FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	SR 246, Owen County
Designation Number(s):	1900330
Project Description/Termini:	Small Structure Replacement, SR 246, 7.39 Miles West of SR 46 over unnamed tributary to (UNT) to Lick Creek in Owen County. The project extends 21 feet west and 21 feet east of the structure center, from station 100+02.55 “A” to station 105+49.00 “A”.

X	**Categorical Exclusion, Level 2** – Required Signatories: INDOT DE and/or INDOT ESD
	Categorical Exclusion, Level 3 – Required Signatories: INDOT ESD
	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

RZK September 19, 2022

INDOT DE Initials and Date

INDOT ESD Initials and Date

Certification of Public Involvement

INDOT Consultant Services Signature and Date

INDOT DE/ESD Reviewer Signature and Date:

Name and Organization of CE/EA Preparer: Rachel Pluckebaum and Kirk Roth, Corradino, LLC

Note: Refer to the most current INDOT CE Manual, guidance language, and other ESD resources for further guidance regarding any section of this form.

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.**

	Yes	No
Does the project have a historic bridge processed under the Historic Bridges PA*?		X
If No, then:		
Opportunity for a Public Hearing Required?		X

**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 June 29, 2020 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-2 to G-3.

Project Does Not Meet

The project does not meet any of the conditions set by the current *Indiana Department of Transportation (INDOT) Project Development Public Involvement Procedures Manual* that require formal public involvement. Therefore, the project sponsor is not required to offer the public an opportunity to request a public hearing. The project is not anticipated to cause any public controversy. This does not preclude the need for public involvement or public information meeting in the future.

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.

No Controversy

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

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

Sponsor of the Project: Indiana Department of Transportation (INDOT) INDOT District: Crawfordsville District

Local Name of the Facility: SR 246

Funding Source (*mark all that apply*): Federal [X] State [X] Local [ ] 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 this project is due to the condition of the existing corrugated metal pipe structure (CV 246-060-30.50). There is rusting along the water line throughout the pipes and the west pipe is deteriorating along the water line. The head walls are constructed of masonry stones and are mostly gone. The structural evaluation rating from the culvert inspection report is a 4 (poor condition) on a scale from 0 (failed condition) to 9 (excellent condition). See the culvert inspection report dated February 2, 2022 for

more details (Appendix I-2 to I-12).

Purpose: The purpose of this project is to provide a structure with a condition rating of good or better (7 or above).

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Owen Municipality: N/A

Limits of Proposed Work: 275 feet to the west and east of the centerline of the structure

Total Work Length: 0.008 Mile(s) Total Work Area: 1.2 Acre(s)

	Yes[1]	No
Is an Interstate Access Document (IAD)[1] required?		X
If yes, when did the FHWA provide a Determination of Engineering and Operational Acceptability?	Date:	

[1]*If 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.

The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with the small structure project.

Location: The structure is on SR 246, 7.39 miles west of SR 46. The project is in Owen County, Indiana, in Section 20, Township 10, Range 5 West (Appendix B-4).

Existing Conditions: The existing structure is comprised of twin corrugated metal pipes each with an 84-inch span, a 60-inch rise and a 38-foot length. As documented in the *Waters of the U.S. Determination* report, UNT to Lick Creek flows south through the structure (Appendix F-5). The surrounding land use is rural. The existing SR 246 pavement section within the project area consists of one eastbound 9-foot travel lane and one westbound 9-foot travel lane with no paved shoulders. This section of SR 246 is a *Major Collector*.

Preferred Alternative: The preferred alternative is to remove and replace both structures with a single 43-foot long, 16-foot span, 5-foot rise reinforced concrete box structure with wingwalls, sumped 12 inches. Scour protection (revetment riprap on geotextiles) will be placed at the inlet and outlet of the structure and the ditch slopes will be regraded. The drive in the northwest quadrant will be reconstructed. To accommodate required guardrail shoulder offsets and lane widths, the roadway at the project site will be widened from 18-feet wide to 30-feet wide. Temporary dewatering measures will involve the installation of a cofferdam at the inlet and outlet of the existing pipes for a pump-around and construction site dewatering.

Construction limits have been reduced to only the extent necessary to meet the project's purpose and need. Impact to trees and UNT to Lick Creek have been reduced to the extent practicable. See Appendix B-6 to B-13 for the design plans. The project will not change the vertical or horizontal alignment of SR 246.

The maintenance of traffic (MOT) for this project will include a road closure on SR 246. SR 246 will be closed during construction and traffic will be detoured via SR 59 and SR 46.

Logical Termini/Independent Utility: This alternative meets the project's purpose and need by providing a structure with a condition rating of good or better (7 or above). The project demonstrates independent utility because the purpose of maintaining the structure's integrity is not associated with any other projects, and it would be built regardless of any other projects in the area. Therefore, it is a single and complete project. The project termini are logical because they are limited to only that required to construct the project and fulfill the purpose of the project. Design plans provide details regarding the proposed project improvements (Appendix B-6 to B-13).

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.

Do Nothing Alternative: The no-build alternative was considered. This alternative has no costs and no environmental impacts. However, it does not meet the identified purpose of the project because it does not provide a sufficient structure with a condition rating of good or better (7 or above).

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	X
It would result in serious impacts to the motoring public and general welfare of the economy.	
Other (Describe):	

ROADWAY CHARACTER:

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

Name of Roadway: SR 246
Functional Classification: *Major Collector*
Current ADT: 525 VPD (2024) Design Year ADT: 580 VPD (2044)
Design Hour Volume (DHV): 76 VPH Truck Percentage (%) 5.0% ADT
Designed Speed (mph): 55 mph Legal Speed (mph): 55 mph

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	Single Lane		Single Lane	
Pavement Width:	18	ft.	30	ft.
Shoulder Width:	0	ft.	4	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	0	ft.	0	ft.

Setting:		Urban		Suburban	X	Rural
Topography:	X	Level		Rolling		Hilly

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): CV 246-060-30.50 Sufficiency Rating: Condition Rating 4 (poor) (INDOT Culvert Inspection Report, dated February 2, 2022) (Appendix I-2 to I-12)
(Rating, Source of Information)

Indiana Department of Transportation

County Owen County Route SR 246 Des. No. 1900330

	Existing		Proposed	
Bridge/Structure Type:	Steel Pipe		Reinforced Concrete Block	
Number of Spans:	2		1	
Weight Restrictions:	N/A	ton	N/A	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	N/A	ft.	N/A	ft.
Outside to Outside Width:	N/A	ft.	N/A	ft.
Shoulder Width:	N/A	ft.	N/A	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 existing structure (CV 246-060-30.50) is comprised of twin corrugated metal pipes each with a 7-foot span, a 5-foot rise, and a 38-foot length. The project will include the complete removal and replace both structures. The existing structure will be replaced with a single 43-foot long, 16-foot span, 5-foot rise reinforced concrete box structure. Scour protection (revetment riprap on geotextiles) will be placed at the inlet and outlet of the structure. Temporary dewatering measures will involve the installation of a cofferdam at the inlet and outlet of the existing pipes for a pump-around and construction site dewatering.

The latest Historic Bridge Inventory (http://www.in.gov/indot/2531.htm) did not identify any historic structures at or near the project area. No additional structures are located within the project area.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

	Yes	No
Is a temporary bridge proposed?		X
Is a temporary roadway proposed?		X
Will the project involve the use of a detour or require a ramp closure? (describe below)	X	
Provisions will be made for access by local traffic and so posted.	X	
Provisions will be made for through-traffic dependent businesses.	X	
Provisions will be made to accommodate any local special events or festivals.	X	
Will the proposed MOT substantially change the environmental consequences of the action?		X
Is there substantial controversy associated with the proposed method for MOT?		X
Will the project require a sidewalk, curb ramp, and/or bicycle lane closure? (describe below)		X
Provisions will be made for access by pedestrians and/or bicyclist and so posted (describe below).		X

Discuss closures, detours, 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. Discuss any pedestrian/bicycle closures. Any local concerns about access and traffic flow should be detailed as well.

The MOT for this project will include a road closure during construction. SR 246 will be closed at the project area during construction and traffic will be detoured via SR 59 and SR 46. The detour is 20.45 miles long.

The road closure 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.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: $ 133,260.00 (2020) Right-of-Way: $ 5,000 (2022) Construction: $ 427,869 (2024)

Anticipated Start Date of Construction: April 1, 2024

RIGHT OF WAY:

Land Use Impacts	Amount (acres) Permanent	Temporary
Residential	0.000	0
Commercial	0.000	0
Agricultural	0.142	0
Forest	0.000	0
Wetlands	0.055	0
Other: Grassy Roadside	0.783	0
Other:	0.000	0
TOTAL	0.980	0.00

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 existing right-of-way (ROW) along the approaches to the structure is approximately 9 feet to the north and south of the centerline of SR 246. No grants or information regarding apparent existing ROW lines could be found at the project location; therefore, the existing ROW width has been established at edge of existing pavement. At the structure, ROW expands to a total of approximately 60 feet to the north and 70 feet to the south of the centerline.

The project requires approximately 0.98 acre of permanent ROW located in all four quadrants of the project area, which is farmland. There is grassy roadside and a wetland adjacent to the existing travel way. The proposed ROW width will be 40 feet north and south of the centerline on SR 246, 60 feet north and 70 feet south of the structure center. No temporary ROW will be required for this project. The additional ROW is required to place scour protection measures and to regrade the side slopes and ditch lines associated with the proposed wider roadway.

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.

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 28, 2021, unless stated otherwise below (Appendix C-2 to C-4).

Agency	Date Sent	Date Response Received	Appendix
USFWS Information for Planning and Consultation (IPaC) Portal	1/3/2022	N/A	C-12 to C-38
Federal Highway Administration (FHWA)	9/28/2021	N/A	N/A
National Resource Conservation Service (NRCS)	10/6/2021	3/10/2022	C-39 to C-40
Indiana Geological and Water Society (IGWS)	10/6/2021	10/6/2021	C-9 to C-11
Indiana Department of Natural Resources – Division of Fish and Wildlife (IDNR-DFW)	9/28/2021	10/28/2021	C-7 to C-8
U.S. Department of Housing and Urban Development (HUD)	9/28/2021	N/A	N/A
National Park Service (NPS)	9/28/2021	N/A	N/A
U.S. Army Corps of Engineers (USACE)	9/28/2021	N/A	N/A
INDOT-Environmental Policy Manager	9/28/2021	N/A	N/A

INDOT-Crawfordsville District	9/28/2021	N/A	N/A
Owen County Mapping Department	9/28/2021	N/A	N/A
Owen County Highway Department	9/28/2021	N/A	N/A
Owen County Soil & Water Conservation District	9/28/2021	N/A	N/A
Owen County Surveyor	9/28/2021	N/A	N/A
Owen County Sheriff	9/28/2021	N/A	N/A
Spencer-Owen Community Schools Transportation Coordinator	9/28/2021	N/A	N/A
U.S. Fish and Wildlife Service (USFWS)	10/13/2021	10/20/2021	C-5 to C-6

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

SECTION B – ECOLOGICAL RESOURCES:

	Presence	Impacts Yes	Impacts No
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			

Total stream(s) in project area: 193 Linear feet Total impacted stream(s): 135 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)
UNT to Lick Creek	Intermittent	193	135	Project structure, flowing south, likely Water of the U.S. (Appendix F-5)

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 likely 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-3) there are nine streams, rivers, watercourse or other jurisdictional features within the 0.5-mile search radius. There is one stream, river, watercourse, or other jurisdictional feature within or adjacent to the project area. That number was confirmed by the site visit on September 9, 2021 by Corradino, LLC.

A *Waters of the U.S. Determination/Wetland Delineation Report* was completed for the project on May 9, 2022. Please refer to Appendix F for the *Waters of the U.S. Determination/Wetland Delineation Report*. It was determined that UNT to Lick Creek within the project area is an apparent Water of the U.S (Appendix F-20). UNT to Lick Creek is an intermittent creek that flows south through the project culvert and has an Ordinary High Water Mark (OHWM) of approximately 7.0 feet in width and 0.75 foot in depth. The upstream drainage area is 0.802 square mile at the project location (Appendix F-5). Up to 135 linear feet of permanent impacts to UNT to Lick Creek are anticipated, and no temporary impacts are anticipated. Scour protection (revetment riprap on geotextiles) will be placed at the inlet and outlet of the structure. Temporary dewatering measures will involve the installation of a cofferdam at the inlet and outlet of the pipes for a pump-around and construction site dewatering (Appendix B-13). UNT to Lick Creek is a mapped USGS blue line intermittent stream. The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

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 within or adjacent to the project area. Therefore, no impacts to these resources are expected. No mitigation is expected. Impacts to jurisdictional waterways has been reduced though project

design to the extent practicable while still meeting the project purpose and need. A Section 404 Permit from USACE and a Section 401 Water Quality Certification from IDEM will be required for impacts to jurisdictional streams.

USFWS responded on October 20, 2021 (Appendix C-5 to C-6) with recommendations to restrict low-water work, utilize natural substrate if possible, evaluate wildlife crossings, restrict channel work to the minimum necessary, minimize the extent of riprap, implement temporary erosion control within disturbed soil, and avoid all work within the inundated part of the stream channel during the fish spawning season (April 1 through June 30).

IDNR-DFW responded on October 28, 2021 (Appendix C-7 to C-8) with recommendations to avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The recommendations include: that a structure that allows natural substrate to form; bank stabilization measures; minimization of channel disturbance due to tree and brush removal; minimum of 6 inch riprap grade for aquatic organism habitat; sediment control at streams; do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure; do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds; and avoidance of all work within the inundated part of the stream channel during the fish spawning season (April 1 through June 30).

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

Open Water Feature(s)	**Presence**	**Impacts** Yes	**Impacts** No
Reservoirs			
Lakes			
Farm Ponds			
Retention/Detention Basin			
Storm Water Management Facilities			
Other:			

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 likely 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-3) there are no open water features within the 0.5-mile search radius. There are no open water features within or adjacent to the project area, which was confirmed by the site visit on September 9, 2021 by Corradino, LLC. Therefore, no impacts are expected.

USFWS responded on October 20, 2021 (Appendix C-5 to C-6) and IDNR-DFW responded on October 28, 2021 (Appendix C-7 to C-8). Both agencies did not include recommendations for wetlands. All applicable recommendations are included in the Environmental Commitments section of this CE document.

	Presence	**Impacts** Yes	**Impacts** No
Wetlands	X	X	

Total wetland area: 0.055 Acre(s) Total wetland area impacted: 0.055 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)
Wetland 1	PEM	0.034	0.034	Southwest quadrant; likely Water of the U.S., Appendix F-6
Wetland 2	PEM	0.021	0.021	Northwest quadrant; likely Water of the U.S., Appendix F-6

Wetlands (*Mark all that apply*)	**Documentation**	**ESD Approval Dates**
Wetland Determination	X	May 9, 2022
Wetland Delineation	X	May 9, 2022
USACE Isolated Waters Determination		

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.	X

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 likely 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-3) there are eight wetlands within the 0.5-mile search radius. There are no wetlands within or adjacent to the project area. That number was updated to two wetlands by the site visit on September 9, 2021 by Corradino, LLC.

A *Waters of the U.S. Determination/Wetland Delineation Report* was approved by *INDOT Ecology and Waterway Permitting Office* on May 9, 2022. Please refer to Appendix F for the *Waters of the U.S. Determination/Wetland Delineation Report*. It was determined that there are two wetlands within the project area. Wetland 1 is a poor quality palustrine emergent wetland in a ditch-like depression in the southwest quadrant of the project area, extending along the south side of SR 246. Approximately 0.034 acre of Wetland 1 may be impacted by this project. Wetland 2 is a poor quality palustrine emergent wetland in the northwest quadrant of the project area, extending along the north side of SR 246. Approximately 0.021 acre of Wetland 2 may be impacted by this project. Complete avoidance of Wetlands 1 and 2 are not practicable because it would prevent completion of construction. Mitigation is not expected. The USACE makes all final determinations regarding jurisdiction.

USFWS responded on October 20, 2021 (Appendix C-5 to C-6) and IDNR-DFW responded on October 28, 2021 (Appendix C-7 to C-8). Both agencies did not include recommendations for wetlands. All applicable recommendations are included in the Environmental Commitments section of this CE document.

	Presence	**Impacts**	
		Yes	**NO**
Terrestrial Habitat	X	X	

Total terrestrial habitat in project area: 0.783 Acre(s) Total tree clearing: 0.01 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 measure to avoid, minimize, and mitigate if impacts will occur.

Based on a desktop review, a site visit on September 9, 2021 by Corradino, LLC, the aerial map of the project area (Appendix B-3), there is 0.783 acre of grassy roadside habitat within the project area. Dominant species include tall fescue, (*Schedonorus arundinaceus*), Japanese bristlegrass, (*Setaria faberi*), Canada goldenrod (*Solidago canadensis*), common milkweed (*Asclepias syriaca*), giant knotweed (*Polygonum sachalinense*), multiflora rose (*Rosa multiflora*), smooth sumac (*Rhus glabra*), and individual ash (*Fraxinus* sp.) and black walnut (*Juglans nigra*) trees. Common names are in accordance with the U.S. Department of Agriculture Natural Resources Conservation Service. Land use in the surrounding area is rural. The project will disturb approximately 0.98 acre of soil and 0.01 acre tree removal is required at the outlet of the project structure.

USFWS responded on October 20, 2021 and did not give recommendations related to terrestrial habitat (Appendix C-5 to C-6). IDNR-DFW responded on October 28, 2021 with recommendations regarding wildlife passage, tree clearing, revegetation with native species, and erosion control (Appendix C-7 to C-8). All applicable recommendations are included in the Environmental Commitments section of this CE document.

County Owen County Route SR 246 Des. No. 1900330

Protected Species **Federally Listed Bats**	**Yes**	**No**
Information for Planning and Consultation (IPaC) determination key completed	X	
Section 7 informal consultation completed (IPaC cannot be completed)		X
Section 7 formal consultation Biological Assessment (BA) required		X

Determination Received for Listed Bats from USFWS: NE [ ] NLAA [X] LAA [ ]

Other Species not included in IPaC	**Yes**	**No**
Additional federal species found in project area (based on IPaC species list)	X	
State species (not bird) found in project area (based upon consultation with IDNR)		X

Migratory Birds	**Yes**	**No**
Known usage or presence of birds (i.e. nests)		X
State bird species based upon coordination with IDNR		X

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-5), completed by Corradino, LLC on February 10, 2022, the IDNR Owen County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR-DFW early coordination response letter dated October 28, 2021 (Appendix C-7 to C-8), the Natural Heritage Program's Database has been checked and no presence of ETR species are within the 0.5-mile search radius. An INDOT 0.5-mile bat review occurred on May 21, 2021. There are no documented sites within 0.5-mile of the project area (Appendix I-14).

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated on May 17, 2022 (Appendix C-12 to C-25). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*).

The official species list generated from IPaC also indicated one other species present within the project area, the candidate species monarch butterfly (*Danaus plexippus*). Because the monarch butterfly does not have endangered or threatened status, it is not federally protected 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. INDOT conducted a culvert inspection on February 2, 2022 and Corradino, LLC conducted a bat inspection on September 9, 2021. Neither inspection identified signs of bats/birds using the structure (Appendix I-6; I-15). An effect determination key was completed on January 3, 2022, and based on the responses provided, the project was found to "*may affect – not likely to adversely affect"* the Indiana bat and/or the NLEB (Appendix C-26 to C-38). INDOT reviewed and verified the effect finding on January 3, 2022 and requested USFWS's review of the finding. No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. Avoidance and Minimization Measures (AMMs) include the following:

- General AMM1 – Ensure all 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.
- Lighting AMM1 – Direct temporary lighting away from suitable habitat during the active season.
- Tree Removal AMM1 - Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to the extent practicable to avoid tree removal in excess of what is required to implement the project safely.
- Tree Removal AMM2 - Apply time of year restrictions for tree removal when bats are not likely to be present (October 1 through March 31), or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed.

- Tree Removal AMM3 - 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).
- Tree Removal AMM4 - Do not remove documented Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or documented foraging habitat any time of year.

AMMS are included as firm commitments in the Environmental Commitments section of this document.

Culvert 246-060-30.50, SR 246 over UNT to Lick Creek in Owen County, Indiana, and the project's surrounding habitat is conductive 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 should be screened or buffered from active construction. Details of the required procedures are outlined in the "Potential Migratory Bird on Structure" USP/RSP.

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	**Yes**	**No**
Project located within the Indiana Karst Region		X
Karst features identified within or adjacent to the project area		X
Oil/gas or exploration/abandoned wells identified in the project area		X

Date Karst Evaluation reviewed by INDOT EWPO (if applicable): _____

Discuss if project is located in the Indiana Karst Region 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. Include discussion of karst study/report was completed and results. (Karst investigation must comply with the current Protection of Karst Features during Planning and Construction guidance and coordinated and reviewed by INDOT EWPO)

Based on a desktop review and the Indiana Karst Region map, the project is located outside the designated Indiana Karst Region as outlined in the most current *Protection of Karst Features during Project Development and Construction*. According to the topographic map of the project area (Appendix B-4), the RFI report (Appendix E-4), there are no karst features identified within or adjacent to the project area. In the early coordination response October 6, 2021, the Indiana Geological and Water Survey (IGWS) did not indicate that karst features exist in the project area (Appendix C-9 to C-11). IGWS identified the project area as having moderate liquefaction potential, 1% annual chance flood hazard, high potential as a bedrock resource, and no documented sand and gravel resources were located in the area. The features will not be affected because the project does not have excavation deep enough to impact bed rock or liquefaction potential. Response from IGWS has been communicated to the designer on October 28, 2021. No impacts are expected.

SECTION C – OTHER RESOURCES

	Presence	**Impacts**	
Drinking Water Resources		**Yes**	**No**
Wellhead Protection Area(s)			
Source Water Protection Area(s)			
Water Well(s)			
Urbanized Area Boundary			
Public Water System(s)			

	Yes	No
Is the project located in the St. Joseph Sole Source Aquifer (SSA):		X
If Yes, is the FHWA/EPA SSA MOU Applicable?		
If Yes, is a Groundwater Assessment Required?		

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 Owen 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/INDOT 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's Wellhead Proximity Determinator website (http://www.in.gov/idem/cleanwater/pages/wellhead/) was accessed on October 6, 2021 by Corradino, LLC. This project is not located within a Wellhead Protection Area or Source Water Area. No impacts are expected.

The Indiana Department of Natural Resources Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was accessed on October 6, 2021 by Corradino, LLC. No wells are located near this project. Therefore, no impacts are expected.

Based on a desktop review, a site visit on September 9, 2021 by Corradino, LLC, the aerial map of the project area (Appendix B-3), no public water systems were identified. Therefore, no impacts are expected.

	Presence	Impacts	
Floodplains		Yes	No
Project located within a regulated floodplain	X	X	
Longitudinal encroachment			
Transverse encroachment			
Homes located in floodplain within 1000' up/downstream from project			

If applicable, indicate the Floodplain Level?

Level 1 [ ] Level 2 [ ] Level 3 [X] 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.

Based on a desktop review of The Indiana Department of Natural Resources Indiana Floodway Information Portal website (Indiana Floodplain Information Portal 2.0 (arcgis.com)) by Corradino, LLC on March 21, 2022 and the RFI report, this project is adjacent to floodway fringe as determined from approved IDNR floodplain maps (Appendix F-19). An early coordination letter was sent on September 28, 2021 to the local floodplain administrator, the Owen County Soil & Water Conservation District. The floodplain administrator did not respond within the 30 day time frame. This project qualifies as a Category 3 project per the current INDOT CE manual, which states:

"The modifications to drainage structures included in this project will result in an insubstantial change in their capacity to carry flood water. This change could cause a minimal increase in flood heights and flood limits. These minimal increases will not result in any substantial adverse impacts on the natural and beneficial floodplain values; they will not result in substantial change in flood risks or damage; and they do not have substantial potential for interruption or termination of emergency service or emergency routes; therefore, it has been determined that this encroachment is not substantial."

	Presence	Impacts	
Farmland		**Yes**	**No**
Agricultural Lands	X	X	
Prime Farmland (per NRCS)	X	X	

Total Points (from Section VII of CPA-106/AD-1006*) **125**

**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 September 9, 2021 by Corradino, LLC, the aerial map of the project area (Appendix B-3), the project will convert 0.142 acre of farmland as defined by the Farmland Protection Policy Act (FPPA). An early coordination letter was sent on February 15, 2022, to Natural Resources Conservation Service (NRCS). Coordination with NRCS resulted in a score of 125 on the NRCS-CPA-1006/AD (Appendix C-39 to C-40). During early coordination, it was believe the project would convert 0.75 acre, but this number has been reduced during the design process. 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.

SECTION D – CULTURAL RESOURCES

	Category(ies) and Type(s)	INDOT Approval Date(s)	N/A
Minor Projects PA	B-9	December 21, 2021	

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) ☐

Documentation Prepared (mark all that apply)		ESD Approval Date(s)	SHPO Approval Date(s)
APE, Eligibility and Effect Determination			
800.11 Documentation			
Historic Properties Report or Short Report			
Archaeological Records Check and Assessment			
Archaeological Phase Ia Survey Report			
Archaeological Phase Ic Survey Report			
Other:			

		MOA Signature Dates (List all signatories)
Memorandum of Agreement (MOA)		

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.

On December 21, 2021, the INDOT Cultural Resources Office (CRO) determined that this project falls within the guidelines of Category B, Type 9 under the Minor Projects Programmatic Agreement (Appendix D-2 to D-5). The project falls under Category B-9 because it is a culvert installation project. Work will occur in previously disturbed soils. The structure exhibits only modern wood, stone, or brick structures or parts. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resources. No further consultation is required. This completes the Section 106 process and the

responsibilities of the FHWA under Section 106 have been fulfilled.

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

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

	Evaluations Prepared
Programmatic Section 4(f)	
"De minimis" Impact	
Individual Section 4(f)	
Any exception included in 23 CFR 774.13	

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) 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 NRHP eligible or listed historic properties regardless of ownership. Lands subject to this law are considered Section 4(f) resources.

Based on a desktop review, the aerial map of the project area (Appendix B-3), and the RFI report (Appendix E-3), there are no potential 4(f) resources located within the 0.5-mile search radius. According to additional research, and by the site visit on September 9, 2021 by Corradino, LLC, there are no Section 4(f) resources within or adjacent to the project area. Therefore, no use is expected.

Section 6(f) Involvement	Presence	Use	
		Yes	No
Section 6(f) Property			

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 INDOT ESD website revealed a total of twelve properties in Owen County (Appendix I-13). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources.

SECTION F – Air Quality

STIP/TIP and Conformity Status of the Project	Yes	No
Is the project in the most current STIP/TIP?	X	
Is the project located in an MPO Area?		X
Is the project in an air quality non-attainment or maintenance area?		
If Yes, then:		
Is the project in the most current MPO TIP?		
Is the project exempt from conformity?		
If No, then:		
Is the project in the Transportation Plan (TP)?		
Is a hot spot analysis required (CO/PM)?		

Location in STIP: 2020-2024 STIP, Amendment 54

Name of MPO (if applicable):

Location in TIP (if applicable):

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.

The Fiscal Year (FY) 2020-2024 STIP is listed based on the lead DES number in the contract. The lead DES number for this contract is 1900315. The FY 2020-2024 STIP includes DES number 1900330 by reference with the contract number 42238 (Appendix H-2)

This project is located in Owen County, which is currently in attainment for all criteria pollutants according to IDEM (https://www.in.gov/idem/airmonitoring/air-quality-data/). 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?		X

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.

SECTION H – COMMUNITY IMPACTS

Regional, Community & Neighborhood Factors	Yes	No
Will the proposed action comply with the local/regional development patterns for the area?	X	
Will the proposed action result in substantial impacts to community cohesion?		X
Will the proposed action result in substantial impacts to local tax base or property values?		X
Will construction activities impact community events (festivals, fairs, etc.)?		X
Does the community have an approved transition plan?	X	
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)	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.

The maintenance of traffic (MOT) for this project will include a road closure during construction. SR 246 will be closed at the project area during construction and traffic will be detoured via SR 59 and SR 46. The road closure 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.

The proposed action is not expected to conflict with development patterns or have substantial impacts to property values. The project is not expected to affect American Disabilities Act (ADA) facilities in any way.

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, the aerial map of the project area (Appendix B-3), and the RFI report (Appendix E-3) there are no 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 September 9, 2021 by Corradino, LLC. Therefore, no impacts are expected. Access to all properties will be maintained during construction.

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.

Environmental Justice (EJ) (Presidential EO 12898)	Yes	No
During the development of the project were EJ issues identified?		X
Does the project require an EJ analysis?	X	
If YES, then:		
Are any EJ populations located within the project area?	X	
Will the project result in adversely high and disproportionate impacts to EJ populations?		X

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 or 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 right-of-way. The project will require no relocations and up to 0.98 acre of additional permanent ROW and no temporary ROW. 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 exist and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city, township, or town and is called the community of comparison (COC). In this project, the COC is Owen County, Indiana. The community that overlaps the project area is called the affected community (AC). In this project, the AC is

comprised of Census Tract 9557.02. An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. The data collected for minority and low-income populations within the COC and the AC are summarized in the below table.

	COC – Owen County, Indiana	AC – Census Tract 9557.02
Percent Minority	3.97%	**5.05%**
125% of COC	4.96%	AC> 125% COC
EJ Population of Concern		Yes
Percent Low-Income	14.53%	15.44%
125% of COC	18.16%	AC <125% COC
EJ Population of Concern		No

The AC Census Tract 9557.02 has a percent minority of 5.05% which is below 50% but above the 125% COC threshold. Therefore, AC Census Tract 9557.02 has a minority population of EJ concern.

The AC Census Tract 9557.02 has a percent low-income of 15.44% which is below 50% and is below the 125% COC threshold. Therefore, AC Census Tract 9557.02 does not contain a low-income population of EJ concern.

Conclusion

EJ Analysis is documented in an Environmental Justice Memorandum dated July 14, 2022 (Appendix I-17 to I-23). AC Census Tract 9557.02 has a population of EJ Concern for minority populations. Complete avoidance of EJ impact is not practicable because reduced ROW acquisition would prevent completion of construction. It is believed that impact to this population will be low or negligible because there are no relocations, ROW acquisition (0.98 acre) restricted to a roadside strip which is mostly unused for agriculture or other property owner activities, a single affected property owner, and relatively low impact from maintenance of traffic. It is believed that impact to this population will not be adverse because the project will provide a long-term benefit for motorist safety on SR 246, improve access for the affected property owner, and improve property drainage for the affected property owner and motorists on SR 246. The only negative impact identified would be traffic delays during construction, which will cease upon project completion, and which are alleviated by the multiple short-distance local route alternatives, and no communities or service access bisected by the road closure. Therefore, there will not be a disproportionately high and adverse effect on minority populations in AC Census Tract 9557.02.

INDOT Environmental Services Division (ESD) reviewed the EJ Analysis on July 19, 2022 (Appendix I-16). INDOT-ESD does 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.

Relocation of People, Businesses or Farms	**Yes**	**No**
Will the proposed action result in the relocation of people, businesses or farms?		X
Is a BIS or CSRS required?		X

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

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

Date RFI concurrence by INDOT SAM (if applicable): February 10, 2022

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, the RFI was completed on February 10, 2022 by Corradino, LLC and INDOT SAM provided their concurrence on February 10, 2022 (Appendix E-4). One NPDES Facility, INDOT DES 1400247 SR 246-60-10018 REPLACEMENT OVER LICK CREEK, is located within 0.5 mile of the project area. The hazmat site identified will not be impacted. Further investigation for hazardous material concerns is not required at this time.

Part IV – Permits and Commitments

PERMITS CHECKLIST

Permits (mark all that apply)	**Likely Required**
Army Corps of Engineers (404/Section10 Permit)	
Nationwide Permit (NWP)	X
Regional General Permit (RGP)	
Individual Permit (IP)	
Other	
IN Department of Environmental Management (401/Rule 5)	
Nationwide Permit (NWP)	X
Regional General Permit (RGP)	
Individual Permit (IP)	
Isolated Wetlands	
Rule 5	
Other	
IN Department of Natural Resources	
Construction in a Floodway	
Navigable Waterway Permit	
Other	
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."

UNT to Lick Creek, Wetland 1, and Wetland 2 were identified as waters of the U.S. in the *Waters of the U.S. Determination* report. For impacts to waters of the U.S., a Section 404 Permit from USACE and a Section 401 Water Quality Certification from IDEM will be required for approximately 135 linear feet of stream impact and 0.055 acre of wetland impact.

Total disturbed area of soil will be 0.98 acre, which is below the 1.0 acre threshold for an IDEM Construction Stormwater General Permit (GSGP), formerly Rule 5 Storm Water Runoff Permit. The upstream drainage area is 0.802 square mile, and the project meets the rural bridge exemption for IDNR Construction in a Floodway permits.

No public airports are within 3.8 miles of the project area, and an Indiana Tall Structure Permit is not required.

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 requirements of the project and will supersede these recommendations.

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

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, INDOT Environmental Services Division (ESD) and the Crawfordsville District Design/Environmental Manager will be contracted immediately. (INDOT ESD and INDOT Crawfordsville 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 activity that would block or limit access. (INDOT ESD)
3. USFWS Culvert/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after February 2, 2024, an 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 the inspection, the INDOT District Environmental Manager must be contacted immediately. (INDOT ESD)
4. Culvert 246-060-30.50 has not shown evidence of use (i.e. nests) b a bird species protected under the Migratory Bird Treaty Act (MBTA) during the September 9, 2021 inspection. However, the structure is located over or near water which is preferred habitat for migratory birds. 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 ESD)
5. General AMM1 – Ensure all 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)
6. Lighting AMM1 – Direct temporary lighting away from suitable habitat during the active season. (USFWS)
7. Tree Removal AMM1 – Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to the extent practicable to avoid tree removal in excess of what is required to implement the project safely. (USFWS)
8. Tree Removal AMM2 – Apply time of year restrictions for tree removal when bats are not likely to be present (October 1 through March 31), or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. (USFWS, IDNR-DFW)
9. Tree Removal AMM3 – Ensure tree removal is limited to that specific 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)
10. Tree Removal AMM4 – Do not remove documented Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or documented foraging habitat any time of year. (USFWS)

For Further Consideration:

1. 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)
2. 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-bottomed 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 culver to provide natural habitat for the aquatic community. (USFWS)

3. Minimize the extent of hard armor (riprap) in bank stabilization, extend it below low-water elevation to provide aquatic habitat (USFWS).
4. 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 the Ordinary High Water Mark during this time unless the machinery is within the caissons or on the cofferdams. (USFWS)
5. 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).
6. If box or pipe culverts are used, the bottoms should be buried to a minimum of 6” (or 20% of the culvert height/pipe diameter, whichever is greater up to a maximum of 2’) below the stream bed elevation. Crossings must span the entire width (a minimum of 1.2 times the ordinary high water mark width). Crossings must maintain the natural stream substrate within the structure (natural stream substrate must be replaced in a sumped box and pipe culverts up to the existing flowline). Scour protection at the inlet and outlet must not extend above the existing flowline elevation. Stream depth, channel width, and water velocities in the crossing structure during low-flow conditions must approximate to those in the natural stream channel. (IDNR-DFW)
7. Riprap or other hard bank stabilization materials should be used only at the toe of the sideslopes up to the ordinary high water mark (OHWM). The banks above the OHWM must be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Owen County and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. (IDNR-DFW)
8. Do not excavate in the low flow are except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR-DFW)
9. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR-DFW)
10. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds (IDNR-DFW).

Table of Contents for Appendix Items

Appendix A

INDOT Supporting Documentation

Des. No. 1900330

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 Impacts[3]	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 Impacts[3]	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
Right-of-way[5]	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations[6]	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 • **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

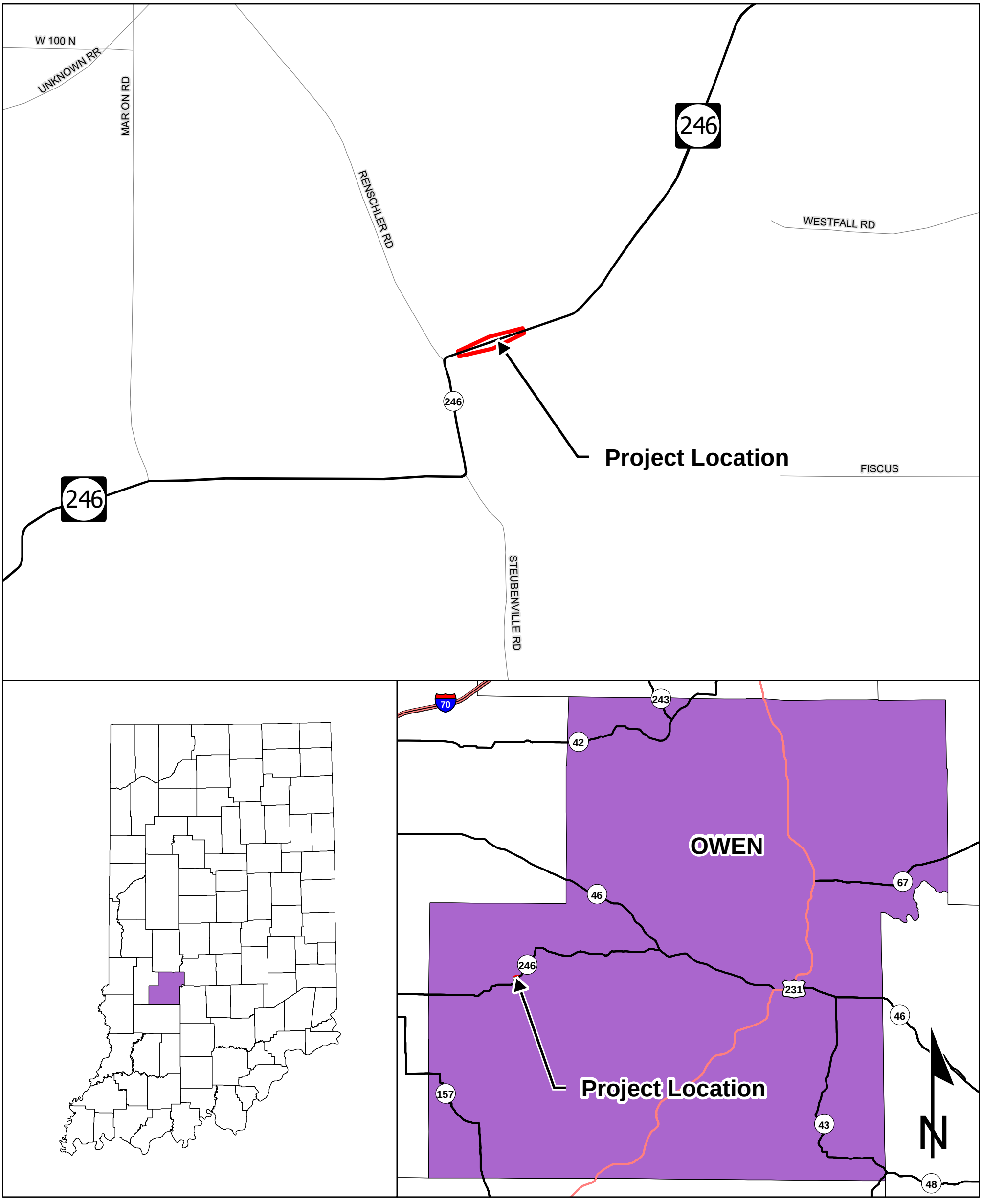
[1] Coordinate with INDOT Environmental Services Division. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.
[2] Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.
[3] Total permanent impacts to streams (linear feet) and wetlands (acres).
[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

Des. No. 1900330

Project Location Map
SR 246, 7.39 Miles West of SR 46
Des. No. 1900330, Small Structure Replacement
Owen County, Indiana



0.25 0.125 0 0.25 Miles

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.

INDIANA
STATEWIDE
GIS DATA

Red Flag Investigation - Project Area
SR 246, 7.39 Miles West of SR 46
Des. No. 1900330, Small Structure Replacement
Owen County, Indiana

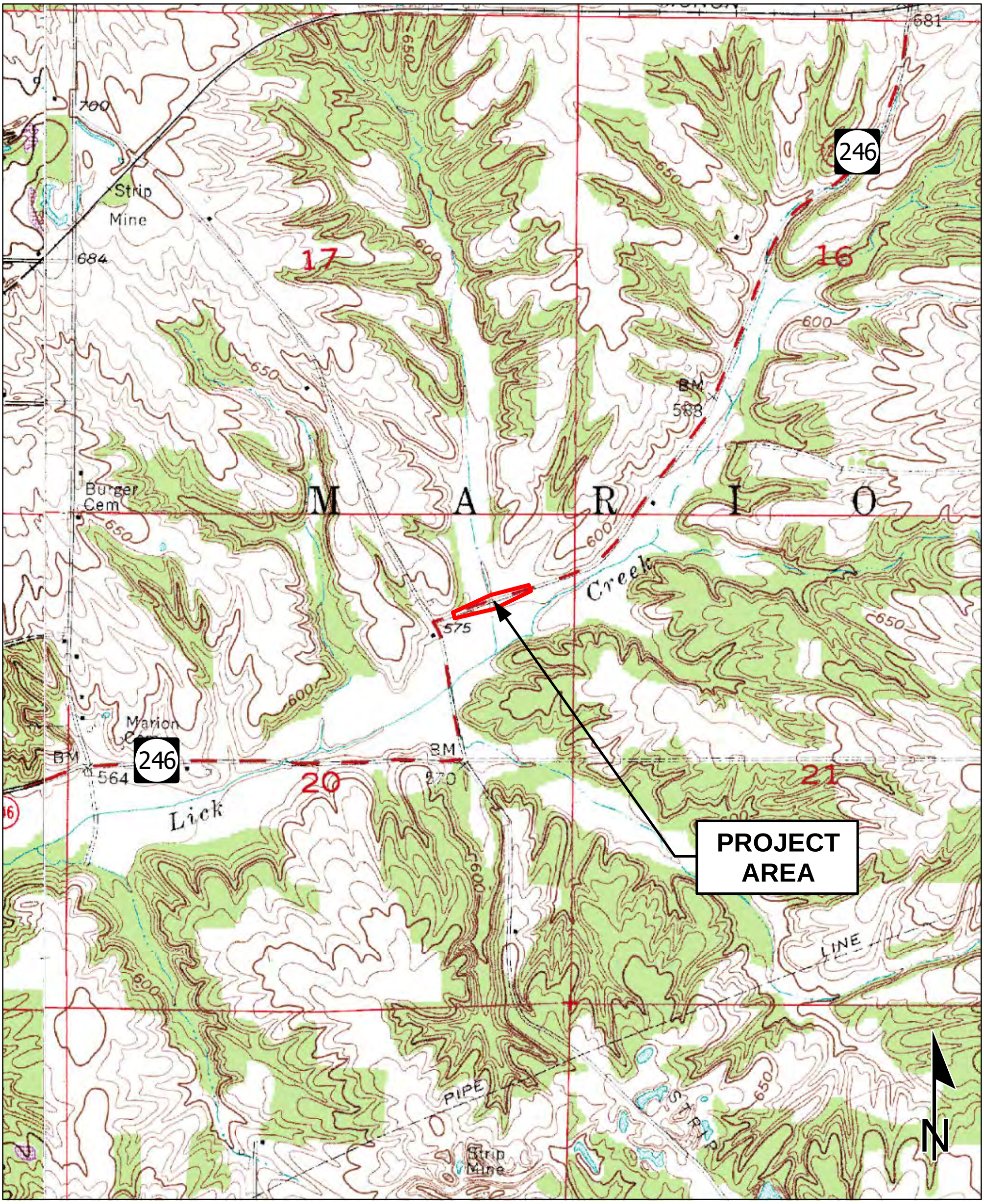
500 250 0 500 Feet

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.

INDIANA STATEWIDE AERIAL IMAGERY FLOWN 2016

USGS Topographic Map
SR 246, 7.39 Miles West of SR 46
Des. No. 1900330, Small Structure Replacement
Owen County, Indiana



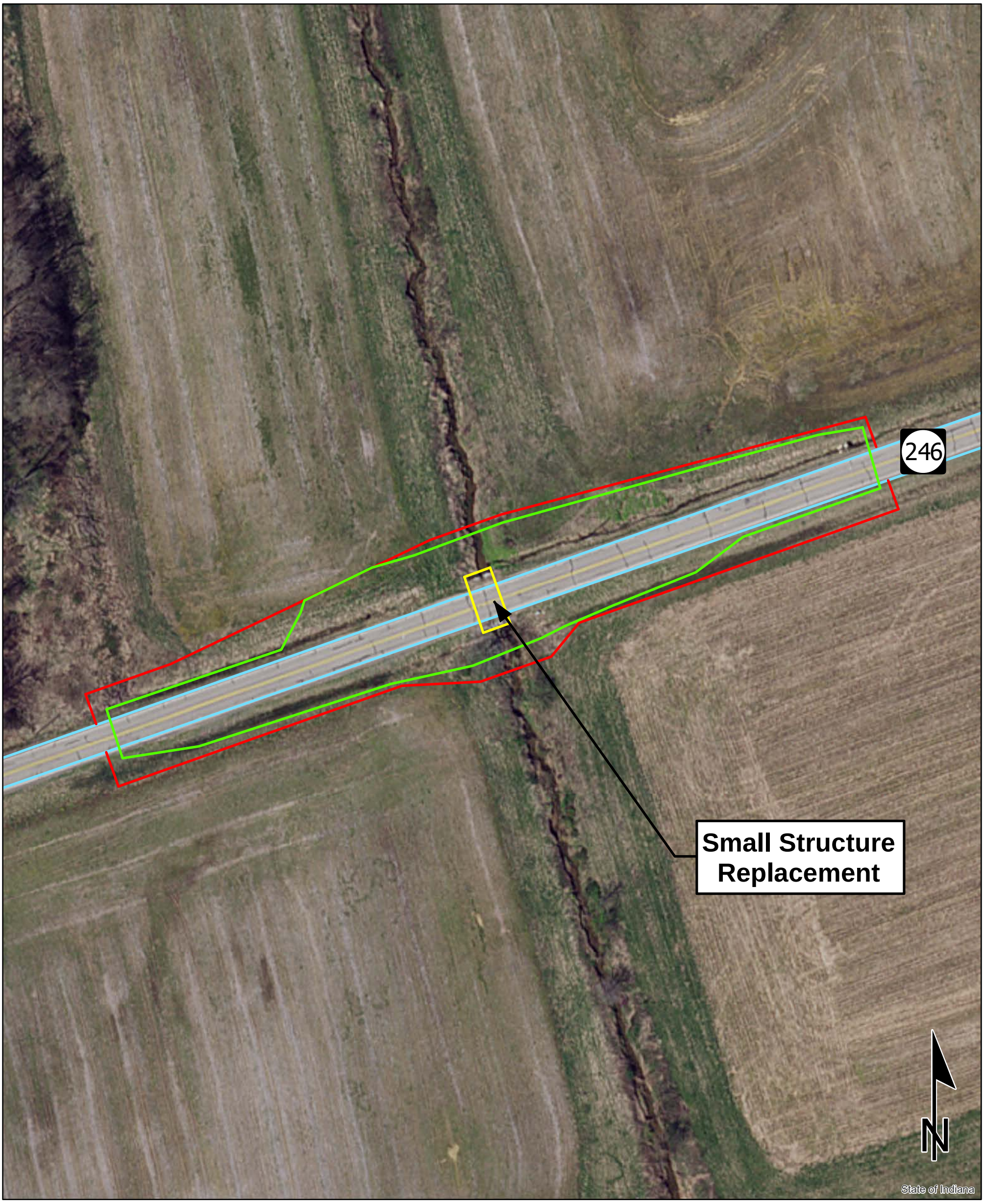
0.3 0.15 0 0.3 Miles

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.

PATRICKSBURG QUADRANGLE INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)

Proposed Right-of-Way
Des. No. 1900330, Small Structure Replacement
SR 246, 7.39 Miles West of SR 46
Owen County, Indiana



90 45 0 90 Feet

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.

Legend

- Existing Right-of-Way
- Proposed Structure
- Proposed Project Area
- Proposed Right of Way

PROJECT	DESIGNATION
1900330	1900330
CONTRACT	BRIDGE FILE
R-42238	N/A

CULVERT ASSETS	
DES. NO.	CULVERT ASSET ID
1900330	CV 246-060-30.50

KIN PROJECT INFORMATION	
DESIGNATION	PROJECT DESCRIPTION
1900312	SMALL STRUCTURE PIPE LINING ON S.R. 59 OVER UNT TO CONNELEY DITCH, 0.01 MILES EAST OF S.R. 246/S.R. 59 INTERSECTION
1900315 (LEAD)	SMALL STRUCTURE REPLACEMENT WITH A BRIDGE ON S.R. 59 OVER UNT TO HOWESVILLE DITCH, 2.08 MILES NORTH OF S.R. 48
1900330	SMALL STRUCTURE REPLACEMENT ON S.R. 246 OVER UNT TO LICK CREEK, 7.39 MILES WEST OF S.R. 46

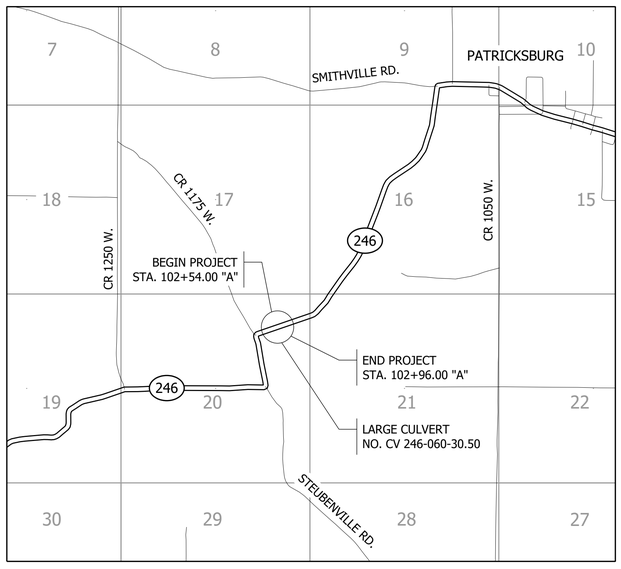
INDIANA DEPARTMENT OF TRANSPORTATION

ROAD PLANS

ROUTE: S.R. 246 AT: RP 30+50

PROJECT NO. 1900330 P.E.
1900330 R/W
1900330 CONST.

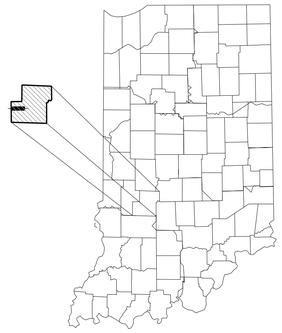
SMALL STRUCTURE REPLACEMENT ON S.R. 246 OVER UNT TO LICK CREEK, APPROXIMATELY 7.39 MILES WEST OF S.R. 46 LOCATED IN SECTION 20, T-10-N, R-5-W, MARION TOWNSHIP, OWEN COUNTY, INDIANA



SCALE:
1" = 2000'

STAGE 2 PLANS
APRIL 2022

TRAFFIC DATA	S.R. 246
A.A.D.T. (2024)	525 V.P.D.
A.A.D.T. (2044)	580 V.P.D.
D.H.V. (2044)	76 V.P.H.
DIRECTIONAL DISTRIBUTION	50%
TRUCKS	7.0% D.H.V.
	5.0% A.A.D.T.
DESIGN DATA	
DESIGN SPEED	55 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	MAJOR COLLECTOR
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE



PROJECT LOCATION SHOWN BY ▬
OWEN COUNTY

LATITUDE: 39°17'43" N LONGITUDE: 86°58'59" W

BRIDGE LENGTH: 0.000 MI.
ROADWAY LENGTH: 0.008 MI.
TOTAL LENGTH: 0.008 MI.
MAX. GRADE: 0.06 %

H.U.C. 051202030806

CORRADINO
ENGINEERS ♦ PLANNERS ♦ CONSTRUCTORS

INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED 2022 TO BE USED WITH THESE PLANS.

PRELIMINARY

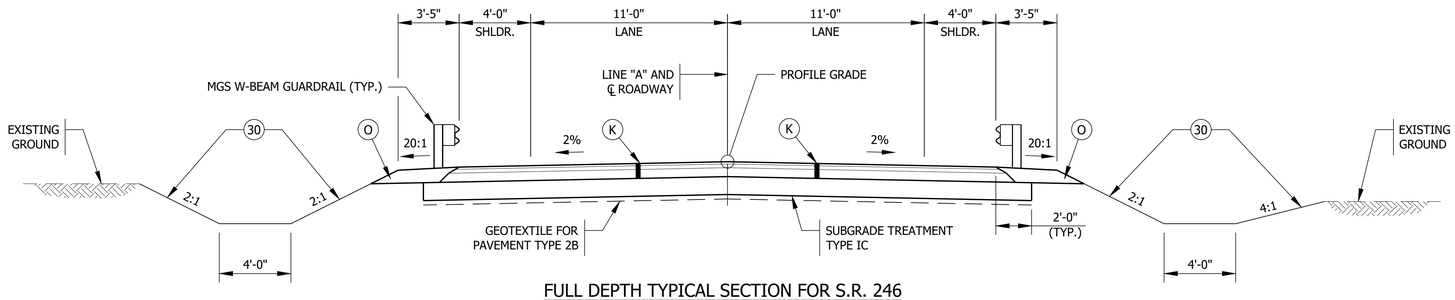
PLANS
PREPARED BY: CORRADINO, LLC 317-488-2363
PHONE NUMBER

CERTIFIED BY: ../../....
DATE

APPROVED
FOR LETTING:
INDIANA DEPARTMENT OF TRANSPORTATION DATE

BRIDGE FILE
N/A
DESIGNATION
1900330

	SHEET		
	1	of	15
CONTRACT	PROJECT		
R-42238	1900330		



FULL DEPTH TYPICAL SECTION FOR S.R. 246

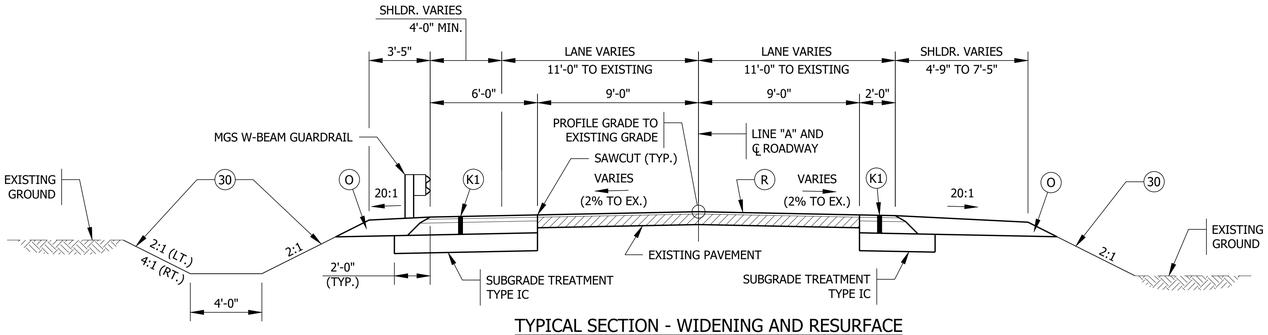
STA. 102+54.00 "A" TO STA. 102+96.00 "A"

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

LEGEND

- (K) 165 LBS/SYD QC/QA HMA, 3, 64, SURFACE, 9.5MM ON
  275 LBS/SYD QC/QA HMA, 3, 64, INTERMEDIATE, 19.0MM ON
  660 LBS/SYD QC/QA HMA, 3, 64, BASE, 25.0MM

  TACK COAT TO BE PLACED BETWEEN HMA LAYERS. JOINT ADHESIVE TO BE INSTALLED AT ALL LONGITUDINAL JOINTS IN THE SURFACE AND INTERMEDIATE LAYER. LIQUID ASPHALT SEALANT TO BE PLACED CENTERED ON THE LONGITUDINAL JOINTS THAT HAVE JOINT ADHESIVE INSTALLED.
- (O) 10" COMPACTED AGGREGATE, NO. 53
- (30) EROSION CONTROL BLANKET, WITH MULCHED SEEDING R
- (R) 165 LBS/SYD QC/QA HMA, 3, 64, SURFACE, 9.5MM ON TRANSITION MILLING
- (K1) WIDENING OF HMA TYPE B CONSISTING OF:
  165 LBS/SYD QC/QA HMA, 3, 64, SURFACE, 9.5MM ON
  275 LBS/SYD HMA INTERMEDIATE, TYPE B ON
  660 LBS/SYD HMA BASE, TYPE B



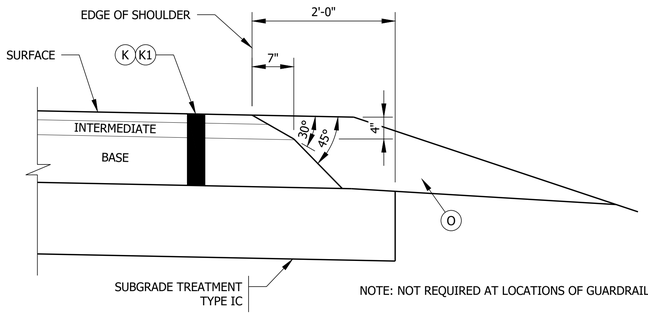
TYPICAL SECTION - WIDENING AND RESURFACE

HALF SECTION WITH GUARDRAIL AND DITCH

STA. 101+64.00 "A" TO STA. 102+54.00 "A"
STA. 102+96.00 "A" TO STA. 103+86.00 "A"

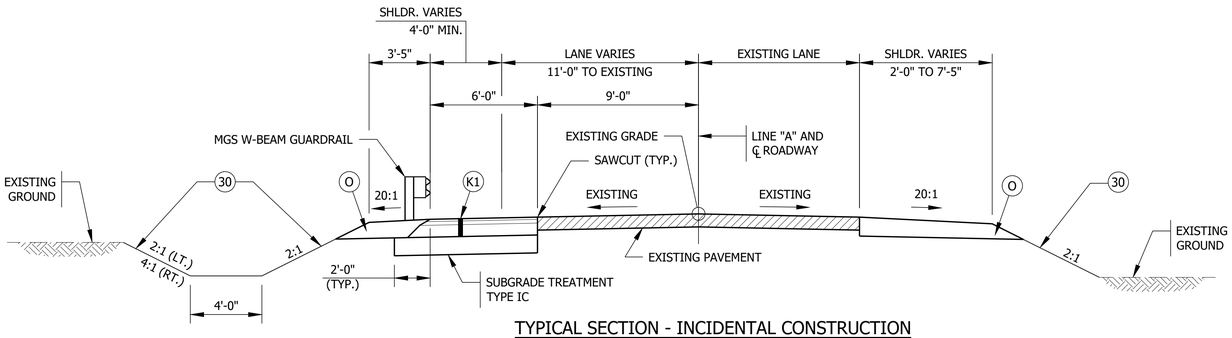
SCALE: 1/4" = 1'-0"

HALF SECTION WITHOUT GUARDRAIL AND WITHOUT DITCH



SAFETY EDGE ON HMA PAVEMENT

SCALE: 1" = 1'-0"



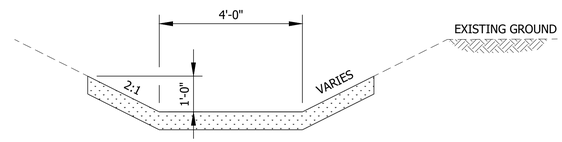
TYPICAL SECTION - INCIDENTAL CONSTRUCTION

HALF SECTION WITH GUARDRAIL AND DITCH

STA. 100+02.55 "A" TO STA. 101+64.00 "A"
STA. 103+86.00 "A" TO STA. 105+49.00 "A"

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

HALF SECTION WITHOUT GUARDRAIL AND WITHOUT DITCH



SODDED DITCH DETAIL

NOT TO SCALE

PRELIMINARY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: ZRE DRAWN: SEJ

CHECKED: ZZH CHECKED: ZRE

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
	1900330
	SHEET 3 of 15
CONTRACT	PROJECT
R-42238	1900330

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Modified / By: April 21, 2022 11:17:41 AM / zhott
Plotted / By: April 21, 2022 11:17:47 AM / Zed Holt

100+00
101+00
102+00
103+00
104+00
105+00

SECTION LINE

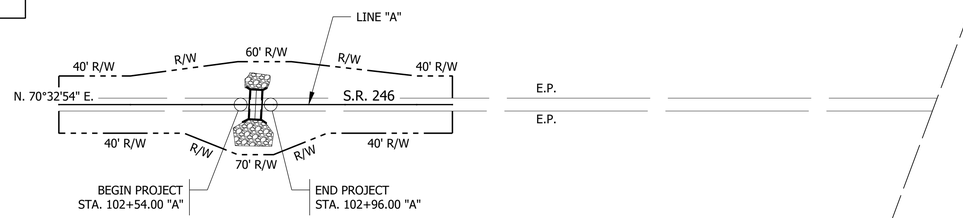
17 | 16
20 | 21

SECTION CORNER

UNT TO LICK CREEK

SECTION 20, T-10-N, R-5-W
MARION TOWNSHIP
OWEN COUNTY

JOHN R. MILLER



JOHN R. MILLER

SECTION LINE

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April 15, 2022 12:46:03 PM / sjohnson
April 21, 2022 10:48:04 AM / Zed Hott

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Modified / By:
Plotted / By:

PRELIMINARY

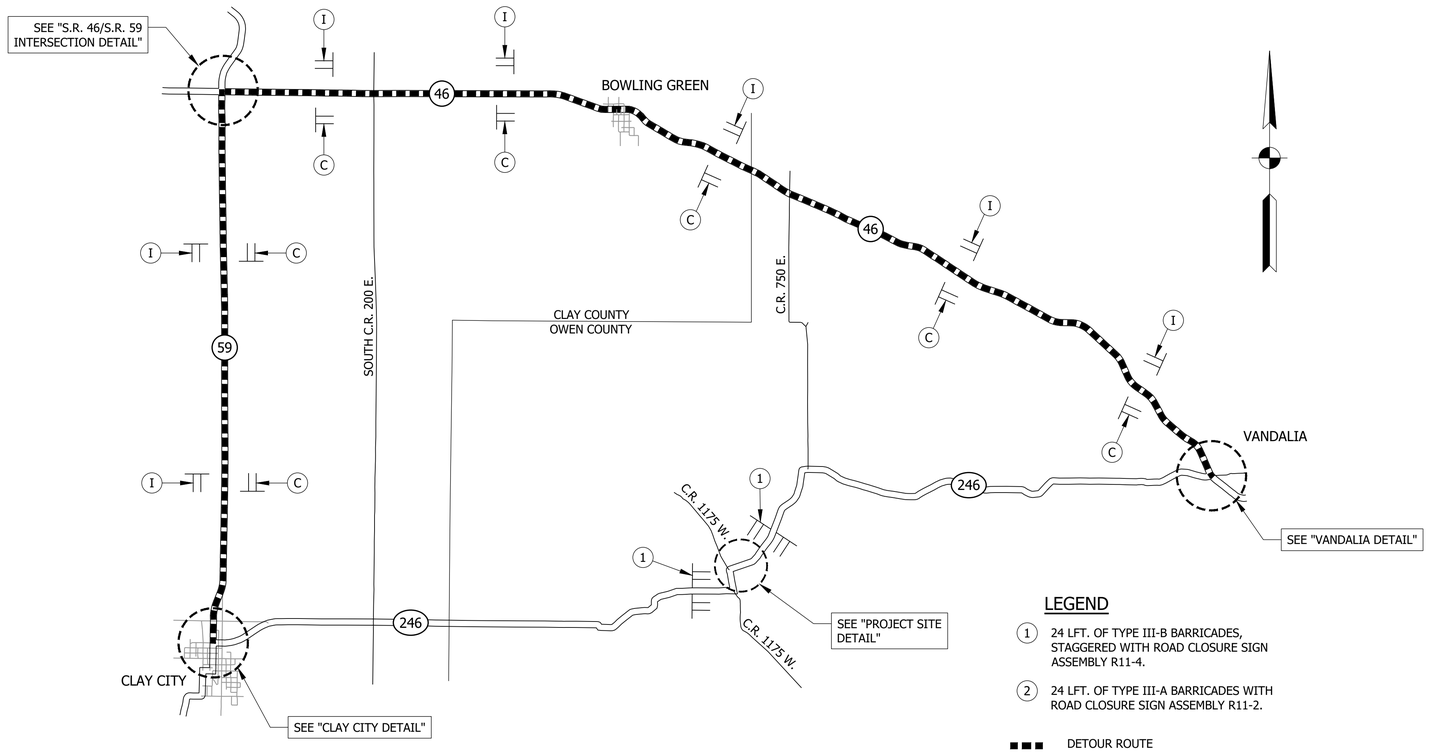
RECOMMENDED FOR APPROVAL _____ .
DESIGN ENGINEER DATE

DESIGNED: ZRE
DRAWN: SEJ
CHECKED: ZZH
CHECKED: ZRE

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAT NO. 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 100' UNLESS NOTED	N/A
VERTICAL SCALE	DESIGNATION
	1900330
	SHEET
	4 of 15
CONTRACT	PROJECT
R-42238	1900330

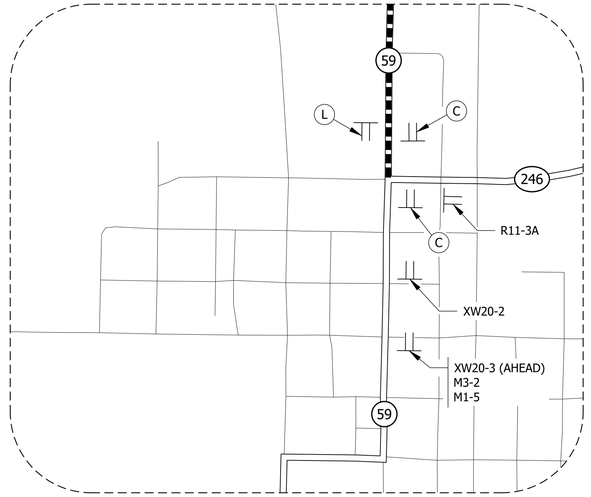


LEGEND

1. 24 LFT. OF TYPE III-B BARRICADES, STAGGERED WITH ROAD CLOSURE SIGN ASSEMBLY R11-4.
2. 24 LFT. OF TYPE III-A BARRICADES WITH ROAD CLOSURE SIGN ASSEMBLY R11-2.

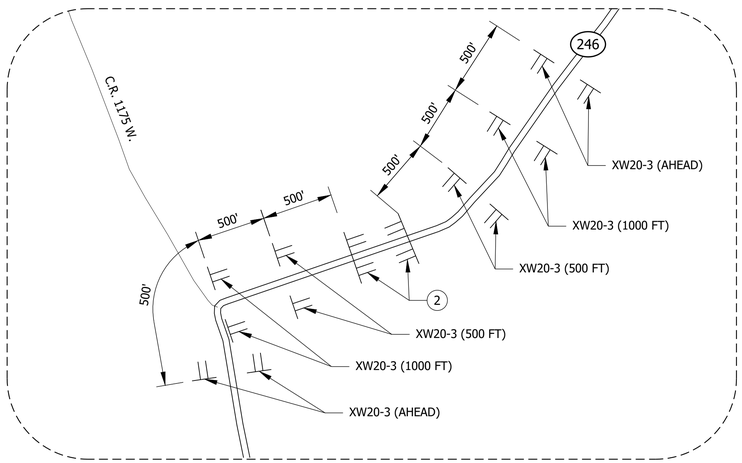
DETOUR ROUTE

SIGN ASSEMBLY



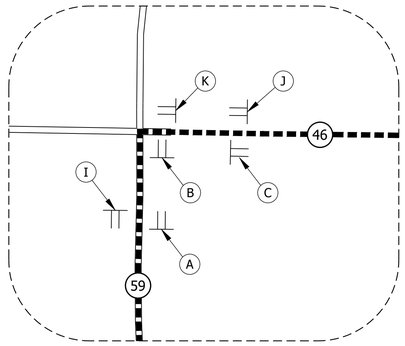
CLAY CITY DETAIL

NOT TO SCALE



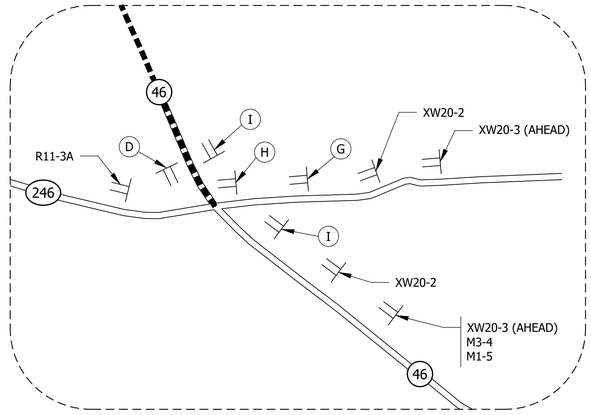
PROJECT SITE DETAIL

NOT TO SCALE



S.R. 59/S.R. 46 INTERSECTION DETAIL

NOT TO SCALE



VANDALIA DETAIL

NOT TO SCALE

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Modified / By: April 18, 2022 10:33:36 AM / sjohnson
Plotted / By: April 21, 2022 10:48:08 AM / Zed Holt

PRELIMINARY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

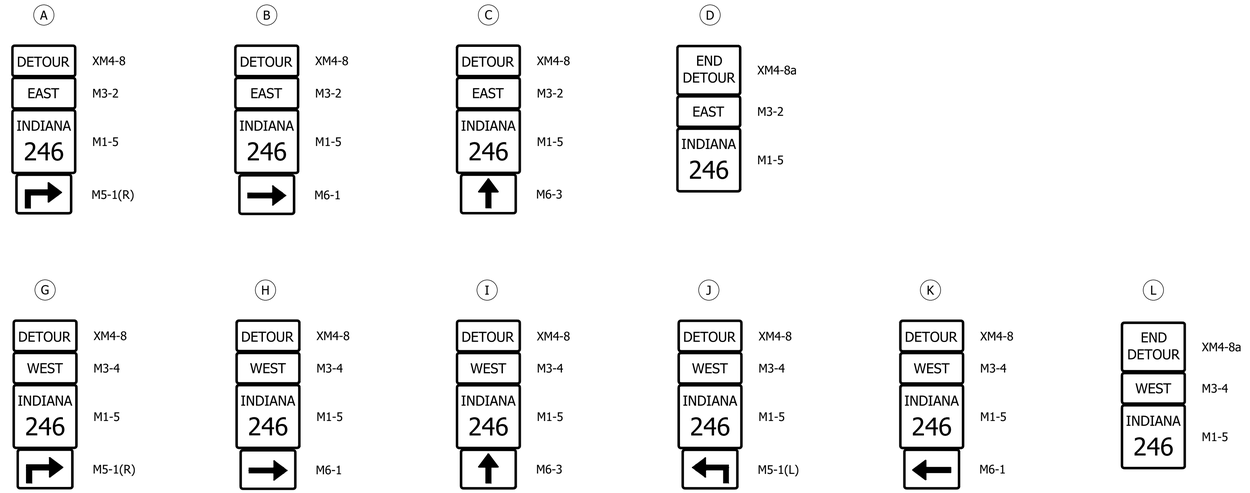
DESIGNED: ZRE DRAWN: PMK

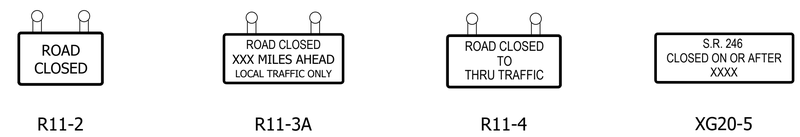
CHECKED: ZZH CHECKED: ZRE

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC

HORIZONTAL SCALE	BRIDGE FILE
1" = 5000' UNLESS NOTED	N/A
VERTICAL SCALE	DESIGNATION
	1900330
	SHEET 5 of 15
CONTRACT	PROJECT
R-42238	1900330





R11-2 R11-3A R11-4 XG20-5

XW20-2 XW20-3

CONSTRUCTION SIGN SCHEDULE

SIGN NO.	DESCRIPTION	SIZE (FT.)	TYPE	EST. QTY.
XG20-5	S.R. 246 CLOSED ON OR AFTER XX	5 X 3	A	2
XW20-2	DETOUR AHEAD	4 X 4	A	3
XW20-3	ROAD CLOSED XXXX	4 X 4	A	15
M3-2	CARDINAL DIRECTION (EAST)	3 X 1.5	B	1
M3-4	CARDINAL DIRECTION (WEST)	3 X 1.5	B	1
M1-5	INDIANA 246	2.5 X 2	B	2
R11-2	ROAD CLOSED	4 X 2.5	-	2
R11-3A	ROAD CLOSED XX MILES	5 X 2.5	-	2
R11-4	ROAD CLOSED TO THRU TRAFFIC	5 X 2.5	-	2

TOTAL TYPE "A" SIGNS	20
TOTAL TYPE "B" SIGNS	4
ROAD CLOSURE SIGN ASSEMBLIES	6

DETOUR ROUTE MARKER ASSEMBLIES: 28 REQ'D
TYPE III-A BARRICADES: 48 LFT.
TYPE III-B BARRICADES: 48 LFT.

* DETOUR ROUTE MARKER ASSEMBLIES SHALL BE IN ACCORDANCE WITH STD. DWG. 801-TCDT-04.

* TYPE B CONSTRUCTION WARNING LIGHTS SHALL BE USED WITH ALL SIGNS LOCATED ON BARRICADES AND AS SHOWN. TYPE A CONSTRUCTION WARNING LIGHTS SHALL BE USED ON ALL OTHER CONSTRUCTION SIGNS. (NOT PAY ITEMS.)

* TWO XG20-5 SIGNS TO BE PLACED AS DIRECTED BY THE ENGINEER.

F:\4590 - INDOT Crawfordsville (11)\I-1900330 _SR246\50 Plans\30 Sheet Drawings\10 Design Sheets\S-MOT-DETOUR-01.dwg - Layout2
April 18, 2022 10:33:36 AM / sjohnson
April 21, 2022 10:48:11 AM / Zed Holt

File Name:
Modified / By:
Plotted / By:

PRELIMINARY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: ZRE DRAWN: PMK
CHECKED: ZZH CHECKED: ZRE

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
	1900330
	SHEET
	6 of 15
CONTRACT	PROJECT
R-42238	1900330

SECTION 20, T-10-N, R-5-W
MARION TOWNSHIP
OWEN COUNTY

100+00 | 101+00 | 102+00 | 103+00 | 104+00 | 105+00

(CULTIVATED FIELD)

JOHN R. MILLER

58 TONS OF REVETMENT RIPRAP ON
89 SYS OF GEOTEXTILE FOR RIPRAP TYPE XX

3 TONS OF REVETMENT RIPRAP ON
6 SYS OF GEOTEXTILE FOR RIPRAP TYPE XX

CLASS V DRIVE
STA. 100+82.00 "A"
L=31', W=24.0'

STRUCTURE NO. 2
48 LFT OF 15 IN. DIA. TYPE 3 PIPE
AND 2 END SECTIONS

℄ STRUCTURE NO. 1
STA. 102+75.00 "A"
16' SPAN X 5' RISE X 43' LONG REINFORCED
CONCRETE BOX STRUCTURE AND WINGWALLS SUMPED 12"
3°00'00" RT. SKEW

UNT TO LICK CREEK

CONSTRUCTION LIMITS

+00* 40' | +50* 60' | +25* 60' | +00* 40' | +50* 40'

40' R/W | 60' R/W | 40' R/W

R=25'-0" (TYP.)

TBM #1 | TBM #2

+00 10' | +50 10'

DE | UT | E.P.

N. 70°32'54" E. | S.R. 246 | LINE "A"

(ASPHALT)

BEGIN INCIDENTAL CONSTRUCTION
STA. 100+02.55 "A"

END INCIDENTAL CONSTRUCTION
STA. 105+49.00 "A"

+00* 40' | +75* 40' | 40' R/W | 70' R/W | +50* 70' | +00* 70'

CONSTRUCTION LIMITS

BEGIN PROJECT
STA. 102+54.00 "A"
MONUMENT TYPE B REQ'D.

END PROJECT
STA. 102+96.00 "A"
MONUMENT TYPE B REQ'D.

146 TONS OF REVETMENT RIPRAP ON
213 SYS OF GEOTEXTILE FOR RIPRAP TYPE XX

(CULTIVATED FIELD)

JOHN R. MILLER

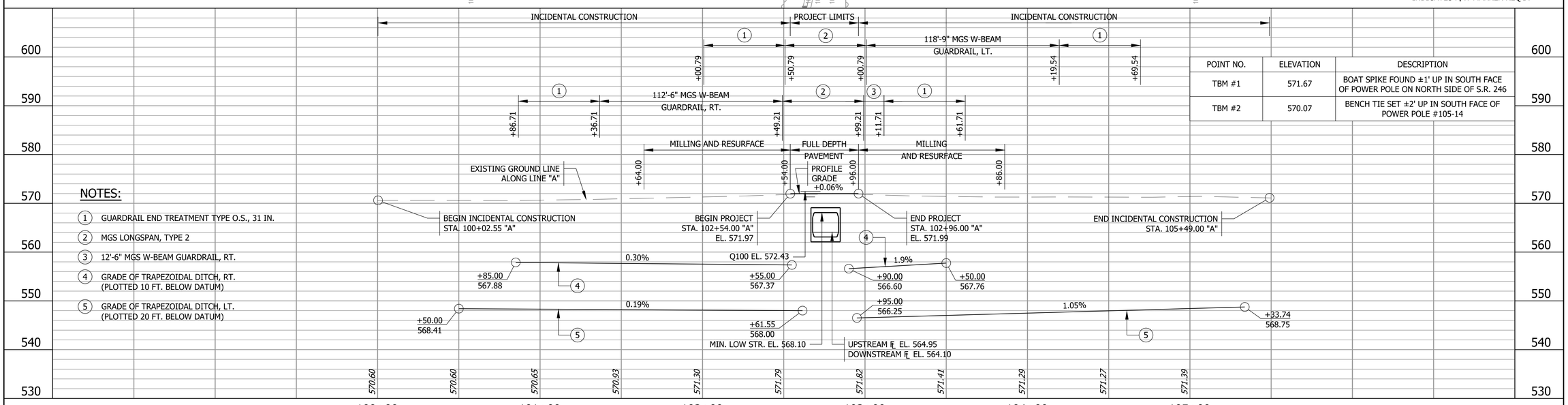
ALL R/W DESCRIBED FROM LINE "A".
LINE "A" TO BE CONSTRUCTED.
*INDICATES R/W MARKER REQ'D.

LEGEND

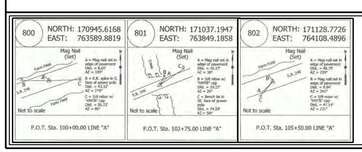
RIPRAP

NOTES:

1. GUARDRAIL END TREATMENT TYPE O.S., 31 IN.
2. MGS LONGSPAN, TYPE 2
3. 12'-6" MGS W-BEAM GUARDRAIL, RT.
4. GRADE OF TRAPEZOIDAL DITCH, RT. (PLOTTED 10 FT. BELOW DATUM)
5. GRADE OF TRAPEZOIDAL DITCH, LT. (PLOTTED 20 FT. BELOW DATUM)



POINT NO.	ELEVATION	DESCRIPTION
TBM #1	571.67	BOAT SPIKE FOUND ±1' UP IN SOUTH FACE OF POWER POLE ON NORTH SIDE OF S.R. 246
TBM #2	570.07	BENCH TIE SET ±2' UP IN SOUTH FACE OF POWER POLE #105-14



PRELIMINARY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: ZRE | DRAWN: SEJ

CHECKED: ZZH | CHECKED: ZRE

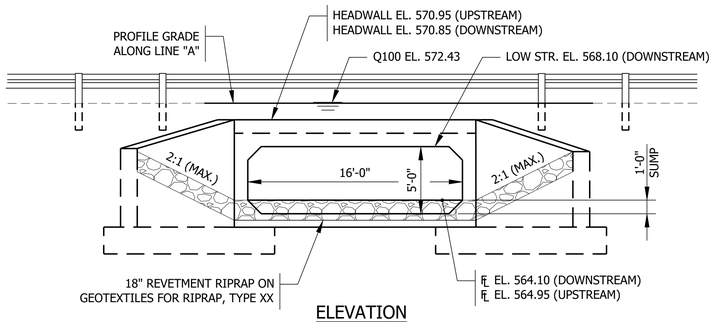
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'-0" UNLESS NOTED	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'-0" UNLESS NOTED	1900330
	SHEET
	7 of 15
CONTRACT	PROJECT
R-42238	1900330

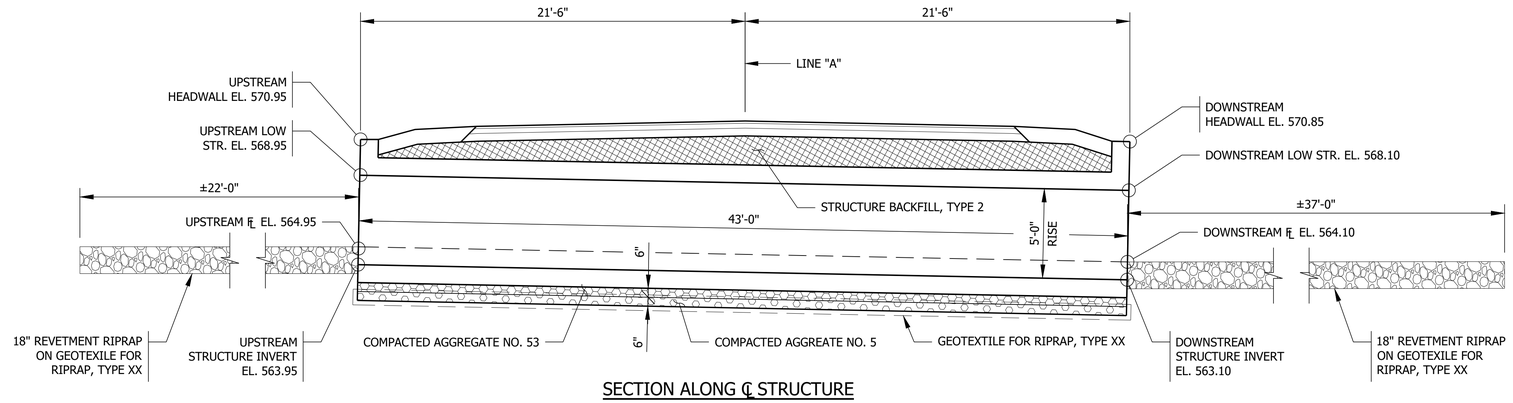
File Name:
Modified / By:
Plotted / By:

F:\4580 - INDOT Crawfordsville (11)\I-1900330__SR246\50 Plans\30 Sheet Drawings\10 Design Sheets\S-PLAN-PROFILE-01.dwg - Layout1
April 21, 2022 11:25:48 AM / zhott
April 21, 2022 11:26:01 AM / Zed Holt



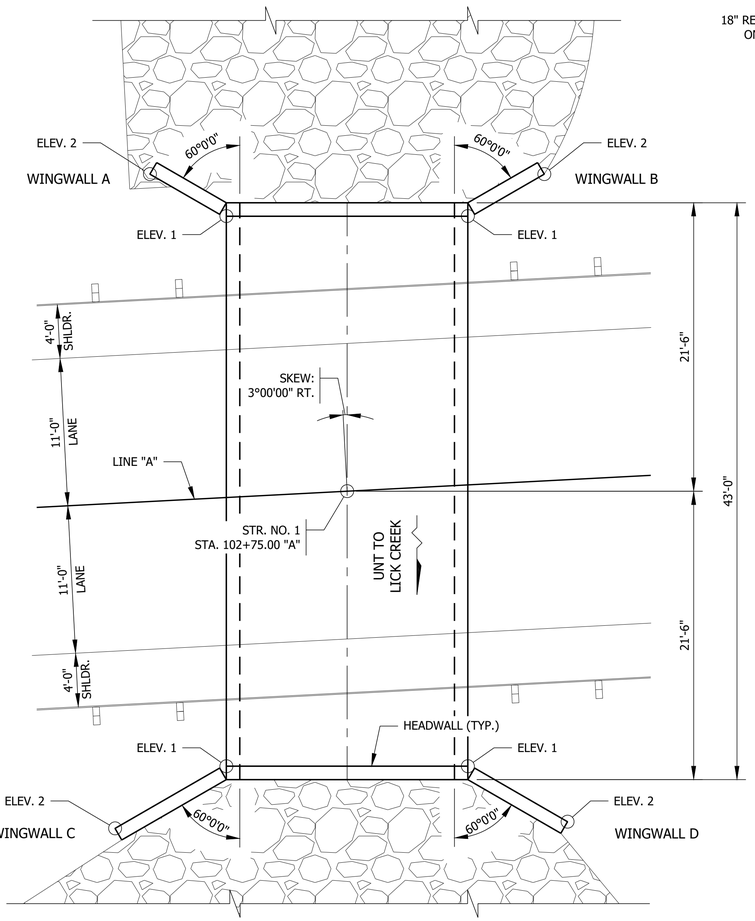
ELEVATION

SCALE: 3/16" = 1'-0"



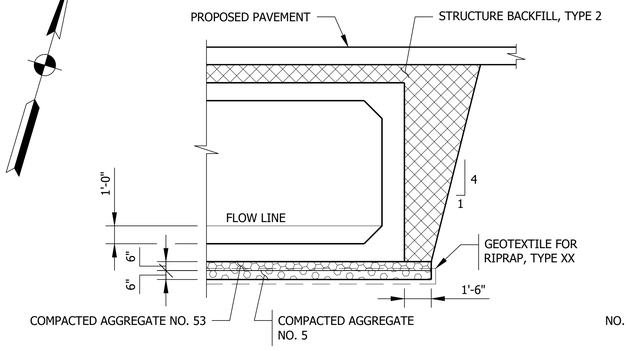
SECTION ALONG ℄ STRUCTURE

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



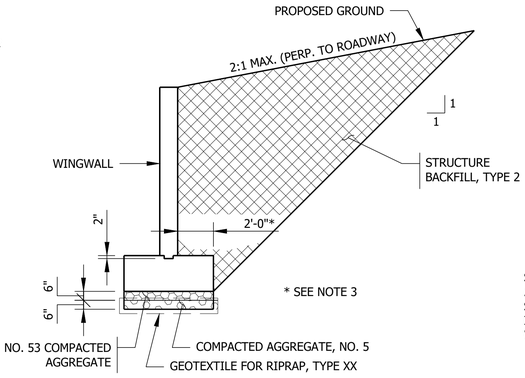
PLAN

SCALE: 3/16" = 1'-0"



STRUCTURE BACKFILL AT STRUCTURE

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



STRUCTURE BACKFILL AT WINGWALL

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

SOIL PARAMETERS FOR WINGWALL DESIGN	VALUE
RESISTANCE FACTOR	.
NOMINAL BEARING RESISTANCE (PSF)	.
FACTORED BEARING RESISTANCE (PSF)	.
FRICTION BETWEEN WALL AND BACKFILL, DEGREES	.
TOTAL UNIT WEIGHT OF BACKFILL MATERIAL (PCF)	.
ANGLE OF INTERNAL FRICTION OF FOUNDATION MATERIAL (DEGREES)	.
COHESION OF FOUNDATION MATERIALS (PSF)	.

WINGWALL TABLE

WING	"L"	ELEV. 1	ELEV. 2	AREA (SFT)
"A"	6.0 FT.	570.95	568.50	41.7
"B"	6.0 FT.	570.95	569.50	44.7
"C"	9.0 FT.	570.85	568.50	69.7
"D"	8.0 FT.	570.85	568.00	59.9

ESTIMATED QUANTITY OF HEADWALLS: 50 SFT.

NOTES:

1. THE CONTRACTOR SHALL VERIFY THE EXISTING FLOWLINE ELEVATION TO SET THE APPROPRIATE SUMP DEPTH.
2. THE BOTTOM OF ALL WINGWALL FOOTERS SHALL EXTEND A MINIMUM OF 4.0 FEET BELOW THE FLOWLINE.
3. ASSUMED DIMENSION TO ESTABLISH NEAT LINE FOR STRUCTURAL BACKFILL QUANTITY. DIMENSION MAY VARY PER FABRICATOR'S FINAL DESIGN. ADDITIONAL STRUCTURAL BACKFILL OUTSIDE OF THE NEAT LINE ESTABLISHED ON THIS SHEET WILL NOT BE PAID FOR DIRECTLY AND SHALL BE INCLUDED IN THE COST OF OTHER ITEMS.

EXISTING STRUCTURE

THE EXISTING STRUCTURES ARE TWO ADJACENT 84" X 60" CMP, WITH AN OUT TO OUT LENGTH OF 43'±. THE EXISTING STRUCTURES SHALL BE REMOVED.

DESIGN DATA

STRUCTURE DESIGNED FOR HL-93 LOADING, IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, EIGHTH EDITION, 2017, AND SUBSEQUENT INTERIM. DEAD LOAD INCREASED 35 PSF FOR FUTURE WEARING SURFACE.

HYDRAULIC DATA

DRAINAGE AREA:	0.89 SQ. MI.
Q100 DISCHARGE:	585 CFS
Q100 ELEVATION:	572.43 FT.
APPROXIMATE SKEW:	3°
PROPOSED VELOCITY	5.57 FT./SEC.
PROPOSED BACKWATER	0.00 FT.
MINIMAL LOW STRUCTURE ELEVATION	568.10 FT.
EXISTING VELOCITY	0.92 FT./SEC.
EXISTING BACKWATER	0.03 FT.
EXISTING LOW STRUCTURE	569.74 FT.

REINFORCED CONCRETE BOX STRUCTURE
SPAN: 16'-0"
RISE: 5'-0"
SKEW: 3°00'00" RT.
S.R. 246 OVER UNT TO LICK CREEK
OWEN COUNTY

PRELIMINARY

RECOMMENDED FOR APPROVAL _____ . DESIGN ENGINEER DATE

DESIGNED: ZRE DRAWN: SEJ

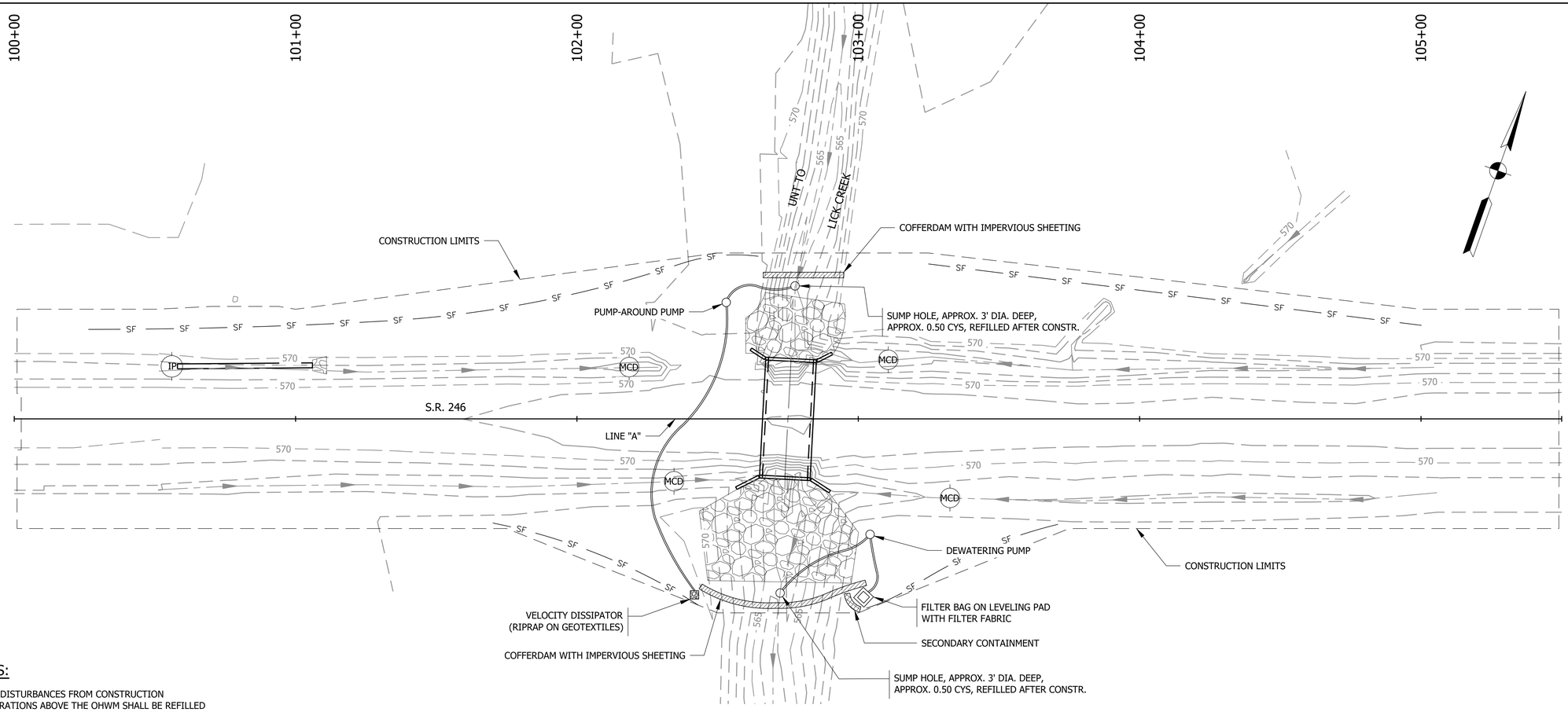
CHECKED: ZZH CHECKED: ZRE

INDIANA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
	1900330
	SHEET 8 of 15
CONTRACT	PROJECT
R-42238	1900330

File Name: F:\4590 - INDOT Crawfordsville (11)\I-1900330_SR246\50 Plans\30 Sheet Drawings\10 Design Sheets\S-GENPLAN-01.dwg - Layout1
Modified / By: April 21, 2022 12:45:34 PM / zhott
Plotted / By: April 21, 2022 12:45:41 PM / Zed Hott

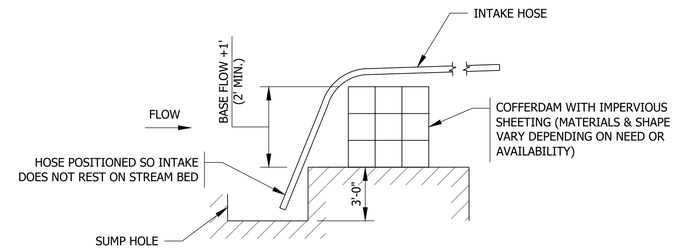


NOTES:

1. ALL DISTURBANCES FROM CONSTRUCTION OPERATIONS ABOVE THE OHWM SHALL BE REFILLED AND RESEEDED WITH INDOT INDOT SEED MIX, R.
2. TEMPORARY DEWATERING MEASURES ARE EXPECTED TO BE IN PLACE FOR 4 WEEKS.
3. FILTER SOCK SHALL NOT CROSS STREAM.

EROSION CONTROL LEGEND

- SF — TEMPORARY SILT FENCE
- CD — TEMPORARY CHECK DAM
- MCD — TEMPORARY CHECK DAM, MODIFIED
- IP — TEMPORARY INLET PROTECTION
- RIPRAP
- DISCHARGE WATER MUST FILTER THROUGH A SEDIMENT TRAP OR OTHER SEDIMENT CONTROL MEASURES PRIOR TO REACHING WATERWAY



COFFERDAM/SUMP HOLE WORK AREA

NOT TO SCALE

TEMPORARY EROSION CONTROL

LOCATION															
FROM STATION	TO STATION	LEFT	RIGHT	* TEMPORARY SILT FENCE	* TEMPORARY CHECK DAMS STRAW BALES	* TEMPORARY CHECK DAMS REVETMENT RIPRAP	* TEMPORARY FILTER STONE	*TEMPORARY GEOTEXTILES	*TEMPORARY SEDIMENT TRAP	*TEMPORARY SLOPE DRAIN	*TEMPORARY SEEDING	*TEMPORARY MULCH	*TEMPORARY MULCH STABILIZATION	*TEMPORARY INLET PROTECTION	*MOBILIZATION AND DEMOBILIZATION FOR SURFACE STABILIZATION	* NO. 2 STONE FOR CONSTRUCTION ENTRANCE
				FT	FT	TON	TON	SYS	TON	FT	LBS	TON	SYS	EACH	EACH	TON
100+12	105+35	X		415		10	1	20			103	2.0	3337	1.0		
100+12	105+35		X	185		10	1	20			103	2.0	3337			
CONSTRUCTION ENTRANCE								100								60
TOTALS				600		20	2	140			206	4.0	6774	1.0	1.0	60

*QUANTITY SHOWN FOR INFORMATION ONLY. COST INCLUDED IN "STORM WATER MANAGEMENT BUDGET".

PRELIMINARY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: ZZH | DRAWN: SEJ

CHECKED: BJM | CHECKED: ZZH

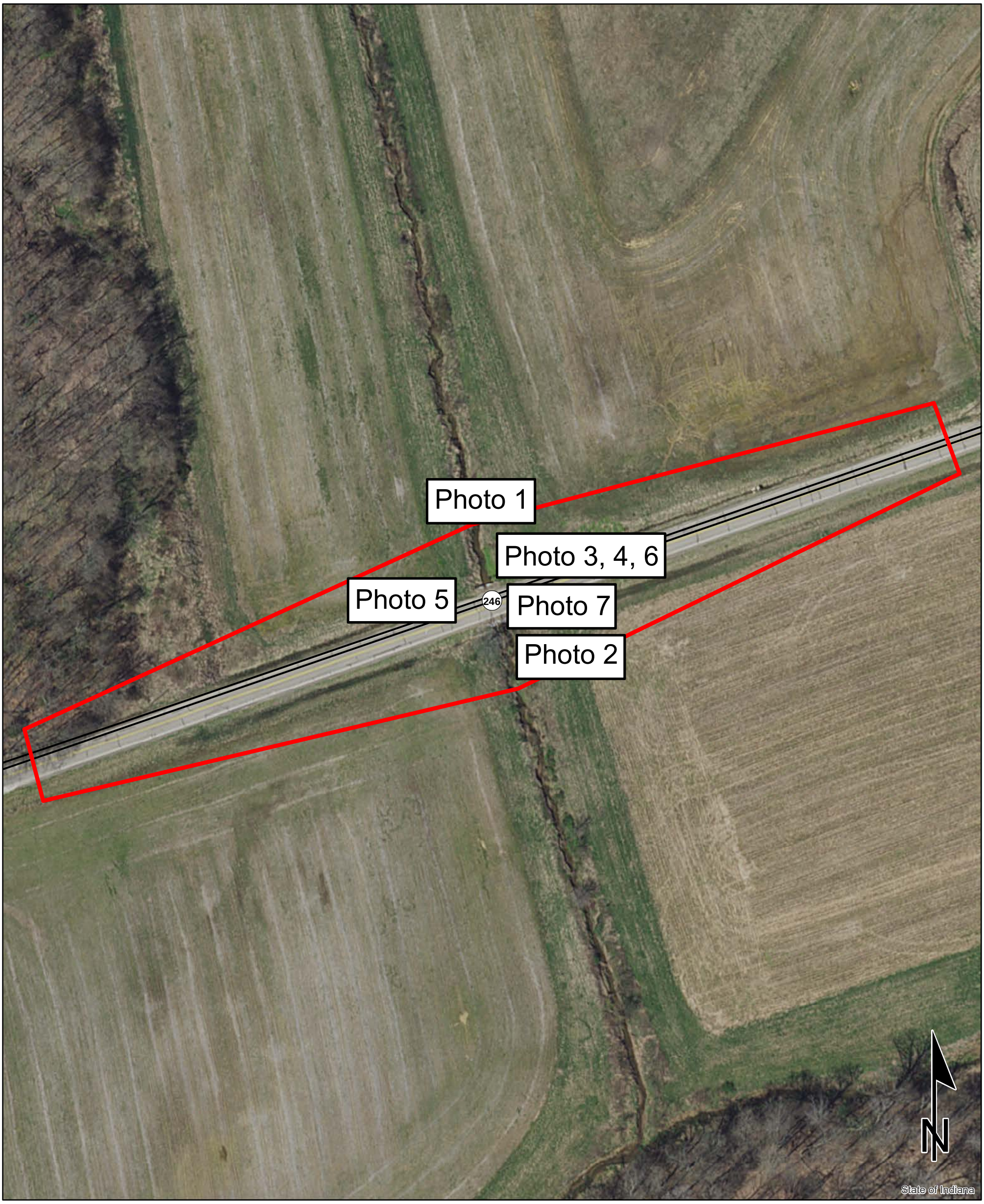
INDIANA DEPARTMENT OF TRANSPORTATION

EROSION CONTROL DETAILS

HORIZONTAL SCALE	1" = 20'-0" UNLESS NOTED
VERTICAL SCALE	
BRIDGE FILE	N/A
DESIGNATION	1900330
SHEET	9 of 15
CONTRACT	R-42238
PROJECT	1900330

File Name: F:\4590 - INDOT Crawfordsville (11)\I-1900330_SR246\50 Plans\30 Sheet Drawings\10 Design Sheets\S-EROS-CTRL-01.dwg - Layout1
Modified / By: April 21, 2022 10:14:05 AM / zhott
Plotted / By: April 21, 2022 10:48:54 AM / Zach Hott

Photo Key
SR 246, 7.39 Miles West of SR 46
Des. No. 1900330, Small Structure Replacement
Owen County, Indiana



0.0150.0075 0 0.015
Miles

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.

INDIANA STATEWIDE AERIAL IMAGERY FLOWN 2016

Photos taken on November 17, 2021

Photo 1: North profile looking southwest

Photo 2: South profile looking north

Photo 3: Condition of pipe, rusting and water line

Photo 4: Rusting throughout the entire pipe.

Photo 5: View of the roadway looking westbound

Photo 6: Pipe rusting out along the water line.

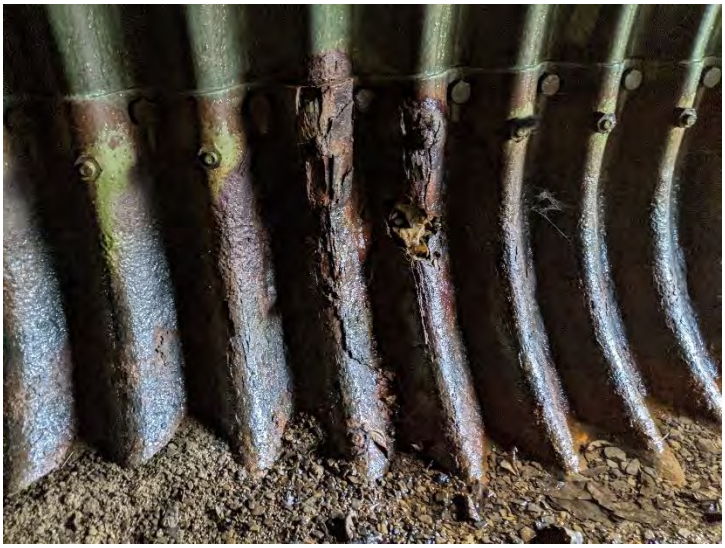


Photo 7: Wearing surface condition over small structure

Appendix C

Early Coordination

Des. No. 1900330

October 13, 2021

Owen County Highway Department
2032 N US Hwy 231
Spencer, IN 47460

Re: Early Coordination Letter, Des. No.: 1900330, Small Structure Project at SR 246, 7.39 Miles West of SR 46, Owen County, Indiana
Environmental Early Coordination

Dear Environmental Coordinator:

The Indiana Department of Transportation (INDOT), with federal funding, intends to proceed with a project involving the aforementioned small structure in Owen County. 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 number and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

The project is located on SR 246, 7.39 miles west of SR 246, in Owen County, Indiana. This section of SR 246 is a Major Collector. The existing SR 246 approach cross section consists of two, 10.0 foot lanes and no shoulders. The existing small structure are twin corrugated metal pipe arches with a 7.0 span foot by 5.0 foot rise with a structure length of 38 foot. The draft need for the project is due to the deterioration of the structure (rating 4 poor condition). The draft purpose of this project is to have a structure with a condition rating of at least 7 (good condition) out of 9. The approximate existing right-of-way is 10 foot on each side of centerline throughout the project.

The proposed project is anticipated to replace the small structure over UNT to Lick Creek. The replacement structure is anticipated to be an 18.0 foot span by 5.0 foot rise by 45 foot long precast reinforced concrete box structure. Riprap on geotextiles will be placed at the inlet and outlet of the proposed structure. The project requires the acquisition of 0.75 acre of permanent right-of-way and no temporary right-of-way. The project will be approximately 50 foot long. The proposed method of traffic maintenance is anticipated to require a detour due to SR 246 being closed at the project area during construction. Up to 10 trees are anticipated to be cleared as part of this project. The project is anticipated to begin construction in Spring 2024.

Land use in the vicinity of the project is primarily agricultural. The project is anticipated to qualify for the Rangwide Programmatic Agreement for the Indiana bat and Northern long-eared bat by completing

the Information for Planning and Consultation (IPaC). Lick Creek flows through the project area and is listed for *E. coli*. Waters and wetland determinations will be conducted by Corradino, LLC to identify ecological resources within the project area. Coordination will occur with INDOT Cultural Resources Office (CRO) to evaluate the project area for archaeological and historic resources and for Section 106 compliance. The results of this investigation will be forwarded to the State Historic Preservation Officer (SHPO) for review and concurrence as appropriate.

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 Zed Hott of Corradino LLC, at 317-488-2363 or zhott@corradino.com and or the Project Manager, Adam Mace, of INDOT at amace1@indot.in.gov. Thank you in advance for your input.

Sincerely,

Zed Hott
Corradino LLC
200 South Meridian Street, Suite 330
Indianapolis, IN 46225

Attachments:
A. Project Location Maps
B. Site Photos

The following agencies received Early Coordination Letters:

Federal Highway Administration
Federal Office Building, Room 254
575 North Pennsylvania Street
Indianapolis, Indiana 46204

State Conservationist
Natural Resource Conservation Service
6013 Lakeside Boulevard
Indianapolis, IN 46278

Indiana Geological Survey
611 North Walnut Grove
Bloomington, IN 47405

Environmental Coordinator
Indiana Department of Natural Resources
Division of Fish and Wildlife
402 West Washington Street, Rm. W273
Indianapolis, IN 46204

IDEM – Groundwater Section
Electronic Submittal

Field Environmental Officer
Chicago Regional Office
US Department of Housing & Urban Development
Metcalf Fed. Bldg.
77 W. Jackson Blvd. Room 2401
Chicago, IL 60604

Regional Environmental Coordinator
Midwest Regional Office
National Park Service
601 Riverfront Drive
Omaha, Nebraska 68102

U.S. Army Corps of Engineers
Louisville District
ATTN: CELRL-RDN
P.O. Box 59
Louisville, KY 40201-0059

US Fish and Wildlife Service
Bloomington Indiana Field Office
620 South Walker Street
Bloomington, Indiana 47403

Indiana Department of Transportation
Crawfordsville District
41 West 300 North
Crawfordsville, IN 47933

IDEM
Automatic coordination website

Owen County Mapping Department
ATTN: Suzanne Simmerman
60 S. Main St.
Spencer, IN 47460

Owen County Highway Department
2032 N US Hwy 231
Spencer, IN 47460

Owen County Soil & Water Conservation District
Devin-brown@iaswcd.org
788 Pottersville Road
Spencer, IN 47460

Owen County Surveyor
ATTN: Bill Pursell
52 N. Main St.
Spencer, IN 47460
William.pursell@owencounty.in.gov

Owen County Sheriff
291 Vandalia Ave
Spencer, IN 47460
sheriff@owencounty.in.gov

Spencer-Owen Community Schools Transportation Coordinator
ATTN: Tom Curry
205 E. Hillside Ave.
Spencer, IN 47460

INDOT - Environmental Policy Manager
100 North Senate Avenue
Indianapolis, IN 46204

From: McWilliams, Robin
To: Rachel Pluckebaum
Subject: Re: [EXTERNAL] Early Coordination Letter - Des. No. 1900330 SR 246 Small Structure
Date: Wednesday, October 20, 2021 2:06:19 PM

Dear Rachel,

This responds to your recent letter requesting our comments on the aforementioned project.

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*) and should follow the new Indiana bat/northern long-eared bat 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; if you do not receive a response from us within 14 days, we have no additional comments.

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.

Based on a review of the information you provided, the U.S. Fish and Wildlife Service has no other comments on the project 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_mcwilliams@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 46142
812-334-4261

Mon-Tues 8-3:30p
Wed-Thurs 8:30-3p Telework

From: Rachel Pluckebaum <rpluckebaum@CORRADINO.com>
Sent: Wednesday, October 13, 2021 11:48 AM
To: McWilliams, Robin <robin_mcwilliams@fws.gov>
Subject: [EXTERNAL] Early Coordination Letter - Des. No. 1900330 SR 246 Small Structure

THIS IS NOT A PERMIT

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

DNR #: ER-24078 **Request Received:** September 28, 2021

Requestor: The Corradino Group, Inc.
Zed Z Hott
200 South Meridian Street, Suite 330
Indianapolis, IN 46225

Project: SR 246 small structure replacement over UNT Lick Creek, 7.39 miles west of SR 46; Des #1900330

County/Site info: Owen

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: Formal approval by the Department of Natural Resources under the regulatory programs administered by the Division of Water is not required for this project.

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 & 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:

1) Crossing Structures:
The existing culverts have accumulated natural bedload within them which has formed a natural streambed inside the culvert. As this condition is beneficial for fish and wildlife, a structure such as a three-sided culvert (or single-span bridge) that allows a natural bed to form under the road is recommended or the proposed structure should be designed and installed so a natural bed can develop or be placed within the structure.

For purposes of maintaining fish and wildlife passage through a crossing structure, the Environmental Unit recommends bridges rather than culverts and bottomless culverts rather than box or pipe culverts. Wide culverts are better than narrow culverts, and culverts with shorter through lengths are better than culverts with longer through lengths. If box or pipe culverts are used, the bottoms should be buried a minimum of 6" (or 20% of the culvert height/pipe diameter, whichever is greater up to a maximum of 2') below the stream bed elevation to allow a natural streambed to form within or under the crossing structure. Crossings should: span the entire channel width (a minimum of 1.2 times the OHWM width); maintain the natural stream substrate within the structure; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel.

2) Bank Stabilization:
Limit the use of riprap on the channel banks to toe protection, do not place riprap in the bed of the channel, and use alternative erosion protection materials whenever possible. From the riprap toe protection to the top of the bank, heavy duty erosion control blankets or turf reinforcement mats or a similar bioengineering method should be used

and these materials should be seeded with native plants to allow a natural, vegetated stream bank to develop.

Information about bioengineering techniques can be found at http://www.in.gov/legislative/iac/20120404-IR-312120154NRA.xml.pdf. Also, the following is a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization: http://directives.sc.egov.usda.gov/17553.wba.

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 with a mixture of native grasses, sedges, wildflowers, and also native hardwood trees and shrubs if any woody plants are disturbed during construction as soon as possible upon completion. Do not use any varieties of Tall Fescue or other non-native plants, including prohibited invasive species (see 312 IAC 18-3-25).
2. Minimize and contain within the project limits inchannel 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 (greater than 5 inches dbh, 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. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
9. 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: Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife
Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.

Christie L. Stanifer **Date:** October 28, 2021

Christie L. Stanifer
Environ. Coordinator
Division of Fish and Wildlife

Organization and Project Information

Project ID:	SR 246, 7.39 Miles West of SR 46
Des. ID:	Des. No. 19000330
Project Title:	SR 246, 7.39 Miles West of SR 46 Small Structure Replacement
Name of Organization:	Corradino, LLC
Requested by:	Rachel Pluckebaum

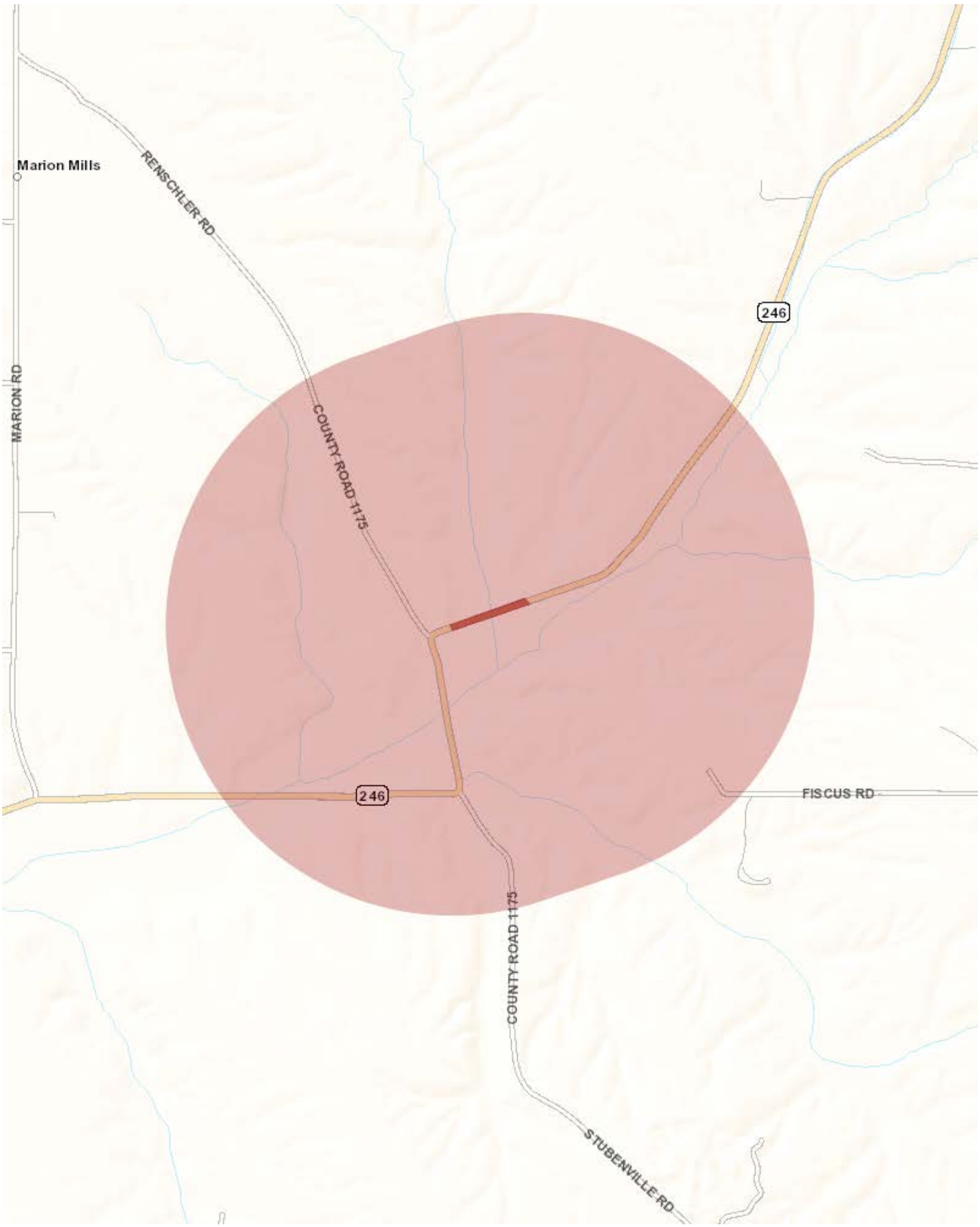
Environmental Assessment Report

1. Geological Hazards:
    - Moderate liquefaction potential
    - 1% Annual Chance Flood Hazard
2. Mineral Resources:
    - Bedrock Resource: High Potential
    - Sand and Gravel Resource: None documented in the area
3. Active or abandoned mineral resources extraction sites:
    - None documented in the area

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

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 06, 2021



Metadata:

- https://maps.indiana.edu/metadata/Geology/Seismic_Earthquake_Liquefaction_Potential.html
- https://maps.indiana.edu/metadata/Hydrology/Floodplains_FIRM.html
- https://maps.indiana.edu/metadata/Geology/Bedrock_Geology.html

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
http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html

In Reply Refer To: May 17, 2022
Project Code: 2022-0002811
Project Name: Des. No. 1900330, SR 246, 7.39 Miles West of SR 46, Owen County, Indiana

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 ECOS-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 ECOS-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:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.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/birds/policies-and-regulations.php.

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/birds/bird-enthusiasts/threats-to-birds.php.

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/birds/policies-and-regulations/executive-orders/e0-13186.php.

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
- 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: 2022-0002811
Event Code: None
Project Name: Des. No. 1900330, SR 246, 7.39 Miles West of SR 46, Owen County, Indiana
Project Type: Bridge - Replacement
Project Description: The project is located on SR 246, 7.39 miles west of SR 46 in Owen County, Indiana. Up to 10 trees are anticipated to be cleared as part of this project. Dominant tree species include Black Walnut (Juglans nigra), ash (Fraxinus sp.), Smooth Sumac (Rhus glabra). There is suitable summer habitat within the project area. Construction is expected to begin in Spring 2024 and last 4 months. A Red Flag Investigation was sent to SAM on August 11, 2021 and did not indicate the presence of federally endangered species within 0.5 mile of the project area. The most recent Bridge Inspection report, dated June 29, 2021, did not find evidence of bat use. No permanent lighting will be installed and it is unknown whether temporary lighting will be needed, thus temporary lighting will be assumed.

The existing corrugated metal pipes have an overall rating of 4 out of 9. There is heavy rusting along the water line throughout the pipes and the west pipe is rotting out along with the water line. The large stone on the back side of the pipe can be seen through the section loss and three other areas are like this on the west pipe. The head walls are constructed of masonry stones and are mostly deteriorated. Due to the severity of the deterioration of the corrugated metal pipe, the proposed scope for this project is a small structure replacement.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.29522,-86.98337482897438,14z

Endangered Species Act Species

There is a total of 3 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. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], 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.

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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 *Myotis sodalis* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See www.fws.gov/midwest/endangered/mammals/nleb/index.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* 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.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

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

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

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

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
Henslow's Sparrow *Ammodramus henslowii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3941	Breeds May 1 to Aug 31
Kentucky Warbler *Oporornis formosus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
Prairie Warbler *Dendroica discolor* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31

NAME	BREEDING SEASON
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

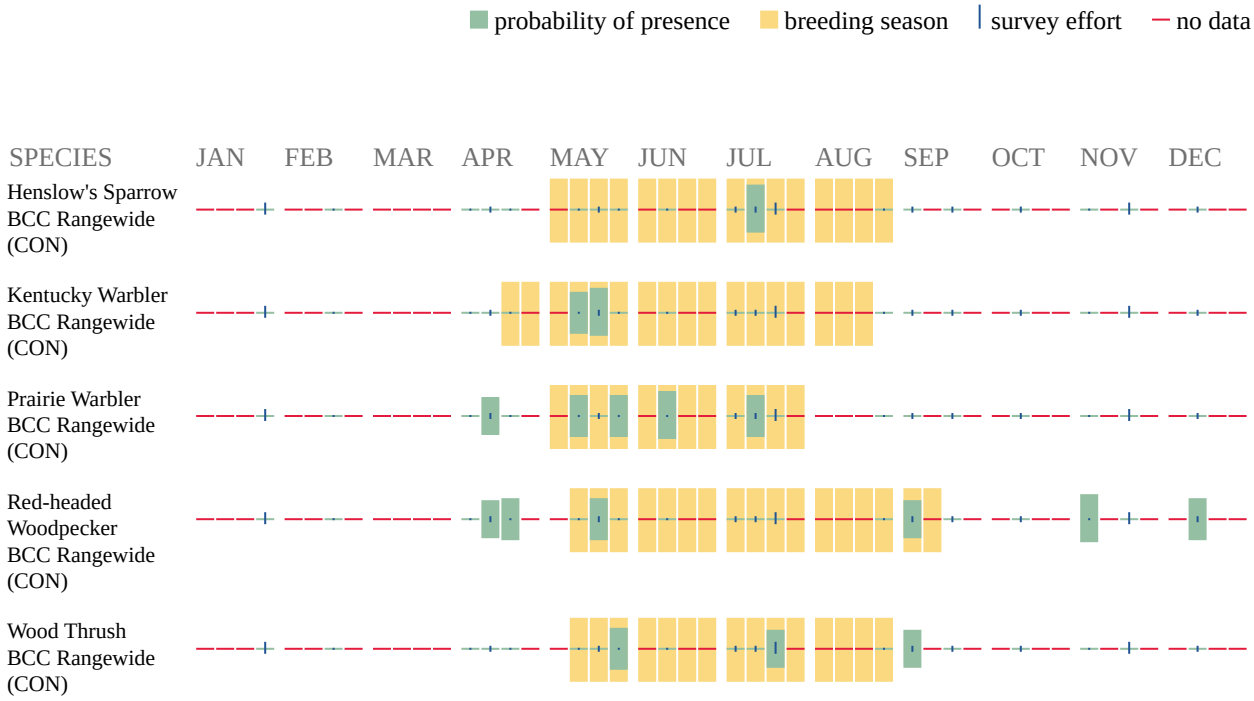
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?
The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of

certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- R4SBCx

IPaC User Contact Information

Agency: Corradino LLC
Name: Rachel Pluckebaum
Address: 200 South Meridian Street Suite 330
City: Indianapolis
State: IN
Zip: 46225
Email rpluckebaum@corradino.com
Phone: 3174882363

Lead Agency Contact Information

Lead Agency: Federal Highway Administration

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Indiana Ecological Services Field Office
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Phone: (812) 334-4261 Fax: (812) 334-4273
http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html

In Reply Refer To: January 03, 2022
Consultation code: 03E12000-2022-I-0139
Event Code: 03E12000-2022-E-03042
Project Name: Des. No. 1900330, SR 246, 7.39 Miles West of SR 46, Owen County, Indiana

Subject: Concurrence verification letter for the 'Des. No. 1900330, SR 246, 7.39 Miles West of SR 46, Owen County, Indiana' project under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **Des. No. 1900330, SR 246, 7.39 Miles West of SR 46, Owen County, Indiana** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion 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, and may affect, but is not likely to adversely affect (NLAA) the endangered Indiana bat (*Myotis sodalis*) and/or the threatened Northern long-eared bat (*Myotis septentrionalis*).

The Service has 14 calendar days to notify the lead Federal action agency or designated non-federal representative if we determine that the Proposed Action does not meet the criteria for a NLAA determination under the PBO. If we do not notify the lead Federal action agency or designated non-federal representative within that timeframe, you may proceed with the Proposed Action under the terms of the NLAA concurrence provided in the PBO. This verification period allows Service Field Offices to apply local knowledge to implementation of the PBO, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO.

For Proposed Actions that include bridge/structure removal, replacement, and/or maintenance activities: If your initial bridge/structure assessments failed to detect Indiana bats, but you later detect bats during construction, please submit the Post Assessment Discovery of Bats at Bridge/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 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. If the Proposed Action may affect any other federally-listed or proposed species, and/or any 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 contact this Service Office.

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

- Monarch Butterfly *Danaus plexippus* Candidate

Project Description

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

Name

Des. No. 1900330, SR 246, 7.39 Miles West of SR 46, Owen County, Indiana

Description

The project is located on SR 246, 7.39 miles west of SR 46 in Owen County, Indiana. Up to 10 trees are anticipated to be cleared as part of this project. Dominant tree species include Black Walnut (Juglans nigra), ash (Fraxinus sp.), Smooth Sumac (Rhus glabra). There is suitable summer habitat within the project area. Construction is expected to begin in Spring 2024 and last 4 months. A Red Flag Investigation was sent to SAM on August 11, 2021 and did not indicate the presence of federally endangered species within 0.5 mile of the project area. The most recent Bridge Inspection report, dated June 29, 2021, did not find evidence of bat use. No permanent lighting will be installed and it is unknown whether temporary lighting will be needed, thus temporary lighting will be assumed.

The existing corrugated metal pipes have an overall rating of 4 out of 9. There is heavy rusting along the water line throughout the pipes and the west pipe is rotting out along with the water line. The large stone on the back side of the pipe can be seen through the section loss and three other areas are like this on the west pipe. The head walls are constructed of masonry stones and are mostly deteriorated. Due to the severity of the deterioration of the corrugated metal pipe, the proposed scope for this project is a small structure replacement.

Determination Key Result

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the endangered Indiana bat and/or the threatened 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 concurrence provided in the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion 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 national consultation FAQs.

   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?

    No

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

    - *CV 246-060-30.50 INSPECTION REPORT.pdf https://ecos.fws.gov/ipac/project/QB4PPRVRVREGVKAJ7JHVAWRTHM/projectDocuments/106688421*

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 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.

39. 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

40. **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

41. **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

42. **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

43. **Tree Removal AMM 4**
    Can the project avoid cutting down/removal of *all* (1) **documented**[1] Indiana bat or NLEB roosts[2] (that are still suitable for roosting), (2) trees **within** 0.25 miles of roosts, and (3) documented foraging habitat any time of year?

    [1] The word documented means habitat where bats have actually been captured and/or tracked.

    [2] 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.)

    Yes

44. **Lighting AMM 1**
    Will *all* **temporary** lighting be directed away from suitable habitat during the active season?

    Yes

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.

   0.9

4. Please describe the proposed bridge work:

   The project is located on SR 246, 7.39 miles west of SR 46 in Owen County, Indiana. Up to 10 trees are anticipated to be cleared as part of this project. Construction is expected to begin in Spring 2024 and last 4 months. A Red Flag Investigation was sent to SAM on August 11, 2021 and did not indicate the presence of federally endangered species within 0.5 mile of the project area. The most recent Bridge Inspection report, dated June 29, 2021, did not find evidence of bat use. No permanent lighting will be installed and it is unknown whether temporary lighting will be needed, thus temporary lighting will be assumed.

   The existing corrugated metal pipes have an overall rating of 4 out of 9. There is heavy rusting along the water line throughout the pipes and the west pipe is rotting out along with the water line. The large stone on the back side of the pipe can be seen through the section loss and three other areas are like this on the west pipe. The head walls are constructed of masonry stones and are mostly deteriorated. Due to the severity of the deterioration of the corrugated metal pipe, the proposed scope for this project is a small structure replacement.

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

   Spring 2024

6. Please enter the date of the bridge assessment:

   June 29, 2021

Avoidance And Minimization Measures (AMMs)

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

LIGHTING AMM 1

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

TREE REMOVAL AMM 2

Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/ rail surface and **outside of documented** roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed.

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).

TREE REMOVAL AMM 4

Do not remove **documented** Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or
documented foraging habitat any time of year.

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.

TREE REMOVAL AMM 1

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

Determination Key Description: FHWA, FRA, FTA Programmatic Consultation For Transportation Projects Affecting NLEB Or Indiana Bat

This key was last updated in IPaC on April 22, 2021. 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 threatened **Northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion 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.

United States Department of Agriculture

Farm Production and Conservation

Natural Resources Conservation Service

Indiana State Office
6013 Lakeside Boulevard
Indianapolis, Indiana 46278
317-295-5800

March 10, 2022

Zed Hott
Corradino, LLC
200 South Meridian Street, Suite 330
Indianapolis, Indiana 46225
zhott@carradino.com

Dear Mr. Hott:

The proposed project to proceed with the small structure replacement 7.39 miles west of State Road 246 in Owen County, Indiana (Des. No. 1900330), as referred to in your letter received February 15, 2022, will cause a conversion of prime farmland.

The attached packet of information is for your use completing 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: 2022.03.11 07:23:45 -05'00'

JOHN ALLEN
Acting State Soil Scientist

Enclosures

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request October 6, 2020
Name of Project DES1900330_Sm Struc_SR246	Federal Agency Involved FHWA
Proposed Land Use SR 246 Small Structure Replacement	County and State Owen County, Indiana
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 2/15/22 / Person Completing Form: JRA

Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☑	NO ☐	Acres Irrigated: — / Average Farm Size: 172 ac

Major Crop(s): Corn	Farmable Land In Govt. Jurisdiction — Acres: 165269 % 67	Amount of Farmland As Defined in FPPA — Acres: 107614 % 43
Name of Land Evaluation System Used: LESA	Name of State or Local Site Assessment System:	Date Land Evaluation Returned by NRCS: 3/10/22

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	0.75			
B. Total Acres To Be Converted Indirectly	0.0			
C. Total Acres In Site	0.75			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	0.75			
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	29			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	75			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	15			
2. Perimeter In Non-urban Use	(10)	10			
3. Percent Of Site Being Farmed	(20)	0			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	10			
6. Distance To Urban Support Services	(15)	10			
7. Size Of Present Farm Unit Compared To Average	(10)	5			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	0			
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	50	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	75	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	50	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	125	0	0	0

Site Selected: Site A	Date Of Selection October 6, 2021	Was A Local Site Assessment Used? YES ☐ NO ☑

Reason For Selection:

Missing farm land is unavoidable.

Name of Federal agency representative completing this form: Rachel Pluckebaum	Date: 10/6/21

(See Instructions on reverse side)

Form AD-1006 (03-02)

Appendix D

Section 106 of the NHPA

Des. No. 1900330

Date: 12/21/2021

Project Designation Number: 1900330

Route Number: SR 246

Project Description: Small Structure Replacement, 7.39 miles west of SR 46

The project is located on SR 246, 7.39 miles west of SR 46 in Owen County, Indiana. The subject structure (CV 246-060-30.50) carries SR 246 over Lick Creek. The structure has heavy rusting along the water line throughout the pipes and the west pipe is rusting along with the water line. The large stone on the back side of the pipe can be see through the section loss and three other areas are like this on the west pipe. The head walls are constructed of masonry stones and are mostly gone. The structural evaluation rating from the culvert inspection report is a 4 out of 9.

The proposed project is a culvert replacement. The existing small structure is comprised of twin corrugated metal pipe a(CMPs) that will be replaced with a precast reinforced concrete box structure. The structure is anticipated to be a 16-foot span by 5-foot rise by 43 foot long. The project will not change the horizontal alignment or the roadway cross-section. Permanent right-of-way acquisition is anticipated to be acquired. The majority of new right-of-way that will be acquired is in previously disturbed soils that include the SR 246 side slopes and paralleling drainage ditches. The project is currently scheduled for Spring 2024 letting.

Approximately 0.75 acre of permanent ROW may be required for this project.

Feature crossed (if applicable): Lick Creek

City/Township: Marion Township **County:** Owen

Information reviewed (please check all that apply):

☑ General project location map ☑ USGS map ☑ Aerial photograph ☐ Interim Report

☐ Written description of project area ☑ General project area photos ☐ Soil survey data

☐ Previously completed historic property reports ☐ Previously completed archaeology reports

☑ Bridge Inspection Information ☐ SHAARD ☑ SHAARD GIS ☑ Streetview Imagery

Other (please specify): SHAARD GIS; SHAARD; online street-view imagery; Indiana Historic Building, Bridges, and Cemeteries Map (IHBBCM); Bridge Inspection Application System (BIAS); project information provided by Corradino, LLC, dated 11/19/2021 and on file at INDOT-CRO;

Does the project fall under the Minor Projects PA? yes ☒ no ☐

If yes, please specify categories and condition(s) (conditions that are applicable are highlighted):

B-9. Installation, replacement, repair, lining, or extension of culverts and other drainage structures under the conditions listed below ***[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]***:

Condition A (Archaeological Resources)

One of the two conditions listed below must be met *(EITHER Condition i or Condition ii must be satisfied)*:

i. Work occurs in previously disturbed soils; *OR*

ii. Work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT Cultural Resources Office determines that no National Register-listed or potentially National Register-eligible archaeological resources are present within the project area. If the archaeological investigation locates National Register-listed or potentially National Register-eligible archaeological resources, then full Section 106 review will be required. Copies of any archaeological reports prepared for the project will be provided to the DHPA and any archaeological site form information will be entered directly into the SHAARD by the applicant. The archaeological reports will also be available for viewing (by Tribes only) on INSCOPE**.**

Condition B (Above-Ground Resources)

One of the conditions below must be met *(EITHER Condition i or Condition ii must be satisfied)*:

i. Work does not involve installation of a new culvert and other drainage structure, and there are no impacts to unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under one of the following conditions *(Condition a, Condition b, or Condition c must be satisfied)*:
   a. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*
   b. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*
   c. The structure exhibits non-modern wood, stone, or brick structures or parts therein and the following conditions are met *(BOTH Condition 1 AND Condition 2 must be met):*
      1. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*
      2. The structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.

ii. Work involves the installation of a new culvert and other drainage structures AND/OR there may be impacts to unusual features, including historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under the following conditions *(BOTH Condition a and Condition b must be satisfied)*:
   a. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*
   b. The subject structure exhibits one of the characteristics described below *(Condition 1, Condition 2 or Condition 3 must be satisfied)*.
      1. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*
      2. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*
      3. The structure exhibits non-modern wood, stone, or brick structures or parts therein but lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.

Are there any commitments associated with this project? If yes, please explain and include in the Additional Comments Section below. yes ☐ no ☒

Does the project result in a de minimis impact to a Section 4(f) protected historic resource? If yes, please explain in the Additional Comments Section below. yes ☐ no ☒

Additional Comments:

Above-ground Resources

An INDOT Cultural Resources Office (CRO) historian who met the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 performed a desktop review of the surrounding area. Based on a review of online street-view imagery and aerial photography, the area immediately adjacent to the subject structure consists of wooded areas as well as agricultural fields. No unusual features are present that may be impacted by the project.

According to BIAS, the subject structure (CV 246-060-30.50) is comprised of two (2) 7-foot by 5-foot corrugated metal pipes (CMPs). The structure's year of construction is not known. Although no stone headwalls are recorded for the structure in the BIAS records--and no intact headwalls are seen in BIAS photographs--some stones are present at/around the structure. With the possibility that these stones could be remnants of former headwalls, it is known that the construction of stone headwalls for pipe culverts 15 inches in diameter or more was a standard practice for INDOT culvert projects in the early-twentieth century.[1] It is possible, therefore, this fairly common culvert structure dates to that time period. Given this information and based on BIAS photos and those provided by the consultant, the culvert does not appear to possess the necessary engineering significance to be considered eligible for the National Register.

Based on an examination of BIAS reports and photographs, the structure exhibits no wood, stone, or brick structures or parts therein. In addition, there is no evidence to suggest that it possesses historical or engineering significance.

Based on the available information, as summarized above, no above-ground concerns exist as long as the project scope does not change.

……..

Archaeological Resources

An INDOT Cultural Resources Office (CRO) archaeologist, who met the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 performed a desktop review of the project area examining streetview images, aerial photographs and the SHAARD map. No archaeological resources have been recorded within or adjacent to the proposed project area. The existing Right-of-way boundaries are the edge of pavement. The added right-of-way to be acquired includes the drainage ditches and an access road for the agricultural field. There areas have been disturbed with no potential for intact archaeological resources. No additional archaeological investigation is warranted.

Accidental Discovery: If any archaeological artifacts or human remains are uncovered during construction, demolition, or earth moving activities, construction in the immediate area of the find will be stopped, and the INDOT Cultural Resources Office and the Division of Historic Preservation and Archaeology will be notified immediately.

INDOT Cultural Resources staff reviewer(s): Susan Branigin and David Moffatt

[1] "Plan and Profile of Proposed State Highway Project No. 562 Sec. C (1936)-SR 119-," (Indiana State Highway Commission (ISHC) project plans, 1936; internal document), Sheet 1.

****Be sure to attach this form to the National Environmental Policy Act documentation for this project. Also, the NEPA documentation shall reference and include the description of the specific stipulation in the PA that qualifies the project as exempt from further Section 106 review.*

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	**N/A**	Recreational Facilities	**N/A**
Airports[1]	**N/A**	Pipelines	**N/A**
Cemeteries	**N/A**	Railroads	**N/A**
Hospitals	**N/A**	Trails	**N/A**
Schools	**N/A**	Managed Lands	**N/A**

[1]In order to complete the required airport review, a review of public-use airports within 3.8 miles (20,000 feet) is required.

Explanation: No infrastructure resources were identified within the 0.5 mile search radius.

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	**8**
Canal Structures – Historic	**N/A**	Lakes	**N/A**
NPS NRI Listed	**N/A**	Floodplain - DFIRM	**1**
NWI-Lines	**7**	Cave Entrance Density	**N/A**
IDEM 303d Listed Streams and Lakes (Impaired)	**5**	Sinkhole Areas	**N/A**
Rivers and Streams	**9**	Sinking-Stream Basins	**N/A**

Explanation:

NWI – Lines: Seven (7) NWI – Lines are located within the 0.5 mile search radius. The nearest NWI – Line is within the project area. A Waters of the US Report will be prepared and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

IDEM 303d Listed Streams and Lakes (Impaired): Five (5) impaired stream segments are located within the 0.5 mile search radius. The nearest impaired stream segment is within the project area. Lick Creek is listed as impaired for *E. coli*. Lick Creek is listed 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.

Rivers and Streams: Nine (9) river/stream segments are located within the 0.5 mile search radius. The nearest river/stream segment, Lick Creek, is within the project area. A Waters of the US Report will be prepared and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

NWI – Wetlands: Eight (8) NWI – Wetlands are located within the 0.5 mile search radius. The nearest wetland is located 0.41 mile southeast of the project area. No impact is expected.

Floodplain – DFIRM: One (1) floodplain polygon is located within the 0.5 mile search radius. The floodplain polygon is located 0.07 mile southwest of the project area. No impact is expected.