

Indiana Department of Transportation

County Putnam Route US 40 Des. No. 1601094

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

Road No./County:

United States Highway (US) 40 / Putnam County

Designation Number:

1601094

Project Description/Termini:

Bridge project along US 40 over Sallust Branch of Mill Creek. Construction will extend from approximately 25 feet northeast and 25 feet southwest from the center of the bridge except in the northeast quadrant where construction limits will extend approximately 240 feet northeast to accommodate construction of a temporary haul road for a total length of approximately 0.07 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 type="checkbox"/>	Categorical Exclusion, Level 2 – 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"/>	Categorical Exclusion, Level 3 – 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 checked="" type="checkbox"/>	Categorical Exclusion, Level 4 – 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"/>	Environmental Assessment (EA) – 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

ESM Initials

Date



ES Initials

8/11/2020

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: Jaime Byerly / 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
If No, then: Opportunity for a Public Hearing Required?

*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 mailed to potentially affected property owners near the project area on March 19, 2018... The existing structure, Bridge Number 040-067-01838B/National Bridge Inventory (NBI) Number 013740... A legal notice was published in the Banner Graphic on June 16, 2020... Per the Historic Bridges Programmatic Agreement (Historic Bridges PA/HBPA), a public hearing is required.

Public Controversy on Environmental Grounds

Will the project involve substantial controversy concerning community and/or natural resource impacts? Yes No

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: US 40

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

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

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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 principal need for the project is due to the deteriorated condition of the existing structure. If deterioration is allowed to continue on this structure, it will eventually lead to failure (the structure currently has an estimated remaining life span of 20 years) and not perpetuate a crossing on US 40 over Sallust Branch of Mill Creek.

- The superstructure (beams) is determined to be in poor condition. This corresponds with a superstructure rating of 4 out of 9 (0 having failed and 9 being excellent) which is supported by a visual inspection and the cores analysis. Poor condition (rating of 4) includes advance section loss, deterioration, or spalling.
 - The core analysis determined that while some beams are in good condition, others are in poor condition. Good condition indicates some minor problems while poor condition indicates advance section loss, deterioration, or spalling. Furthermore, a detailed field inspection has determined that eight beams exhibit some advanced section loss, deterioration in cracks with efflorescence and stains, and spalls with exposed reinforcing. Beams 11 and 12 are in the worst condition (with 50% and 67% section loss respectively) due to water infiltration through the gap in the structure.
 - The deck is in fair condition (rated 5 on a 0 to 9 scale) with cracks and efflorescence on the underside. Fair condition indicates all primary structural elements are sound, but may have minor section loss, cracking, or spalling.
 - The asphalt wearing surface is satisfactory condition (rated 6 on a 0 to 9 scale) with transverse and longitudinal cracks in all lanes. Satisfactory condition indicates that structural elements show some minor deterioration.
 - The concrete railings are spalling and have a condition rating of 0 which means that they do not meet current safety requirements. The existing bridge railing is not a standard INDOT bridge railing shape and has not been crash tested using National Cooperative Highway Research Program (NCHRP) 350. INDOT requires bridge rehabilitations to replace inadequate railings with an INDOT approved crash tested railing or an approved design exception.
- Results of cores analysis also indicates a weak substructure (abutments and foundations) with inadequate compressive strength (less than 3,000 pound per square inch [psi]), and larger aggregate size indicative of older concrete. This corresponds with a fair substructure condition rating (5 on a 0 to 9 scale). Fair condition includes all primary structural elements are sound, but that they may have minor section loss, cracking, spalling, or scour. The abutments exhibit cracks throughout with efflorescence and/or stains and spalls, particularly near joints. The foundation is below grade and its condition is unknown.
- The superstructure and substructure ratings are summarized in a structural evaluation rating. Structures with deck, superstructure, or substructure ratings of 4 or less, or a structural evaluation of 2 or less are deemed structurally deficient. Based on the superstructure rating above, the overall structural evaluation of the bridge is structurally deficient (4 "poor" on a 0 to 9 scale). Structurally deficient bridges may be restricted to light weight vehicles. However, the load ratings for this bridge are still adequate at 26 tons (H-20 Truck) or 41 tons (HS-20 Truck).
- The significant deterioration and subsequent low ratings contribute to the most recent (2017) official sufficiency rating of 69.5 (out of a possible 100 points).

The purpose of the project is to continue providing the public with a structure that perpetuates vehicular crossing on US 40 over Sallust Branch of Mill Creek at current safety standards and requirements for at least 25 years with a structurally sufficient structure (preserving the overall structural capacity for loads it was originally designed for (H-20 truck)) and achieves a:

- superstructure condition rating of 6 or greater out of 9, and
- substructure condition rating of 6 or greater out of 9, and

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- structural evaluation rating of 6 or greater out of 9, and
- sufficiency rating of 81 or greater out of 100.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

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

Limits of Proposed Work: Bridge project along US 40 over Sallust Branch of Mill Creek. Construction will extend from approximately 25 feet northeast and 25 feet southwest from the center of the bridge except in the northeast quadrant where construction limits will extend approximately 240 feet northeast to accommodate construction of a temporary haul road for a total length of approximately 0.07 mile.

Total Work Length: 0.07 Mile(s) Total Work Area: 0.25 Acre(s)

Is an Interchange Modification Study / Interchange Justification Study (IMS/IJS) required?
If yes, when did the FHWA grant a conditional approval for this project?

Yes¹	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
Date: <input style="width: 100%;" type="text"/>	

¹If 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 Federal Highway Administration (FHWA) and the INDOT Crawfordville District propose to proceed with a bridge project along US 40 over its crossing of Sallust Branch of Mill Creek (hereafter referred to as Sallust Branch), approximately 0.5 mile west of State Road (SR) 75 in Putnam County, Indiana. Specifically, the project is within Jefferson Township, Coatesville and Eminence U.S. Geological Survey (USGS) Quadrangles, Township 14 North, Range 2 West, and Section 30. Construction will extend from approximately 25 feet northeast and 25 feet southwest from the center of the bridge except in the northeast quadrant where construction limits will extend approximately 240 feet northeast to accommodate construction of a temporary haul road for a total length of approximately 0.07 mile (Appendix B, pages B-1 and B-2). The temporary haul road will be utilized by construction vehicles only to access the underside of the bridge during construction.

Existing Conditions: Within the project area, US 40 is functionally classified as a Principal Arterial and consists of four 12-foot wide travel lanes (two eastbound and two westbound) with 4 to 7-foot wide paved shoulders. The eastbound and westbound travel lanes are separated by an approximately 32-foot wide grass median. The apparent existing right-of-way width along US 40 is approximately 88 feet from the center of the median.

The existing structure, Bridge Number 040-067-01838B/NBI Number 013740, has been classified as a *Select* bridge by the INDOT Historic Bridge Inventory. The structure carries US 40 eastbound and westbound traffic over Sallust Branch. The structure is a single span reinforced concrete girder bridge that was built in 1921 and reconstructed in 1938; the structure has a total length of 33 feet with a 30-foot clear span, and width of 100.67 feet. Surrounding land use is primarily agricultural with some riparian habitat (Appendix B, pages B-3 to B-12).

Per the INDOT Bridge Inspection Report, dated October 21, 2019, the bridge deck underside has hairline transverse and longitudinal cracks with white efflorescence between the beamlines. The bridge deck on the north side of the expansion joint is chipping. The bridge deck wearing surface has several wide transverse and longitudinal cracks in all four lanes. Most of the beams in the superstructure have advanced deterioration, cracking with efflorescence, and spalling. There are wide

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cracks with white efflorescence on the bridge substructure and small spalls in both bent caps at the edges of the original structure. Additionally, there is a larger spall located at the east bent of the construction joint. Per the bridge inspection report, the superstructure was given a condition rating of 4 out of a possible 9 ("poor" condition) and the substructure was given a condition rating of 5 out of a possible 9 ("fair" condition) (Appendix I, pages I-2 to I-9).

Preferred Alternative, as proposed in the HBAA (Historic Bridge Alternatives Analysis) Addendum: The preferred alternative (Alternative B1 Addendum) proposes to rehabilitate the structure while meeting the *Secretary of Interior's Standards for Rehabilitation*. The existing structure would be repaired, preserved, and maintained for vehicular use in a way that does not adversely affect the historic features of the bridge. Such activities include the structure's beams being patched and *fiber-wrapped to strengthen deteriorated beams and prevent future deterioration. The substructure (abutments) and railing will also be patched with **pneumatically placed mortar. Refer to the preliminary plans in Appendix B, pages B-13 through B-19 and the Historic Bridge Alternatives Analysis and Addendum Summaries in Appendix D, pages D-63 to D-71.

*The fiber material is a thin carbon fiber fabric that is wrapped around the beam with its original shape to remain apparent (see Appendix D, page D-50 for photo examples). **Pneumatically placed mortar, also known as "shotcrete", is a dry premixed sand and cement blended with water in a mixing nozzle as it is sprayed into place. The mortar is then finished and cured.

These repairs are geared towards preventative maintenance of the superstructure and substructure, which makes it a feasible alternative. The unsound concrete on the superstructure (not including deck) and substructure will be removed, and new concrete will be placed. These repairs can preserve the life of the remaining structure for 20 years, which is less than the standard treatment approach value of 25 years identified in the HBPA. However, RQAW's engineers believe that the preventative maintenance and repairs with possible subsequent routine maintenance should preserve the life of the structure for 25 years. The preventative maintenance and repairs will prevent the decrease of the structural capacity of the bridge and raise the superstructure condition rating to a 6 (from a 4). It will also raise the substructure condition rating to a 6 (from a 5). Based on the abutment concrete cores, most of the concrete in the deck, superstructure, and substructure have adequate compressive strength, meeting or exceeding the required compressive strength of 4,000 psi. By patching the inadequate areas of the superstructure and the substructure with new concrete which meets the required compressive strength of 4,000 psi, it will preserve the overall structural capacity of the bridge for the loads it was originally designed for (an H-20 truck). This will allow for the continued vehicular loading and use as a main US highway (and designated detour for Interstate 70), which is a purpose of the project.

Per the HBAA, this alternative is approximately \$553,150 which is around 16% of the replacement cost, which makes it a prudent alternative. Alternative B1 Addendum addresses the purpose and need of the project by providing a structure to safely cross US 40 over Sallust Branch of Mill Creek for approximately 25 years, while meeting current INDOT safety standards and requirements. This alternative is both feasible and prudent to construct, therefore this is the preferred alternative.

The project will take place within existing INDOT right-of-way and will not require the purchase of permanent or temporary right-of-way. The maximum depth of excavation is approximately up to 3 feet below ground surface. No residences or businesses will be relocated. The maintenance of traffic (MOT) will involve temporary lane closures to allow US 40 to remain open during construction. Refer to the *Maintenance of Traffic (MOT) During Construction* section of this document for further details on the proposed MOT. Per the INDOT Statewide Transportation Improvement Program (STIP), the estimated project cost is \$1,977,863 (fiscal year [FY] 2021) and construction is anticipated to begin in Summer of 2021.

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The project termini are logical because work is limited to underneath the structure; work to the bridge deck or roadway approaches will not occur. The project also has independent utility because construction of this project is not dependent on any other projects in the area.

After early coordination was sent on February 5, 2018, the preferred alternative was reduced to minimize impacts to the bridge. Essentially, it went from a bridge rehabilitation project (full depth replacement of deck, hot mix asphalt [HMA] overlay for approach work, patching abutments, replacement of existing bridge railing/railing transitions and guardrail, and installation of riprap at bridge abutments) to a maintenance project (patching and fiber-wrapping the deteriorated beams, patching the remaining substructure [abutments and wing walls], patching the existing concrete railing, and installing riprap along banks). However, because the environmental footprint and other factors remained the same, additional re-coordination with resources agencies was not conducted.

OTHER ALTERNATIVES CONSIDERED:

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

Alternative A: No-Build, as proposed in the initial HBAA: This alternative would do nothing and would not require federal funds to be expended. This alternative would not result in any environmental impacts, impacts to the historic bridge, or alteration to traffic. Without improvements, the existing structure would continue to deteriorate and eventually result in failure leading to closure. The RQAW and INDOT bridge engineers' professional judgment are that the reduction in beam capacity would result in a load restriction within approximately two years. Full beam failure (bridge closure) is anticipated within the next 15 to 20 years if no improvements are made. If the structure must be closed, US 40 would lose all function over Sallust Branch necessitating lengthy and costly detours to commuters as well as costly emergency repair/replacement. The detour length would be approximately 15 miles.

This alternative requires no design or construction; as such this alternative is considered a feasible alternative. However, it would not sustain a safe and functional crossing at this location for any meaningful length of time given the eventual failure of the bridge. Due to the concern for public safety, this alternative does not meet the purpose and need of the project and is not considered prudent and was not advanced.

Alternative B1: Rehabilitation for Continued Vehicular Use Meeting Secretary of Interior's Standards for Rehabilitation, as proposed in the initial HBAA: This alternative would rehabilitate the existing structure while meeting the *Secretary of Interior's Standards for Rehabilitation*. The existing structure would be rehabilitated for vehicular use in a way that does not adversely affect the historic features of the bridge. The alternative would include removing the asphalt paving surface, patching the concrete deck, and installing a bridge deck overlay. The beams would also be patched and fiber-wrapped to prevent future deterioration and the existing bridge railing would be patched or replaced with a custom designed railing with historic appearance. The substructure (abutments) would be patched with pneumatically placed mortar. These repairs are geared towards preventative maintenance and preservation of the deck, superstructure, and substructure. The asphalt wearing surface on top of the deck would be removed and the deck would receive a bridge deck overlay.

This alternative would address the purpose and need of the project by providing a structure to safely cross US 40 over Sallust Branch for approximately 25 years. This alternative is feasible and prudent to construct; however, Alternative B1 Addendum was determined to be more feasible due to lower cost and fewer modifications to the historic features of the bridge. Therefore, this alternative was not advanced.

Alternative B2: Rehabilitation for Continued Vehicular Use NOT Meeting Secretary of Interior's Standards for Rehabilitation, as proposed in the initial HBAA: This alternative would rehabilitate the existing structure for continued vehicular use while not meeting the *Secretary of Interior's Standards for Rehabilitation*. This alternative would include the

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rehabilitation activities as specified in Alternative B1 except the railing would be replaced with a standard, approved, TL-4 (Test Level 4) INDOT FC railing instead of patching or replacing with a historic appearance railing.

This alternative would cost approximately \$1,190,300 which is around 36 percent of the replacement cost, which makes it a prudent alternative. This alternative would address the purpose and need of the project by providing a structure to safely cross US 40 over Sallust Branch for approximately 25 years and upgrades the bridge to meet current INDOT safety standards and requirements for a TL-4 railing. This alternative is feasible and prudent to construct; however, Alternative B1 Addendum was determined to be more feasible due to lower cost and fewer modifications to the historic features of the bridge. Therefore, this alternative was not advanced.

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)

✓

ROADWAY CHARACTER:

US 40

Functional Classification: Principal Arterial
 Current ADT: 4,780 VPD (2021) Design Year ADT: 5,340 VPD (2041)
 Design Hour Volume (DHV): 518 Truck Percentage (%) 9.01
 Designed Speed (mph): 55 Legal Speed (mph): 55

	Existing	Proposed	
Number of Lanes:	4	4	
Type of Lanes:	12-foot wide travel lanes		
Pavement Width:	48	48	ft.
Shoulder Width:	8-14	8-14	ft.
Median Width:	32	32	ft.
Sidewalk Width:	0	0	ft.

Setting: Urban Suburban Rural
 Topography: Level Rolling Hilly

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DESIGN CRITERIA FOR BRIDGES:

Structure/NBI Number(s): 040-067-01838B Sufficiency Rating: 69.5 (INDOT Bridge Inspection Report, dated October 21, 2019) (Appendix I, pages I-2 to I-9)
(Rating, Source of Information)

	Existing	Proposed	
Bridge Type:	Single span reinforced concrete girder bridge	Single span reinforced concrete girder bridge	
Number of Spans:	1	1	
Weight Restrictions:	N/A	N/A	ton
Height Restrictions:	N/A	N/A	ft.
Curb to Curb Width:	98	98	ft.
Outside to Outside Width:	100.67	100.67	ft.
Shoulder Width:	0	0	ft.
Length of Channel Work:	N/A	135	ft.

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

Remarks: Bridge Number 040-067-01838B/NBI Number 013740 carries US 40 eastbound and westbound traffic over Sallust Branch; the structure has a total length of 33 feet with a 30-foot clear span, and width of 100.67 feet. Work within the stream channel of Sallust Branch includes installing riprap along the banks for scour protection. Installation of riprap will permanently impact approximately 135 linear feet (0.04 acre) of Sallust Branch below the ordinary high water mark (OHWM). Refer to *Preferred Alternative* discussion above for all other work elements to the bridge.

No other culverts or bridges are located within the project area.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

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

Remarks: The MOT will involve temporary lane closures to allow US 40 to remain open during construction. Phase I will involve single lane closures in each direction and Phase 2 will involve inside shoulder closures (Appendix B, pages B-15 and B-16).

A temporary haul road will be constructed using gravel in the northeast quadrant of the project area. The temporary haul road will be utilized by construction vehicles only to access the underside of the bridge during construction. The temporary haul road is not part of the MOT as the general public will not use this road.

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

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$ 10,000 (2018) Right-of-Way: \$ 0 Construction: \$ 1,967,863 (2021)

Anticipated Start Date of Construction: Summer of 2021

Date project incorporated into STIP The project is included in the Fiscal Year (FY) 2020-2024 Statewide Transportation Improvement Program (STIP) in Amendment Number 20-25 (Appendix H, pages H-1 and H-2).

Is the project in an MPO Area? Yes No
If yes,

Name of MPO _____

Location of Project in TIP _____

Date of incorporation by reference into the STIP N/A

RIGHT OF WAY:

Amount (acres)		
Land Use Impacts	Permanent	Temporary
Residential	0	0
Commercial	0	0
Agricultural	0	0
Forest	0	0
Wetlands	0	0
Other	0	0
TOTAL	0	0

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 apparent existing right-of-way width along US 40 is approximately 88 feet from the center of the median. The project will take place within existing INDOT right-of-way and will not require the purchase of permanent or temporary right-of-way (Appendix B, pages B-13 to B-19). Land use within the existing right-of-way consists of agricultural and riparian habitat (Appendix B, page B-3).

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.

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

SECTION A – ECOLOGICAL RESOURCES

	Presence	Impacts	
		Yes	No
Streams, Rivers, Watercourses & Jurisdictional Ditches	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Federal Wild and Scenic Rivers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Natural, Scenic or Recreational Rivers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nationwide Rivers Inventory (NRI) listed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outstanding Rivers List for Indiana	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Navigable Waterways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks: Per a desktop review, a field visit conducted on July 24, 2018 by RQAW, an aerial photograph of the project area (Appendix B, page B-3), USGS topographic map (Appendix B, page B-2), and the water resources map in the Red Flag Investigation (RFI) report (Appendix E, page E-8), 17 river/stream segments are located within 0.5 mile of the project area. Five stream segments, associated with Sallust Branch and an unnamed tributary (UNT) to Sallust Branch, are within or adjacent to the project area.

A *Waters of the U.S. Report* was completed by RQAW and was approved by the INDOT Ecology and Waterway Permitting Office on November 9, 2018 (Appendix F, pages F-1 to F-16). It was determined that two streams, Sallust Branch and UNT 1 to Sallust Branch, are within the project area. The U.S. Army Corps of Engineers (USACE) makes all determinations regarding jurisdiction.

Per the field visit, and as described in the *Waters of the U.S. Report*, two roadside ditches (RSD 1 and RSD 2) were identified within the project area (Appendix B, page B-3). The ditches are along the south side of US 40 and convey stormwater drainage from the roadway and surrounding landscape to Sallust Branch. The roadside ditches did not exhibit OHWM characteristics and are not captured streams. Therefore, the roadside ditches are not likely to be considered jurisdictional (i.e. a Waters of the United States).

Sallust Branch flows in a northwest to southeast direction under US 40 (Appendix B, page B-3). The upstream drainage area is approximately 2.3 square miles (Appendix F, page F-8). The stream exhibited a defined bed and bank, had OHWM characteristics of approximately 10.3 feet in width and 0.6 feet in depth, and eventually empties into the White River, 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). Sallust Branch is not listed as a Federal Wild and Scenic River or on the National Rivers Inventory. Sallust Branch is also not listed as a State Natural, Scenic and Recreational River or as an Outstanding River for Indiana.

Sallust Branch is listed for *Escherichia coli* (*E. coli*). Workers who are working in or near water with *E. coli* should take care to wear appropriate personal protective equipment (PPE), observe proper hygiene procedures, including regular hand washing, and limiting personal exposure. Work within the stream channel of Sallust Branch includes installing riprap along the banks for scour protection. This will permanently impact approximately 135 linear feet (0.04 acre) of Sallust Branch below the OHWM.

UNT 1 to Sallust Branch flows in a southwest to northeast direction along the north side of US 40 (Appendix B, page B-3). The upstream drainage area is approximately 0.3 square mile (Appendix F, page F-9). The stream exhibited a defined bed and bank, had OHWM characteristics of approximately 10 feet in width and 0.8 feet in depth, and empties into Sallust Branch. Based on these criteria, this stream is likely to be considered

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jurisdictional (i.e. a Waters of the United States). UNT 1 to Sallust Branch is not listed as a Federal Wild and Scenic River or on the National Rivers Inventory. UNT 1 to Sallust Branch is also not listed as a State Natural, Scenic and Recreational River or as an Outstanding River for Indiana.

UNT 1 to Sallust Branch is listed for *E. coli*. Workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limiting personal exposure. No work within the stream channel of UNT 1 will occur; therefore, no impacts to UNT 1 to Sallust Branch will occur.

A USACE Section 404 Permit and Indiana Department of Environmental Management (IDEM) Section 401 Water Quality Certification will be required due to stream impacts and mitigation, if applicable, will be determined during permitting.

Early coordination letters were sent to the USACE, Indiana Department of Natural Resources (IDNR) Division of Fish and Wildlife, and IDEM on November 6, 2019 (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 November 6, 2019; however, the response did not contain project specific comments (Appendix C, pages C-4 to C-13).

The IDNR Division of Fish and Wildlife responded to the early coordination letter on December 9, 2019 with recommendations to avoid or minimize impacts to streams and stream banks. Recommendations generally include implementing erosion and sediment control measures and stream bank stabilization measures, limiting in-channel disturbance, not working within the stream channel from April 1 through June 30, and proper use of riprap (Appendix C, pages C-17 to C-19). 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: _____

	<u>Presence</u>	<u>Impacts</u>	
		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, a field visit conducted on July 24, 2018 by RQAW, an aerial photograph of the project area (Appendix B, page B-3), USGS topographic map (Appendix B, page B-2), and the water resources map in the RFI report (Appendix E, page E-8), one other surface water is located within 0.5 mile of the project area. The unmapped lake is approximately 0.43 mile northeast of the project area. Impacts are not expected.

A *Waters of the U.S. Report* was completed by RQAW and was approved by the INDOT Ecology and Waterway Permitting Office on September 9, 2018 (Appendix F, pages F-1 to F-16). It was determined that other surface waters are not located within the project area. The USACE makes all determinations regarding jurisdiction.

Early coordination letters were sent to the USACE, IDNR Division of Fish and Wildlife, and IDEM on November 6, 2019 (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 November 6, 2019; however, the response did not contain project specific comments (Appendix C, pages C-4 to C-13).

The IDNR Division of Fish and Wildlife responded to the early coordination letter on December 9, 2019; however, the letter did not contain any recommendations regarding other surface waters (Appendix C, pages

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C-17 to C-19). All applicable agency recommendations are included in the *Environmental Commitments* section of this CE document.

Presence **Impacts**

Yes No

Wetlands

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

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

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments

	<u>Documentation</u>	<u>ES Approval Dates</u>
Wetlands (Mark all that apply)		
Wetland Determination	<input checked="" type="checkbox"/>	November 9, 2018
Wetland Delineation	<input type="checkbox"/>	<input type="checkbox"/>
USACE Isolated Waters Determination	<input type="checkbox"/>	<input type="checkbox"/>
Mitigation Plan	<input type="checkbox"/>	<input type="checkbox"/>

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

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

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 February 10, 2020 by RQAW, USGS topographic map (Appendix B, page B-2), and the water resources map in the RFI report (Appendix E, page E-8), five wetlands are located within 0.5 mile of the project area. The nearest wetland is mapped approximately 0.26 mile northeast of the project area. A field visit was conducted on July 24, 2018 by RQAW and it was determined that wetlands are not located within the project area. Impacts are not expected.

A *Waters of the U.S. Report* was completed by RQAW and was approved by the INDOT Ecology and Waterway Permitting Office on September 9, 2018 (Appendix F, pages F-1 to F-16). It was determined that wetlands are not located within the project area. The USACE makes all determinations regarding jurisdiction.

Early coordination letters were sent to the USACE, IDNR Division of Fish and Wildlife, and IDEM on November 6, 2019 (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 November 6, 2019; however, the response did not contain project specific comments (Appendix C, pages C-4 to C-13).

The IDNR Division of Fish and Wildlife responded to the early coordination letter on December 9, 2019; however, the letter did not contain any recommendations regarding wetlands (Appendix C, pages C-17 to C-19). All applicable agency recommendations are included in the *Environmental Commitments* section of this CE document.

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Presence

Impacts

Yes **No**

Terrestrial Habitat

Unique or High Quality Habitat

✓

✓

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, a field visit conducted on July 24, 2018 by RQAW, and an aerial photograph of the project area (Appendix B, page B-3), land use is primarily agricultural with some riparian habitat. Dominant tree species included common hackberry (*Celtis occidentalis*), silver maple (*Acer saccharinum*), box elder (*Acer negundo*), Ohio buckeye (*Aesculus glabra*), and black willow (*Salix nigra*). Dominant herbaceous vegetation included reed canary grass (*Phalaris arundinacea*), tall fescue (*Schedonorus arundinaceus*), wing stem (*Verbesina alternifolia*), and great ragweed (*Ambrosia trifida*). 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 total area of land disturbance is approximately 0.09 acre. Of this, approximately 0.02 acre of tree clearing will be needed for construction of the temporary haul road for construction vehicle access. Trees will be removed during the inactive bat season (October 1 through March 31).

Early coordination letters were sent to the USACE, IDNR Division of Fish and Wildlife, and IDEM on November 6, 2019 (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 November 6, 2019; however, the response did not contain project specific comments (Appendix C, pages C-4 to C-13).

The IDNR Division of Fish and Wildlife responded to the early coordination letter on December 9, 2019 with recommendations to avoid or minimize impacts to terrestrial and riparian habitat. Recommendations generally include revegetating disturbed areas, minimizing tree and brush clearing, and mitigating impacts to non-wetland forest at appropriate ratios (Appendix C, pages C-17 to C-19). 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?

Yes

No

✓
✓

If yes, will the project impact any of these karst features?

--

--

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 (Appendix B, page B-2) and the water resources map in the RFI report (Appendix E, page E-8), there are no karst features identified within or adjacent to the project area.

Early coordination was sent to the Indiana Geological Survey (IGS) on November 6, 2019 (Appendix C, pages C-1 to C-3). In their early coordination response, the IGS did not indicate that karst features may exist in the project area (Appendix C, pages C-14 to C-16). Impacts are not expected. The IGS stated the project is located within an area with moderate liquefaction potential, moderate potential for bedrock resources, low potential

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for sand and gravel resources, and no documented abandoned mineral resources extraction sites. This information was conveyed to the project designer on February 5, 2020.

	<u>Presence</u>	<u>Impacts</u>	
Threatened or Endangered Species		<u>Yes</u>	<u>No</u>
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 & Management on January 9, 2020 (Appendix E, pages E-1 to E-10), the IDNR Putnam County Endangered, Threatened and Rare (ETR) Species List has been checked (Appendix E, pages E-9 and E-10). The highlighted species on the list reflect the federal and state identified ETR species located within Putnam County. Per the IDNR Division of Fish and Wildlife early coordination response letter dated December 9, 2019, the Natural Heritage Program’s database has 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-17 to C-19).

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 May 11, 2020 by RQAW and an official species list was generated (Appendix C, pages C-23 to C-28). 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 the project area. 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 May 11, 2020 by RQAW; based on the responses provided, it was determined the project *May Affect, Not Likely to Adversely Affect* the Indiana bat and northern long-eared bat (Appendix C, pages C-30 to C-43). INDOT Environmental Services Division reviewed and verified the effect finding and requested USFWS review of the effect finding on May 13, 2020 (Appendix C, page C-29). 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.

Structure Number 040-67-01838B has shown evidence of use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA) during the July 24, 2018 (conducted by RQAW environmental staff) and January 11, 2019 (conducted by RQAW bridge engineering staff) inspections. Avoidance and Minimization Measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the “Potential Migratory

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Bird on Structure Unique Special Provision (USP)". This firm commitment is included in the *Environmental Commitments* section of this CE document.

An additional bridge inspection will be completed prior to letting for this project. This is because the latest inspection (January 2019) and anticipated construction (mid-year 2021) are greater than two years apart. USFWS bridge inspections are only valid for two years. A firm commitment is included in the *Environmental Commitments* section of this document.

This precludes the need for further consultation on the project 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

Drinking Water Resources	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Wellhead Protection Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Water System(s)	<input type="checkbox"/>	<input 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:

	<u>Yes</u>	<u>No</u>
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 Putnam 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 and a detailed groundwater assessment is not needed. Impacts are not expected.

Per the IDEM Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead/>), accessed on February 11, 2020 by RQAW, the project area is not located within a Wellhead Protection Area or Source Water Area. Impacts are not expected.

Per review of the IDNR Water Well Viewer website (<https://www.in.gov/dnr/water/3595.htm>), accessed on February 11, 2020 by RQAW, two water wells are located within 0.5 mile of the project area. The closest (unspecified) water well is located over 1,000 feet northwest of the project area. Per the IDNR Water Well Viewer, the location of the water well is estimated, and the static water level is 25 feet. During construction, the maximum depth of excavation is approximately up to 3 feet below ground surface. Per the project designer, the project area does not contain any residential water wells. Impacts are not expected.

Per a desktop review of the INDOT Municipal Separate Storm Sewer Systems (MS4) website (<https://entapps.indot.in.gov/MS4/>), accessed on February 11, 2020 by RQAW, and the Urban Area Boundary (UAB) discussion in the RFI report (Appendix E, page E-3), the project area is not within an Urban Area Boundary. Impacts are not expected.

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Per a desktop review, a field visit conducted on July 24, 2018 by RQAW, an aerial photograph of the project area (Appendix B, page B-3), and coordination with the project designer, the project area does not contain any public water systems. Impacts are not 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 a review of the IDNR Indiana Floodway Information Portal website (<https://dnrmmaps.dnr.in.gov/appsphp/fdms/>), accessed on February 11, 2020 by RQAW, and the RFI report, the project area is not located within a regulatory floodplain (Appendix E, page E-8 and Appendix F, pages F-6 and F-7). Therefore, the project does not fall within the guidelines for the implementation of 23 CFR 650, 23 CFR 771, and 44 CFR. Impacts are not expected.

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

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

**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, a field visit conducted on July 24, 2018 by RQAW, an aerial photograph of the project area (Appendix B, page B-3), there is farmland located adjacent to the project area. Farmland will be impacted to construct the temporary haul road. However, the project will take place within INDOT existing right-of-way and will not impact any privately-owned land that is being used for agricultural purposes. Per early coordination with the Natural Resources Conservation Service (NRCS), there is no land that meets the definition of farmland under the Farmland Protection Policy Act (FPPA) within the project area. The requirements of the FPPA do not apply. Impacts are not expected.

An early coordination letter was sent to the NRCS on November 6, 2019 (Appendix C, pages C-1 to C-3). The NRCS responded to early coordination efforts on February 10, 2020 and stated the project will not cause a conversion of prime farmland (Appendix C, page C-20).

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SECTION C – CULTURAL RESOURCES

	Category	Type	INDOT Approval Dates	N/A
Minor Projects PA Clearance				<input checked="" type="checkbox"/>

Results of Research

Eligible and/or Listed
Resource Present

Archaeology	
NRHP Buildings/Site(s)	
NRHP District(s)	
NRHP Bridge(s)	<input checked="" 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 checked="" type="checkbox"/>	May 4, 2018	June 7, 2018
Historic Property Report			
Archaeological Records Check/ Review	<input checked="" type="checkbox"/>	October 21, 2019	November 21, 2019
Archaeological Phase Ia Survey Report	<input checked="" type="checkbox"/>	October 21, 2019	November 21, 2019
Archaeological Phase Ic Survey Report			
Archaeological Phase II Investigation Report			
Archaeological Phase III Data Recovery			
APE, Eligibility and Effect Determination	<input checked="" type="checkbox"/>	June 3, 2020	July 6, 2020
800.11 Documentation	<input checked="" type="checkbox"/>	June 3, 2020	July 6, 2020

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: Per Section 106 of the National Historic Preservation Act of 1966, as amended, and CFR Part 800 (Revised January 2001), federal agencies are required to consider the impact of federal undertakings upon historic properties in the area of the undertaking. Historic properties include buildings, structures, sites, objects and or districts. This project is receiving funds from the FHWA which is designated as the lead Federal agency in this Section 106 undertaking.

The existing structure (US 40 over Sallust Branch; Bridge Number 040-067-01838B; NBI Number 013740) is classified as a *Select* bridge by the INDOT Historic Bridge Inventory; thus, the procedures outlined in Stipulation III.A. of the Historic Bridges PA are being followed. A draft Historic Bridge Alternatives Analysis and Purpose and Need Statement were prepared in consultation with consulting parties and the Indiana State Historic Preservation Officer (SHPO).

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Area of Potential Effect (APE): The APE is the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking may be different for different kinds of effects caused by the undertaking. The APE for this project is an irregular polygon. Along US 40, it is approximately 0.25 mile from the US 40 crossing over Sallust Branch. The APE narrows to the south and northwest where vegetation along streams limits views (Appendix D, page D-10).

Coordination with Consulting Parties: On February 5, 2018, early coordination was initiated with potential consulting parties with a letter inviting organizations and individuals to be consulting parties (Appendix D, pages D-15 to D-21). The following is a list of organizations and individuals that were sent letters. Those who indicated they wished to be consulting parties are in bold. [Note: INDOT is acting on behalf of FHWA and Indiana SHPO is an automatic consulting party] See the list of consulting parties in Appendix D, page D-13, and all consulting party correspondence in Appendix D, pages D-15 to D-56.

Section 106 Consulting Parties	Date of Response
1. Indiana Landmarks Western Regional Office	March 5, 2018 (D-24)
2. Indiana National Road Association	March 6, 2018 (D-23)
3. Dr. James Cooper	No response received
4. Indiana Historic Spans Task Force	No response received
5. Main Street Greencastle, Inc.	No response received
6. Heritage Preservation Society of Putnam County	No response received
7. Putnam County Historian	No response received
8. Putnam County Museum	No response received
9. West Central Indiana Economic Development District, Inc.	No response received
10. Putnam County Commissioners	No response received
11. Putnam County Highway Supervisor	No response received
12. Miami Tribe of Oklahoma	February 6, 2018 (D-22)
13. Peoria Tribe of Indians of Oklahoma	No response received
14. Eastern Shawnee Tribe of Oklahoma	No response received
15. Pokagon Band of Potawatomi Indians	No response received
16. Forest County Potawatomi Community	No response received
17. *Shawnee Tribe	No response received
18. *Historicbridges.org	No response received
19. *Historic Hoosier Bridges	No response received
20. *Historic Bridge Foundation	No response received

*After early coordination was initiated, these consulting parties were added.

In a letter dated April 4, 2018, the Indiana SHPO did not have any additional recommendations for consulting parties and concurred with the APE (Appendix D, pages D-25 and D-26).

In a letter dated February 6, 2018, the Miami Tribe of Oklahoma agreed to be a consulting party and offered no objection to the project at that time (Appendix D, page D-22). In an e-mail dated March 6, 2018, the Indiana National Road Association accepted to be a consulting party and that the bridge is a historic resources on the Historic National Road which has been designated state and national scenic byway and an All-American Road (Appendix D, page D-23).

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Archaeology: An *Indiana Archaeological Short Report* was completed by a qualified professional from Cultural Resource Analysis on October 17, 2019 (Kelley, 2019) (Appendix D, pages D-60 and D-61). No sites listed on or eligible for inclusion on the National Register of Historic Places (NRHP) were identified within the project area. The archaeological report was approved by INDOT Cultural Resources Office (CRO) on October 21, 2019 and was sent to the Indiana SHPO on October 22, 2019 (Appendix D, pages D-48 to D-53). In a letter dated November 21, 2019, the Indiana SHPO concurred with the findings of the archaeological report and stated no additional archaeological assessment is necessary (Appendix D, pages D-54 to D-56).

Historic Properties: The APE was investigated for the existence of any historic properties and/or structures by a qualified professional from RQAW on April 17, 2018. Per the field visit and associated documentary research, the historian identified the subject bridge eligible for the NRHP and recommended no other properties as eligible for listing in the NRHP.

The Historic Property Short Report (HPSR) was completed by a qualified professional from RQAW on April 24, 2018 (Boot, 2018) (Appendix D, pages D-58 and D-59). The HPSR was approved by INDOT CRO on May 4, 2018. The HPSR was sent to consulting parties, including the Indiana SHPO, on May 8, 2018 and May 9, 2018 (Appendix D, pages D-27 to D-30). In a letter dated June 7, 2018, the Indiana SHPO concurred with the findings of the HPSR and commented, "we acknowledge that the *Indiana Historic Bridge Inventory* evaluated the [bridge] as being NRHP-eligible only under Criterion A" but "we think the type of bridge and its visual characteristics contribute something to its significance" (Appendix D, pages D-31 and D-32).

In a letter dated June 19, 2018, INDOT CRO responded to the Indiana SHPO's comments regarding significant features. INDOT CRO continued to welcome comments regarding significant features of the bridge under Criterion A, but no other parties commented in this regard. The letter discussed the current conditions of the bridge, recommended project scope, and Core Report analysis (Olson, May 11, 2018) (Appendix D, pages D-33 to D-37).

In a letter dated July 18, 2018, the Indiana SHPO stated, "it appears to us, from the concrete core sampling and testing report, that the beams are generally in better condition than the deck and the east abutment." The Indiana SHPO asked, "could a heavier than usual steel reinforced mechanism be installed in a new, poured concrete deck that would reduce some of the forces on the 1921 and 1938 reinforced concrete beams, so that more of the beams could be repaired and retained while also improving the load-bearing capacity of the rehabilitated bridge as a whole" (Appendix D, pages D-38 and D-39).

A draft Historic Bridge Alternative Analysis (HBAA) was completed by RQAW on July 9, 2019 (Dohrenwend and Boot, 2019) (Appendix D, pages D-63 to D-66). The draft HBAA and coordination letter addressing the comments in the July 18, 2018 Indiana SHPO letter, were sent to consulting parties on July 23, 2019 (Appendix D, pages D-40 to D-44). The preliminary preferred alternative identified in the draft HBAA consisted of rehabilitating the structure while not meeting the *Secretary of Interior's Standards for Rehabilitation*. This alternative would have removed the asphalt paving surface, patched the concrete deck, installed a bridge deck overlay, patched and fiber-wrapped deteriorated beams, patched abutments, and replaced the railing with a TL-4 INDOT FC railing.

In a letter dated August 20, 2019, the Indiana SHPO stated appreciation for responses to their comments on "the distinction between the superstructure and substructure of a bridge" and "the reinforced replacement deck [carrying] some of the vehicular load so that the reinforced concrete beams would not have to be replaced," along with pleasure "that the beams and abutments can be rehabilitated on this *Select Bridge*." The Indiana SHPO questioned "would the fiber-wrapping of the beams allow their original shape to remain

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apparent” and “would a replacement railing that has design features similar to those of the existing railing but is reinforced and probably taller or thicker than the existing railing be acceptable from a crash testing perspective” (Appendix D, pages D-45 to D-47).

Per the Historic Bridges PA, a hard copy of the 30 percent plan set, completed by RQAW on July 26, 2019, along with a coordination letter, were sent to the Indiana SHPO on October 22, 2019 (Appendix D, pages D-48 to D-53). The letter contained photos of a similar fiber wrap to be used on the deteriorating beams. In a letter dated November 21, 2019, the Indiana SHPO responded and stated they do not have any questions about the 30 percent plans. The Indiana SHPO stated they preferred the color of the fiber wrap to be closer to the concrete on the bridge (Appendix D, pages D-54 to D-56). In a letter dated June 4, 2020, the INDOT CRO stated INDOT will try to match the color of the fiber wrap and patching material to the hue and tint of the existing concrete so the repairs are as inconspicuous as possible. A special provision will be included in the contract regarding the color of the fiber wrap and concrete patching. INDOT CRO stated the scope of the project was reduced to an alternative that focuses on repair, preservation, and maintenance, and the previously preferred alternative identified in the draft HBAA was no longer the preferred alternative due to opportunities to minimize impacts to the bridge. An Addendum to the draft HBAA and 60 percent plans were provided with the letter (Appendix D, pages D-74 to D-80). Per the Historic Bridges PA, the final design plans will be sent to the Indiana SHPO for review and comment when they become available.

In a letter dated July 6, 2020, the Indiana SHPO commented on the draft HBAA Addendum and the 60 percent plans. The Indiana SHPO concurred with the *No Historic Properties Affected* finding and that Alternative B1 would be an appropriate treatment for the bridge. The Indiana SHPO did not have any questions or comments on the 60 percent plans and stated they look forward to receiving final (100 percent) plans before they issue a Director’s Letter of Clearance for the project. The Indiana SHPO did express a general (state-wide) concern about the potential future action of reclassifying *Select* bridges to *Non-select* so that they can be replaced. This concern was relayed to INDOT CRO in a phone call on July 7, 2020. INDOT CRO stated they are currently working with the FHWA to address this point. During the same phone call, INDOT CRO stated ROAW should request a Director’s Letter of Clearance when the 100 percent plans are provided to the Indiana SHPO. This is listed as a firm commitment. No additional comments/questions were received during Section 106 consultation. See the Indiana SHPO letter in Appendix D, pages D-81 to D-83.

Documentation, Findings: Per the Historic Bridges PA, the FHWA will satisfy its Section 106 responsibilities involving *Select* and *Non-Select* bridges through the Project Development Process (PDP) of the Historic Bridges PA (Stipulation III). The subject bridge has been classified as a *Select* bridge by the INDOT Historic Bridge Inventory and, thus, the procedures outlined in Stipulation III.A of the Historic Bridges PA will be followed to fulfill FHWA’s Section 106 responsibilities for the bridge. Therefore, the finding for this project only applies to other resources located within the APE and not to the subject bridge. Regarding other resources located in the project area, INDOT, acting on FHWA’s behalf, has determined a *No Historic Properties Affected* finding is appropriate for this undertaking.

The 800.11(d) documentation for the *No Historic Properties Affected* was signed by INDOT CRO, on behalf of FHWA, on June 3, 2020 (Appendix D, pages D-1 to D-72). The 800.11(d) document was sent to consulting parties, including the Indiana SHPO, on June 4, 2020. The Indiana SHPO concurred with the *No Historic Properties Affected* Section 106 finding on July 6, 2020 (Appendix D, pages D-81 to D-83).

Public Involvement: A legal notice was published in the *Banner Graphic* on June 16, 2020. The notice offered the public an opportunity to comment on the *No Historic Properties Affected* Section 106 finding. The public had a 30-day comment period to respond to the notice. The comment period expired on July 16, 2020 and

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no public comments were received. See the legal notice affidavit and proof of publication in Appendix D, page D-73.

Per the Historic Bridge PA, INDOT will hold a public hearing prior to completion of the National Environmental Policy Act (NEPA) process. 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.

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

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

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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).

Section 4(f) of the Department of Transportation Act of 1966, 49 USC 303(c) prohibits the use of certain public and historic lands for federally funded transportation facilities unless there is not a feasible and prudent alternative. The law applies to significant publicly owned parks, recreation areas, wildlife and waterfowl refuges, and NRHP eligible or listed historic properties regardless of ownership. Lands subject to this law are considered Section 4(f) resources.

Based on a desktop review, a field visit conducted on July 24, 2018 by RQAW, an aerial map of the project area (Appendix B, page B-3), the infrastructure map in the RFI report (Appendix E, page E-7), and the 800.11(d) documentation (Appendix D, pages D-1 to D-72), there is one Section 4(f) resource within or adjacent to the project area.

Structure Number 040-067-01838B is afforded protection under Section 4(f) as a historic site that is eligible for listing on the NRHP. The Section 4(f) statute places restrictions on the use of land from historic sites for highway improvements but makes no mention of historic bridges or highways that are already serving as transportation facilities. FHWA therefore, determined that Section 4(f) will only apply when a historic bridge is demolished, or if the historic quality for which the facility was determined eligible for the NRHP is substantially affected by the proposed improvements.

The proposed bridge project qualifies for the programmatic Section 4(f) evaluation and approval for FHWA projects that necessitate the use of a historic bridge when the project meets the following criteria:

1. The bridge is to be replaced or rehabilitated with Federal funds.
2. The project will require the use of a historic bridge structure which is on or is eligible for listing on the NRHP.
3. The bridge is not a National Historic Landmark.
4. The FHWA Division Administrator determines that the facts of the project match those set forth by the investigation of the appropriate Alternatives, Findings, and Mitigation.
5. Agreement among the FHWA, the SHPO, and the Advisory Council on Historic Preservation (ACHP) has been reached through procedures pursuant to Section 106 of the NHPA. Structure Number 040-067-01838B bridge project meets these criteria.

To apply the Historic Bridge Programmatic Section 4(f) Evaluation, three alternatives that avoid any use of the historic bridge must be examined: do nothing, build a new structure at a different location without affecting the historic integrity of the historic bridge, and rehabilitate the historic bridge without affecting the historic integrity of the structure. The Indiana Historic Bridge PA requires a more extensive alternatives analysis evaluating additional alternatives.

The alternatives described in this document are based on the guidance for writing a historic bridge Section 4(f) alternatives analysis and alternative analysis addendum produced by RQAW and finalized on July 9, 2019 and April 21, 2020, respectively. Per the guidance, alternatives (No Build/Do Nothing, Alternative B1, and Alternative B2) must be analyzed in consecutive order until a feasible and prudent alternative has been determined which also results in the least amount of harm to the protected resource. A feasible alternative is one that is possible to engineer, design, and build, and a prudent alternative is one that does not present significantly unique or unusual factors (e.g. cost; social, economic, or environmental impacts; community disruption). Once a feasible and prudent alternative has been determined, the remaining alternatives do not

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need to be analyzed. The following alternatives were previously discussed in detail in the *Alternatives* section of this document. A summarized version of the alternatives is provided below. The formal Alternative Analysis and Alternative Analysis Addendum are provided in Appendix D, pages D-63 to D-71.

Alternative A: No-Build, as proposed in the initial HBAA: This alternative would do nothing and would not require federal funds to be expended. This alternative would not result in any environmental impacts, impacts to the historic bridge, or alteration to traffic. Without improvements, the existing structure would continue to deteriorate and eventually result in failure leading to closure. The RQAW and INDOT bridge engineers' professional judgment are that the reduction in beam capacity would result in a load restriction within approximately two years. Full beam failure (bridge closure) is anticipated within the next 15 to 20 years if no improvements are made. If the structure must be closed, US 40 would lose all function over Sallust Branch necessitating lengthy and costly detours to commuters as well as costly emergency repair/replacement. The detour length would be approximately 15 miles.

This alternative requires no design or construction; as such this alternative is considered a feasible alternative. However, it would not sustain a safe and functional crossing at this location for any meaningful length of time given the eventual failure of the bridge. Due to the concern for public safety, this alternative does not meet the purpose and need of the project and is not considered prudent and was not advanced.

Alternative B1: Rehabilitation for Continued Vehicular Use Meeting Secretary of Interior's Standards for Rehabilitation, as proposed in the initial HPPA: This alternative would rehabilitate the existing structure while meeting the *Secretary of Interior's Standards for Rehabilitation*. The existing structure would be rehabilitated for vehicular use in a way that does not adversely affect the historic features of the bridge. The alternative would include removing the asphalt paving surface, patching the concrete deck, and installing a bridge deck overlay. The beams would also be patched and fiber-wrapped to prevent future deterioration and the existing bridge railing would be patched or replaced with a custom designed railing with historic appearance. The substructure (abutments) would be patched with pneumatically placed mortar. These repairs are geared towards preventative maintenance and preservation of the deck, superstructure, and substructure. The asphalt wearing surface on top of the deck would be removed and the deck would receive a bridge deck overlay.

This alternative would address the purpose and need of the project by providing a structure to safely cross US 40 over Sallust Branch for approximately 25 years. This alternative is feasible and prudent to construct; however, Alternative B1 Addendum was determined to be more feasible due to lower cost and fewer modifications to the historic features of the bridge. Therefore, this alternative was not advanced.

Alternative B1 Addendum: Rehabilitation for Continued Vehicular Use Meeting Secretary of Interior's Standards for Rehabilitation (preferred alternative): This proposes to rehabilitate the structure while meeting the *Secretary of Interior's Standards for Rehabilitation*. The existing structure would be repaired, preserved, and maintained for vehicular use in a way that does not adversely affect the historic features of the bridge. Such activities include the structure's beams being patched and fiber-wrapped to strengthen deteriorated beams and prevent future deterioration. The substructure (abutments) and railing will also be patched with pneumatically placed mortar.

These repairs are geared towards preventative maintenance of the superstructure and substructure, which makes it a feasible alternative. The unsound concrete on the superstructure (not including deck) and substructure will be removed, and new concrete will be placed. These repairs can preserve the life of the remaining structure for 20 years, which is less than the standard treatment approach value of 25 years

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identified in the HBPA. However, RQAW's engineers believe that the preventative maintenance and repairs with possible subsequent routine maintenance should preserve the life of the structure for 25 years. The preventative maintenance and repairs will prevent the decrease of the structural capacity of the bridge and raise the superstructure condition rating to a 6 (from a 4). It will also raise the substructure condition rating to a 6 (from a 5). Based on the abutment concrete cores, most of the concrete in the deck, superstructure, and substructure have adequate compressive strength, meeting or exceeding the required compressive strength of 4,000 psi. By patching the inadequate areas of the superstructure and the substructure with new concrete which meets the required compressive strength of 4,000 psi, it will preserve the overall structural capacity of the bridge for the loads it was originally designed for (an H-20 truck). This will allow for the continued vehicular loading and use as a main US highway (and designated detour for Interstate 70), which is a purpose of the project.

This alternative is approximately \$553,150 which is around 16% of the replacement cost, which makes it a prudent alternative. Alternative B1 Addendum addresses the purpose and need of the project by providing a structure to safely cross US 40 over Sallust Branch of Mill Creek for approximately 25 years, while meeting current INDOT safety standards and requirements. This alternative is both feasible and prudent to construct, therefore this is the preferred alternative.

Alternative B2: Rehabilitation for Continued Vehicular Use NOT Meeting Secretary of Interior's Standards for Rehabilitation, as proposed in the initial HPPA: This alternative would rehabilitate the existing structure for continued vehicular use while not meeting the *Secretary of Interior's Standards for Rehabilitation*. This alternative would include the rehabilitation activities as specified in Alternative B1 except the railing would be replaced with a standard, approved, TL-4 (Test Level 4) INDOT FC railing instead of patching or replacing with a historic appearance railing.

This alternative would cost approximately \$1,190,300 which is around 36 percent of the replacement cost, which makes it a prudent alternative. This alternative would address the purpose and need of the project by providing a structure to safely cross US 40 over Sallust Branch for approximately 25 years and upgrades the bridge to meet current INDOT safety standards and requirements for a TL-4 railing. This alternative is feasible and prudent to construct; however, Alternative B1 Addendum was determined to be more feasible due to lower cost and fewer modifications to the historic features of the bridge. Therefore, this alternative was not advanced.

The programmatic Section 4(f) evaluation and approval may be used only for projects where the FHWA Division Administrator, in accordance with this evaluation, ensures that the proposed action includes all possible planning to minimize harm. The project has considered all appropriate measures to minimize harm and mitigate for adverse impacts or effects on Structure Number 040-067-01838B, including development of the initial alternative analysis. It was determined that Alternative B1 Addendum would result in the least overall harm to the historical integrity of the bridge.

Pursuant to the Programmatic Section 4(f) Evaluation and Approval for FHWA projects that necessitate the use of historic bridges, the preferred alternative (Alternative B1 Addendum) will result in a use of the historic bridge.

The FHWA signature of this Level 4 Categorical Exclusion will act as FHWA concurrence of this Programmatic Section 4(f) evaluation for Structure Number 040-067-01838B.

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Section 6(f) Involvement

Presence

Use

Section 6(f) Property

Yes

No

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 a review of the LWCF property list provided by the IDNR Division of Outdoor Recreation, dated December 2019, there are 14 LWCF properties within Putnam County (Appendix I, page I-1). None of the LWCF properties are within or adjacent to the project area. Therefore, there will be no impacts to Section 6(f) resources as a result of this project.

SECTION E – Air Quality

Air Quality

Conformity Status of the Project

Is the project in an air quality non-attainment or maintenance area?

Yes

No

If YES, then:

Is the project in the most current MPO TIP?

Is the project exempt from conformity?

If the project is NOT exempt from conformity, then:

Is the project in the Transportation Plan (TP)?

Is a hot spot analysis required (CO/PM)?

Level of MSAT Analysis required?

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

Remarks:

The project is included in the FY 2020-2024 STIP in Amendment Number 20-25 (Appendix H, pages H-1 and H-2).

The project is in Putnam 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), accessed on February 11, 2020 by RQAW. Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

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

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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
ES Review of Noise Analysis	<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 are no businesses within the project area. Access to all properties will be maintained during construction. Per the Fairs and Festivals website (www.fairsandfestivals.net), accessed on February 11, 2020 by RQAW, five fairs or festivals are currently scheduled within a 10 mile radius of zip codes 46121 and 46128 (project area). These or any future fairs/festivals that may be planned are unlikely to be impacted by the project since US 40 will not be fully closed during construction.

Per a phone call with the Putnam County Auditor's Office on June 4, 2020, Putnam County has an approved ADA Transition Plan (dated April 2014). Per e-mail communication on August 4, 2020, the Putnam County Auditor provided an electronic copy of the approved ADA Transition Plan to RQAW. Per the plan, "Title II of the ADA (28 CFR Section 35.150 [d]) requires that state and local governmental entities develop a Transition Plan specific to curb ramps or other sloped areas at locations where walkways cross curbs," and "There is no requirement under Title II of the ADA or proposed PROWAG [Proposed Accessibility Guidelines for Pedestrian Facilities with Public Right-of-way] that sidewalks be made accessible or be provided where they are not currently provided. The law stipulates that the public entity provide curb ramps, or other sloped areas where pedestrian walks cross curbs, that are accessible. New construction or alterations would require that non-compliant sidewalks be improved to the extent possible. The County is quite rural and such has no facilities within the ROW [right-of-way]" (Appendix I, pages I-10 and I-11). Because the project area is in a rural area

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and does contain any existing ADA facilities (walkways/sidewalks, curb ramps), the project is not required to comply with the ADA Transition Plan.

Indirect and Cumulative Impacts

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

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

Remarks:

Indirect impacts are effects caused by the action and 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 limited scope of the project (bridge maintenance in a rural area), the project is not expected to result in any substantial indirect or cumulative impacts. The project will increase the superstructure and substructure condition ratings to a 6 ("satisfactory" condition). However, the project is not expected to increase development in the area beyond what may already be planned. The project will not add capacity to the existing roadway network or provide additional access to any currently undeveloped area.

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.*

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

Remarks:

Per a desktop review, a field visit conducted on July 24, 2018 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-7), two public facilities (one church and one cemetery) are located within the 0.5 mile search radius. The church is mapped approximately 0.25 mile north of the project area and the cemetery is mapped approximately 0.25 mile south of the project area. Due to the distance, impacts are not expected. Per review of Google Maps, there does not appear to be any emergency services or public transportation stations located within the 0.5 mile search radius.

Per the project designer, the project area does not contain any public water systems or residential water wells. Impacts are not expected. Also, per the project designer, telephone and electric utilities are within the project area. However, impacts are not expected.

Early coordination letters were sent to the Putnam County Council, Putnam County Board of Commissioners, Putnam County Surveyor's Office, and the Putnam County Highway Department on November 6, 2019 (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?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input 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 CE 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 not require any permanent right-of-way or relocations. Therefore, an EJ analysis is not required.

An early coordination letter was sent to the U.S. Department of Housing and Urban Development (USHUD) on November 6, 2019 (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?	Yes	No
Is a Business Information Survey (BIS) required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is a Conceptual Stage Relocation Study (CSRS) required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Has utility relocation coordination been initiated for this project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

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. Per the project designer, telephone and electric utilities are within the project area. However, impacts are not expected. Utility coordination has been initiated and is ongoing.

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
ES Review of Investigations		January 9, 2020

Include a summary of findings for each investigation.

Remarks: Per a review of geographic information system (GIS) and available public records, a RFI report was approved by INDOT Site Assessment & Management on January 9, 2020. No hazardous material concern sites are located within 0.5 mile of the project area (Appendix E, pages E-1 to E-10). No obvious hazardous material concerns (e.g. gasoline stations, above ground storage tanks, monitoring wells, dry cleaners, automotive repair facilities) were observed within or adjacent to the project area during the field visit conducted on July 24, 2018 by RQAW (Appendix E, page E-11). Further investigation for hazardous material concerns or regulated substances is not currently required.

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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"/>
Other	<input type="checkbox"/>
Mitigation Required	<input type="checkbox"/>

US Coast Guard Section 9 Bridge Permit

Others (Please discuss in the remarks box below)

<input type="checkbox"/>

Remarks:

The project will impact approximately 135 linear feet (0.04 acre) of streams. A USACE Section 404 Regional General Permit and IDEM Section 401 Water Quality Certification will be required due to stream impacts.

The total area of land disturbance is approximately 0.09 acre. Because the project will not result in one acre or more of land disturbance, an IDEM Rule 5 Notice of Intent will be not required.

Per the IDNR Division of Fish and Wildlife early coordination response letter, dated December 9, 2019, the project will require formal approval for construction in a floodway under the Flood Control Act, IC 14-28-1 unless the project qualifies for a bridge exemption. To qualify for a bridge exemption, the project must be a state or county highway department project, involve a bridge, be in a rural area, and involve a stream crossing with an upstream drainage area less than 50 square miles (Appendix C, pages C-17 to C-19). Because the project is state-sponsored, involves a bridge, is in a rural area, and involves streams with upstream drainage areas between 0.3 and 2.3 square miles (Appendix F, pages F-8 and F-9), a Construction in a Floodway Permit will not be required.

Applicable recommendations provided by the permitting agencies 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.

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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)
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)
3. Sallust Branch and UNT 1 to Sallust Branch are listed for *Escherichia coli* (*E. coli*). Workers who are working in or near water with *E. coli* should take care to wear appropriate personal protective equipment (PPE), observe proper hygiene procedures, including regular hand washing, and limiting personal exposure. (INDOT Site Assessment & Management)
4. Per the Historic Bridge Programmatic Agreement between FHWA, INDOT, the Indiana SHPO, and the Advisory Council on Historic Preservation (ACHP), rehabilitation plans will be provided to the Indiana SHPO when the design is approximately 30% complete, 60% complete, and when final design plans are complete. (Indiana SHPO)
5. RQAW will request a Director's Letter of Clearance when the 100 percent plans (final design) are provided to the Indiana SHPO. (INDOT)
6. A special provision will be included in the contract regarding the color of the fiber wrap and concrete patching. (INDOT CRO)
7. 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)
8. Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)
9. Tree Removal AMM 2: Apply time of year restrictions (April 1 through September 30) for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. (USFWS)
10. Tree Removal AMM 3: Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits). (USFWS)
11. Tree Removal AMM 4: Do not remove documented Indiana bat or northern long-eared bat roosts that are still suitable for roosting, or trees within 0.25 mile of roosts, or documented foraging habitat any time of year. (USFWS)
12. Structure Number 040-67-01838B has shown evidence of use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA) during the July 24, 2018 and January 11, 2019 inspections. Avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the "Potential Migratory Bird on

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Structure USP. (INDOT)

13. USFWS Bridge/Structure Assessment shall take place no earlier than 2 years prior to the start of construction. If construction will begin after (January 11, 2019, plus 2 years), an inspection of the structure by the INDOT Crawfordsville District Environmental staff, 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)

For Further Consideration:

1. 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)
2. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR Division of Fish and Wildlife)
3. 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)
4. The 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)
5. Riprap or other hard bank stabilization materials should only be used at the toe of the side slopes 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. Riprap or other stabilization materials should not be placed in the active stream channel above the existing streambed or flowline elevation. (IDNR Division of Fish and Wildlife)
6. Impacts to non-wetland forest of one 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. (IDNR Division of Fish and Wildlife)
7. If possible, the project design should avoid inclusion of a temporary causeway or runaround. If a causeway is deemed critical for the construction to occur, please submit a justification for the necessity of the causeway with any permit application. (IDNR Division of Fish and Wildlife)
8. If a full causeway is absolutely necessary, impacts to the waterway from its installation and removal can be reduced by minimizing the amount of time the causeway is in place, reducing the temporary causeway width, using more and larger culvert pipes, placing filter fabric under the aggregate fill to reduce impacts during the removal of the causeway, using larger size aggregate, and removing sections of the causeway as portions of the bridge are completed. (IDNR Division of Fish and Wildlife)
9. Avoid all work within the inundated part of the stream channel during the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below the ordinary high water mark (OHWM) during this time unless the machinery is within the caissons or on the cofferdams. (USFWS)
10. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing. (USFWS)
11. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques

Indiana Department of Transportation

County Putnam Route US 40 Des. No. 1601094

whenever possible. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat. (USFWS)

12. Restrict below low-water work in streams to placement of culverts, piers, pilings, and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. (USFWS)

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 November 6, 2019 (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-1 to C-43. The following agencies/individuals were contacted during early coordination:

Agency	Date of Response(s)
1. Natural Resources Conservation Service (electronic coordination)	February 10, 2020
2. Indiana Geological Survey (electronic submission)	November 6, 2019
3. IDNR Division of Fish and Wildlife (electronic coordination)	December 9, 2019
4. IDEM (electronic submission)	November 6, 2019
5. IDEM Groundwater Section (electronic query)	November 6, 2019
6. INDOT Office of Public Involvement (electronic coordination)	No response received
7. U.S. Department of Housing and Urban Development (electronic coordination)	No response received
8. U.S. Army Corps of Engineers, Louisville District (electronic coordination)	No response received
9. National Park Service, Midwest Regional Office	No response received
10. Putnam County Council	No response received
11. Putnam County Board of Commissioners	No response received
12. Putnam County Surveyor's Office	No response received
13. Putnam County Highway Department	No response received
14. U.S. Fish and Wildlife Service (IPaC electronic coordination)	May 11, 2020
	May 13, 2020

Designation (Des.) Number 1601094

US 40 over Sallust Branch of Mill Creek Bridge Project – Putnam County, Indiana

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
Photograph Location Key Map	B-3
Photographs	B-4
Design Plan Sheets	B-13

Appendix C: Early Coordination

Example Early Coordination Letter (<i>appendices omitted</i>).....	C-1
Indiana Department of Environmental Management (IDEM) Roadway Construction Standard Response Letter.....	C-4
Indiana Geological Survey Electronic Response	C-14
Indiana Department of Natural Resources (IDNR) Division of Fish and Wildlife Response Letter	C-17
Natural Resources Conservation Service (NRCS) Response Letter	C-20
U.S. Fish and Wildlife Service (USFWS) Bridge/Structure Assessment Form (<i>photos omitted</i>)	C-21
Information for Planning and Consultation (IPaC) Species List Letter	C-23
INDOT ESD IPaC Concurrence E-mail	C-29
IPaC Concurrence Verification Letter.....	C-30

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

800.11 (d) Documentation (<i>some appendices omitted</i>).....	D-1
Affidavit and Public Notice	D-73
800.11 (d) Distribution E-mails and Letter	D-74
800.11 (d) Indiana State Historic Preservation Officer Concurrence Letter.....	D-81

Appendix E: Red Flag Investigation and Hazardous Materials

Red Flag Investigation (<i>some graphics omitted</i>)	E-1
Hazardous Materials Site Visit Form	E-11

Appendix F: Water Resources

Waters of the U.S. Determination Report (<i>some graphics omitted</i>).....	F-1
Waters of the U.S. Determination Report INDOT Approval E-mail.....	F-17

Appendix G: Public Involvement

Example Notice of Entry for Survey or Investigation Letter.....	G-1
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Appendix H: Air Quality

Statewide Transportation Improvement Program (<i>relevant pages only</i>).....	H-1
--	-----

Designation (Des.) Number 1601094
US 40 over Sallust Branch of Mill Creek Bridge Project – Putnam County, Indiana

Appendix I: Other Information

National Park Service Land and Water Conservation Fund List	I-1
INDOT Bridge Inspection Report (<i>relevant pages only</i>).....	I-2
ADA Transition Plan (<i>relevant pages only</i>)	I-10

Categorical Exclusion
Appendix A
INDOT Supporting Documentation

Des. Number 1601094
Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4 ¹
Section 106	Falls within guidelines of Minor Projects PA	“No Historic Properties Affected”	“No Adverse Effect”	-	“Adverse Effect” Or Historic Bridge involvement ²
Stream Impacts	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	Individual 404 Permit
Wetland Impacts	No adverse impacts to wetlands	< 0.1 acre	-	< 1 acre	≥ 1 acre
Right-of-way³	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)	“No Effect”, “Not likely to Adversely Affect” (Without AMMs ⁴ or with AMMs required for all projects ⁵)	“Not likely to Adversely Affect” (With any other AMMs)	-	“Likely to Adversely Affect”	Project does not fall under Species Specific Programmatic
Threatened/Endangered Species (Any other species)	Falls within guidelines of USFWS 2013 Interim Policy	“No Effect”, “Not likely to Adversely Affect”	-	-	“Likely to Adversely Affect”
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential ⁶
Sole Source Aquifer	Detailed Assessment Not Required	-	-	-	Detailed Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Coastal Zone Consistency	Consistent	-	-	-	Not Consistent
National Wild and Scenic River	Not Present	-	-	-	Present
New Alignment	None	-	-	-	Any
Section 4(f) Impacts	None	-	-	-	Any
Section 6(f) Impacts	None	-	-	-	Any
Added Through Lane	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Coast Guard Permit	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes ⁷
Approval Level <ul style="list-style-type: none"> • District Env. Supervisor • Env. Services Division • FHWA 	Concurrence by INDOT District Environmental or Environmental Services	Yes	Yes	Yes Yes	Yes Yes Yes

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

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

³Permanent and/or temporary right-of-way.

⁴AMMs = Avoidance and Mitigation Measures.

⁵AMMs 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”.

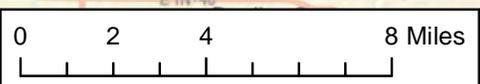
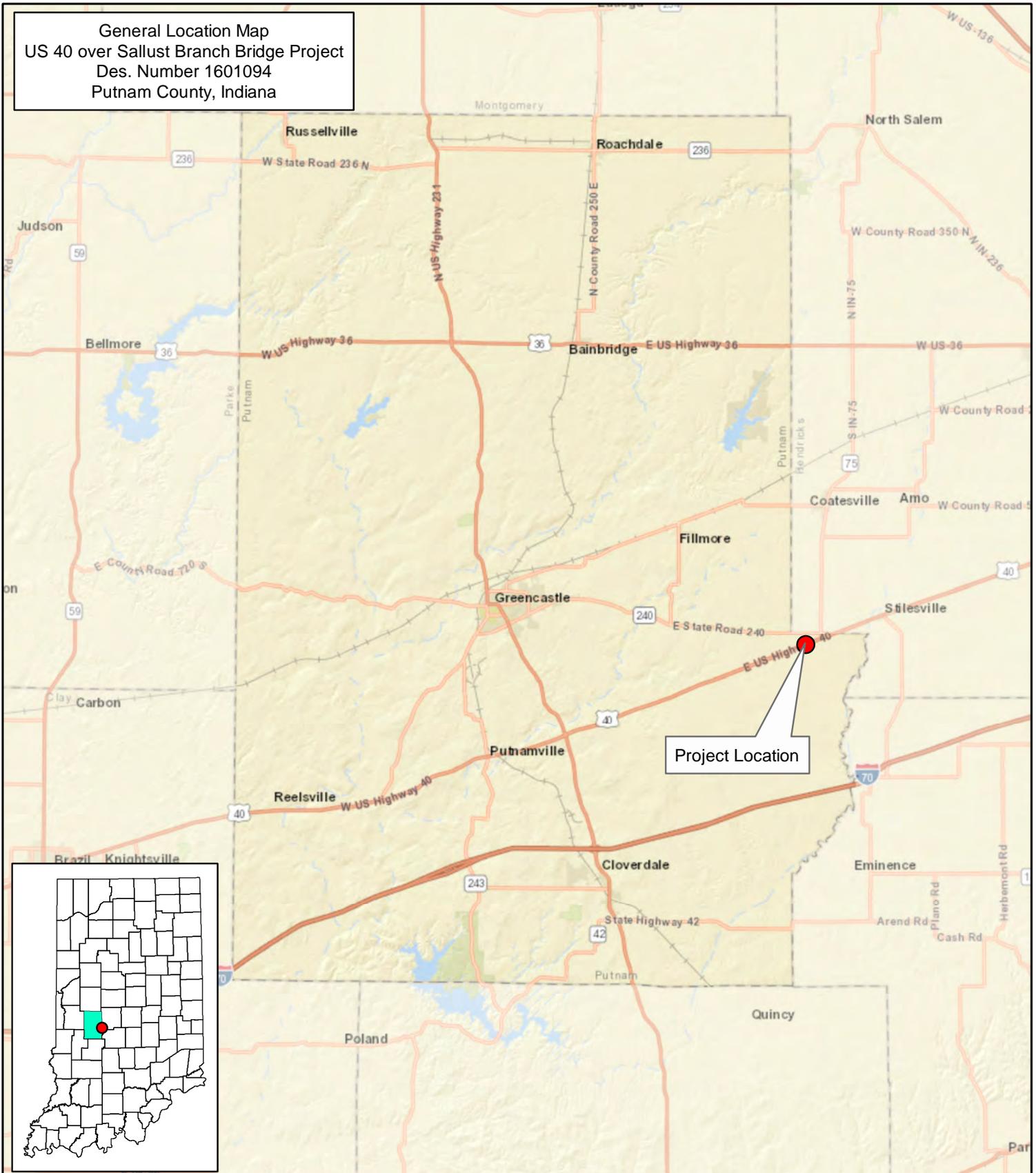
⁶Potential for causing a disproportionately high and adverse impact.

⁷Hot 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 Map
 US 40 over Sallust Branch Bridge Project
 Des. Number 1601094
 Putnam County, Indiana



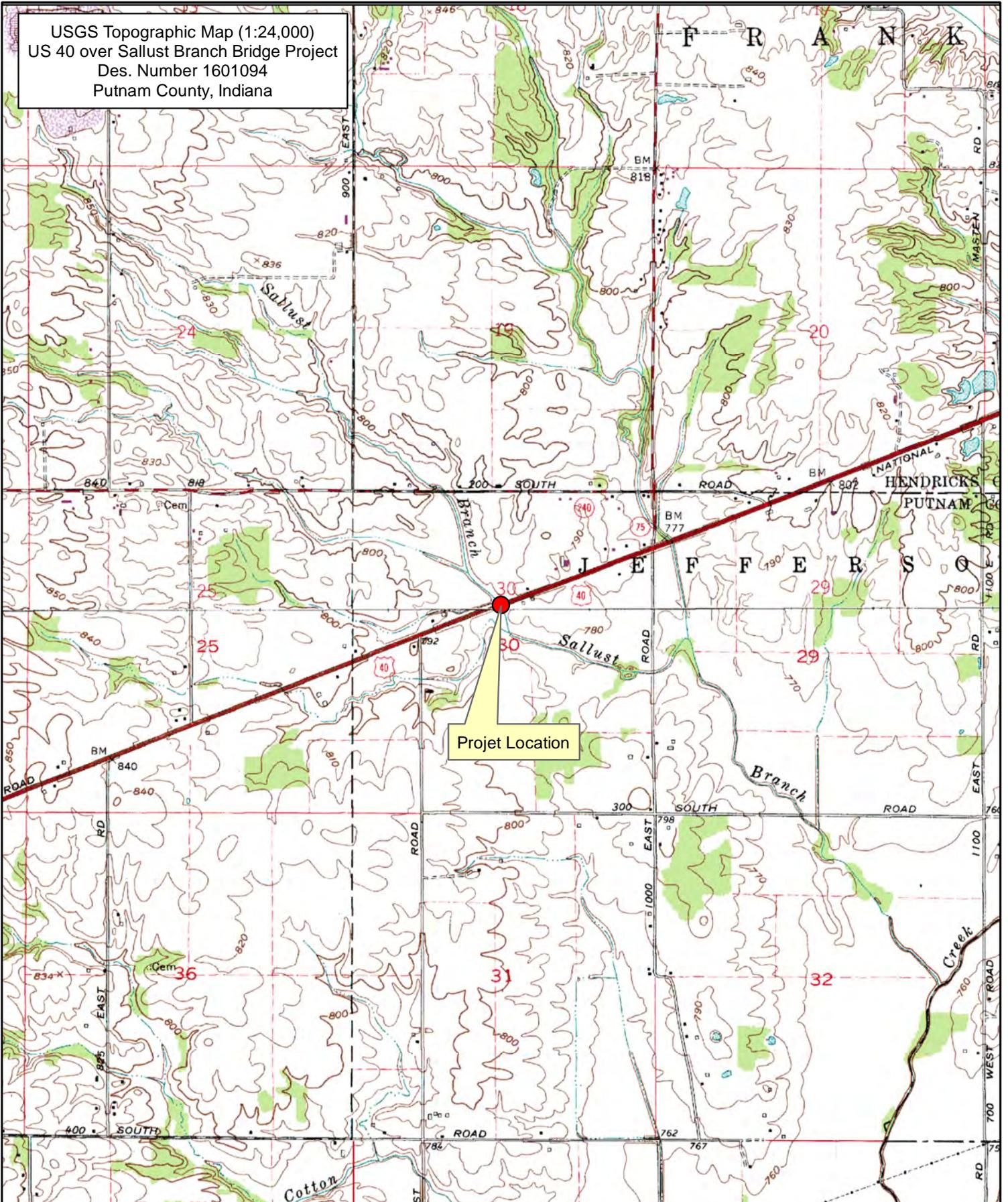
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

RQAW
 ENVIRONMENTAL
 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



USGS Topographic Map (1:24,000)
 US 40 over Sallust Branch Bridge Project
 Des. Number 1601094
 Putnam County, Indiana



Project Location



ENVIRONMENTAL

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.

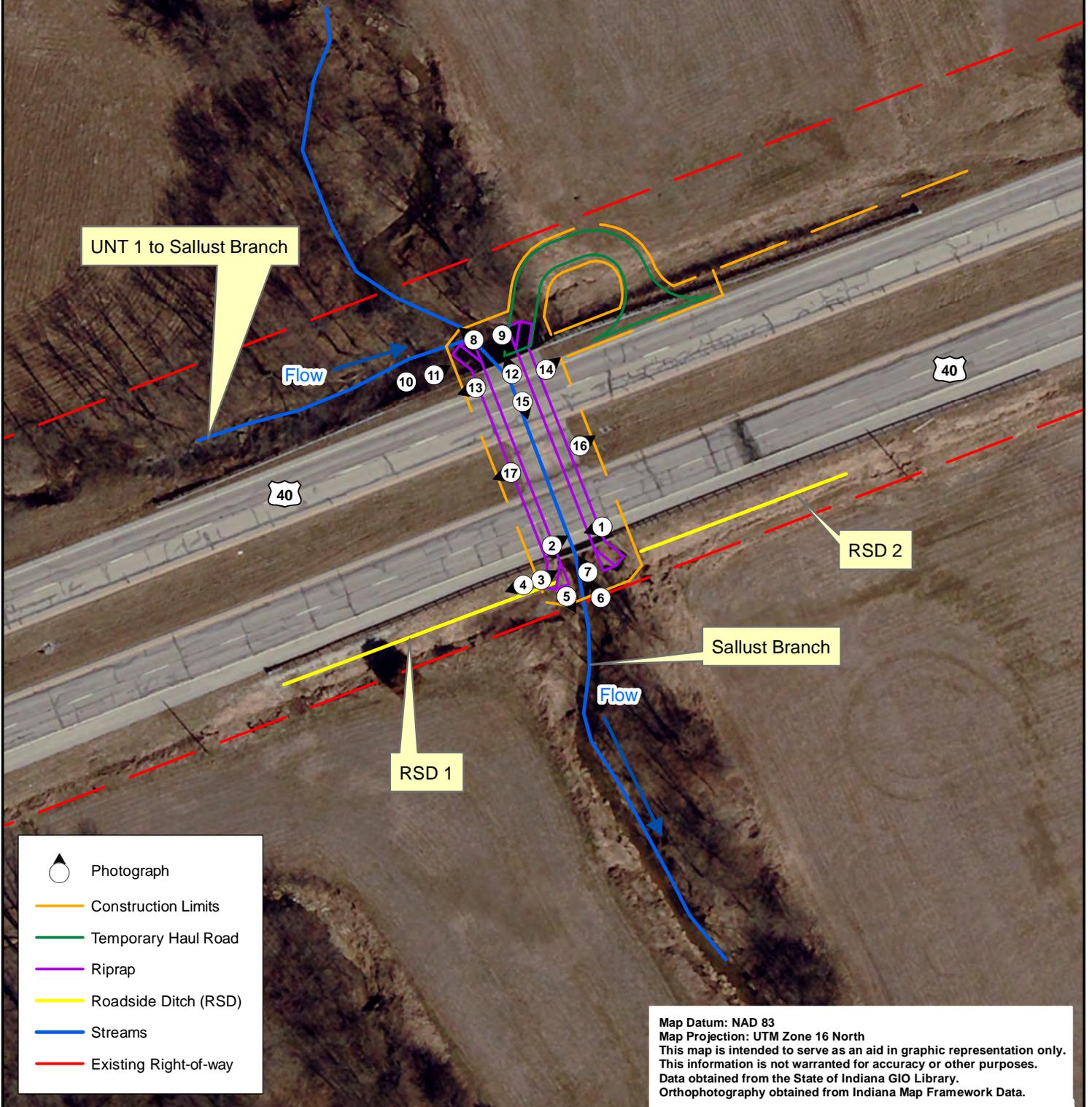
Topographic Quadrangles obtained from USGS Coatsville and Eminence Quadrangles)

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

0 1,000 2,000 4,000 Feet



Photograph Location Map
 US 40 over Sallust Branch Bridge Project
 Des. Number 1601094
 Putnam County, Indiana



- Photograph
- Construction Limits
- Temporary Haul Road
- Riprap
- Roadside Ditch (RSD)
- Streams
- Existing Right-of-way

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.



Photograph Location Map

0 35 70 140 Feet

Location: US 40
 Township: Jefferson
 County: Putnam



1. From eastbound lane looking southwest along US 40



2. From eastbound lane looking northeast along US 40



3. From south side of structure looking northeast



4. From south side of structure looking southwest



5. From south side of structure looking south/ southeast at Sallust Branch



6. From south side of structure looking north/ northwest at structure and Sallust Branch



7. From south side of structure looking northwest under structure



8. From north side of structure looking northwest at Sallust Branch



9. From north side of structure looking southeast under structure



10. From north side of structure looking southwest along UNT 1 to Sallust Branch



11. From north side of structure looking northeast



12. From north side of structure facing north/northwest at vegetation



13. From north side of structure looking southwest along US 40



14. From north side of structure looking northeast along US 40



15. From westbound lane looking southeast across US 40 median



16. From median looking northeast along US 40



17. From median looking southwest along US 40

PROJECT	DESIGNATION
1601094	1601094
CONTRACT	BRIDGE FILE
B-42911	040-67-01838C

INDIANA DEPARTMENT OF TRANSPORTATION



STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
040-67-01838C	REINFORCED CONCRETE GIRDER BRIDGE	30'-0" CLEAR SPAN SQUARE	SALLUST BRANCH OF MILL CREEK	1325+12 LINE "N"

TRAFFIC DATA	US 40	
A.A.D.T. (2021)	4,780	V.P.D.
A.A.D.T. (2041)	5,340	V.P.D.
D.H.V. (2041)	518	V.P.H.
DIRECTIONAL DISTRIBUTION	49.50	%
TRUCKS	9.01	% D.H.V.
	11.72	% A.A.D.T.
DESIGN DATA		
DESIGN SPEED	55 M.P.H.	
PROJECT DESIGN CRITERIA	3R (FREEWAY)	
FUNCTIONAL CLASSIFICATION	PRINCIPAL ARTERIAL	
RURAL/URBAN	RURAL	
TERRAIN	LEVEL	
ACCESS CONTROL	FULL	

BRIDGE PREVENTATIVE MAINTENANCE PLANS

FOR SPANS OVER 20 FEET

ROUTE: US 40 AT: RP 47+2
 PROJECT NOS. 1601094 P.E.
 R/W 1601094 CONST.

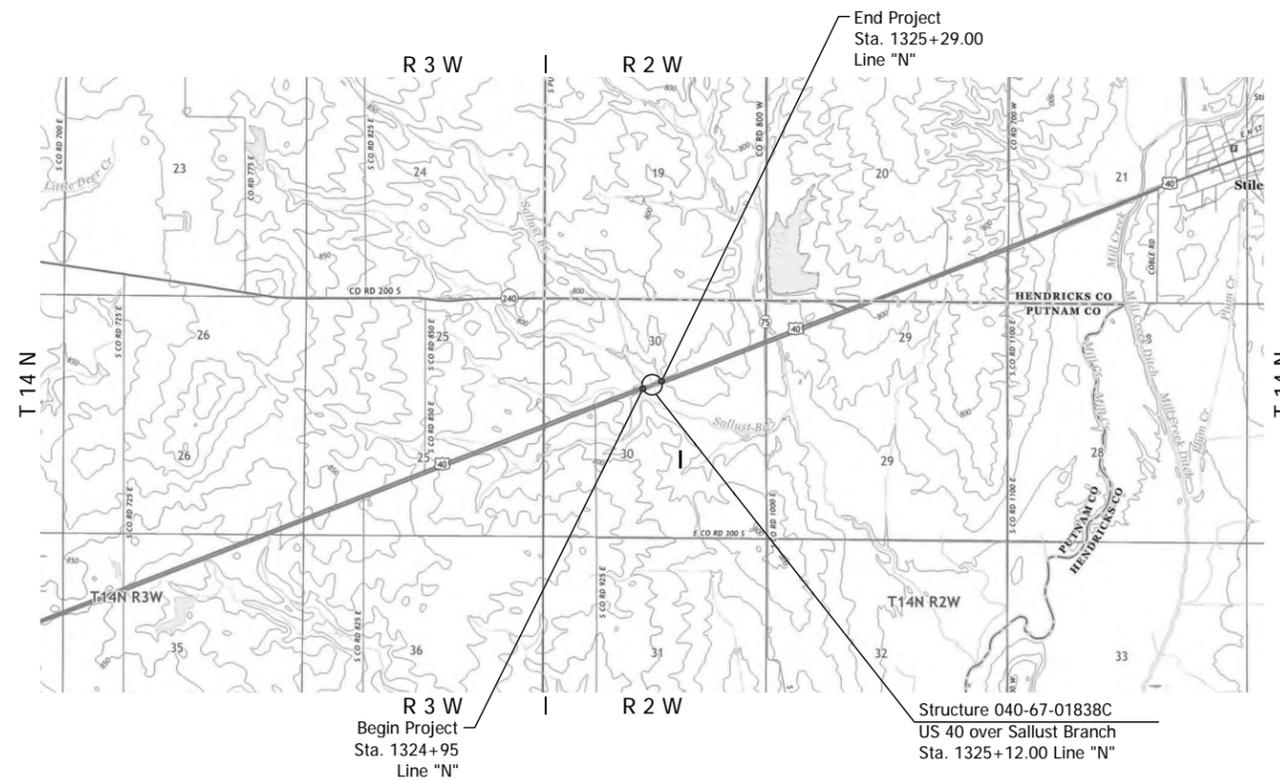
Bridge Preventative Maintenance on US 40 over Sallust Branch of Mill Creek, Located 0.50 Miles West of SR 75, Sections 30, T-14-N, R-2-W, Jefferson Township, Putnam County, Indiana



LATITUDE: 39° 37' 31" N LONGITUDE: 86° 40' 44" W

PROJECT LENGTH	
BRIDGE LENGTH :	0.006 MILE
ROADWAY LENGTH :	0.000 MILE
TOTAL LENGTH :	0.006 MILE
MAX. GRADE :	0.59 %

HUC: 051202030503



60% Plans
April 21, 2020

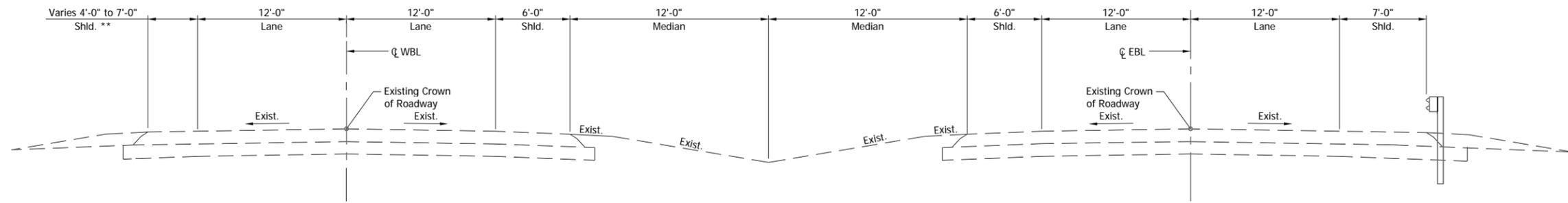
INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2020
TO BE USED WITH THESE PLANS.

RQAW
INTENTIONAL INNOVATION

8770 NORTH ST., STE. 110
FISHERS, IN 46038
P: 317.588.1798
F: 317.588.1799
WWW.RQAW.COM

PLANS PREPARED BY:	RQAW Corporation, Inc.	317-588-1798
		PHONE NUMBER
CERTIFIED BY:		DATE
APPROVED FOR LETTING:	INDIANA DEPARTMENT OF TRANSPORTATION	DATE

BRIDGE FILE	
040-67-01838C	
DESIGNATION	
1601094	
SURVEY BOOK	SHEET
N/A	1 of 8
CONTRACT	PROJECT
B-42911	1601094



EXISTING TYPICAL SECTION
 Sta. 1323+55.00 To Sta. 1324+75.00
 Sta. 1325+49.00 To Sta. 1326+69.00

** Shoulder Varies from 4' @ sta. 1323+55.75 to 7' @ sta. 1324+75.00
 Shoulder Varies from 7' @ sta. 1325+49.00 to 4' @ sta. 1326+69.00

Guardrail shown right, see
 general plan for limits

--

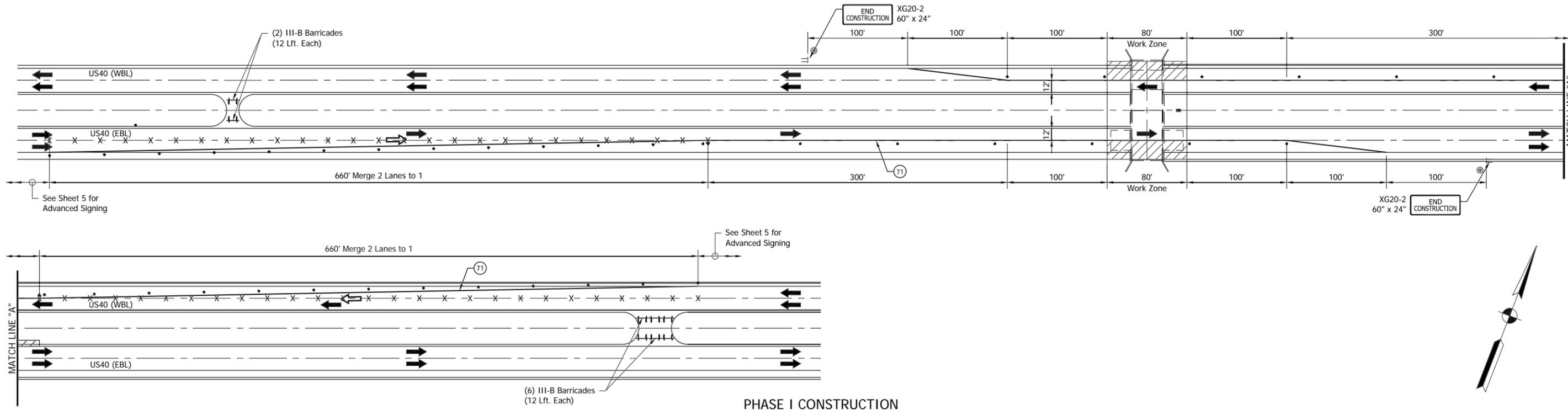
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RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____	DATE _____
DESIGNED: RMM _____	DRAWN: DRD _____		
CHECKED: REB _____	CHECKED: REB _____		

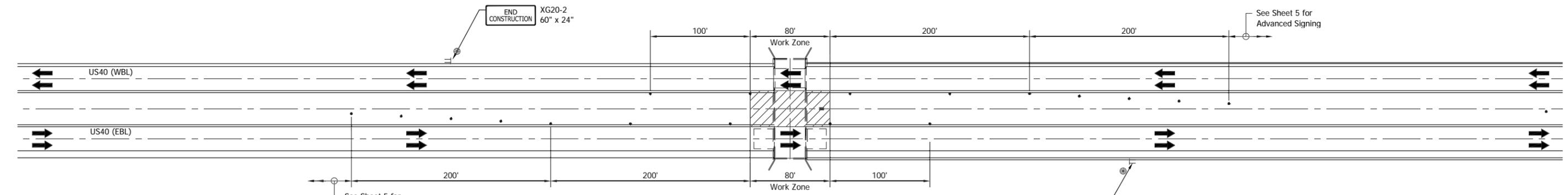
INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL APPROACH
 SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
N/A	040-67-01838C
VERTICAL SCALE	DESIGNATION
N/A	1601094
DRAWING	SHEET
of	3 of 8
CONTRACT	PROJECT
B-42911	1601094



PHASE I CONSTRUCTION
Scale: None

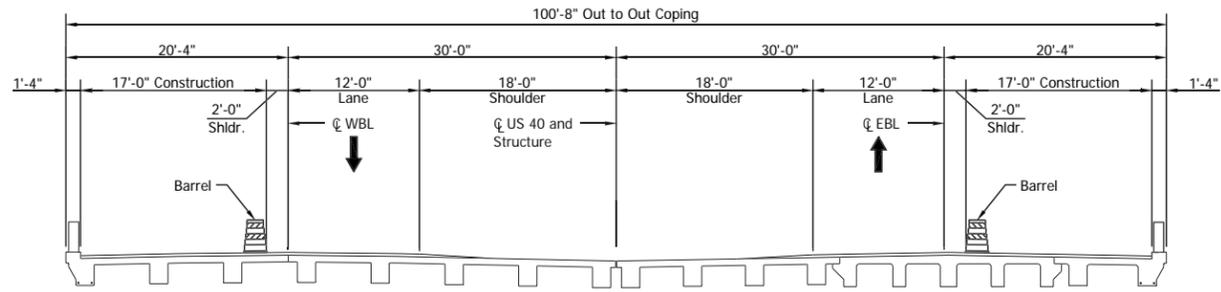


PHASE II CONSTRUCTION
Scale: None

- LEGEND**
- INDICATES CONSTRUCTION AREA.
 - INDICATES DIRECTION OF TRAFFIC - PRIMARY.
 - INDICATES DIRECTION OF TRAFFIC - SECONDARY.
 - INDICATES FLASHING ARROW SIGN.
 - INDICATES TEMPORARY REMOVABLE, 5" (BLACK TAPE) TO BE USED IN LIEU OF REMOVING EXISTING PAVMENT MARKING.
 - INDICATES LOW INTENSITY FLASHING YELLOW LIGHT, TYPE A
 - INDICATES STANDARD DRUM (SEE STANDARD DRAWING E801-TCLG-01 FOR SPACING)
 - INDICATES DIRECTION OF TRAFFIC - SECONDARY
 - INDICATES STANDARD BARRICADE TYPE III-B
 - TEMPORARY PAVMENT MARKING, REMOVABLE, SOLID, WHITE, 4"

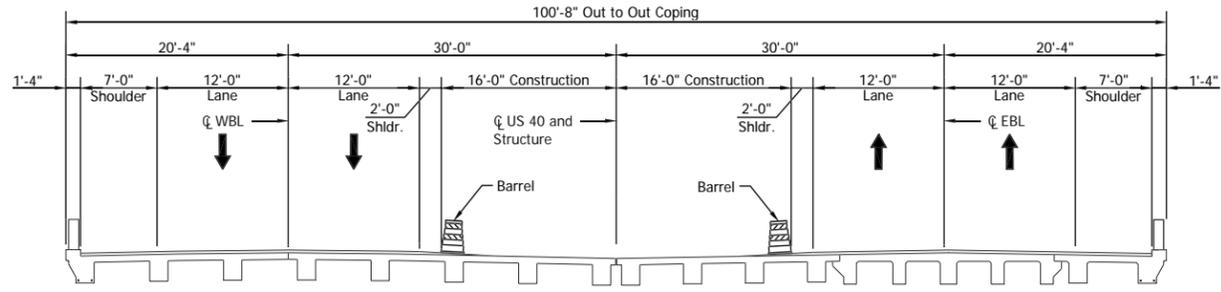
TRAFFIC MAINTENANCE DESIGNED FOR A 55 MPH SPEED, POSTED FOR 45 MPH

	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE N/A	BRIDGE FILE 040-67-01838C
	DESIGNED: RMM DRAWN: DRD	TRAFFIC MAINTENANCE DETAILS	VERTICAL SCALE N/A	DESIGNATION 1601094
	CHECKED: REB CHECKED: REB		DRAWING of 4	SHEET of 8
			CONTRACT B-42911	PROJECT 1601094



TYPICAL SECTION - PHASE I

Scale: 1/8" = 10'-0"

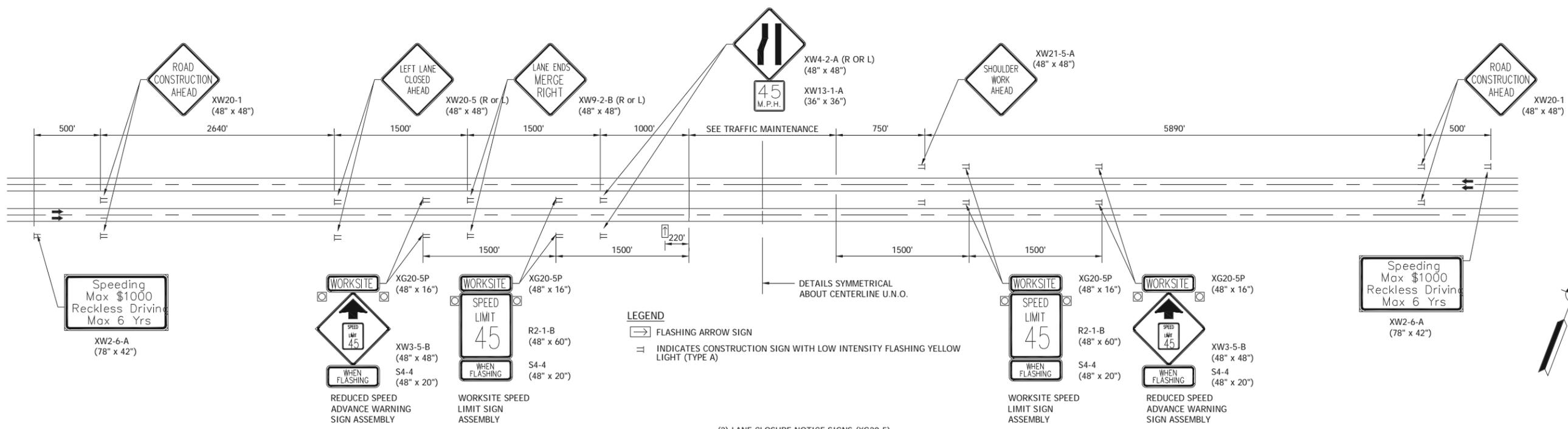


TYPICAL SECTION - PHASE II

Scale: 1/8" = 10'-0"

MAINTENANCE OF TRAFFIC QUANTITIES

MAINTAINING TRAFFIC	1 LSUM
CONSTRUCTION SIGN, A	26 EACH
FLASHING ARROW SIGN	200 DAYS
TEMPORARY WORKSITE SPEED LIMIT SIGN ASSEMBLY	8 EACH
TEMPORARY PAVEMENT MARKING, REMOVABLE, 5 IN. BLACK	1,320 LFT.
TEMPORARY PAVEMENT MARKING, REMOVABLE, 4 IN.	2,680 LFT.
PORTABLE, CHANGEABLE MESSAGE SIGN	2 EACH
III-B BARRICADE	96 LFT.



THIS HALF SHOWING PHASE I

THIS HALF SHOWING PHASE II

LEGEND

- ⬇️ FLASHING ARROW SIGN
- ⊞ INDICATES CONSTRUCTION SIGN WITH LOW INTENSITY FLASHING YELLOW LIGHT (TYPE A)

(2) LANE CLOSURE NOTICE SIGNS (XG20-5)
AND/OR (2) PORTABLE CHANGEABLE
MESSAGE SIGNS TO BE PLACED AS
DIRECTED BY THE ENGINEER

ADVANCED SIGNING

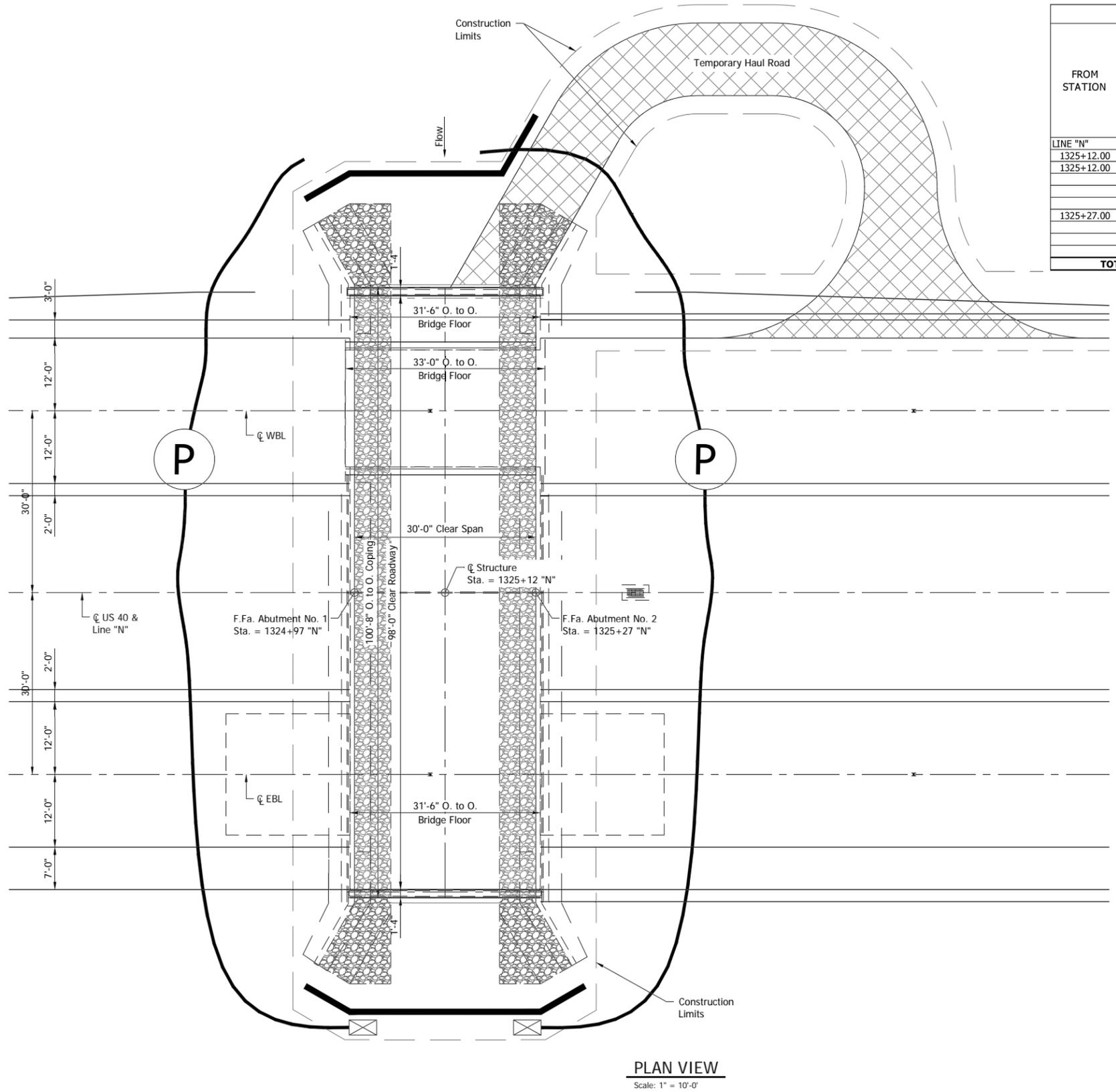
Scale: NONE

PRINT DATE: 4/21/20 PLOT SCALE: 1:1 EDIT DATE: 7/12/11 - 8:40 AM EDITED BY: RMCCLIMANS DRAWING FILE: P:\175-600-003-2 US40 BRIDGE REHAB\ACAD\JOB NOT\SH1\NOT_02_01-REV.DWG

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	7/25/2017	DATE
DESIGNED: RMM	DRAWN: DRD		
CHECKED: REB	CHECKED: REB		

INDIANA DEPARTMENT OF TRANSPORTATION	
TRAFFIC MAINTENANCE DETAILS	

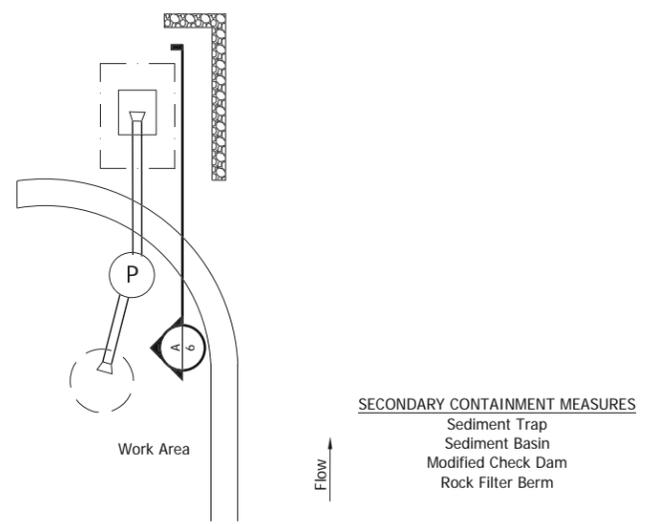
HORIZONTAL SCALE	BRIDGE FILE
N/A	040-67-01838C
VERTICAL SCALE	DESIGNATION
N/A	1601094
SURVEY BOOK	SHEET
	5 of 8
CONTRACT	PROJECT
B-42911	1601094



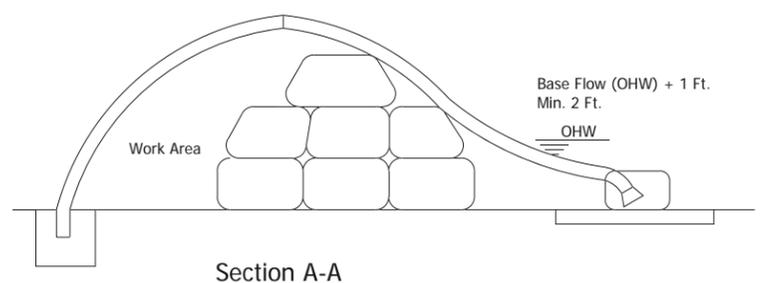
PLAN VIEW
Scale: 1" = 10'-0"

TEMPORARY EROSION CONTROL TABLE																	
FROM STATION	TO STATION	LOCATION		TEMPORARY SILT FENCE	FILTER SOCK	SEDIMENT BASIN	NO. 2 STONE	SEDIMENT REMOVE	STRAW BALES DITCH CHECK	TEMPORARY RIPRAP CHECK DAM	TEMPORARY INLET PROTECTION	COFFERDAM	GEOTEXTILE FOR PAVEMENT, TYPE 1B	EROSION CONTROL BLANKET	TEMPORARY SEEDING	REMARKS	
		LEFT	RIGHT														LFT
LINE "N"																	
1325+12.00		X											1				
1325+12.00			X										1				
1325+27.00		X					100							235			
TOTALS				-	-	-	100.0	-	-	-	-	-	2.0	235.0	-	-	

- Indicates Revetment Riprap for Scour Protection
- Indicates approximate location of cofferdam.
- Indicates approximate location of temporary Haul Road. Place Mulched Seeding, R after Haul Road Removal.
- Indicates Pump around.



SECONDARY CONTAINMENT MEASURES
Sediment Trap
Sediment Basin
Modified Check Dam
Rock Filter Berm



Section A-A

COFFERDAM DETAILS
Scale: None

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE	BRIDGE FILE
			N/A	040-67-01838C
DESIGNED: RMM	DRAWN: DRD	VERTICAL SCALE		DESIGNATION
CHECKED: REB	CHECKED: REB	N/A		1601094
		DRAWING		SHEET
		of 6		of 8
		CONTRACT		PROJECT
		B-42911		1601094

Categorical Exclusion
Appendix C
Early Coordination



Fishers, IN - Corporate
 8770 North St., Ste. 110
 Fishers, IN 46038
 317.588.1798

November 6, 2019

«Agency_1»
 «Agency_2»
 «Address_1»
 «Address_2»
 «City», «State» «Zip»

Example Early Coordination Letter

Re: Agencies Early Coordination
 Des. Number 1601094
 Bridge Project
 US 40 over Sallust Branch of Mill Creek, 0.50 miles west of SR 75
 Putnam County, Indiana

Dear «Position»,

The Indiana Department of Transportation (INDOT) Crawfordsville District and the Federal Highway Administration (FHWA) propose to proceed with a bridge project in Putnam County, Indiana (Des. Number 1601094). The FHWA is providing funds 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 project description in your reply** and your comments will be incorporated into the formal environmental study.

The project is located on United States Highway (US) 40, approximately 0.50 mile west of State Road (SR) 75, in Putnam County. Specifically, the project is located in Jefferson Township, Coatesville and Eminence U.S. Geological Survey (USGS) Quadrangles, Township 14 North, Range 2 West, Section 30. US 40 through the project area is functionally classified as a Principal Arterial. The project will involve Structure Number 040-67-01838 B, which carries US 40 eastbound and westbound traffic over Sallust Branch of Mill Creek, hereafter referred to as Sallust Branch. The existing US 40 approach cross section consists of four 12 foot wide travel lanes (two eastbound and two westbound) with shoulders that vary from 4 foot to 7 foot wide, separated by an approximately 32 foot wide grass median. Structure Number 040-67-01838 B is a single span reinforced concrete girder bridge, built in 1921 and reconstructed in 1938. The existing structure has a total length of 31 feet 6 inches and total width of 100 feet 8 inches. Structure No. 040-67-01838 B is listed as a Select historic bridge in the Indiana Historic Bridge Inventory. Land use in the vicinity of the project is primarily agricultural land.

The need for the project is due to the deteriorated condition of the existing structure. According to the INDOT Bridge Inspection Report, dated October 9, 2018, the bridge deck has hairline transverse and longitudinal cracks with white efflorescence between the beamlines. The deck on the north side of the expansion joint is chipping off along the edge. The bridge deck wearing surface has several wide transverse and longitudinal cracks in all lanes. Most of the beams in the superstructure have advanced deterioration, cracking with efflorescence, and spalling. There are wide cracks with white efflorescence on the bridge’s substructure and small spalls in both bent caps at the edges of the original structure. Additionally, there is a larger spall located at the east bent of the construction joint. According to the inspection report, the superstructure of the bridge received a condition rating of 4 out of 9, which indicates “poor” condition, and the substructure of the bridge received a condition rating of 5 out of 9, which indicates “fair” condition.



The purpose of the project is to improve the condition ratings of the superstructure and substructure to a 7 (good condition) or higher.

The current proposed project would include removing 4 inches of the existing bituminous overlay of the bridge deck and milling 0.25 inch of the remaining surface. Hydrodemolition or hand chipping would be performed to remove unsound concrete from the bridge deck surface. Full and partial depth patching of the bridge deck would also be completed at various locations. The bridge deck would receive a 2.25 inch thick rigid concrete overlay to prevent deterioration. The work to the bridge deck would reduce the existing profile grade of the roadway by 2 inches; therefore, this grade change may require approximately 120 linear feet of full depth pavement replacement to transition the roadway profile grade back to the existing. Patching would occur on the underside of the bridge deck, as directed by the construction engineer. The existing reinforced concrete beams and abutments would also be patched. A temporary causeway would be required to complete the patching work to the concrete beams. The existing concrete bridge railing and portions of the concrete curb would be removed and replaced with new concrete bridge railing and railing transitions. Approximately 30 linear feet of the approaching roadway pavement would be milled 1.5 inches and overlaid with 1.5 inches of hot mix asphalt (HMA). The existing guardrail within the project area would be removed and replaced with Midwest Guardrail System (MGS) guardrail. Any existing pavement markings disturbed by construction would be replaced. Class I riprap would be placed beneath the bridge at the abutments for scour protection.

The maintenance of traffic (MOT) during construction would involve temporary lane closures and temporary crossovers in the median for continued vehicular crossing of US 40 over Sallust Branch. The inside shoulders of the roadway would be widened and strengthened to support the MOT. The temporary crossovers would be removed upon completion of the project. The entire project would take place within existing INDOT right-of-way and would not require the purchase of permanent or temporary right-of-way.

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 RQAW. The Red Flag Investigation noted:

- Three National Wetlands Inventory (NWI) Line segments transect, or are adjacent to, the project area
- Four stream segments transect, or are adjacent to, the project area
- Four impaired stream segments transect, or are adjacent to, the project area. Sallust Branch is listed for *Escherichia coli* (*E. coli*)- workers who are working in or near water with *E. coli* should take care to wear appropriate Personal Protective Equipment (PPE), observe proper hygiene procedures, including regular hand washing, and limit personal exposure.
- No hazardous material concern sites were identified within or adjacent to the project area

RQAW performed a site visit on July 24, 2018 to identify any ecological resources present within the project area. No wetlands were observed within the project area. However, two streams, Sallust Branch and an unnamed tributary (UNT 1) to Sallust Branch are located within the project area. Permits through the U.S. Army Corps of Engineers (USACE) and the Indiana Department of Environmental Management (IDEM) may be required.

RQAW is also investigating the project area for archaeological and historic resources for compliance with Section 106. Structure Number 040-67-01838 B has been determined eligible for listing in the National Register of Historic Places (NRHP) under Criterion A in the 2009 Indiana Historic Bridge Inventory by Mead and Hunt due to its significance as a



“Crossing built to serve Main Market No. 3 and represents the Indiana Historic Highway Commission’s (ISHC) early development to the state highway system and pre-World War II widening to serve as a U.S. Highway.” Coordination with INDOT Environmental Services Cultural Resources Office 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 a questionnaire follows this letter, please complete. 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, or the INDOT Project Manager, Richard Gilyeat, at 765.361.5684, or at rgilyeat@indot.in.gov. Thank you in advance for your input!

Sincerely,

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

Stephanie Verhoff
Environmental Department
RQAW

Omitted to avoid duplication. Graphics can be found in Appendix B and E of this CE document.

Appendices:

- Appendix A: Red Flag Investigation Maps
- Appendix B: Photograph Key and Photographs
- Appendix C: Preliminary Plans

Cc:

- INDOT Crawfordsville District (electronic coordination)
- Federal Highway Administration (electronic coordination)
- Natural Resources Conservation Service (electronic coordination)
- Indiana Geological Survey (electronic coordination)
- IDNR Division of Fish and Wildlife (electronic coordination)
- IDEM (electronic coordination)
- IDEM Groundwater Section (electronic coordination)
- INDOT Office of Public Involvement (electronic coordination)
- U.S. Department of Housing and Urban Development (electronic coordination)
- U.S. Army Corps of Engineers, Louisville District (electronic coordination)
- National Park Service, Midwest Regional Office
- Putnam County Board of Commissioners
- Putnam County Council
- Putnam County Highway Department
- Putnam County Surveyor’s Office



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

INDOT Crawfordsville

41 West 300 North
Crawfordsville , IN 47933

Date: November 6, 2019

To Engineers and Consultants Proposing Roadway Construction Projects:

RQAW

Stephanie Verhoff

8770 North St.

Ste. 110

Fishers , IN 46038

RE: The Indiana Department of Transportation (INDOT) Crawfordsville District and the Federal Highway Administration (FHWA) propose to proceed with a bridge project in Putnam County, Indiana (Des. Number 1601094). The project is located on United States Highway (US) 40, approximately 0.50 mile west of State Road (SR) 75. The existing US 40 approach cross section consists of four 12 foot wide travel lanes (two eastbound and two westbound) with shoulders that vary from 4 foot to 7 foot wide, separated by an approximately 32 foot wide grass median. The project will involve Structure Number 040-67-01838 B, which carries US 40 eastbound and westbound traffic over Sallust Branch of Mill Creek, hereafter referred to as Sallust Branch. The existing structure has a total length of 31 feet 6 inches and total width of 100 feet 8 inches. Structure No. 040-67-01838 B is listed as a Select historic bridge in the Indiana Historic Bridge Inventory. The current proposed project would include removing 4 inches of the existing bituminous overlay of the bridge deck and milling 0.25 inch of the remaining surface. Hydrodemolition or hand chipping would be performed to remove unsound concrete from the bridge deck surface. Full and partial depth patching of the bridge deck would also be completed at various locations. The bridge deck would receive a 2.25 inch thick rigid concrete overlay to prevent deterioration. The work to the bridge deck would reduce the existing profile grade of the roadway by 2 inches; therefore, this grade change may require approximately 120 linear feet of full depth pavement replacement to transition the roadway profile grade back to the existing. Patching would occur on the underside of the bridge deck, as directed by the construction engineer. The existing reinforced concrete beams and abutments would also be patched. A temporary causeway would be required to complete the patching work to the concrete beams. The existing concrete bridge railing and portions of the concrete curb would be removed and replaced with new concrete bridge railing and railing transitions. Approximately 30 linear feet of the approaching roadway pavement would be milled 1.5 inches and overlaid with 1.5 inches of hot mix asphalt (HMA). The existing guardrail within the project area would be removed and replaced with Midwest Guardrail System (MGS) guardrail. Any existing pavement markings disturbed by construction would be replaced. Class I riprap would be placed beneath the bridge at the abutments for scour protection. The maintenance of traffic (MOT) during construction would involve temporary lane closures and temporary crossovers in the median for continued vehicular crossing of US 40 over Sallust Branch. The project will take place within existing INDOT right-of-way and not require the purchase of any permanent or temporary right-of-way. Land use in the vicinity of the project is primarily agricultural land. RQAW performed a site visit and observed two streams 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 follow 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> (<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.) 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>)). 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 adem.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.

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 Putnam County, Indiana (Des. Number 1601094). The project is located on United States Highway (US) 40, approximately 0.50 mile west of State Road (SR) 75. The existing US 40 approach cross section consists of four 12 foot wide travel lanes (two eastbound and two westbound) with shoulders that vary from 4 foot to 7 foot wide, separated by an approximately 32 foot wide grass median. The project will involve Structure Number 040-67-01838 B, which carries US 40 eastbound and westbound traffic over Sallust Branch of Mill Creek, hereafter referred to as Sallust Branch. The existing structure has a total length of 31 feet 6 inches and total width of 100 feet 8 inches. Structure No. 040-67-01838 B is listed as a Select historic bridge in the Indiana Historic Bridge Inventory. The current proposed project would include removing 4 inches of the existing bituminous overlay of the bridge deck and milling 0.25 inch of the remaining surface. Hydrodemolition or hand chipping would be performed to remove unsound concrete from the bridge deck surface. Full and partial depth patching of the bridge deck would also be completed at various locations. The bridge deck would receive a 2.25 inch thick rigid concrete overlay to prevent deterioration. The work to the bridge deck would reduce the existing profile grade of the roadway by 2 inches; therefore, this grade change may require approximately 120 linear feet of full depth pavement replacement to transition the roadway profile grade back to the existing. Patching would occur on the underside of the bridge deck, as directed by the construction engineer. The existing reinforced concrete beams and abutments would also be patched. A temporary causeway would be required to complete the patching work to the concrete beams. The existing concrete bridge railing and portions of the

concrete curb would be removed and replaced with new concrete bridge railing and railing transitions. Approximately 30 linear feet of the approaching roadway pavement would be milled 1.5 inches and overlaid with 1.5 inches of hot mix asphalt (HMA). The existing guardrail within the project area would be removed and replaced with Midwest Guardrail System (MGS) guardrail. Any existing pavement markings disturbed by construction would be replaced. Class I riprap would be placed beneath the bridge at the abutments for scour protection. The maintenance of traffic (MOT) during construction would involve temporary lane closures and temporary crossovers in the median for continued vehicular crossing of US 40 over Sallust Branch. The project will take place within existing INDOT right-of-way and not require the purchase of any permanent or temporary right-of-way. Land use in the vicinity of the project is primarily agricultural land. RQAW performed a site visit and observed two streams within the project area.

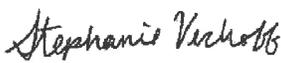
With my signature, I do hereby affirm that I have read the letter from the Indiana Department of Environment that appears directly above. In addition, I understand that in order to complete that project in which I am interested, with a minimum of impact to the environment, I must consider all the issues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

Date: 2/6/20

Signature of the INDOT
Project Engineer or Other Responsible Agent

 RANDALL BROOKS, PE

Date: 02/05/2020

Signature of the
For Hire Consultant 

Stephanie Verhoff



Organization and Project Information

Project ID:
Des. ID: 1601094
Project Title: US 40 over Sallust Branch of Mill Creek
Name of Organization: RQAW
Requested by: Stephanie Verhoff

Environmental Assessment Report

1. Geological Hazards:
 - Moderate liquefaction potential
2. Mineral Resources:
 - Bedrock Resource: Moderate 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)

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.

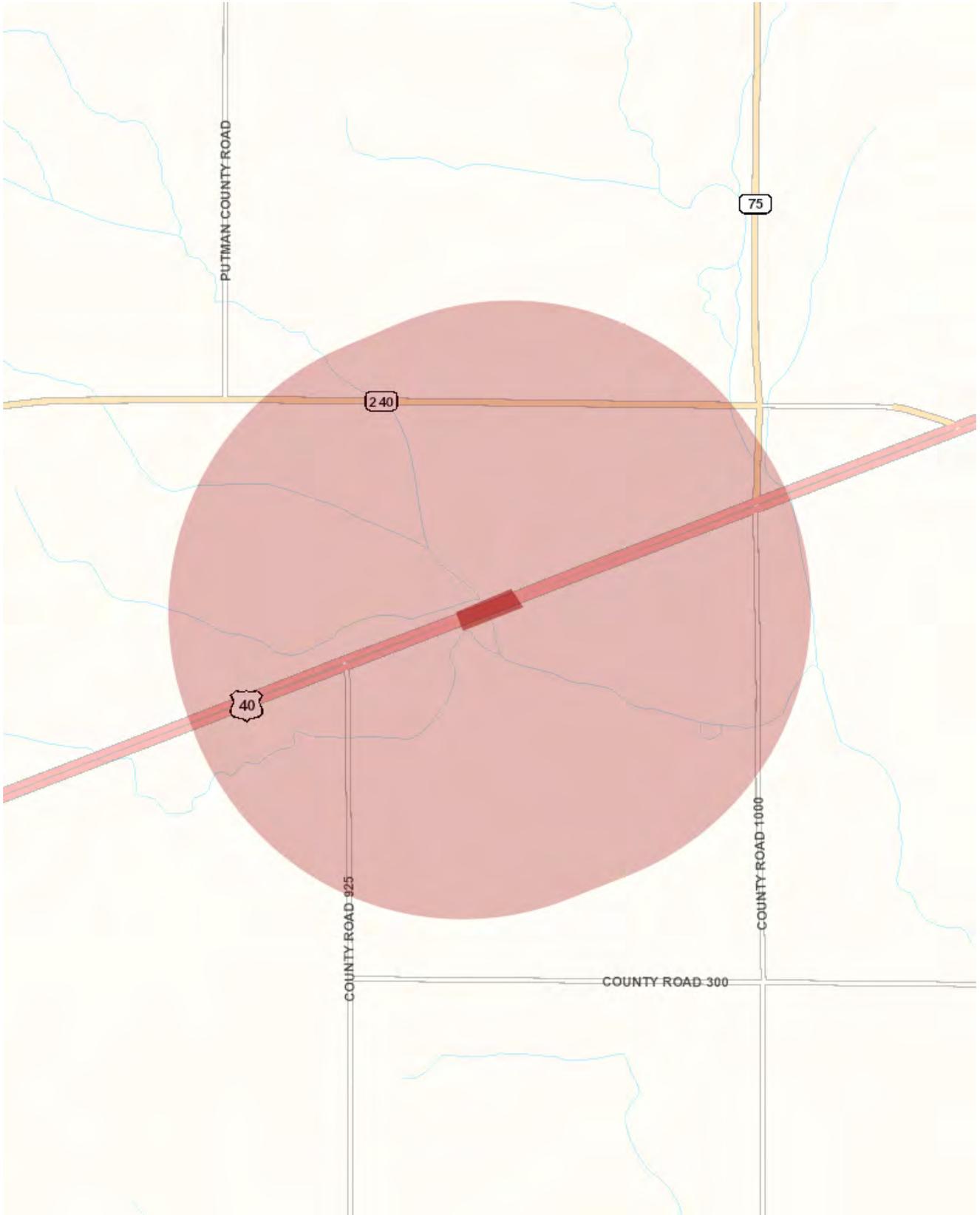
This information was furnished by Indiana Geological Survey

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

Email: IGSEnvir@indiana.edu

Phone: 812 855-7428

Date: November 06, 2019



Metadata:

- 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/Bedrock_Geology.html

THIS IS NOT A PERMIT

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

DNR #: ER-21975 **Request Received:** November 6, 2019

Requestor: RQAW Environmental
Stephanie Verhoff
9770 North Street, Suite 110
Fishers, IN 46038

Project: US 40 bridge (#040-67-01838 B) rehabilitation over Sallust Branch, about 0.50 mile west of SR 75; Des #1601094

County/Site info: Putnam

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

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

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

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

Fish & 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) **Wildlife Passage:**

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

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

Attachments: A - Bridge Exemption Criteria

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**State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife**

Early Coordination/Environmental Assessment

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. 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 Floodway Habitat Mitigation guidelines (and plant lists) can be found online at: <http://www.in.gov/legislative/iac/20190130-IR-312190041NRA.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 acres 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.

4) Causeways and Runarounds:

If possible, the project design should avoid inclusion of a temporary causeway or runaround. Such features result in impacts to the stream and surrounding habitat. In many cases, the need for a causeway can be eliminated by working from either bank, or using temporary, easily removed structures such as timber mats. If a causeway is deemed critical for the construction to occur, please submit a justification for the necessity of the causeway with any permit application.

Impacts related to causeways can be reduced by creating a partial causeway that does not span the entire channel, leaving one side or the middle of the channel open and flowing at all times. If a full causeway is absolutely necessary, impacts to the waterway from its installation and removal can be reduced by minimizing the amount of time the causeway is in place, reducing the temporary causeway width, using more and larger culvert pipes, placing filter fabric under the aggregate fill to reduce impacts during the removal of the causeway, using larger size aggregate, and removing sections of the causeway as portions of the bridge are completed. Do not use fines or soil in the temporary causeway.

Attachments: A - Bridge Exemption Criteria

THIS IS NOT A PERMIT

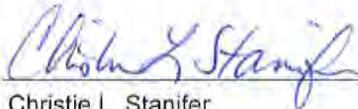
State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

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 will not be 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 regularly mowed areas only.
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, 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.



Date: December 9, 2019

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

Attachments: A - Bridge Exemption Criteria

February 10, 2020

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

Dear Ms. Verhoff:

The proposed project to address the deteriorating conditions of the bridge that carries US 40 over Sallust Branch of Mill Creek in Putnam County, Indiana (Des No. 1601094), as referred to in your letter received on November 6, 2019, will not cause a conversion of prime farmland.

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

Sincerely,

JILL REINHART

Digitally signed by JILL
REINHART
Date: 2020.02.13 11:21:27 -05'00'

Acting For

JERRY RAYNOR
State Conservationist

Helping People Help the Land.



USDA is an equal opportunity provider, employer and lender.

APPENDIX D: Bridge/Structure Assessment Form

This form will be completed and submitted to the District Environmental Manager by the Contractor prior to conducting any work below the deck surface either from the underside; from activities above that bore down to the underside; from activities that could impact expansion joints; from deck removal on bridges; or from structure demolition for bridges/structures within 1000 feet of suitable bat habitat.

DOT Project # Des. Number 1601094		Water Body Sallust Branch		Date/Time of Inspection 01/11/2019 at 11:00 am		Within 1,000ft of suitable bat habitat (circle one) Yes No	
Route	County		Federal Structure ID				
US 40	Putnam		040-67-01838 B				

If the bridge/structure is 1,000 feet or more from suitable bat habitat (e.g., an urban or agricultural area without suitable foraging habitat or corridors linking the bridge to suitable foraging habitat), check box and STOP HERE. No assessment required. Please submit to the U.S. Fish and Wildlife Service.

Areas Inspected (Check all that apply)

Bridges		Culverts/Other Structures		Summary Info (circle all that apply)			
All vertical crevices sealed at the top and 0.5-1.25" wide & ≥4" deep	✓	Crevices, rough surfaces or imperfections in concrete		Human disturbance or traffic under bridge/in culvert or at the structure	High	Low	None
All crevices >12" deep & not sealed	✓	Spaces between walls, ceiling joists		Possible corridors for netting	None/poor	Marginal	Excellent
All guardrails	✓						
All expansion joints	✓						
Spaces between concrete end walls and the bridge deck	✓						
Vertical surfaces on concrete Ibeams	✓						

Evidence of Bats (Circle all that apply) Presence of one or more indicators is sufficient evidence that bats may be using the structure.

None

Visual (e.g. survey, thermal, emergent etc.)

- Live 0 number seen
- Dead 0 number seen

Photo documentation Y/N

Audible: No

Guano- No

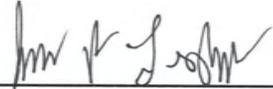
Odor Y/N

Photo documentation Y/N

Staining definitively from bats- No

Photo documentation Y/N

Assessment Conducted By: James Tradup

Signature(s): 

District Environmental Use Only: Date Received by District Environmental Manager: _____

DOT Bat Assessment Form Instructions

1. Assessments must be completed no more than 2 years prior to conducting any work below the deck surface on all bridges, regardless of whether assessments have been conducted in the past.
2. Any bridge/structure suspected of providing habitat for any species of bat will be removed from work schedules until such time that the DOT has coordinated with the USFWS. Additional studies may be undertaken by the DOT to determine what species may be utilizing each structure identified as supporting bats prior to allowing any work to proceed.
3. Any questions should be directed to the District Environmental Manager.



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

Phone: (812) 334-4261 Fax: (812) 334-4273

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

In Reply Refer To:

May 11, 2020

Consultation Code: 03E12000-2020-SLI-0513

Event Code: 03E12000-2020-E-06554

Project Name: US 40 over Sallust Branch of Mill Creek Bridge Project (Des. 1601094) in Putnam County, Indiana

Subject: Updated 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-0513

Event Code: 03E12000-2020-E-06554

Project Name: US 40 over Sallust Branch of Mill Creek Bridge Project (Des. 1601094) in Putnam County, Indiana

Project Type: TRANSPORTATION

Project Description: This key was originally verified on February 20, 2020. Scope changes have necessitated an update to IPaC. The project is located on US 40, approximately 0.50 mile west of SR 75, in Putnam County, Indiana (Des. Number 1601094). The project would involve Structure Number 040-67-01838 B, which carries US 40 eastbound and westbound traffic over Sallust Branch of Mill Creek, hereafter referred to as Sallust Branch. The structure is a single span reinforced concrete girder bridge and is listed as a Select historic bridge in the Indiana Historic Bridge Inventory. Surrounding land use consists of agricultural and riparian.

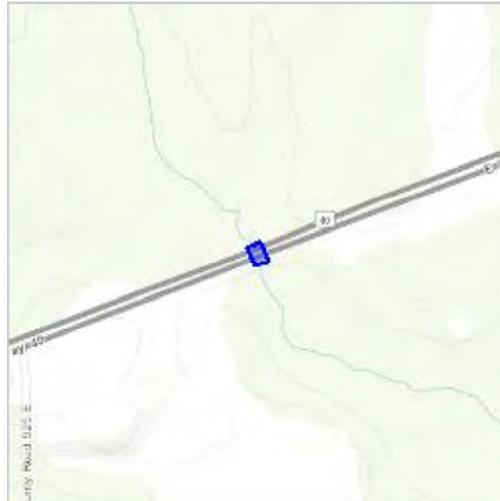
The current proposed project would include patching and fiber-wrapping the deteriorated beams, patching the remaining substructure (abutments and wing walls), patching the existing concrete railing, and installing riprap along the banks for scour protection. A temporary haul road would be constructed in the northeast quadrant of the project area to facilitate access to the underside of the bridge for maintenance work. Construction would extend from approximately 25 feet northeast and 25 feet southwest from the center of the bridge except in the northeast quadrant where construction limits would extend approximately 240 feet northeast to accommodate construction of the temporary haul road. The maintenance of traffic (MOT) would involve phased construction to allow US 40 to be open during construction. The project would take place within existing INDOT right-of-way and would not require the purchase of permanent or temporary right-of-way.

Suitable summer habitat is located adjacent to the project area. Approximately 0.02 acre of tree clearing would be needed for construction of the temporary haul road; dominant tree species to be removed included common hackberry (*Celtis occidentalis*), silver maple (*Acer saccharinum*), and box elder (*Acer negundo*). Trees would be removed during the inactive bat season (October 1 through March 31). Per the approved Red Flag Investigation, dated January 1, 2020, the USFWS database check did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. Per the bridge inspection

report, dated October 21, 2019, bats were not seen or heard under the structure. Per the field visits conducted on July 24, 2018 and January 11, 2019 by RQAW, no bats or evidence of bats were seen or heard under the structure. The project would not involve any permanent or temporary lighting. Construction is anticipated to begin in July of 2021.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.62516463015142N86.67884052830149W>



Counties: Putnam, 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 Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/1/office/31440.pdf	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"> ▪ Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See www.fws.gov/midwest/endangered/mammals/nleb/index.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

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

Jaime Byerly

From: Hinkle, Meghan <MHinkle@indot.IN.gov>
Sent: Wednesday, May 13, 2020 1:13 PM
To: Jaime Byerly; Aaron Lawson
Cc: Khan, Asfahan; Bales, Ronald
Subject: FW: IPaC Determination - US 40 over Sallust Branch Bridge Project in Putnam County, Indiana - Des. Number 1601094

Good Afternoon,

INDOT has reviewed this IPaC submission and it has been sent to USFWS for their review. If I receive a response I will forward it to you.

When reviewing this IPaC inspection I noticed there were a few bird nests on the bridge. Make sure to include the firm bird commitment in the environmental document.

Meghan Hinkle
Major Projects / LPA Review Liaison
Environmental Services Division
Indiana Department of Transportation
100 N Senate Ave N642-ES
Indianapolis, IN 46204-2216
317-232-1490
Email: MHinkle@indot.IN.gov



From: Jaime Byerly <jbyerly@RQAW.com>
Sent: Monday, May 11, 2020 9:27 AM
To: Khan, Asfahan <akhan@indot.IN.gov>
Cc: Aaron Lawson <alawson@rqaw.com>; Hinkle, Meghan <MHinkle@indot.IN.gov>
Subject: IPaC Determination - US 40 over Sallust Branch Bridge Project in Putnam County, Indiana - Des. Number 1601094

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

Mr. Khan,

This is in regards to the IPaC determination that Ms. Hinkle deleted for us last Friday (5/8/20). I've completed a new IPaC key indicating tree clearing will now be needed for construction of a temporary haul road. The finding is still a MA NLAA with AMMs. Per the designer, temporary or permanent lighting will not be needed and tree clearing will only occur during the bat inactive season. I've added you as a member; please let us know if INDOT needs anything else to verify the project.

USFWS Record Locator Number: 974-21666391.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

Phone: (812) 334-4261 Fax: (812) 334-4273

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



In Reply Refer To:

May 13, 2020

Consultation Code: 03E12000-2020-I-0513

Event Code: 03E12000-2020-E-06659

Project Name: US 40 over Sallust Branch of Mill Creek Bridge Project, Putnam County, IN
(Des. Number 1601094)

Subject: Concurrence verification letter for the 'US 40 over Sallust Branch of Mill Creek Bridge Project, Putnam County, IN (Des. Number 1601094)' 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 **US 40 over Sallust Branch of Mill Creek Bridge Project, Putnam County, IN (Des. Number 1601094)** (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

US 40 over Sallust Branch of Mill Creek Bridge Project, Putnam County, IN (Des. Number 1601094)

Description

This key was originally verified on February 20, 2020. Scope changes have necessitated an update to IPaC. The project is located on US 40, approximately 0.50 mile west of SR 75, in Putnam County, Indiana (Des. Number 1601094). The project would involve Structure Number 040-67-01838 B, which carries US 40 eastbound and westbound traffic over Sallust Branch of Mill Creek, hereafter referred to as Sallust Branch. The structure is a single span reinforced concrete girder bridge and is listed as a Select historic bridge in the Indiana Historic Bridge Inventory. Surrounding land use consists of agricultural and riparian.

The current proposed project would include patching and fiber-wrapping the deteriorated beams, patching the remaining substructure (abutments and wing walls), patching the existing concrete railing, and installing riprap along the banks for scour protection. A temporary haul road would be constructed in the northeast quadrant of the project area to facilitate access to the underside of the bridge for maintenance work. Construction would extend from approximately 25 feet northeast and 25 feet southwest from the center of the bridge except in the northeast quadrant where construction limits would extend approximately 240 feet northeast to accommodate construction of the temporary haul road. The maintenance of traffic (MOT) would involve phased construction to allow US 40 to be open during construction. The project would take place within existing INDOT right-of-way and would not require the purchase of permanent or temporary right-of-way.

Suitable summer habitat is located adjacent to the project area. Approximately 0.02 acre of tree clearing would be needed for construction of the temporary haul road; dominant tree species to be removed included common hackberry (*Celtis occidentalis*), silver maple (*Acer saccharinum*), and box elder (*Acer negundo*). Trees would be removed during the inactive bat season (October 1 through March 31). Per the approved Red Flag Investigation, dated January 1, 2020, the USFWS database check did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. Per the bridge inspection report, dated October 21, 2019, bats were not seen or heard under the structure. Per the field visits conducted on July 24, 2018 and January 11, 2019 by RQAW, no bats or evidence of bats were seen or heard under the structure. The project would not involve any permanent or temporary lighting. Construction is anticipated to begin in July of 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^[1]?

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

Automatically answered

Yes

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

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

Automatically answered

Yes

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

A) *Federal Highway Administration (FHWA)*

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

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

No

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

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

No

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

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

No

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

No

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

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

[2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the [national consultation FAQs](#).

Yes

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

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

Yes

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

No

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

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

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

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

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

No

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

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

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

No

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

Yes

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

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

B) During the inactive season

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

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry 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

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

Yes

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

B) During the inactive season

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

Yes

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

No

20. Are *all* trees that are being removed clearly demarcated?

Yes

21. Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing **permanent** lighting?

No

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

No

23. Does the project include slash pile burning?

No

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

Yes

25. Is there *any* suitable habitat^[1] for Indiana bat or NLEB **within** 1,000 feet of the bridge? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

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

Yes

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

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

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

Yes

SUBMITTED DOCUMENTS

- *BridgeStructureAssessmentFormPhotos - DesNumber1601094.pdf* <https://ecos.fws.gov/ipac/project/DL3U5W7OWZHXP Gut4ROEC2WAY/projectDocuments/21666390>

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

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

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

No

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

No

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

No

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

No

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

No

32. 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

33. 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

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

No

35. 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

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

Automatically answered

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

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

Automatically answered

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

38. 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

39. 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

40. Tree Removal AMM 1

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

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

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

Yes

41. Tree Removal AMM 3

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

Yes

42. Tree Removal AMM 4

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

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

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

Yes

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

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

0.02

4. Please describe the proposed bridge work:

The project would include patching and fiber-wrapping the deteriorated beams, patching the remaining substructure (abutments and wing walls), patching the existing concrete railing, and installing riprap along the banks for scour protection. A temporary haul road would be constructed in the northeast quadrant of the project area to facilitate access to the underside of the bridge for maintenance work.

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

Construction is anticipated to begin in July of 2021.

6. Please enter the date of the bridge assessment:

January 11, 2019

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.

TREE REMOVAL AMM 1

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

TREE REMOVAL AMM 2

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

TREE REMOVAL AMM 3

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

TREE REMOVAL AMM 4

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

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.