeological Research Database (SHAARD), which contains the Indiana Historic Sites and Structures Inventory (IHSSI) data, were checked by BF&S on February 15, 2022. There was one previously surveyed property located within the APE, which had also previously been determined eligible for the National Register:

Lawrence County Bridge 172/ HB-2916/ National Bridge Inventory (NBI) No. 4700114

Lawrence County Bridge 172 is listed in the Indiana Historic Bridge Inventory (IHBI) as a “Non-Select” bridge. An Indiana Division of Historic Preservation and Archaeology (DHPA)-qualified Professional Architectural Historian with BF&S conducted a site visit on March 1, 2022. Information from the site visit and research regarding historic resources were compiled into a Historic Property Short Report (HPSR; BF&S, July 12, 2022, Appendix C, C1-C3). The HPSR recommended Lawrence County Bridge 172 remain eligible for the National Register and did not recommend any additional properties within the APE eligible for listing in the National Register. The HPSR was approved by the Indiana Department of Transportation-Cultural Resources Office (INDOT-CRO) on July 13, 2022.

The Indiana State Historic Preservation Officer (SHPO) is considered an automatic consulting party, and Section 106 Early Coordination was sent to the SHPO on May 17, 2022. In addition, the following individuals and organizations were sent an early coordination letter via email and a copy of the letter was posted on INSCOPE on the same date (Appendix D, D1-D7):

- Indiana Landmarks Southern Regional Office
- Lawrence County Historian
- Lawrence County Museum of History & Edward L. Hutton Research Library
- Historic SPANs Taskforce
- Lawrence County Commissioners
- Lawrence County Highway Department
- Eastern Shawnee Tribe of Oklahoma
- Miami Tribe of Oklahoma
- Peoria Tribe of Indians of Oklahoma
- Pokagon Band of Potawatomi Indians
- Delaware Tribe of Indians, Oklahoma
- Shawnee Tribe
- Historic Bridge Foundation

Historic Hoosier Bridges
Historicbridges.org

The Peoria Tribe of Oklahoma responded on May 18, 2022, indicating they were not aware of a direct link between the Peoria Tribe and the project area and had no objections at this time (Appendix D, D8).

The Miami Tribe of Oklahoma responded on May 23, 2022, stating they had no objection to the project. The letter also noted the Tribe's connections to the area and their interest if any archaeological resources were uncovered (Appendix D, D9).

The SHPO responded on May 24, 2022, and requested the Bedford Historic Review Board and Bedford Revitalization, Inc. be invited to be consulting parties (Appendix D, D10-D11). These parties were invited with the distribution of the HPSR.

The Eastern Shawnee Tribe of Oklahoma responded on June 6, 2022, stating the project would cause no adverse effects to known sites of interest to the Eastern Shawnee Tribe (Appendix D, D12).

The Shawnee Tribe responded on June 9, 2022, accepting consulting party status and stating no known historic properties will be negatively impacted by this project (Appendix D, D13).

No other responses to the May 17, 2022 early coordination letters were received.

On July 13, 2022, a copy of the HPSR was sent to the SHPO and participating consulting parties were given instructions via email on how to view the reports on INSCOPE (Appendix D, D14-D18).

The Miami Tribe of Oklahoma responded on July 18, 2022, stating they had no objection to the project (Appendix D, D19).

The SHPO responded on July 27, 2022, stating the size of the APE was adequate and concurring that Lawrence County Bridge 172 was the only property within the APE eligible for the National Register (Appendix D, D20-D21).

The Shawnee Tribe responded on August 18, 2022, stating no known historic properties will be negatively impacted by this project (Appendix D, D22).

The Eastern Shawnee Tribe of Oklahoma responded on September 13, 2022 and stated the project would cause no adverse effects to known sites of interest to the Eastern Shawnee Tribe (Appendix D, D23).

No other responses to the HPSR were received.

In regard to archaeology, a Phase Ia archaeological reconnaissance conducted by 106 Consulting, LLC on June 9th, June 10th, and June 22nd, 2022 located three archaeological sites within the project area. No sites were recommended eligible for the National Register. No further work was recommended in the resulting archaeological report (Appendix C, C4-C5). INDOT-CRO approved the archaeological report on September 27, 2022, and it was sent to consulting parties on October 3, 2022 (Appendix D, D24-D28).

The SHPO responded to the archaeology report on December 5, 2022, stating, in part, "*we concur with the opinion of the archaeologist [...] that archaeological site 12-Lr-0486 (which was resurveyed during these investigations) does not appear eligible for listing in the NRHP; that archaeological sites 12-Lr-1199 and 12-Lr-1200 (both of which were identified during these investigations) do not appear eligible for listing in the NRHP; and that no further archaeological investigations appear necessary at the proposed project area,*" (Appendix D, D29-D30).

No other responses to the archaeology report were received.

3. DESCRIBE AFFECTED HISTORIC PROPERTIES

Lawrence County Bridge 172: Lawrence County Bridge 172 is a two-span continuous concrete girder bridge constructed in 1909 by Elbert W. Shirk. The bridge is approximately 72 feet long and has a clear roadway width of 11.9 feet. The bridge has a plain historic concrete railing. There is a debris diverter on the north side of the pier. According to the IHBI, Lawrence County Bridge 172 is eligible for the National Register under Criterion C for engineering significance as an early example of reinforced concrete construction.

4. DESCRIBE THE UNDERTAKING'S EFFECTS ON HISTORIC PROPERTIES

Lawrence County Bridge 172: This project will result in the demolition and replacement of Lawrence County Bridge 172. The structure will be completely removed.

5. EXPLAIN APPLICATION OF CRITERIA OF ADVERSE EFFECT -- INCLUDE CONDITIONS OR FUTURE ACTIONS TO AVOID, MINIMIZE OR MITIGATE ADVERSE EFFECTS

A finding of “*Adverse Effect*” is appropriate for this project because the project will alter characteristics for which **Lawrence County Bridge 172** is eligible for listing in the National Register.

Part 36 CFR § 800.5(a)(2), examples of adverse effect include but are not limited to:

- (i) Physical destruction of or damage to all or part of a property;
- (ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access not consistent with the Secretary’s Standard for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines;
- (iii) Removal of the property from its historic location;
- (iv) Change of the character of the property’s use or physical features within the property’s setting that contribute to its historic significance;
- (v) Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property’s significant historic features;
- (vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
- (vii) Transfer, lease, or sale of a property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property’s historic significance.

Application of the criteria of adverse effect defined in 36 CFR § 800.5(a)(2), finds the proposed project’s potential effects are not likely to be described in 36 CFR § 800.5(a)(2) (ii), (iii), (vi), or (vii). The application of adverse effect, focusing on 36 CFR § 800.5(a)(2) (i), (iv), and (v) follows:

Lawrence County Bridge 172: Application of the criteria of adverse effect, as defined per 36 CFR § 800.5(a)(2), finds the proposed project’s potential effects on Lawrence County Bridge 172 are most similar to those described in 36 CFR § 800.5(a)(2)(i) “Physical destruction of or damage to all or part of a property”. The project will result in the physical destruction of Lawrence County Bridge 172.

The Lawrence County Bridge 172 project will diminish the historical associations, historically significant features, or architectural integrity for which Lawrence County Bridge 172 is eligible for the National Register under Criterion C. Therefore, the project will introduce negative effects as defined by 36 CFR § 800.5 and will have an “*Adverse Effect*” on Lawrence County Bridge 172. In order to address the

“Adverse Effect” of this project, a Memorandum of Agreement (MOA) was drafted and will be distributed to consulting parties concurrently with this finding.

6. SUMMARY OF CONSULTING PARTIES AND PUBLIC VIEWS

The Peoria Tribe of Oklahoma responded to the Section 106 early coordination letter on May 18, 2022, indicating they were not aware of a direct link between the Peoria Tribe and the project area and had no objections at this time (Appendix D, D8).

The Miami Tribe of Oklahoma responded on May 23, 2022, stating they had no objection to the project. The letter also noted the Tribe’s connections to the area and their interest if any archaeological resources were uncovered (Appendix D, D9).

The SHPO responded on May 24, 2022 and requested the Bedford Historic Review Board and Bedford Revitalization, Inc. be invited to be consulting parties (Appendix D, D10-D11). These two entities were invited with the distribution of the HPSR, and they did not respond.

The Eastern Shawnee Tribe of Oklahoma responded on June 6, 2022, stating the project would cause no adverse effects to known sites of interest to the Eastern Shawnee Tribe (Appendix D, D12).

The Shawnee Tribe responded on June 9, 2022, stating no known historic properties will be negatively impacted by this project (Appendix D, D13).

No other responses to the May 17, 2022 early coordination letters were received.

The Miami Tribe of Oklahoma responded to the HPSR on July 18, 2022 and stated they had no objections to the proposed project but noted the project area is within the aboriginal homelands of the Miami Tribe (Appendix D, D19).

The SHPO responded on July 27, 2022 stating the size of the APE was adequate and concurring that Lawrence County Bridge 172 was the only property within the APE eligible for the National Register (Appendix D, D20-D21).

No other responses to the HPSR were received.

The SHPO concurred with the archaeology report on December 5, 2022, stating, in part, that *“archaeological site 12-Lr-0486 (which was resurveyed during these investigations) does not appear eligible for listing in the NRHP; that archaeological sites 12-Lr-1199 and 12-Lr-1200 (both of which were identified during these investigations) do not appear eligible for listing in the NRHP; and that no further archaeological investigations appear necessary at the proposed project area,”* (Appendix D, D29-D30).

No other responses to the archaeology report were received.

A Section 4(f) Historic Bridge Alternatives Analysis (HBAA) was prepared by BF&S, recommending Replacement of Lawrence County Bridge 172. Instructions on accessing the HBAA via INSCOPE were distributed to consulting parties via email on April 10, 2023 (Appendix D, D31-D35).

The SHPO responded to the HBAA on May 8, 2023, stating, in part, *“Considering that this project cannot use the streamlined Project Development Process for Non-Select Bridges provided in the Indiana Historic Bridges PA, in the event Alternative E is ultimately selected as the final preferred alternative, the adverse effect of demolishing Lawrence Co. Bridge No. 172 (NBI No. 4700114) would need to be resolved through consultation to agree on means to avoid, minimize and mitigate the effects of the undertaking, resulting in a Memorandum of Agreement (MOA). We are interested to learn of the views of other consulting parties on the alternatives presented, and potential mitigation measures for the demolition of Lawrence County Bridge No. 172,”* (Appendix D, D36-D38).

The Shawnee Tribe responded on May 12, 2023, stating no known historic properties will be negatively impacted by this project (Appendix D, D39).

No other responses to the HBAA were received. It should also be noted that no other parties have provided views on potential mitigation measures in response to comments in the May 8, 2023 SHPO letter.

A finding of “*Adverse Effect*” is appropriate for this project because the project will demolish Lawrence County Bridge 172, which is eligible for listing in the National Register.




A Section 106 public notice will be published in the *Bedford Times-Mail* offering the public the opportunity to make comments on FHWA’s “*Adverse Effect*” finding. A thirty (30) day comment period will be given. The document will be revised, if necessary, after the public notice to reflect any comments received. Additionally, Lawrence County will offer the opportunity for a public hearing related to this project.

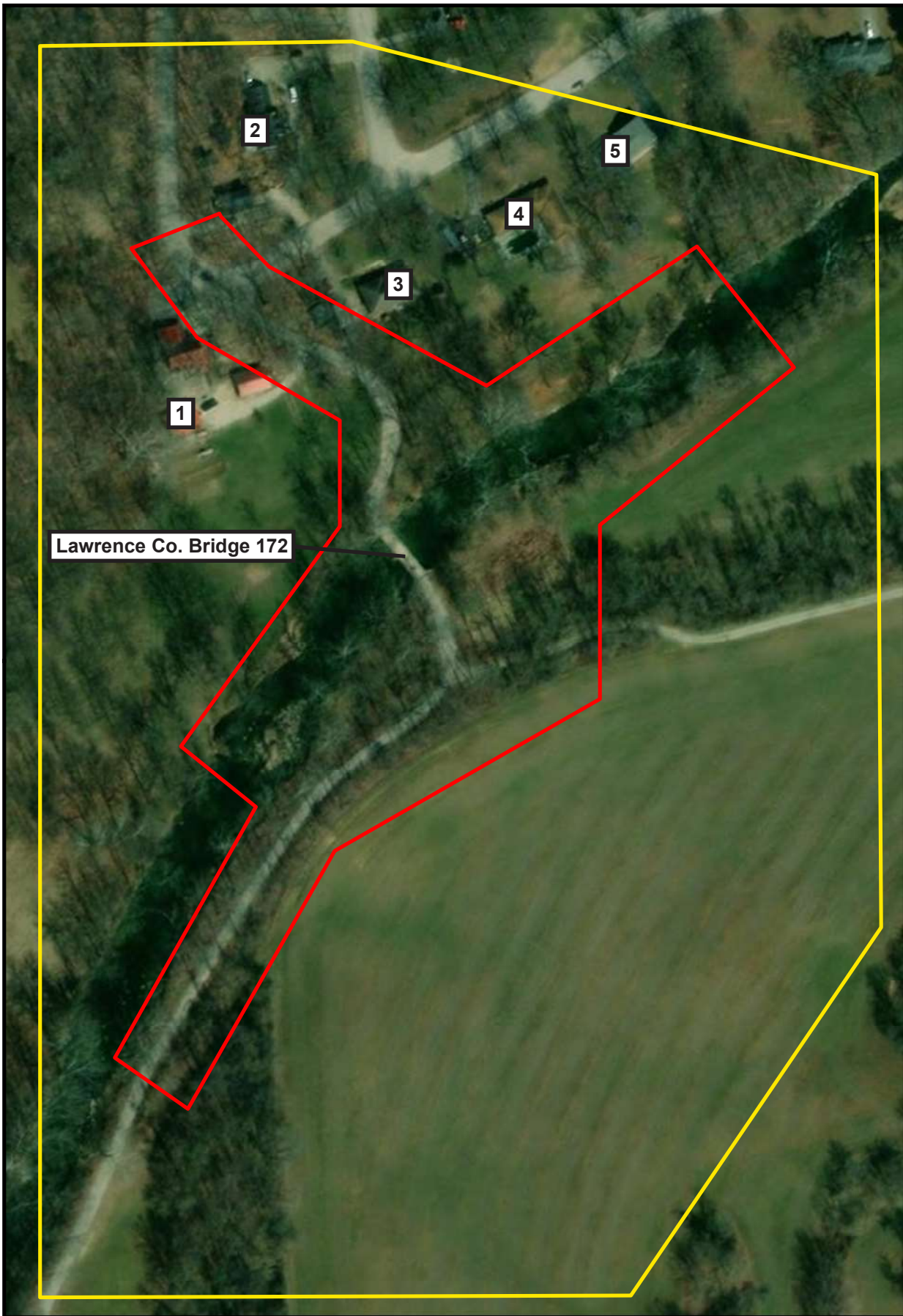
APPENDIX

- Appendix A: Invited Section 106 Consulting Parties
- Appendix B: Graphics
- Appendix C: Report Excerpts
- Appendix D: Correspondence



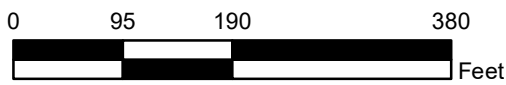
Legend

-  Project Area
-  Area of Potential Effects
-  Property Nos.



Lawrence Co. Bridge 172

Map Source: Indiana Geological Survey (IGS), IndianaMap, ArcGIS Online (ESRI) World Imagery.



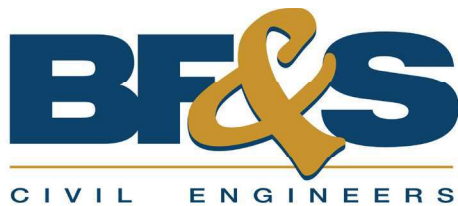
APE Map



Lawrence County Bridge 172
Cement Plant Rd over Leatherwood Creek
Des. No. 2002973, Bridge Project
Lawrence County, Indiana

HISTORIC PROPERTY SHORT REPORT

Lawrence County Bridge 172
Cement Plant Road over Leatherwood Creek
Bedford, Lawrence County, Indiana
Des. No.: 2002973



Elizabeth Biggio
Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300
Indianapolis, IN 46240
(317) 713-4615
ebiggio@bfsengr.com
July 12, 2022

Executive Summary

This Historic Property Short Report (HPSR) documents the identification and evaluation efforts for properties included in the Area of Potential Effects (APE) for a project that involves Lawrence County Bridge 172. Above-ground resources were identified and evaluated according to Section 106, National Historic Preservation Act (NHPA) of 1966, as amended, 36 CFR Part 800 (revised January 2001), the Final Rule on Revision of Current Regulations, dated December 12, 2000, and incorporating amendments effective August 5, 2004. As a result of the NHPA, as amended, federal agencies are required to take into account the impact of federal undertakings upon historic properties in the area of the undertaking. Historic properties include buildings, structures, sites, objects, and/or districts included in or eligible for inclusion in the National Register of Historic Places (National Register). This project will utilize funds from the Federal Highway Administration (FHWA), which makes it an undertaking subject to the Section 106 process.

Of the six properties within the APE, none are currently listed in the National Register. Within the APE, all six properties will meet the 50-year age criteria at time of project letting (2025). One structure has been previously determined eligible for the National Register:

Lawrence County Bridge 172 (National Bridge Inventory (NBI) No. 4700114): Cement Plant Road over Leatherwood Creek; 1909, Reinforced concrete girder

No additional properties identified in the APE are recommended eligible for listing in the National Register.

The following property has previously been determined eligible for the National Register:

Lawrence County Bridge 172 (NBI No. 4700114): This two-span continuous concrete girder bridge was determined eligible for the National Register in the IHBI under Criterion C for engineering significance as an early example of reinforced concrete construction. The bridge is approximately 72 feet long and has a clear roadway width of 11.9 feet. The bridge has a plain historic concrete railing. There is a debris diverter on the north side of the pier.

Lawrence County Bridge 172 was constructed in 1909 by Elbert W. Shirk to connect the United States Cement Company Plant to Bedford.⁴ “1909” is carved into the rail in the southwest corner of the bridge. The existing bridge replaced an earlier bridge that was washed away during a flood.⁵ Lawrence County was home to a number of cement plants in the late nineteenth and early twentieth centuries due to the availability of limestone in the area.

Lawrence County Bridge 172 retains its significance and integrity and continues to be eligible for listing in the National Register under Criterion C.

Conclusions

The APE contains no properties listed in the National Register. As a result of identification and evaluation efforts for this project, one property, **Lawrence County Bridge 172**, was found to have been previously determined eligible for listing in the National Register and remains eligible for the National Register. No additional properties are recommended eligible for listing in the National Register.



Figure 2: APE map (APE indicated in yellow)

Photo 1: North elevation of Lawrence County Bridge 172.



⁴ “Received Bids”, *Bedford Daily Mail*, July 19, 1909, p. 1.

⁵ “The Daily Main Supplement”, *Bedford Daily Mail*, May 1, 1909, p. 1.

Phase Ia Archaeological Reconnaissance for the Proposed
Bridge No. 172 Carrying Cement Plant Road Over Leatherwood Creek
Project (INDOT Des. No. 2002973), 0.33 Miles East of C Street in
Shawshick Township, Lawrence County, Indiana

Prepared by:

Louis Bubb, MA

Submitted By:

Louis Bubb, MA
Principal Investigator
4425 Redmont Avenue
Deer Park, Ohio 45236-3138
513.620.6770
LouisBubb@Gmail.com

Submitted To:

Elizabet Biggio
Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300
Indianapolis, Indiana 46240-8302
317.713.4615

Lead Agency:

Federal Highway Administration

September 27, 2022

A handwritten signature in black ink that reads "Louis Bubb". The signature is written in a cursive style with a large, looping initial "L" and a stylized "B".

Louis Bubb, MA, Principal Investigator
Project #106C-0512

VI: Summary & Recommendations

From June 9th to June 10th, and on June 22nd, 2022, 106 Consulting LLC (106C) conducted a Phase Ia archaeological field reconnaissance for the proposed Bridge No. 172 carrying Cement Plant Road over Leatherwood Creek project (INDOT Des. No. 2002973), 0.33 miles east of C Street in Shawshick Township, Lawrence County, Indiana. This investigation was conducted at the behest of Elizabet Biggio of Butler, Fairman & Seufert, Inc. in order to satisfy the requirements of Section 106 of National Historic Preservation Act.

The goals of this investigation were (1) to confirm or deny the presence of archaeological resources within the survey area and, if located, (2) to offer recommendations regarding their eligibility for inclusion in the National Register of Historic Places. The investigation consisted of a records review (which utilized site records, maps and other materials on file at the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology [DHPA] to identify previously recorded cultural resources within and surrounding the survey area) and a Phase Ia field reconnaissance (to document any cultural resources located within the survey area).

The literature review indicated that a prior cultural resources survey covered approximately 1.7 acres within the current 6.9 acre survey area. Two (2) archaeological sites – 12LR273 and 12LR486 – had been recorded within or adjacent to the current survey area and several others had been documented within 1.6 km (1.0 mi) of it, in topographic settings similar to those it contains. As such a Phase Ia field reconnaissance was warranted.

One (1) previously recorded archaeological site – 12LR486 – and two (2) previously unrecorded archaeological sites – 12LR1199 and 12LR1200 – were documented during this Phase Ia field reconnaissance. Of them, one (1) – 12LR1199 – was prehistoric and two (2) – 12LR486 and 12LR1200 – contained historic materials.

The prehistoric site – 12LR1199 – was a non-diagnostic isolated find. No fire-cracked rock was found in association with it and no evidence of cultural features or diagnostic horizons capable of providing significant cultural information was encountered. It is recommended that 12LR1199 be considered *not eligible* for the National Register of Historic Places.

The two (2) historic sites – 12LR486 and 12LR1200 – contained modest and unexceptional assemblages. Neither exhibited any evidence of cultural features or diagnostic horizons capable of providing significant cultural information. It is recommended that 12LR486 and 12LR1200 both be considered *not eligible* for the National Register of Historic Places.

No archaeological sites eligible for inclusion to the National Register of Historic Places were encountered within the current survey area. As such, project clearance is recommended.

In the unlikely event that unrecorded archaeological deposits are encountered during construction, all earthmoving activities must cease within 30 m (100 ft) of them and the Indiana Department of Transportation (INDOT) Cultural Resources Office (CRO) and the DHPA must be contacted to determine the next appropriate actions. If human remains are uncovered, IC 14-21-1 dictates that all earthmoving must cease within 30 m (100 ft) of them and that the CRO, DHPA, the local coroner and local law enforcement must be contacted within two (2) business days.



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-ES
Indianapolis, Indiana 46204

PHONE: (855) 463-6848

Eric Holcomb, Governor
Michael Smith, Commissioner

May 17, 2022

This letter was sent to the listed parties.

RE: Lawrence County Bridge No. 172, Des. No. 2002973, Section 106 ECL

Dear Consulting Party,

The Lawrence County Board of Commissioners, with funding from the Federal Highway Administration and administrative oversight from the Indiana Department of Transportation (INDOT), proposes to proceed with the Lawrence County Bridge No. 172 Project (Des. No. 2002973). Butler, Fairman, & Seufert (BF&S), is under contract with Lawrence County to advance the environmental documentation for the referenced project.

This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

The proposed undertaking is on Cement Plant Road over Leatherwood Creek in the City of Bedford, Lawrence County, Indiana. It is within Shawswick Township on the USGS Bedford East Quadrangle, in Section 24, Township 5 North, Range 1 West. Lawrence County Bridge 172 (NBI No. 4700114) is a 1909 continuous concrete girder bridge. It is eligible for the National Register of Historic Places and rated "Non-Select" in the Indiana Historic Bridge Inventory.

The need for the project derives from the deteriorated condition of Lawrence County Bridge 172. The bridge has been closed since June 2018. The deck, superstructure, and substructure have condition ratings of 4 (out of 9), or "poor". There is a large hole in the deck. The purpose of the project is to provide Lawrence County with an improved crossing for Cement Plant Road over Leatherwood Creek. Right-of-way (ROW) acquisition will be required and will be established when the full scope of the project is determined according to the Section 4(f) Historic Bridge Alternatives Analysis. The maximum project length would be approximately 0.22 mile.

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic and archaeological properties. In accordance with 36 CFR 800.2 (c), you are hereby requested to be a consulting party to participate in the Section 106 process. Entities that have been invited to participate in the Section 106 consultation process for this project are identified in the attached list. Per 36 CFR 800.3(f), we hereby request that the Indiana State Historic Preservation Officer (SHPO) notify this office if the SHPO staff is aware of any other parties that may be entitled to be consulting parties or should be contacted as potential consulting parties for the project.

The Section 106 process involves efforts to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. For more information regarding the protection of historic resources, please see the Advisory Council on Historic Preservation's guide: *Protecting Historic Properties: A Citizen's Guide to Section 106 Review* available online at <https://www.achp.gov/sites/default/files/documents/2017-01/CitizenGuide.pdf>.

Lawrence County is not eligible to participate in the *Programmatic Agreement Among the Federal Highway Administration, the Indiana Department of Transportation, the Indiana State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Management and Preservation of Indiana's Historic Bridges* (Historic Bridge PA) due to the 2012 demolition of two "Select" bridges, Lawrence County Bridge 20 and Lawrence County Bridge 80, using local funds. According to Stipulation IV.G of the Historic Bridge PA, "if FHWA or Indiana SHPO determine a bridge owner intentionally demolishes or otherwise diminishes the historic integrity of a Select Bridge under the bridge owner's jurisdiction with non-Federal-aid funds, then FHWA will comply with 36 CFR Part 800 for any future federal-aid bridge project proposed by that bridge owner." Therefore, the project will undergo full Section 106 review.

The Area of Potential Effects (APE) is the area in which the proposed project may cause alterations in the character or use of historic resources. At this time, no cultural resource investigations have occurred; however, the results of cultural resource identification and evaluation efforts, both above-ground and archaeological, will be forthcoming. Consulting parties will receive notification when these reports are completed.

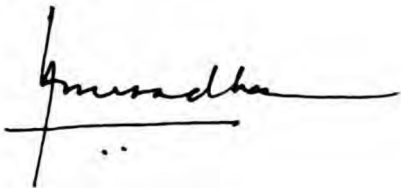
Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party, or if you do not respond, you will not be included on the list of consulting parties for this project. If we do not receive your response in the time allotted, the project will proceed consistent with the proposed design, and you will not receive further information about the project unless the design changes.

All future responses regarding the proposed project should be forwarded to BF&S at the following address:

Elizabeth Biggio
Architectural Historian II
Butler, Fairman, & Seufert, Inc.
8450 Westfield Boulevard, Suite 300
Indianapolis, IN 46240
ebiggio@bfsengr.com

Tribal contacts may contact Patty Jo Korzeniewski at pkorzeniewski@indot.in.gov or 317-416-4377 or Kari Carmany-George at FHWA at K.CarmanyGeorge@dot.gov or 317-226-5629.

Sincerely,



Anuradha V. Kumar, Manager
Cultural Resources Office
Environmental Services

Enclosures:

Topographic Map

Distribution List:

Indiana State Historic Preservation Officer
Indiana Landmarks Southern Regional Office
Lawrence County Historian
Lawrence County Museum of History & Edward L. Hutton Research Library
Historic SPANs Taskforce
Lawrence County Commissioners
Lawrence County Highway Department
Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Peoria Tribe of Indians of Oklahoma
Pokagon Band of Potawatomi Indians
Delaware Tribe of Indians, Oklahoma
Shawnee Tribe
Historic Bridge Foundation
Historic Hoosier Bridges
Historicbridges.org

Elizabeth Biggio

From: Elizabeth Biggio
Sent: Tuesday, May 17, 2022 9:41 AM
To: Slider, Chad (DNR); 'south@indianalandmarks.org'; 'marlahortonjones@gmail.com'; lchgs@lcmuseum.org; bwoodward@bedford.in.us; 'rodneyfish@comcast.net'; 'dgabhart@yahoo.com'; 'bwebb@lawrencecounty.in.gov'; Historic SPANs Task Force; Nathan Holth; 'kitty@historicbridgefoundation.com'; 'spansaver@hotmail.com'
Cc: Kennedy, Mary; Thomas, Michael J; Karen Wood; Bryan Wright
Subject: FHWA Project: Des. No. 2002973; Section 106 ECL; Lawrence County Bridge 172 project, Bedford, Lawrence County, Indiana
Attachments: LawrenceCo172_Des2002973_Sec106ECL_2022-05-17.pdf
Categories: Filed by Newforma

Des. No.: 2002973

Project Description: Bridge project, scope undetermined

Location: Cement Plant Road over Leatherwood Creek, Bedford, Lawrence County

Lawrence County, with funding from the Federal Highway Administration and administrative oversight from the Indiana Department of Transportation, proposes to proceed with the Lawrence County Bridge 172 Project (Des. No. 2002973).

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. The following agencies/individuals are being invited to become consulting parties:

Indiana State Historic Preservation Officer
Indiana Landmarks Southern Regional Office
Lawrence County Historian
Lawrence County Museum of History & Edward L. Hutton Research Library
Historic SPANs Taskforce
Lawrence County Commissioners
Lawrence County Highway Department
Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Peoria Tribe of Indians of Oklahoma
Pokagon Band of Potawatomi Indians
Delaware Tribe of Indians, Oklahoma
Shawnee Tribe
Historic Bridge Foundation
Historic Hoosier Bridges
Historicbridges.org

This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

Please review the attached letter, also located in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with your comments on any historic resource impacts incurred as a result of this project so that an environmental

report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If a hard copy of the materials is needed, please respond to this email with your request as soon as you can.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comments. If we do not receive a response from an invited consulting party within the time allotted, the project will proceed consistent with the proposed design. **Therefore, if we do not receive a response within thirty (30) days, your agency or organization will not receive any further information on the project unless the scope of work changes.**

Tribal contacts may enter the process at any time and are encouraged to respond to this notification with any comments or concerns at their earliest convenience. Tribal contacts may contact Patty Jo Korzeniewski at pkorzeniewski@indot.in.gov or 317-416-4377 or Kari Carmany-George at FHWA at K.CarmanyGeorge@dot.gov or 317-226-5629.

Thank you in advance for your input,

Elizabet Biggio
Architectural Historian

Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300 | Indianapolis, IN 46240-8302 |
p 317-713-4615 | f 317-713-4616
EBiggio@bfsengr.com | www.BFSEngr.com
Hours: M-R 7-4:30, F 7-12



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Elizabeth Biggio

From: Kennedy, Mary <MKENNEDY@indot.IN.gov>
Sent: Tuesday, May 17, 2022 10:02 AM
To: Larry Heady; thpo@estoo.net; THPO@MiamiNation.com; Charla EchoHawk; 'Matthew.Bussler@pokagonband-nsn.gov'; tonya@shawnee-tribe.com
Cc: Elizabeth Biggio; Carmany-George, Karstin (FHWA); Korzeniewski, Patricia J
Subject: FHWA Project: Des. No. 2002973; Section 106 ECL; Lawrence County Bridge 172 project, Bedford, Lawrence County, Indiana
Attachments: LawrenceCo172_Des2002973_Sec106ECL_2022-05-17.pdf

Des. No.: 2002973

Project Description: Bridge project, scope undetermined

Location: Cement Plant Road over Leatherwood Creek, Bedford, Lawrence County

Lawrence County, with funding from the Federal Highway Administration and administrative oversight from the Indiana Department of Transportation, proposes to proceed with the Lawrence County Bridge 172 Project (Des. No. 2002973).

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. The following agencies/individuals are being invited to become consulting parties:

Indiana State Historic Preservation Officer
Indiana Landmarks Southern Regional Office
Lawrence County Historian
Lawrence County Museum of History & Edward L. Hutton Research Library
Historic SPANs Taskforce
Lawrence County Commissioners
Lawrence County Highway Department
Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Peoria Tribe of Indians of Oklahoma
Pokagon Band of Potawatomi Indians
Delaware Tribe of Indians, Oklahoma
Shawnee Tribe
Historic Bridge Foundation
Historic Hoosier Bridges
Historicbridges.org

This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

Please review the attached letter, also located in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with your comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If a hard copy of the materials is needed, please respond to this email with your request as soon as you can.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comments. If we do not receive a response from an invited consulting party within the time allotted, the project will proceed consistent with the proposed design. **Therefore, if we do not receive a response within thirty (30) days, your agency or organization will not receive any further information on the project unless the scope of work changes.**

Tribal contacts may enter the process at any time and are encouraged to respond to this notification with any comments or concerns at their earliest convenience. Tribal contacts may contact Patty Jo Korzeniewski at pkorzeniewski@indot.in.gov or 317-416-4377 or Kari Carmany-George at FHWA at K.CarmanyGeorge@dot.gov or 317-226-5629.

Thank you in advance for your input,

Mary E. Kennedy

Historic Bridge Specialist

100 N. Senate Ave., Room N758-ES

Indianapolis, IN 46204

Email: mkennedy@indot.in.gov

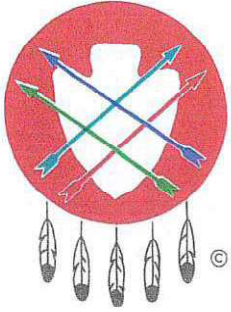
Phone: 317-694-3607

Typically on site Mon, Tues & Thurs; Remote Weds



*For the latest updates from INDOT's Cultural Resources Office, subscribe to the Environmental Services listserv: <https://www.in.gov/indot/3217.htm>

**Link to the CRO-Public Web Map App can be found [here](#)



PEORIA TRIBE OF INDIANS OF OKLAHOMA

118 S. Eight Tribes Trail (918) 540-2535 FAX (918) 540-2538

P.O. Box 1527

MIAMI, OKLAHOMA 74355

CHIEF
Craig Harper

SECOND CHIEF
Rosanna Dobbs

May 18, 2022

Patricia Korzeniewski
Tribal Contact
INDOT
100 N Senate Ave., Rm N642
Indianapolis, IN 46204

Re: DES#2002973; Lawrence County Bridge #172 over Leatherwood Creek

Thank you for providing notice of the referenced project. The Peoria Tribe of Indians of Oklahoma is unaware of a direct link to the newly proposed project location.

The Peoria Tribe of Indians of Oklahoma is also unaware of items covered under Native American Graves Protection and Repatriation Act (NAGPRA) to be associated with the proposed project site, including funerary or sacred objects; objects of cultural patrimony; or ancestral human remains.

The Peoria Tribe has no objection at this time to the proposed project. If, however, at any time items are discovered which fall under the protection of NAGPRA, the Peoria Tribe requests immediate notification and consultation. In addition, state, local and tribal authorities should be advised as to the findings and construction halted until consultation with all concerned parties has occurred.

Please feel free to contact me directly at the number above if additional consultation is necessary. Thank you again for your consideration with this matter.

Sincerely,

Charla K. EchoHawk
Director of Cultural Preservation

TREASURER
Hank Downum

SECRETARY
Tonya Mathews

FIRST COUNCILMAN
Carolyn Ritchey

SECOND COUNCILMAN
Kara North

THIRD COUNCILMAN
Isabella Clifford



Miami Tribe of Oklahoma

3410 P St. NW, Miami, OK 74354 • P.O. Box 1326, Miami, OK 74355
Ph: (918) 541-1300 • Fax: (918) 542-7260
www.miamination.com



Via email: PKorzeniewski@indot.in.gov

May 23, 2022

Patricia Jo Korzeniewski
Archaeologist and Environmental Manager
INDOT, Cultural Resources Office
100 North Senate Avenue, N758-ES
Indianapolis, Indiana 46204

Re: Des. No. 2002973, Lawrence County Bridge No. 172, Lawrence County, Indiana – Comments of the Miami Tribe of Oklahoma

Dear Ms. Korzeniewski:

Aya, kikwehsitoole – I show you respect. The Miami Tribe of Oklahoma, a federally recognized Indian tribe with a Constitution ratified in 1939 under the Oklahoma Indian Welfare Act of 1936, respectfully submits the following comments regarding Des. No. 2002973, Lawrence County Bridge No. 172 in Lawrence County, Indiana.

The Miami Tribe offers no objection to the above-referenced project at this time, as we are not currently aware of existing documentation directly linking a specific Miami cultural or historic site to the project site. However, given the Miami Tribe's deep and enduring relationship to its historic lands and cultural property within present-day Indiana, if any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of this project, the Miami Tribe requests immediate consultation with the entity of jurisdiction for the location of discovery. In such a case, please contact me at 918-541-8966 or by email at THPO@miamination.com to initiate consultation.

The Miami Tribe accepts the invitation to serve as a consulting party to the proposed project. In my capacity as Tribal Historic Preservation Officer I am the point of contact for consultation.

Respectfully,

Diane Hunter
Tribal Historic Preservation Officer

Division of Historic Preservation & Archaeology · 402 W. Washington Street, W274 · Indianapolis, IN 46204-2739
Phone 317-232-1646 · Fax 317-232-0693 · dhpa@dnr.IN.gov ·



May 24, 2022

Elizabeth Biggio
Architectural Historian II
Butler, Fairman, & Seufert, Inc.
8450 Westfield Boulevard, Suite 300
Indianapolis, Indiana 46240

Federal Agency: Indiana Department of Transportation (“INDOT”),
on behalf of Federal Highway Administration, Indiana Division (“FHWA”)

Re: Early coordination letter for the Lawrence County Bridge No. 172 carrying Cement Plant Road
over Leatherwood Creek (Des. No. 2002973; DHPA No. 29263)

Dear Ms. Biggio:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the “Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana,” the staff of the Indiana State Historic Preservation Officer (“Indiana SHPO”) has reviewed your May 17, 2022, review request submittal form which enclosed INDOT’s early coordination letter, received by our office the same day for this project in Bedford, Lawrence County, Indiana.

We note that Lawrence County is not eligible to participate in the *Programmatic Agreement Among the Federal Highway Administration, the Indiana Department of Transportation, the Indiana State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Management and Preservation of Indiana’s Historic Bridges* (Historic Bridges PA) due to the demolition of two “Select” Bridges. Thus, this project will go through the full Section 106 process.

In addition to the consulting parties INDOT has invited, and due to the location of the subject bridge within the City of Bedford, we suggest also inviting the Bedford Historic Review Board and Bedford Revitalization Inc. to participate in the Section 106 consultation on this federal undertaking. In your next regular correspondence on this project, please advise us as to which of the invited consulting parties has accepted the invitation.

Bedford Historic Review Board
Brandon Woodward, Planning/Zoning Director
City Hall
Bedford, Indiana 47421
bwoodward@bedford.in.us

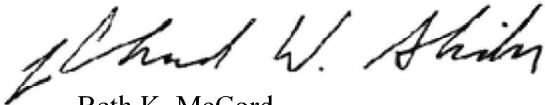
Bedford Revitalization, Inc.
Susan Gales, President
P.O. Box 221
Bedford, Indiana 47421

We look forward to reviewing the proposed area of potential effects and the reports on investigations of above-ground cultural resources and archaeological resources that the early coordination letter indicated will be forthcoming.

The Indiana SHPO staff's archaeological reviewer for this project is Wade T. Tharp, and the structures reviewer is Danielle Kauffmann. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

In all future correspondence about the Lawrence County Bridge No. 172 project in Lawrence County (Des. No. 2002973), please refer to DHPA No. 29263.

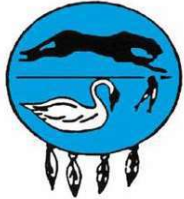
Very truly yours,



Beth K. McCord
Deputy State Historic Preservation Officer

BKM:DMK:dmk

emc: Anuradha Kumar, INDOT
Matt Coon, INDOT
Susan Branigin, INDOT
Mary Kennedy, INDOT
Elizabet Biggio, Butler, Fairman, & Seufert, Inc.
Danielle Kauffmann, DNR-DHPA
Wade T. Tharp, DNR-DHPA



**EASTERN SHAWNEE
CULTURAL PRESERVATION DEPARTMENT**

70500 East 128 Road, Wyandotte, OK 74370

June 6, 2022

INDOT - Indiana Department of Transportation
100 N. Senate Ave. IGCN642
Indianapolis, IN 46201

RE: Des No. 2002973, Lawrence County, Indiana

Dear Ms. Korzeniewski,

The Eastern Shawnee Tribe has received your letter regarding the above referenced project(s) within Lawrence County, Indiana. The Eastern Shawnee Tribe is committed to protecting sites important to Tribal Heritage, Culture and Religion. Furthermore, the Tribe is particularly concerned with historical sites that may contain but not limited to the burial(s) of human remains and associated funerary objects.

As described in your correspondence, and upon research of our database(s) and files, we find our people occupied these areas historically and/or prehistorically. However, the project proposes **NO Adverse Effect** or endangerment to known sites of interest to the Eastern Shawnee Tribe. Please continue project as planned. However, should this project inadvertently discover an archeological site or object(s) we request that you immediately contact the Eastern Shawnee Tribe, as well as the appropriate state agencies (within 24 hours). We also ask that all ground disturbing activity stop until the Tribe and State agencies are consulted. Please note that any future changes to this project will require additional consultation.

In accordance with the NHPA of 1966 (16 U.S.C. § 470-470w-6), federally funded, licensed, or permitted undertakings that are subject to the Section 106 review process must determine effects to significant historic properties. As clarified in Section 101(d)(6)(A-B), historic properties may have religious and/or cultural significance to Indian Tribes. Section 106 of NHPA requires Federal agencies to consider the effects of their actions on all significant historic properties (36 CFR Part 800) as does the National Environmental Policy Act of 1969 (43 U.S.C. § 4321-4347 and 40 CFR § 1501.7(a)). This letter evidences NHPA and NEPA historic properties compliance pertaining to consultation with this Tribe regarding the referenced proposed projects.

Thank you, for contacting the Eastern Shawnee Tribe, we appreciate your cooperation. Should you have any further questions or comments please contact our Office.

Sincerely,

Paul Barton, Tribal Historic Preservation Officer (THPO)
Eastern Shawnee Tribe of Oklahoma
(918) 666-5151 Ext:1833
THPO@estoo.net

From: Section106 <section106@shawnee-tribe.com>
Sent: Thursday, June 9, 2022 4:59 PM
To: Kennedy, Mary
Subject: Shawnee Tribe Response--Des. No. 2002973; Section 106 ECL; Lawrence County Bridge 172 project, Bedford, Lawrence County, Indiana

Follow Up Flag: Follow up
Flag Status: Flagged

**** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ****

This letter is in response to the above referenced project.

The Shawnee Tribe's Tribal Historic Preservation Department concurs that no known historic properties will be negatively impacted by this project. However, there is still potential for the discovery of unknown resources. We would like to accept your invitation for consultation.

We have no issues or concerns at this time, but in the event that archaeological materials are encountered during construction, use, or maintenance of this location, please re-notify us at that time as we would like to resume immediate consultation under such a circumstance.

If you have any questions, you may contact me via email at Section106@shawnee-tribe.com

Thank you for giving us the opportunity to comment on this project.

Sincerely,



Erin Paden
TRIBAL HISTORIC PRESERVATION
SPECIALIST

Office: (918) 542-2441, x140
Email: epaden@shawnee-tribe.com

29 S Hwy 69A
Miami, OK 74354

shawnee-tribe.com



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758
Indianapolis, Indiana 46204

PHONE: (855) 463-6848

Eric Holcomb, Governor
Michael Smith, Commissioner

July 13, 2022

This letter was sent to the listed parties.

RE: Lawrence County Bridge No. 172, Des. No. 2002973; Lawrence County, Indiana

Dear Consulting Party,

The Lawrence County Board of Commissioners, with funding from the Federal Highway Administration and administrative oversight from the Indiana Department of Transportation (INDOT), proposes to proceed with the Lawrence County Bridge No. 172 Project (Des. No. 2002973).

This letter is part of the Section 106 review process for this project. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. We are requesting comments from you regarding the possible effects of this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

A Section 106 early coordination letter was distributed on May 17, 2022.

The proposed undertaking is on Cement Plant Road over Leatherwood Creek in the City of Bedford, Lawrence County, Indiana. It is within Shawswick Township on the USGS Bedford East Quadrangle, in Section 24, Township 5 North, Range 1 West. Lawrence County Bridge 172 is a 1909 continuous concrete girder bridge. It is rated "Non-Select" in the Indiana Historic Bridge Inventory.

The need for the project derives from the deteriorated condition of Lawrence County Bridge 172. The deck, superstructure, and substructure have condition ratings of 4 (out of 9), or "poor". The bridge has been closed since June 2018. There is a large hole in the deck. The purpose of the project is to provide Lawrence County with an improved crossing for Cement Plant Road over Leatherwood Creek. Right-of-way (ROW) acquisition will be required and will be established when the full scope of the project is determined according to the Section 4(f) Historic Bridge Alternatives Analysis. The maximum project length would be approximately 0.22 mile.

Lawrence County is not eligible to participate in the Programmatic Agreement Among the Federal Highway Administration, the Indiana Department of Transportation, the Indiana State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Management and Preservation of Indiana's Historic Bridges (Historic Bridge PA) due to the 2012 demolition of two "Select" bridges, Lawrence County Bridge 20 and Lawrence County Bridge 80, using local funds. According to Stipulation IV.G of the Historic Bridge PA, "if FHWA or Indiana SHPO determine a bridge owner intentionally demolishes or otherwise diminishes the historic integrity of a Select Bridge under the bridge owner's jurisdiction with non-Federal-aid funds, then FHWA will comply with 36 CFR Part 800 for any future federal-aid bridge project proposed by that bridge owner." Therefore, the project will undergo full Section 106 review.

Butler, Fairman, & Seufert, Inc. is under contract with Lawrence County to advance the environmental documentation for the referenced project. 106 Consulting, LLC. was subcontracted to complete the archaeological investigation.

In accordance with 36 CFR 800.2 (c), you were invited to become a consulting party as part of the Section 106 process, or you are hereby invited to become a consulting party as part of the Section 106 process. Entities that have previously accepted consulting party status--as well as additional entities that are currently being invited to become consulting parties--are identified in the attached list.

The Section 106 process involves efforts to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. For more information regarding the protection of historic resources, please see the Advisory Council on Historic Preservation's guide: *Protecting Historic Properties: A Citizen's Guide to Section 106 Review* available online at <https://www.achp.gov/sites/default/files/documents/2017-01/CitizenGuide.pdf>.

The Area of Potential Effects (APE) is the area in which the proposed project may cause alterations in the character or use of historic resources. The APE contains no resources listed in the National Register of Historic Places (NRHP).

A historian who meets the Secretary of the Interior's Professional Qualification Standards identified and evaluated above-ground resources within the APE for potential eligibility for the NRHP. As a result of the historic property identification and evaluation efforts, no above-ground resources are recommended as eligible for listing in the NRHP aside from Bridge No. 172.

An archaeologist who meets the Secretary of the Interior's Professional Qualification Standards is conducting a survey of archaeological resources within the APE for potential eligibility for listing in the NRHP. A report of that investigation is forthcoming and will be distributed to the appropriate consulting parties for review at a later date.

The Miami Tribe of Oklahoma responded on May 23, 2022, stating they had no objection to the project. The letter also noted the Tribe's connections the area and their interest if any archaeological resources were uncovered. The Eastern Shawnee Tribe of Oklahoma responded on June 6, 2022, stating the project would cause no adverse effects to known sites of interest to the Eastern Shawnee Tribe. The Shawnee Tribe responded on June 9, 2022, accepting consulting party status and stating no known historic properties will be negatively impacted by this project. The Indiana State Historic Preservation Officer (SHPO) responded on May 24, 2022 and requested the Bedford Historic Review Board be invited to be a consulting party. The Bedford Historic Review Board is being invited to participate in the project consultation through distribution of this letter.

The Historic Property Report is available for review in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE). You are invited to review these documents and to respond with comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If you prefer a hard-copy of this material, please respond to this email with your request within seven days.

Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party or if you have not previously accepted consulting party status and you do not respond to this letter, you will not be included on the list of consulting parties for this project and will not receive further information about the project unless the design changes. Tribal consulting parties may enter the process at any time and are encouraged to respond to this notification with any comments or concerns at their earliest convenience.

All future responses regarding the proposed project should be forwarded to Butler, Fairman, & Seufert, Inc. at the following address:

Elizabet Biggio
Architectural Historian II
Butler, Fairman, & Seufert, Inc.
8450 Westfield Boulevard, Suite 300
Indianapolis, IN 46240
317-713-4615

ebiggio@bfsengr.com

Tribal Contacts, please respond to INDOT's Tribal Liaison, Patty Jo Korzeniewski at korzeniewski@indot.in.gov (317-416-4377) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Sincerely,

A handwritten signature in black ink, appearing to read 'Matt Coon', with a long horizontal flourish extending to the right.

Matt Coon, Acting Manager
Cultural Resources Office
Environmental Services

Enclosures:

Historic Property Short Report

Distribution List:

Indiana State Historic Preservation Officer
Bedford Historic Review Board
Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Shawnee Tribe

Elizabet Biggio

From: Elizabet Biggio
Sent: Wednesday, July 13, 2022 9:47 AM
To: Giffin, Toni L; Tharp, Wade; bwoodward@bedford.in.us; info@downtownbedford.org
Cc: Kennedy, Mary; SBranigin@indot.IN.gov; Coon, Matthew (mcoon@indot.IN.gov); Bryan Wright
Subject: FHWA Project: Des. No. 2002973; HPR; Lawrence County Bridge 172 project, Bedford, Lawrence County, Indiana

Lawrence County, Indiana

Des. No.: 2002973

Project Description: Bridge project, scope undetermined

Location: Cement Plant Road over Leatherwood Creek, Bedford, Lawrence County

Lawrence County, with funding from the Federal Highway Administration and administrative oversight from the Indiana Department of Transportation, proposes to proceed with the Lawrence County Bridge 172 Project (Des. No. 2002973). The Section 106 Early Coordination Letter for this project was originally distributed on May 17, 2022.

As part of Section 106 of the National Historic Preservation Act, a Historic Property Report has been prepared and are ready for review and comment by consulting parties.

This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

Please review this documentation located in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with any comments that you may have. If a hard copy of the materials is needed, please respond to this email within seven days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. Tribal consulting parties may enter the process at any time and are encouraged to respond to this notification with any comments or concerns at their earliest convenience.

Tribal Contacts, please respond to INDOT's Tribal Liaison, Patty Jo Korzeniewski at korzeniewski@indot.in.gov (317-416-4377) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Thank you in advance for your input,



Elizabet Biggio
Architectural Historian

Butler, Fairman & Seufert, Inc.
p 317-713-4615
EBiggio@bfsengr.com | www.bfsengr.com

8450 Westfield Blvd., Suite 300, Indianapolis, IN 46240-8302

www.bfsengr.com



Elizabeth Biggio

From: Kennedy, Mary <MKENNEDY@indot.IN.gov>
Sent: Wednesday, July 13, 2022 9:59 AM
To: thpo@estoo.net; THPO@MiamiNation.com; Section106
Cc: Elizabeth Biggio; Korzeniewski, Patricia J; Carmany-George, Karstin (FHWA)
Subject: FHWA Project: Des. No. 2002973; HPR; Lawrence County Bridge 172 project, Bedford, Lawrence County, Indiana

Lawrence County, Indiana

Des. No.: 2002973

Project Description: Bridge project, scope undetermined

Location: Cement Plant Road over Leatherwood Creek, Bedford, Lawrence County

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Tribal Contacts, please respond to INDOT's Tribal Liaison, Patty Jo Korzeniewski at korzeniewski@indot.in.gov (317-416-4377) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Thank you in advance for your input,

Mary E. Kennedy

Historic Bridge Specialist

100 N. Senate Ave., Room N758-ES

Indianapolis, IN 46204

Email: mkennedy@indot.in.gov

Phone: 317-694-3607

Typically on site Mon, Tues & Thurs; Remote Weds





Miami Tribe of Oklahoma

3410 P St. NW, Miami, OK 74354 • P.O. Box 1326, Miami, OK 74355
Ph: (918) 541-1300 • Fax: (918) 542-7260
www.miamination.com



Via email: PKorzeniewski@indot.in.gov

July 18, 2022

Patricia Jo Korzeniewski
Archaeologist and Environmental Manager
INDOT, Cultural Resources Office
100 North Senate Avenue, N758-ES
Indianapolis, Indiana 46204

Re: Des. No. 2002973, Lawrence County Bridge No. 172, Lawrence County, Indiana –
Comments of the Miami Tribe of Oklahoma

Dear Ms. Korzeniewski:

Aya, kikwehsitoole – I show you respect. The Miami Tribe of Oklahoma, a federally recognized Indian tribe with a Constitution ratified in 1939 under the Oklahoma Indian Welfare Act of 1936, respectfully submits the following comments regarding Des. No. 2002973, Lawrence County Bridge No. 172 in Lawrence County, Indiana.

The Miami Tribe offers no objection to the above-referenced project at this time, as we are not currently aware of existing documentation directly linking a specific Miami cultural or historic site to the project site. However, given the Miami Tribe's deep and enduring relationship to its historic lands and cultural property within present-day Indiana, if any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of this project, the Miami Tribe requests immediate consultation with the entity of jurisdiction for the location of discovery. In such a case, please contact me at 918-541-8966 or by email at THPO@miamination.com to initiate consultation.

The Miami Tribe accepts the invitation to serve as a consulting party to the proposed project. In my capacity as Tribal Historic Preservation Officer I am the point of contact for consultation.

Respectfully,

Diane Hunter
Tribal Historic Preservation Officer



July 27, 2022

Elizabeth Biggio
Architectural Historian II
Butler, Fairman, & Seufert, Inc.
8450 Westfield Boulevard, Suite 300
Indianapolis, Indiana 46240

Federal Agency: Indiana Department of Transportation (“INDOT”),
on behalf of Federal Highway Administration, Indiana Division (“FHWA”)

Re: Historic property short report (Biggio, 7/12/2022) for the Lawrence County Bridge No. 172
carrying Cement Plant Road over Leatherwood Creek (Des. No. 2002973; DHPA No. 29263)

Dear Ms. Biggio:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the “Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana,” the staff of the Indiana State Historic Preservation Officer (“Indiana SHPO”) has reviewed your July 13, 2022, review request submittal form which enclosed the historic property short report (“HPSR”; Biggio, 7/12/2022), received by our office the same day for this project in Bedford, Lawrence County, Indiana.

As previously indicated, Lawrence County is not eligible to participate in the *Programmatic Agreement Among the Federal Highway Administration, the Indiana Department of Transportation, the Indiana State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Management and Preservation of Indiana’s Historic Bridges* (Historic Bridges PA) due to the demolition of two “Select” Bridges. Thus, this project will go through the full Section 106 process.

The area of potential effects (“APE”) proposed in the HPSR appears to be of adequate size to encompass the geographic area in which direct and indirect effects of a project of this nature could occur. For the purposes of the Section 106 review of this federal undertaking, we agree that the Lawrence County Bridge Number 172, a c. 1909 continuous reinforced concrete girder, was previously determined eligible for inclusion in the National Register of Historic Places (“NRHP”) as part of the *Indiana Historic Bridges Inventory*. We agree that there are no other historic properties listed or eligible for inclusion in the NRHP within the project’s APE.

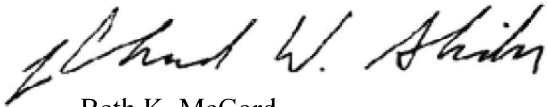
As INDOT’s July 13, 2022, letter indicates, the report on investigations of archaeological resources is forthcoming. We look forward to reviewing and commenting on that report.

Elizabet Biggio
July 27, 2022
Page 2

The Indiana SHPO staff's archaeological reviewer for this project is Wade T. Tharp, and the structures reviewer is Danielle Kauffmann. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

In all future correspondence about the Lawrence County Bridge No. 172 project in Lawrence County (Des. No. 2002973), please refer to DHPA No. 29263.

Very truly yours,



Beth K. McCord
Deputy State Historic Preservation Officer

BKM:DMK:dmk

emc: Kari Carmany-George, FHWA
Matt Coon, INDOT
Susan Branigin, INDOT
Mary Kennedy, INDOT
Elizabet Biggio, Butler, Fairman, & Seufert, Inc.
Danielle Kauffmann, DNR-DHPA
Wade T. Tharp, DNR-DHPA

From: Section106 <section106@shawnee-tribe.com>
Sent: Thursday, August 18, 2022 10:08 AM
To: Kennedy, Mary; Coon, Matthew; Korzeniewski, Patricia J
Subject: RE: FHWA Project: Des. No. 2002973; HPR; Lawrence County Bridge 172 project, Bedford, Lawrence County, Indiana

**** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ****

This letter is in response to the above referenced project.

The Shawnee Tribe's Tribal Historic Preservation Department concurs that no known historic properties will be negatively impacted by this project. However, there is still potential for the discovery of unknown resources. We would like to accept your invitation for consultation.

We have no issues or concerns at this time, but in the event that archaeological materials are encountered during construction, use, or maintenance of this location, please re-notify us at that time as we would like to resume immediate consultation under such a circumstance.

If you have any questions, you may contact me via email at Section106@shawnee-tribe.com

Thank you for giving us the opportunity to comment on this project.

Sincerely,

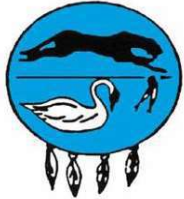


Erin Paden
TRIBAL HISTORIC PRESERVATION
SPECIALIST

Office: (918) 542-2441, x140
Email: epaden@shawnee-tribe.com

29 S Hwy 69A
Miami, OK 74354

shawnee-tribe.com



**EASTERN SHAWNEE
CULTURAL PRESERVATION DEPARTMENT**

70500 East 128 Road, Wyandotte, OK 74370

September 13, 2022

INDOT - Indiana Department of Transportation
100 N. Senate Ave. IGCN642
Indianapolis, IN 46201

RE: Des No. 2002973, Lawrence County, Indiana

Dear Ms. Carmany-George,

The Eastern Shawnee Tribe has received your letter regarding the above referenced project(s) within Lawrence County, Indiana. The Eastern Shawnee Tribe is committed to protecting sites important to Tribal Heritage, Culture and Religion. Furthermore, the Tribe is particularly concerned with historical sites that may contain but not limited to the burial(s) of human remains and associated funerary objects.

As described in your correspondence, and upon research of our database(s) and files, we find our people occupied these areas historically and/or prehistorically. However, the project proposes **NO Adverse Effect** or endangerment to known sites of interest to the Eastern Shawnee Tribe. Please continue project as planned. However, should this project inadvertently discover an archeological site or object(s) we request that you immediately contact the Eastern Shawnee Tribe, as well as the appropriate state agencies (within 24 hours). We also ask that all ground disturbing activity stop until the Tribe and State agencies are consulted. Please note that any future changes to this project will require additional consultation.

In accordance with the NHPA of 1966 (16 U.S.C. § 470-470w-6), federally funded, licensed, or permitted undertakings that are subject to the Section 106 review process must determine effects to significant historic properties. As clarified in Section 101(d)(6)(A-B), historic properties may have religious and/or cultural significance to Indian Tribes. Section 106 of NHPA requires Federal agencies to consider the effects of their actions on all significant historic properties (36 CFR Part 800) as does the National Environmental Policy Act of 1969 (43 U.S.C. § 4321-4347 and 40 CFR § 1501.7(a)). This letter evidences NHPA and NEPA historic properties compliance pertaining to consultation with this Tribe regarding the referenced proposed projects.

Thank you, for contacting the Eastern Shawnee Tribe, we appreciate your cooperation. Should you have any further questions or comments please contact our Office.

Sincerely,

A handwritten signature in blue ink that reads "Paul Barton".

Paul Barton, Tribal Historic Preservation Officer (THPO)
Eastern Shawnee Tribe of Oklahoma
(918) 666-5151 Ext:1833
THPO@estoo.net



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-ES
Indianapolis, Indiana 46204

PHONE: (855) 463-6848

Eric Holcomb, Governor
Michael Smith, Commissioner

October 3, 2022

This letter was sent to the listed parties.

RE: Lawrence County Bridge No. 172, Des. No. 2002973, DHPA No. 29263; Lawrence County, Indiana

Dear Consulting Party,

The Lawrence County Board of Commissioners, with funding from the Federal Highway Administration and administrative oversight from the Indiana Department of Transportation (INDOT), proposes to proceed with the Lawrence County Bridge No. 172 Project (Des. No. 2002973).

This letter is part of the Section 106 review process for this project. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. We are requesting comments from you regarding the possible effects of this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

A Section 106 early coordination letter was distributed on May 17, 2022. In addition, a Historic Property Report was distributed on July 13, 2022.

The proposed undertaking is on Cement Plan Road over Leatherwood Creek in the City of Bedford, Lawrence County, Indiana. It is within Shawswick Township on the USGS Bedford East Quadrangle, in Section 24, Township 5 North, Range 1 West. Lawrence County Bridge 172 is a 1909 continuous concrete girder bridge. It is rated "Non-Select" in the Indiana Historic Bridge Inventory.

The need for the project derives from the deteriorated condition of Lawrence County Bridge 172. The deck, superstructure, and substructure have condition ratings of 4 (out of 9), or "poor". The bridge has been closed since June 2018. There is a large hole in the deck. The purpose of the project is to provide Lawrence County with an improved crossing for Cement Plant Road over Leatherwood Creek. Right-of-way (ROW) acquisition will be required and will be established when the full scope of the project is determined according to the Section 4(f) Historic Bridge Alternatives Analysis. The maximum project length would be approximately 0.22 mile.

Lawrence County is not eligible to participate in the Programmatic Agreement Among the Federal Highway Administration, the Indiana Department of Transportation, the Indiana State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Management and Preservation of Indiana's Historic Bridges (Historic Bridge PA) due to the 2012 demolition of two "Select" bridges, Lawrence County Bridge 20 and Lawrence County Bridge 80, using local funds. According to Stipulation IV.G of the Historic Bridge PA, "if FHWA or Indiana SHPO determine a bridge owner intentionally demolishes or otherwise diminishes the historic integrity of a Select Bridge under the bridge owner's jurisdiction with non-Federal-aid funds, then FHWA will comply with 36 CFR Part 800 for any future federal-aid bridge project proposed by that bridge owner." Therefore, the project will undergo full Section 106 review.

Butler, Fairman, & Seufert, Inc. is under contract with Lawrence County to advance the environmental documentation for the referenced project. 106 Consulting, LLC. was subcontracted to complete the archaeological investigation.

In accordance with 36 CFR 800.2 (c), you were invited to become a consulting party as part of the Section 106 process, or you are hereby invited to become a consulting party as part of the Section 106 process. Entities that have previously accepted consulting party status--as well as additional entities that are currently being invited to become consulting parties--are identified in the attached list.

The Section 106 process involves efforts to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. For more information regarding the protection of historic resources, please see the Advisory Council on Historic Preservation's guide: *Protecting Historic Properties: A Citizen's Guide to Section 106 Review* available online at <https://www.achp.gov/sites/default/files/documents/2017-01/CitizenGuide.pdf> .

The Area of Potential Effects (APE) is the area in which the proposed project may cause alterations in the character or use of historic resources. The APE contains no resources listed in the National Register of Historic Places (NRHP).

A historian who meets the Secretary of the Interior's Professional Qualification Standards identified and evaluated above-ground resources within the APE for potential eligibility for the NRHP. As a result of the historic property identification and evaluation efforts, no above-ground resources are recommended as eligible for listing in the NRHP aside from Bridge No. 172.

The Miami Tribe of Oklahoma responded to the Historic Property Report on July 18, 2022, stating they had no objection to the project. The letter also noted the Tribe's connections the area and their interest if any archaeological resources were uncovered. The Indiana State Historic Preservation Officer (SHPO) responded on July 27, 2022, concurring that Lawrence County Bridge No. 172 is the only above-ground resource as eligible for listing in the NRHP within the APE.

With regard to archaeological resources, an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards identified three sites within the project area. As a result of these efforts, sites 12Lr0486, 12Lr1199, and 12Lr1200 were recommended not eligible for listing in the NRHP and no further work is recommended.

The Archaeology Report is available for review in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE). You are invited to review these documents and to respond with comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If you prefer a hard-copy of this material, please respond to this email with your request within seven days.

Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party or if you have not previously accepted consulting party status and you do not respond to this letter, you will not be included on the list of consulting parties for this project and will not receive further information about the project unless the design changes. Tribal consulting parties may enter the process at any time and are encouraged to respond to this notification with any comments or concerns at their earliest convenience.

All future responses regarding the proposed project should be forwarded to Butler, Fairman, & Seufert, Inc. at the following address:

Elizabet Biggio
Architectural Historian II
Butler, Fairman, & Seufert, Inc.
8450 Westfield Boulevard, Suite 300
Indianapolis, IN 46240
317-713-4615
ebiggio@bfsengr.com

Tribal Contacts, please respond to INDOT's Acting Tribal Liaison, Matt Coon at mcoon@indot.in.gov (317-233-2083) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Sincerely,



Matt Coon, Acting Manager
Cultural Resources Office
Environmental Services

Enclosures:

Archeology Report

Distribution List:

Indiana State Historic Preservation Officer
Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Peoria Tribe of Indians of Oklahoma
Pokagon Band of Potawatomi Indians
Delaware Tribe of Indians, Oklahoma
Shawnee Tribe

Elizabeth Biggio

From: Elizabeth Biggio
Sent: Monday, October 3, 2022 9:48 AM
To: 'Tharp, Wade'; Kauffmann, Danielle
Cc: Blum, Kaylee; Kennedy, Mary
Subject: FHWA Project: Des. No. 2002973; Archaeology Report; Lawrence County Bridge 172 project, Bedford, Lawrence County, Indiana
Attachments: LawrenceCo172_Des2002973_Archaeology Letter_2022-10-03.pdf
Categories: Filed by Newforma

Des. No.: 2002973

Project Description: Bridge project, scope undetermined

Location: Cement Plant Road over Leatherwood Creek, Bedford, Lawrence County

Lawrence County, with funding from the Federal Highway Administration and administrative oversight from the Indiana Department of Transportation, proposes to proceed with the Lawrence County Bridge 172 Project (Des. No. 2002973). The Section 106 Early Coordination Letter for this project was originally distributed on May 17, 2022. A Historic Property Report was distributed on July 13, 2022.

As part of Section 106 of the National Historic Preservation Act, an Archaeology Report has been prepared and are ready for review and comment by consulting parties.

This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

Please review this documentation located in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with any comments that you may have. If a hard copy of the materials is needed, please respond to this email within seven days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. Tribal consulting parties may enter the process at any time and are encouraged to respond to this notification with any comments or concerns at their earliest convenience.

Tribal Contacts, please respond to INDOT's Acting Tribal Liaison, Matt Coon at mcoon@indot.in.gov (317-233-2083) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Thank you in advance for your input,



Elizabeth Biggio
Architectural Historian

Butler, Fairman & Seufert, Inc.
p 317-713-4615
EBiggio@bfsengr.com | www.bfsengr.com

8450 Westfield Blvd., Suite 300, Indianapolis, IN 46240-8302

From: Blum, Kaylee
Sent: Monday, October 3, 2022 1:48 PM
To: thpo@estoo.net; thpo@miamination.com; Charla EchoHawk; Matthew Bussler; Section106@shawnee-tribe.com; lheady@delawaretribe.org; sbachor@delawaretribe.org
Cc: Coon, Matthew; Carmany-George, Karstin (FHWA); Blum, Kaylee
Subject: Clearance for FHWA Project: Des. No. 2002973; Lawrence County Bridge 172 project, Bedford, Lawrence County, Indiana

Des. No.: 2002973
Project Description: Lawrence County Bridge 172 Project
Location: Bedford, Lawrence County, Indiana

The Indiana Department of Transportation, with funding from the Federal Highway Administration, proposes to proceed with the Lawrence County Bridge 172 Project (Des. No. 2002973). The Section 106 Early Coordination Letter for this project was originally distributed in a letter on May 17, 2022, and additional information was distributed in a letter on July 13, 2022.

As part of Section 106 of the National Historic Preservation Act, an Archaeology report has been prepared and is ready for review and comment by consulting parties.

Please review this documentation located in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with any comments that you may have. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days. Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment.

Tribal Contacts please respond to INDOT's Acting Tribal Liaison, Matt Coon mcoon@indot.in.gov (317-697-9752) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. *The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).*

Thank you,

KayLee A. Blum, M.S.
Archaeologist & Environmental Manager
INDOT, Cultural Resources Office
100 North Senate Avenue, N758-ES
Indianapolis, Indiana 46204
KBlum@indot.in.gov
317-439-3337

Division of Historic Preservation & Archaeology · 402 W. Washington Street, W274 · Indianapolis, IN 46204-2739
Phone 317-232-1646 · Fax 317-232-0693 · dhpa@dnr.IN.gov ·



December 5, 2022

Elizabet Biggio
Architectural Historian II
Butler, Fairman, & Seufert, Inc.
8450 Westfield Boulevard, Suite 300
Indianapolis, Indiana 46240

Federal Agency: Indiana Department of Transportation (“INDOT”),
on behalf of Federal Highway Administration, Indiana Division (“FHWA”)

Re: Revised Phase Ia archaeological field reconnaissance survey report (Bubb, 9/27/2022) for
Lawrence Co. Bridge 172 carrying Cement Plan Road over Leatherwood Creek (Des. No.
2002973; DHPA No. 29263)

Dear Ms. Biggio:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the “Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana,” the staff of the Indiana State Historic Preservation Officer (“Indiana SHPO”) has reviewed your October 3, 2022, review request submittal form which enclosed the revised Phase Ia archaeological reconnaissance report (Bubb, 09/27/2022), received by our office the same day for this project in Bedford, Lawrence County, Indiana.

As previously indicated, Lawrence County is not eligible to participate in the *Programmatic Agreement Among the Federal Highway Administration, the Indiana Department of Transportation, the Indiana State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Management and Preservation of Indiana’s Historic Bridges* (Historic Bridges PA) due to the demolition of two “Select” Bridges. Thus, this project will go through the full Section 106 process.

The area of potential effects (“APE”) proposed in the HPSR appears to be of adequate size to encompass the geographic area in which direct and indirect effects of a project of this nature could occur. For the purposes of the Section 106 review of this federal undertaking, we agree that the Lawrence County Bridge Number 172, a c. 1909 continuous reinforced concrete girder, was previously determined eligible for inclusion in the National Register of Historic Places (“NRHP”) as part of the *Indiana Historic Bridges Inventory*. We agree that there are no other historic properties listed or eligible for inclusion in the NRHP within the project’s APE.

Additionally, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the proposed project area. We concur with the opinion of the archaeologist, as expressed in the revised Phase Ia archaeological field reconnaissance survey report (Bubb, 9/27/2022), that archaeological site 12-Lr-0486 (which was resurveyed during these investigations) does not appear eligible for listing in the NRHP; that archaeological sites 12-Lr-1199 and 12-Lr-1200 (both of which were identified during these investigations) do not appear eligible for listing in the NRHP; and that no further archaeological investigations appear necessary at the proposed project area.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29) requires that the discovery be

reported to the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology, within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. Part 800.

The Indiana SHPO staff's archaeological reviewer for this project is Wade T. Tharp, and the structures reviewer is Toni Lynn Giffin. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

In all future correspondence about the Lawrence County Bridge No. 172 project in Lawrence County (Des. No. 2002973), please refer to DHPA No. 29263.

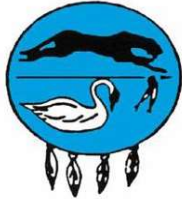
Very truly yours,



Beth K. McCord
Deputy State Historic Preservation Officer

BKM:DMK:WTT:wt

emc: Kari Carmany-George, FHWA
Matt Coon, INDOT
Susan Branigin, INDOT
Mary Kennedy, INDOT
Elizabet Biggio, Butler, Fairman, & Seufert, Inc.
Toni Lynn Giffin, Indiana DNR-DHPA
Wade T. Tharp, Indiana DNR-DHPA



**EASTERN SHAWNEE
CULTURAL PRESERVATION DEPARTMENT**

70500 East 128 Road, Wyandotte, OK 74370

June 7, 2023

INDOT - Indiana Department of Transportation
100 N. Senate Ave. IGCN642
Indianapolis, IN 46201

RE: *Des No. 2002973, Lawrence County, IN*

Dear Mr. Coon,

The Eastern Shawnee Tribe has received your letter regarding the above referenced project(s) within Lawrence County, IN. The Eastern Shawnee Tribe is committed to protecting sites important to Tribal Heritage, Culture and Religion. Furthermore, the Tribe is particularly concerned with historical sites that may contain but not limited to the burial(s) of human remains and associated funerary objects.

As described in your correspondence, and upon research of our database(s) and files, we find our people occupied these areas historically and/or prehistorically. However, the project proposes **NO Adverse Effect** or endangerment to known sites of interest to the Eastern Shawnee Tribe. Please continue project as planned. However, should this project inadvertently discover an archeological site or object(s) we request that you immediately contact the Eastern Shawnee Tribe, as well as the appropriate state agencies (within 24 hours). We also ask that all ground disturbing activity stop until the Tribe and State agencies are consulted. Please note that any future changes to this project will require additional consultation.

In accordance with the NHPA of 1966 (16 U.S.C. § 470-470w-6), federally funded, licensed, or permitted undertakings that are subject to the Section 106 review process must determine effects to significant historic properties. As clarified in Section 101(d)(6)(A-B), historic properties may have religious and/or cultural significance to Indian Tribes. Section 106 of NHPA requires Federal agencies to consider the effects of their actions on all significant historic properties (36 CFR Part 800) as does the National Environmental Policy Act of 1969 (43 U.S.C. § 4321-4347 and 40 CFR § 1501.7(a)). This letter evidences NHPA and NEPA historic properties compliance pertaining to consultation with this Tribe regarding the referenced proposed projects.

Thank you, for contacting the Eastern Shawnee Tribe, we appreciate your cooperation. Should you have any further questions or comments please contact our Office.

Sincerely,

A handwritten signature in blue ink that reads "Paul Barton".

Paul Barton, Tribal Historic Preservation Officer (THPO)
Eastern Shawnee Tribe of Oklahoma
(918) 666-5151 Ext:1833
THPO@estoo.net

Elizabeth Biggio

From: Elizabeth Biggio
Sent: Wednesday, August 30, 2023 1:54 PM
To: Giffin, Toni L; Tharp, Wade
Cc: Chad Renfrow; Kennedy, Mary; SBranigin@indot.IN.gov; Coon, Matthew (mcoon@indot.IN.gov)
Subject: FHWA Project: Des. No. 2002973; AE Finding & Draft MOA; Lawrence County Bridge 172 project, Lawrence County, Indiana

Des. No.: 2002973

Project Description: Bridge project

Location: Cement Plant Road over Leatherwood Creek, Bedford, Lawrence County

Lawrence County, with funding from the Federal Highway Administration and administrative oversight from the Indiana Department of Transportation, proposes to proceed with the Lawrence County Bridge 172 Project (Des. No. 2002973).

FHWA has signed a determination of "Adverse Effect" for this Section 106 undertaking. In accordance with 36 CFR 800.4(d), you and the other consulting parties that responded to the early coordination letter are being provided the documentation for this finding. You can view the determination of "Adverse Effect" and a draft Memorandum of Agreement (MOA), electronically by accessing INDOT's Section 106 document posting website IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE). If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comments. Tribal Contacts please respond to INDOT's Acting Tribal Liaison, Matt Coon, at mcoon@indot.in.gov; (317-697-9752) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Thank you in advance for your input,



Elizabeth Biggio
Architectural Historian

Butler, Fairman & Seufert, Inc.
p 317-713-4615
EBiggio@bfsengr.com | www.bfsengr.com

8450 Westfield Blvd., Suite 300, Indianapolis, IN 46240-8302

www.bfsengr.com



Elizabeth Biggio

From: Kennedy, Mary <MKENNEDY@indot.IN.gov>
Sent: Wednesday, August 30, 2023 2:00 PM
To: thpo@estoo.net; thpo; Burgundy Fletcher; Section106
Cc: Elizabeth Biggio; Coon, Matthew; Carmany-George, Karstin (FHWA)
Subject: FHWA Project: Des. No. 2002973; AE Finding & Draft MOA; Lawrence County Bridge 172 project, Lawrence County, Indiana

Des. No.: 2002973

Project Description: Bridge project

Location: Cement Plant Road over Leatherwood Creek, Bedford, Lawrence County

Lawrence County, with funding from the Federal Highway Administration and administrative oversight from the Indiana Department of Transportation, proposes to proceed with the Lawrence County Bridge 172 Project (Des. No. 2002973).

FHWA has signed a determination of "Adverse Effect" for this Section 106 undertaking. In accordance with 36 CFR 800.4(d), you and the other consulting parties that responded to the early coordination letter are being provided the documentation for this finding. You can view the determination of "Adverse Effect" and a draft Memorandum of Agreement (MOA), electronically by accessing INDOT's Section 106 document posting website IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE). If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comments. Tribal Contacts please respond to INDOT's Acting Tribal Liaison, Matt Coon, at mcoon@indot.in.gov; (317-697-9752) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Regards,

Mary E. Kennedy

Historic Bridge Specialist

Indiana Department of Transportation
100 North Senate Ave., N758 — Environmental Services
Indianapolis, IN 46204

Office/Cell: 317-694-3607

Email: mkennedy@indot.in.gov



Division of Historic Preservation & Archaeology · 402 W. Washington Street, W274 · Indianapolis, IN 46204-2739
Phone 317-232-1646 · Fax 317-232-0693 · dhpa@dnr.IN.gov ·



September 29, 2023

Elizabet Biggio, Architectural Historian II
Butler, Fairman, and Seufert, Inc.
8450 Westfield Boulevard, Suite 300
Indianapolis, Indiana 46240

Federal Agency: Indiana Department of Transportation (“INDOT”),
on behalf of Federal Highway Administration, Indiana Division (“FHWA”)

Re: Federal Highway Administration’s finding of “Adverse Effect,” with supporting documentation, and draft memorandum of agreement (August 30, 2023, version), for the Lawrence Co. Bridge 172 carrying Cement Plan Road over Leatherwood Creek Project, in the City of Bedford, Lawrence County, Indiana (Des. No. 2002973; DHPA No. 29263)

Dear Ms. Biggio:

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the “Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana,” the staff of the Indiana State Historic Preservation Officer (“Indiana SHPO”) has reviewed FHWA’s finding, the supporting documentation, and the draft Memorandum of Agreement (“Draft MOA”; August 30, 2023 Version), dated and received by our office August 30, 2023, for the aforementioned project in the City of Bedford, Lawrence County, Indiana.

As previously indicated, Lawrence County is not eligible to participate in the Programmatic Agreement Among the Federal Highway Administration, the Indiana Department of Transportation, the Indiana State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Management and Preservation of Indiana’s Historic Bridges (Historic Bridges PA) due to the demolition of two “Select” Bridges. Thus, this project will go through the full Section 106 process.

For the purposes of the Section 106 review of this federal undertaking, we agree that the Lawrence County Bridge Number 172 (NBI No. 4700114), a c. 1909 continuous reinforced concrete girder, was previously determined eligible for inclusion in the National Register of Historic Places (“NRHP”) as part of the Indiana Historic Bridges Inventory. It is rated “Non-Select” in the Indiana Historic Bridge Inventory. We agree that there are no other historic properties listed or eligible for inclusion in the NRHP within the project’s APE.

It is our understanding that the need for this project is to address the deteriorated condition of both the superstructure and substructure of the existing bridge. The purpose is to facilitate emergency vehicle use by widening the bridge from 11.9 feet to 20 feet.

We appreciate the Historic Bridge Alternatives Analysis (“HBAA”) which provides consulting parties a more thorough description and analysis of the current condition of the bridge and the proposed work for this federal undertaking.

It is our understanding that given the results of the calculations made for the alternatives and the standards pursuant to the Indiana Design Manual, the alternatives analysis concludes that Alternative E, Replacement of Historic Bridge/ New Bridge Construction is the preliminary preferred alternative. We agree this alternative meets INDOT design standards and the AASTO

recommendations for emergency vehicles on very low volume roads, if continued vehicular use of the historic bridge is deemed impractical.

Additionally, as previously indicated, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the proposed project area. We concur with the opinion of the archaeologist, as expressed in the revised Phase Ia archaeological field reconnaissance survey report (Bubb, 9/27/2022), that archaeological site 12-Lr-0486 (which was resurveyed during these investigations) does not appear eligible for listing in the NRHP; that archaeological sites 12-Lr-1199 and 12-Lr-1200 (both of which were identified during these investigations) do not appear eligible for listing in the NRHP; and that no further archaeological investigations appear necessary at the proposed project area.

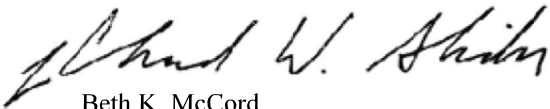
If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29) requires that the discovery be reported to the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology, within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. Part 800.

Accordingly, we concur with FHWA's August 28, 2023, Section 106 finding of "Adverse Effect" for this federal undertaking.

We are satisfied with the draft MOA (August 30, 2023 version). Unless another consulting party disagrees with the effects assessment or the language of the draft MOA, it might be appropriate now to finalize the MOA and circulate it for signature. The archaeological reviewer on the Indiana SHPO staff for this project is Wade T. Tharp, and the structures reviewer is Toni Lynn Giffin. However, if you have questions about our comments or about the review process, please contact initially the INDOT Cultural Resources Office staff members assigned to this project.

In all future correspondence regarding the Lawrence Co. Bridge 172 carrying Cement Plan Road over Leatherwood Creek project in Bedford, Lawrence County (Des. No. 200973), please continue to refer to DHPA No. 29263.

Very truly yours,



Beth K. McCord
Deputy State Historic Preservation Officer

BKM:TLG:WTT:wt

emc: Patrick Carpenter, Federal Highway Administration
Matt Coon, Ph.D., Indiana Department of Transportation
Susan Branigin, Indiana Department of Transportation
Mary Kennedy, Indiana Department of Transportation
Elizabeth Biggio, Butler, Fairman, and Seufert, Inc.
Toni Lynn Giffin, Indiana DNR-DHPA
Wade T. Tharp, Indiana DNR-DHPA

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The Times-Mail | Evening World
The Reporter Times

PROOF OF PUBLICATION

Suite 300
Elizabet T Biggio
2028 Hoyt Avenue
Indianapolis IN 46203

STATE OF INDIANA, COUNTY OF LAWRENCE

The Times Mail is a public newspaper of general circulation, printed in the town of Bedford, in said County and State, that the notice, of which the annexed is a true copy, was published in regular edition of said paper, issued upon the following dates, to wit:

09/05/2023

Sworn to and subscribed before on 09/05/2023

Legal Clerk

Notary, State of WI, County of Brown

My commision expires

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Notary Public
State of Wisconsin

**Public Notice
Des. No. 2002973**

The Lawrence County Board of Commissioners is planning to undertake a bridge replacement project, funded in part by the Federal Highway Administration (FHWA). The project is located on Cement Plan Road over Leatherwood Creek in the City of Bedford, Indiana.

Under the preferred alternative, the proposed project would demolish Lawrence County Bridge 172 and construct a new bridge on a straightened alignment to improve sight distance. The existing bridge is a 1909 continuous concrete girder bridge. The new bridge will be offset approximately 30 feet east of the existing bridge and will have a clear roadway width of 20 feet. The new bridge will have three spans and be approximately 212 feet long. Approximately 75 cubic yards of silt will be removed from the waterway in order to clear the existing north span and accommodate the new bridge. The bridge will have a skew of approximately 30° to allow straightening of the approach alignments. The bridge will have side-mounted T-1 railings. The project area will be approximately 750 feet long. Approximately 0.9 acres of tree clearing will be required. Approximately 1.6 acres of permanent right-of-way acquisition will be required. Since the bridge is currently closed, the existing detour will remain in place during construction.

Properties listed in or eligible for the National Register of Historic Places (NRHP) located within the Area of Potential Effects (APE) include Lawrence County Bridge 172. The proposed action impacts properties listed in or eligible for the NRHP. The FHWA has issued an "Adverse Effect" finding for the project because the project will diminish the integrity of the characteristics that qualify Lawrence County Bridge 172 for inclusion in the NRHP. In accordance with the National Historic Preservation Act, the views of the public are being sought regarding the effect of the proposed project on the historic elements as per 36 CFR 800.2(d), 800.3(e) and 800.6(a)(4). Pursuant to 36 CFR 800.4(d)(2), the documentation specified in 36 CFR 800.11(e) is available for inspection in the offices of Butler, Fairman, & Seufert, Inc. Additionally, this documentation can be viewed electronically by accessing INDOT's Section 106 document posting website IN SCOPE at <http://erms.indot.in.gov/Section106Documents/>. This documentation serves as the basis for the "Adverse Effect" finding. The views of the public on this effect finding are being sought. Please reply with any comments to Elizabeth Biggio, Butler, Fairman, & Seufert, Inc., 8450 Westfield Blvd. Suite 300, Indianapolis, IN 46240, 317-713-4615, ebiggio@bfsengr.com no later than October 5, 2023.

In accordance with the "Americans with Disabilities Act", if you have a disability for which Lawrence County needs to provide accessibility to the document(s) such as interpreters or readers, please contact Valerie Luchauer at 812-277-9680 or lcema@lawrencecounty.in.gov.
HSPAXLP
September 5 2023
LSBN0019693

Elizabet Biggio

From: Elizabet Biggio
Sent: Wednesday, November 1, 2023 2:20 PM
To: Giffin, Toni L; Tharp, Wade
Cc: Kennedy, Mary; SBranigin@indot.IN.gov; Coon, Matthew (mcoon@indot.IN.gov); Chad Renfrow
Subject: FHWA Project: Des. No. 2002973; MOA; Lawrence County Bridge 172 project, Lawrence County, Indiana
Attachments: LawrenceCo172_Des2002973_MOA_2023-11-01.pdf

Des. No.: 2002973

Project Description: Bridge project

Location: Cement Plant Road over Leatherwood Creek, Bedford, Lawrence County

Lawrence County, with funding from the Federal Highway Administration and administrative oversight from the Indiana Department of Transportation, proposes to proceed with the Lawrence County Bridge 172 Project (Des. No. 2002973).

FHWA has signed a determination of "Adverse Effect" for this Section 106 undertaking. At this time, the MOA is being circulated for signatures. The MOA is attached for your files. The MOA can also be viewed electronically by accessing INDOT's Section 106 document posting website IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE).

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comments. Tribal Contacts please respond to INDOT's Acting Tribal Liaison, Matthew S. Coon, at mcoon@indot.in.gov (317-697-9752) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Thank you in advance for your input,



Elizabet Biggio
Architectural Historian

Butler, Fairman & Seufert, Inc.
p 317-713-4615
EBiggio@bfsengr.com | www.bfsengr.com

8450 Westfield Blvd., Suite 300, Indianapolis, IN 46240-8302

www.bfsengr.com



Division of Historic Preservation & Archaeology · 402 W. Washington Street, W274 · Indianapolis, IN 46204-2739
Phone 317-232-1646 · Fax 317-232-0693 · dhpa@dnr.IN.gov ·



November 29, 2023

Elizabet Biggio
Butler, Fairman and Seufert, Inc.
8450 Westfield Boulevard, Suite 300
Indianapolis, Indiana 46240

Federal Agency: Indiana Department of Transportation (“INDOT”),
on behalf of Federal Highway Administration, Indiana Division (“FHWA”)

Re: Signature request for the Memorandum of Agreement regarding Lawrence Co. Bridge 172
Carrying Cement Plan Road Over Leatherwood Creek Project, in the City of Bedford, Shawswick
Township, Lawrence County, Indiana (Des. No. 2002973; DHPA No. 29263)

Dear Ms. Biggio:

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the “Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana,” the staff of the Indiana State Historic Preservation Officer (“Indiana SHPO”) has reviewed the aforementioned memorandum of agreement (“MOA”), which we received on November 1, 2023, for this project in the City of Bedford, Shawswick Township, Lawrence County, Indiana.

Thank for you updating the MOA. I have signed the enclosed MOA, indicating our acceptance of its terms.

The archaeological reviewer on the Indiana SHPO staff for this project is Wade T. Tharp, and the structures reviewer is Toni Lynn Giffin. However, if you have questions about our comments or about the review process, please contact initially the INDOT Cultural Resources Office staff members assigned to this project.

In all future correspondence regarding the Lawrence Co. Bridge 172 carrying Cement Plan Road over Leatherwood Creek project in the City of Bedford, Shawswick Township, Lawrence County, Indiana (Des. No. 2002973), please continue to refer to DHPA No. 29263.

Very truly yours,

A handwritten signature in black ink, appearing to read "Beth K. McCord".

Beth K. McCord
Deputy State Historic Preservation Officer

BKM:TLG:WTT:wt

emc: Patrick Carpenter, Federal Highway Administration
Matt Coon, Ph.D., Indiana Department of Transportation
Susan Branigin, Indiana Department of Transportation
Mary Kennedy, Indiana Department of Transportation
Elizabet Biggio, Butler, Fairman and Seufert, Inc.
Toni Lynn Giffin, Indiana DNR-DHPA
Wade T. Tharp, Indiana DNR-DHPA

Elizabeth Biggio

From: Kennedy, Mary <MKENNEDY@indot.IN.gov>
Sent: Thursday, December 7, 2023 8:14 AM
To: 'e106@achp.gov'
Cc: Carpenter, Patrick (FHWA); Coon, Matthew; Branigin, Susan; Elizabet Biggio; Tharp, Wade; Giffin, Toni L; Brinker, Haley
Subject: RE: FHWA-IN Project: Notification of Adverse Effect-Lawrence County Bridge No. 172, Lawrence County, Indiana, Des. No. 2002973
Attachments: LawrenceCo172_Des2002973_SignedMOA_Executed.pdf

Dear ACHP,

On behalf of FHWA-Indiana Division, please find attached the executed Memorandum of Agreement (MOA) for this project. Pursuant to 36 CFR §800.6(b)(1)(iv), the MOA, developed in consultation with the Indiana State Historic Preservation Officer (SHPO), is being provided to the ACHP in order to complete the requirements of Section 106 of the National Historic Preservation Act.

If you have any questions, please contact me at (317) 694-3607 or mkennedy@indot.in.gov or Patrick Carpenter at FHWA at 317-226-5351 or patrick.carpenter@dot.gov.

Regards,

Mary E. Kennedy

Historic Bridge Specialist

Indiana Department of Transportation
100 North Senate Ave., N758 — Environmental Services
Indianapolis, IN 46204

Office/Cell: 317-694-3607

Email: mkennedy@indot.in.gov



From: Kennedy, Mary
Sent: Wednesday, October 4, 2023 11:10 AM
To: 'e106@achp.gov' <e106@achp.gov>
Cc: Carpenter, Patrick (FHWA) <patrick.carpenter@dot.gov>; Coon, Matthew <mcoon@indot.IN.gov>; Branigin, Susan <SBranigin@indot.IN.gov>; Elizabet Biggio (EBiggio@bfsengr.com) <EBiggio@bfsengr.com>; Tharp, Wade <WTharp1@dnr.IN.gov>; Giffin, Toni L <TGiffin@dnr.IN.gov>
Subject: FHWA-IN Project: Notification of Adverse Effect-Lawrence County Bridge No. 172, Lawrence County, Indiana, Des. No. 2002973

Dear ACHP,

On behalf of FHWA-Indiana Division, please find attached the e106 form, the full 800.11 documentation and Draft MOA, for the Lawrence County Bridge No. 172, Lawrence County, Indiana. Per 36 C.F.R. 800.6(a)(1), we are hereby notifying the ACHP of the adverse effect finding for this project. The adverse effect determination was made because the preferred alternative involves construction of a new structure to replace a historic bridge. A draft MOA has been

developed. Proposed mitigation includes documentation of the bridge before construction and installation of an interpretive sign.

The attached documents have been posted on INDOT's Section 106 electronic coordination website-IN SCOPE at <https://erms12c.indot.in.gov/Section106Documents>. The Des. No. (2002973) is the most efficient search term once in IN SCOPE.

Thank you for assisting us with this notification of adverse effect. If you have any questions or require our further assistance, please contact me at 317-694-3607 or mkennedy@indot.in.gov or Patrick Carpenter at FHWA at 317-226-5351 or patrick.carpenter@dot.gov.

Regards,

Mary E. Kennedy

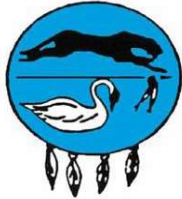
Historic Bridge Specialist

Indiana Department of Transportation
100 North Senate Ave., N758 — Environmental Services
Indianapolis, IN 46204

Office/Cell: 317-694-3607

Email: mkennedy@indot.in.gov





**EASTERN SHAWNEE
CULTURAL PRESERVATION DEPARTMENT**

70500 East 128 Road, Wyandotte, OK 74370

February 9, 2024

INDOT - Indiana Department of Transportation
100 N. Senate Ave. IGCN642
Indianapolis, IN 46201

RE: Des No. 2002973, Lawrence County, IN

Dear Mr. Coon,

The Eastern Shawnee Tribe has received your letter regarding the above referenced project(s) within Lawrence County, IN. The Eastern Shawnee Tribe is committed to protecting sites important to Tribal Heritage, Culture and Religion. Furthermore, the Tribe is particularly concerned with historical sites that may contain but not limited to the burial(s) of human remains and associated funerary objects.

As described in your correspondence, and upon research of our database(s) and files, we find our people occupied these areas historically and/or prehistorically. However, the project proposes **NO Adverse Effect** or endangerment to known sites of interest to the Eastern Shawnee Tribe. Please continue project as planned. However, should this project inadvertently discover an archeological site or object(s) we request that you immediately contact the Eastern Shawnee Tribe, as well as the appropriate state agencies (within 24 hours). We also ask that all ground disturbing activity stop until the Tribe and State agencies are consulted. Please note that any future changes to this project will require additional consultation.

In accordance with the NHPA of 1966 (16 U.S.C. § 470-470w-6), federally funded, licensed, or permitted undertakings that are subject to the Section 106 review process must determine effects to significant historic properties. As clarified in Section 101(d)(6)(A-B), historic properties may have religious and/or cultural significance to Indian Tribes. Section 106 of NHPA requires Federal agencies to consider the effects of their actions on all significant historic properties (36 CFR Part 800) as does the National Environmental Policy Act of 1969 (43 U.S.C. § 4321-4347 and 40 CFR § 1501.7(a)). This letter evidences NHPA and NEPA historic properties compliance pertaining to consultation with this Tribe regarding the referenced proposed projects.

Thank you, for contacting the Eastern Shawnee Tribe, we appreciate your cooperation. Should you have any further questions or comments please contact our Office.

Sincerely,

A handwritten signature in black ink that reads "Lora Nuckolls".

Lora Nuckolls, Tribal Historic Preservation Officer (THPO)
Eastern Shawnee Tribe of Oklahoma
(918) 238-5151 Ext:1840
THPO@estoo.net

Appendix E

Red Flag Investigation

8450 Westfield Blvd, Suite 300
Indianapolis, IN 46240
317.713.4615
bfsengr.com



INDIANAPOLIS | LAFAYETTE | MERRILLVILLE
FORT WAYNE | PLAINFIELD | SOUTH BEND | LOUISVILLE

Date: September 16, 2022

To: Site Assessment & Management (SAM)
Environmental Policy Office - Environmental Services Division (ESD)
Indiana Department of Transportation (INDOT)
100 N Senate Avenue, Room N758-ES
Indianapolis, IN 46204

From: Elizabet Biggio
Butler, Fairman, & Seufert, Inc.
8450 Westfield Boulevard, Suite 300
Indianapolis, IN 46240
ebiggio@bfsengr.com

Re: RED FLAG INVESTIGATION
DES 2002973, Local Project
Bridge Project, Lawrence County Bridge 172
Cement Plant Road over Leatherwood Creek
Lawrence County, Indiana

PROJECT DESCRIPTION

Brief Description of Project:

Lawrence County proposes a project on Lawrence County Bridge 172 carrying Cement Plant Road over Leatherwood Creek (National Bridge Inventory No. 4700114). The project is located in Section 24, Township 5 North, Range 1 West in Shawswick Township on the USGS Bedford East Quadrangle. Lawrence Bridge No. 172 is a concrete girder bridge approximately 72 feet long with an out-to-out width of 15 feet. The bridge is currently closed. Cement Plant Road is an urban local road with a clear roadway width of 18 feet.

The maximum total project length will be approximately 0.28 mile long. Riprap installation will likely be included. The scope of the project will be determined through a Section 4(f) Historic Bridge Alternatives Analysis.

Bridge and/or Culvert Project: Yes No Structure # 47-00172 _____

If this is a bridge project, is the bridge Historical? Yes No , Select Non-Select

(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

Culvert Work Included in Project: Yes No Structure #(s) _____ N/A _____

Proposed right of way: Temporary # Acres ≤0.10 Permanent # Acres ≤2.0 , Not Applicable

Type and proposed depth of excavation: Approximately 5 feet in the case that the bridge is replaced

Maintenance of traffic (MOT): Bridge is currently closed; detour will be maintained

Work in waterway: Yes No Below ordinary high water mark: Yes No

State Project: LPA:

Any other factors influencing recommendations: The project description is subject to change.

INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	2*	Recreational Facilities	2*
Airports ¹	1	Pipelines	1
Cemeteries	N/A	Railroads	N/A
Hospitals	N/A	Trails	N/A
Schools	1	Managed Lands	N/A

¹In order to complete the required airport review, a review of public-use airports within 3.8 miles (20,000 feet) is required.

Explanation:

Explanation:

Religious Facilities: Two (2)* religious facilities, one (1) mapped and one (1) unmapped, are located within the 0.5-mile search radius. The Restoration Church of the Nazarene is located approximately 0.38 mile northwest of the project area. The unmapped religious facility, Eagle Point Worship Center, is located 0.37 mile northeast of the project area. No impact is expected.

Airports: Although not located within the 0.5 mile search radius, one (1) public-use airport, Virgil I Grissom Airport, is located within 3.8 miles (20,000 feet) of the project area. The public-use airport is located approximately 0.99 mile southeast of the project area; therefore, early coordination with INDOT Aviation will occur.

Recreational Facilities: Two (2)* recreational facilities, one (1) mapped and one (1) unmapped, are located within the 0.5-mile search radius. The icon for Lincoln Elementary School is mapped approximately 0.24 mile west of the project area; however, the icon is mapped incorrectly, and the site is actually located approximately 0.31 mile west of the project area. There is one (1) unmapped recreational facility, Otis Park, located approximately 0.48 mile northeast of the project area. No impact is expected.

Schools: One (1) school is mapped within the 0.5-mile search radius. Lincoln Elementary School is located approximately 0.31 mile west of the project area. No impact is expected.

Pipelines: One (1) pipeline is mapped within the 0.5-mile search radius. A natural gas pipe owned by Indiana Gas Co. Inc. is located approximately 0.25 mile west of the project area. No impact is expected.

WATER RESOURCES TABLE AND SUMMARY

Water Resources			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	N/A	Canal Routes - Historic	N/A
Karst Springs	N/A	NWI - Wetlands	6

Canal Structures – Historic	N/A	Lakes	3
NPS NRI Listed	N/A	Floodplain - DFIRM	9
NWI-Lines	10	Cave Entrance Density	1
IDEM 303d Listed Streams and Lakes (Impaired)	7	Sinkhole Areas	N/A
Rivers and Streams	16	Sinking-Stream Basins	N/A

Explanation:

NWI-Wetlands: Six (6) wetlands are located within the 0.5-mile search radius. The nearest wetland is located approximately 0.05 mile south of project area. A Waters of the U.S. Report is recommended and coordination with the appropriate agency, if applicable, will occur. No impact is expected.

Lakes: Three (3) lakes are located within the 0.5-mile search radius. The nearest lake is located 0.16 mile north of the project area. No impact is expected.

Floodplain – DFIRM: Nine (9) floodplain polygons are located within the 0.5 mile search radius. The project is located within one (1) floodplain polygon. Coordination with INDOT ESD Ecology and Waterway Permitting will occur.

NWI-Lines: Ten (10) NWI-Line segments are located within the 0.5-mile search radius. One (1) NWI-Line segment is located within the project area along Leatherwood Creek. A Waters of the U.S. Report is recommended and coordination with the appropriate agency, if applicable, will occur.

Cave Entrance Density: One (1) Cave Entrance Density area is located within the 0.5-mile search radius, a portion of which is located within the project area. Coordination with the appropriate agency, if applicable, will occur.

IDEM 303d Listed Streams and Lakes (Impaired): Seven (7) 303d Listed Streams are located within the 0.5-mile search radius. Leatherwood Creek is located within the project area. Leatherwood Creek is listed as impaired for *E. coli*.

- Concerning *E. coli*, workers who are working in or near water with *E. coli* should take care to wear appropriate personal protective equipment (PPE), observe proper hygiene procedures, including regular hand washing, and limit personal exposure.

Rivers and Streams: Sixteen (16) river and stream segments are located within the 0.5-mile search radius. Leatherwood Creek is located within the project area. A Waters of the U.S. Report is recommended and coordination with the appropriate agency, if applicable, will occur.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

Mining/Mineral Exploration			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Petroleum Wells	N/A	Mineral Resources	N/A
Mines – Surface	N/A	Mines – Underground	N/A

Explanation: No mining and mineral resources were identified within the 0.5-mile search radius.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

Hazardous Material Concerns			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	N/A	Manufactured Gas Plant Sites	N/A
RCRA Generator/ TSD	N/A	Open Dump Waste Sites	N/A
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	N/A
State Cleanup Sites	N/A	Waste Transfer Stations	N/A
Septage Waste Sites	N/A	Tire Waste Sites	N/A
Underground Storage Tank (UST) Sites	N/A	Confined Feeding Operations (CFO)	N/A
Voluntary Remediation Program	N/A	Brownfields	N/A
Construction Demolition Waste	N/A	Institutional Controls	N/A
Solid Waste Landfill	N/A	NPDES Facilities	N/A
Infectious/Medical Waste Sites	N/A	NPDES Pipe Locations	1
Leaking Underground Storage (LUST) Sites	2	Notice of Contamination Sites	N/A

NPDES Pipe Locations: One (1) NPDES pipe is located within the 0.5-mile search radius. The nearest NPDES pipe, at the Bedford Wastewater Treatment Plant, is located approximately 0.45 mile southwest of the project area. No impact is expected.

Leaking Underground Storage Tank (LUST) Sites: Two (2) LUST sites are located within the 0.5-mile search radius. The nearest LUST site, Floy Root, 115 Highway 50 East, Alternate ID (AI) ID # 32280, is located approximately 0.36 mile north of the project area. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Lawrence County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities are provided at https://www.in.gov/dnr/nature-preserves/files/np_lawrence.pdf. A preliminary review of the Indiana Natural Heritage Database by INDOT Environmental Services did not indicate the presence of ETR species. Coordination with USFWS and IDNR will occur.

A review of the USFWS Database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project area is located in a rural area surrounded by agriculture and forested area. The July 21, 2022 inspection report for Bridge 47-00172 contains no information about whether bats are present or absent. Additional investigation to confirm the presence or absence of bats under the bridge will be necessary. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

RECOMMENDATIONS SECTION

INFRASTRUCTURE:

Airports: One (1) public-use airport, Virgil I Grissom Airport, is located approximately 0.99 mile southeast of the project area; therefore, early coordination with INDOT Aviation will occur.

WATER RESOURCES: A Waters of the US Report is recommended based on mapped features and coordination with the appropriate agency, if applicable, will occur for the following resources:

- One (1) NWI-Line feature is located within the project area;
- One stream, Leatherwood Creek, is located within the project area;
- The project area is located within a floodplain (coordination only);
- A portion of the project area is located within one (1) Cave Entrance Density (coordination only).

IDEM 303d Listed Streams and Lakes (Impaired): Leatherwood Creek is listed as impaired for *E. coli*. Workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: N/A

ECOLOGICAL INFORMATION:

Coordination with IDNR and USFWS will occur. Additional investigation to confirm the presence or absence of bats under the bridge will be necessary. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

CULTURAL RESOURCES:

Lawrence County Bridge 172 is categorized as a Historic "Non-Select" bridge in the Indiana Historic Bridge Inventory and is the subject of the proposed project. Coordination with INDOT ES Cultural Resources will occur.

INDOT ESD concurrence:

Nicole Fohey
Breting

Digitally signed by
Nicole Fohey-Breting
Date: 2022.09.16
10:11:59 -04'00'

_____(Signature)

Prepared by:
Elizabet Biggio
Architectural Historian II
Butler, Fairman, & Seufert, Inc.

Graphics:

SITE LOCATION: YES

INFRASTRUCTURE: YES

WATER RESOURCES: YES

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: YES

Red Flag Investigation - Infrastructure

Lawrence County Bridge 172, Cement Plant Rd over Leatherwood Creek

Des. No. 2002973, Bridge Project

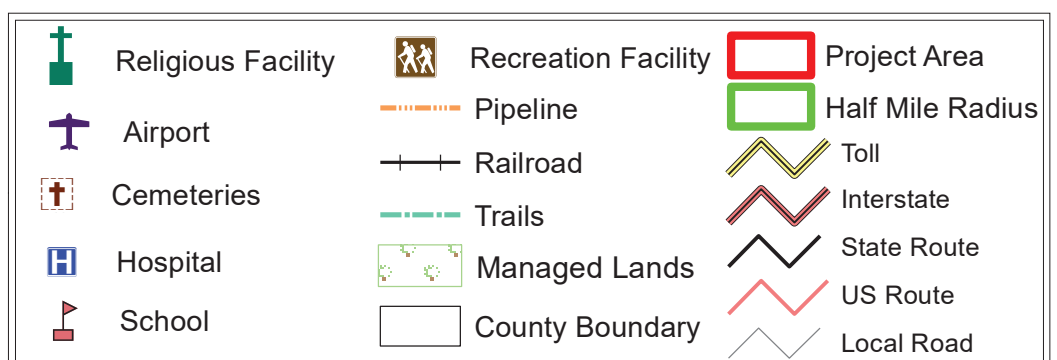
Lawrence County, Indiana



Sources: 0.15 0.075 0 0.15 Miles

Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

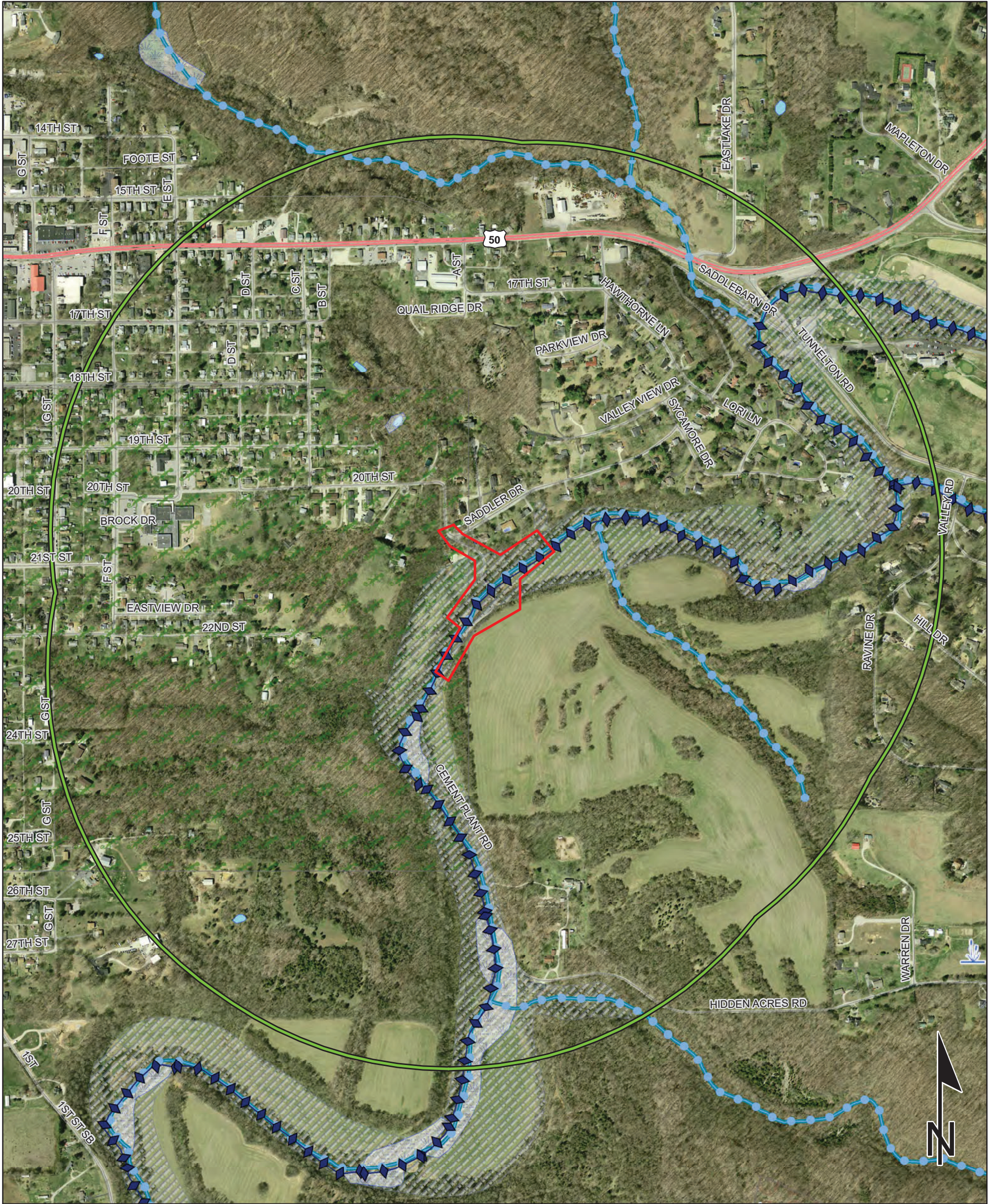


Red Flag Investigation - Water Resources

Lawrence County Bridge 172, Cement Plant Rd over Leatherwood Creek

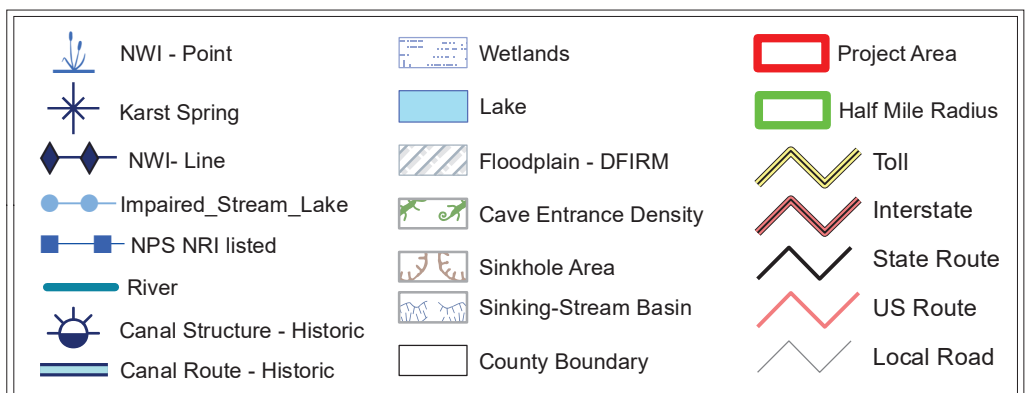
Des. No. 2002973, Bridge Project

Lawrence County, Indiana



Sources:
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

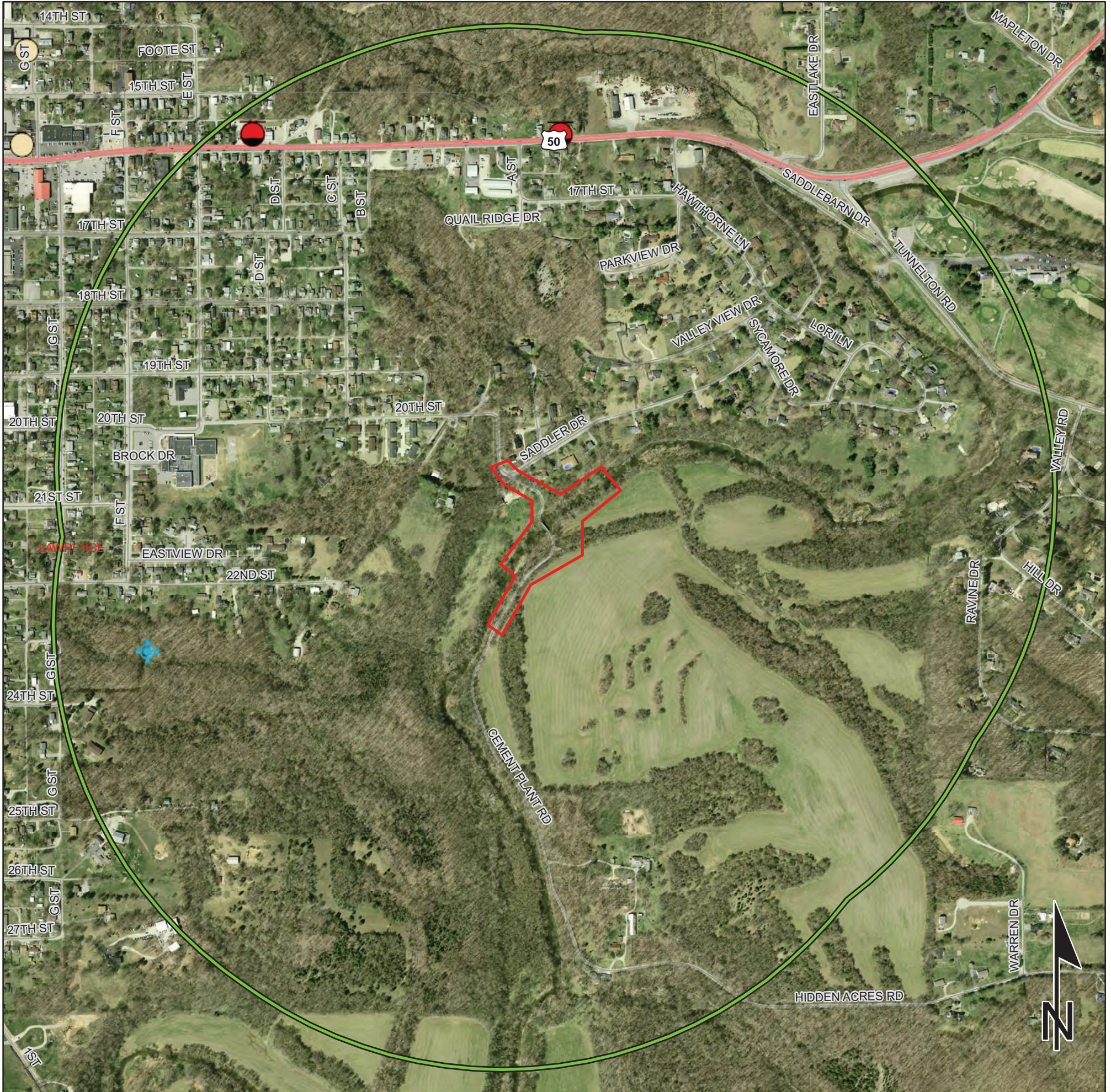


Red Flag Investigation - Hazardous Material Concerns

Lawrence County Bridge 172, Cement Plant Rd over Leatherwood Creek

Des. No. 2002973, Bridge Project

Lawrence County, Indiana



	Brownfield		RCRA Generator/TSD		Institutional Controls
	RCRA Corrective Action Sites		Restricted Waste Site		County Boundary
	Confined Feeding Operation		Septage Waste Site		Project Area
	Notice_of_Contamination		Solid Waste Landfill		Half Mile Radius
	Construction/Demolition Site		State Cleanup Site		Toll
	Infectious/Medical Waste Site		Superfund		Interstate
	Leaking Underground Storage Tank		Tire Waste Site		State Route
	Manufactured Gas Plant		Underground Storage Tank		US Route
	NPDES Facilities		Voluntary Remediation Program		Local Road
	NPDES Pipe Locations		Waste Transfer Station		
	Open Dump Waste Site				



This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Sources:
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

Appendix F

Ecological and Water Resources

WATERS OF THE U.S DETERMINATION REPORT

Lawrence County Bridge 172 Cement Plant Road over Leatherwood Creek

Lawrence County, Indiana

Des. No. 2002973

Asset ID: 47-00172 / NBI# 4700114

Prepared by: Megan Moss

Contact Information: mmoss@bfsengr.com / 317-713-4615

Butler, Fairman, & Seufert, Inc.

Completed Date: November 13, 2023

Date of Field Investigation(s):

November 9, 2023

Project Location:

The project is located in Section 24, Township 5 North, Range 1 West in Shawswick Township on the USGS Bedford East Quadrangle, within Lawrence County, Indiana (Attachment 2).

LAT. 38.85489; LONG. -86.46944

Area of Investigation:

The area investigated is located approximately 0.5 miles south of U.S. 50 east of Bedford, Indiana on Cement Plant Road (Attachment 1). The study area consisted of fallow ground and a narrow, forested corridor along Leatherwood Creek at Cement Plant Road. Approximately 1 acre was investigated. The entire site was investigated by walking transects and making visual observations of the landscape looking for any visual evidence of wetland characteristics (Attachment 3). Sampling points, where necessary, were taken in all areas mapped as wetlands on the National Wetland Inventory (NWI), where wetland characteristics were observed, and in any potential problem areas. Any drainage feature that displayed a defined channel and ordinary high-water mark were considered potentially jurisdictional streams. Any features that did not meet these criteria were not considered as streams.

Desktop Reconnaissance:

Prior to the field investigation, several reference materials were consulted to gain information about the site. The USGS Bedford East Quadrangle map was used to determine contours of the site and locate any water bodies in the area, as well as to provide a legal description of the area (see Attachment 2). The Natural Resources Conservation Service (NRCS) Web Soil Survey website¹ was consulted to determine if the project area contained any soils listed in either the *Hydric Soils of the United States manual* or the Indiana State list of hydric soils, along with a description of characteristics displayed by the mapped soil types of the area (see Attachments 5-7). The United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) map was used to find and classify any previously cataloged wetlands in the project area (see Attachment 4). The Indiana Department of Natural Resources' (IDNR) floodplain map was consulted to gain an understanding of historic flood locations and frequency that may impact the study area (see Attachment 9). The USGS National Hydrography Dataset (NHD) was used to evaluate the potential for streams or other water features within the project area (see Attachment 8). All this information provided a background for the hydrologic regime of the area.

¹ <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

National Wetlands Inventory (NWI) Map:

The following is a list of mapped wetlands located either within or near the investigation area (see Attachment 4).

- A riverine, lower perennial, unconsolidated bottom, permanently flooded (R2UBH) waterway known as Leatherwood Creek.

Soil Map Data:

According to the NRCS Web Soil Survey website² for Lawrence County, Indiana (Attachments 5-7), the following table summarizes the soil types found in the investigation area, including characteristics such as Flooding Frequency, Drainage Class, Hydric Soil Category, and Hydric Rating.

Soil Unit Name	Symbol	NRCS Flooding Frequency	NRCS Drainage Class	NRCS Hydric Soil Category	SSURGO Hydric Rating
Haymond silt loam	HcgAH	Frequently	Well Drained	Not Hydric	0

Table 1: Soil Survey Summary Table

USGS National Hydrography Dataset (NHD) Map:

According to USGS NHD map, there is one stream/river mapped in the study area (Attachment 8). The stream is Leatherwood Creek, which passes southwest through the study area.

USGS 12-digit hydrologic unit code (HUC): 051202081003 – Leatherwood Creek

Attached Documentation:

- Maps of the study area (state, quad, aerial, NWI, floodplain, soil, StreamStats, NHD, photo/data point)
- Photographs of the study area
- Wetland Data Sheets
- Preliminary Jurisdictional Determination (PJD) Form

Field Reconnaissance:

The study area limits extend from the middle of Bridge 172 approximately 250 feet east and west of bridge along Cement Plant Road. The area was investigated by walking transects east and west within the study limits for the project and looking for any visual evidence of waterway or wetland characteristics. Any wetland boundaries and sampling point locations were recorded in the field using a handheld Global Positioning System (GPS) unit with submeter accuracy. Ordinary high-water mark (OHWM) and bankfull measurements were taken when present at a water feature and dominant substrate material was bedrock. If present, roadside ditches were examined for possible jurisdictional status. Any areas that exhibited wetland characteristics (hydrophytic vegetation, hydrology, and hydric soils) were investigated to determine if the area should be classified as wetland. Field data collection was completed based on the methodologies presented in the *1987 U.S. Army Corps of Engineers Wetlands Delineation Manual: Midwest Region Version 2.0* (Regional Supplement). Field methods did not deviate from the standard methods found in the '87 Manual or the Regional Supplement.

² <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

A field visit to the project area was conducted on November 9, 2023, to investigate for potential features that may classify as “Waters of the U.S.” or “Waters of the State” within the study limits. Based on the daily rainfall data obtained from the Community Collaborative Rain, Hail, and Snow Network³, the project location received 0.0 inches of rainfall in the seven days preceding the site visit. Jurisdictional wetland and stream determinations were based on the Pre-2015 *Rapanos v. United States* Supreme Court decision (1986).

Waterway(s):

One (1) mapped waterway was observed within the study area. This waterway is known as Leatherwood Creek and is identified as a perennial USGS blue line stream that flows southwest through the project area, and discharges into the South Fork of the White River approximately 5.5 miles downstream of the study location. Leatherwood Creek has a drainage area upstream of the study limits of approximately 35.778 square miles (as calculated using the web-tools on the USGS *Indiana Streamstats* website⁴) (Attachment 10). This waterway falls within the larger Wabash River Watershed identified by the USGS HUC-4 0512. Leatherwood Creek is classified as riverine, lower perennial, unconsolidated bottom, permanently flooded (R2UBH) waterway. It is of average quality due to incision, moderate bank erosion, and lack of riparian corridor. The substrate is primarily bedrock. The creek has an approximate average 110-foot bankfull width and approximate average 2.8-foot bankfull depth. The OHWM depth is approximately 1.75 feet and width is 61.7 feet. All stream measurements were taken at LAT/LONG 38.8546; -86.4697. During the site visit conducted on November 9, 2023, Leatherwood Creek contained flowing water. Leatherwood Creek is determined to be a “Waters of the U.S.” because it is a blue-line feature (jurisdictional stream) with an OHWM.

Stream Name	Photo Numbers	Latitude/Longitude (UTM NAD 83)	OHWM width/depth	USGS ID	Presence of Riffles/Pools	Channel Substrate	Functional Quality	Likely Water of the U.S.	Linear Ft. in Study Area
Leatherwood Creek	1-12	38.8546; -86.4697	61.7 ft. / 1.8 ft.	Perennial (solid blue line)	No	bedrock	Average	Yes	200 ft.

Table 2: Stream Survey Table.

Wildlife Evidence and Concerns:

Animal tracks were not seen due to bedrock. However, there was an animal trail leading from the road through the floodplain in the investigation area. Riprap is not present. No birds or bats were observed using the bridge.

³ [CoCoRaHS Maps](#)

⁴ <https://streamstats.usgs.gov/ss/>

Wetlands:

One area was identified as a potential wetland during the field investigation on November 9, 2023. A sampling point was taken in this area and was evaluated for all three criteria to be considered a wetland as described in the '87 Manual and as currently applied in the *Midwest Regional Supplement* manual.

Sampling Point 1 was taken in a low contour area that indicated the potential for frequent prolonged hydrology within the floodplain of Leatherwood Creek. The area is mapped as Haymond silt loam, which has a low hydric inclusion rating of 0%. The soil profile matched the description for Haymond silt loam and did not contain any hydric soil field indicators. The dominant overstory vegetation consisted of American elm and green ash. The understory was dominated by boxelder while the herbaceous layer was dominated by wild rye and periwinkle. This community is hydrophytic dominant. The soil was loamy and appeared well-drained. No evidence of frequent or prolonged hydrology was observed as the floodplain surface is approximately 5 feet above the water surface elevation of Leatherwood Creek under normal conditions. This indicates that groundwater is found at least 60 inches below the surface. As a result, Sampling Point 1 is a non-wetland data point (Attachments 18-19).

Data Point ID	Photo #	Latitude/Longitude (UTM NAD 83)	Hydrophytic Vegetation Present	Hydric Soil Present	Wetland Hydrology Present	Is the Sampled Area within a Wetland?
1A	9-12	38.8548; -86.4692	yes	no	no	no

Floodplains:

The project is located within the regulated floodplain (Zone AE) along Leatherwood Creek ([Indiana Floodplain Information Portal](#)).

Open Water:

No open water areas were observed in the investigated area.

Roadside Ditches (RSDs):

No roadside ditches were observed within or adjacent to the project area.

Conclusions:

A field investigation was conducted on November 9, 2023, by BF&S to evaluate the presence of Waters of the U.S. for the replacement of Bridge 172 carrying Cement Plant Road over Leatherwood Creek in Lawrence County, Indiana. Desktop Reconnaissance and field observation identified one stream mapped as Leatherwood Creek, within the study area. No wetlands were observed.

Leatherwood Creek should be considered “Waters of the U.S.” Leatherwood Creek is the only jurisdictional feature identified in the investigation. INDOT Environmental Services Division should be contacted immediately if impacts occur.

This waterway is likely a *Waters of the U.S.* Every effort should be taken to avoid and minimize impacts to this feature. If impacts are necessary, then mitigation may be required. INDOT Environmental Services Division should be contacted immediately if impacts occur. The final determination of jurisdictional waters is ultimately made by the USACE. This report is our best judgment based on the guidelines set forth by the USACE.

Acknowledgment:

This waters determination has been prepared based on the best available information, interpreted in the light of the investigator’s training, experience, and professional judgement in conformance with the 1987 Corps of Engineers Wetlands Delineation Manual, the appropriate regional supplement, the USACE Jurisdictional Determination Form Instruction Guidebook, and other appropriate agency guidelines.

November 13, 2023
Megan Moss, Environmental Scientist
BF&S Environmental Services
moss@bfsengr.com

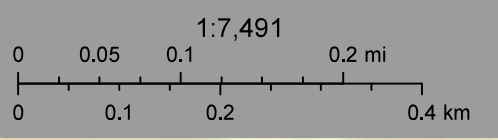
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U.S. Fish and Wildlife Service, National Standards and Support Team,
wetlands_team@fws.gov

November 13, 2023

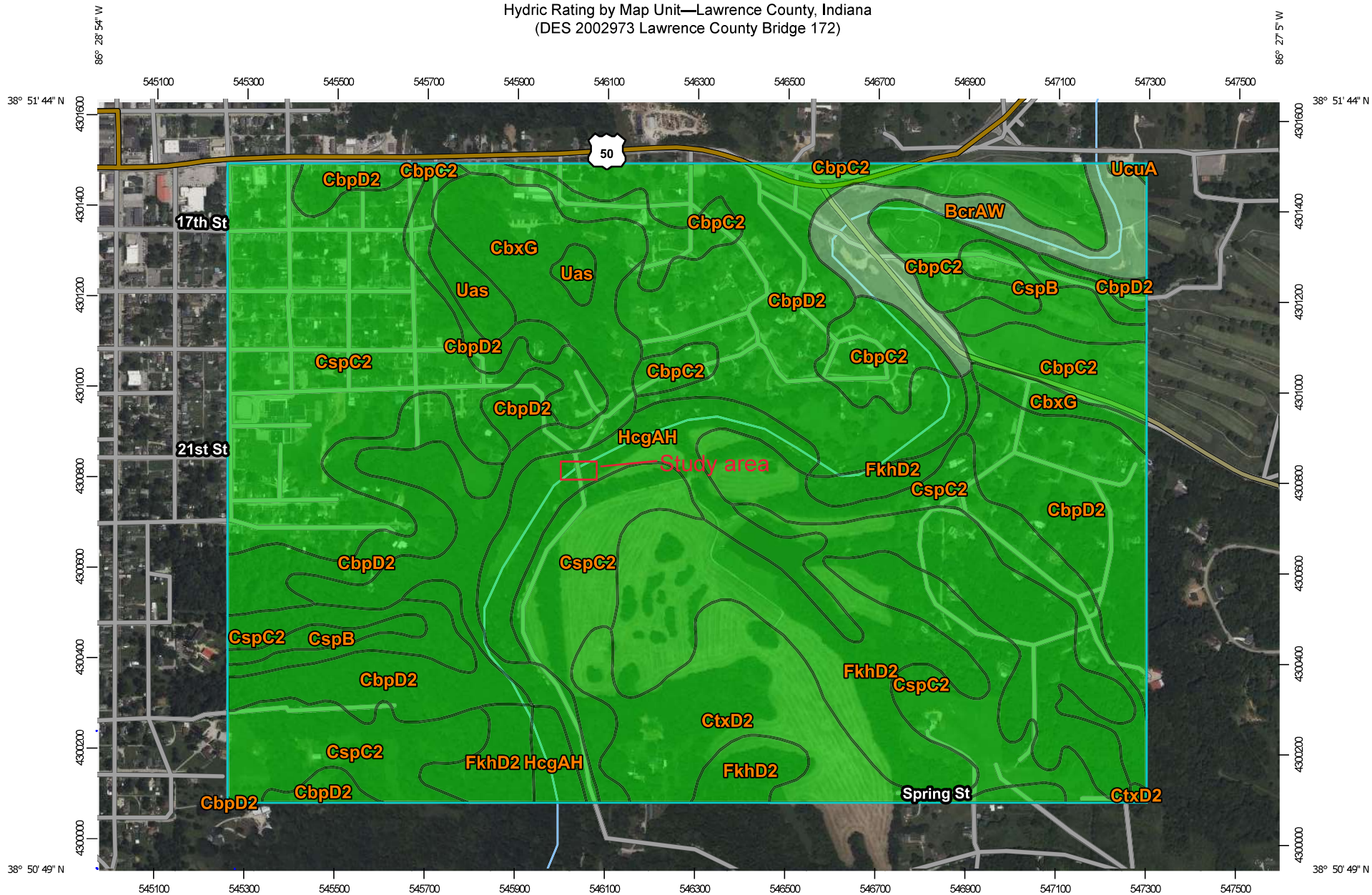
Wetlands

- Estuarine and Marine Deepwater
- Freshwater Forested/Shrub Wetland
- Lake
- Freshwater Emergent Wetland
- Freshwater Pond
- Other
- Riverine

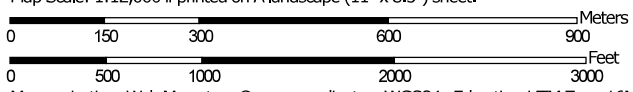
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Attachment 4

Hydric Rating by Map Unit—Lawrence County, Indiana
(DES 2002973 Lawrence County Bridge 172)



Map Scale: 1:12,000 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

Attachment 5


11/8/2023
Page 1 of 5

F9

Hydric Rating by Map Unit—Lawrence County, Indiana
(DES 2002973 Lawrence County Bridge 172)







MAP LEGEND

Area of Interest (AOI)







 Area of Interest (AOI)

Soils







Soil Rating Polygons

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available

Soil Rating Lines


-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available

Soil Rating Points

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available

 Special Line Features

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lawrence County, Indiana
Survey Area Data: Version 29, Sep 1, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 15, 2022—Jul 21, 2022

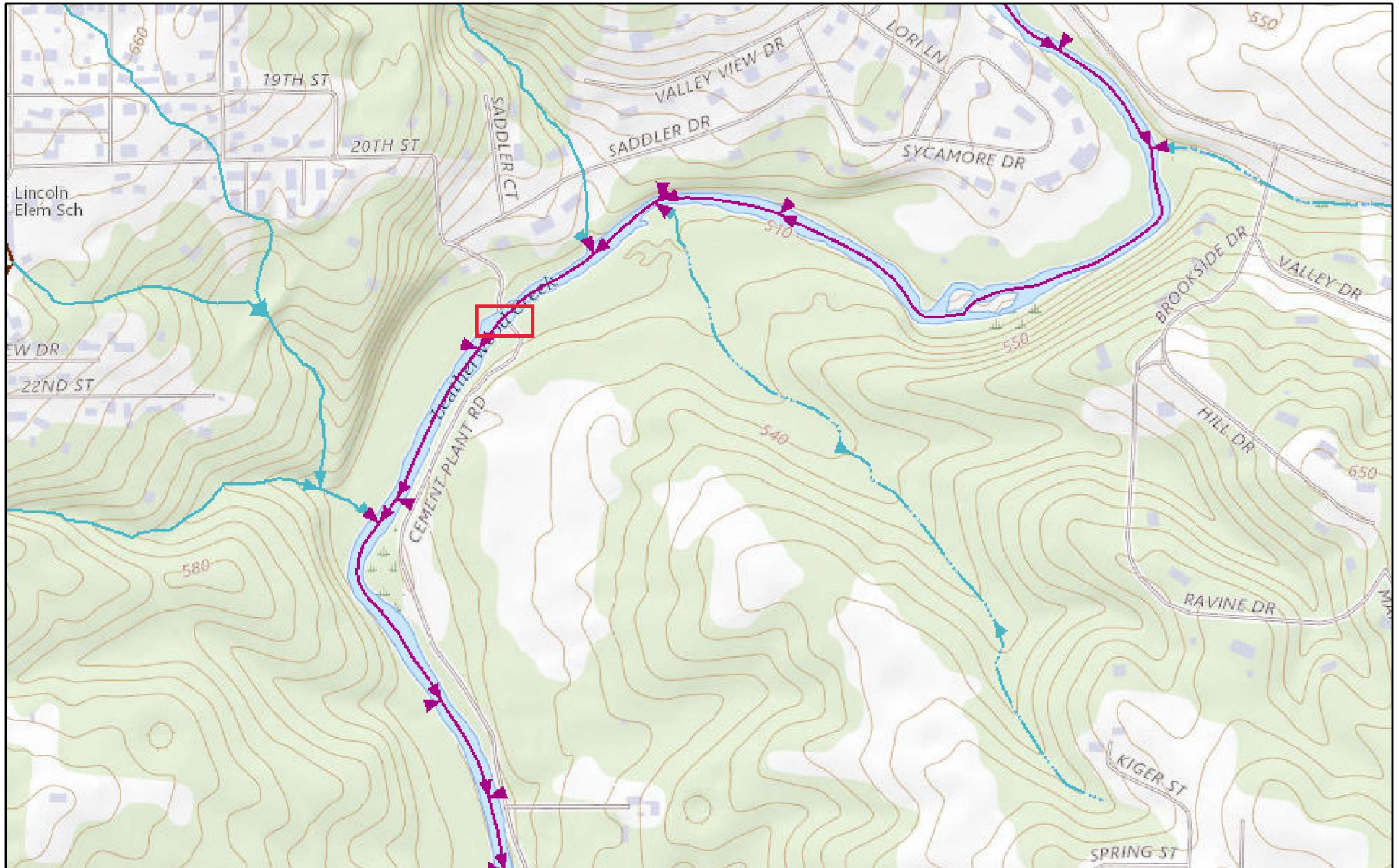
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BcrAW	Beanblossom silt loam, 0 to 3 percent slopes, occasionally flooded, very brief duration	2	24.8	3.5%
CbpC2	Caneyville silt loam, 6 to 12 percent slopes, eroded	0	51.0	7.1%
CbpD2	Caneyville silt loam, 12 to 20 percent slopes, eroded	0	172.0	24.1%
CbxG	Caneyville-Adyeville-Rock outcrop complex, 25 to 75 percent slopes	0	57.9	8.1%
CspB	Crider silt loam, 2 to 6 percent slopes	0	14.5	2.0%
CspC2	Crider silt loam, 6 to 12 percent slopes, eroded	0	203.3	28.4%
CtxD2	Crider-Frederick silt loams, karst, 6 to 20 percent slopes, eroded complex	0	43.5	6.1%
FkhD2	Frederick silt loam, 12 to 18 percent slopes, eroded	0	104.7	14.6%
HcgAH	Haymond silt loam, 0 to 2 percent slopes, frequently flooded, brief duration	0	35.5	5.0%
Uas	Udorthents-Pits, quarries complex	0	7.3	1.0%
UcuA	Udorthents, loamy	0	0.5	0.1%
Totals for Area of Interest			715.1	100.0%

Attachment 7

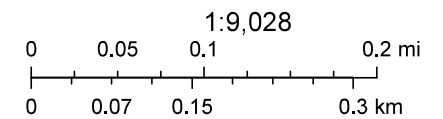
Lawrence County Bridge 172 Des No 2002973



11/16/2023, 8:42:03 AM

- | | | | | | |
|-------------------------|------------------------|-----------------|---------------------|-------------------------|----------------------------|
| Waterbody - Large Scale | Reservoir | Ephemeral | Connector | Canal/Ditch | StreamRiver - Intermittent |
| Estuary | Swamp Marsh | Artificial Path | Pipeline | Underground Conduit | StreamRiver - Ephemeral |
| Ice Mass | Flowline - Large Scale | Canal Ditch | Underground Conduit | StreamRiver | Pipeline |
| Lake Pond | Perennial | Coastline | Flow Direction | StreamRiver - Perennial | Artificial Path |
| Playa | Intermittent | | Connector | | |

Study area



USGS TNM - National Hydrography Dataset. Data Refreshed October, 2023., USGS The National Map: National Boundaries Dataset, 3DEP



- Point of Interest
 - Base Flood Elevation Point
- VERSION
- 1.0
- FLD_ZONE, SOURCE_DNR, ZONE_SUBTY
- FEMA Zone AE Floodway; FEMA Administrative Floodway
 - FEMA Zone AE
 - Additional Floodplain Area; DNR .2 Percent Flood Hazard
 - Not Mapped

Long: **-86.46939026313217**
 Lat: **38.85490284996132**

The information provided below is based on the point of interest shown in the map above.

County: Lawrence	Approximate Ground Elevation: 503.3 feet (NAVD88)
Stream Name: Leatherwood Creek	Base Flood Elevation: 513.0 Feet (NAVD88)
	Drainage Area: Not Available

Best Available Flood Hazard Zone: **FEMA Zone AE Floodway**
 National Flood Hazard Zone: **FEMA Zone AE Floodway**

Is a Flood Control Act permit from the DNR needed for this location? **yes**

Is a local floodplain permit needed for this location? **yes-**

Floodplain Administrator: **Brandon Woodward, Planning and Zoning Director**

Community Jurisdiction: **City Of Bedford, City proper**

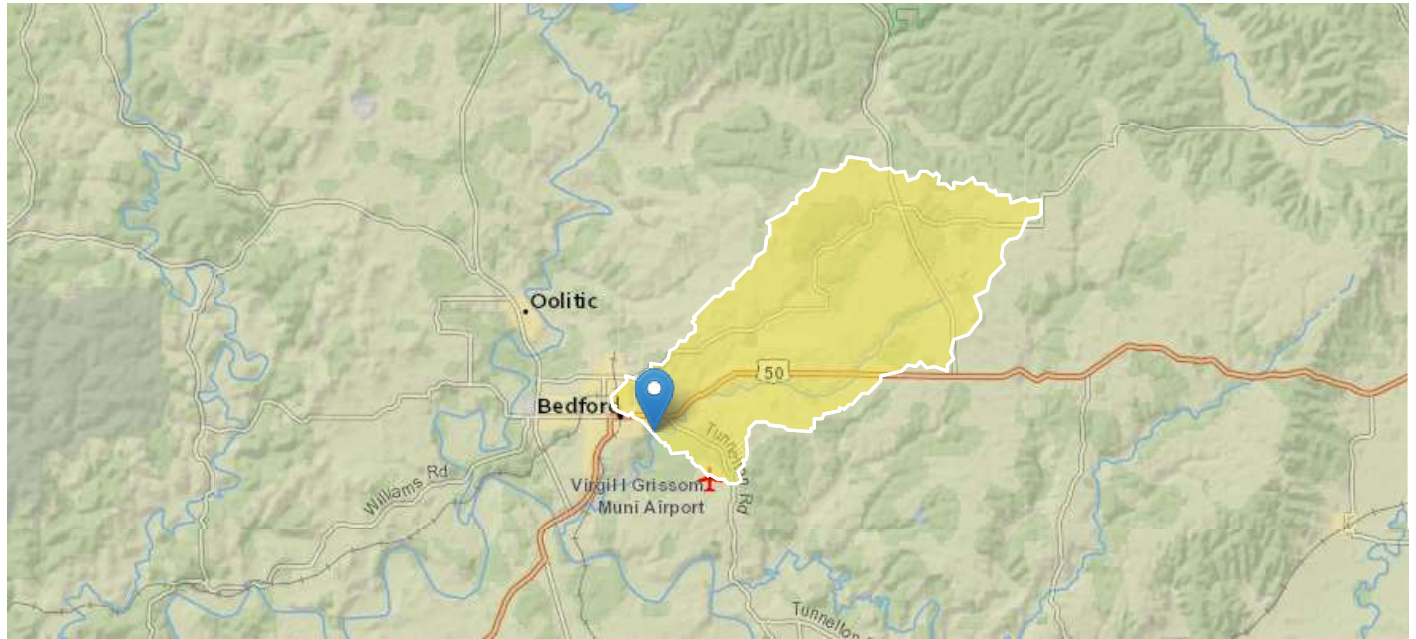
Phone: **(812) 275-1631**

Email: **bwoodward@bedford.in.us**

US Army Corps of Engineers District: **Louisville**

StreamStats Report

Region ID: IN
Workspace ID: IN20231110155051575000
Clicked Point (Latitude, Longitude): 38.85498, -86.46948
Time: 2023-11-10 10:51:17 -0500



Collapse All

➤ Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BFREGNO	BFREGNO	1567	dimensionless
BSLDEM10M	Mean basin slope computed from 10 m DEM	9.24	percent
DRNAREA	Area that drains to a point on a stream	35.778	square miles
DURREG	Flow-Duration Hydrologic Region code	1664	dimensionless
K1INDNR	Average hydraulic conductivity (ft/d) for the top 70 ft of unconsolidated deposits from InDNR well database.	5	ft per day
K2INDNR	Average hydraulic conductivity (ft/d) for the full depth of unconsolidated deposits from InDNR well database.	5	ft per day
LAT_OUT	Latitude of Basin Outlet	38.854958	degrees
LC01FOREST	Percentage of forest from NLCD 2001 classes 41-43	34.5	percent
LOWREG	Low Flow Region Number	1730	dimensionless
PRDEC FEB00	Basin average mean precipitation for December to February from PRISM 1971-2000	2.97	inches
QSSPERMTHK	Index of the permeability of surficial Quaternary sediments computed as in SIR 2014-5177	0	dimensionless

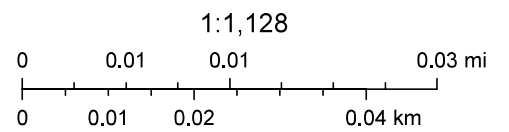
Lawrence County Bridge No. 172



November 16, 2023

 sampling point 1

Photo Orientation Map
Lawrence Co. Bridge 172
Des No 2002973



Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Photograph sheets for Lawrence Co. Bridge 172 Project
"Waters of the United States" Determination Report



1) Overview of project location, looking north along Cement Plant Road



2) Looking east (upstream) at Leatherwood Creek passing beneath Bridge 172

Photograph sheets for Lawrence Co. Bridge 172 Project
"Waters of the United States" Determination Report

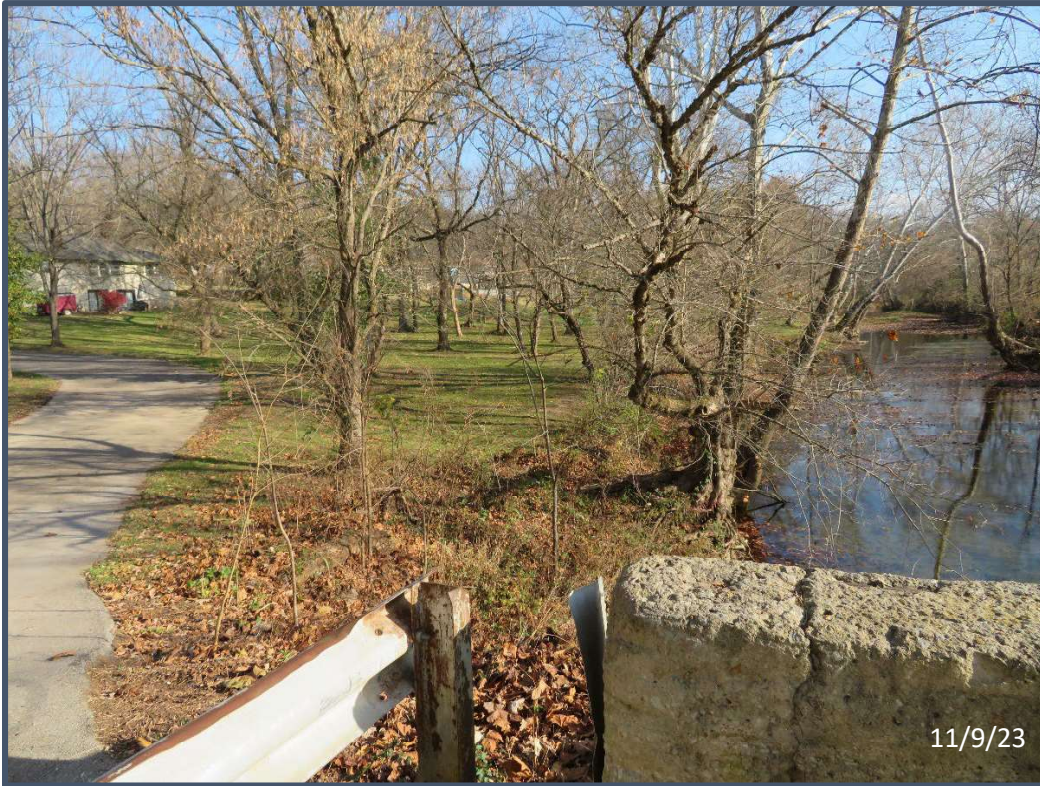


3) Looking east (upstream) at Leatherwood Creek from east side of the center of bridge 172



4) Looking west (downstream) at Leatherwood Creek from west side of the center of bridge 172

Photograph sheets for Lawrence Co. Bridge 172 Project
"Waters of the United States" Determination Report

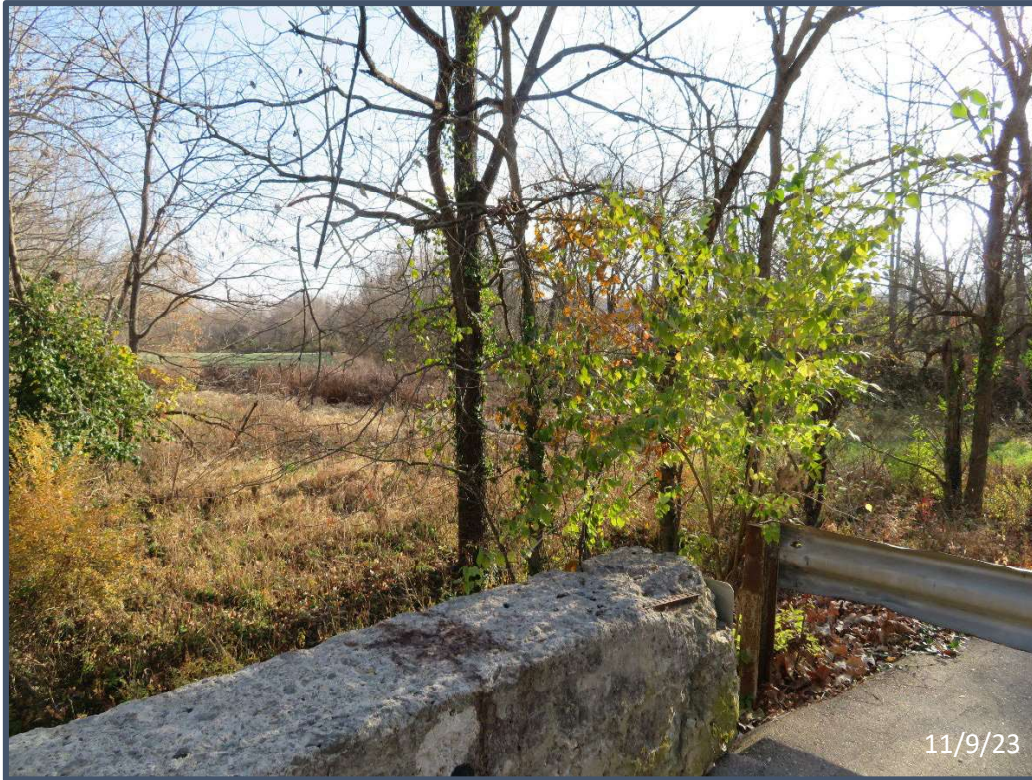


5) Looking northeast from Bridge 172 at the northeast quadrant of the bridge



6) Looking northwest from Bridge 172 at the northwest quadrant of the bridge

Photograph sheets for Lawrence Co. Bridge 172 Project
"Waters of the United States" Determination Report



7) Looking southeast from Bridge 172 at the southeast quadrant of the bridge



8) Looking southwest from Bridge 172 at the southwest quadrant of the bridge

Photograph sheets for Lawrence Co. Bridge 172 Project
"Waters of the United States" Determination Report



9) Looking north at SP1 with Bridge 172 in the background



10) Looking east at SP1

Photograph sheets for Lawrence Co. Bridge 172 Project
"Waters of the United States" Determination Report



11) Looking south at SP1



12) Looking west at SP1

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Bridge 172 City/County: Bedford, Lawrence County Sampling Date: 11/9/2023
 Applicant/Owner: Lawrence County State: IN Sampling Point: 1A
 Investigator(s): Neal Bennett & Megan Moss Section, Township, Range: S24, T5N, R1W
 Landform (hillslope, terrace, etc.): floodplain terrace Local relief (concave, convex, none): none
 Slope (%): 0-2 Lat: 38.8548 Long: -86.4691 Datum: NAD 83
 Soil Map Unit Name: Haymond Silt Loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes Y No (If no, explain in Remarks.)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes Y No
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>Y</u> No <u> </u> Hydric Soil Present? Yes <u> </u> No <u>N</u> Wetland Hydrology Present? Yes <u> </u> No <u>N</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>N</u>
Remarks: <p align="center">Sampling point was taken in the southeast quadrant of Bridge 172</p>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Ulmus americana</u>	<u>65</u>	<u>Y</u>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u> (A/B)
2. <u>Fraxinus pennsylvanica</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Celtis occidentalis</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
4. <u> </u>				
5. <u> </u>				
<u>110</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>170</u> x 2 = <u>340</u> FAC species <u>90</u> x 3 = <u>270</u> FACU species <u>15</u> x 4 = <u>60</u> UPL species <u>25</u> x 5 = <u>125</u> Column Totals: <u>300</u> (A) <u>795</u> (B) Prevalence Index = B/A = <u>2.65</u>
1. <u>Acer negundo</u>	<u>85</u>	<u>Y</u>	<u>FAC</u>	
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
<u>85</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u> radius)				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u>Y</u> 2 - Dominance Test is >50% <u>Y</u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Elymus riparius</u>	<u>50</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Vinca minor</u>	<u>25</u>	<u>Y</u>	<u>UPL</u>	
3. <u>Symphyotrichum novae-angliae</u>	<u>15</u>	<u>N</u>	<u>FACW</u>	
4. <u>Rosa multiflora</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
5. <u>Glechoma hederacea</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
6. <u> </u>				
7. <u> </u>				
8. <u> </u>				
9. <u> </u>				
<u>105</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> radius)				Hydrophytic Vegetation Present? Yes <u>Y</u> No <u> </u>
1. <u> </u>				
2. <u> </u>				
<u>0</u> = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) <p align="center">Photos 9-12, Attachments 16-17</p>				

SOIL

Sampling Point: 1A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
1-4	10 YR 5/3	100					SiL	<1" ribbon
4-12	10 YR 5/4	100					SiL	<1" ribbon
12-17	10 YR 5/4	100					SiL	1" ribbon

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>N/A</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> <u>N</u>
-------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------

Remarks: Sample is 17"
 Observations of soil match descriptions of Haymond Silt Loam
 Haymond SiL is listed as non-hydric
 No redox features were observed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)

<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)	Pass 4:3
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> <u>N</u> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> <u>N</u> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> <u>N</u> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> <u>N</u>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No frequent or prolonged hydrology parameters were observed.

Appendix G

Public Involvement

NOTICE OF TOPOGRAPHIC SURVEY

Project: Lawrence County Bridge 172 Replacement Project (Cement Plant Road)

We are conducting a topographic survey for the possible replacement of Lawrence County Bridge 172 over Leatherwood Creek on Cement Plant Road. This letter is prepared to notify you that it may be necessary to make measurements of portions of your property or of adjoining properties for elevations and right of way determinations. Property lines will NOT be marked or established as part of this work.

It may be necessary for a survey crew to access your property up to the front of the nearest building adjoining the street during the next 10 weeks (January to March) for this project.

A copy of the Indiana Code defining a Surveyor's Right of Entry while conducting a survey is attached.

Underground utilities may be marked on your property by paint or flags for this purpose during this time period also.

Survey Crew members will be visible in reflective vests, and identification will be provided upon request. Questions regarding the project may be directed to the Project Manager, listed below. Survey related questions may be directed to Bledsoe, Riggert, Cooper, James, Inc. as noted below.

Thank you for your cooperation.

If you have any questions, you may contact the following:

Project Manager

Bryan Wright
Butler Fairman and Seufert, Inc.
317.713.4615

Survey Operations Manager

Corey Allen, PS
Bledsoe Riggert Cooper James, Inc.
812.275.0001

Lawrence County Highway Department:

David Holmes
812.275.2644

Appendix H

Air Quality

Indiana Department of Transportation (INDOT)
 State Preservation and Local Initiated Projects FY 2024 - 2028

SPONSOR	CONTR ACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	DISTRICT	MILES	FEDERAL CATEGORY	Total Cost of Project*	PROGRAM	PHASE	FEDERAL	MATCH	2024	2025	2026	2027	2028	
Indiana Department of Transportation	42194 / 1900249	Init.	SR 37	Intersection Improvement, Median U-Turn	Vincennes	0	NHPP	\$4,084,695.00	Safety Construction	CN	\$2,947,200.00	\$736,800.00	\$3,684,000.00					
Performance Measure Impacted: Safety																		
Location: At 1.68 mi S of S Jct of US-50 (Wesley Chapel Rd/CR500S)																		
Comments:Include DES 1900249, 1900255																		
Indiana Department of Transportation	42194 / 1900249	M 11	SR 37	Intersection Improvement, Median U-Turn	Vincennes	0	NHPP		Safety Construction	CN	\$517,014.52	\$129,253.63	(\$3,584,000.00)	\$4,230,268.16				
Performance Measure Impacted: Safety																		
Location: At 1.68 mi S of S Jct of US-50 (Wesley Chapel Rd/CR500S)																		
Comments:decrease move CN from FY 24 (leave \$100,000) and increase and move CN o FY 25. includes des numbers 1900255 and 1900249																		
Bedford	42804 / 1902792	Init.	ST 2512	Intersection Improvement, Roundabout	Vincennes	.13	STBG	\$1,994,000.00	Local Funds	CN	\$0.00	\$162,000.00		\$162,000.00				
									Local Safety Program	RW	\$154,000.00	\$0.00	\$154,000.00					
									Local Funds	RW	\$0.00	\$17,000.00	\$17,000.00					
									Local Safety Program	CN	\$1,454,000.00	\$0.00		\$1,454,000.00				
Performance Measure Impacted: Safety																		
Location: Intersection of John Williams Boulevard and Hillcrest Road Roundabout																		
Comments:Include DES 1902792																		
Indiana Department of Transportation	43238 / 2002026	Init.	SR 37	Bridge Thin Deck Overlay	Vincennes	.07	NHPP	\$792,000.00	Bridge Construction	CN	\$633,600.00	\$158,400.00		\$792,000.00				
Performance Measure Impacted: Bridge Condition																		
Location: NB over SALT CREEK, 00.62 N SR 58																		
Comments:Include DES 2002026, 2002027																		
Indiana Department of Transportation	43249 / 2001915	Init.	SR 458	HMA Overlay, Preventive Maintenance	Vincennes	1.133	STBG	\$714,000.00	Road ROW	RW	\$19,200.00	\$4,800.00	\$24,000.00					
									Road Construction	CN	\$401,600.00	\$100,400.00		\$0.00		\$502,000.00		
Performance Measure Impacted: Pavement Condition																		
Location: From SR 158 to End of Road (Purdue Farm)																		
Comments:Include DES 2001915																		
Lawrence County	43605 / 2002973	Init.	ST 8101	Bridge Replacement	Vincennes	.2	STBG	\$2,192,000.00	Local Funds	RW	\$0.00	\$11,000.00		\$11,000.00				
									Local Bridge Program	RW	\$44,000.00	\$0.00		\$44,000.00				

*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

Indiana Department of Transportation (INDOT)
 State Preservation and Local Initiated Projects FY 2024 - 2028

SPONSOR	CONTR ACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	DISTRICT	MILES	FEDERAL CATEGORY	Total Cost of Project*	PROGRAM	PHASE	FEDERAL	MATCH	2024	2025	2026	2027	2028
Lawrence County	43605 / 2002973	Init.	ST 8101	Bridge Replacement	Vincennes	.2	STBG	\$2,192,000.00	Local Funds	CN	\$0.00	\$370,000.00			\$370,000.00		
									Local Bridge Program	CN	\$1,480,000.00	\$0.00			\$1,480,000.00		
Performance Measure Impacted: Bridge Condition																	
Location: Bridge 172 over Leatherwood Creek on Cement Plant Road in Bedford .33 E of C Street																	
Comments:Include DES 2002973																	
Lawrence County	43605 / 2002973	M 06	ST 8101	Bridge Replacement	Vincennes	.2	STBG	\$2,191,723.30	Local Funds	RW	\$0.00	\$0.00	\$11,000.00	(\$11,000.00)			
									Local Bridge Program	RW	\$0.00	\$0.00	\$44,000.00	(\$44,000.00)			
Performance Measure Impacted: Bridge Condition																	
Location: Bridge 172 over Leatherwood Creek on Cement Plant Road in Bedford .33 E of C Street																	
Comments:All RW Funding move from FY25 to FY24.																	
Indiana Department of Transportation	43971 / 2100564	Init.	US 50	Bridge Deck Replacement	Vincennes	0	NHPP	\$18,691,765.00	Road Construction	CN	\$959,200.00	\$239,800.00			\$1,199,000.00		
									Bridge Construction	CN	\$12,634,400.00	\$3,158,600.00			\$15,793,000.00		
Performance Measure Impacted: Bridge Condition																	
Location: EB over EAST FORK WHITE RIVER, 01.08 E SR 37																	
Comments:Include DES 2100564, 2100569, 2100707, 2101162																	
Indiana Department of Transportation	43971 / 2100564	M 15	US 50	Bridge Deck Replacement	Vincennes	0	NHPP	\$17,957,561.00	Bridge Construction	CN	\$24,395,031.20	\$6,098,757.80			\$15,593,000.00	\$14,900,789.00	
									Road Construction	CN	\$1,884,262.40	\$471,065.60			\$1,199,000.00	\$1,156,328.00	
Performance Measure Impacted: Bridge Condition																	
Location: EB over EAST FORK WHITE RIVER, 01.08 E SR 37																	
Comments:Move CN funds from FY 2026 to FY 2027																	
Indiana Department of Transportation	43998 / 2100732	Init.	SR 450	Bridge Deck Overlay	Vincennes	0	STBG	\$4,100,240.00	Bridge Construction	CN	\$2,536,800.00	\$634,200.00			\$3,171,000.00		
Performance Measure Impacted: Bridge Condition																	
Location: over SALT CREEK, 02.12 W SR 158																	
Comments:Include DES 2100286, 2100713, 2100732																	
Indiana Department of Transportation	44365 / 2200944	Init.	SR 37	Traffic Signals Modernization	Vincennes	0	NHPP	\$1,028,912.00	Safety Construction	CN	\$1,940,000.00	\$485,000.00	\$2,425,000.00				
Performance Measure Impacted: Safety																	
Location: SR 37 at intersection of Patton Hill Road																	
Comments:Include DES 2200944, 2200945																	

Appendix I
Section 4(f)

Section 4(f) Historic Bridge Alternatives Analysis

Lawrence County Bridge No. 172



Des. No. 2002973

NBI No. 4700114

Carrying Cement Plant Road over Leatherwood Creek
Bedford, Lawrence County, Indiana

Bryan Wright, P.E.

Elizabet Biggio, Architectural Historian II

March 2, 2023

This bridge was evaluated by personnel from the Indiana Department of Transportation (INDOT) Bridge Design Unit, the District Office and the designer. The attached Draft Historic Bridge Alternatives Analysis has been reviewed by the INDOT Bridge Design Unit and Cultural Resources Office for thoroughness of the rehabilitation option and compliance with INDOT design policies. Concurrence by INDOT with the proposed Scope of Work does not constitute Final Approval of the Historic Bridge Alternatives Analysis. This draft HBAA may now be distributed to the historic consulting parties for review.



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INTRODUCTION

A. Section 4(f) Alternatives Analysis Framework

The Lawrence County Board of Commissioners has identified a need to improve the operational condition of Lawrence County Bridge No. 172 carrying Cement Plant Road over Leatherwood Creek in Shawswick Township, Lawrence County, Indiana (Appendix A, A1-A3). The bridge was identified in the Indiana Historic Bridge Inventory (HBI; February 2009) as Non-Select.¹ According to the Programmatic Agreement Regarding Management and Preservation of Indiana's Historic Bridges completed on July 17, 2006 (Historic Bridge PA), Non-Select bridges are those, "not considered excellent examples of a given type of historic bridge or are not suitable candidates for preservation."

It should be noted that Lawrence County is not eligible to participate in the Historic Bridge PA due to the 2012 demolition of two "Select" bridges, Lawrence County Bridge 20 and Lawrence County Bridge 80, using local funds. According to Stipulation IV.G of the Historic Bridge PA, "if FHWA or Indiana SHPO determine a bridge owner intentionally demolishes or otherwise diminishes the historic integrity of a Select Bridge under the bridge owner's jurisdiction with non-Federal-aid funds, then FHWA will comply with 36 CFR Part 800 for any future federal-aid bridge project proposed by that bridge owner." Therefore, the project will undergo full Section 106 review.

Section 4(f) of the U.S. Department of Transportation Act of 1966 (Title 49 U.S.C. Section 303) requires special considerations be made regarding the "use" of any historic property that is listed in or eligible for the National Register of Historic Places (National Register). Prior to any "use" of a Section 4(f) property, an alternatives analysis must be conducted that confirms that there are no "feasible and prudent" alternatives to the "use" of the resource.

B. National Register Eligibility

Lawrence County Bridge No. 172 was evaluated as part of INDOT's HBI. The survey, which was developed in cooperation with the Federal Highway Administration (FHWA) and the Indiana Department of Natural Resources-Division of Historic Preservation and Archaeology (IDNR-DHPA), evaluated the National Register eligibility of all publicly-owned bridges built through 1965 in Indiana, and outlined how the consideration for eligible bridges should be incorporated within the overall planning and development of federally funded projects.

Lawrence County Bridge No. 172 was deemed significant as an example of early concrete construction in Indiana, which the IHBI defines as prior to 1910 for this bridge type. Lawrence County Bridge No. 172 was denoted as National-Register eligible in Dr. James Cooper's *Artistry and Ingenuity in Artificial Stone*, where it is noted as an early example utilizing few continuous girders.²

Bridge Integrity and condition were used to determine Select or Non-Select status. Lawrence County Bridge No. 172 received a "high" eligibility score and a "low" condition rating (27.4 out of possible 45).³ Due to this combination of ratings, Lawrence County Bridge No. 172 was reviewed individually. Lawrence County Bridge No. 172 did not meet the individual review criteria and was designated Non-Select.

¹ Section 3-21.

² Pg. 232.

³ Section 2-32.

EXISTING STRUCTURE DATA

C. Identification/History

Bridge No.: 47-00172
Project Location: Cement Plan Road over Leatherwood Creek
Designation No.: 2002973
Year Built: 1909
Years Repaired: 1998
Most Recent Field Inspection Date: July 21, 2022
Average Daily Traffic/Year of ADT: 240 (2016)
Percentage of Commercial Vehicles: 4%
Low volume road: Yes
Functional Classification: Local
Detour Length: 3.74 miles
Load Rating: 0 (closed June 2018)
Sufficiency Rating: 16.0 (out of 100)
National Register of Historic Places Status: Eligible
Historic Bridge Prioritization Status: Non-Select
Historic Character-Defining Features: Girders and parapets

D. Structure/Dimensions

Surface Type: Asphalt
Out to Out of Copings: 15.0 ft.
Out to Out of Bridge Floor: 72.2 ft.
Clear Roadway Width: 11.9 ft.
Number of Lanes on Structure: 1 (posted)
Skew: 0°
Type of Superstructure: Reinforced concrete girder
Spans: 2
Type of Substructure/Foundation: Concrete pier
Seismic Zone: 1

E. Appurtenances

Bridge Railing: Concrete
Curbs: None
Sidewalks: None
Utilities: None
Railroad: No

F. Approaches

Roadway Width: 18 ft.
Surface Type: Asphalt
Guardrail: None
Guardrail End Treatment: N/A
Posted Speed: 20 mph
Design Speed: 30 mph

EXISTING CONDITIONS

Lawrence County Bridge No. 172 has been closed to traffic since June 1, 2018. Leatherwood Creek flows north to south under the bridge.

The National Bridge Inventory (NBI) rating system uses a rating scale of 0 to 9. Bridge inspectors give a rating to each major bridge element. A general description of these condition ratings is shown below:

Rating Code	Condition Description	Description
9	Excellent	
8	Very Good	No problems noted.
7	Good	Some minor problems.
6	Satisfactory	Structural elements show some minor deterioration.
5	Fair	All primary structural elements are sound but may have minor section loss, cracking, spalling, or scour.
4	Poor	Section loss, deterioration, spalling, or scour.
3	Serious	Loss of section, deterioration, spalling, or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
2	Critical	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
1	Imminent Failure	Major deterioration or section loss present in critical structural components, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put bridge back in light service.
0	Failed	Out of service; beyond corrective action.

*From the Federal Highway Administration, *Bridge Inspector's Reference Manual*, p. 4.2.3

A. Bridge Deck and Rail

The bridge deck is rated 4 out of 9, or "poor". Before its closure, the structure was posted as a one-lane bridge with a weight limit of 15 tons. The clear roadway width is currently 11.9 feet, which does not meet the minimum clear roadway width requirement for a historic one-lane bridge according to Figure 412-2B of the Indiana Design Manual (IDM) (Appendix F, F6). The concrete wearing surface has extensive cracking and debris buildup on the edges (Photos 5 and 9).

The bridge has historic low integral cast concrete bridge railings (Photo 6). The topcoat has worn away from the tops of the rails, leaving the aggregate visible. There are several rectangular holes through the railing measuring approximately 2.5 by 0.75 inches. There are 2-inch diameter drainage pipes approximately midway across the bridge. A hole on the east side of the bridge deck was filled with concrete by an unknown party prior to March 1, 2022.

The railing is also experiencing cracking and scaling and has exposed and warped 0.5-inch reinforcement on both sides (Photos 7 and 8). Biological growth is occurring around the larger cracks and holes and on the top of the rail. There is a large rust stain on the interior side of the north rail. The guardrail is not crash-tested. The construction date of "1909" is carved at the east end of the south rail.

B. Superstructure

The superstructure is rated 4 out of 9, or “poor”. A large portion of the underside of the deck and girders has exposed corroded reinforcement, including primary bars (Photos 5 and 18). Heavy spalling is also occurring. Thin diagonal cracks are present at both ends of the east girder in span 1 and the south end of the west girder in span 1. The cracks began at the bottom of the girder and extended up towards the abutment/pier. One piece of reinforcement is hanging down from Span B. Comparing photographs from past bridge inspections, it is apparent that concrete is continuing to erode from the reinforcement (Figure 1).



Figure 1. Underside of Span B in 2014 (left) and 2022 (right)

C. Substructures and Foundations

The substructure is rated 4 out of 9, or “poor”. Deep scaling is present on the footing of the exposed center pier. The abutments are cracking and spalling. There is heavy scaling in some areas near the waterline. The center pier has cracks up to 1/8 in. wide and exhibits severe efflorescence. Heavy, deep spalling is also occurring. There is section loss on the bottom of the north and south sides of the pier. Debris builds up on the upstream (north) side.

The concrete footings are visible on top of the stream bed. There is biological growth on the pier and wingwalls. There is moderate erosion behind the wingwalls. Scour buildup is occurring on the upstream (north) side of the debris diverter on the pier.

**TABLE 1:
LEVEL 1 INDIANA DESIGN MANUAL CRITERIA for
HISTORIC ONE-LANE BRIDGES (AADT 100- 400)**

Criteria (1)	Minimum Design Criteria	Existing Value	Meets Standard	Possible to Meet Standard?
Load Capacity	HS-15	0 (closed)	No	Yes
Bridge Clear Roadway Width (one-lane)	16 ft.	11.9 ft.	No	No
Sight Distance	200 ft.	Deficient	No	No
Approach Travel Lane Width	9 ft.	18 ft.	Yes	Yes
Useable Shoulder (Approach)	2 ft.	0 ft.	No	Yes

(1) Indiana Design Manual (IDM), Chapter 55, Figure 55-3D and Chapter 412, Figures 412-2A and 2B

D. Approaches

The approach roadway is rated 3 (out of 9), or “basically intolerable”. Cement Plant Road is a one-lane asphalt-paved road which runs on a winding alignment southwest from Bedford. There is currently no approach guardrail on either side of the bridge. There are no approach slabs. Visibility on the approaches is very poor due to the curving road alignment, elevation changes, and heavy vegetation, particularly on the east side of the creek (Photos 1-3, 10-12). The detour for this bridge is approximately 3.74 miles and utilizes Tunnelton Road, Poor Farm Road, and County Road 100 South. Twelve residential properties are located along Poor Farm Road between Tunnelton Road and County Road 100 South. Six residents are located along County Road 100 South prior to approach Cement Plan Road.

E. Utilities

No utilities have been located in the project area.

PURPOSE AND NEED

The need for the project derives from the deterioration of both the superstructure and substructure of the existing bridge, including:

- Heavy spalling, cracking, and delamination and exposed reinforcement
- Spalling and disintegration of the historic concrete bridge railing
- Intolerable approach roadway geometry

The bridge currently has condition ratings of “poor”, or 4 (out of 9) for the deck, superstructure, and substructure. See also the Bridge Inspection Report (Appendix E). The Bedford Fire Department has requested Lawrence County reopen the bridge to facilitate faster responses to the growing residential population on the east side of Leatherwood Creek. The current detour for emergency vehicles adds approximately 20 minutes to response times. The City of Bedford Police Department, the Lawrence County Sherriff, and the City of Bedford Fire Department have each stated the closure of Lawrence County Bridge No. 172 hampers the ability to provide emergency services in this area (Appendix H, H1-H3).

The purpose of the project is to address the condition of Lawrence County Bridge 172 and to provide a crossing of Leatherwood Creek accessible to emergency vehicles. The minimum clear roadway width should be 20 feet, per American Association of State Highway and Transportation Officials (AASHTO) recommendations for emergency vehicles on very low volume roads (Appendix F, F7-F8). Condition ratings should be improved to “good”, at least a 7 (out of 9) and the useful life of the bridge extended at least 25 years.

ALTERNATIVES

A. No Build/Do Nothing

This alternative proposes no work take place, leaving all elements of Lawrence County Bridge No. 172 in their current state. No federal funds would be expended. This alternative would result in no environmental impacts and no impact to the historic bridge. No right-of-way (ROW) acquisition would be required. This is a feasible alternative. However, this alternative does not meet the project’s stated purpose and need. This alternative would allow the condition of the bridge to continue to deteriorate. Lawrence County Bridge No. 172 would remain closed. As a result, no stream crossing would be provided, and motorists and emergency vehicles would likely continue using CR 100 South, Poor Farm Road, Tunnleton Road,

Saddlebarn Drive, Valley View Drive, Sycamore Drive, Saddler Drive, and Cement Plant Road. This detour would be approximately 3.74 miles long and add 2.04 miles to a through trip. This alternative does not meet the purpose and need. Therefore, Alternative A is not considered prudent.

B1. Rehabilitation for Continued Vehicular Use (One-Lane) Meeting Secretary of Interior’s Standards for Rehabilitation

Alternative B1 proposes to rehabilitate Lawrence County Bridge No. 172 following the *Secretary of the Interior’s Standards for Rehabilitation*. Work on the existing structure would use in-kind materials, without widening, in order to preserve those characteristics which make the bridge eligible for the National Register, while allowing for continued vehicular use. A detailed analysis of the structural integrity of the concrete components of the structure would be required to identify all areas requiring treatment.

The bridge would maintain its existing dimensions and would continue to be posted as a one-lane bridge. An approximately 1.75-inch latex concrete overlay would be applied to the bridge deck. Approximately 105 feet of asphalt wedge and leveling would be performed on the approaches to tie back the bridge into existing grades.

The existing hole in the bridge deck would be repaired utilizing full depth patching procedures. Remaining portions of the deck that have exposed rusted reinforcing steel would be repaired utilizing concrete patching procedures. The unsound concrete would be removed by hand and patched according to best practices found in the *National Park Service Preservation Brief No. 15*. Custom concrete of like physical properties as well as consistency, texture, and color would be used. The existing bridge clear roadway width of 11.9 feet would be maintained and continue not to meet IDM minimum standards for one-lane clear roadway width and would require a design exception.

Cracking and exposed reinforcing steel in the foundations and abutments would be repaired using concrete patching procedures and epoxy injection to repair. Footings which currently exhibit scouring would be remediated utilizing the placement of riprap in front of the toes of the exposed footings.

TABLE 2: Alternative B1 DESIGN CRITERIA

Design Element	Minimum Design Criteria	Existing Condition	Proposed Condition	Design Exception Approval Likely	Reason
Vehicular Capacity	HS-15	0 (closed)	HS-15	N/A	-
Clear Roadway Width	16 ft.	11.9 ft.	11.9 ft.	No	Emergency vehicle difficulty traversing
Approach Travel Lane	10 ft.	11.9 ft.	11.9 ft.	N/A	-
Shoulder	2 ft.	0 ft.	0 ft.	Yes	Current low volume condition
Sight Distance	200 ft	Deficient	Deficient	Yes	Current low volume condition
		Existing	Proposed		
Deck Condition Rating (CR)	-	4	7	-	
Superstructure CR	-	4	7	-	
Substructure CR	-	4	7	-	
Service Life	-	N/A	7	-	

The existing concrete barrier wall is substandard in height and strength and does not meet current IDM standards. To be sympathetic to the historic material, a new concrete railing that meets current state crash test standards would be installed on the bridge. The railing would be attached to the existing bridge deck utilizing field drilled holes and dowels.

No permanent or temporary ROW acquisition would be required. This alternative would extend the life of the historic bridge approximately 20 years with routine maintenance and result in an overall condition rating of 7 (out of 9). The total cost would be approximately \$445,665⁴ (Appendix D, D1).

This alternative would meet the *Secretary of the Interior's Standards for Rehabilitation*. The character-defining concrete deck and superstructure would be maintained. Some material and workmanship integrity would be compromised, as the installation of a crashworthy railing would be required. Materials would be replaced only where necessary and would replicate the historic concrete. Integrity of location, feeling, association, and setting would be retained.

This alternative is feasible. This alternative is the least expensive of all the studied alternatives. However, this alternative would not meet the project's purpose and need because the bridge would continue to be too narrow for use by emergency vehicles. The bridge's useful life would be increased by less than 25 years. Therefore, Alternative B1 is not considered prudent.

B2. Rehabilitation for Continued Vehicular Use (Two-Lane) NOT Meeting Secretary of Interior's Standards for Rehabilitation

Alternative B2 proposes to rehabilitate Lawrence County Bridge No. 172 by widening the existing reinforced slab superstructure and substructure in order to address the geometry of the structure and approaches, which do not meet current IDM standards. A detailed analysis of the structural integrity of the concrete components of the structure would be required to identify all areas requiring treatment.

In order to accommodate emergency vehicles, the bridge deck would be widened to carry a 20-foot wide clear roadway by extending each side of the bridge approximately 4.0 feet. The new concrete deck would be connected to the existing structure through the use of field drill holes and clean and straightened existing reinforcing steel. An approximately 1.75-inch latex modified concrete bridge deck would be applied to the new and existing portions of the deck.

The existing bridge deck and abutments would be left in place and patched to replace lost material. Cracks would be filled utilizing epoxy injection. Portions of the existing deck would be removed exposing portions of the existing reinforcing steel. New epoxy coated reinforcing bars would be lapped with the existing steel to widen the bridge deck 4.0 feet each direction. The existing railing would be removed and replaced with a crash-tested side mounted steel bridge railing. The existing abutments would be widened by removing the existing concrete wing walls and drilling into the existing abutments utilizing field drilled holes and dowels. Each abutment would be widened 4.0 feet in each direction and will have new full height wingwalls turned back at 45 degrees to limit fill.

Approximately 200 feet of approach work on each side of the bridge would be required to widen the existing roadway to match the proposed increase in clear roadway width on the bridge deck and bring up the new fill. This would include approximately 105 feet of wedge and leveling with asphalt on each of the approaches. The approach width would be widened by approximately 6 feet to a total width of 24 feet to accommodate the newly widened bridge section through the installation of new full depth asphalt on either side of the existing roadway. Approximately 500 cubic yards of borrow would be required in order to

⁴ The Maintenance of Traffic (MOT) cost for each alternative would be approximately \$15,000 and utilize the same detour. Since the figure is identical it was not included for cost comparison purposes.

match into the existing ground topography for the widened sections of roadway. Approximately 0.9 acre of tree clearing would be required.

TABLE 3: Alternative B2 DESIGN CRITERIA

Design Element	Minimum Design Criteria	Existing Condition	Proposed Condition	Design Exception Approval Likely	Reason
Vehicular Capacity	HS-15	0 (closed)	HS-15	N/A	-
Clear Roadway Width	16 ft.	11.9 ft.	20 ft.	N/A	-
Approach Travel Lane	10 ft.	11.9 ft.	24 ft.	N/A	-
Shoulder	2 ft.	0 ft.	1 ft.	Yes	Existing low volume condition
Sight Distance	200 ft	Deficient	Deficient	Yes	Existing low volume condition
Deck Condition Rating (CR)	-	4	7	-	
Superstructure CR	-	4	7	-	
Substructure CR	-	4	7	-	
Service Life	-	N/A	25 yrs	-	

Approximately 1.25 acres of permanent ROW acquisition would be anticipated at a cost of approximately \$75,000.00 This alternative would extend the life of the historic bridge approximately 25-35 years and result in an overall condition rating of 7 (out of 9). The estimated total cost for this alternative is \$969,296 (Appendix D, D2).

This alternative would not meet the *Secretary of the Interior's Standards for Rehabilitation*. The character-defining rail would be removed and replaced. Material and workmanship integrity would be compromised by the use of modern replacement materials where necessary. Integrity of design would also be impacted by the widening. Integrity of location, feeling, association, and setting would be retained.

This alternative is feasible. This alternative would meet the project's stated purpose and need by raising the bridge's condition rating to a 7 (out of 9) and facilitating emergency vehicle use by widening the bridge to 20 feet. However, this alternative would have significant adverse effects to the integrity of the historic bridge. Additional ROW acquisition would be required. In addition, the cost for this alternative is greater than 40% of the replacement option, which is the standard comparison set in the IDM Chapter 412-5.04(02) for Non-Select bridges on low volume roads. The total cost is approximately 52% of the total replacement cost. Therefore, Alternative B2 is not considered prudent.

C. Rehabilitation for Continued Vehicular Use (One-Way Pair Option)

Alternative C proposes to rehabilitate Lawrence County Bridge No. 172 in-place to carry one lane of traffic, maintaining the characteristics of the structure for which it is eligible for the National Register while allowing for continued vehicular use. A new single span concrete beam bridge would be built next to the existing bridge to carry the other lane of traffic.

This alternative is feasible. However, given the average daily traffic county of 240 vehicles per day, a two-lane crossing is not necessary or desired by Lawrence County at this location. Lawrence County Bridge

No. 172 is currently a single-lane bridge. Constructing a second, unneeded bridge would add frivolous additional cost to the project. It would require a longer project area than previous alternatives, adding permanent ROW acquisition impacting more parcels as well as significant additional tree clearing. Additionally, all the same issues outlined in Alternative B1 will be affecting the structure. Therefore, Alternative C is not considered prudent.

D. Bypass (non-vehicular use)/Build New Structure without Affecting the Historic Integrity

Alternative D proposes to rehabilitate Lawrence County Bridge No. 172 in-place, preserving the characteristics of the structure which make it eligible for the National Register, while allowing for continued use as a pedestrian bridge. A new bridge would be constructed east of the existing bridge to carry one lane of vehicular traffic.

The existing bridge would undergo a limited rehabilitation to allow for non-vehicular use. The bridge would maintain its existing dimensions. The existing deck and substructure units would receive concrete patching to address the exposed rusted reinforcing steel. The existing hole in the deck would receive full depth patching in order to maintain safety on the bridge. Unsound concrete would be removed by hand and patched according to best practices found in the *National Park Service Preservation Brief No. 15*. Custom concrete of like physical properties as well as consistency, texture, and color would be used. The existing concrete railing would have steel tube railing installed on top of it at pedestrian height in order to safely carry pedestrians that may want to use the structure. Bollards would be installed to prevent vehicular traffic from using the bridge.

The new bridge would be offset approximately 30 feet east from the existing bridge since the proposed new bridge would have a clear roadway width of 20 feet. The new bridge would have three spans and be approximately 212 feet long. Approximately 75 cubic yards of silt would be removed from the waterway in order to clear the existing north span and accommodate the new bridge. Approximately 0.9 acres of tree clearing would be required. The bridge would have a skew of approximately 30° to allow straightening of the approach alignments. The bridge will have side-mounted T-1 railings.

TABLE 4: Alternative D DESIGN CRITERIA (New Bridge)*

***No Design Exceptions Required**

Design Element	Minimum Design Criteria	Existing Condition	Proposed Condition	Design Exception Approval Likely
Vehicular Capacity	HS-15	0 (closed)	HL-93	N/A
Clear Roadway Width	16 ft.	11.9 ft.	20 ft.	N/A
Approach Travel Lane	10 ft.	11.9 ft.	18 ft.	N/A
Shoulder	2 ft.	0 ft.	1 ft.	N/A
Sight Distance	200 ft	Deficient	531 ft	N/A

A new one-lane roadway with two 9-foot travel lanes would be constructed to serve as the approach for the new bridge, tapering back to the existing alignment. Approximately 5,106 cubic yards of borrow would be required in order to construct the new approach.

The project area would be approximately 750 feet long due to the increased distance required between the new and existing bridges. Approximately 1.6 acres of ROW acquisition would be anticipated, at a cost of approximately \$30,000. This alternative would extend the life of the historic bridge approximately 15-20 years with a condition rating of approximately 7 (out of 9) while the new bridge would have a service life of approximately 80-100 years and an overall condition rating of 9 (out of 9). The estimated construction cost for this alternative is \$1,657,310 ((Appendix D, D3-D6).

This alternative would meet the *Secretary of the Interior's Standards for Rehabilitation* for the historic bridge. The bridge's character-defining concrete rail and girders would be maintained. Loss of material and workmanship integrity would be limited, as less materials would need to be replaced to rehabilitate the bridge for non-vehicular use only. Integrity of setting and feeling would be impacted by the addition of a contemporary bridge 30 feet away, but the overall rural nature of the area would be maintained. Integrity of design, location, and association would be retained.

Alternative D is feasible. This alternative meets the project purpose and need by raising the bridge's condition rating to a 7 (out of 9). The increased project length would create added ROW impacts and costs as well as more affected parcels. Given the setting of the bridge and the lack of nearby bike and pedestrian facilities, few non-vehicular users would be anticipated. The useful life of the historic bridge would be increased by less than 25 years. Therefore, Alternative D is not considered prudent.

E. Replacement

Alternative E proposes to replace the historic bridge with a new one-lane new bridge built on a straightened alignment to improve sight distances. The new bridge would be constructed as described in Alternative D. The existing Lawrence County Bridge 172 would be demolished. The estimated construction cost for this alternative is \$1,864,266 (Appendix D, D7).

Alternative E is feasible. This alternative meets the project purpose and need by providing Lawrence County with a crossing of Leatherwood Creek accessible to emergency vehicles with a condition rating greater than 7 (out of 9). Alternative E is prudent.

MINIMIZATION AND MITIGATION

A Section 4(f) analysis for historic properties, such as Lawrence County Bridge No. 172, must explore all possible efforts to minimize and mitigate unavoidable impacts. Alternative E, while feasible and prudent, would result in the complete removal of Lawrence County Bridge No. 172.

Because Lawrence County is not eligible to participate in the Historic Bridge PA, a Memorandum of Agreement (MOA) will be needed to resolve any adverse effects to the bridge. It is anticipated that photo-documentation of the bridge will occur. Other mitigation ideas from consulting parties and the SHPO will be taken into consideration. Requirements for mitigation will be included in the Categorical Exclusion document and carried forward to the Project Commitments Database.

PRELIMINARY PREFERRED ALTERNATIVE

Based on this analysis, Alternative E (Replacement) is the only prudent alternative, pending the results of public involvement and bridge marketing. This alternative meets the project Purpose and Need by raising the condition rating of Lawrence County Bridge 172 above a 7 (out of 9) and providing a usable bridge for emergency vehicles. Therefore, Alternative E has been identified as the preliminary preferred alternative.

Alternatives Analysis Comparison

Alternative	Description	Meets P & N	Total Cost	Other Factors	Feasible & Prudent
A.	No Build/Do Nothing	No	\$0	Bridge would remain closed.	Feasible, not prudent
B1.	Rehabilitation for Continued Vehicular Use (to SOI Standards)	No	\$445,665	Would not allow use by emergency vehicles	Feasible, not prudent
B2.	Rehabilitation for Continued Vehicular Use (not to SOI Standards)	Yes	\$969,296	Loss of integrity to bridge; increased environmental impacts	Feasible, not prudent
C.	One-Way Pair	Yes	N/A	Two-lanes are not needed at this location	Feasible, not prudent
D.	Bypass	Yes	\$1,657,310	Pedestrian use not likely	Feasible, not prudent
E.	Replacement	Yes	\$ 1,864,266	Results in destruction of historic bridge	Feasible & prudent

Elizabeth Biggio

From: Elizabeth Biggio
Sent: Monday, April 10, 2023 12:10 PM
To: Giffin, Toni L; Tharp, Wade
Cc: Kennedy, Mary; SBranigin@indot.IN.gov; Coon, Matthew (mcoon@indot.IN.gov); Bryan Wright
Subject: FHWA Project: Des. No. 2002973; Historic Bridge Alternatives Analysis (HBAA); Lawrence County Bridge 172 project, Bedford, Lawrence County, Indiana
Attachments: LawrenceCo172_Des2002973_HBAA Transmittal Letter_2023-04-10.pdf

Des. No.: 2002973

Project Description: Bridge project, scope undetermined

Location: Cement Plant Road over Leatherwood Creek, Bedford, Lawrence County

Lawrence County, with funding from the Federal Highway Administration and administrative oversight from the Indiana Department of Transportation, proposes to proceed with the Lawrence County Bridge 172 Project (Des. No. 2002973). The Section 106 Early Coordination Letter for this project was originally distributed on May 17, 2022. A Historic Property Report was distributed on July 13, 2022 and an archaeological report on October 3, 2022.

As part of Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966, a Historic Bridge Alternatives Analysis (HBAA) has been prepared and is ready for review and comment by consulting parties.

Please review the HBAA, located in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with any comments that you may have. If a hard copy of the materials is needed, please respond to this email with your request within 7 days.

Tribal Contacts, please respond to INDOT's Acting Tribal Liaison, Matt Coon at mcoon@indot.in.gov (317-233-2083) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Thank you in advance for your input,



Elizabeth Biggio
Architectural Historian

Butler, Fairman & Seufert, Inc.
p 317-713-4615
EBiggio@bfsengr.com | www.bfsengr.com

8450 Westfield Blvd., Suite 300, Indianapolis, IN 46240-8302

www.bfsengr.com



Elizabeth Biggio

From: Kennedy, Mary <MKENNEDY@indot.IN.gov>
Sent: Tuesday, April 11, 2023 10:51 AM
To: thpo@estoo.net; THPO@MiamiNation.com; Section106
Cc: Coon, Matthew; Carmany-George, Karstin (FHWA); Elizabeth Biggio
Subject: FHWA Project: Des. No. 2002973; Historic Bridge Alternatives Analysis (HBAA); Lawrence County Bridge 172 project, Bedford, Lawrence County, Indiana

Des. No.: 2002973

Project Description: Bridge project, scope undetermined

Location: Cement Plant Road over Leatherwood Creek, Bedford, Lawrence County

Lawrence County, with funding from the Federal Highway Administration and administrative oversight from the Indiana Department of Transportation, proposes to proceed with the Lawrence County Bridge 172 Project (Des. No. 2002973). The Section 106 Early Coordination Letter for this project was originally distributed on May 17, 2022. A Historic Property Report was distributed on July 13, 2022 and an archaeological report on October 3, 2022.

As part of Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966, a Historic Bridge Alternatives Analysis (HBAA) has been prepared and is ready for review and comment by consulting parties.

Please review the HBAA, located in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with any comments that you may have. If a hard copy of the materials is needed, please respond to this email with your request within 7 days.

Tribal Contacts, please respond to INDOT's Acting Tribal Liaison, Matt Coon at mcoon@indot.in.gov (317-233-2083) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Regards,

Mary E. Kennedy

Historic Bridge Specialist

100 N. Senate Ave., Room N758-ES

Indianapolis, IN 46204

Email: mkenney@indot.in.gov

Phone: 317-694-3607

Typically on site Mon, Tues & Thurs; Remote Weds



*For the latest updates from INDOT's Cultural Resources Office, subscribe to the Environmental Services listserv: <https://www.in.gov/indot/3217.htm>

**Link to the CRO-Public Web Map App can be found [here](#)



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758
Indianapolis, Indiana 46204

PHONE: (855) 463-6848

Eric Holcomb, Governor
Michael Smith, Commissioner

April 10, 2023

This letter was sent to the listed parties.

RE: Lawrence County Bridge No. 172, Des. No. 2002973; Lawrence County, Indiana

Dear Consulting Party,

The Lawrence County Board of Commissioners, with funding from the Federal Highway Administration and administrative oversight from the Indiana Department of Transportation (INDOT), proposes to proceed with the Lawrence County Bridge No. 172 Project (Des. No. 2002973).

This letter is part of the Section 106 review process for this project. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic and archaeological properties. We are requesting comments from you regarding the possible effects of this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

A Section 106 early coordination letter was distributed on May 17, 2022. A Historic Property Report (HPR) was distributed on July 13, 2022 and an archaeological report on October 3, 2022.

The proposed undertaking is on Cement Plant Road over Leatherwood Creek in the City of Bedford, Lawrence County, Indiana. It is within Shawswick Township on the USGS Bedford East Quadrangle, in Section 24, Township 5 North, Range 1 West. The project area can be viewed online at <https://arcg.is/jqueP> (the Des. No. is the most efficient search term once in the CRO - Public Web Map App). Lawrence County Bridge 172 is a 1909 continuous concrete girder bridge. It is rated "Non-Select" in the Indiana Historic Bridge Inventory.

The need for the project derives from the deteriorated condition of Lawrence County Bridge 172. The deck, superstructure, and substructure have condition ratings of 4 (out of 9), or "poor". The bridge has been closed since June 2018. There is a large hole in the deck. The purpose of the project is to provide Lawrence County with an improved crossing for Cement Plant Road over Leatherwood Creek. Right-of-way (ROW) acquisition will be required and will be established when the full scope of the project is determined according to the Section 4(f) Historic Bridge Alternatives Analysis. The maximum project length would be approximately 0.22 mile.

Butler, Fairman, & Seufert, is under contract with Lawrence County to advance the environmental documentation for the referenced project.

In accordance with 36 CFR 800.2 (c), you were invited to become a consulting party as part of the Section 106 process, or you are hereby invited to become a consulting party as part of the Section 106 process. Entities that have previously accepted consulting party status are identified in the attached list.

The Section 106 process involves efforts to identify historic properties potentially affected by the undertaking, to assess the undertaking's effects and to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. For

more information regarding the protection of historic resources, please see the Advisory Council on Historic Preservation's guide: *Protecting Historic Properties: A Citizen's Guide to Section 106 Review* available online at <https://www.achp.gov/sites/default/files/documents/2017-01/CitizenGuide.pdf>.

Lawrence County is not eligible to participate in the Programmatic Agreement Among the Federal Highway Administration, the Indiana Department of Transportation, the Indiana State Historic Preservation Officer (INSHPO), and the Advisory Council on Historic Preservation Regarding Management and Preservation of Indiana's Historic Bridges (Historic Bridge PA) due to the 2012 demolition of two "Select" bridges, Lawrence County Bridge 20 and Lawrence County Bridge 80, using local funds. According to Stipulation IV.G of the Historic Bridge PA, "if FHWA or Indiana SHPO determine a bridge owner intentionally demolishes or otherwise diminishes the historic integrity of a Select Bridge under the bridge owner's jurisdiction with non-Federal-aid funds, then FHWA will comply with 36 CFR Part 800 for any future federal-aid bridge project proposed by that bridge owner." Therefore, the project will undergo full Section 106 review.

A historian who meets the Secretary of the Interior's Professional Qualification Standards identified and evaluated above-ground resources within the APE for potential eligibility for the NRHP. As a result of the historic property identification and evaluation efforts, no above-ground resources are recommended as eligible for listing in the NRHP aside from Bridge No. 172. The INSHPO concurred with the results of the HPR summarizing the results of above-ground investigations in a letter dated July 27, 2022

With regard to archaeological resources, an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards identified three sites within the project area. As a result of these efforts, sites 12Lr0486, 12Lr1199, and 12Lr1200 were recommended not eligible for listing in the NRHP and no further work is recommended.

The INSHPO responded to the archaeology report on December 5, 2022, stating, in part, "*based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the proposed project area. We concur with the opinion of the archaeologist, as expressed in the revised Phase Ia archaeological field reconnaissance survey report (Bubb, 9/27/2022) [...] that no further archaeological investigations appear necessary at the proposed project area.*"

The Historic Bridge Alternatives Analysis (HBAA) is available for review in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE). You are invited to review these documents and to respond with comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If you prefer a hard-copy of this material, please with your request within seven days.

Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party or if you have not previously accepted consulting party status and you do not respond to this letter, you will not be included on the list of consulting parties for this project and will not receive further information about the project unless the design changes.

All future responses regarding the proposed project should be forwarded to BF&S at the following address:

Elizabet Biggio, Architectural Historian II
Butler, Fairman, & Seufert, Inc.
8450 Westfield Boulevard, Suite 300
Indianapolis, IN 46240
ebiggio@bfsengr.com

Tribal Contacts, please respond to INDOT's Acting Tribal Liaison, Matt Coon at mcoon@indot.in.gov (317-233-2083) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional

information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Sincerely,



Matt Coon, Manager
Cultural Resources Office
Environmental Services

Enclosures:

Historic Bridge Alternatives Analysis

Distribution List:

Indiana State Historic Preservation Officer
Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Shawnee Tribe



Miami Tribe of Oklahoma

3410 P St. NW, Miami, OK 74354 • P.O. Box 1326, Miami, OK 74355
Ph: (918) 541-1300 • Fax: (918) 542-7260
www.miamination.com



Via email: mcoon@indot.in.gov

April 24, 2023

Matt Coon, Tribal Liaison
INDOT, Cultural Resources Office
100 North Senate Avenue, N758-ES
Indianapolis, Indiana 46204

Re: Des. No. 2002973, Lawrence County Bridge 172 Project, Lawrence County, Indiana –
Comments of the Miami Tribe of Oklahoma

Dear Mr. Coon:

Aya, kweehsitoolaani– I show you respect. The Miami Tribe of Oklahoma, a federally recognized Indian tribe with a Constitution ratified in 1939 under the Oklahoma Indian Welfare Act of 1936, respectfully submits the following comments regarding Des. No. 2002973, Lawrence County Bridge 172 Project in Lawrence County, Indiana.

The Miami Tribe offers no objection to the above-referenced project at this time, as we are not currently aware of existing documentation directly linking a specific Miami cultural or historic site to the project site. However, given the Miami Tribe's deep and enduring relationship to its historic lands and cultural property within present-day Indiana, if any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of this project, the Miami Tribe requests immediate consultation with the entity of jurisdiction for the location of discovery. In such a case, please contact me at 918-541-8966 or by email at THPO@miamination.com to initiate consultation.

The Miami Tribe accepts the invitation to serve as a consulting party to the proposed project. In my capacity as Tribal Historic Preservation Officer I am the point of contact for consultation.

Respectfully,

Diane Hunter
Tribal Historic Preservation Officer

Division of Historic Preservation & Archaeology · 402 W. Washington Street, W274 · Indianapolis, IN 46204-2739
Phone 317-232-1646 · Fax 317-232-0693 · dnpa@dnr.IN.gov ·



May 8, 2023

Elizabet Biggio, Architectural Historian II
Butler, Fairman, & Seufert, Inc.
8450 Westfield Boulevard, Suite 300
Indianapolis, Indiana 46240

Federal Agency: Indiana Department of Transportation (“INDOT”),
on behalf of Federal Highway Administration, Indiana Division (“FHWA”)

Re: Historic bridge alternatives analysis for (NBI No. 4700114) carrying Cement Plan Road over
Leatherwood Creek (Des. No. 2002973; DHPA No. 29263)

Dear Ms. Biggio:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), implementing regulations at 36 C.F.R. Part 800, the “Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana,” the staff of the Indiana State Historic Preservation Officer (“Indiana SHPO”) has reviewed your April 10, 2023, submission, with the aforementioned historic bridge alternatives analysis (“HBAA”), which we received April 10, 2023.

As previously indicated, Lawrence County is not eligible to participate in the Programmatic Agreement Among the Federal Highway Administration, the Indiana Department of Transportation, the Indiana State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Management and Preservation of Indiana’s Historic Bridges (Historic Bridges PA) due to the demolition of two “Select” Bridges. Thus, this project will go through the full Section 106 process.

For the purposes of the Section 106 review of this federal undertaking, we agree that the Lawrence County Bridge Number 172 (NBI No. 4700114), a c. 1909 continuous reinforced concrete girder, was previously determined eligible for inclusion in the National Register of Historic Places (“NRHP”) as part of the Indiana Historic Bridges Inventory. It is rated “Non-Select” in the Indiana Historic Bridge Inventory. We agree that there are no other historic properties listed or eligible for inclusion in the NRHP within the project’s APE.

It is our understanding that the need for this project is to address the deteriorated condition of both the superstructure and substructure of the existing bridge. The purpose is to facilitate emergency vehicle use by widening the bridge from 11.9 feet to 20 feet.

We appreciate the Historic Bridge Alternatives Analysis (“HBAA”) which provides consulting parties a more thorough description and analysis of the current condition of the bridge and the proposed work for this federal undertaking.

It is clear why Alternatives A- No Build/Do Nothing, B1 - Rehabilitation for Continued Vehicular Use (One-Lane) Meeting Secretary of Interior’s Standards for Rehabilitation, B2 - Rehabilitation for Continued Vehicular Use (Two-Lane) NOT Meeting Secretary of Interior’s Standards for Rehabilitation, and C - Rehabilitation for Continued Vehicular Use (One-Way Pair Option) are not preferred alternatives, and the SHPO acknowledges the reasons given as to why these alternatives are not considered prudent.

The SHPO notes that Alternative D - Bypass (non-vehicular use)/Build New Structure without Affecting the Historic Integrity is at a lower cost than Alternative E. While preferable to keep the bridge in its current setting and location, the SHPO understands that Lawrence County currently has no plans to construct a shared-use path along Cement Plan Road. While Alternative D does keep the bridge in situ, the SHPO comprehends the logic that the bridge would likely not see much pedestrian or bicycle traffic without a connecting shared-use/pedestrian path, thus it would be less likely to receive regular maintenance such as a bridge serving a trail system would receive.

Given the results of the calculations made for the alternatives and the standards pursuant to the Indiana Design Manual, the alternatives analysis concludes that Alternative E, Replacement of Historic Bridge/ New Bridge Construction is the preliminary preferred alternative. We agree this alternative meets INDOT design standards and the AASTO recommendations for emergency vehicles on very low volume roads, if continued vehicular use of the historic bridge is deemed impractical.

Considering that this project cannot use the streamlined Project Development Process for Non-Select Bridges provided in the Indiana Historic Bridges PA, in the event Alternative E is ultimately selected as the final preferred alternative, the adverse effect of demolishing Lawrence Co. Bridge No. 172 (NBI No. 4700114) would need to be resolved through consultation to agree on means to avoid, minimize and mitigate the effects of the undertaking, resulting in a Memorandum of Agreement (MOA). We are interested to learn of the views of other consulting parties on the alternatives presented, and potential mitigation measures for the demolition of Lawrence County Bridge No. 172. Accordingly, unless another consulting party expresses a different opinion about the project's effects on historic properties, it might now be appropriate to ask INDOT for a finding.

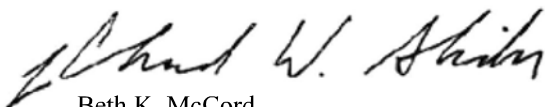
Additionally, as previously indicated, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the proposed project area. We concur with the opinion of the archaeologist, as expressed in the revised Phase Ia archaeological field reconnaissance survey report (Bubb, 9/27/2022), that archaeological site 12-Lr-0486 (which was resurveyed during earlier, associated investigations) does not appear eligible for listing in the NRHP; that archaeological sites 12-Lr-1199 and 12-Lr-1200 (both of which were identified during earlier, associated investigations) do not appear eligible for listing in the NRHP; and that no further archaeological investigations appear necessary at the proposed project area.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29) requires that the discovery be reported to the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology, within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. Part 800.

The Indiana SHPO staff's archaeological reviewer for this project is Wade T. Tharp, and the structures reviewer is Toni Lynn Giffin. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

In all future correspondence about the project Lawrence County Bridge 172 (NBI No. 4700114) carrying Cement Plan Road over Leatherwood Creek (Des. No. 2002973), please refer to DHPA No. 29263.

Very truly yours,



Beth K. McCord
Deputy State Historic Preservation Officer

BKM:TLG:WTT:wt

- Emc Patrick Carpenter, FHWA
- Matt Coon, Ph.D., INDOT
- Susan Branigin, INDOT
- Mary Kennedy, INDOT
- Elizabet Biggio, BF&S, Inc.
- Paul Brandenburg, Indiana Historic Spans Task Force
- Tony Dillon, Historic Hoosier Bridges
- Kitty Henderson, Historic Bridge Foundation
- Nathan Holth, historicbridges.org

Elizabet Biggio
May 8, 2023
Page 3

Toni Lynn Giffin, Indiana DNR-DHPA
Wade T. Tharp, Indiana DNR-DHPA

Elizabet Biggio

From: Laserfiche Notification <donotreply@laserfiche.com>
Sent: Friday, May 12, 2023 4:08 PM
To: Kennedy, Mary
Subject: Section 106 Consultation - Des. No. 2002973; ; Lawrence County Bridge 172 project Lawrence County, Indiana

**** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ****

This email is in response to Des. No. 2002973; ; Lawrence County Bridge 172 project Lawrence County, Indiana. The Shawnee Tribe's Tribal Historic Preservation Department concurs that no known historic properties will be negatively impacted by this project. However, there is still potential for the discovery of unknown resources.

We have no issues or concerns at this time. Please continue with the project as planned, but in the event archaeological materials are encountered during construction, use, or maintenance of this location, please re-notify us at that time as we would like to resume immediate consultation under such a circumstance.

If you have any questions, you may contact me via email at Section106@shawnee-tribe.com

Thank you for giving us the opportunity to comment on this project

Appendix J

Additional Studies

Land and Water Conservation Fund (LWCF) Lawrence County Property List

ProjectNumber	SubProjectCode	County	Property
1800010	1800010	Lawrence	Spring Mill State Park & Donaldson's Cave Nature Preserve
1800132	1800132	Lawrence	Mitchell Park and Pool
1800161	1800161C	Lawrence	Spring Mill State Park
1800162	1800162	Lawrence	Spring Mill State Park & Donaldson's Cave Nature Preserve
1800171	1800171N	Lawrence	Spring Mill State Park
1800177	1800177C	Lawrence	Spring Mill State Park
1800180	1800180	Lawrence	Spring Mill State Park & Donaldson's Cave Nature Preserve
1800309	1800309B	Lawrence	Spring Mill State Park
1800312	1800312P	Lawrence	Spring Mill State Park
1800363	1800363DD	Lawrence	Spring Mill State Park
1800413	1800413T	Lawrence	Spring Mill State Park
1800433	1800433	Lawrence	Spring Mill State Park & Donaldson's Cave Nature Preserve
1800612	1800612	Lawrence	Spring Mill State Park

Source: <https://www.in.gov/indot/2523.htm>

Environmental Justice Data Analysis

Des. No. 2002973: Lawrence Co. Bridge 172

Source: U.S. Census Bureau 2021 ACS 5-year Estimates

		COC	AC1	AC2
		Shawswick Township, Lawrence County, IN	Census Tract 9510, Lawrence County, IN	Census Tract 9511, Lawrence County, IN
B17001	LOW-INCOME			
	Population for whom poverty status is determined: Total	20,134	3,603	3,303
	Income in the past 12 months below poverty level	2,681	579	660
	Percent Low-income	13.3%	16.1%	20.0%
	125 Percent of COC	16.6%	AC <125% COC	AC > 125% COC
	Potential Population of EJ Concern?		No	YES
B03002	MINORITY			
	Total population: Total	20,655	3,707	3,381
	Total population: Not Hispanic or Latino	19,972	3,600	3,024
	Total population: Not Hispanic or Latino; White alone	18,948	3,504	2,916
	Total population: Not Hispanic or Latino; Black or African American alone	70	17	13
	Total population: Not Hispanic or Latino; American Indian and Alaska Native alone	55	10	0
	Total population: Not Hispanic or Latino; Asian alone	104	41	7
	Total population: Not Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	20	0	14
	Total population: Not Hispanic or Latino; Some other race alone	171	15	0
	Total population: Not Hispanic or Latino; Two or more races	604	13	357
	Total population: Hispanic or Latino	683	107	285
	Total population: Hispanic or Latino; White alone	402	36	0
	Total population: Hispanic or Latino; Black or African American alone	0	0	0
	Total population: Hispanic or Latino; American Indian and Alaska Native alone	16	16	0
	Total population: Hispanic or Latino; Asian alone	0	0	0
	Total population: Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	0	0	44
	Total population: Hispanic or Latino; Some other race alone	57	5	28
	Total population: Hispanic or Latino; Two or more races		50	
	Number Non-white/minority	1,707	203	465
	Percent Non-white/Minority	8.3%	5.5%	13.8%
125 Percent of COC	10.3%	AC <125% COC	AC > 125% COC	
Potential Population of EJ Concern?		No	YES	

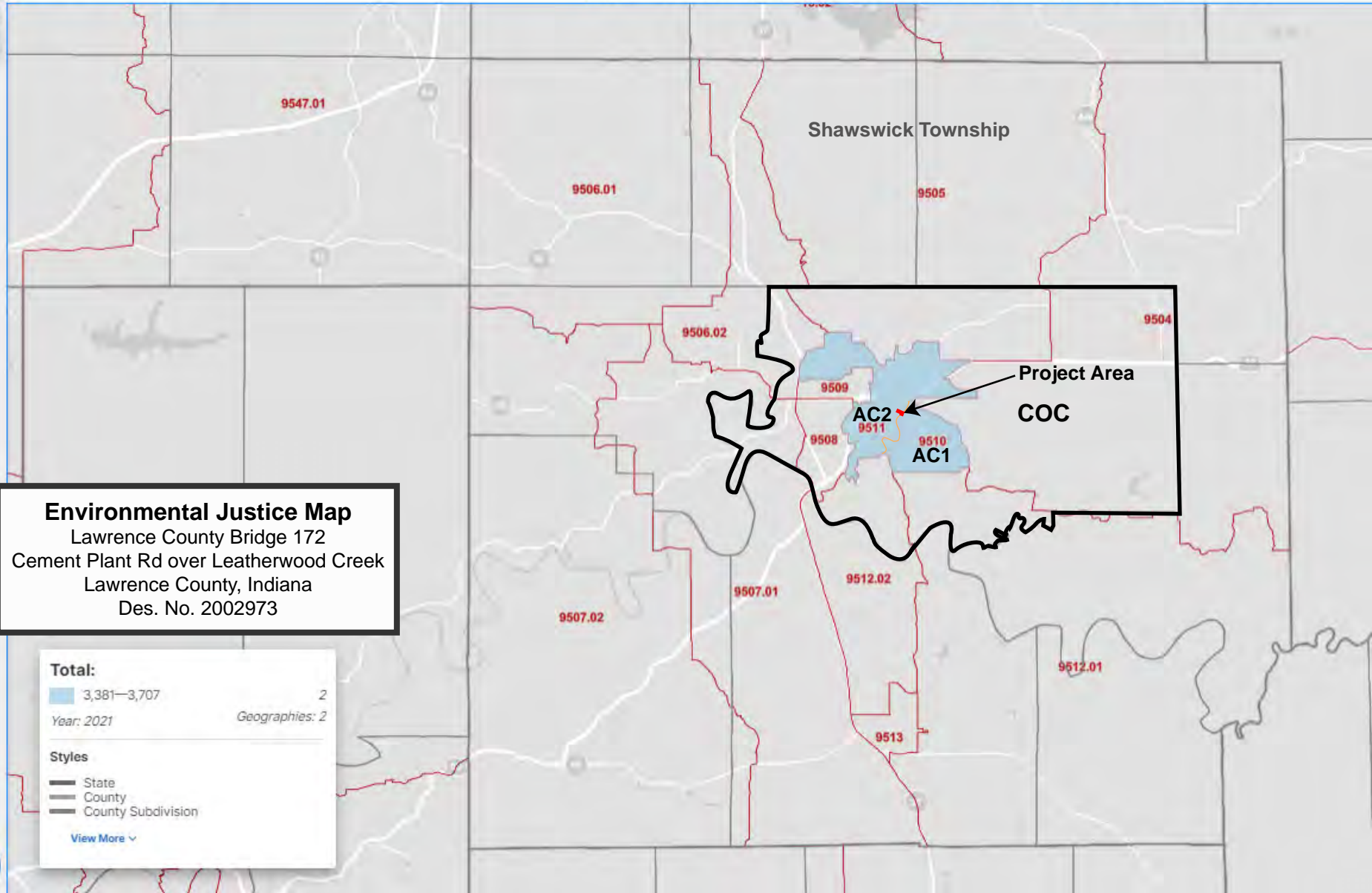


Total:

HISPANIC OR LATINO ORIGIN BY RACE



2812
Results



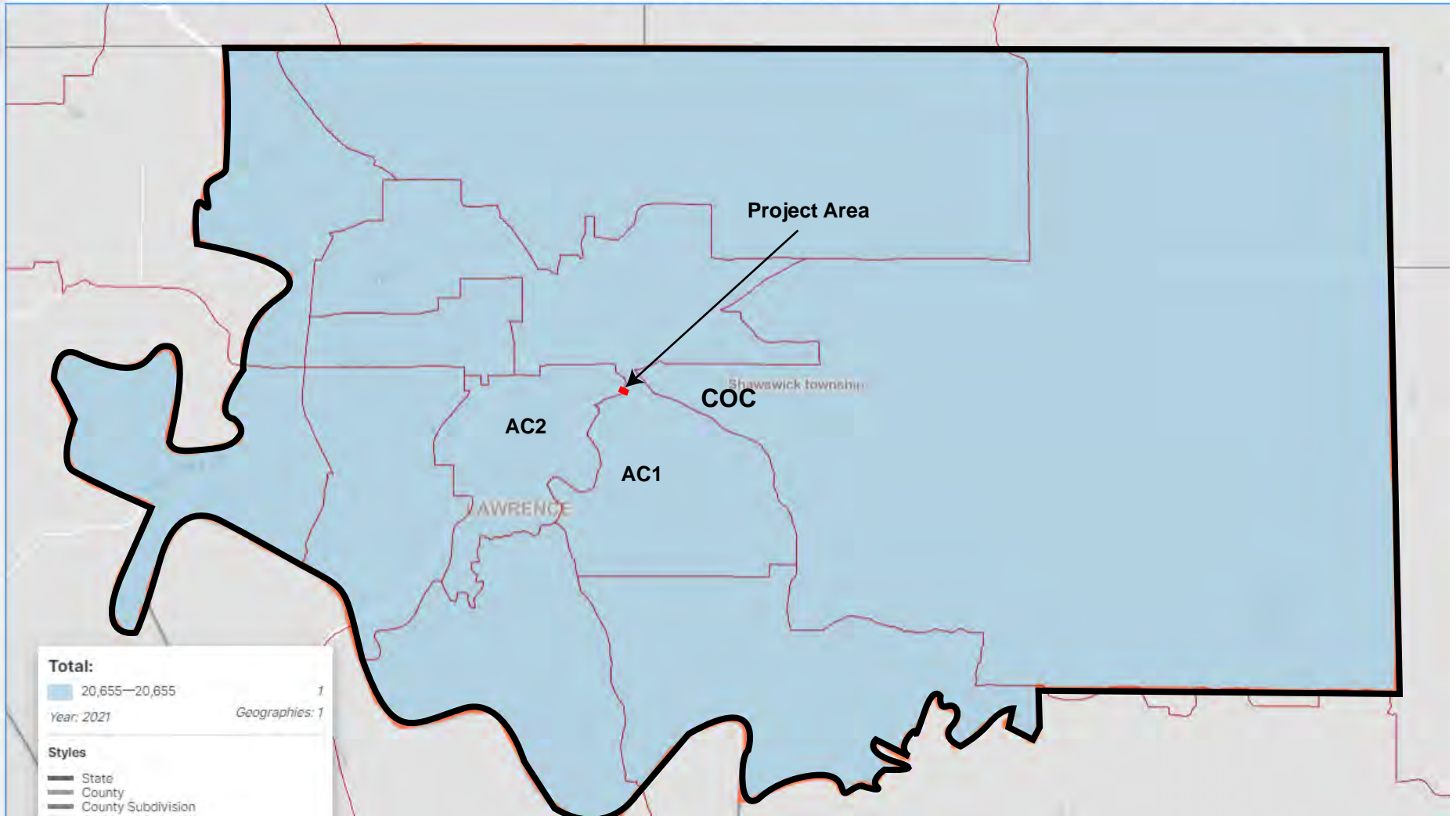
Environmental Justice Map
Lawrence County Bridge 172
Cement Plant Rd over Leatherwood Creek
Lawrence County, Indiana
Des. No. 2002973

Total:
3,381—3,707 2
Year: 2021 Geographies: 2

Styles
State
County
County Subdivision

[View More](#)





Environmental Justice Map
Lawrence County Bridge 172
Cement Plant Rd over Leatherwood Creek
Lawrence County, Indiana
Des. No. 2002973



Filters



Results

B17001 | POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

American Community Survey | Universe: Population for whom poverty status is determined | 2011 ACS...



Notes



Geos



Topics



Codes



Dataset



Year



Hide



Transpose



Margin of Error



Restore



Excel



CSV



ZIP



Cite

Shawswick township, Lawrence County, Indiana | Census Tract 9510, Lawrence County, Indiana | Census Tract 9511, Lawrence County, Indiana

Label	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
▼ Total:	20,134	±164	3,603	±388	3,303	±437
▼ Income in the past 12 months below poverty level:	2,681	±429	579	±224	660	±246
> Male:	1,072	±229	204	±102	293	±123
> Female:	1,609	±275	375	±165	367	±147
▼ Income in the past 12 months at or above poverty level:	17,453	±425	3,024	±399	2,643	±445
> Male:	8,434	±342	1,517	±236	1,349	±242
> Female:	9,019	±354	1,507	±225	1,294	±263

B03002 | HISPANIC OR LATINO ORIGIN BY RACE

American Community Survey | Universe: Total population | 2021 ACS 5-Year Estimates Detailed Tables

Notes | Geos | Topics | Codes | Dataset | Year | Hide | Transpose | **Margin of Error** | Restore | Excel | CSV | ZIP | Cite | Share | Print

2012
Results

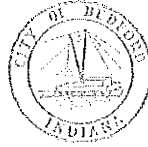
Shawswick township, Lawrence County, Indiana | Census Tract 9510, Lawrence County, Indiana | Census Tract 9511, Lawrence County, Indiana

Label	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
▼ Total:	20,655	±30	3,707	±362	3,381	±441
▼ Not Hispanic or Latino:	19,972	±107	3,600	±353	3,024	±398
White alone	18,948	±298	3,504	±354	2,916	±398
Black or African American alone	70	±33	17	±18	13	±20
American Indian and Alaska Native alone	55	±75	10	±16	0	±12
Asian alone	104	±88	41	±51	7	±13
Native Hawaiian and Other Pacific Islander alone	20	±28	0	±12	14	±24
Some other race alone	171	±173	15	±21	0	±12
▶ Two or more races:	604	±168	13	±22	74	±68
▼ Hispanic or Latino:	683	±96	107	±80	357	±204
White alone	402	±176	36	±63	285	±218
Black or African American alone	0	±23	0	±12	0	±12
American Indian and Alaska Native alone	16	±28	16	±28	0	±12
Asian alone	0	±23	0	±12	0	±12
Native Hawaiian and Other Pacific Islander alone	0	±23	0	±12	0	±12
Some other race alone	57	±52	5	±9	44	±49
▶ Two or more races:	208	±140	50	±77	28	±45

From: [Fair, Terri](#)
To: [Elizabet Biggio](#)
Cc: [Passmore, Andrew D](#)
Subject: Des. 2002973; Lawrence Co. 172; EJ Analysis
Date: Wednesday, January 31, 2024 5:17:00 PM
Attachments: [Des. 2002973 Lawrence Co. 172 EJ Analysis.pdf](#)

INDOT-Environmental Services Division (ESD) has reviewed the project information along with the Environmental Justice (EJ) Analysis for the above referenced project. With the information provided, the project may require right-of-way, requires no relocations, and would not disrupt community cohesion or create a physical barrier. With the information provided, INDOT-ESD would not consider the impacts associated with this project as causing a disproportionately high and adverse effect on minority and/or low-income populations of EJ concern relative to non-EJ populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a. No further EJ Analysis is required.

SAMUEL J. CRAIG
Mayor



TERRY MOORE
Chief of Police

CITY OF BEDFORD
POLICE DEPARTMENT

December 2, 2020

Ms. Brandi Mischler
Program Coordinator
Indiana Department of Transportation
Vincennes District
3650 S US Highway 41
Vincennes, IN 47591

RE: Lawrence County Bridge 172 Funding Application

Dear Ms. Mischler:

As Chief of the Bedford Police Department, I offer my support for the rehabilitation or replacement of Bridge 172 carrying Cement Plant Road over Leatherwood Creek.

The closing of the bridge poses a potential danger to traffic utilizing Cement Plant Road which is a rural collector road and the residents that live on the east side of Bridge 172 that may need emergency services.

The proposed rehabilitation or replacement of this bridge will enhance safety along Cement Plant Road by improving site distance across the bridge and providing quicker aid response to the residents without driving out of route, which is approximately 5 miles.

Thank you for your consideration and may it prove favorable of the funding application for this project being made by the Board of Commissioners.

Sincerely,

A handwritten signature in black ink that reads "Terry Moore". The signature is written in a cursive, flowing style.

Terry Moore
Bedford Police Chief



**OFFICE OF THE
LAWRENCE COUNTY SHERIFF**

1420 I Street • Bedford, Indiana 47421
Telephone: (812) 275-3316 • Fax: (812) 277-2007
www.LawrenceCountySheriff.com

December 2, 2020

Ms. Brandi Mischler
Program Coordinator
Indiana Department of Transportation
Vincennes District
3650 S US Highway 41
Vincennes, IN 47591

RE: Lawrence County Bridge 172 Funding Application

Dear Ms. Mischler:

As Sheriff of Lawrence County, I offer my support for the rehabilitation or replacement of Bridge 172 carrying Cement Plant Road over Leatherwood Creek.

The closing of the bridge poses a potential danger to traffic utilizing Cement Plant Road which is a rural collector road and to the residents that live east side of Bridge 172 that may need emergency services.

The proposed rehabilitation or replacement of this bridge will enhance safety along Cement Plant Road by improving site distance across the bridge and providing quicker aid response to the residents without driving out of route, which is approximately 5 miles.

Thank you for your consideration and may it prove favorable of the funding application for this project made by the Board of Commissioners.

Sincerely,

Mike Branham
Lawrence County Sheriff

Samuel J. Craig
Mayor



John Hughes
Fire Chief

City of Bedford
Fire Department

November 30, 2020

Ms. Brandi Mischler
Program Coordinator
Indiana Department of Transportation
Vincennes District
3650 S US Highway 41
Vincennes, IN 47591

RE: Lawrence County Bridge 172 Funding Application

Dear Ms. Mischler:

As Chief of the Bedford Fire Department, I offer my support for the rehabilitation or replacement of Bridge 172 carrying Cement Plant Road over Leatherwood Creek.

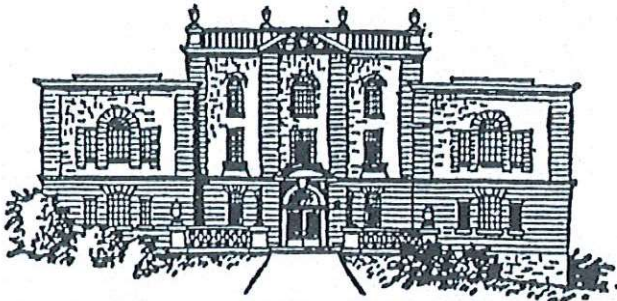
The closing of the bridge poses a potential danger to traffic utilizing Cement Plant Road which is a rural collector road and to the residents that live east of Bridge 172 that may need emergency services.

The proposed rehabilitation or replacement of this bridge will enhance safety along Cement Plant Road by improving sight distance across the bridge and providing quicker aid response to the residents without driving out of route, which is approximately 5 miles.

Thank you for your consideration and may it prove favorable of the funding application for this project being made by the Board of Commissioners.

Sincerely,

John Hughes
Bedford Fire Chief



LIMESTONE CAPITAL OF THE WORLD

Lawrence County Commissioners
916 15th Street Room 28
Bedford, IN 47421

November 24, 2020

Ms. Brandi Mischler
Program Coordinator
Indiana Department of Transportation
Vincennes District
3650 S US Highway 41
Vincennes, IN 47591

RE: Lawrence County Bridge 172 Funding Application

Dear Ms. Mischler:


As the Board of Commissioners of Lawrence County, we offer this letter of commitment to the rehabilitation/replacement of Bridge 172 carrying Cement Plant Road over Leatherwood Creek.

The deteriorated condition and closing of the bridge pose a potential danger to traffic utilizing Cement Plant Road which is a Rural Collector inside the city limits of Bedford, In.

We have reviewed the anticipated costs for the design and construction of the project as well as the funding available in our Cumulative Bridge Fund. Our analysis of income and outlay during the design and construction phase indicates that we will have sufficient balances available to meet our financial obligations to the project.

We look forward to working with you on this project.

Lawrence County Board of Commissioners,


Gene McCracken, President


Dustin Gabhart, Member


Rodney Fish, Member



City of Bedford

Office of the Mayor

Samuel J. Craig

December 7, 2020

Ms. Brandi Mischler
Program Coordinator
Indiana Department of Transportation
Vincennes District
3650 S US Highway 41
Vincennes, IN 47591

RE: Lawrence County Bridge 172 Funding Application

Dear Ms. Mischler:

I am pleased to write in support of the funding application submitted by the Lawrence County Board of Commissioners for the rehabilitation or replacement project of Bridge 172 carrying Cement Plant Road over Leatherwood Creek.

The closing of Bridge 172 poses a potential danger to traffic utilizing Cement Plant Road which is a Rural Collector Road to the surrounding residents that live on the East side of the bridge if they are in need of the protection services of our Police and Fire Departments, and the need of emergency medical care which may require Ambulance services in a timely manner. The opening of Bridge 172 would be a great asset to the local surrounding residence as well as our community, and first responders.

The proposed rehabilitation or replacement of this bridge will enhance safety along Cement Plant Road by improving site distance across the bridge and allowing easier access to City first responders to be able to respond to any kind of emergency.

Thank you for your consideration and please feel free to contact me at (812) 279-6555 or via email at scraig@bedford.in.us if you have any questions regarding this matter.

Sincerely,

Samuel J. Craig
Mayor, City of Bedford

Bridge Inspection Report

47-00172
CEMENT PLANT ROAD
over
LEATHERWOOD CREEK



Inspection Date: 06/10/2020

Inspected By: Jonathan Olson

Inspection Type(s): Routine

Inspector: Jonathan Olson
Inspection Date: 06/10/2020

Asset Name: 47-00172
Facility Carried: CEMENT PLANT
ROAD

Bridge Inspection Report

BRIDGE CLOSED ON 6-1-2018. BRIDGE WAS CLOSED BY THE COUNTY DUE TO A LARGE HOLE IN THE DECK.

THE BRIDGE DECK SURFACE EXHIBITS DEEP SCALING, SPALLS, AND CRACKING. SIMILAR HEAVY SCALING, DETERIORATION, AND EXPOSED CORRODED REBAR IS PRESENT ON THE UPPER SURFACES OF THE CONCRETE GIRDERS THAT ALSO SERVE AS THE BRIDGE DECK RAILING. THIN DIAGONAL CRACKS WERE OBSERVED AT BOTH ENDS OF THE EAST GIRDER IN SPAN 1 AND THE SOUTH END OF THE WEST GIRDER IN SPAN 1; THESE CRACKS BEGAN AT THE BOTTOM OF THE GIRDER AND EXTENDED BACK UP TOWARDS THE ABUTMENT/PIER.

EXTENSIVE SPALLING WITH EXPOSED AND CORRODED REBAR IS VISIBLE ON THE DECK UNDERSIDE AND ON THE BOTTOMS OF THE CONCRETE THRU-GIRDERS. SEVERAL REINFORCING BARS EXHIBITED COMPLETE SECTION LOSS. CONCRETE ABUTMENTS APPEAR FAIRLY SOUND, BUT EXHIBIT CRACKS, SPALLS, AND AREAS OF MODERATE TO LOCALLY HEAVY SCALING, ESPECIALLY NEAR THE WATERLINE. THE CENTER CONCRETE PIER EXHIBITED SEVERE SCALING NEAR THE WATERLINE ON THE EXPOSED SPREAD FOOTING AND NUMEROUS CRACKS WITH EFFLORESCENCE; SOME OF THE CRACK WIDTHS WERE NEARING APPROXIMATELY 1/8-INCH WIDE. MODERATE DRIFT CAUGHT ON UPSTREAM END OF PIER.

THIS BRIDGE HAS BEEN IDENTIFIED AS HISTORICAL AND ELIGIBLE FOR NATIONAL REGISTER. IT IS CONSIDERED HISTORICALLY NON-SELECT BY INDOT.

RECOMMEND TO REPLACE WITH A LONGER STRUCTURE.

Inspector: Jonathan Olson
 Inspection Date: 06/10/2020

Asset Name: 47-00172
 Facility Carried: CEMENT PLANT ROAD

Bridge Inspection Report

IDENTIFICATION

(1) STATE CODE:	185 - Indiana	(12) BASE HIGHWAY NETWORK:	0
(8) STRUCTURE:	4700114	(13A) INVENTORY ROUTE:	
(5 A-B-C-D-E) INV. ROUTE:	1 - 5 - 1 - 00000 - 0	(13B) SUBROUTE NUMBER:	
(2) HIGHWAY AGENCY DISTRICT:	06 - Vincennes	(16) LATITUDE:	38.85489
(3) COUNTY CODE:	047 - LAWRENCE	(17) LONGITUDE:	-86.46944
(4) PLACE CODE:	04114 - BEDFORD	(98) BORDER	
(6) FEATURES INTERSECTED:	LEATHERWOOD CREEK	A) STATE NAME:	
(7) FACILITY CARRIED:	CEMENT PLANT ROAD	B) PERCENT	%
(9) LOCATION:	00.33 E OF C STREET	(99) BORDER BRIDGE STRUCT. NO:	
(11) MILEPOINT:	0000.000		

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE, MAIN:		(45) NUMBER OF SPANS IN MAIN 002 UNIT:	
A) KIND OF MATERIAL/DESIGN:	2 - Concrete continuous	(46) NUMBER OF APPROACH SPANS:	0000
B) TYPE OF DESIGN/CONSTR:	03 - Girder and Floorbeam System	(107) DECK STRUCTURE TYPE:	1 - Concrete Cast-in-Place
(44) STRUCTURE TYPE, APPROACH SPANS:		(108) WEARING SURFACE/PROT SYS:	
A) KIND OF MATERIAL/DESIGN:	0 - Other	A) WEARING SURFACE:	0 - None
B) TYPE OF DESIGN/CONSTR:	00 - Other	B) DECK MEMBRANE:	0 - None
		C) DECK PROTECTION:	0 - None

AGE OF SERVICE

(27) YEAR BUILT:	1909	(28) LANES:	
(106) YEAR RECONSTRUCTED:	0000	A) ON BRIDGE:	01
(42) TYPE OF SERVICE:		B) UNDER BRIDGE:	00
A) ON BRIDGE:	1 - Highway	(29) AVERAGE DAILY TRAFFIC:	000240
B) UNDER BRIDGE:	5 - Waterway	(30) YEAR OF AVERAGE DAILY TRAFFIC:	2016
		(109) AVERAGE DAILY TRUCK TRAFFIC:	04 %
		(19) BYPASS DETOUR LENGTH:	001 MI

Inspector: Jonathan Olson
 Inspection Date: 06/10/2020

Asset Name: 47-00172
 Facility Carried: CEMENT PLANT ROAD

Bridge Inspection Report

GEOMETRIC DATA

(48) LENGTH OF MAX SPAN: 00033.7 FT	(35) STRUCTURE FLARED: 0 - No flare
(49) STRUCTURE LENGTH: 00072.2 FT	(10) INV RTE, MIN VERT CLEARANCE: 99.99 FT
(50) CURB/SIDEWALK WIDTHS:	(47) TOT HORIZ CLEARANCE: 011.9 FT
A) LEFT 00.0 FT	(53) VERT CLEAR OVER BR RDWY: 99.99 FT
B) RIGHT: 00.0 FT	(54) MIN VERTICAL UNDERCLEARANCE:
(51) BRDG RDWY WIDTH CURB-TO-CURB: 011.9 FT	A) REFERENCE FEATURE: N
(52) DECK WIDTH, OUT-TO-OUT: 015.0 FT	B) MIN VERT UNDERCLEAR: 00.00 FT
(32) APPROACH ROADWAY 018.0 FT	(55) LATERAL UNDERCLEARANCE RIGHT:
(33) BRIDGE MEDIAN: 0 - No median	A) REFERENCE FEATURE: N
(34) SKEW: 00 DEG	B) MIN LATERAL UNDERCLEAR: 000.0 FT
	(56) MIN LATERAL UNDERCLEAR ON LEFT: 000.0 FT

INSPECTIONS

(90) INSPECTION DATE: 06/10/2020	(91) DESIGNATED INSPECTION FREQUENCY: 24 MONTHS
(92) CRITICAL FEATURE INSPECTION:	(93) CRITICAL FEATURE INSPECTION DATE:
A) FRACTURE CRITICAL REQUIRED/FREQUENCY: N	A) FRACTURE CRITICAL DATE:
B) UNDERWATER INSPECTION REQUIRED/FREQUENCY: N	B) UNDERWATER INSP DATE:
C) OTHER SPECIAL INSPECTION REQUIRED/FREQUENCY: N	C) OTHER SPECIAL INSP DATE:

CONDITION

(58) DECK: 4 - Poor Condition (advanced deterioration)	(60) SUBSTRUCTURE: 4 - Poor Condition (advanced deterioration)
(58.01) WEARING SURFACE: N - Not Applicable	(61) CHANNEL/CHANNEL PROTECTION: 6 - Bank slump. widespread minor damage
(59) SUPERSTRUCTURE: 4 - Poor Condition (advanced deterioration)	(62) CULVERTS: N - Not Applicable

CONDITION COMMENTS

(58) DECK: 4 - Poor Condition (advanced deterioration)
 Comments:
 DEEP SCALING AND SPALLS, TRANSVERSE CRACKS, UNDERSIDE SPALLS WITH EXPOSED AND CORRODED REBAR.
 Material:
 CONCRETE CAST-IN-PLACE

(58.01) WEARING SURFACE: N - Not Applicable
 Comments:

Inspector: Jonathan Olson
 Inspection Date: 06/10/2020

Asset Name: 47-00172
 Facility Carried: CEMENT PLANT ROAD

Bridge Inspection Report

(59) SUPERSTRUCTURE: 4 - Poor Condition (advanced deterioration)

Comments:
 NUMEROUS LARGE SPALLS WITH EXPOSED AND CORRODED REBAR, INCLUDING PRIMARY BARS
 Material:
 REINFORCED CONCRETE THRU GIRDER

(60) SUBSTRUCTURE: 4 - Poor Condition (advanced deterioration)

Comments:
 SPALLS, CRACKS, AND SEVERE SCALING. DEEP CONCRETE SCALING VISIBLE ON EXPOSED CENTER PIER FOOTING
 Material:
 CONCRETE

(61) CHANNEL/CHANNEL PROTECTION 6 - Bank slump. widespread minor damage

Comments:
 CHANNEL APPEARS TO WIDEN AT BRIDGE, MODERATE EROSION BEHIND ALL WINGWALLS, DRIFT ACCUMULATION
 Material:
 NATURAL & BEDROCK

(62) CULVERTS: N - Not Applicable

Comments:

LOAD RATING AND POSTING

(31) DESIGN LOAD:	0 - Unknown	(66) INVENTORY RATING:	0
(70) BRIDGE POSTING	0 - More than 39.9% below legal loads (0 tons)	(65) INVENTORY RATING METHOD:	0 - Field evaluation and documented engineering judgment
(41) STRUCTURE OPEN/POSTED/CLOSED:	K - Closed	(66B) INVENTORY RATING (H):	0
(64) OPERATING RATING:	0	(66C) TONS POSTED :	0
(63) OPERATING RATING METHOD:	0 - Field evaluation and documented engineering judgment	(66D) DATE POSTED/CLOSED:	01-JUN-18

APPRAISAL

SUFFICIENCY RATING:	16.0	(36) TRAFFIC SAFETY FEATURE:	
STATUS:	1	36A) BRIDGE RAILINGS:	0
(67) STRUCTURAL EVALUATION:	0	36B) TRANSITIONS:	0
(68) DECK GEOMETRY:	0	36C) APPROACH GUARDRAIL:	0
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL:	N	36D) APPROACH GUARDRAIL ENDS:	0

(71) WATERWAY ADEQUACY: 8 - Bridge Above Approaches

Comments:
 APPEARS ADEQUATE-DECK ABOVE ROADWAY APPROACHES

(72) APPROACH ROADWAY ALIGNMENT: 3 - Basically intolerable requiring high priority of corrective action

Comments:
 IN CREST AND CURVE

Inspector: Jonathan Olson
 Inspection Date: 06/10/2020

Asset Name: 47-00172
 Facility Carried: CEMENT PLANT ROAD

Bridge Inspection Report

(113) SCOUR CRITICAL BRIDGES: 5 - Scour within limits of footing or piles

Comments:
 FLOW IS AGAINST BOTH ABUTMENTS.

CLASSIFICATION

(20) TOLL:	3 - On Free Road	(21) MAINT. RESPONSIBILITY:	02 - County Highway Agency
(22) OWNER:	02 - County Highway Agency	(26) FUNCTIONAL CLASS OF INVENTORY RTE:	19 - Urban - Local
(37) HISTORICAL SIGNIFICANCE:	2 - Eligible for National Register	(100) STRAHNET HIGHWAY:	Not a STRAHNET route
(101) PARALLEL STRUCTURE:	N - No parallel structure	(102) DIRECTION OF TRAFFIC:	One lane bridge for 2-way traffic
(103) TEMPORARY STRUCTURE:		(104) HIGHWAY SYSTEM OF INVENTORY ROUTE:	0 - Structure/Route is NOT on NHS
(105) FEDERAL LANDS HIGHWAYS:	0-Not Applicable	(110) DESIGNATED NATIONAL NETWORK:	Inventory route not on network
(112) NBIS BRIDGE LENGTH:	Yes		

NAVIGATION DATA

(38) NAVIGATION CONTROL:	0 - No navigation control on waterway (bridge permit not required)	(39) NAVIGATION VERTICAL CLEAR:	000.0 FT
(111) PIER OR ABUTMENT PROTECTION:		(116) MINIMUM NAVIGATION VERT. CLEARANCE, VERT. LIFT BRIDGE:	FT
		(40) NAV HORIZONTAL CLEARANCE:	0000.0 FT

PROPOSED IMPROVEMENTS

(75A) TYPE OF WORK:	31 - Replacement - Load/Geometry	(95) ROADWAY IMPROVEMENT COST:	\$ 000100
(75B) WORK DONE BY:	1 - Work to be done by contract	(96) TOTAL PROJECT COST:	\$ 000600
(76) LENGTH OF IMPROVEMENT:	000120 FT	(97) YR OF IMPROVEMENT COST EST:	2020
(94) BRIDGE IMPROVEMENT COST:	\$ 000500	(114) FUTURE AVG DAILY TRAFFIC:	000305
		(115) YR OF FUTURE ADT:	2036

Bridge Inspection Report



PHOTO 1
Description Alignment Looking South (Closed)



PHOTO 2
Description West Elevation

Inspector: Jonathan Olson
Inspection Date: 06/10/2020

Asset Name: 47-00172
Facility Carried: CEMENT PLANT ROAD

Bridge Inspection Report



PHOTO 3

Description Alignment Looking North (Closed)



PHOTO 4

Description Hole in the Span A Deck

Inspector: Jonathan Olson
Inspection Date: 06/10/2020

Asset Name: 47-00172
Facility Carried: CEMENT PLANT ROAD

Bridge Inspection Report



PHOTO 5

Description Steel Plate Over Hole



PHOTO 6

Description Abutment 1

Inspector: Jonathan Olson
Inspection Date: 06/10/2020

Asset Name: 47-00172
Facility Carried: CEMENT PLANT ROAD

Bridge Inspection Report



PHOTO 7

Description Alignment Looking South (Closed)



PHOTO 8

Description Pier 2

Inspector: Jonathan Olson
Inspection Date: 06/10/2020

Asset Name: 47-00172
Facility Carried: CEMENT PLANT ROAD

Bridge Inspection Report



PHOTO 9

Description Span B Superstructure



PHOTO 10

Description Abutment 3

LOAD RATING - BRADIN

Load Rating Date: 28-APR-20

National Bridge Inventory (NBI):

(66B) INVENTORY RATING (H):	0	(31) DESIGN LOAD:	0
(65) INVENTORY RATING METHOD:	0	(70) BRIDGE POSTING:	0
(66) INVENTORY RATING:	0	(41) STRUCTURE OPEN/POSTED/CLOSED:	K
(63) OPERATING RATING METHOD:	0	(66C) TONS POSTED:	0
(64) OPERATING RATING:	0	(66D) DATE POSTED/CLOSED:	01-JUN-18

Posting Configurations:

Emergency Vehicles:

EV2: LEGAL RF: 0
EV3: LEGAL RF: 0

5-Axles:

AASHTO TYPE 3S2: LEGAL RF: 0
SU5: LEGAL RF: 0
TOLL ROAD LOADING NO. 1: ROUTINE PERMIT RF:

2-Axles:

H20-44: LEGAL RF: 0
ALTERNATE MILITARY: LEGAL RF: 0

6+-Axles:

AASHTO TYPE 3-3: LEGAL RF: 0
LANE TYPE: LEGAL RF:
SU6: LEGAL RF: 0

3-Axles:

HS20: LEGAL RF: 0
AASHTO TYPE 3: LEGAL RF: 0

SPECIAL TOLL ROAD TRUCK: ROUTINE PERMIT RF:
SU7: LEGAL RF: 0

4-Axles:

SU4: LEGAL RF: 0
TOLL ROAD LOADING NO. 2:
ROUTINE PERMIT RF:

MICHIGAN TRAIN TRUCK NO. 5: ROUTINE PERMIT RF:
MICHIGAN TRAIN TRUCK NO. 8: ROUTINE PERMIT RF:

Other Configurations:

H20-44: DESIGN RF: 0
NRL: LEGAL RF:

SUPERLOAD-11 AXLES: SPECIAL PERMIT RF:
SUPERLOAD-13 AXLES: SPECIAL PERMIT RF:
SUPERLOAD-14 AXLES: SPECIAL PERMIT RF:
SUPERLOAD-19 AXLES (152.5T): SPECIAL PERMIT RF:
SUPERLOAD-19 AXLES (240.045T): SPECIAL PERMIT RF: