

**Indiana Department of Transportation**

County Fountain Route SR 234 Des. No. 1600886

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

**Road Number/County:**

State Route (SR) 234 / Fountain County

**Designation Number:**

1600886

**Project Description/Termini:**

Small structure replacement project on SR 234 over an unnamed tributary (UNT) to Panther Creek, located approximately 1.56 miles east of United States Highway (US) 41. The project limits on SR 234 extend along the roadway for approximately 410 feet east and approximately 245 feet west from the center of the small structure, for a total length of approximately 655 feet (0.12 mile).

After completing this form, I conclude that this project qualifies for the following type of Categorical Exclusion (FHWA must review/approve if Level 4 CE):

<input checked="" type="checkbox"/>	<b>Categorical Exclusion, Level 2</b> – The proposed action meets the criteria for Categorical Exclusion Manual Level 2 - table 1, CE Level Thresholds. Required Signatories: ESM (Environmental Scoping Manager)
<input type="checkbox"/>	<b>Categorical Exclusion, Level 3</b> – The proposed action meets the criteria for Categorical Exclusion Manual Level 3 - table 1, CE Level Thresholds. Required Signatories: ESM, ES (Environmental Services Division)
<input type="checkbox"/>	<b>Categorical Exclusion, Level 4</b> – The proposed action meets the criteria for Categorical Exclusion Manual Level 4 - table 1, CE Level Thresholds. Required Signatories: ESM, ES, FHWA
<input type="checkbox"/>	<b>Environmental Assessment (EA)</b> – EAs require a separate FONSI. Additional research and documentation is necessary to determine the effects on the environment. Required Signatories: ES, FHWA

Note: For documents prepared by or for Environmental Services Division, it is not necessary for the ESM of the district in which the project is located to release for public involvement or sign for approval.

**Approval**

ESM Signature \_\_\_\_\_

Date \_\_\_\_\_

ES Signature \_\_\_\_\_

Date \_\_\_\_\_

\_\_\_\_\_  
FHWA Signature

\_\_\_\_\_  
Date

**Release for Public Involvement**

N/A

*REB*

10-22-2020

ESM Initials \_\_\_\_\_

Date \_\_\_\_\_

ES Initials \_\_\_\_\_

Date \_\_\_\_\_

**Certification of Public Involvement**

\_\_\_\_\_  
Office of Public Involvement

\_\_\_\_\_  
Date

Note: Do not approve until after Section 106 public involvement and all other environmental requirements have been satisfied.

INDOT ESD/District

Env. Reviewer Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Name and Organization of CE/EA Preparer: Stephanie Verhoff / RQAW Corporation

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### Part I - PUBLIC INVOLVEMENT

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

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

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

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

Remarks: Notice of Entry letters were not mailed to adjacent property owners because all field work occurred within existing INDOT right-of-way.

Because the project qualifies for the Minor Projects Programmatic Agreement (MPPA), a legal notice was not required to be published for Section 106.

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

<b>Public Controversy on Environmental Grounds</b>	Yes	No
Will the project involve substantial controversy concerning community and/or natural resource impacts?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks: Currently, 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: INDOT INDOT District: Crawfordsville  
Local Name of the Facility: SR 234

Funding Source (mark all that apply): Federal  State  Local  Other\*

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

#### **PURPOSE AND NEED:**

*Describe the transportation problem that the project will address. The solution to the traffic problem should NOT be discussed in this section. (Refer to the CE Manual, Section IV.B.2. Purpose and Need)*

The need for the project is due to the deteriorated condition of the existing structure, CV 234-023-18.14. Per the INDOT Culvert Inspection Report dated May 13, 2020, the structure has a condition rating 3, which indicates "poor" condition

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(Appendix I, pages I-2 to I-5). The existing structure is crumbling, the wing walls and coping have severe spalling, and the south end of the structure has severe spalling and steel beams are exposed.

The purpose of the project is to provide a structure with a condition rating of at least 7 ("good condition") or better, in order to provide continued vehicular crossing at this location on SR 234.

### PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Fountain Municipality: Not applicable (N/A)

Limits of Proposed Work: The project is along SR 234 over an UNT to Panther Creek, located approximately 1.56 miles east of US 41. The project limits on SR 234 extend along the roadway for approximately 410 feet east and approximately 245 feet west from the center of the bridge, for a total length of approximately 655 feet.

Total Work Length: 0.12 Mile(s) Total Work Area: 1.25 Acre(s)

	Yes <sup>1</sup>	No
Is an Interchange Modification Study / Interchange Justification Study (IMS/IJS) required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If yes, when did the FHWA grant a conditional approval for this project?	Date: <input style="width: 100%;" type="text"/>	

<sup>1</sup>If an IMS or IJS is required; a copy of the approved CE/EA document must be submitted to the FHWA with a request for final approval of the IMS/IJS.

*In the remarks box below, describe existing conditions, provide in detail the scope of work for the project, including the preferred alternative. Include a discussion of logical termini. Discuss any major issues for the project and how the project will improve safety or roadway deficiencies if these are issues.*

The INDOT Crawfordsville District and the Federal Highway Administration (FHWA) propose to proceed with a small structure replacement project in Fountain County, Indiana (Des. Number 1600886). The project is located on SR 234 over an UNT to Panther Creek, approximately 1.56 miles east of US 41 in Fountain County, Indiana. The project is within Mill Creek Township, Sections 28 and 33 of Township 18 North, and Range 7 West of the Wallace U.S. Geological Survey (USGS) Quadrangle (Appendix B, pages B-1 and B-2).

**Existing Conditions:** Within the project area, SR 234 is functionally classified as a Rural Major Collector and consists of two 10-foot wide travel lanes (one eastbound and one westbound), 1-foot wide paved shoulders, and a legal speed limit of 55 miles per hour (mph). The existing structure, CV 234-023-18.14, carries SR 234 over an UNT to Panther Creek. The existing structure is a 24-foot long, 12.7-foot span by 6.8-foot rise concrete box culvert. Surrounding land use is primarily agricultural farmland, with residential properties and wooded land adjacent to the project area.

The existing right-of-way width along SR 234 varies from approximately 38 feet to 55 feet from the roadway centerline. INDOT has already purchased approximately 0.56 acre of permanent right-of-way for construction of the project. No additional permanent or temporary right-of-way will be required (Appendix B, page B-3).

**Preferred Alternative:** The project will extend approximately 245 feet west from the center of the structure and approximately 410 feet east from the center of the structure, for a total project length of approximately 655 feet (0.12 mile). The project will include replacing the existing structure with a 37-foot long, 13-foot span by 7-foot rise concrete box culvert. The new structure will be sumped 1 foot with class 1 riprap placed at the structure inlet and outlet for scour protection. New W-beam guardrail will be installed on SR 234 directly above the new structure. Approximately 475 feet of existing SR 234 pavement within the project area will be replaced at full depth. The limits of the full depth pavement replacement will extend approximately 320 feet to the east and 155 feet to the west from the center of the structure.

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Additionally, both the east and west roadway approaches will be milled and overlaid with hot mix asphalt (HMA) for approximately 90 feet in each direction. The proposed roadway cross-section of SR 234, within the project area, will include two 11-foot wide travel lanes with 3-foot wide paved shoulders. A temporary construction entrance will be installed on the south side of the roadway to the east of the structure in order to access the existing structure. The temporary construction entrance will be constructed of crushed stone and will be removed following construction. A small drainage pipe is located immediately north/northwest of the existing structure. Approximately 10-feet of the existing pipe will be removed and replaced with 10-feet of a 15-inch diameter pipe. See Appendix B, pages B-9 to B-16 for the project design plans. The termini for the project are logical because they encompass the limits of the existing small structure, as well as the required distances, east and west from the structure, that milling and paving need to tie into the existing roadway.

The maintenance of traffic (MOT) will involve the closure of the road at the structure and utilize a detour. The detour will route traffic along US 41, SR 32, and SR 341. Access to all properties will be maintained during construction (Appendix B, page B-11). Refer to the *Maintenance of Traffic (MOT) During Construction* section of this document for further details on the proposed MOT. The estimated project cost is \$2,983,043 (fiscal year [FY] 2021), which is included in Contract Number B-39957 with three additional projects under the lead Designation Number 1601095. Construction is expected to begin in Spring of 2021.

The preferred alternative satisfies the purpose and need of the project via providing a structure with a condition rating of at least 7 ("good condition") or better, in order to provide continued vehicular crossing at this location on SR 234.

## OTHER ALTERNATIVES CONSIDERED:

Describe all discarded alternatives, including the Do-Nothing Alternative and an explanation of why each discarded alternative was not selected.

**Do Nothing Alternative:** This alternative would not involve any improvements to the existing structure, CV 234-023-18.14, which carries SR 234 over an UNT to Panther Creek. This alternative would not require additional permanent or temporary right-of-way, involve any cost, result in disruption to traveling motorists, or impact the surrounding environment. If no improvements are made to the existing small structure, the structure would continue to deteriorate resulting in decreased structural integrity of the culvert and potential failure of the crossing. This alternative was dismissed from further consideration since it would not meet the purpose and need of the project.

No other alternatives were considered.

**The Do Nothing Alternative is not feasible, prudent or practicable because (Mark all that apply):**

- It would not correct existing capacity deficiencies;
  - It would not correct existing safety hazards;
  - It would not correct the existing roadway geometric deficiencies;
  - It would not correct existing deteriorated conditions and maintenance problems; or
  - It would result in serious impacts to the motoring public and general welfare of the economy.
- Other (Describe)

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

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### ROADWAY CHARACTER:

#### SR 234

Functional Classification: Rural Major Collector  
 Current ADT: 447 VPD (2020) Design Year ADT: 516 VPD (2040)  
 Design Hour Volume (DHV): 53 Truck Percentage (%) 10.71  
 Designed Speed (mph): 55 Legal Speed (mph): 55

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	10-foot wide travel lanes		11-foot wide travel lanes	
Pavement Width:	22	ft.	28	ft.
Shoulder Width:	1	ft.	3	ft.
Median Width:	0	ft.	0	ft.
Sidewalk Width:	0	ft.	0	ft.

Setting:  Urban  Suburban  Rural  
 Topography:  Level  Rolling  Hilly

### DESIGN CRITERIA FOR BRIDGES:

Structure/NBI Number(s): CV 234-023-18.14 Sufficiency Rating: 3 (INDOT Culvert Inspection Report, dated May 13, 2020)  
 (Appendix I, pages I-2 to I-5)  
 (Rating, Source of Information)

	Existing		Proposed	
Bridge Type:	24-foot long, 13-foot span by 7-foot rise precast concrete box culvert		37-foot long, 13-foot span by 7- foot rise reinforced box culvert	
Number of Spans:	1		1	
Weight Restrictions:	N/A	ton	N/A	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	22		28	ft.
Outside to Outside Width:	24		37	ft.
Shoulder Width:	1		3	ft.
Length of Channel Work:			90	ft.

*Describe bridges and structures; provide specific location information for small structures.*

Remarks: Structure Number CV 234-023-18.14 is a precast concrete box culvert that transports an UNT to Panther Creek under SR 234. The existing structure is a 24-foot long, 12.7-foot span by 6.8-foot rise concrete box culvert. The existing concrete box culvert will be replaced with a 37-foot long, 13-foot span by 7-foot rise concrete box culvert. The structure will be sumped 1-foot with class 1 riprap placed at the structure inlet and outlet for scour protection. The project will impact approximately 90 linear feet (0.04 acre) of the UNT to Panther Creek below the ordinary high water mark (OHWM) to replace the existing structure and install riprap (Appendix B, pages B-9 to B-16).

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A small drainage pipe is located immediately north/northwest of the existing structure. Approximately 10-feet of the existing pipe will be removed and replaced with 10-feet of a 15-inch diameter pipe (Appendix B, page B-12).

**MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:**

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

Remarks: The MOT will involve the closure of SR 234 at the existing structure and will utilize a detour for a total of 3 months. The detour will route traffic along US 41, SR 32, and SR 341 for a total length of approximately 2.75 miles. Access to all properties would be maintained during construction (Appendix B, page B-11).

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 will cease upon project completion.

**ESTIMATED PROJECT COST AND SCHEDULE:**

Engineering: \$ 18,000 (2020) Right-of-Way: \$ 21,925 (2020) Construction: \$ 710,000 (2021)

Anticipated Start Date of Construction: Spring of 2021

Date project incorporated into STIP July 2, 2019 & July 25, 2019 via Amendment 20-01 (RW) (Appendix H, page H-1 \*STIP listing includes the total cost for bundled projects under Contract No. B-39957)

Is the project in an MPO Area?  Yes  No

If yes, Name of MPO N/A

Location of Project in TIP N/A

Date of incorporation by reference into the STIP N/A

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**RIGHT OF WAY:**

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	0.5	0
Agricultural	0.05	0
Forest	0	0
Wetlands	0.01	0
<b>TOTAL</b>	<b>0.56</b>	<b>0</b>

*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 or reacquisition, either known or suspected, and there impacts on the environmental analysis should be discussed.*

Remarks: The existing right-of-way along SR 234 varies from approximately 38 feet to 55 feet from the roadway centerline (Appendix B, pages B-9 to B-16). INDOT has already purchased approximately 0.56 acre of permanent right-of-way for construction of the project. The acquisition by INDOT followed the Uniform Act and did not predetermine the selection of alternatives. Of the already purchased right-of-way, approximately 0.5 acre consisted of residential land (maintained lawn and trees), 0.05 acre consisted of agricultural land (row crops and agricultural access points), and 0.01 acre consisted of wetland. The project will not require any additional permanent or temporary right-of-way along SR 234.

If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division and the INDOT District Environmental Section will be contacted immediately.

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

**SECTION A – ECOLOGICAL RESOURCES**

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
<b>Streams, Rivers, Watercourses &amp; Jurisdictional Ditches</b>	✓	✓	
Federal Wild and Scenic Rivers			
State Natural, Scenic or Recreational Rivers			
Nationwide Rivers Inventory (NRI) listed			
Outstanding Rivers List for Indiana			
Navigable Waterways			

Remarks: Per a desktop review, field visits conducted on July 10, 2017 by INDOT Crawfordsville District and August 05, 2020 by RQAW, an aerial photograph of the project area (Appendix B, page B-3), the USGS topographic map (Appendix B, page B-2), and the water resources map in the Red Flag Investigation (RFI) report (Appendix E, page E-6), one stream segment, Panther Creek, is mapped within 0.5 mile of the project area. Panther Creek is located approximately 0.08 mile southwest of the project area. There is one stream, an UNT to Panther Creek (unmapped), present within the project area.

A *Waters of the U.S. Determination Report* was approved by INDOT on July 28, 2017 (Appendix F, pages F-1 to F-22). It was determined that one stream, an UNT to Panther Creek, is located within the project area. Per

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the *Waters of the U.S. Determination Report*, the stream is likely to be considered jurisdictional (i.e. a Waters of the United States). Per the field visits, roadside ditches were not observed within the project area. The U.S. Army Corps of Engineers (USACE) makes all determinations regarding jurisdiction.

**UNT to Panther Creek** flows south under SR 234 (Appendix B, page B-3). The upstream drainage area is approximately 0.129 square mile (Appendix F, page F-9). The stream exhibited a defined bed and bank and had an OHWM width of 13-feet and depth of 2-feet. The UNT to Panther Creek flows into Panther Creek, which flows into Sugar Mill Creek, which eventually flows into Sugar Creek, a traditionally navigable waterway (TNW). Based on these criteria, this stream is likely to be considered jurisdictional (i.e. a Waters of the United States). UNT to Panther Creek is not listed as a Federal Wild and Scenic River or on the National Rivers Inventory. UNT to Panther Creek is not listed as a State Natural, Scenic and Recreational River or as an Outstanding River for Indiana.

The project will permanently impact approximately 90 linear feet (0.04 acre) of UNT to Panther Creek below the OHWM to replace the existing structure and install riprap. Because new stream impacts will not exceed 300 linear feet, stream mitigation will not be required. A USACE Section 404 Permit and Indiana Department of Environmental Management (IDEM) Section 401 Water Quality Certification will be required due to these impacts.

Early coordination letters were sent to the Indiana Department of Natural Resources (IDNR) Division of Fish and Wildlife, USACE, and IDEM on August 25, 2020 (Appendix C, pages C-1 to C-3). The USACE did not respond to the early coordination letter. An automated response was received from IDEM on August 25, 2020; however, the response did not contain project specific comments (Appendix C, pages C-4 to C-12). The IDNR Division of Fish and Wildlife responded to early coordination efforts on September 23, 2020 and recommended implementing erosion and sediment control measures and stream bank stabilization measures, proper use of riprap, and time restrictions for work within waterways (Appendix C, pages C-16 to C-18). All applicable agency recommendations are included in the *Environmental Commitments* section of this Categorical Exclusion (CE) document.

**Other Surface Waters**

- Reservoirs
- Lakes
- Farm Ponds
- Detention Basins
- Storm Water Management Facilities
- Other: \_\_\_\_\_

	Presence	Impacts	
		Yes	No
Reservoirs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lakes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Farm Ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detention Basins	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storm Water Management Facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks: Per a desktop review, field visits conducted on July 10, 2017 by INDOT Crawfordsville District and August 05, 2020 by RQAW, an aerial photograph of the project area (Appendix B, page B-3), and the water resources map in the RFI report (Appendix E, page E-6), one lake is mapped within 0.5 mile of the project area. The nearest lake is mapped approximately 0.41 mile northwest of the project area. The project will not impact the lake due to distance from the construction limits of the project. There are no other surface waters present within or adjacent to the project area.

A *Waters of the U.S. Determination Report* was approved by INDOT on July 28, 2017 (Appendix F, pages F-1 to F-22). According to the *Waters of the U.S. Determination Report*, no other surface waters were observed within the survey area. The USACE makes all determinations regarding jurisdiction.

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Early coordination letters were sent to the IDNR Division of Fish and Wildlife, USACE, and IDEM on August 25, 2020 (Appendix C, pages C-1 to C-3). The USACE did not respond to the early coordination letter. An automated response was received from IDEM on August 25, 2020; however, the response did not contain project specific comments (Appendix C, pages C-4 to C-12). The IDNR Division of Fish and Wildlife responded to early coordination efforts on September 23, 2020; however, the response did not contain any recommendations regarding lakes or other surface waters (Appendix C, pages C-16 to C-18).

**Presence** **Impacts**

**Yes**  **No**

**Wetlands**

Total wetland area: 0.011 acre(s) Total wetland area impacted: 0.011 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
Wetland A	Palustrine emergent (PEM)	0.011	0.011	Located in the northeast quadrant of the existing structure and is likely to be considered jurisdictional (i.e. a Waters of the United States). The wetland will be impacted.

	<u>Documentation</u>	<u>ES Approval Dates</u>
<b>Wetlands</b> (Mark all that apply)		
Wetland Determination	<input checked="" type="checkbox"/>	<input type="text" value="July 28, 2017"/>
Wetland Delineation	<input checked="" type="checkbox"/>	<input type="text" value="July 28, 2017"/>
USACE Isolated Waters Determination	<input type="checkbox"/>	<input type="text"/>
Mitigation Plan	<input type="checkbox"/>	<input type="text"/>

**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.

*Measures to avoid, minimize, and mitigate wetland impacts need to be discussed in the remarks box.*

Remarks: Per a review of the National Wetlands Inventory (NWI) online mapper (<https://www.fws.gov/wetlands/data/mapper.html>) on September 14, 2020 by RQAW, the USGS topographic map (Appendix B, page B-2), and the water resources map in the RFI report (Appendix E, page E-6), no NWI wetlands are mapped within 0.5 mile of the project area. A field visit conducted on July 10, 2017 by INDOT determined that one wetland is located within the project area (Wetland A). A *Waters of the U.S. Determination Report* was completed for the project by INDOT on July 14, 2017 (Appendix F, pages F-1 to F-22). Per the *Waters of the U.S. Determination Report*, the wetland is likely to be considered jurisdictional (i.e. a Waters of the United States). The USACE makes all determinations regarding jurisdiction.

**Wetland A** is a PEM wetland, approximately 0.011 acre in size, and located adjacent to the north side of SR 234 in the northeast quadrant of the existing small structure (Appendix B, page B-3). Three data points (A1, A2, and A3) were taken to determine the boundary of Wetland A (Appendix F, pages F-16 to F-21). Data point A1 was taken within Wetland A and exhibited hydrophytic vegetation, hydric soils, and wetland hydrology; thus, meeting the three criteria to be classified as a wetland per the *Corps of Engineers Wetland Delineated*

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*Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region Version 2.0* (2010). Data point A2 was taken outside Wetland A and did not pass the dominance test for vegetation and did not exhibit any indicators of a wetland. Therefore, data point A2 did not meet all three of the criteria to be considered within a wetland. A third data point, A3, was performed in the southeast quadrant of the small structure due to hydrophytic vegetation being present. No hydric soil or wetland hydrology was present at this data point; therefore, data point A3 did not meet all three of the criteria to be considered within a wetland. Based on these criteria, Wetland A is likely to be considered jurisdictional (i.e. a Waters of the United States). Wetland A is located inside of the construction limits and will be permanently impacted (0.011 acre).

The project will permanently impact approximately 0.011 acre of wetlands. Because wetland impacts will not exceed 0.1 acre, wetland mitigation will not be required. A USACE Section 404 Permit and IDEM Section 401 Water Quality Certification will be required due to these impacts.

Coordination has been ongoing with the project designer to ensure wetland impacts are avoided and minimized as much as possible. Avoidance of wetland impacts is not practicable because the wetland is located in close proximity to the structure and in an area where regrading is needed.

Early coordination letters were sent to the IDNR Division of Fish and Wildlife, USACE, and IDEM on August 25, 2020 (Appendix C, pages C-1 to C-3). The USACE did not respond to the early coordination letter. An automated response was received from IDEM on August 25, 2020; however, the response did not contain project specific comments (Appendix C, pages C-4 to C-12). The IDNR Division of Fish and Wildlife responded to early coordination efforts on September 23, 2020; however, the response did not contain any recommendations regarding wetlands (Appendix C, pages C-16 to C-18).

	<b><u>Presence</u></b>	<b><u>Impacts</u></b>	
		<b>Yes</b>	<b>No</b>
<b>Terrestrial Habitat</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Unique or High Quality Habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Use the remarks box to identify each type of habitat and the acres impacted (i.e. forested, grassland, farmland, lawn, etc).*

Remarks: Per a desktop review, field visits conducted on July 10, 2017 by INDOT Crawfordsville District and August 05, 2020 by RQAW, and an aerial photograph of the project area (Appendix B, page B-3), predominant land use within, and adjacent, to the project area consist of agricultural farmland, maintained roadside grass, and riparian habitat. Dominant tree species included eastern cottonwood (*Populus deltoides*), silver maple (*Acer saccharinum*), and red oak (*Quercus rubra*). Dominant herbaceous vegetation included reed canary grass (*Phalaris arundinacea*), tall fescue (*Schedonorus arundinaceus*), and Kentucky bluegrass (*Poa pratensis*). Although no animals were observed, it is assumed that certain common animals are likely present within the project area (e.g. squirrels, raccoons, birds, etc.).

The project will result in approximately 0.86 acre of land disturbance within the construction limits; therefore, an IDEM Rule 5 Notice of Intent will not be required. No trees greater than three inches in diameter-at-breast-height (dbh) are within the construction limits; no trees are anticipated to be cleared.

Early coordination letters were sent to the IDNR Division of Fish and Wildlife, USACE, and IDEM on August 25, 2020 (Appendix C, pages C-1 to C-3). The USACE did not respond to the early coordination letter. An automated response was received from IDEM on August 25, 2020; however, the response did not contain project specific comments (Appendix C, pages C-4 to C-12). The IDNR Division of Fish and Wildlife responded

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to early coordination efforts on September 23, 2020 and recommended revegetating disturbed areas, minimizing tree and brush clearing, and not cutting trees suitable for Indiana bat or northern long-eared bat roosting (Appendix C, pages C-16 to C-18). All applicable agency recommendations are included in the *Environmental Commitments* section of this CE document.

*If there are high incidences of animal movements observed in the project area, or if bridges and other areas appear to be the sole corridor for animal movement, consideration of utilizing wildlife crossings should be taken.*

**Karst**

Is the proposed project located within or adjacent to the potential Karst Area of Indiana?  
 Are karst features located within or adjacent to the footprint of the proposed project?  
 If yes, will the project impact any of these karst features?

	Yes	No
Is the proposed project located within or adjacent to the potential Karst Area of Indiana?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are karst features located within or adjacent to the footprint of the proposed project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If yes, will the project impact any of these karst features?	<input type="checkbox"/>	<input type="checkbox"/>

Use the remarks box to identify any karst features within the project area. (Karst investigation must comply with the Karst MOU, dated October 13, 1993)

Remarks: Per a desktop review, the project is located outside the designated karst region of Indiana, as outlined in the October 13, 1993 Memorandum of Understanding (MOU). Per the USGS topographic map of the project area (Appendix B, page B-2) and the water resources map in the RFI report (Appendix E, page E-6), there are no karst features identified within or adjacent to the project area.

In their early coordination response dated August 25, 2020, the Indiana Geological Survey (IGS) did not indicate that karst features exist in the project area (Appendix C, pages C-13 to C-15). Impacts are not expected. The IGS stated the project is located within an area with moderate liquefaction potential, high potential for bedrock resources, low potential for sand and gravel resources, and no documented active or abandoned mineral resources extraction sites. This information was conveyed to the project designer on August 25, 2020.

**Threatened or Endangered Species**

Within the known range of any federal species  
 Any critical habitat identified within project area  
 Federal species found in project area (based upon informal consultation)  
 State species found in project area (based upon consultation with IDNR)

	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Within the known range of any federal species	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Any critical habitat identified within project area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Federal species found in project area (based upon informal consultation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State species found in project area (based upon consultation with IDNR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Is Section 7 formal consultation required for this action?  Yes  No

Remarks: Per a desktop review and the RFI report, approved by INDOT Site Assessment and Management on November 30, 2017 (Appendix E, pages E-1 to E-10), the IDNR Fountain County Endangered, Threatened and Rare (ETR) Species List has been checked. The highlighted species on the list reflect the federal and state identified ETR species located within Fountain County (Appendix E, pages E-9 and E-10). Per the IDNR Division of Fish and Wildlife early coordination response letter dated September 23, 2020, the Natural Heritage Program's data have been checked and, 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 (Appendix C, pages C-16 to C-18).

Project information was submitted through the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website (<https://ecos.fws.gov/ipac/>) on September 9, 2020 by RQAW and an official species list was generated. Per the official species list, the project area is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (*Myotis septentrionalis*). Per the official species list, no additional species were found within or adjacent to the project area other than the Indiana bat and northern long-eared bat (Appendix C, pages C-22 to C-27).

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The project qualifies for the *USFWS Interim Policy for the Review of Highway Transportation Projects in Indiana dated May 29, 2013*. As such, further coordination with the USFWS regarding other species is not needed.

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and the USFWS. An effect determination key was completed on September 9, 2020 by RQAW; based on the responses provided, it was determined the project *May Affect, Not Likely to Adversely Affect* the Indiana bat and/or the northern long-eared bat (Appendix C, pages C-29 to C-39). INDOT Crawfordsville District reviewed and verified the effect finding and requested USFWS's review of the effect finding on September 14, 2020 (Appendix C, page C-28). No response was received from the USFWS within the 14-day review period; therefore, it was concluded the USFWS concurs with the finding. Avoidance and Minimization Measures (AMMs) are included as firm commitments in the *Environmental Commitments* section of this document.

This precludes the need for further consultation on the project as required under Section 7 of the Endangered Species Act of 1973, as amended. If new information on endangered species at the site becomes available, or if project plans are changed, the USFWS will be contacted for consultation.

## SECTION B – OTHER RESOURCES

	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
<b>Drinking Water Resources</b>			
Wellhead Protection Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Water System(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Residential Well(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Source Water Protection Area(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sole Source Aquifer (SSA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If a SSA is present, answer the following:

	Yes	No
Is the Project in the St. Joseph Aquifer System?	<input type="checkbox"/>	<input type="checkbox"/>
Is the FHWA/EPA SSA MOU Applicable?	<input type="checkbox"/>	<input type="checkbox"/>
Initial Groundwater Assessment Required?	<input type="checkbox"/>	<input type="checkbox"/>
Detailed Groundwater Assessment Required?	<input type="checkbox"/>	<input type="checkbox"/>

Remarks: The project is located within Fountain County, which is not located within the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in Indiana. Therefore, the FHWA/Environmental Protection Agency (EPA) Sole Source Aquifer Memorandum of Understanding (MOU) is not applicable to this project. Therefore, a detailed groundwater assessment is not needed. Impacts are not expected.

The Indiana Department of Environmental Management's Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead/>) was accessed on September 25, 2020 by RQAW. This project is not located within a Wellhead Protection Area or Source Water Area.

Per review of the IDNR Water Well Record Database website (<https://www.in.gov/dnr/water/3595.htm>) on September 15, 2020 by RQAW, one unspecified water well and two unconsolidated water wells are mapped within 0.5 mile of the project area. The nearest water well (unspecified) is mapped approximately 0.26 mile



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southeast of the project area, per the water well records, the water well has a static water level of 60 feet. The maximum depth of excavation will not exceed 15 feet bgs. No impacts to residential water wells are anticipated.

Per a desktop review of the INDOT Municipal Separate Storm Sewer Systems (MS4) website (<https://entapps.indot.in.gov/MS4/>) on September 15, 2020 by RQAW, and the RFI report, the project area is not located within an Urbanized Area Boundary. Impacts are not expected.

Per a desktop review, field visits conducted on July 10, 2017 by INDOT Crawfordsville District and August 05, 2020 by RQAW, and an aerial photograph of the project area (Appendix B, page B-3), the project area is not within an area with a public water system. No impacts are expected.

### Flood Plains

	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Longitudinal Encroachment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transverse Encroachment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Project located within a regulated floodplain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Homes located in floodplain within 1000' up/downstream from project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Discuss impacts according to classification system described in the "Procedural Manual for Preparing Environmental Studies".*

Remarks: Per review of the IDNR Indiana Floodway Information Portal website (<https://dnrmmaps.dnr.in.gov/appsphp/fdms/>) on August 13, 2020 by RQAW, the project area is not located within a regulatory floodplain as determined by approved IDNR floodplain maps. Additionally, the water resources map in the RFI report (Appendix E, page E-6), indicated that the project area is not located within a regulatory floodplain. Therefore, it does not fall within the guidelines for the implementation of 23 CFR 650, 23 CFR 771, and 44 CFR. No impacts are expected.

### Farmland

	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Agricultural Lands	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Prime Farmland (per NRCS)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Total Points (from Section VII of CPA-106/AD-1006\* 116

*\*If 160 or greater, see CE Manual for guidance.*

*See CE Manual for guidance to determine which NRCS form is appropriate for your project.*

Remarks: Per a desktop review, field visits conducted on July 10, 2017 by INDOT Crawfordsville District and August 05, 2020 by RQAW, and an aerial map of the project area (Appendix B, page B-3), the project will convert approximately 0.05 acre of farmland as defined by the Farmland Protection Policy Act.

Early coordination was sent to the Natural Resources Conservation Service (NRCS) on August 25, 2020 (Appendix C, pages C-1 to C-3). Coordination with the NRCS resulted in a score of 116 on the NRCS-CPA-106 Form (Appendix C, pages C-19 and C-20). The NRCS threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

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**SECTION C – CULTURAL RESOURCES**

	Category	Type	INDOT Approval Dates	N/A
Minor Projects PA Clearance	A	9	September 29, 2020	
	B	4	September 29, 2020	
	B	9	September 29, 2020	

Eligible and/or Listed  
Resource Present

**Results of Research**

Archaeology	<input type="checkbox"/>
NRHP Buildings/Site(s)	<input type="checkbox"/>
NRHP District(s)	<input type="checkbox"/>
NRHP Bridge(s)	<input type="checkbox"/>

**Project Effect**

No Historic Properties Affected  No Adverse Effect  Adverse Effect

Documentation  
Prepared

**Documentation** (mark all that apply)

		ES/FHWA Approval Date(s)	SHPO Approval Date(s)
Historic Properties Short Report	<input type="checkbox"/>		
Historic Property Report	<input type="checkbox"/>		
Archaeological Records Check/ Review	<input type="checkbox"/>		
Archaeological Phase Ia Survey Report	<input checked="" type="checkbox"/>	September 29, 2020	
Archaeological Phase Ic Survey Report	<input type="checkbox"/>		
Archaeological Phase II Investigation Report	<input type="checkbox"/>		
Archaeological Phase III Data Recovery	<input type="checkbox"/>		
APE, Eligibility and Effect Determination	<input type="checkbox"/>		
800.11 Documentation	<input type="checkbox"/>		

**MOA Signature Dates** (List all signatories)

Memorandum of Agreement (MOA)

*Describe all efforts to document cultural resources, including a detailed summary of the Section 106 process, using the categories outlined in the remarks box. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of paper(s) and the comment period deadline. Likewise include any further Section 106 work which must be completed at a later date, such as mitigation or deep trenching.*

Remarks: On September 29, 2020 the INDOT Cultural Resources Office (CRO) determined that this project falls within the guidelines of Category A, Type 9 and Category B, Types 4 and 9 under the Minor Projects Programmatic Agreement, (Appendix D, pages D-1 and D-4). Category A, Type 9 involves the installation, repair, or replacement of erosion control measures along roadways, waterways and bridge piers within previously disturbed soils. Category B, Type 4 involves the installation of new safety appurtenances such as guardrails, barriers, glare screens, and crash attenuators. Category B, Type 9 involves the installation, replacement, repair, lining, or extension of culverts and other drainage structure. Category B Type 4 and 9 both require that work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and

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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.

Archaeology: An *Indiana Archaeological Short Report* was completed by qualified professionals from Cultural Resource Analysts (CRA) (Martin, August 2020) (Appendix D, pages D-5 and D-6). The survey did not identify any archaeological sites and it was recommended the project be allowed to proceed.

No further consultation is required. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

**SECTION D – SECTION 4(f) RESOURCES/ SECTION 6(f) RESOURCES**

**Section 4(f) Involvement** (mark all that apply)

**Parks & Other Recreational Land**

- Publicly owned park
- Publicly owned recreation area
- Other (school, state/national forest, bikeway, etc.)

Presence


Use

Yes	No

Evaluations Prepared

- Programmatic Section 4(f)\*
- “De minimis” Impact\*
- Individual Section 4(f)


FHWA Approval date

--

**Wildlife & Waterfowl Refuges**

- National Wildlife Refuge
- National Natural Landmark
- State Wildlife Area
- State Nature Preserve

Presence


Use

Yes	No

Evaluations Prepared

- Programmatic Section 4(f)\*
- “De minimis” Impact\*
- Individual Section 4(f)


FHWA Approval date

--

**Historic Properties**

- Sites eligible and/or listed on the NRHP

Presence

--

Use

Yes	No

Evaluations Prepared

- Programmatic Section 4(f)\*
- “De minimis” Impact\*
- Individual Section 4(f)


FHWA Approval date

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\*FHWA approval of the environmental document also serves as approval of any Section 4f Programmatic and/or De minimis evaluation(s) discussed below.

Discuss Programmatic Section 4(f) and "de minimis" Section 4(f) impacts in the remarks box below. Individual Section 4(f) documentation must be separate Draft and Final documents. For further discussions on Programmatic, "de minimis" and Individual Section 4(f) evaluations please refer to the "Procedural Manual for the Preparation of Environmental Studies". Discuss proposed alternatives that satisfy the requirements of Section 4(f).

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

Per a desktop review, field visits conducted on July 10, 2017 by INDOT Crawfordsville District and August 05, 2020 by RQAW, an aerial photograph of the project area (Appendix B, page B-3), and the infrastructure map in the RFI report (Appendix E, page E-5), there are no potential Section 4(f) resources located within 0.5 mile of the project area. There are no Section 4(f) resources located within or adjacent to the project area. Therefore, no use is expected.

<b>Section 6(f) Involvement</b>	<u>Presence</u>	<u>Use</u>	
<b>Section 6(f) Property</b>	<input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Discuss proposed alternatives that satisfy the requirements of Section 6(f). Discuss any Section 6(f) involvement.

Remarks: 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.

Per review of the LWCF property list provided by the IDNR Division of Outdoor Recreation, dated July 2020, there are four LWCF properties within Fountain County (Appendix I, page I-1). None of these properties are located within or adjacent to the project area. Impacts are not expected. In addition, an early coordination letter was sent to the National Park Service on August 25, 2020 (Appendix C, pages C-1 to C-3). The National Park Service did not respond to the early coordination letter.

### SECTION E – Air Quality

**Air Quality**

<b>Conformity Status of the Project</b>	<b>Yes</b>	<b>No</b>
Is the project in an air quality non-attainment or maintenance area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If YES, then:		
Is the project in the most current MPO TIP?	<input type="checkbox"/>	<input type="checkbox"/>
Is the project exempt from conformity?	<input type="checkbox"/>	<input type="checkbox"/>
If the project is NOT exempt from conformity, then:		
Is the project in the Transportation Plan (TP)?	<input type="checkbox"/>	<input type="checkbox"/>
Is a hot spot analysis required (CO/PM)?	<input type="checkbox"/>	<input type="checkbox"/>

Level of MSAT Analysis required?  
 Level 1a  Level 1b  Level 2  Level 3  Level 4  Level 5

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Remarks: The FY 2020 to 2024 INDOT Statewide Transportation Improvement Program (STIP) is listed based on the lead Des. Number in the contract. The lead Des. Number for this contract is Des. Number 1601095. The FY 2020-2024 STIP includes Des. Number 1600886 by reference with Contract Number B-39957 (Appendix H, page H-1). The project area is not located within a Metropolitan Planning Organization (MPO); therefore, it is not listed in an MPO Transportation Improvement Program (TIP).

The project is in Fountain County which is currently in attainment for all criteria pollutants per the IDEM Office of Air Quality website ([https://www.in.gov/idem/airquality/files/nonattainment\\_areas\\_map.pdf](https://www.in.gov/idem/airquality/files/nonattainment_areas_map.pdf)), accessed on September 15, 2020 by RQAW. Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

The 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 F - NOISE**

**Noise** **Yes** **No**  
 Is a noise analysis required in accordance with FHWA regulations and INDOT's traffic noise policy?

	No	Yes/ Date
<b>ES Review of Noise Analysis</b>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks: The 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 G – COMMUNITY IMPACTS**

**Regional, Community & Neighborhood Factors**

	Yes	No
Will the proposed action comply with the local/regional development patterns for the area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will the proposed action result in substantial impacts to community cohesion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the proposed action result in substantial impacts to local tax base or property values?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will construction activities impact community events (festivals, fairs, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the community have an approved transition plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If No, are steps being made to advance the community's transition plan?	<input type="checkbox"/>	<input type="checkbox"/>
Does the project comply with the transition plan? (explain in the remarks box)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks: The project will comply with the local/regional development patterns for the area. The project is not anticipated to result in substantial impacts to community cohesion because it will not change access to properties within the area or divide existing communities. The proposed project is not expected to impact the surrounding community or cause economic impacts to the surrounding area. Therefore, the project will have minimal or no negative impacts to the community or local economy.

There is a residential property within the project area. Access to all properties will be maintained during construction. Per the Fairs and Festivals website ([www.fairsandfestivals.net](http://www.fairsandfestivals.net)), accessed on September 15, 2020 by RQAW, no fairs or festivals are currently scheduled within a 10-mile radius of zip code 47952 (project

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area). Any future fairs/festivals that may be planned are unlikely to be impacted by the project since fair or festival goers can utilize the detour route during construction.

Per the Fountain County, Indiana government website ([http://www.fountaincounty.net/files/Emergency\\_Management/ADA\\_Transition\\_2014.pdf](http://www.fountaincounty.net/files/Emergency_Management/ADA_Transition_2014.pdf)), accessed on September 18, 2020 by RQAW, Fountain County has an approved Americans with Disabilities Act (ADA) Transition Plan, dated March 2014. However, the project is not required to comply with the ADA Transition Plan because there are no ADA facilities (sidewalks and/or curb ramps) located within the project area and the project does not involve any sidewalk or curb ramp work.

**Indirect and Cumulative Impacts**

Will the proposed action result in substantial indirect or cumulative impacts?

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

Remarks:

Indirect impacts are effects caused by the action and are later in time, or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate. Cumulative impacts affect the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions.

Due to the scope of the project and limited impacts, it is not expected to result in any substantial indirect or cumulative impacts. The replacement of the structure will allow for continued travel for vehicles along SR 234 within the project area. Negative impacts to the surrounding community may include a temporary inconvenience to traveling motorists (including school buses and emergency services) during construction; however, no significant delays are anticipated, and all inconveniences will cease upon project completion.

**Public Facilities & Services**

Will the proposed action result in substantial impacts on health and educational facilities, public and private utilities, emergency services, religious institutions, airports, public transportation or pedestrian and bicycle facilities? *Discuss how the maintenance of traffic will affect public facilities and services.*

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

Remarks:

Per a desktop review, field visits conducted on July 10, 2017 by INDOT Crawfordsville District and August 05, 2020 by RQAW, an aerial photograph of the project area (Appendix B, page B-3), the infrastructure map in the RFI report (Appendix E, page E-5), and Google Maps, there are no public facilities located within 0.5 mile of the project area. Access to all properties will be maintained during construction. Impacts are not expected.

Early coordination letters were sent to the Fountain County Council, Fountain County Board of Commissioners, and Fountain County Highway Department on August 25, 2020 (Appendix C, pages C-1 to C-3). These organizations did not respond to the early coordination letter.

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 limits access.

**Environmental Justice (EJ)** (Presidential EO 12898)

During the development of the project were EJ issues identified?

Does the project require an EJ analysis?

If YES, then:

Are any EJ populations located within the project area?

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

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

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Remarks: Under FHWA Order 6640.23A, FHWA and INDOT, 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 approximately 0.56 acre of permanent right-of-way. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority populations and low-income populations relative to a reference population to determine if populations of EJ concern exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city, or town and is called the community of comparison (COC). In this project, the COC is Fountain County. The community that overlaps the project limits is called the affected community (AC). In this project, the AC is Census Tract 9580.

An AC has a population of concern for EJ if the population is more than 50% low-income or minority or if the low-income or minority population is 125% of the COC. American Community Survey 5-year estimates data (2014 through 2018) was obtained from the U.S. Census Bureau website (<https://data.census.gov/cedsci/>) on September 28, 2020 by RQAW. The data collected for low-income and minority populations within the AC are summarized in the table below.

Table: Low-income and Minority Data (American Community Survey, 2014 through 2018)		
	COC: Fountain County	AC 1 (Census Tract 9580)
Percent Low-income	11.8%	10.0%
125% of COC	14.7%	AC < 125% of COC
EJ Population of Concern		No
Percent Minority	4.6%	2.4%
125% of COC	5.7%	AC < 125% of COC
EJ Population of Concern		No

AC 1 has a percent low-income of 10.0% which is below 50% and below the 125% COC threshold (14.7%). Therefore, AC 1 does not contain low-income populations of EJ concern. AC 1 has a percent minority of 2.4% which is below 50% and is below the 125% COC threshold (5.7%). Therefore, AC 1 does not contain minority populations of EJ concern.

### Conclusion

The census data sheets, map, and calculations can be found in Appendix I, pages I-6 to 10. No further environmental justice analysis is warranted. Lastly, early coordination was sent to the U.S. Department of Housing and Urban Development (USHUD) on August 25, 2020 (Appendix C, pages C-1 to C-3). The USHUD did not respond to the early coordination letter.

### Relocation of People, Businesses or Farms

Will the proposed action result in the relocation of people, businesses or farms?

Is a Business Information Survey (BIS) required?

Is a Conceptual Stage Relocation Study (CSRS) required?

Has utility relocation coordination been initiated for this project?

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

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

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If a BIS or CSRS is required, discuss the results in the remarks box.

Remarks: No relocations of people, businesses, or farms will take place as a result of this project. Utility coordination has been initiated and is ongoing. A communications line (fiber optic cable) is located within the project area and may be impacted temporarily during construction.

### SECTION H – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

**Hazardous Materials & Regulated Substances** (Mark all that apply)

Red Flag Investigation		<input checked="" type="checkbox"/>
Phase I Environmental Site Assessment (Phase I ESA)		<input type="checkbox"/>
Phase II Environmental Site Assessment (Phase II ESA)		<input type="checkbox"/>
Design/Specifications for Remediation required?		<input type="checkbox"/>

Documentation

	No	Yes/ Date
<b>ES Review of Investigations</b>		November 30, 2017

Include a summary of findings for each investigation.

Remarks: Based on a review of GIS and available public records, a RFI was approved on November 30, 2017 by INDOT Site Assessment & Management (Appendix E, Pages E-1 to E-10). No sites with hazardous material concerns (hazmat sites) or sites involved with regulated substances were identified in or within 0.5 mile of the project area. An additional search of GIS and available public records conducted by RQAW on October 13, 2020 did not indicate any additional hazardous material concerns or sites in or within 0.5 mile of the project area. Further investigation for hazardous material concerns or regulated substances is not required at this time.

### SECTION I – PERMITS CHECKLIST

**Permits** (mark all that apply) Likely Required

**Army Corps of Engineers (404/Section10 Permit)**

Individual Permit (IP)		<input type="checkbox"/>
Nationwide Permit (NWP)		<input type="checkbox"/>
Regional General Permit (RGP)		<input checked="" type="checkbox"/>
Pre-Construction Notification (PCN)		<input type="checkbox"/>
Other		<input type="checkbox"/>
Wetland Mitigation required		<input type="checkbox"/>
Stream Mitigation required		<input type="checkbox"/>

**IDEM**

Section 401 WQC		<input checked="" type="checkbox"/>
Isolated Wetlands determination		<input type="checkbox"/>
Rule 5		<input type="checkbox"/>
Other		<input type="checkbox"/>
Wetland Mitigation required		<input type="checkbox"/>
Stream Mitigation required		<input type="checkbox"/>

**IDNR**

Construction in a Floodway		<input type="checkbox"/>
Navigable Waterway Permit		<input type="checkbox"/>
Lake Preservation Permit		<input type="checkbox"/>

This is page 20 of 23  
Project name:

SR 234 Small Structure Replacement Project Date: October 21, 2020



Indiana Department of Transportation

County Fountain Route SR 234 Des. No. 1600886

Other Mitigation Required US Coast Guard Section 9 Bridge Permit Others (Please discuss in the remarks box below)

Four empty rectangular boxes for input.

Remarks: A USACE Section 404 Regional General Permit and IDEM Section 401 Water Quality Certification will be required due to stream and wetland impacts. The project will impact approximately 90 linear feet (0.04 acre) of streams and 0.011 acre of wetlands. Because new stream impacts will not exceed the 300 linear feet and wetland impacts will not exceed 0.1 acre, stream and wetland mitigation will not be required. The project will result in approximately 0.86 acre of land disturbance within the construction limits; therefore, an IDEM Rule 5 Notice of Intent will not be required. Per the IDNR Division of Fish and Wildlife early coordination response letter, dated September 23, 2020, the project may require formal approval for construction in a floodway under the Flood Control Act, IC 14-28-1 if the project constructs, excavates, or fills in the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile. (Appendix C, pages C-16 to C-18). Because the UNT to Panther Creek has an upstream drainage area of approximately 0.129 square mile (Appendix F, page F-9), a Construction in a Floodway Permit will not be required. Applicable recommendations provided by the IDNR Division of Fish and Wildlife and the USFWS are included in the Environmental Commitments section of this CE document. If a permit is 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.

SECTION J- ENVIRONMENTAL COMMITMENTS

The following information should be provided below: List all commitments, name of agency/organization requesting the commitment(s) and indicating which are firm and which are for further consideration. The commitments should be numbered.

Remarks: Firm: 1. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division and the INDOT District Environmental Section will be contacted immediately. (INDOT Crawfordsville District Environmental Section) 2. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limits access. (INDOT Crawfordsville District Environmental Section) 3. Any work in a wetland area within right-of-way or in borrow/waste areas is prohibited unless specifically allowed in the U.S. Army Corps of Engineers permit. (INDOT Environmental Services Division) 4. USFWS Bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after August 5, 2022 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 this inspection, the INDOT District Environmental Manager must be contacted immediately. (INDOT Crawfordsville District Environmental Section)

## Indiana Department of Transportation

County Fountain Route SR 234 Des. No. 1600886

5. General AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)
6. Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)

**For Further Consideration:**

1. If box and pipe culverts are used, the culvert bottoms should be buried a minimum of 6 inches (or 20% of the culvert height or diameter, whichever is greater up to a maximum of 2 feet) 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; have a minimum openness ratio (height x width / length) of 0.25; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel. (IDNR Division of Fish and Wildlife)
2. The new/replacement/rehabilitated crossing structure, and any bank stabilization under or around the structure, must not create conditions that are less favorable for wildlife passage when compared to current conditions. (IDNR Division of Fish and Wildlife)
3. Riprap or other hard bank stabilization materials should be used only at the toe of the side slopes up to the ordinary high water mark with the exception of areas directly under bridges for instance. The banks above the ordinary high water mark should be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. For streambed stabilization or scour protection, riprap or other stabilization materials should not be placed in the active stream channel above the existing streambed or flowline elevation unless specifically designed and installed for grade control and aquatic organism passage. This is to prevent obstructions to the movement of aquatic organisms upstream and downstream. (IDNR Division of Fish and Wildlife)
4. Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in dbh, for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted (individual canopy tree removal in an urban streetscape or park-like environment versus removal of habitat supporting tree canopy, woody understory, and herbaceous layer). Impacts under 0.10 acre in an urban area may still involve the replacement of large diameter trees but typically do not require any additional mitigation or additional plantings beyond seeding and stabilizing disturbed areas. There are exceptions for high quality habitat sites, however. (IDNR Division of Fish and Wildlife)
5. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30. (IDNR Division of Fish and Wildlife)
6. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR Division of Fish and Wildlife)
7. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR Division of Fish and Wildlife)

## Indiana Department of Transportation

County Fountain Route SR 234 Des. No. 1600886

### SECTION K- EARLY COORDINATION

*Please list the date coordination was sent and all 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. INDOT and FHWA are automatically considered early coordination participants and should only be listed if a response is received.*

Remarks: Early coordination letters were sent to agencies on August 25, 2020 (Appendix C, pages C-1 to C-3). If a response was not received, it was assumed the agency did not feel the project would result in substantial impacts. Refer to the responding agency correspondences in Appendix C, pages C-4 to C-39. The following agencies/individuals were contacted during early coordination:

Agency	Date of Response(s)
1. INDOT Crawfordsville District	No response received
2. Federal Highway Administration	No response received
3. Indiana Geological Survey (standard electronic submission)	August 25, 2020
4. IDEM Groundwater Section (electronic query)	August 25, 2020
5. IDNR Division of Fish and Wildlife (electronic coordination)	September 23, 2020
6. IDEM (standard electronic submission)	August 25, 2020
7. INDOT Office of Public Involvement (electronic coordination)	No response received
8. U.S. Department of Housing and Urban Development (electronic coordination)	No response received
9. National Park Service, Midwest Regional Office	No response received
10. Natural Resources Conservation Service (electronic coordination)	September 14, 2020
11. U.S. Army Corps of Engineers, Louisville District (electronic coordination)	No response received
12. Fountain County Council	No response received
13. Fountain County Board of Commissioners	No response received
14. Fountain County Highway Department	No response received

# Designation (Des.) Number 1600886

## SR 234 Small Structure Replacement Project – Fountain County, Indiana

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### Appendix A: INDOT Supporting Documentation

Categorical Exclusion Level Thresholds .....	A-1
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### Appendix B: Graphics

General Location Map .....	B-1
Topographic Map .....	B-2
Project Area Photograph Key Map .....	B-4
Project Area Photographs .....	B-5
Design Plan Sheets .....	B-9

### Appendix C: Early Coordination

Example Early Coordination Letter ( <i>graphics omitted</i> ) .....	C-1
Indiana Department of Environmental Management (IDEM) Standard Roadway Construction Response Letter .....	C-4
Indiana Geological Survey Electronic Response .....	C-13
Indiana Department of Natural Resources (IDNR) Division of Fish and Wildlife Response Letter .....	C-16
Natural Resources Conservation Service (NRCS) Response Letter and NRCS-CPA-106 Form .....	C-19
U.S. Fish and Wildlife Service (USFWS) INDOT District Bat Database Check E-mail .....	C-21
Information for Planning and Consultation (IPaC) Species List Letter .....	C-22
INDOT District IPaC Coordination E-mail .....	C-28
IPaC Concurrence Verification Letter .....	C-29

### Appendix D: Section 106 of the National Historic Preservation Act (NHPA)

Minor Projects Programmatic Agreement Project Assessment Form .....	D-1
IDNR DHPA Indiana Archaeological Short Report .....	D-5

### Appendix E: Red Flag Investigation and Hazardous Materials

Red Flag Investigation ( <i>some graphics omitted</i> ) .....	E-1
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### Appendix F: Water Resources

Waters of the U.S. Determination Report ( <i>some graphics omitted</i> ) .....	F-1
Waters of the U.S. Determination Approval Email .....	F-22

### Appendix G: Public Involvement

Page Reserved for Publisher’s Affidavit and Legal Notice .....	G-1
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### Appendix H: Air Quality

Statewide Transportation Improvement Program ( <i>relevant pages only</i> ) .....	H-1
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### Appendix I: Other Information

National Park Service Land and Water Conservation Fund List .....	I-1
INDOT Culvert Inspection Report ( <i>relevant pages only</i> ) .....	I-2
Environmental Justice Analysis .....	I-6

**Categorical Exclusion**

**Appendix A**

**INDOT Supporting Documentation**

**Des. Number 1600886**  
**Categorical Exclusion Level Thresholds**

	PCE	Level 1	Level 2	Level 3	Level 4 <sup>1</sup>
<b>Section 106</b>	Falls within guidelines of Minor Projects PA	“No Historic Properties Affected”	“No Adverse Effect”	-	“Adverse Effect” Or Historic Bridge involvement <sup>2</sup>
<b>Stream Impacts</b>	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	Individual 404 Permit
<b>Wetland Impacts</b>	No adverse impacts to wetlands	< 0.1 acre	-	< 1 acre	≥ 1 acre
<b>Right-of-way<sup>3</sup></b>	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
<b>Relocations</b>	None	-	-	< 5	≥ 5
<b>Threatened/Endangered Species (Species Specific Programmatic for Indiana bat &amp; northern long eared bat)</b>	“No Effect”, “Not likely to Adversely Affect” (Without AMMs <sup>4</sup> or with AMMs required for all projects <sup>5</sup> )	“Not likely to Adversely Affect” (With any other AMMs)	-	“Likely to Adversely Affect”	Project does not fall under Species Specific Programmatic
<b>Threatened/Endangered Species (Any other species)</b>	Falls within guidelines of USFWS 2013 Interim Policy	“No Effect”, “Not likely to Adversely Affect”	-	-	“Likely to Adversely Affect”
<b>Environmental Justice</b>	No disproportionately high and adverse impacts	-	-	-	Potential <sup>6</sup>
<b>Sole Source Aquifer</b>	Detailed Assessment Not Required	-	-	-	Detailed Assessment
<b>Floodplain</b>	No Substantial Impacts	-	-	-	Substantial Impacts
<b>Coastal Zone Consistency</b>	Consistent	-	-	-	Not Consistent
<b>National Wild and Scenic River</b>	Not Present	-	-	-	Present
<b>New Alignment</b>	None	-	-	-	Any
<b>Section 4(f) Impacts</b>	None	-	-	-	Any
<b>Section 6(f) Impacts</b>	None	-	-	-	Any
<b>Added Through Lane</b>	None	-	-	-	Any
<b>Permanent Traffic Alteration</b>	None	-	-	-	Any
<b>Coast Guard Permit</b>	None	-	-	-	Any
<b>Noise Analysis Required</b>	No	-	-	-	Yes
<b>Air Quality Analysis Required</b>	No	-	-	-	Yes <sup>7</sup>
<b>Approval Level</b>  <ul style="list-style-type: none"> <li>• District Env. Supervisor</li> <li>• Env. Services Division</li> <li>• FHWA</li> </ul>	Concurrence by INDOT District Environmental or Environmental Services	Yes	Yes	Yes Yes	Yes Yes Yes

<sup>1</sup>Coordinate with INDOT Environmental Services. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.

<sup>2</sup>Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.

<sup>3</sup>Permanent and/or temporary right-of-way.

<sup>4</sup>AMMs = Avoidance and Mitigation Measures.

<sup>5</sup>AMMs determined by the IPAC decision key to be needed that are listed in the USFWS *User’s Guide for the Range-wide Programmatic Consultation for Indiana bat and Northern long-eared bat* as “required for all projects”.

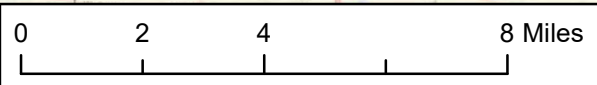
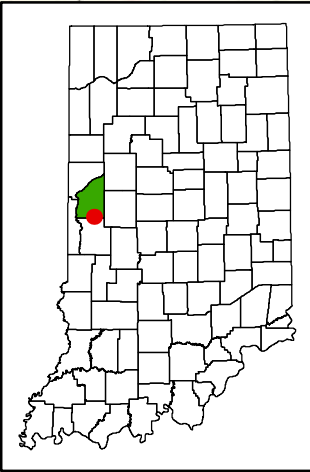
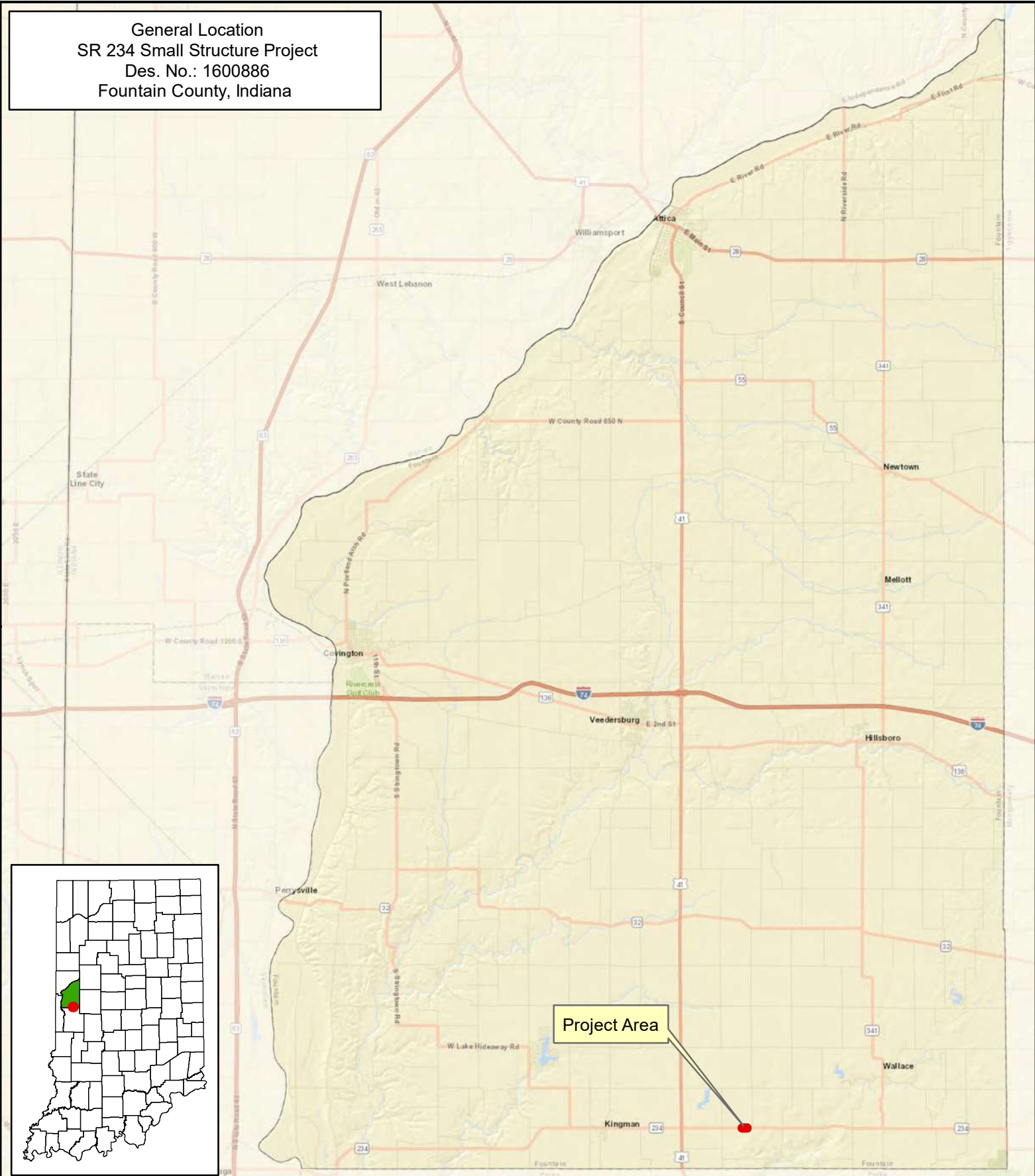
<sup>6</sup>Potential for causing a disproportionately high and adverse impact.

<sup>7</sup>Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

\*Substantial public or agency controversy may require a higher-level NEPA document.

**Categorical Exclusion**  
**Appendix B**  
**Graphics**

General Location  
 SR 234 Small Structure Project  
 Des. No.: 1600886  
 Fountain County, Indiana



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

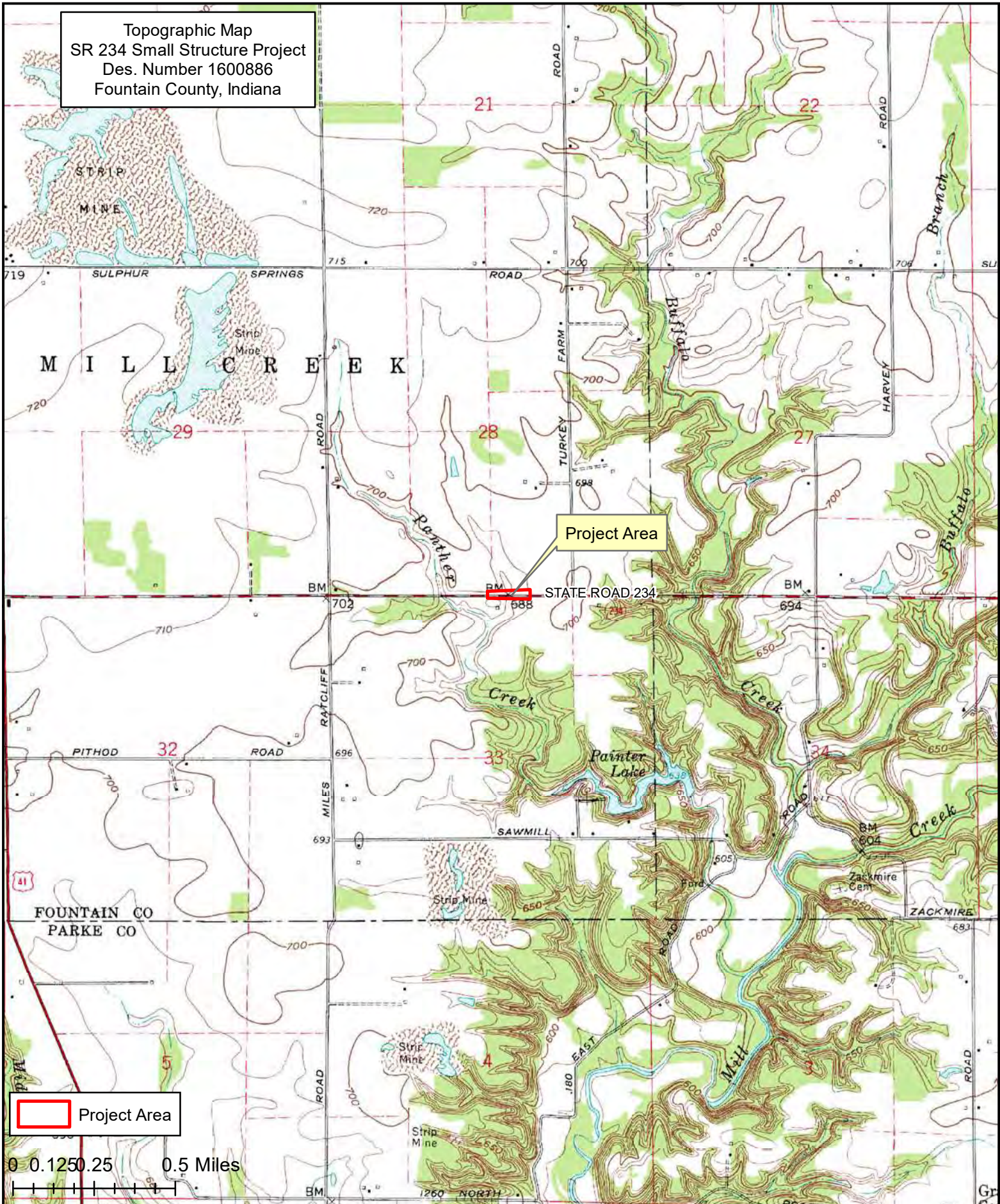
Map Datum: NAD 83  
 Map Projection: UTM Zone 16 North



**RQAW**  
 ENVIRONMENTAL  
 8770 North Street; Suite 110  
 Fishers, IN 46038



Topographic Map  
 SR 234 Small Structure Project  
 Des. Number 1600886  
 Fountain County, Indiana



 Project Area

0 0.125 0.25 0.5 Miles



8770 North Street, Suite 110  
 Fishers, IN 46038

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Map Datum: NAD 83  
 Map Projection: UTM Zone 16 North





Photograph Location Map  
 SR 234 Small Structure Project  
 Des. Number 1600886  
 Fountain County, Indiana

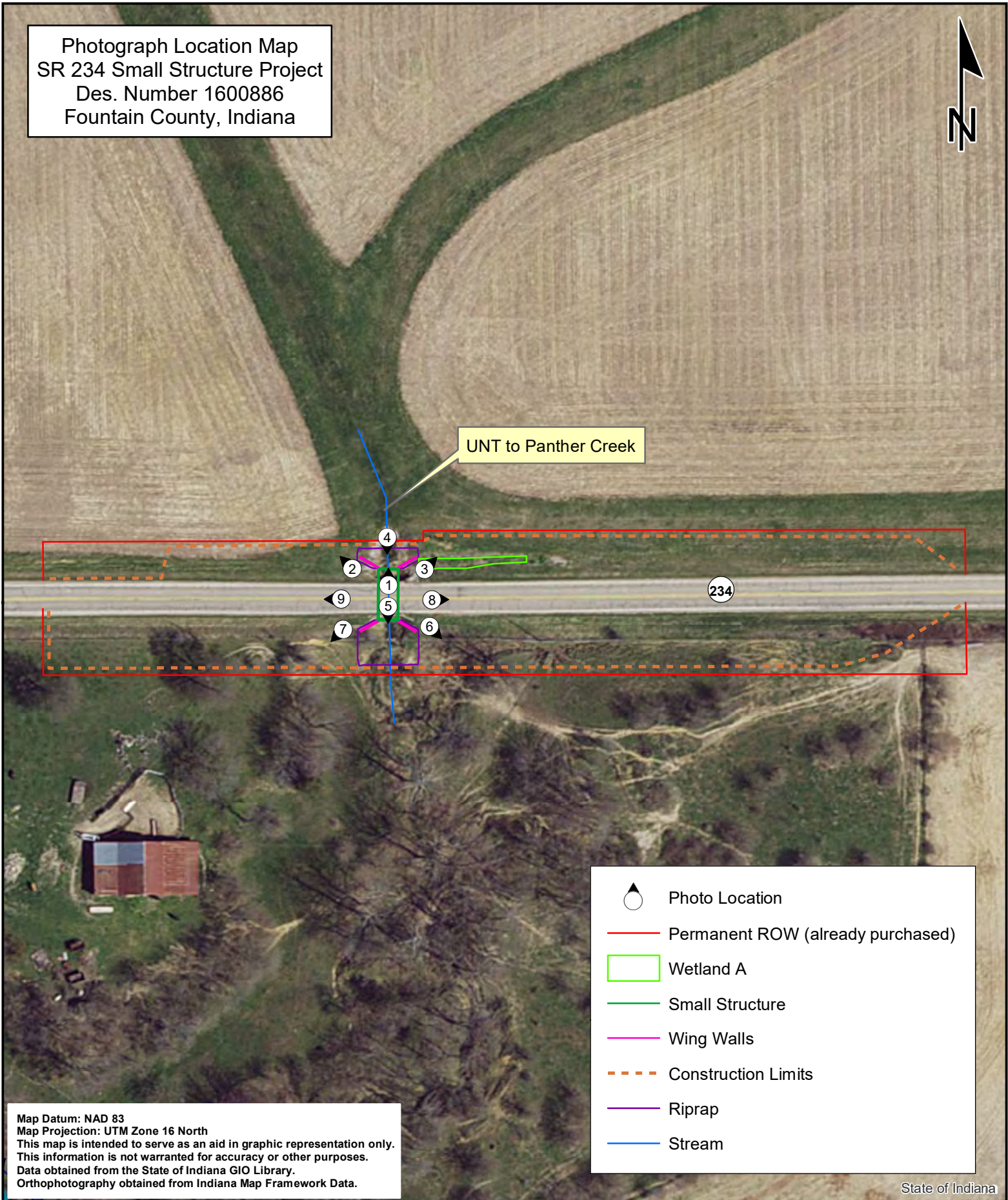


	Photo Location
	Permanent ROW (already purchased)
	Wetland A
	Small Structure
	Wing Walls
	Construction Limits
	Riprap
	Stream

Map Datum: NAD 83  
 Map Projection: UTM Zone 16 North  
 This map is intended to serve as an aid in graphic representation only.  
 This information is not warranted for accuracy or other purposes.  
 Data obtained from the State of Indiana GIO Library.  
 Orthophotography obtained from Indiana Map Framework Data.

State of Indiana

	<h2>Photo Location Map</h2>	Location: SR 234 Township: Mill Creek County: Fountain



1. Looking north from the structure at the UNT to Panther Creek and agricultural field



2. Looking northwest from the structure at vegetation





3. Looking northeast from the structure at adjacent agricultural land



4. Looking south towards the structure and the UNT to Panther Creek



5. Looking south from the structure at the UNT to Panther Creek and adjacent property



6. Looking southeast from the structure at adjacent vegetation



7. Looking southwest from the structure at adjacent vegetation



8. Looking east at roadside vegetation along SR 234 from the structure



9. Looking west at roadside vegetation along SR 234 from the structure

PROJECT	DESIGNATION
1600886	1600886
CONTRACT	CULVERT ASSET I.D.
B-39957	CV 234-023-018.14

# INDIANA DEPARTMENT OF TRANSPORTATION



STRUCTURE INFORMATION				
CULVERT ASSET I.D.	TYPE	SPAN AND SKEW	OVER	STATION
CV 234-023-018.14	Precast Concrete Box Culvert	Span: 13.8' Rise: 7'-0" Skew: 3°	UNT Panther Creek	34+38 1.00 "18+14"

TRAFFIC DATA	
A.A.D.T. (2020)	447 J.P.D.
A.A.D.T. (2040)	516 J.P.D.
D.H.V. (2040)	53 J.P.H.
DIRECTIONAL DISTRIBUTION	50.8 %
TRUCKS	18.7 % A.A.D.T. 10.20 % J.P.V.

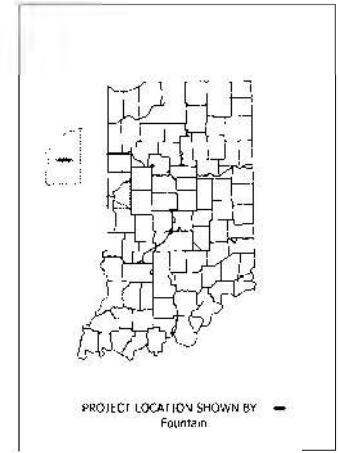
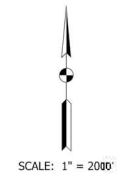
DESIGN DATA	
DESIGN SPEED	35 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	MAJOR COLLECTOR
RURAL/URBAN	RURAL
TERMINI	LEVEL
ACCESS CONTROL	NONE

KIN DES. NUMBERS - B-39957				
Block Structure No. or Culvert Asset I.D.	Design No.	Work Type	Str. #	Lead Proj.
(135)34-23-10237	1601095	Bridge Replacement	01	Lead
CV 234 023 018.14	1601586	Small Structure Replacement	10	
CV 247 023 161 35	1629237	Small Structure Replacement	01	

ROUTE: SR 234 AT: 18+14  
 PROJECT NO. 1600886 P.E.  
 1600886 R/W  
 1600886 CONST.

Small Structure Replacement on SR 234 over UNT Panther Creek  
 Located 1.56 Miles East of US 41  
 Section 28 & 33, T-18-N, R-7-W, Mill Creek Township, Fountain County, Indiana

Small Structure Replacement:  
 File No. CV 234-023-018.14



PROJECT LOCATION SHOWN BY	—
Fountain	
LATITUDE: 20°59'2"      LONGITUDE: 107°01'44"	
GROSS LENGTH:	0.09 MI
NET LENGTH:	0.09 MI
MAX. GRADE:	2.02% %

STAGE 3 PLAN  
 4/20/2020

INDIANA DEPARTMENT OF TRANSPORTATION  
 STANDARD SPECIFICATIONS DATED 2020  
 TO BE USED WITH THESE PLANS

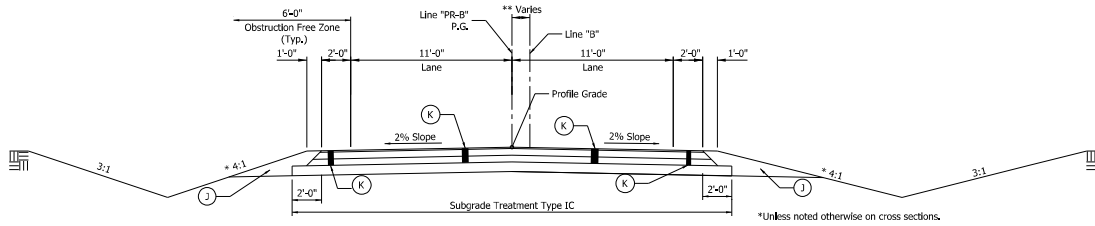
PLANS PREPARED BY:	David Riyad	(317)2320682
		PHONE NUMBER
CERTIFIED BY:		DATE
APPROVED FOR LETTING:		DATE
INDIANA DEPARTMENT OF TRANSPORTATION		

CULVERT ASSET I.D.	
CV 234-023-018.14	
DESIGNATION	
1600886	
SURVEY BOOK	SHEETS
ELECTRONIC	1 OF 20
CONTRACT	PROJECT
B-39957	1600886

PAC: 4/20/2020 4:55 PM

File: p:\idot\indot\in\p\007\w\Documents\Crawford\1600886\design\PS\New MS 1-23-19\SR Title.dgn  
 Model: B1 Title Sheet Refab





**TYPICAL FULL DEPTH SECTION - LINE "PR-B"**

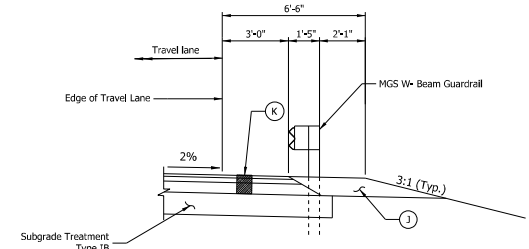
Sta. 48+45 Line "B" to Sta. 53+20 Line "PR-B"  
SCALE : 1/4" = 1'-0"

\*Unless noted otherwise on cross sections.

**Note:**

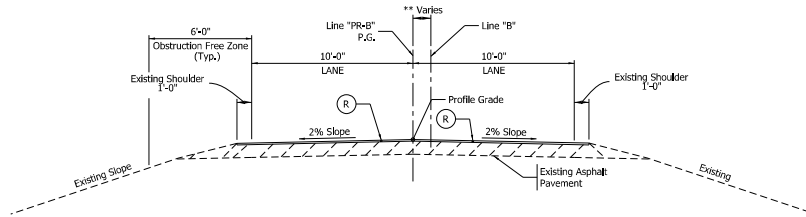
Typical section shows shoulders without guardrail. For shoulder sections with guardrail see Typical Guardrail Detail with station ranges.

- \*\* 5 1/2' Sta. 47+00 to 48+45
- \*\* Varies from 5 1/2' to 13' Sta. 48+45 to Sta. 50+00
- \*\* Varies from 1 1/2' to 0'0" Sta. 50+00 to Sta. 50+69.59
- \*\* Varies from 0'0" to 1'-2" Sta. 50+69.59 to Sta. 53+20
- \*\* Varies from 1'-2" to 3'-2" Sta. 53+20 to Sta. 55+00



**TYPICAL GUARDRAIL SECTION - LINE "PR-B"**

Not To Scale  
Sta. 48+53.12 to Sta. 50+71.87 Rt.  
Sta. 49+28.12 to Sta. 51+46.87 Lt.

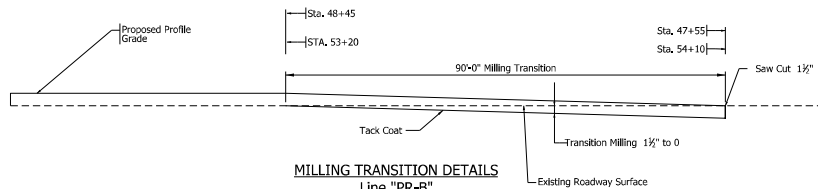


**TYPICAL INCIDENTAL SECTION**

Sta. 47+55 Line "PR-B" to Sta. 48+45 Line "PR-B"  
Sta. 53+20 Line "PR-B" to Sta. 54+10 Line "PR-B"  
SCALE : 1/4" = 1'-0"

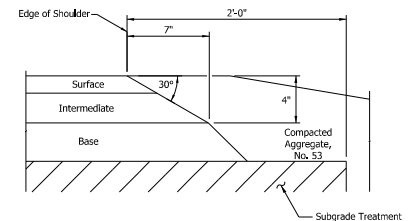
**LEGEND**

- (K) 165 lb/yd<sup>2</sup> QC/QA-HMA, 3,64 Surface, 9,5mm on 275 lb/yd<sup>2</sup> QC/QA-HMA, 2,64 Intermediate, 19mm on 660 lb/yd<sup>2</sup> QC/QA-HMA, 2,64, Base, 19mm on Subgrade Treatment - Type IC (1.0 inches of subgrade excavated and replaced with Compacted Aggregate, No. 53)
- (R) 165 lb/yd<sup>2</sup> QC/QA-HMA, 3, 64, Surface, 9,5 mm on Mill existing asphalt up to 1.5 inches
- (J) Variable Depth Compacted Aggregate, No. 53



**MILLING TRANSITION DETAILS**

Line "PR-B"  
SCALE : 1/4" = 1'-0"



**SAFETY EDGE ON HMA PAVEMENT**

Not To Scale  
(Not required in front of guardrail)

DATE	REVISION

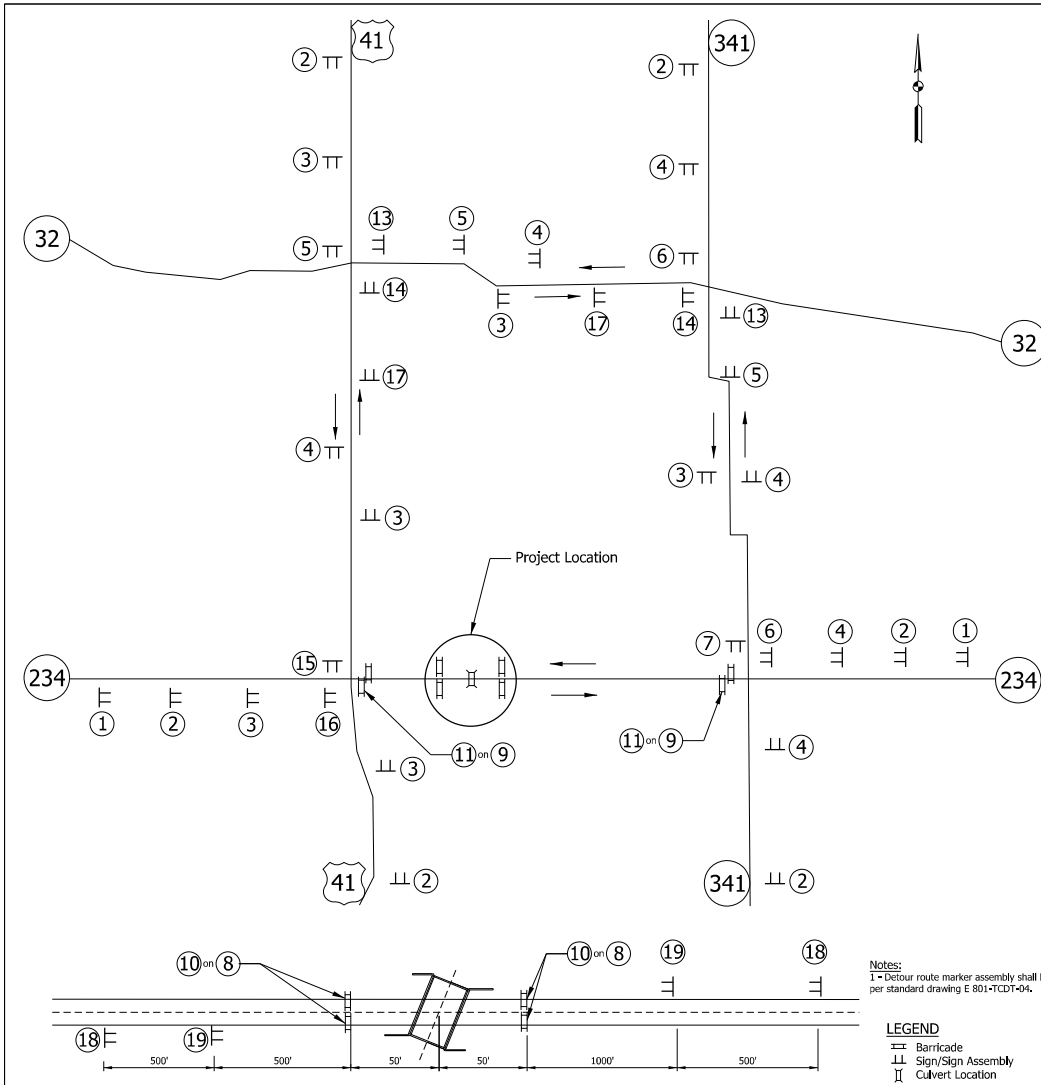
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED BY: MTC	8/2018	DRAWN BY: TLA
CHECKED BY: MH	8/2018	CHECKED BY: MTC

INDIANA  
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS  
LINE "PR-A"

SCALE	CULVERT ASSET I.D.
4"=140'	CV 23402-240&LH
	DESIGNATION
	1600886
SURVEY BOOK	SHEETS
ELECTRONIC	3 of 20
CONTRACT	PROJECT
8-39957	1600886

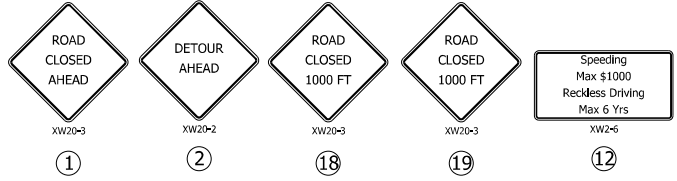
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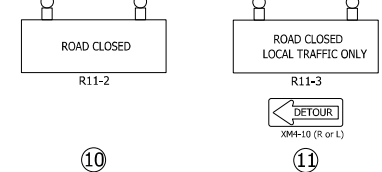
Notes:  
 1 - Detour route marker assembly shall be placed per standard drawing E 801-TCDT-04.

LEGEND  
 ≡ Barricade  
 ≡≡ Sign/Sign Assembly  
 ≡≡≡ Culvert Location

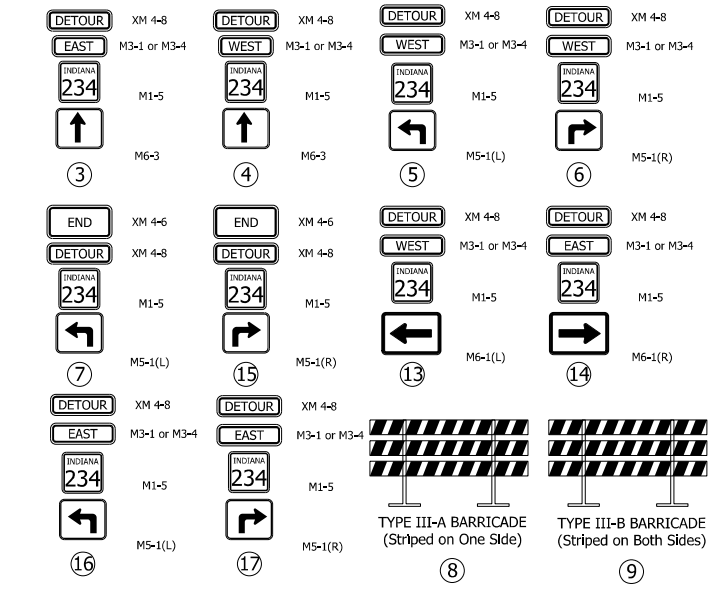
**CONSTRUCTION SIGNS TYPE "A"**



**ROAD CLOSURE SIGN ASSEMBLIES**



**DETOUR ROUTE MARKER ASSEMBLIES**



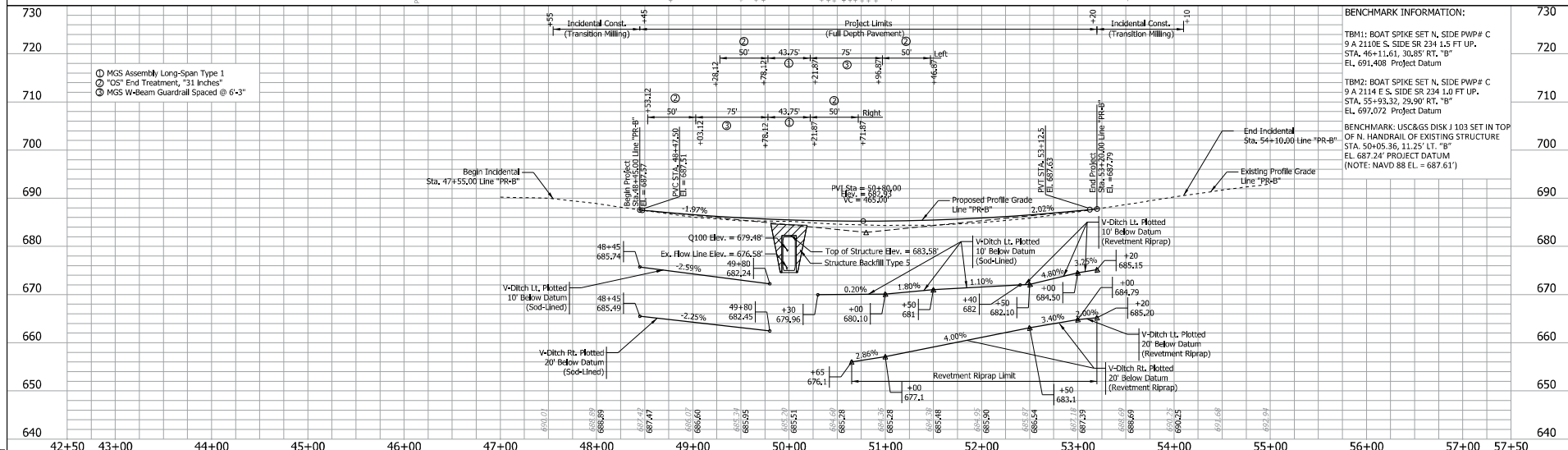
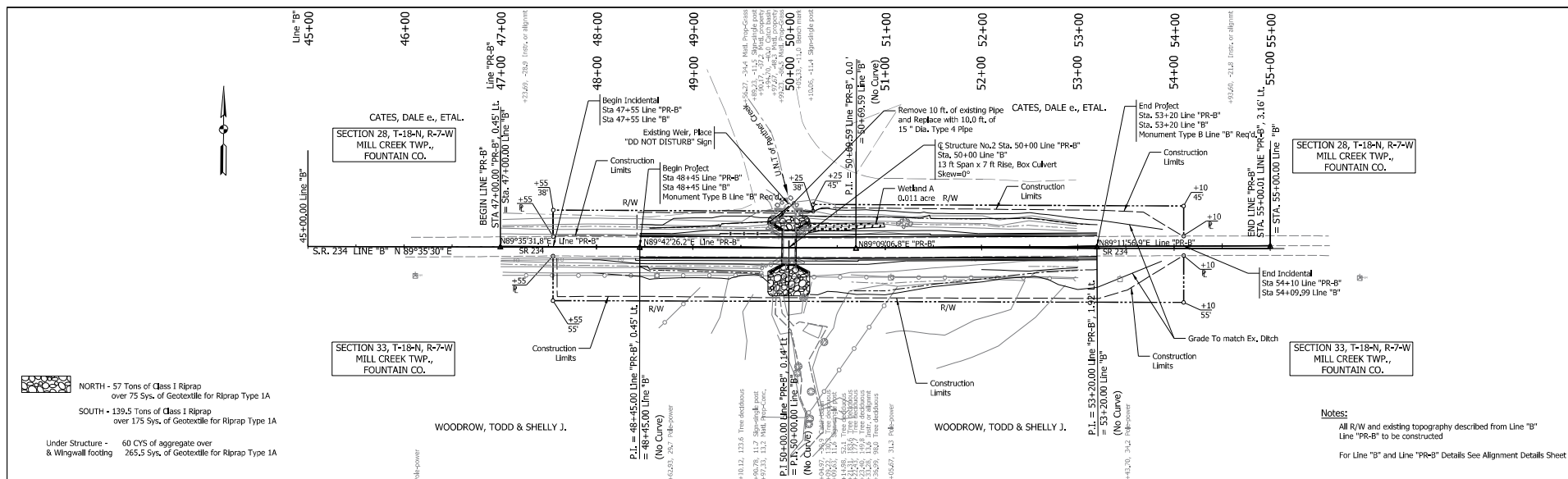
DATE	REVISION

RECOMMENDED FOR APPROVAL:	DESIGN ENGINEER:	DATE:
DESIGNED: MH	7/2018	DRAWN: TLA
CHECKED: MTC	7/2018	CHECKED: MTC

INDIANA DEPARTMENT OF TRANSPORTATION	
DETOUR PLAN	

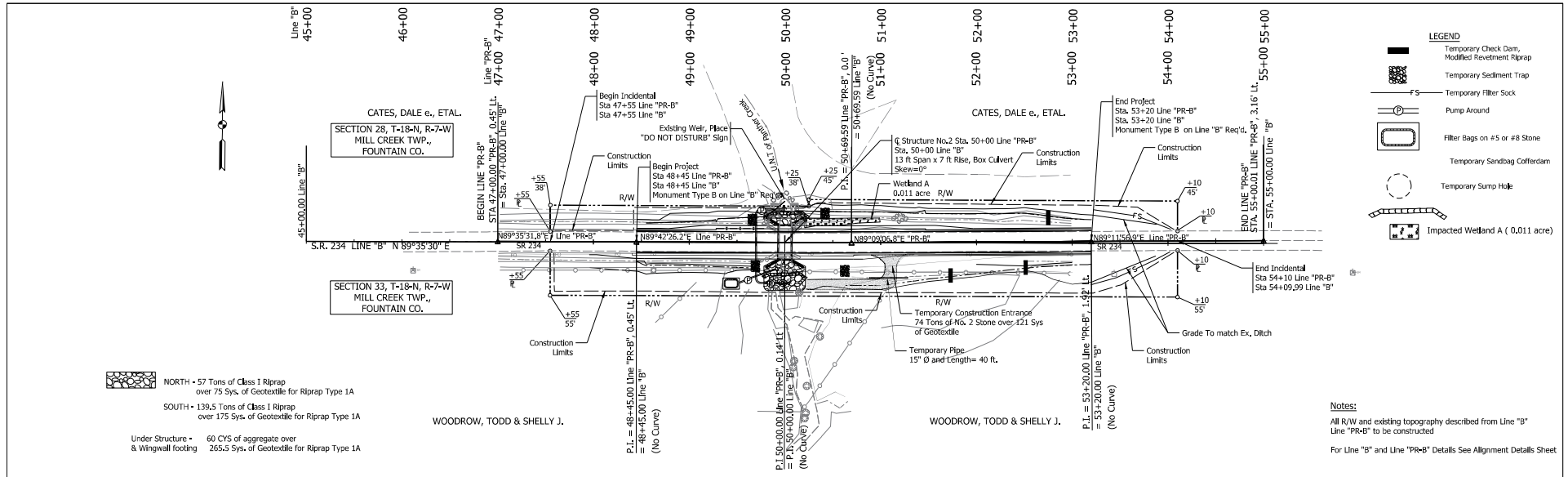
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None	CV 234(02)4(0)&LH
DESIGNATION	1600886
SURVEY BOOK	SHEETS
ELECTRONIC	4 of 20
CONTRACT	PROJECT
#39957	1600886

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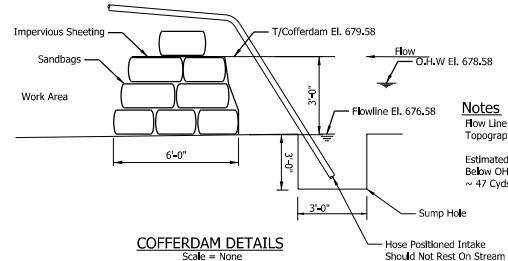
RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER DATE: _____ DESIGNED: DR 9/2018 DRAWN: DR 9/2018 CHECKED: MH 9/2018 CHECKED: MH 9/2018		INDIANA DEPARTMENT OF TRANSPORTATION SCALE: _____ BRIDGE FILE: _____ HORIZONTAL: 1"=50' CV 234(2)-R1&L14 VERTICAL: 1"=10' DESIGNATION: _____ 1600886 SHEETS: _____ ELECTRONIC: 6 of 20 CONTRACT: _____ PROJECT: _____ #39957 1600886	
PLAN AND PROFILE LINE "PR-B"			

FILE: 4/20/2020 - 4:58 PM  
 REBAR W/ CAP (INDOT) SET STA. 47+22.89 TO 54+11.15  
 FILE: W:\05\1600886\DOT\WIP\Documents\Crawford\1600886\Design\Roads\New Road\1600886\_S0\_1.dwg  
 Model: Default



- LEGEND**
- Temporary Check Dam, Modified Revetment Riprap
  - Temporary Sediment Trap
  - Temporary Filter Sock
  - Pump Around
  - Filter Bags on #5 or #8 Stone
  - Temporary Sandbag Cofferdam
  - Temporary Sump Hole
  - Impacted Wetland A (0.011 acre)

**Notes:**  
 All R/W and existing topography described from Line "B" Line "PR-B" to be constructed  
 For Line "B" and Line "PR-B" Details See Alignment Details Sheet



**Notes**  
 Flow Line Elevation is taken from Topographic Survey.  
 Estimated Quantity For Temporary Sand Bags Below OHW (For Temporary Cofferdam) is ~ 47 Cuds (0.015 acres)

**COFFERDAM DETAILS**  
 Scale = None

**Notes:**  
 For Temporary Sediment Traps & Check Dams See Std Dwg E-205-TECD-01, 02, & 03  
 Once three-sided culvert and wingwalls are installed, Cofferdams and pump around should be removed, site should be restored by permanent erosion control measures. Mulched Seeding R should be placed.  
 The expected time for temporary erosion control measure to stay in place is approximately 90 days

TEMPORARY EROSION CONTROL QUANTITIES		
ITEM	QUANTITY	UNIT
Pump Around	1	IS
* Mobilization and Demobilization for Surface Stabilization	2	Each
* Sediment, Remove	1	Cys
* Temporary Sediment Trap	190	Ton
* Fertilizer	1	Ton
* Temporary Check Dam, Revetment Riprap	22.5	Ton
* Temporary Geotextile	755	Sys
* No.2 Stone	74	Ton
* Temporary Pipe	40	Lft
* Temporary Filter Stone (#5 or #8)	8.5	Ton
* Temporary Filter Sock	180	Lft
* Temporary Mulch Stabilization, Type A	4,560	Sys
* Cofferdam (Sand Bag)	100	LFT
* Temporary Seed Mixture	141	Lbs
* For information only not a pay item.		

PERMANENT EROSION CONTROL QUANTITIES		
ITEM	QUANTITY	UNIT
Riprap Class I	196	Ton
Geotextile For Riprap Type 2A	1081	Syd
Riprap Revetment	354	Ton
Soiling	326	Sys
Mulched Seeding R	3040	Sys
Erosion Control Blanket	3040	Sys
Mobilization and demobilization for Seeding	2	Each

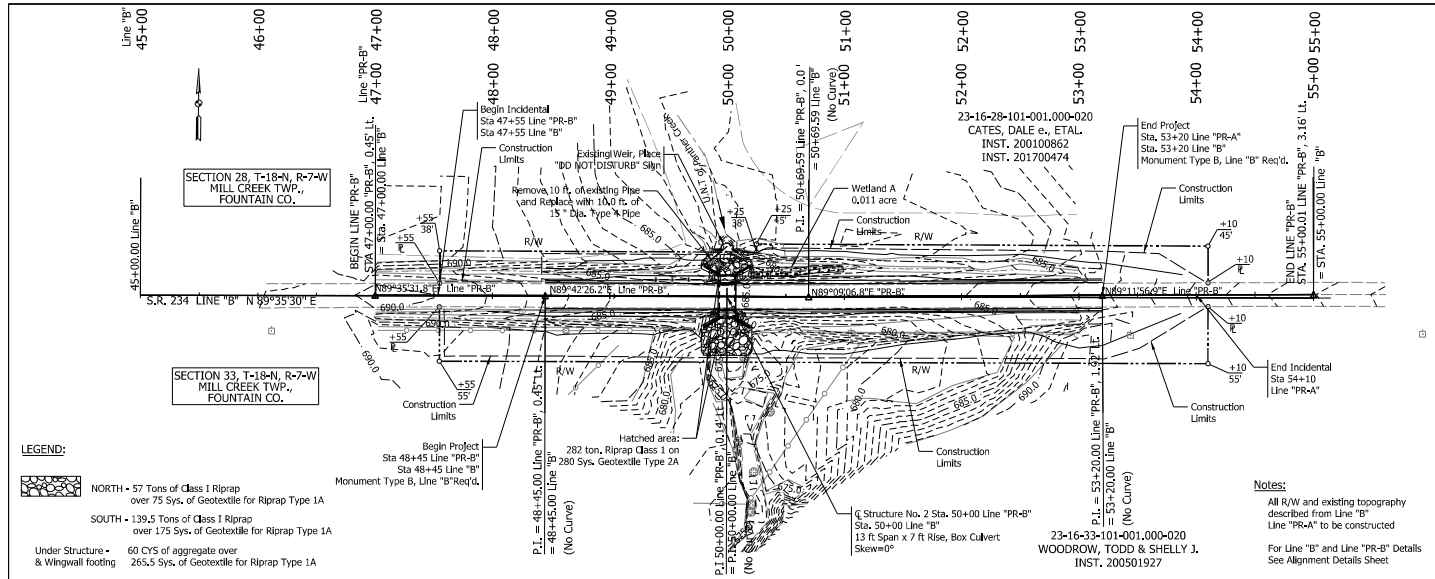
FILE: 4/20/2020 4:53 PM

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RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MTC	4/20/20	DRAWN: MTC 4/20/20
CHECKED: MH	4/20/20	CHECKED: MH 4/20/20

INDIANA  
 DEPARTMENT OF TRANSPORTATION  
 TEMPORARY EROSION CONTROL  
 DETAIL SHEET

SCALE	BRIDGE FILE
HORIZONTAL 1"=50'	CV 234(02)40&LH
	DESIGNATION
	1600886
	SHEETS
ELECTRONIC	7 of 20
CONTRACT	PROJECT
8-39957	1600886



**PRESENT STRUCTURE**

The existing structure consists of a concrete culvert 12.7' Span by 6.8' Rise. The total length of the structure is approximately 24.0', the structure is covered by 12" of HMA Pavement, The Structure is not skewed (Str. to be removed).

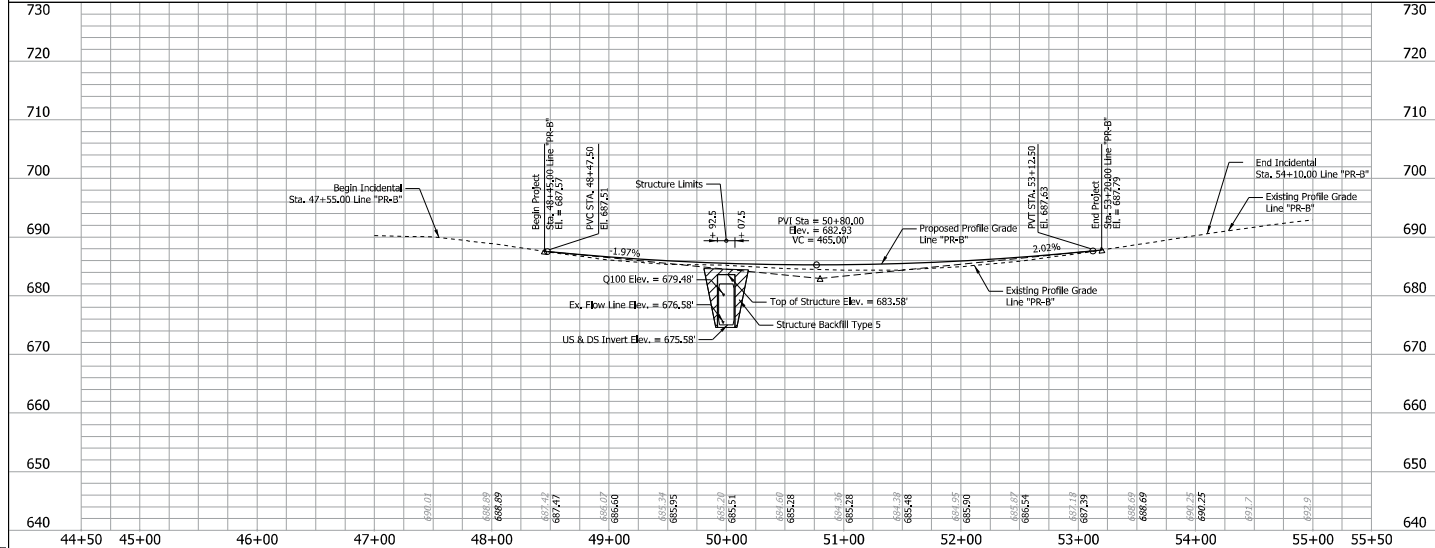
**HYDRAULIC DATA**

Waterway Opening Required	37.7 Sq. ft.
Waterway Opening Provided	37.7 Sq. ft.
Drainage Area	0.35 Sq. mi.
Design Discharge, Q100	249 Cfs.
Velocity	6.6 Fps.
Q100 Elev.	679.48 ft.
Backwater at Q100	0.87 ft.
Existing Waterway Opening	36.5 Sq. ft.
Existing Backwater	0.96 ft.
Upper Limit of Wet Exc. Elev.	677.58 ft.

**EARTHWORK TABULATION**

Fill + 20%	812 Cys.
Common Excavation	684 Cys.
Usable Waterway Excavation (70%)	0.0 Cys.
Surplus Foundation Excavation	0.0 Cys.
Borrow	128 Cys.
Benching (Estimated)	231 Cys.

Precast Coated Reinforced Concrete Box Culvert  
13 ft Spa n x 7 ft Rise, 0° Skew Over  
Unnamed Tributary of Panther Creek  
On SR 234 in Fountain County, Indiana



DATE	REVISION

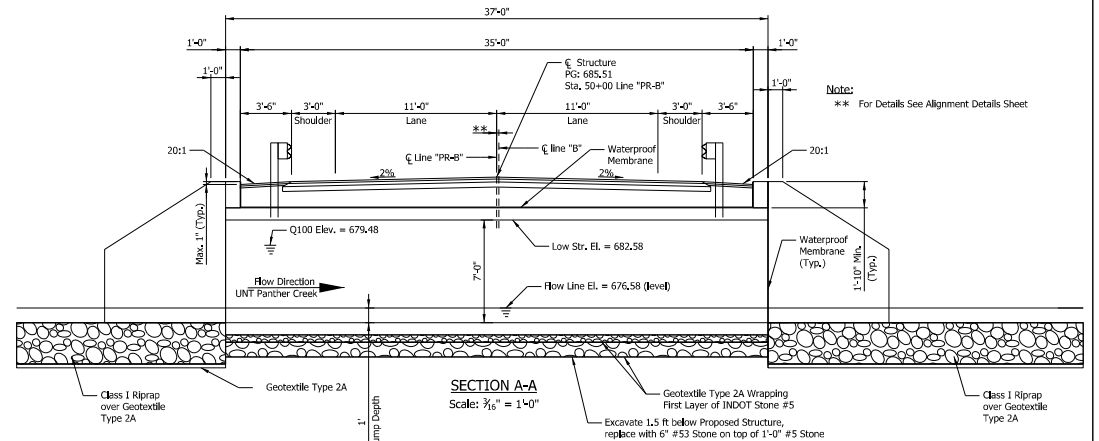
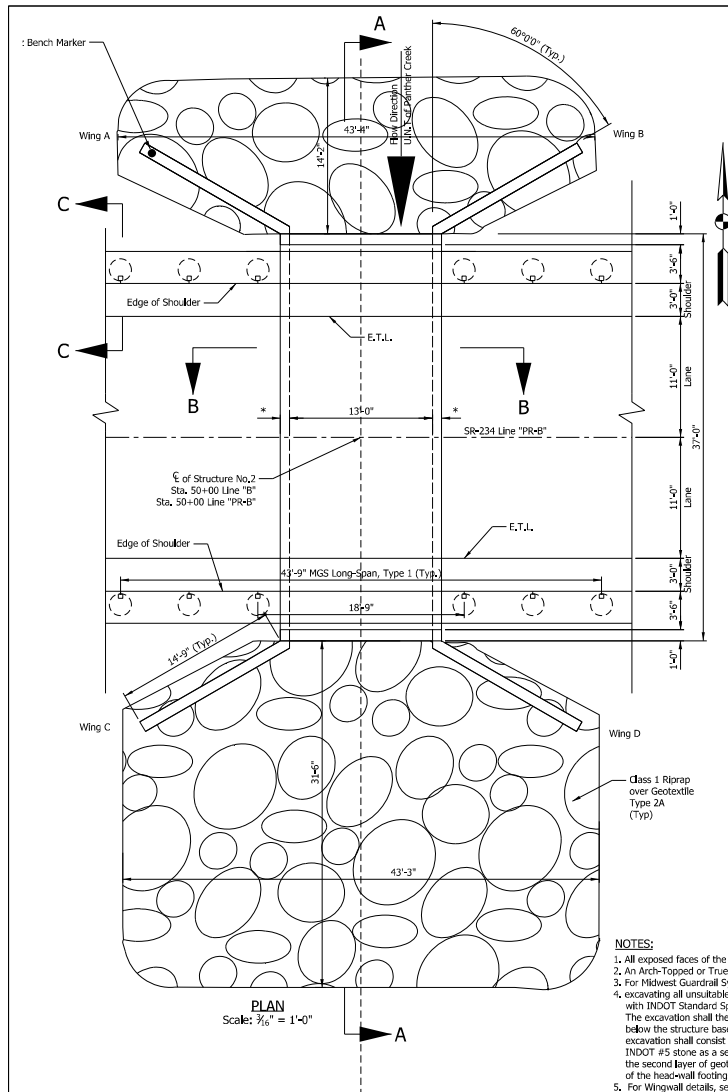
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: DR	9/2018	DRAWN: DR
CHECKED: MH	9/2018	CHECKED: MH

INDIANA  
DEPARTMENT OF TRANSPORTATION

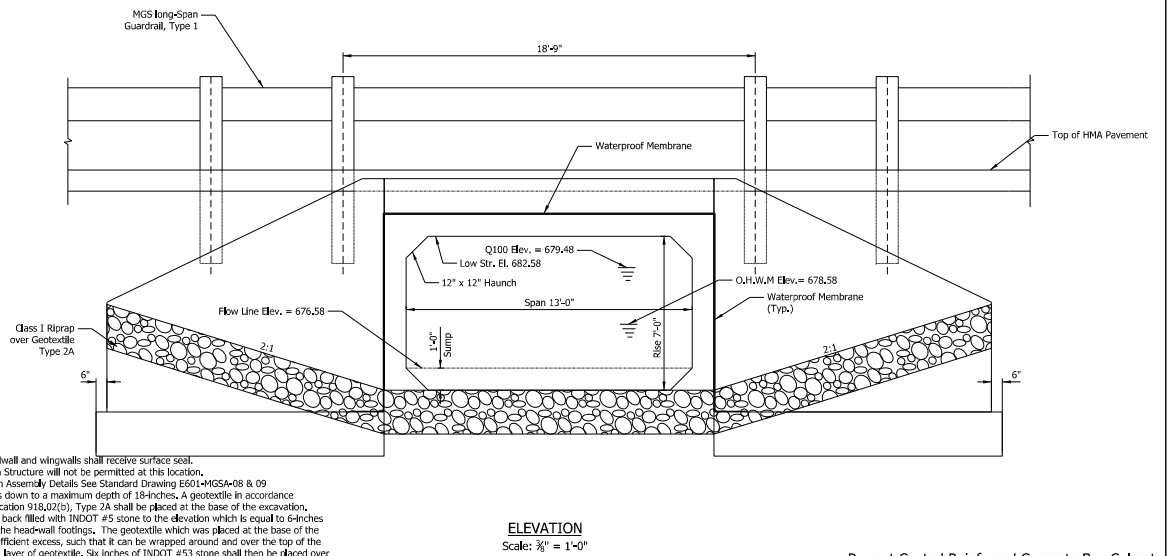
LAYOUT  
LINE "PR-A"

SCALE	BRIDGE FILE
HORIZONTAL 1"=50'	CV 234(02)40&LH
VERTICAL 1"=10'	DESIGNATION
	160886
ELECTRONIC	SHEETS
CONTRACT	9 of 20
#39957	PROJECT
	160886

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Model: Default



\* NOTE:  
Dimensions To Be Determined by Culvert Manufacturer



- NOTES:**
- All exposed faces of the headwall and wingwalls shall receive surface seal.
  - An Arch-Topped or True Arch Structure will not be permitted at this location.
  - For Midwest Guardrail System Assembly Details See Standard Drawing E601-MGSA-08 & 09
  - excavating all unsuitable soils down to a maximum depth of 18-inches. A geotextile in accordance with INDOT Standard Specification 918.02(2), Type 2A shall be placed at the base of the excavation. The excavation shall then be back filled with INDOT #53 stone to the elevation which is equal to 6-inches below the structure base or the head-wall footings. The geotextile which was placed at the base of the excavation shall consist of sufficient excess, such that it can be wrapped around and over the top of the INDOT #53 stone as a second layer of geotextile. Six inches of INDOT #53 stone shall then be placed over the second layer of geotextile, to the elevation of the bottom of the structure and the bottom of the head-wall footings.
  - For Wingwall details, see General Plan, Sheet No. 2.
  - Contractor shall verify the existing flow line elevation to set the appropriate sump depth.
  - Box Structure should be sealed with Non-Epoxy PCC sealer
  - Prior to installing a Type 2 membrane a prime coat recommended by the waterproofing membrane manufacturer shall be applied to all exterior surfaces

Precast Coated Reinforced Concrete Box Culvert  
13 ft Span x 7 ft Rise, 0° Skew Over  
Unnamed Tributary of Panther Creek  
On SR 234 in Fountain County, Indiana

DATE	REVISION

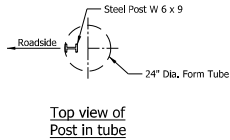
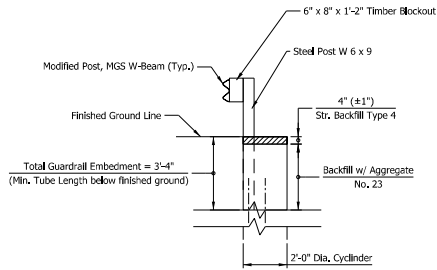
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DESIGNED: MTC	7/2018	DRAWN: TLA
		7/2018
CHECKED: MH	7/2018	CHECKED: MTC
		7/2018

INDIANA  
DEPARTMENT OF TRANSPORTATION

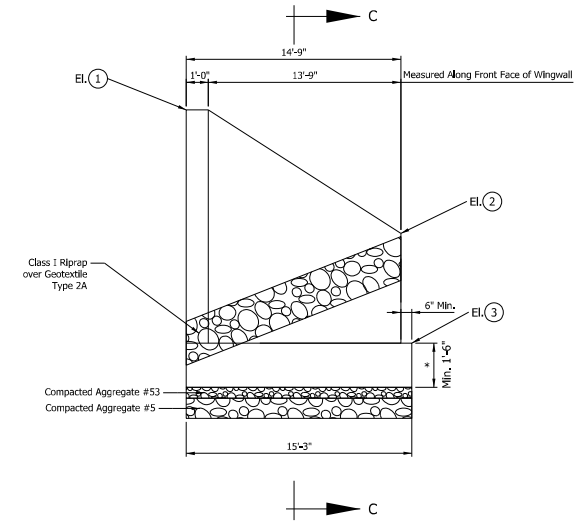
GENERAL PLAN  
SHEET NO. 01

SCALE	CULVERT ASSET ID.
AS NOTED	CV 234R234R14
	DESIGNATION
	1600886
SURVEY BOOK	SHEETS
ELECTRONIC	10 of 20
CONTRACT	PROJECT
#39957	1600886

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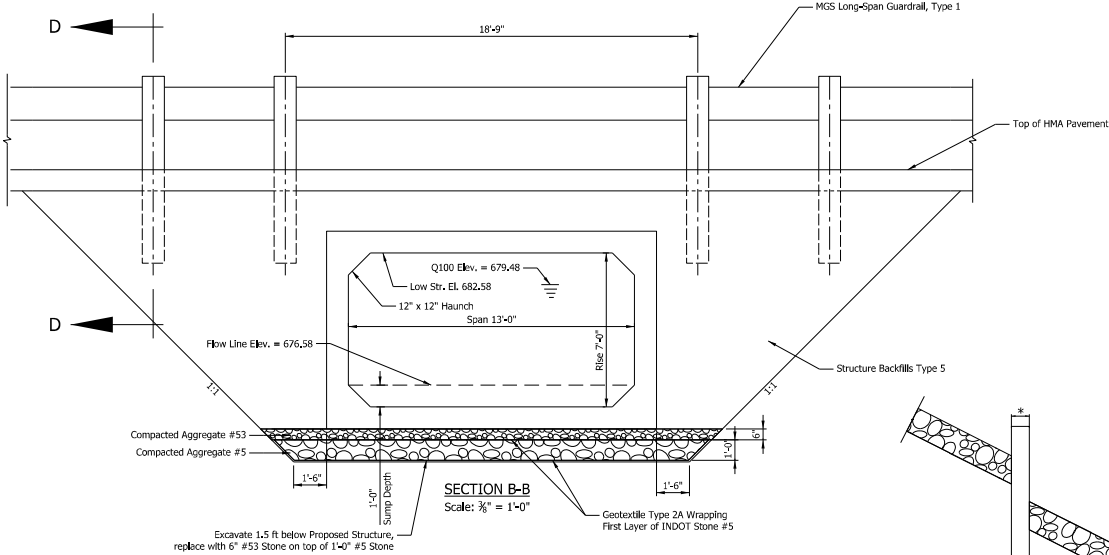
**WINGWALL SECTION D-D**  
Scale: 1"=5'



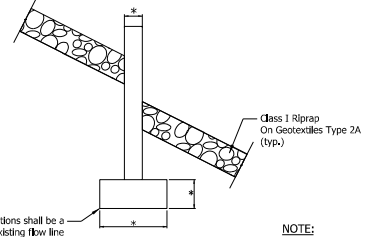
**WINGWALL ELEVATION**  
Not To Scale  
Note:  
\* Dimension to be determined by precast unit manufacturer  
The Minimum thickness required for footings is 1'6"

WINGWALL DIMENSION TABLE			
Wing	EL. ①	EL. ②	EL. ③
A	685.41	682.00	674.58
B	685.41	682.00	674.58
C	685.41	682.00	674.58
D	685.41	682.00	674.58

**DESIGN DATA:**  
Live Load: Designed for HL-93 loading in accordance with AASHTO LRFD Bridge Design Specifications, 8<sup>th</sup> Edition, 2017, and all subsequent Interim specifications. Dead Load Increased 35 psf for future wearing surface.



**SECTION B-B**  
Scale: 3/8" = 1'-0"



**WINGWALL SECTION C-C**  
Scale: 3" = 1'-0"

**NOTE:**  
\* Dimensions to be Determined by Precast Unit Manufacturer

Precast Coated Reinforced Concrete Box Culvert  
13 ft Span x 7 ft Rise, 0° Skew Over  
Unnamed Tributary of Panther Creek  
On SR 234 in Fountain County, Indiana

DATE	REVISION

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE	
DESIGNED: MH	7/2018	DRAWN: TLA	7/2018		
CHECKED: MTC	7/2018	CHECKED: MTC	7/2018		

INDIANA  
DEPARTMENT OF TRANSPORTATION  
  
GENERAL PLAN  
SHEET NO. 02

SCALE	CULVERT ASSET I.D.
AS NOTED	CV 234(02)4(0)&L14
	DESIGNATION
	1600886
SURVEY BOOK	SHEETS
ELECTRONIC	11 of 20
CONTRACT	PROJECT
IP-39957	1600886

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Model: BR\_Detail Sheet

**Categorical Exclusion**  
**Appendix C**  
**Early Coordination**



August 25, 2020

«Agency\_1»  
«Agency\_2»  
«Address\_1»  
«Address\_2»  
«City», «State» «Zip»

**Example Early Coordination Letter**

Re: Agencies Early Coordination  
Designation (Des.) Number 1600886  
Small Structure Project  
State Route (SR) 234 over an unnamed tributary (UNT) to Panther Creek  
Located approximately 1.56 miles east of U.S. Highway (US) 41  
Fountain County, Indiana

Dear «Position»,

The Indiana Department of Transportation (INDOT) Crawfordsville District and the Federal Highway Administration (FHWA) propose to proceed with a small structure project in Fountain County, Indiana (Des. Number 1600886). The FHWA is providing funding and is designated as the lead Federal agency. 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 Des. Number and description in your reply** and we will incorporate your comments into the formal environmental study.

The project is located on SR 234 over an UNT to Panther Creek, approximately 1.56 miles east of US 41 in Fountain County, Indiana. The project is within Millcreek Township, Sections 28 and 33 of Township 18 North, and Range 7 West of the Wallace U.S. Geological Survey (USGS) Quadrangle. Refer to attached project area maps.

The existing structure, Structure Number CV 234-023-18.14, carries SR 234 over an UNT to Panther Creek. The structure is a 24-foot long, 12.7-foot span by 6.8-foot rise concrete box culvert.

This section of SR 234 is classified as a Rural Major Collector. Within the project area, SR 234 consists of two 10-foot wide travel lanes (one eastbound and one westbound) with 1-foot wide paved shoulders. Adjacent land use consists of agricultural, residential, and wooded. The existing right-of-way width varies from approximately 38 feet to 55 feet from the roadway centerline. Refer to attached project area photos.

The need for the project is due to the condition of the existing structure, Structure Number CV 234-023-18.14. Per the INDOT Culvert Inspection Report, dated May 13, 2020, the existing structure has an overall Condition Rating of 3 out of 9 which indicates a "serious" condition. This is due to crumbling and deterioration of the bridge deck slab, severe spalling throughout the structure, and cracking with some areas of efflorescence on the abutments. The purpose of the project is to improve the condition rating of

the small structure to a 7 (“good” condition) or higher to provide continued vehicular crossing at this location on SR 234.

The current proposed project would extend approximately 245 feet west from the center of the structure and approximately 410 feet east from the center of the structure, for a total project length of approximately 655 feet. The current proposed project would include replacing the existing structure with a 37-foot long, 13-foot span by 7-foot rise concrete box culvert. The structure would be sumped 1 foot with class 1 riprap placed at the structure inlet and outlet for scour protection; approximately 18 inches of riprap would be placed underneath the box culvert. Approximately 180 feet along SR 234 would be milled and HMA (hot mix asphalt) would be placed. Approximately 475 feet along SR 234 would have full depth pavement replacement.

INDOT has already purchased approximately 0.56 acre of permanent right-of-way for construction of the project. No additional right-of-way would be required. Construction is anticipated to begin in Spring of 2021. The maintenance of traffic (MOT) would involve the closure of the road at the structure and utilize a detour. The detour would route traffic along US 41, SR 32, and SR 341. Access to all properties would be maintained during construction. Refer to attached preliminary design plans.

To identify potential environmental concerns within the project vicinity, a Red Flag Investigation was performed for a 0.5-mile radius of the project area by INDOT. The Red Flag Investigation did not note any concerns within or adjacent to the project area.

INDOT conducted a field visit on July 10, 2017 to identify any ecological resources present within the project area. One stream, an UNT to Panther Creek, and one wetland, Wetland A, were observed within or adjacent to the project area. INDOT prepared a Waters of the U.S. Report documenting these resources.

The project qualifies for the application of the U.S. Fish and Wildlife (USFWS) range-wide programmatic informal consultation for the Indiana bat and northern long-eared bat. Project information is being submitted through the USFWS Information for Planning and Consultation (IPac) separately.

RQAW is also investigating the Area of Potential Effect (APE) for archaeological and historic resources for compliance with Section 106. The project is anticipated to qualify for the Minor Projects Programmatic Agreement under Category B. Coordination with INDOT Cultural Resources Office (CRO) will occur.

If we do not receive your response within 30 calendar days from the date of this letter, it will be assumed your agency feels there will be no adverse effects incurred because of the project. However, if you feel 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 contact Stephanie Verhoff of the Environmental Department at RQAW, at 317-588-1798 or at [sverhoff@rqaw.com](mailto:sverhoff@rqaw.com) and Melissa Patton, INDOT PM, at 765-361-5697 or at [mpatton@indot.in.gov](mailto:mpatton@indot.in.gov). Thank you in advance for your input.

Sincerely,

A handwritten signature in black ink that reads 'Stephanie Verhoff'.

Stephanie Verhoff  
RQAW | Environmental Department

Appendices:

- Appendix A: Project Area Maps and Photographs Graphics omitted to avoid duplication.
- Appendix B: Preliminary Project Plans

Cc:

- INDOT Crawfordsville District (electronic coordination)
- FHWA (electronic coordination)
- Indiana Geological Survey (electronic submission)
- IDEM Ground Water Section (electronic query)
- IDNR Division of Fish and Wildlife (electronic coordination)
- IDEM (electronic submission)
- INDOT Office of Public Involvement (electronic coordination)
- USHUD (electronic coordination)
- National Park Service, Midwest Regional Office (U.S. Postal Service)
- NRCS (electronic coordination)
- USACE Louisville District (electronic coordination)
- Fountain County Council (U.S. Postal Service)
- Fountain County Board of Commissioners (U.S. Postal Service)
- Fountain County Highway Department (U.S. Postal Service)



# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

100 North Senate Avenue - Indianapolis, IN 46204  
(800) 451-6027 - (317) 232-8603 - [www.idem.IN.gov](http://www.idem.IN.gov)

INDOT Crawfordsville

41 West 300 North  
Crawfordsville , IN 47933

RQAW

Stephanie Verhoff  
8770 North St.  
Ste. 110  
Fishers , IN 46038

Date

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: The Indiana Department of Transportation (INDOT) Crawfordsville District and the Federal Highway Administration (FHWA) propose to proceed with a bridge project in Fountain County, Indiana (Des. Number 1600886). The project is located on State Road (SR) 234, approximately 1.56 miles east of US 41 in Fountain County, Indiana. Within the project area, SR 234 consists of two 10 foot wide travel lanes (one eastbound and one westbound) with 1 foot wide paved shoulders. Adjacent land use consists of agricultural, residential, and wooded. The existing structure, Structure Number CV 234-023-18.14, carries SR 234 eastbound and westbound traffic over UNT to Panther Creek. The existing structure is a 24-foot long, 12.7-foot span by 6.8-foot rise concrete box culvert. Construction is anticipated to begin in spring of 2021. The current proposed project would extend approximately 245 feet west from the center of the structure and approximately 410 feet east from the center of the structure, for a total project length of approximately 655 feet. The current proposed project would include replacing the existing structure with a 37-foot long, 13-foot span by 7-foot rise concrete box culvert. The structure would be sumped 1 foot with class 1 riprap placed at the structure inlet and outlet for scour protection; approximately 18 inches of riprap would be placed underneath the box culvert. Approximately 180 feet along SR 234 would be milled and HMA (hot mix asphalt) would be placed. Approximately 475 feet along SR 234 would have full depth pavement replacement. The maintenance of traffic (MOT) would involve the closure of the road at the structure and utilize a detour. The detour would route traffic along US 41, SR 32, and SR 341. Access to all properties would be maintained during construction. INDOT performed a site visit and observed one wetland within the project area.

This letter from the Indiana Department of Environmental Management (IDEM) serves as a standardized response to enquiries inviting IDEM comments on roadway construction, reconstruction, or other improvement projects within existing roadway corridors when the proposed scope of the project is beneath the threshold requiring a formal National Environmental Policy Act-mandated Environmental Assessment or Environmental Impact Statement. As the letter attempts to address all roadway-related environmental topics of potential concern, it is possible that not every topic addressed in the letter will be applicable to your particular roadway project.

For additional information on specific roadway-related topics of interest, please visit the appropriate Web pages cited below, many of which provide contact information for persons within the various program areas who can answer questions not fully addressed in this letter. Also please be mindful that some environmental requirements may be subject to change and so each person intending to include a copy of this letter in their project documentation packet is advised to download the most recently revised version of the letter; found at: <http://www.in.gov/idem/5283.htm> (<http://www.in.gov/idem/5283.htm>).

To ensure that all environmentally-related issues are adequately addressed, IDEM recommends that you read this letter in its entirety, and consider each of the following issues as you move forward with the planning of your proposed roadway construction, reconstruction, or improvement project:

## WATER AND BIOTIC QUALITY

1. Section 404 of the Clean Water Act requires that you obtain a permit from the U.S. Army Corps of Engineers (USACE) before discharging dredged or fill materials into any wetlands or other waters, such as rivers, lakes, streams, and ditches. Other activities regulated include the relocation, channelization, widening, or other such alteration of a stream, and the mechanical clearing (use of heavy construction equipment) of wetlands. Thus, as a project owner or sponsor, it is your responsibility to ensure that no wetlands are disturbed without the proper permit. Although you may initially refer to the U.S. Fish and Wildlife Service National Wetland Inventory maps as a means of identifying potential areas of concern, please be mindful that those maps do not depict jurisdictional wetlands regulated by the USACE or the Department of Environmental Management. A valid jurisdictional wetlands determination can only be made by the USACE, using the 1987 Wetland Delineation Manual.

USACE recommends that you have a consultant check to determine whether your project will abut, or lie within, a wetland area. To view a list of consultants that have requested to be included on a list posted by the USACE on their Web site, see USACE Permits and Public Notices (<http://www.lrl.usace.army.mil/orf/default.asp>) (<http://www.lrl.usace.army.mil/orf/default.asp>) and then click on "Information" from the menu on the right-hand side of that page. Their "Consultant List" is the fourth entry down on the "Information" page. Please note that the USACE posts all consultants that request to appear on the list, and that inclusion of any particular consultant on the list does not represent an endorsement of that consultant by the USACE, or by IDEM.

Much of northern Indiana (Newton, Lake, Porter, LaPorte, St. Joseph, Elkhart, LaGrange, Steuben, and Dekalb counties; large portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and lesser portions of Benton, White, Pulaski, Kosciusko, and Wells counties) is served by the USACE District Office in Detroit (313-226-6812). The central and southern portions of the state (large portions of Benton, White, Pulaski, Kosciusko, and Wells counties; smaller portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and all other Indiana counties located in north-central, central, and southern Indiana) are served by the USACE Louisville District Office (502-315-6733).

Additional information on contacting these U.S. Army Corps of Engineers (USACE) District Offices, government agencies with jurisdiction over wetlands, and other water quality issues, can

be found at <http://www.in.gov/idem/4396.htm> (<http://www.in.gov/idem/4396.htm>). IDEM recommends that impacts to wetlands and other water resources be avoided to the fullest extent.

2. In the event a Section 404 wetlands permit is required from the USACE, you also must obtain a Section 401 Water Quality Certification from the IDEM Office of Water Quality Wetlands Program. To learn more about the Wetlands Program, visit: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>).
3. If the USACE determines that a wetland or other water body is isolated and not subject to Clean Water Act regulation, it is still regulated by the state of Indiana . A State Isolated Wetland permit from IDEM's Office of Water Quality (OWQ) is required for any activity that results in the discharge of dredged or fill materials into isolated wetlands. To learn more about isolated wetlands, contact the OWQ Wetlands Program at 317-233-8488.
4. If your project will involve over a 0.5 acre of wetland impact, stream relocation, or other large-scale alterations to water bodies such as the creation of a dam or a water diversion, you should seek additional input from the OWQ Wetlands Program staff. Consult the Web at: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>) for the appropriate staff contact to further discuss your project.
5. Work within the one-hundred year floodway of a given water body is regulated by the Department of Natural Resources, Division of Water. The Division issues permits for activities regulated under the following statutes:
  - IC 14-26-2 Lakes Preservation Act 312 IAC 11
  - IC 14-26-5 Lowering of Ten Acre Lakes Act No related code
  - IC 14-28-1 Flood Control Act 310 IAC 6-1
  - IC 14-29-1 Navigable Waterways Act 312 IAC 6
  - IC 14-29-3 Sand and Gravel Permits Act 312 IAC 6
  - IC 14-29-4 Construction of Channels Act No related code

For information on these Indiana (statutory) Code and Indiana Administrative Code citations, see the DNR Web site at: <http://www.in.gov/dnr/water/9451.htm> (<http://www.in.gov/dnr/water/9451.htm>) . Contact the DNR Division of Water at 317-232-4160 for further information.

The physical disturbance of the stream and riparian vegetation, especially large trees overhanging any affected water bodies should be limited to only that which is absolutely necessary to complete the project. The shade provided by the large overhanging trees helps maintain proper stream temperatures and dissolved oxygen for aquatic life.

6. For projects involving construction activity (which includes clearing, grading, excavation and other land disturbing activities) that result in the disturbance of one (1), or more, acres of total land area, contact the Office of Water Quality – Watershed Planning Branch (317/233-1864) regarding the need for of a Rule 5 Storm Water Runoff Permit. Visit the following Web page
  - <http://www.in.gov/idem/4902.htm> (<http://www.in.gov/idem/4902.htm>)

To obtain, and operate under, a Rule 5 permit you will first need to develop a Construction Plan (<http://www.in.gov/idem/4917.htm#constreq> (<http://www.in.gov/idem/4917.htm#constreq>)), and as

described in 327 IAC 15-5-6.5 (<http://www.in.gov/legislative/iac/T03270/A00150> [PDF] (<http://www.in.gov/legislative/iac/T03270/A00150.PDF>), pages 16 through 19). Before you may apply for a Rule 5 Permit, or begin construction, you must submit your Construction Plan to your county Soil and Water Conservation District (SWCD) (<http://www.in.gov/isda/soil/contacts/map.html> (<http://www.in.gov/isda/soil/contacts/map.html>)).

Upon receipt of the construction plan, personnel of the SWCD or the Indiana Department of Environmental Management will review the plan to determine if it meets the requirements of 327 IAC 15-5. Plans that are deemed deficient will require re-submittal. If the plan is sufficient you will be notified and instructed to submit the verification to IDEM as part of the Rule 5 Notice of Intent (NOI) submittal. Once construction begins, staff of the SWCD or Indiana Department of Environmental Management will perform inspections of activities at the site for compliance with the regulation.

Please be mindful that approximately 149 Municipal Separate Storm Sewer System (MS4) areas are now being established by various local governmental entities throughout the state as part of the implementation of Phase II federal storm water requirements. All of these MS4 areas will eventually take responsibility for Construction Plan review, inspection, and enforcement. As these MS4 areas obtain program approval from IDEM, they will be added to a list of MS4 areas posted on the IDEM Website at: <http://www.in.gov/idem/4900.htm> (<http://www.in.gov/idem/4900.htm>).

If your project is located in an IDEM-approved MS4 area, please contact the local MS4 program about meeting their storm water requirements. Once the MS4 approves the plan, the NOI can be submitted to IDEM.

Regardless of the size of your project, or which agency you work with to meet storm water requirements, IDEM recommends that appropriate structures and techniques be utilized both during the construction phase, and after completion of the project, to minimize the impacts associated with storm water runoff. The use of appropriate planning and site development and appropriate storm water quality measures are recommended to prevent soil from leaving the construction site during active land disturbance and for post construction water quality concerns. Information and assistance regarding storm water related to construction activities are available from the Soil and Water Conservation District (SWCD) offices in each county or from IDEM.

7. For projects involving impacts to fish and botanical resources, contact the Department of Natural Resources - Division of Fish and Wildlife (317/232-4080) for addition project input.
8. For projects involving water main construction, water main extensions, and new public water supplies, contact the Office of Water Quality - Drinking Water Branch (317-308-3299) regarding the need for permits.
9. For projects involving effluent discharges to waters of the State of Indiana, contact the Office of Water Quality - Permits Branch (317-233-0468) regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit.
10. For projects involving the construction of wastewater facilities and sewer lines, contact the Office of Water Quality - Permits Branch (317-232-8675) regarding the need for permits.

# AIR QUALITY

The above-noted project should be designed to minimize any impact on ambient air quality in, or near, the project area. The project must comply with all federal and state air pollution regulations.

Consideration should be given to the following:

1. Regarding open burning, and disposing of organic debris generated by land clearing activities; some types of open burning are allowed (<http://www.in.gov/idem/4148.htm>) under specific conditions. You also can seek an open burning variance from IDEM.

However, IDEM generally recommends that you take vegetative wastes to a registered yard waste composting facility or that the waste be chipped or shredded with composting on site (you must register with IDEM if more than 2,000 pounds is to be composted; contact 317/232-0066). The finished compost can then be used as a mulch or soil amendment. You also may bury any vegetative wastes (such as leaves, twigs, branches, limbs, tree trunks and stumps) onsite, although burying large quantities of such material can lead to subsidence problems, later on.

Reasonable precautions must be taken to minimize fugitive dust emissions from construction and demolition activities. For example, wetting the area with water, constructing wind barriers, or treating dusty areas with chemical stabilizers (such as calcium chloride or several other commercial products). Dirt tracked onto paved roads from unpaved areas should be minimized.

Additionally, if construction or demolition is conducted in a wooded area where blackbirds have roosted or abandoned buildings or building sections in which pigeons or bats have roosted for 3-5 years precautionary measures should be taken to avoid an outbreak of histoplasmosis. This disease is caused by the fungus *Histoplasma capsulatum*, which stems from bird or bat droppings that have accumulated in one area for 3-5 years. The spores from this fungus become airborne when the area is disturbed and can cause infections over an entire community downwind of the site. The area should be wetted down prior to cleanup or demolition of the project site. For more detailed information on histoplasmosis prevention and control, please contact the Acute Disease Control Division of the Indiana State Department of Health at (317) 233-7272.

2. The U.S. EPA and the Surgeon General recommend that people not have long-term exposure to radon at levels above 4 pCi/L. (For a county-by-county map of predicted radon levels in Indiana, visit: <http://www.in.gov/idem/4145.htm> (<http://www.in.gov/idem/4145.htm>).

The U.S. EPA further recommends that all homes (and apartments within three stories of ground level) be tested for radon. If in-home radon levels are determined to be 4 pCi/L, or higher, EPA recommends a follow-up test. If the second test confirms that radon levels are 4 pCi/L, or higher, EPA recommends the installation of radon-reduction measures. (For a list of qualified radon testers and radon mitigation (or reduction) specialists visit:

[http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon\\_testers\\_mitigators\\_list.pdf](http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf)

([http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon\\_testers\\_mitigators\\_list.pdf](http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf).) It also is recommended that radon reduction measures be built into all new homes, particularly in areas like Indiana that have moderate to high predicted radon levels.



To learn more about radon, radon risks, and ways to reduce exposure visit:  
<http://www.in.gov/isdh/regsvcs/radhealth/radon.htm>  
(<http://www.in.gov/isdh/regsvcs/radhealth/radon.htm>), <http://www.in.gov/idem/4145.htm>  
(<http://www.in.gov/idem/4145.htm>), or <http://www.epa.gov/radon/index.html>  
(<http://www.epa.gov/radon/index.html>).

3. With respect to asbestos removal: all facilities slated for renovation or demolition (except residential buildings that have (4) four or fewer dwelling units and which will not be used for commercial purposes) must be inspected by an Indiana-licensed asbestos inspector prior to the commencement of any renovation or demolition activities. If regulated asbestos-containing material (RACM) that may become airborne is found, any subsequent demolition, renovation, or asbestos removal activities must be performed in accordance with the proper notification and emission control requirements.

If no asbestos is found where a renovation activity will occur, or if the renovation involves removal of less than 260 linear feet of RACM off of pipes, less than 160 square feet of RACM off of other facility components, or less than 35 cubic feet of RACM off of all facility components, the owner or operator of the project does not need to notify IDEM before beginning the renovation activity.

For questions on asbestos demolition and renovation activities, you can also call IDEM's Lead/Asbestos section at 1-888-574-8150.

However, in all cases where a demolition activity will occur (even if no asbestos is found), the owner or operator must still notify IDEM 10 working days prior to the demolition, using the form found at <http://www.in.gov/icpr/webfile/formsdiv/44593.pdf>  
(<http://www.in.gov/icpr/webfile/formsdiv/44593.pdf>).

Anyone submitting a renovation/demolition notification form will be billed a notification fee based upon the amount of friable asbestos containing material to be removed or demolished. Projects that involve the removal of more than 2,600 linear feet of friable asbestos containing materials on pipes, or 1,600 square feet or 400 cubic feet of friable asbestos containing material on other facility components, will be billed a fee of \$150 per project; projects below these amounts will be billed a fee of \$50 per project. All notification remitters will be billed on a quarterly basis.

For more information about IDEM policy regarding asbestos removal and disposal, visit:  
<http://www.in.gov/idem/4983.htm> (<http://www.in.gov/idem/4983.htm>).

4. With respect to lead-based paint removal: IDEM encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDEM is particularly concerned that young children exposed to lead can suffer from learning disabilities. Although lead-based paint abatement efforts are not mandatory, any abatement that is conducted within housing built before January 1, 1978, or a child-occupied facility is required to comply with all lead-based paint work practice standards, licensing and notification requirements. For more information about lead-based paint removal visit: <http://www.in.gov/isdh/19131.htm> (<http://www.in.gov/isdh/19131.htm>).
5. Ensure that asphalt paving plants are permitted and operate properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited

during the months April through October. See 326 IAC 8-5-2 , Asphalt Paving Rule (<http://www.ai.org/legislative/iac/T03260/A00080.PDF> (<http://www.ai.org/legislative/iac/T03260/A00080.PDF>)).

6. If your project involves the construction of a new source of air emissions or the modification of an existing source of air emissions or air pollution control equipment, it will need to be reviewed by the IDEM Office of Air Quality (OAQ). A registration or permit may be required under 326 IAC 2 (View at: [www.ai.org/legislative/iac/t03260/a00020.pdf](http://www.ai.org/legislative/iac/t03260/a00020.pdf) (<http://www.ai.org/legislative/iac/t03260/a00020.pdf>)). New sources that use or emit hazardous air pollutants may be subject to Section 112 of the Clean Air Act and corresponding state air regulations governing hazardous air pollutants.
7. For more information on air permits visit: <http://www.in.gov/idem/4223.htm> (<http://www.in.gov/idem/4223.htm>), or to initiate the IDEM air permitting process, please contact the Office of Air Quality Permit Reviewer of the Day at (317) 233-0178 or OAMPROD at [atdem.state.in.us](mailto:atdem.state.in.us).

## LAND QUALITY

In order to maintain compliance with all applicable laws regarding contamination and/or proper waste disposal, IDEM recommends that:

1. If the site is found to contain any areas used to dispose of solid or hazardous waste, you need to contact the Office of Land Quality (OLQ) at 317-308-3103.
2. All solid wastes generated by the project, or removed from the project site, need to be taken to a properly permitted solid waste processing or disposal facility. For more information, visit <http://www.in.gov/idem/4998.htm> (<http://www.in.gov/idem/4998.htm>).
3. If any contaminated soils are discovered during this project, they may be subject to disposal as hazardous waste. Please contact the OLQ at 317-308-3103 to obtain information on proper disposal procedures.
4. If PCBs are found at this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding management of any PCB wastes from this site.
5. If there are any asbestos disposal issues related to this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding the management of asbestos wastes (Asbestos removal is addressed above, under Air Quality).
6. If the project involves the installation or removal of an underground storage tank, or involves contamination from an underground storage tank, you must contact the IDEM Underground Storage Tank program at 317/308-3039. See: <http://www.in.gov/idem/4999.htm> (<http://www.in.gov/idem/4999.htm>).

## FINAL REMARKS

Should you need to obtain any environmental permits in association with this proposed project, please be mindful that IC 13-15-8 requires that you notify all adjoining property owners and/or occupants within ten days your submittal of each permit application. However, if you are seeking multiple permits, you can still meet the notification requirement with a single notice if all required permit applications are submitted with the same ten day period.

Should the scope of the proposed project be expanded to the extent that a National Environmental Policy Act Environmental Assessment (EA) or Environmental Impact Statement (EIS) is required, IDEM will actively participate in any early interagency coordination review of the project.

Meanwhile, please note that this letter does not constitute a permit, license, endorsement or any other form of approval on the part of the Indiana Department of Environmental Management regarding any project for which a copy of this letter is used. Also note that is it the responsibility of the project engineer or consultant using this letter to ensure that the most current draft of this document, which is located at <http://www.in.gov/idem/5284.htm> (<http://www.in.gov/idem/5284.htm>), is used.

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## Signature(s) of the Applicant

I acknowledge that the following proposed roadway project will be financed in part, or in whole, by public monies.

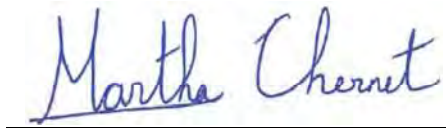
## Project Description

The Indiana Department of Transportation (INDOT) Crawfordsville District and the Federal Highway Administration (FHWA) propose to proceed with a bridge project in Fountain County, Indiana (Des. Number 1600886). The project is located on State Road (SR) 234, approximately 1.56 miles east of US 41 in Fountain County, Indiana. Within the project area, SR 234 consists of two 10 foot wide travel lanes (one eastbound and one westbound) with 1 foot wide paved shoulders. Adjacent land use consists of agricultural, residential, and wooded. The existing structure, Structure Number CV 234-023-18.14, carries SR 234 eastbound and westbound traffic over UNT to Panther Creek. The existing structure is a 24-foot long, 12.7-foot span by 6.8-foot rise concrete box culvert. Construction is anticipated to begin in spring of 2021. The current proposed project would extend approximately 245 feet west from the center of the structure and approximately 410 feet east from the center of the structure, for a total project length of approximately 655 feet. The current proposed project would include replacing the existing structure with a 37-foot long, 13-foot span by 7-foot rise concrete box culvert. The structure would be sumped 1 foot with class 1 riprap placed at the structure inlet and outlet for scour protection; approximately 18 inches of riprap would be placed underneath the box culvert. Approximately 180 feet along SR 234 would be milled and HMA (hot mix asphalt) would be placed. Approximately 475 feet along SR 234 would have full depth pavement replacement. The maintenance of traffic (MOT) would involve the closure of the road at the structure and utilize a detour. The detour would route traffic along US 41, SR 32, and SR 341. Access to all properties would be maintained during construction. INDOT performed a site visit and observed one wetland within the project area.

With my signature, I do hereby affirm that I have read the letter from the Indiana Department of Environment that appears directly above. In addition, I understand that in order to complete that project in which I am interested, with a minimum of impact to the environment, I must consider all the issues addressed in the aforementioned letter, and further, that I must obtain any required permits.

Date: 8/25/2020

Signature of the INDOT  
Project Engineer or Other Responsible Agent



Martha Chernet, P.E

Date: 08/25/2020

Signature of the  
For Hire Consultant



Stephanie Verhoff



## Organization and Project Information

**Project ID:**

**Des. ID:**

Des. Number 1600886

**Project Title:**

SR 234 over UNT to Panther Creek Bridge Project

**Name of Organization:** RQAW

**Requested by:**

Stephanie Verhoff

## Environmental Assessment Report

### 1. Geological Hazards:

- Moderate liquefaction potential

### 2. Mineral Resources:

- Bedrock Resource: High Potential
- Sand and Gravel Resource: Low Potential

### 3. Active or abandoned mineral resources extraction sites:

- None documented in the area

\*All map layers from Indiana Map ([maps.indiana.edu](http://maps.indiana.edu))

## DISCLAIMER:

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

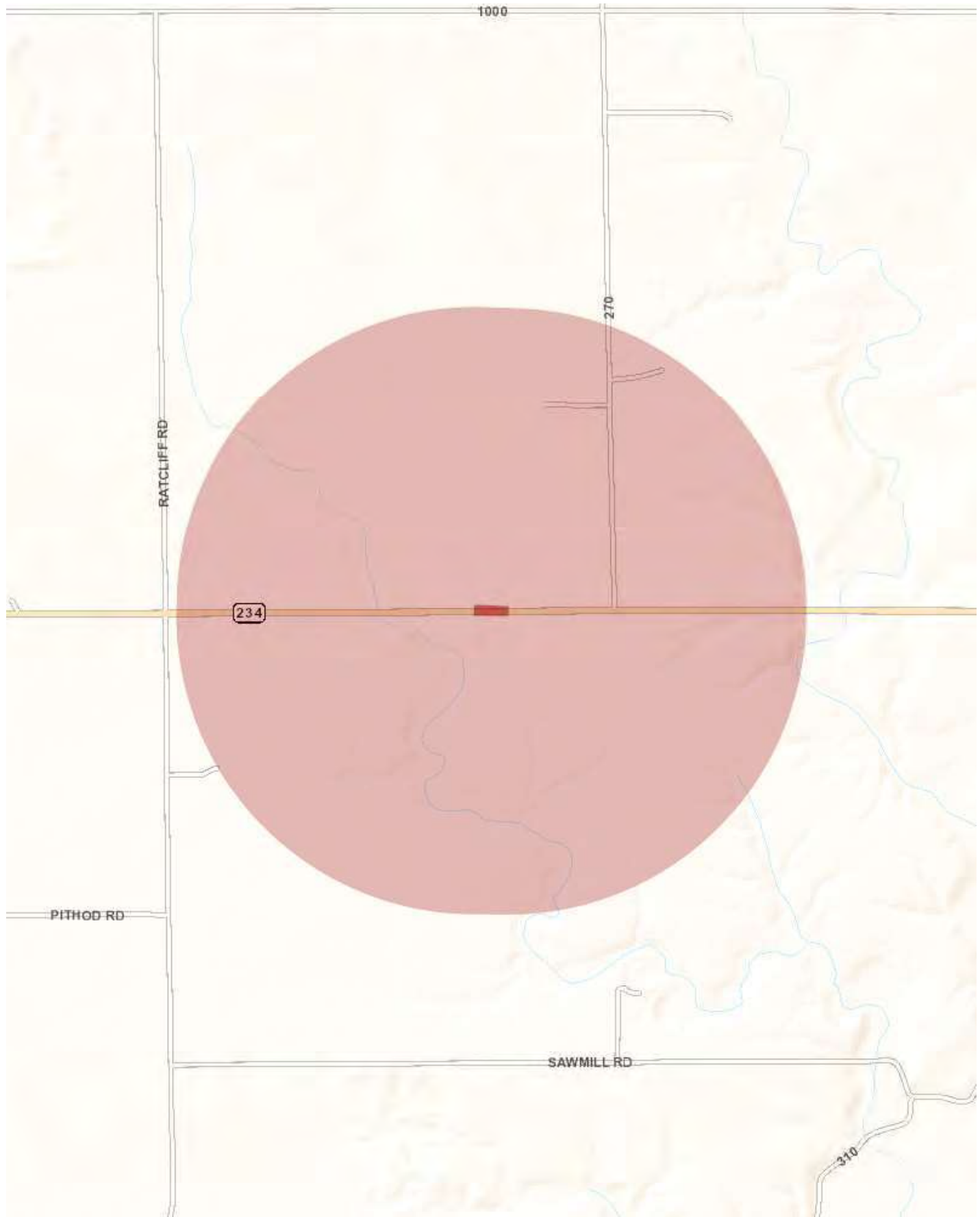
This information was furnished by Indiana Geological Survey

Address: 420 N. Walnut St., Bloomington, IN 47404

Email: [IGSEnvir@indiana.edu](mailto:IGSEnvir@indiana.edu)

Phone: 812 855-7428

Date: August 25, 2020



# Metadata:

- [https://maps.indiana.edu/metadata/Geology/Seismic\\_Earthquake\\_Liquefaction\\_Potential.html](https://maps.indiana.edu/metadata/Geology/Seismic_Earthquake_Liquefaction_Potential.html)
- [https://maps.indiana.edu/metadata/Geology/Industrial\\_Minerals\\_Sand\\_Gravel\\_Resources.html](https://maps.indiana.edu/metadata/Geology/Industrial_Minerals_Sand_Gravel_Resources.html)
- [https://maps.indiana.edu/metadata/Geology/Bedrock\\_Geology.html](https://maps.indiana.edu/metadata/Geology/Bedrock_Geology.html)

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

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**DNR #:** ER-23007

**Request Received:** August 25, 2020

**Requestor:** RQAW Corporation  
Stephanie Verhoff  
8770 North Street, Suite 110  
Fishers, IN 46038

**Project:** SR 234 small structure (CV 234-023-18.14) replacement over UNT Panther Creek, about 1.56 miles east of US 41; Des #1600886

**County/Site info:** Fountain

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

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

**Regulatory Assessment:** This proposal may require the formal approval of our agency pursuant to the Flood Control Act (IC 14-28-1) for any proposal to construct, excavate, or fill in or on the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile.

**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) Stream Crossing Design:

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; have a minimum openness ratio (height x width / length) of 0.25; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel.

The new/replacement/rehabilitated crossing structure, and any bank stabilization under or around the structure, must not create conditions that are less favorable for wildlife passage when compared to current conditions. The Division of Fish and Wildlife would like to emphasize the importance of wildlife passage issues and transportation infrastructure projects. The following is a good place to start in terms of resources to consider in the design of stream crossing structures for wildlife passage:

<http://www.fs.fed.us/wildlifecrossings/library/>,

[https://roadeology.ucdavis.edu/files/content/projects/DOT-FHWA\\_Wildlife\\_Crossing\\_St](https://roadeology.ucdavis.edu/files/content/projects/DOT-FHWA_Wildlife_Crossing_St)



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

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ructures\_Handbook.pdf, [https://www.fs.fed.us/biology/nsaec/fishxing/aop\\_pdfs.html](https://www.fs.fed.us/biology/nsaec/fishxing/aop_pdfs.html),  
<https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf>.

2) Bank Stabilization:

Some form of bank and/or streambed stabilization is almost always needed with the construction, repair, replacement, or modification of a stream channel or crossing structure. For streambank stabilization and erosion control, regrading to a stable slope (2:1 or shallower) and establishing native vegetation along the banks are typically the most effective techniques. A variety of methods to accomplish this include: planting plugs, whips, container stock, seeding, and live stakes. In addition to vegetation establishment, some additional level of bioengineered bank stabilization may be needed under certain circumstances (inability to regrade to a stable slope, flow velocities that exceed the limits of vegetation alone, etc.). Combining vegetation with any of the following bank stabilization methods can provide additional bank protection while not compromising benefits to fish, wildlife, and botanical resources: geotextiles (erosion control blankets and/or turf reinforcement mats that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles), vegetated geogrids or soil lifts, fiber rolls, glacial stone, or riprap. Information about bioengineering techniques can be found at <http://www.in.gov/legislative/iac/20120404-IR-312120154NRA.xml.pdf>. Additionally, the following is a link to a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization: <http://directives.sc.egov.usda.gov/17553.wba>.

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) with the exception of areas directly under bridges for instance. The banks above the OHWM should be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. For streambed stabilization or scour protection, riprap or other stabilization materials should not be placed in the active stream channel above the existing streambed or flowline elevation unless specifically designed and installed for grade control and aquatic organism passage. This is to prevent obstructions to the movement of aquatic organisms upstream and downstream.

3) Riparian Habitat:

We recommend a mitigation plan be developed (and submitted with the permit application, if required) for any unavoidable habitat impacts that will occur. The DNR's Habitat Mitigation guidelines (and plant lists) can be found online at: <http://iac.iga.in.gov/iac/20200527-IR-312200284NRA.xml.pdf>.

Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted (individual canopy tree removal in an urban streetscape or park-like environment versus removal of habitat supporting a tree canopy, woody understory, and herbaceous layer). Impacts under 0.10 acre in an urban area may still involve the replacement of large diameter trees but typically do not require any additional mitigation or additional plantings beyond seeding and stabilizing disturbed areas. There are exceptions for high quality habitat sites however.

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

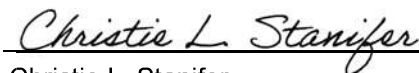
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The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

1. Revegetate all bare and disturbed areas that are not currently mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only. A native herbaceous seed mixture must include at least 5 species of grasses and sedges and 5 species of wildflowers.
2. Minimize and contain within the project limits 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 construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds.
6. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
7. Do not use broken concrete as riprap.
8. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
9. Minimize the movement of resuspended bottom sediment from the immediate project area.
10. Do not deposit or allow demolition/construction materials or debris to fall or otherwise enter the waterway.
11. 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.
12. 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  
Environ. Coordinator  
Division of Fish and Wildlife

**Date:** September 23, 2020

September 10, 2020

Stephanie Verhoff  
RQAW Corporation  
8770 North Street, Suite 110  
Fishers, Indiana 46038

Dear Ms. Verhoff:

The proposed project to proceed with a small structure project along State Route 234 over an unnamed tributary to Panther Creek in Fountain County, Indiana (Des No. 1600886), as referred to in your letter received on August 25, 2020, will cause a conversion of prime farmland.

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

If you need additional information, please contact John Allen at 317-295-5859.

Sincerely,

**RICHARD** Digitally signed by  
RICHARD NEILSON  
**NEILSON** Date: 2020.09.14  
10:59:47 -04'00'

RICK NEILSON  
State Soil Scientist

Enclosures

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Helping People Help the Land.



USDA is an equal opportunity provider, employer and lender.

**FARMLAND CONVERSION IMPACT RATING  
FOR CORRIDOR TYPE PROJECTS**

<b>PART I (To be completed by Federal Agency)</b>		3. Date of Land Evaluation Request <b>8/25/20</b>	4. Sheet 1 of <u>1</u>
1. Name of Project <b>DES1600886 SR 234 over UNT to Panther Creek</b>		5. Federal Agency Involved <b>FHWA</b>	
2. Type of Project <b>Bridge Project</b>		6. County and State <b>Fountain County, Indiana</b>	
<b>PART II (To be completed by NRCS)</b>		1. Date Request Received by NRCS <b>8/25/20</b>	2. Person Completing Form <b>JRA</b>
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated   Average Farm Size <b>427 Ac</b>	
5. Major Crop(s) <b>Corn</b>	6. Farmable Land in Government Jurisdiction Acres: <b>238,173</b> % <b>93</b>	7. Amount of Farmland As Defined in FPPA Acres: <b>217,926</b> % <b>86</b>	
8. Name Of Land Evaluation System Used <b>LESA</b>	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS <b>9/10/20</b>	

<b>PART III (To be completed by Federal Agency)</b>	<b>Alternative Corridor For Segment :</b>			
	<b>Corridor 1</b>	<b>Corridor 2</b>	<b>Corridor 3</b>	<b>Corridor 4</b>
A. Total Acres To Be Converted Directly				
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>	
A. Total Acres Prime And Unique Farmland	<b>0.05</b>
B. Total Acres Statewide And Local Important Farmland	<b>0.00</b>
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	<b>&lt;0.001</b>
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	<b>69.0</b>

<b>PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)</b>	
	<b>78</b>

<b>PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))</b>	Maximum Points			
1. Area in Nonurban Use	<b>15</b>	<b>15</b>		
2. Perimeter in Nonurban Use	<b>10</b>	<b>10</b>		
3. Percent Of Corridor Being Farmed	<b>20</b>	<b>1</b>		
4. Protection Provided By State And Local Government	<b>20</b>	<b>0</b>		
5. Size of Present Farm Unit Compared To Average	<b>10</b>	<b>0</b>		
6. Creation Of Nonfarmable Farmland	<b>25</b>	<b>0</b>		
7. Availability Of Farm Support Services	<b>5</b>	<b>2</b>		
8. On-Farm Investments	<b>20</b>	<b>5</b>		
9. Effects Of Conversion On Farm Support Services	<b>25</b>	<b>5</b>		
10. Compatibility With Existing Agricultural Use	<b>10</b>	<b>0</b>		
<b>TOTAL CORRIDOR ASSESSMENT POINTS</b>	<b>160</b>	<b>38</b>	<b>0</b>	<b>0</b>

<b>PART VII (To be completed by Federal Agency)</b>				
Relative Value Of Farmland (From Part V)	<b>100</b>	<b>78</b>		
Total Corridor Assessment (From Part VI above or a local site assessment)	<b>160</b>	<b>38</b>	<b>0</b>	<b>0</b>
<b>TOTAL POINTS (Total of above 2 lines)</b>	<b>260</b>	<b>116</b>	<b>0</b>	<b>0</b>

1. Corridor Selected: <b>Corridor 1</b>	2. Total Acres of Farmlands to be Converted by Project: <b>0.05</b>	3. Date Of Selection: <b>9/22/20</b>	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
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5. Reason For Selection:  
**Project meets purpose and need.**

Signature of Person Completing this Part Stephanie Kichoff DATE **9/22/20**

**NOTE: Complete a form for each segment with more than one Alternate Corridor**

## Stephanie Verhoff

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**From:** Laymon, Makinna <MLaymon2@indot.IN.gov>  
**Sent:** Tuesday, August 25, 2020 2:40 PM  
**To:** Stephanie Verhoff  
**Subject:** FW: Indiana and Northern Long-eared Bat Check for the SR 234 Small Structure Project in Fountain County (DES 1600886)  
**Attachments:** RFI\_DES 1600886\_SR 234\_Maps.pdf

Good Afternoon,

My conclusion for this bat check is as follows:

A review of the USFWS GIS database for Indiana bat and Northern long-eared bat roosting, hibernacula and capture sites was conducted for Des No. 1600886 on 08/25/2020. There are no documented sites within a half mile the project area. The USFWS Information for Planning and Conservation (IPaC) website must be consulted and a new project created to obtain an official species list and complete the questionnaire for the project to determine the applicability of the programmatic consultation. If needed, the IPaC generated documents must be forwarded to the USFWS for verification.

Thank you,

**Makinna Laymon**

*Environmental Manager 2, Capital Program Management Division*

41 West 300 North  
Crawfordsville, IN 47933

**Cell:** (317) 694-0630

**Email:** [MLaymon2@indot.in.gov](mailto:MLaymon2@indot.in.gov)



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**From:** Khan, Asfahan <akhan@indot.IN.gov>  
**Sent:** Tuesday, August 25, 2020 12:23 PM  
**To:** Laymon, Makinna <MLaymon2@indot.IN.gov>  
**Subject:** FW: Indiana and Northern Long-eared Bat Check for the SR 234 Small Structure Project in Fountain County (DES 1600886)

### **Coping with COVID-19:**

- **Indiana State Dept. of Health (ISDH) COVID-19 Call Center:** Call 877-826-0011 (open 24/7)
- **Anthem NurseLine:** Call 800-337-4770 or visit the [Anthem NurseLine](#) online for a FREE symptom screening. Available to anyone with an Anthem health plan (this includes State of IN employees)
- **Anthem Employee Assistance Program (EAP):** Available to ALL state employees and adults in household regardless of health plan participation. Call 800-223-7723 or visit [anthemeap.com](http://anthemeap.com) (enter State of Indiana) for crisis counseling, help finding child/elder care, legal/financial consultation and much more.

**Asfahan Ullah Khan**

*In-House Services Manager, Capital Program Management Division*

41 West 300 North  
Crawfordsville, IN 47933

**Office:** (765) 361-5247



# 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:

September 09, 2020

Consultation Code: 03E12000-2020-SLI-2564

Event Code: 03E12000-2020-E-10282

Project Name: SR 234 over UNT to Panther Creek Small Structure Project (Des 1600886)

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

To Whom It May Concern:

The attached species list identifies any federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the Service if they determine their project "may affect" listed species or critical habitat.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally. You may verify the list by visiting the ECOS-IPaC website <http://ecos.fws.gov/ipac/> at regular intervals during project planning and implementation and completing the same process you used to receive the attached list. As an alternative, you may contact this Ecological Services Field Office for updates.

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.

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*) and Migratory Bird Treaty Act (16 U.S.C. 703 *et seq.*), as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at <http://www.fws.gov/midwest/midwestbird/EaglePermits/index.html> to help you determine if you can avoid impacting eagles or if a permit may be necessary.

We appreciate your concern for threatened and endangered species. Please include the Consultation Tracking Number 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

## 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

Consultation Code: 03E12000-2020-SLI-2564

Event Code: 03E12000-2020-E-10282

Project Name: SR 234 over UNT to Panther Creek Small Structure Project (Des 1600886)

Project Type: TRANSPORTATION

Project Description: The project (Des. Number 1600886) is located on State Route (SR) 234 approximately 1.56 miles east of U.S. Highway (US) 41 in Fountain County, Indiana.

The existing structure, Structure Number CV 234-023-18.14, carries SR 234 over an UNT to Panther Creek. The current proposed project would extend approximately 245 feet west from the center of the structure and approximately 410 feet east from the center of the structure, for a total project length of approximately 655 feet. The current proposed project would include replacing the existing structure with a 37-foot long, 13-foot span by 7-foot rise concrete box culvert. The structure would be sumped 1 foot with class 1 riprap placed at the structure inlet and outlet for scour protection; approximately 18 inches of riprap would be placed underneath the box culvert. Approximately 180 feet along SR 234 would be milled and HMA (hot mix asphalt) would be placed. Approximately 475 feet along SR 234 would have full depth pavement replacement.

INDOT has already purchased approximately 0.56 acre of permanent right-of-way for construction of the project. No additional right-of-way would be required.

Suitable summer habitat is located adjacent to the project area; however, no tree removal (clearing or trimming) is anticipated. A review of the USFWS Database by INDOT on August 25, 2020 did not indicate the presence of endangered bat species in or within 0.5 mile search radius of the project area. RQAW performed a site visit on August 20, 2020 to identify any ecological resources present, within, or adjacent to the project area. No bats or evidence of bats were seen or heard during site visit. Temporary lighting may be utilized during construction. The project will not involve the replacement or installation of permanent lighting. Construction is anticipated to begin in Spring 2021.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.9676400916656N87.21300577222286W>



Counties: Fountain, IN

## Endangered Species Act Species

There is a total of 2 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<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

## Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5949">https://ecos.fws.gov/ecp/species/5949</a> Species survey guidelines: <a href="https://ecos.fws.gov/ipac/guideline/survey/population/1/office/31440.pdf">https://ecos.fws.gov/ipac/guideline/survey/population/1/office/31440.pdf</a>	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> <li>▪ 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 <a href="http://www.fws.gov/midwest/endangered/mammals/nleb/index.html">www.fws.gov/midwest/endangered/mammals/nleb/index.html</a></li> </ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

## Critical habitats

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

## Stephanie Verhoff

---

**From:** Laymon, Makinna <MLaymon2@indot.IN.gov>  
**Sent:** Monday, September 14, 2020 2:38 PM  
**To:** Stephanie Verhoff; Curry, Jennifer  
**Cc:** Curry, Jennifer; Hinkle, Meghan  
**Subject:** RE: IPaC Determination: SR 234 over UNT to Panther Creek Small Structure Project (Des 1600886)  
IPaC Record Locator: 104-23385694

Good Morning,

INDOT has reviewed the determination key and has completed the verification process to forward the project to USFWS for review.

Thank you,

**Makinna Laymon**

*Environmental Manager 2, Capital Program Management Division*

41 West 300 North

Crawfordsville, IN 47933

**Cell:** (317) 694-0630

**Email:** [MLaymon2@indot.in.gov](mailto:MLaymon2@indot.in.gov)



---

**From:** Stephanie Verhoff <sverhoff@rqaw.com>

**Sent:** Monday, September 14, 2020 9:11 AM

**To:** Curry, Jennifer <JCurry1@indot.IN.gov>; Laymon, Makinna <MLaymon2@indot.IN.gov>

**Subject:** FW: IPaC Determination: SR 234 over UNT to Panther Creek Small Structure Project (Des 1600886) IPaC Record Locator: 104-23385694

**\*\*\*\* This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. \*\*\*\***

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Good morning,

I hope you both had a nice weekend! I wanted to quickly follow up regarding the IPaC for the above referenced project. Please let me know if you need any additional information to complete your review.

Thanks in advance,

**Stephanie Verhoff**

NEPA Specialist

O: 317.588.1765

[www.rqaw.com](http://www.rqaw.com)

---

**From:** Stephanie Verhoff

**Sent:** Wednesday, September 9, 2020 9:26 AM

**To:** Khan, Asfahan <[akhan@indot.IN.gov](mailto:akhan@indot.IN.gov)>



## 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:

September 14, 2020

Consultation Code: 03E12000-2020-I-2564

Event Code: 03E12000-2020-E-10427

Project Name: SR 234 over UNT to Panther Creek Small Structure Project (Des 1600886)

Subject: Concurrence verification letter for the 'SR 234 over UNT to Panther Creek Small Structure Project (Des 1600886)' 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 **SR 234 over UNT to Panther Creek Small Structure Project (Des 1600886)** (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.

## Project Description

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

### Name

SR 234 over UNT to Panther Creek Small Structure Project (Des 1600886)

### Description

The project (Des. Number 1600886) is located on State Route (SR) 234 approximately 1.56 miles east of U.S. Highway (US) 41 in Fountain County, Indiana.

The existing structure, Structure Number CV 234-023-18.14, carries SR 234 over an UNT to Panther Creek. The current proposed project would extend approximately 245 feet west from the center of the structure and approximately 410 feet east from the center of the structure, for a total project length of approximately 655 feet. The current proposed project would include replacing the existing structure with a 37-foot long, 13-foot span by 7-foot rise concrete box culvert. The structure would be sumped 1 foot with class 1 riprap placed at the structure inlet and outlet for scour protection; approximately 18 inches of riprap would be placed underneath the box culvert. Approximately 180 feet along SR 234 would be milled and HMA (hot mix asphalt) would be placed. Approximately 475 feet along SR 234 would have full depth pavement replacement.

INDOT has already purchased approximately 0.56 acre of permanent right-of-way for construction of the project. No additional right-of-way would be required.

Suitable summer habitat is located adjacent to the project area; however, no tree removal (clearing or trimming) is anticipated. A review of the USFWS Database by INDOT on August 25, 2020 did not indicate the presence of endangered bat species in or within 0.5 mile search radius of the project area. RQAW performed a site visit on August 20, 2020 to identify any ecological resources present, within, or adjacent to the project area. No bats or evidence of bats were seen or heard during site visit. Temporary lighting may be utilized during construction. The project will not involve the replacement or installation of permanent lighting. Construction is anticipated to begin in Spring 2021.

## 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<sup>[1]</sup>?

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

**Automatically answered**

Yes

2. Is the project within the range of the Northern long-eared bat<sup>[1]</sup>?

[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<sup>[1]</sup> 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<sup>[1]</sup>?

[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<sup>[1]</sup>?

[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<sup>[1]</sup> summer habitat for Indiana Bat or NLEB **within** the project action area<sup>[2]</sup>? (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<sup>[1]</sup> 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.

*No*

10. Does the project include activities **within documented Indiana bat habitat**<sup>[1][2]</sup>?

[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 triangulation/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*

11. Does the project include activities **within documented NLEB habitat**<sup>[1][2]</sup>?

[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*

12. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?

*No*

13. Does the project include slash pile burning?

*No*

14. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?

*Yes*

15. Is there *any* suitable habitat<sup>[1]</sup> 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*

16. Has a bridge assessment<sup>[1]</sup> been conducted **within** the last 24 months<sup>[2]</sup> 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**

- *StructureAssessmentForm\_SR234SmallStructure.pdf* <https://ecos.fws.gov/ipac/project/LJXPNGOFKNAMJJSRPKJ7JDT37A/projectDocuments/23385690>

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

[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

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

No

19. 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

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

Yes

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

*Yes*

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

*No*

23. 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*

24. 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*

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

*No*

26. 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*

27. 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*

**28. 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

**29. 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?

N/A

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

N/A

3. Please describe the proposed bridge work:

*The current proposed project would include replacing the existing structure with a 37-foot long, 13-foot span by 7-foot rise concrete box culvert. The structure would be sumped 1 foot with class 1 riprap placed at the structure inlet and outlet for scour protection; approximately 18 inches of riprap would be placed underneath the box culvert.*

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

*Spring 2021*

5. Please enter the date of the bridge assessment:

*8/20/2020*

## Avoidance And Minimization Measures (AMMs)

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

**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.

**LIGHTING AMM 1**

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

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

This key was last updated in IPaC on December 02, 2019. 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.