

Indiana Department of Transportation

County Henry

Route SR 38

Des. No. 1593238

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

Road No./County:	SR 38 / Henry County
Designation Number:	1593238
Project Description/Termini:	Bridge Replacement, 0.16 mile west of SR 3 along SR 38 from approximately 234 feet west of the center of the existing structure and 378 feet east of the center of the existing structure.

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):

X	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)
	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)
	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
	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 _____ REB _____ 05/02/2020
 ESM Initials _____ Date _____ ES Initials _____ Date _____

Certification of Public Involvement _____
 Office of Public Involvement _____ Date _____

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

INDOT ES/District Env. Reviewer Signature: Pavel Jemca Date: 5/04/2020

Name and Organization of CE/EA Preparer: Aaron Grisel, HNTB Indiana

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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 <input type="checkbox"/>	No <input checked="" type="checkbox"/>
If No, then: Opportunity for a Public Hearing Required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

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

Remarks:

Notice of Entry

Notice of Entry letters were mailed to potentially affected property owners near the project area on September 11, 2019 notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of Entry letter is included in Appendix G, pages 1-2.

Public Involvement

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

Public Controversy on Environmental GroundsWill the project involve substantial controversy concerning community and/or natural resource impacts? Yes No

Remarks:

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

This is page 2 of 25 Project name: SR 38 over Big Blue River Date: April 30, 2020

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

Sponsor of the Project: Indiana Department of Transportation INDOT District: Greenfield
Local Name of the Facility: SR 38

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

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

PURPOSE AND NEED:

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

Need

The need for this project is due to the deteriorated condition of the existing structure (Bridge No. 038-33-04063 A; NBI No. 012910) carrying State Road (SR) 38 over Big Blue River. The existing structure is a three-span, reinforced concrete girder bridge measuring 129 feet long and 37.8 feet wide. The existing bridge deck and wearing surface are in fair condition with minor delaminations and leakage at the underside of the longitudinal construction joints. There are delaminations, spalls, and exposed rebar located in the southwest corner of Span C, the north joint in Span B, and several small previous repair patches throughout. The northern bridge girder in Span C has minor delaminations and vertical exposed rebar. Piers 2 & 3 each have wide vertical cracking with heavy efflorescence and spalling noted throughout each of the piers. Exposed rebar is noted at some of the spalling locations. These conditions are documented in the project's Abbreviated Engineer's Report dated February 3, 2020 (Appendix I, pages 1-14).

Purpose

The purpose of this project is to maintain a safe vehicular crossing of SR 38 over Big Blue River that meets current design standards, while maintaining adequate hydraulic function at the crossing.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Henry Municipality: New Castle

Limits of Proposed Work: Approximately 234 feet west and 378 feet east of the center of the structure at Reference Post 92+23.

Total Work Length: 0.12 Mile(s) Total Work Area: 0.89 Acre(s)

Is an Interchange Modification Study / Interchange Justification Study (IMS/IJS) required? Yes No
If yes, when did the FHWA grant a conditional approval for this project? Date: X

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.

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Location

INDOT and the Federal Highway Administration (FHWA) intend to proceed with a project involving the reinforced concrete girder bridge 038-33-04063 A carrying SR 38 over Big Blue River in Henry County, Indiana. The project is in Section 15, Township 17 north, and Range 10 east in Henry Township, as shown on the US Geological Survey (USGS) 7.5 Minute New Castle, Indiana topographic quadrangle map (Appendix B, page 3). More specifically, the project is located approximately 0.16 mile west of SR 3. Land cover within the project area is primarily maintained roadside and forested floodplain (Appendix B, page 2).

Existing Conditions

The existing structure is a three-span, reinforced concrete girder bridge constructed in 1958. This existing structure carries SR 38 over Big Blue River. SR 38 is classified as urban minor arterial and has a posted speed limit of 40 miles per hour (mph) through the project area. The existing roadway consists of two, 12-foot through lanes with 3-foot compacted aggregate shoulders. The existing bridge consists of two, 12-foot through lanes with 6-foot paved shoulders. The existing structure is not identified in the *Indiana Historic Bridge Inventory*; therefore, it is not eligible for listing in the National Register of Historic Places (NRHP).

Preferred Alternative

Proposed construction activities include replacement of the existing bridge with a three-span, continuous composite steel beam bridge, installation of approach roadway guardrail and bridge rail transitions, replacement of the existing bridge approach slabs, and installation of revetment riprap at the abutments and piers for scour protection. Channel clearing will occur along both spill slopes to provide a sufficient hydraulic opening in the event of a 100-year flood. The preferred alternative requires a grade raise of 0.27 feet. Approximate 250 feet of pavement transition milling and paving at the bridge ends will be required to accommodate the grade change. The preferred alternative will include two, 12-foot through lanes with 5.4-foot paved bridge shoulders and 4-foot paved roadway shoulders. The project will require 0.69 acre of permanent right-of-way and no temporary right-of-way. Plan sheets detailing proposed construction activities are included in Appendix B, pages 11-15.

The project will require the closure of SR 38 with a detour. An official state route detour utilizing SR 109, SR 38, SR 3, and US 36 will be in place (Appendix B, page 13). Details of the closure and detour are included in the *Maintenance of Traffic (MOT) During Construction* section of this CE document.

The preferred alternative meets the purpose and need of the project by providing a structurally sufficient and hydraulically adequate crossing of SR 38 over Big Blue River.

The logical termini are approximately 234 feet west and 378 feet east of the center of the existing structure. The termini are considered logical as they provide a sufficient area for bridge replacement, guardrail installation, channel clearing, riprap placement, and construction access. The project has independent utility and will provide a fully functional bridge without any additional transportation improvements beyond the project limits.

OTHER ALTERNATIVES CONSIDERED:

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

Pre-cast, Pre-stressed Concrete 36x49 Bulb-Tee Beam Bridge

INDOT considered replacement of the existing structure with a pre-cast, pre-stressed concrete 36x49 bulb-tee beam bridge. This alternative would meet the purpose and need of the project; however, it is less cost effective than the preferred alternative and would require additional construction costs due to a significant grade change. This alternative was therefore eliminated from further consideration.

Pre-Cast, Pre-Stressed Concrete Type II I-Beam Bridge

INDOT considered replacement of the existing structure with a pre-cast, pre-stressed concrete Type II I-beam bridge. This

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DESIGN CRITERIA FOR BRIDGES:

Structure/NBI Number(s): 038-33-04063 A / 012910 Sufficiency Rating: 79.5, September 13, 2018 INDOT Bridge Inspection Report
 (Rating, Source of Information)

	Existing	Proposed	
Bridge Type:	Reinforced Concrete Girder	Continuous Composite Steel Beam	
Number of Spans:	3	3	
Weight Restrictions:	N/A	N/A	ton
Height Restrictions:	N/A	N/A	ft.
Curb to Curb Width:	34.8	34.8	ft.
Outside to Outside Width:	37.8	37.8	ft.
Shoulder Width:	5.4	5.4	ft.
Length of Channel Work:		100	ft.

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

Remarks: The existing structure is a three-span, reinforced concrete girder bridge (Bridge No. 038-33-04063 A / NBI 012910) and is the only structure involved in the project. The proposed structure will be a three-span, continuous composite steel beam bridge (Bridge No. 038-33-10161). There are no existing or proposed culverts within the project area.

Will the structure be rehabilitated or replaced as part of the project? **Yes** **No** **N/A**

If the proposed action has multiple bridges or small structures, this section should be filled out for each structure.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

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

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Remarks:

The MOT plan requires the closure of SR 38 for approximately eight months. An official state route detour utilizing SR 109, SR 38, SR 3, and US 36 will be in place (Appendix B, page 13). The proposed detour will be approximately 30.7 miles long and will add approximately 26.7 miles to a trip through the area. A local detour route may be available during construction. Access for local traffic will be provided during construction per INDOT Standard Specification 107.08(e). Signs will be placed on site a minimum of seven days in advance of the closure to notify the public of the closure per INDOT Standard Specification 801.04.

The closure will pose a temporary inconvenience to traveling motorists (including school buses and emergency services); however, no significant delays are anticipated, and all inconveniences will cease upon project completion. Delays may occur during construction but will cease with project completion. The contractor will be responsible for contacting school districts and emergency services in accordance with the Indiana Design Manual (IDM) guidelines.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$ 386,700 (2020) Right-of-Way: \$ 0* Construction: \$ 1,523,174 (2022)

Anticipated Start Date of Construction: December 2021

Date project incorporated into STIP July 2, 2019

Is the project in an MPO Area? **Yes** **No**

If yes,

Name of MPO N/A

Location of Project in TIP N/A

Date of incorporation by reference into the STIP N/A

*Estimated right-of-way costs are not noted in the current STIP for Des. No. 1593238. The estimated right-of-way cost has been conveyed to the INDOT Greenfield District Project Manager to include in a STIP amendment. The STIP will be updated to reflect the current right-of-way estimated cost.

RIGHT OF WAY:

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	0	0
Commercial	0.40	0
Agricultural	0.15	0
Forest	0	0
Wetlands	0	0
Other: Exempt	0.14	0
TOTAL	0.69	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.

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Remarks: Right-of-way (ROW) plans and grants for the construction of SR 38 at this location were obtained. Apparent existing ROW limits are present at the existing pavement edge of SR 38. The land use of existing ROW will continue to be the existing pavement following construction.

The project requires acquisition of approximately 0.69 acre of permanent ROW. Temporary ROW will not be required. At the location of the existing structure, permanent ROW limits will extend approximately 50 feet north and south of the SR 38 centerline, and taper toward the edge of pavement approximately 116 feet west and 115 feet east of the center of the structure (Appendix B, pages 14-15). The land use of permanent ROW will be maintained roadside following construction.

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

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

SECTION A – ECOLOGICAL RESOURCES

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

Remarks: Based on a desktop review, a site visit on October 20, 2019 by HNTB, the 2018 aerial map of the project area (Appendix B, page 2), and the water resources map in the Red Flag Investigation (RFI) report (Appendix E, page 10), ten streams, rivers, or watercourses are mapped within the 0.5-mile search radius. There is one river present within the project area.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by the INDOT Ecology and Waterway Permitting Office (EWPO) on January 30, 2020 (Appendix F, pages 1-10). It was determined that one jurisdictional stream is present within the investigated area. The U.S. Army Corps of Engineers (USACE) makes all determinations regarding jurisdiction.

Big Blue River exhibited an ordinary high-water mark (OHWM) and a defined bed and bank during the site visit; therefore, it is likely considered a Water of the U.S. The USACE makes all determinations regarding jurisdiction. During the site investigation, this stream at the OHWM was 50 feet wide and 1.5 feet deep.

No streams within the project area are listed as a Federal, Wild and Scenic River; a State Natural, Scenic and Recreational River; an Outstanding Rivers for Indiana; a navigable waterways; or a National Rivers Inventory waterway.

The bridge replacement and riprap placement will result in approximately 50 linear feet of permanent impacts to Big Blue River. Temporary cofferdams and a pump around will be necessary to complete the proposed work and will temporarily impact approximately 100 linear feet of Big Blue River. Excavation for the placement of riprap at the piers and abutments will be required to a depth of 18 inches. INDOT does not anticipate the need for mitigation activities, as the potential impact to the stream is unlikely to exceed the mitigation thresholds. Proper sediment and erosion control measures will be implemented for construction access areas and in-stream work. All disturbed areas will be restored per current INDOT Standard Specifications.

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Big Blue River is impaired for *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. This firm commitment is included in the Environmental Commitments of this document.

Big Blue River is listed as impaired for polychlorinated biphenyls (PCBs). If excavation will be required below the OHWM of Big Blue River, then additional investigation for PCBs is required prior to project letting to determine worker safety and soil disposal needs. The INDOT Project Manager and/or project designer shall work with INDOT Environmental Services Site Assessment & Management (SAM) to conduct sampling activities. The laboratory results of the sampling activities will be reviewed by INDOT SAM, who will determine if coordination with IDEM is needed and/or if worker protections are needed prior to project letting. This firm commitment is included in the Environmental Commitments of this document.

Early Coordination

Early coordination letters were sent to the United States Fish and Wildlife Service (USFWS), Indiana Department of Natural Resources Division of Fish and Wildlife (IDNR-DFW), and the USACE on January 22, 2020 (Appendix C, pages 1-3). No response was received from USACE.

USFWS responded on January 23, 2020, providing recommendations to minimize stream impacts (Appendix C, pages 4-5). These recommendations included erosion and sediment control methods, bank stabilization, restriction of below low-water work in streams, channel work and vegetation clearing restrictions, and timing of work in the waterway.

An automated letter was generated from the Indiana Department of Environmental Management's (IDEM) website on February 20, 2020 recommending appropriate storm water quality measures to be implemented during construction and after project completion (Appendix C, pages 8-14).

IDNR-DFW responded on February 21, 2020, providing recommendations to minimize stream impacts (Appendix C, pages 17-19). These recommendations included the restriction of a runaround and causeway, erosion and sediment control methods, riprap placement within the waterway, excavation and in-channel disturbance within the waterway, construction time of year restrictions within the waterway, and deposition of debris or construction materials into the waterway.

All applicable IDNR-DFW, USFWS, and IDEM recommendations are included in the Environmental Commitments section of this CE document.

Other Surface Waters

Reservoirs

Lakes

Farm Ponds

Detention Basins

Storm Water Management Facilities

Other: _____

Presence

Impacts

Yes

No

X		X

Remarks:

Based on a desktop review, a site visit on October 20, 2019 by HNTB, the 2018 aerial map of the project area (Appendix B, page 2), and the water resources map in the RFI report (Appendix E, page 10), there are two lakes within the 0.5-mile search radius. None of the mapped lakes are located within or adjacent to the project area. Therefore, no impacts are expected.

Early Coordination

No early coordination response letters included recommendations regarding lakes, ponds, or other surface waters.

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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
N/A	N/A	N/A	N/A	N/A

Documentation

ES Approval Dates

Wetlands (Mark all that apply)

- Wetland Determination
- Wetland Delineation
- USACE Isolated Waters Determination
- Mitigation Plan

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:

Based on a review of the National Wetlands Inventory (NWI) online mapper (<https://www.fws.gov/wetlands/data/Mapper.html>) (Appendix B, page 6), the USGS topographic map (Appendix B, page 3), and the RFI report (Appendix E, page 10), there are nine wetlands mapped within the 0.5 mile search radius. Two wetlands are mapped within the project area.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by the INDOT EWPO on January 30, 2020. Please refer to Appendix F, pages 1-10 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined there are no wetlands within the investigated area. Therefore, no impacts are expected.

Early Coordination

USFWS responded on January 23, 2020, but did not provide recommendations pertaining to wetlands (Appendix C, pages 4-5).

An automated letter was generated from the IDEM website on February 20, 2020 recommending appropriate storm water quality measures to be implemented during construction and after project completion (Appendix C, pages 8-14).

IDNR-DFW responded on February 21, 2020, providing recommendations pertaining to wetland habitat

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mitigation if wetland habitat disturbance exceeds mitigation thresholds (Appendix C, pages 17-19).
 All applicable IDNR-DFW, USFWS, and IDEM recommendations are included in the Environmental Commitments section of this CE document.

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

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

Remarks:

Based on a desktop review, a site visit on October 20, 2019 by HNTB, and the 2018 aerial map of the project area (Appendix B, page 2), there are primarily maintained state highway ROW and successional riparian habitat within the project area. Vegetation within the project area consists primarily of *Phalaris arundinacea* (reed canary grass), *Setaria pumila* (yellow foxtail), *Acer negundo* (ash-leaf maple), *Lonicera maackii* (amur honeysuckle), and *Platanus occidentalis* (American sycamore). Minor successional, riparian brush and herbaceous vegetation removal totaling approximately 0.69 acre will be necessary for riprap placement, channel clearing, structure replacement, and guardrail placement. Construction activities will not require the removal of trees greater than 3 inches diameter at breast height (dbh). Avoidance alternatives for terrestrial habitat removal are not practicable due to construction access for the placement of riprap. Terrestrial habitat removal will not require mitigation.

Early Coordination

USFWS responded on January 23, 2020, providing recommendations to avoid or minimize impacts to terrestrial habitat. These recommendations included the restriction of vegetation clearing to a minimum, the revegetation of disturbed areas, and the evaluation of wildlife crossings as appropriate (Appendix C, pages 4-5).

An automated letter was generated from the IDEM website on February 20, 2020 recommending appropriate storm water quality measures to be implemented during construction and after project completion (Appendix C, pages 8-14).

IDNR-DFW responded on February 21, 2020, providing recommendations to minimize potential effects to terrestrial habitat within the project area (Appendix C, pages 17-19). These recommendations include post-construction revegetation measures including terrestrial habitat mitigation, time of year restrictions for tree removal, and erosion and sediment control measures.

All applicable IDNR-DFW, USFWS, and IDEM 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.

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

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

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Remarks: Based on 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). According to the topo map of the project area (Appendix B, page 3), the RFI report (Appendix E, page 1-15), and the site visit on October 20, 2019 by HNTB, there are no karst features identified within or adjacent to the project area. In the early coordination response, the Indiana Geological Survey (IGS) did not indicate that karst features exist within the project area (Appendix C, pages 20-21). The IGS response letter did indicate that there is a moderate liquefaction potential, presence of a floodway, high potential for bedrock resources, high potential for sand and gravel resources, and the potential for abandoned petroleum wells in the area. Response from IGS has been communicated with the designer on February 20, 2020. No impacts are expected.

	<u>Presence</u>	<u>Impacts</u>	
Threatened or Endangered Species		Yes	No
Within the known range of any federal species	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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Remarks: Based on a desktop review and the RFI report (Appendix E, pages 1-15), completed by HNTB on December 5, 2019, the IDNR Henry County Endangered, Threatened and Rare (ETR) Species List has been checked and is included in Appendix E, pages 14-15. The highlighted species on the list reflect the federal and state identified ETR species located within the county. According to the IDNR-DFW early coordination response letter dated February 21, 2020, the Natural Heritage Program’s Database has been checked and it was noted that no federally endangered, threatened, or rare species have been reported within the project vicinity (Appendix C, pages 17-19).

Project information was submitted through the USFWS’s Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, pages 23-27). The project is within range of the federally-endangered Indiana bat (*Myotis sodalis*) and the federally-threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional species were found within or adjacent to the project area other than the Indiana bat and NLEB.

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and Northern Long-eared Bat (NLEB)*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), and USFWS. An effect determination key was completed on January 8, 2020, and based on the responses provided, the project was found to “*May Affect - Not Likely to Adversely Affect*” the Indiana bat and/or the NLEB. INDOT reviewed and verified the effect finding on January 8, 2020 and requested USFWS’s review of the finding (Appendix C, pages 28-38). No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. Avoidance and Mitigation Measures (AMMs) regarding worker notification of environmental commitments and directing temporary lighting away from suitable habitat during the active season are included as firm commitments in the Environmental Commitments section of this CE document.

Structure No. 038-33-04063 A has shown evidence of use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA) during the October 20, 2019 inspection. Avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the “Potential Migratory

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Bird on Structure Unique Special Provision". This firm commitment is included in the Environmental Commitments of this document.

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

SECTION B – OTHER RESOURCES

Drinking Water Resources

- Wellhead Protection Area
- Public Water System(s)
- Residential Well(s)
- Source Water Protection Area(s)
- Sole Source Aquifer (SSA)

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

If a SSA is present, answer the following:

- Is the Project in the St. Joseph Aquifer System?
- Is the FHWA/EPA SSA MOU Applicable?
- Initial Groundwater Assessment Required?
- Detailed Groundwater Assessment Required?

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

Remarks:

Sole Source Aquifer

The project is located in Henry County, which is not located within the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the state of Indiana. Therefore, the FHWA/ Environmental Protection Agency (EPA) Sole Source Aquifer MOU is not applicable to this project. No impacts are expected.

Wellhead Protection Area

The Indiana Department of Environmental Management’s Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead/>) was accessed on January 20, 2020 by HNTB. This project is located within a Wellhead Protection Area. A copy of the January 22, 2020 early coordination letter was sent to the New Castle Department of Public Works on April 6, 2020. In a phone conversation on April 13, 2020, the New Castle Department of Public Works stated concerns regarding the location of subsurface water main infrastructure; however, no comments regarding the wellhead protection area were received (Appendix C, page 20). The New Castle Department of Public Works comments regarding the location of subsurface water main infrastructure will be addressed through the utility coordination process.

Water Wells

The IDNR Water Well Record Database website (<https://www.in.gov/dnr/water/3595.htm>) was accessed on January 20, 2020 by HNTB. Two wells are located adjacent to the project area. The identified wells will not be affected because they lie outside of the construction limits necessary to complete the project. Therefore, no impacts are expected. Should it be determined during the right-of-way phase that these wells are affected, a cost to cure will likely be included in the appraisal to restore the wells.

Urban Area Boundary

Based on a desktop review of the INDOT MS4 website (<https://entapps.indot.in.gov/MS4/>) by HNTB on

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December 4, 2019 and the RFI report; this project is located in an Urban Area Boundary (UAB) location. An early coordination letter was sent on January 22, 2020, to the New Castle, Indiana MS4 Coordinator. The MS4 Coordinator did not respond within the 30-day time frame.

Public Water System

Based on a desktop review on January 20, 2019, a site visit on October 20, 2019 by HNTB, the aerial map of the project area (Appendix B, page 2), and the IDEM Indiana Public Water Supply Database website (<https://myweb.in.gov/IDEM/DWW/>) this project is not located where there will be public water system impacts. Therefore, no impacts are expected.

Flood Plains	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Longitudinal Encroachment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transverse Encroachment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Project located within a regulated floodplain	<input checked="" type="checkbox"/>	<input checked="" 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:

Based on a desktop review of The Indiana Department of Natural Resources Indiana Floodway Information Portal website (<http://dnrmaps.dnr.in.gov/appsphp/fdms/>) by HNTB on December 31, 2019; this project is located in a regulatory floodplain as determined from the approved IDNR floodplain maps (Appendix B, page 6). An early coordination letter was sent on January 22, 2020, to the local Floodplain Administrator. The Floodplain Administrator did not respond within the 30-day time frame. This project qualifies as a Category 3 per the current INDOT CE Manual, which states:

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

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

Total Points (from Section VII of CPA-106/AD-1006* 105
**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:

Based on a desktop review, a site visit on October 20, 2019, by HNTB and the 2018 aerial map of the project area (Appendix B, page 2), the project will convert 0.69 acres of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on January 22, 2020 (Appendix C, pages 1-3). Coordination with NRCS resulted in a score of 105 on the AD 1006 Form (Appendix C, pages 6-7). NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

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SECTION C – CULTURAL RESOURCES

	Category	Type	INDOT Approval Dates	N/A
Minor Projects PA Clearance	B	12	February 4, 2020	<input type="checkbox"/>

Eligible and/or Listed
Resource Present

Results of Research

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

Project Effect

No Historic Properties Affected No Adverse Effect Adverse Effect

Documentation
Prepared

Documentation (mark all that apply)

		ES/FHWA Approval Date(s)	SHPO Approval Date(s)
Historic Properties Short Report	<input type="checkbox"/>		
Historic Property Report	<input type="checkbox"/>		
Archaeological Records Check/ Review	<input type="checkbox"/>		
Archaeological Phase Ia Survey Report	X	February 4, 2020	
Archaeological Phase Ic Survey Report	<input type="checkbox"/>		
Archaeological Phase II Investigation Report	<input type="checkbox"/>		
Archaeological Phase III Data Recovery	<input type="checkbox"/>		
APE, Eligibility and Effect Determination	<input type="checkbox"/>		
800.11 Documentation	<input type="checkbox"/>		

MOA Signature Dates (List all signatories)

Memorandum of Agreement (MOA)

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

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Remarks:

On February 4, 2020, the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category B-12 under the Minor Projects Programmatic Agreement (MPPA) (Appendix D, pages 1-4). MPPA Category B-12 projects include replacement, widening, or raising the elevation of the superstructure on existing bridges, and bridge replacement projects (when both the superstructure and substructure are removed) within undisturbed soils where an archaeological investigation determined that no National Register-listed or potentially National Register-eligible archaeological resources are present within the project area.

Archaeology: On December 20, 2019, an archaeological field reconnaissance was conducted by a qualified professional (Appendix D, pages 5-8). The field reconnaissance did not identify any archaeological sites within the project area. No further archaeological work was recommended for this site; therefore, no adverse impacts to archaeological resources are anticipated at this site (Appendix D, page 8).

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

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

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

Parks & Other Recreational Land

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

Presence

Use

Yes	No

Evaluations Prepared

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

FHWA

Approval date

--

Wildlife & Waterfowl Refuges

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

Presence

Use

Yes	No

Evaluations Prepared

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

FHWA

Approval date

--

Historic Properties

- Sites eligible and/or listed on the NRHP

Presence

--

Use

Yes	No

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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.*

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

Remarks:

Section 4(f) of the U.S. Department of Transportation Act of 1966 prohibits the use of certain public and historic lands for federally funded transportation facilities unless there is no feasible and prudent alternative. The law applies to significant publicly owned parks, recreation areas, wildlife/waterfowl refuges, and National Register of Historic Places (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 site visit on October 20, 2019 by HNTB, the aerial map of the project area (Appendix B, page 2), and the RFI report (Appendix E, page 9) there are no Section 4(f) resources within or adjacent to the project area. Therefore, no use is expected.

Section 6(f) Involvement

Presence

Use

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.

A review of 6(f) properties on the Land and Water Conservation Fund (LWCF) list maintained by the IDNR Division of Outdoor Recreation for the identification of LWCF properties and provided to INDOT ESD revealed a total of two properties in Henry County (Appendix I, page 20). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 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?

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)?

This is page 17 of 25 Project name: SR 38 over Big Blue River Date: April 30, 2020

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Level of MSAT Analysis required?

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

Remarks: This project is included in the INDOT FY 2020-2024 Statewide Transportation Improvement Program (STIP) (Appendix H, page 1).

This project is located in Henry County, which is currently in attainment for all criteria pollutants according to the IDEM Office of Air Quality. Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

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

SECTION F - NOISE

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

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

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

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

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Remarks:

The project is in an urban portion of Henry County, Indiana and will require the acquisition of 0.69 acre of permanent ROW. The right-of-way acquisition is not anticipated to have a significant impact on tax base or property values. The MOT plan requires the closure of SR 38 for approximately eight months. An official state route detour utilizing SR 109, SR 38, SR 3, and US 36 will be in place. The proposed detour will be approximately 30.7 miles long and will add approximately 26.7 miles to a trip through the area. A local detour route may be available during construction. Community and economic impacts will include increased travel time, increased emergency response time, and increased fuel consumption by commercial and individual motorists. Impacts will be temporary in nature. Local access to properties surrounding the construction limits will be maintained during the roadway closure per INDOT Standard Specification 107.08(e). Per the 2020 Indiana Festival Guide (https://issuu.com/propellermarketing/docs/in-festival-guide-windex?e=14720671/65923919) accessed on February 21, 2020, there are seven scheduled festivals in Henry County and other additional festivals sponsored by the Henry County Convention and Visitors Bureau. Three scheduled festivals are located within New Castle, Indiana. The MOT plan may cause minor delays or inconveniences to those traveling to these festivals from west portions of Henry County. The selected contractor will implement the MOT in accordance with the current IDM and INDOT Standard Specifications. The City of New Castle has an approved Americans with Disabilities Act (ADA) Transition Plan. There are no sidewalks or trails within or adjacent to the project area, or any level 1 or level 2 roadway segments, as defined by the plan, Therefore, there are no facilities in the project area that require ADA compliance. Early coordination letters were sent to the Henry County Surveyor, Henry County Sheriff, Henry County Highway Department, Henry County Board of Commissioners, New Castle Community School Corporation, Henry County Planning Commission, and Henry County Emergency Management on January 22, 2020 (Appendix C, pages 1-3). No responses were received from local officials.

Indirect and Cumulative Impacts

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

Yes No
[] [X]

Remarks:

Indirect impacts are effects which are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate. Cumulative impacts affect the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions. This project is not of a type that is likely to cause substantial indirect or cumulative effects. This project is not expected to affect growth, changes in land use, or population density. The project will not add capacity to the existing roadway network or provide additional access to any currently undeveloped area. Therefore, the project is not expected to increase development in the area or result in substantial indirect or cumulative impacts.

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
[] [X]

Remarks:

Based on a desktop review, a site visit on October 20, 2019 by HNTB, the 2018 aerial map of the project area (Appendix B, page 2), and the RFI report (Appendix E, page 9) there is one pipeline located within the project area. Excavation associated with the project will not exceed six feet due to the placement of riprap; therefore, no direct or indirect impacts to the pipeline are anticipated. An early coordination letter was sent to INDOT Office of Utilities and Railroad January 22, 2020. No response was received from INDOT Office of

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Utilities and Railroad.

Early coordination letters were sent to local officials on January 22, 2020 (Appendix C, pages 1-3). No responses were received from local officials.

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

Environmental Justice (EJ) (Presidential EO 12898)

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

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

Remarks:

Under FHWA Order 6640.23A, FHWA and INDOT, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT Categorical Exclusion Manual, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent right-of-way. Preliminary design indicated that the project would require the acquisition of 0.69 acre of permanent right-of-way. An EJ analysis was completed for this project prior to the final determination of apparent existing right-of-way limits.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city, or town and is called the community of comparison (COC). In this project, the COC is Henry County. The community that overlaps the project limits is called the affected community (AC). In this project, the AC is Census Tract 9759. An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the 2013-2017 American Community Survey was obtained from the US Census Bureau Website <https://factfinder.census.gov/> on January 28, 2019 by HNTB (Appendix I, pages 15-19). The data collected for minority and low-income populations within the AC are summarized in the below table.

	COC: Henry County	AC: Census Tract 9759
LOW-INCOME		
Total population for whom poverty status is determined (estimated)	45,046	4,262
Total population below poverty level (estimated)	7,253	837
Percent low-income	16.1%	19.6%
125 percent of COC	20.1%	
Potential low-income EJ impact?		No
MINORITY		
Total population (all races)	48,649	4,351
White alone or in combination	45,652	4,264
Number non-white/minority	2,997	87
Percent non-white/Minority	6.2%	2.0%
125 percent of COC	7.7%	
Potential minority EJ impact?		No

Census Tract 9759 has a percent minority of 2% which is below 50% and is below the 125% COC threshold. Therefore, Census Tract 9759 is not a minority population of EJ concern.

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Census Tract 9759 has a percent low-income of 20% which is below 50% and is above the 125% COC threshold. Therefore, Census Tract 9759 is a low-income population of EJ concern.

The census data sheets, map, and calculations can be found in Appendix I, pages 15-19. No further environmental justice analysis is warranted.

Relocation of People, Businesses or Farms

Will the proposed action result in the relocation of people, businesses or farms?
 Is a Business Information Survey (BIS) required?
 Is a Conceptual Stage Relocation Study (CSRS) required?
 Has utility relocation coordination been initiated for this project?

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

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 as a result of this project.

SECTION H – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Documentation

Hazardous Materials & Regulated Substances (Mark all that apply)

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

	No	Yes/ Date
ES Review of Investigations	<input type="checkbox"/>	February 20, 2020

Include a summary of findings for each investigation.

Remarks: Based on a review of GIS and available public records, an RFI was completed on February 20, 2020 by HNTB (Appendix E, pages 1-15). Twenty-eight hazardous material sites are located within 0.5 mile of the project area. None of the hazardous material sites are located within the project area; therefore, no hazardous material sites were identified in or within 0.5 mile of the project area that will impact the project. The nearest hazardous material site, a leaking underground storage tank (LUST), is located adjacent to the eastern termini of the project area. No impacts are expected. Further investigation for hazardous material concerns is not required at this time.

SECTION I – PERMITS CHECKLIST

Permits (mark all that apply)

Likely Required

Army Corps of Engineers (404/Section10 Permit)

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

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IDEM	Stream Mitigation required	<input type="checkbox"/>
	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 checked="" 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	<input type="checkbox"/>
	Others (Please discuss in the remarks box below)	<input type="checkbox"/>

Remarks:

A USACE Section 404 permit and an IDEM Section 401 water quality certification (WQC) will likely be required for this project.

An IDNR Construction in a Floodway (CIF) permit will likely be required for this project.

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

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

SECTION J- ENVIRONMENTAL COMMITMENTS

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

Remarks:

FIRM:

1. If the scope of work or permanent or temporary ROW amounts change, the INDOT Environmental Services Division (ESD) and the INDOT Seymour 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 limit access. (INDOT)
3. Big Blue River is listed as impaired for polychlorinated biphenyls (PCBs). If excavation will be required below the ordinary high water mark of Big Blue River, then additional investigation for PCBs is required prior to project letting to determine worker safety and soil disposal needs. The INDOT Project Manager and/or project designer shall work with INDOT Environmental Services Site Assessment & Management (SAM) to conduct sampling activities. The laboratory results of the sampling activities will be reviewed by INDOT SAM, who will determine if coordination with IDEM is needed and/or if worker protections are needed prior to project letting. (INDOT)
4. General AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)
5. Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season.

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(USFWS)

6. Structure No. 038-33-04063 A has shown evidence of use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA) during the October 20, 2019 inspection. Avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the “Potential Migratory Bird on Structure USP”. (INDOT)

FOR CONSIDERATION:

1. The new, replacement, or rehabbed structure should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. (IDNR-DFW)
2. Riprap must not be placed in the active thalweg channel or placed in the streambed in a manner that precludes fish or aquatic organism passage (riprap must not be placed above the existing streambed elevation). Riprap may be used only at the toe of the sideslopes up to the ordinary high-water mark (OHWM). The banks above the OHWM must be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to [site indicated] and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. (IDNR-DFW)
3. The Division of Fish and Wildlife (DFW) recommends bridge maintenance activities be restricted to the period between November 1 and March 1 to avoid the summer roosting period for most bats in the central part of the State. However, some endangered bats could use a bridge to roost between November and March. No matter when work is proposed, the bridge must be inspected for the presence of bats. If there is no evidence of active bat use, work can proceed. If there is evidence of active bat use, work must not occur until either the bats leave the structure for the season or a separate permit is issued to remove the bats. Please contact Linnea Petercheff (lpetercheff@dnr.in.gov) regarding permits to handle bats. If bats are present, a more formal survey to determine what species are present may be required. (IDNR-DFW)
4. Impacts to non-wetland forest under 1 acre should be mitigated at a minimum 1:1 ratio. Impacts to non-wetland forest that are 1 or more acres should be mitigated at a minimum 2:1 ratio. (IDNR-DFW)
5. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 3 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30. (IDNR-DFW)
6. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR-DFW)
7. Do not construct any temporary runarounds or causeways. (IDNR-DFW)
8. Operate equipment used to replace the bridge from the existing roadway (IDNR-DFW).
9. Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR-DFW)
10. Restrict below-water 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)
11. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If riprap is utilized for bank stabilization, extend it below the low-water elevation to provide aquatic habitat. (USFWS)
12. Avoid all work within the inundated part of the stream channel during the fish spawning season

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

13. Evaluate wildlife crossings under bridge/culverts 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)

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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 was initiated on January 22, 2020 with federal, state, and local resource agencies (Appendix C, pages 1-3).

Agency	Response Received
U.S. Fish and Wildlife Service	January 23, 2020
USDA – Natural Resources Conservation Service	January 27, 2020
Indiana Department of Environmental Management	February 20, 2020
Indiana Geological Survey	February 20, 2020
Indiana Department of Natural Resources, Division of Fish and Wildlife	February 21, 2020
City of New Castle Department of Public Works	April 13, 2020
U.S. Army Corps of Engineers – Louisville District	-
Indiana Department of Natural Resources, Division of Oil and Gas	-
Henry County Surveyor	-
New Castle Community School Corporation	-
Henry County Board of Commissioners	-
Henry County Council	-
Henry County Highway Department	-
Henry County Emergency Management	-
Henry County Planning Commission	-
City of New Castle M4 Coordinator	-
City of New Castle Building Commissioner/Floodplain Administrator	-
Fraternal Order of Eagles	-

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APPENDIX A: INDOT SUPPORTING DOCUMENTATION

Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4 ¹
Section 106	Falls within guidelines of Minor Projects PA	“No Historic Properties Affected”	“No Adverse Effect”	-	“Adverse Effect” Or Historic Bridge involvement ²
Stream 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	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.

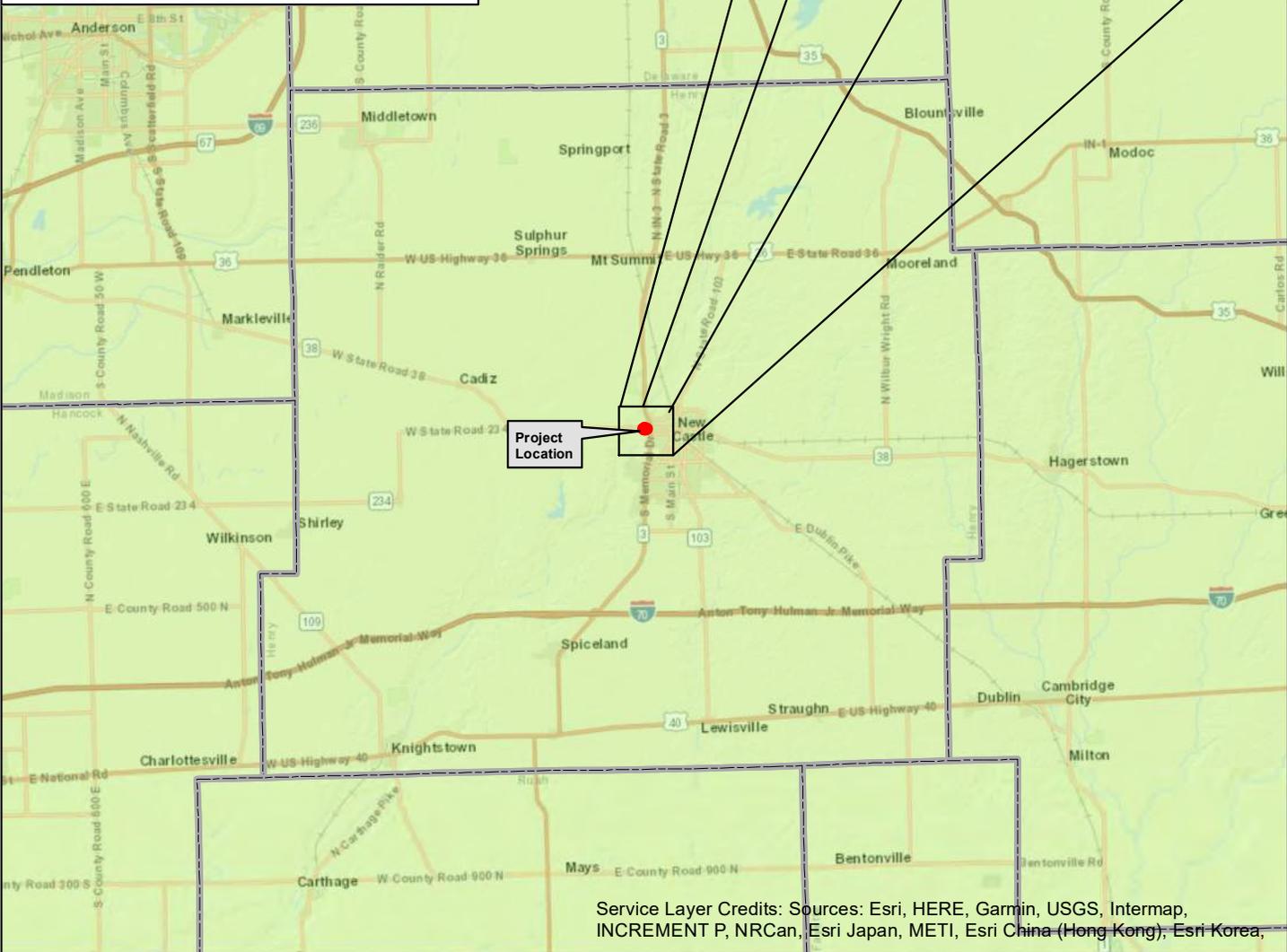
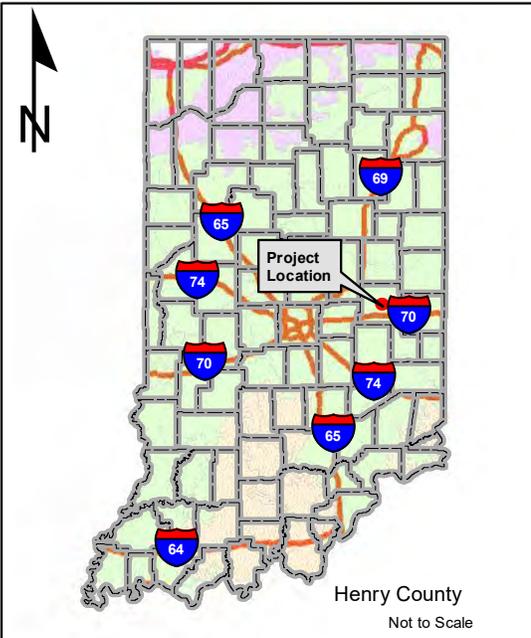
⁵AMMs determined by the IPAC decision key to be needed that are listed in the USFWS *User’s Guide for the Range-wide Programmatic Consultation for Indiana bat and Northern long-eared bat* as “required for all projects”.

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.

APPENDIX B: GRAPHICS



Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri Korea,

 Investigated Area

NRCS Land Resource Regions

-  Northeast and Northcentral
-  Midwest
-  Eastern Mountains and Piedmont



Project Location Map
 SR 38 over Big Blue River
 Bridge Replacement, Henry County

Des. No. 1593238
 1 inch = 5 miles

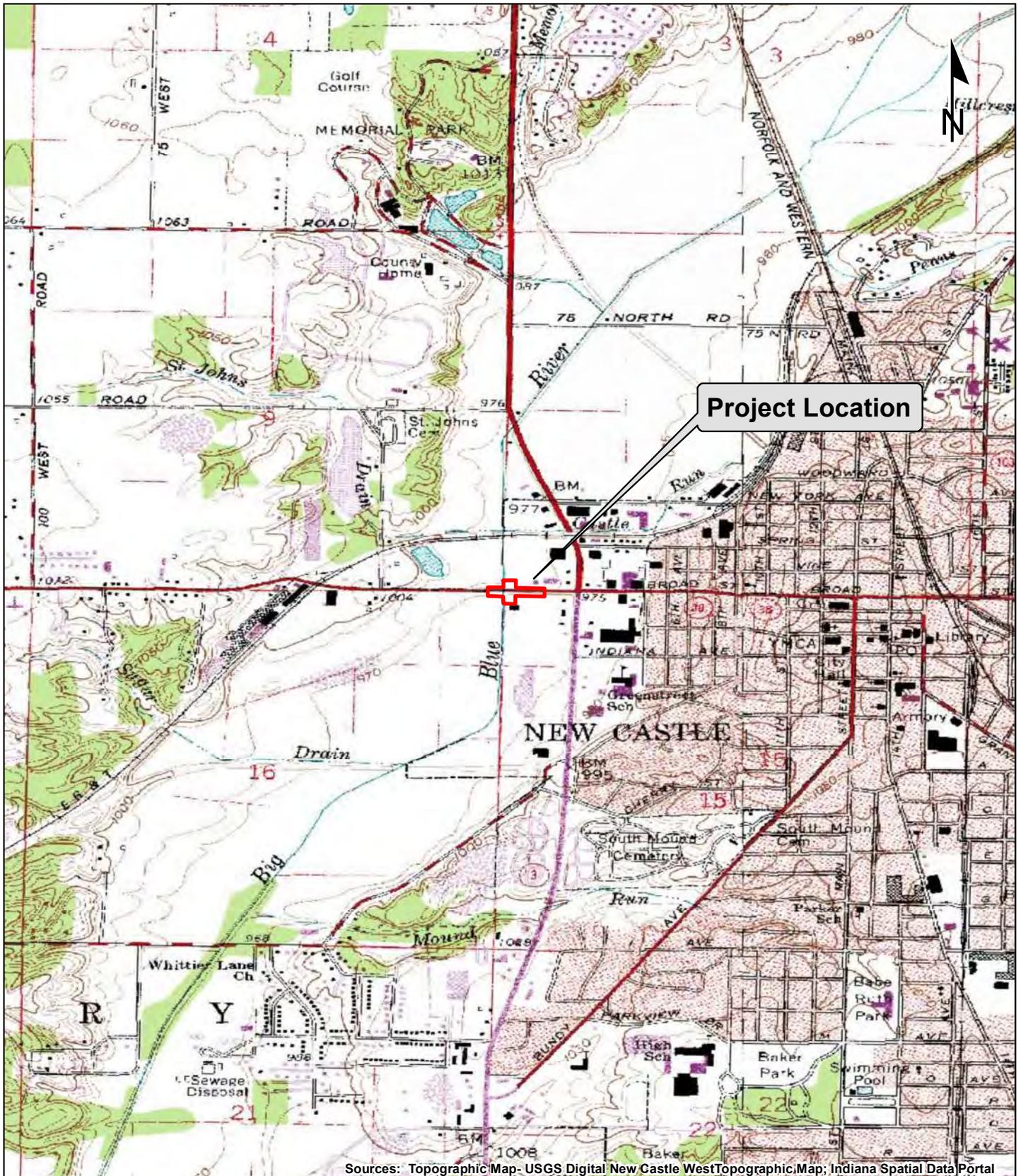
HNTB
 Graphics created by HNTB Corporation (2019)



Document Path: N:\172904_INDOT GF On Call\070 SR 38 Bridge\04 Design\Environmental\GIS\MXDs\ECL\Project Aerial Map.mxd

Service Layer/Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community; Imagery: 2018 (Digital Globe)

	Project Limits	2018 NAIP Project Aerial Map	
	National Hydrography Flowlines	SR 38 over Big Blue River Bridge Project Henry County, Indiana	
	PLSS Sections	Des. No. 1593238	
		1 inch = 1,000 feet	Graphics created by HNTB Corporation (2020)



 Investigated Area	USGS (1:24,000 scale) Topographic Map SR 38 over Big Blue River Bridge Replacement, Henry County	
	Des. No. 1593238 0 1,000 2,000  Feet 1 inch = 2,000 feet	 Graphics created by HNTB Corporation (2019)



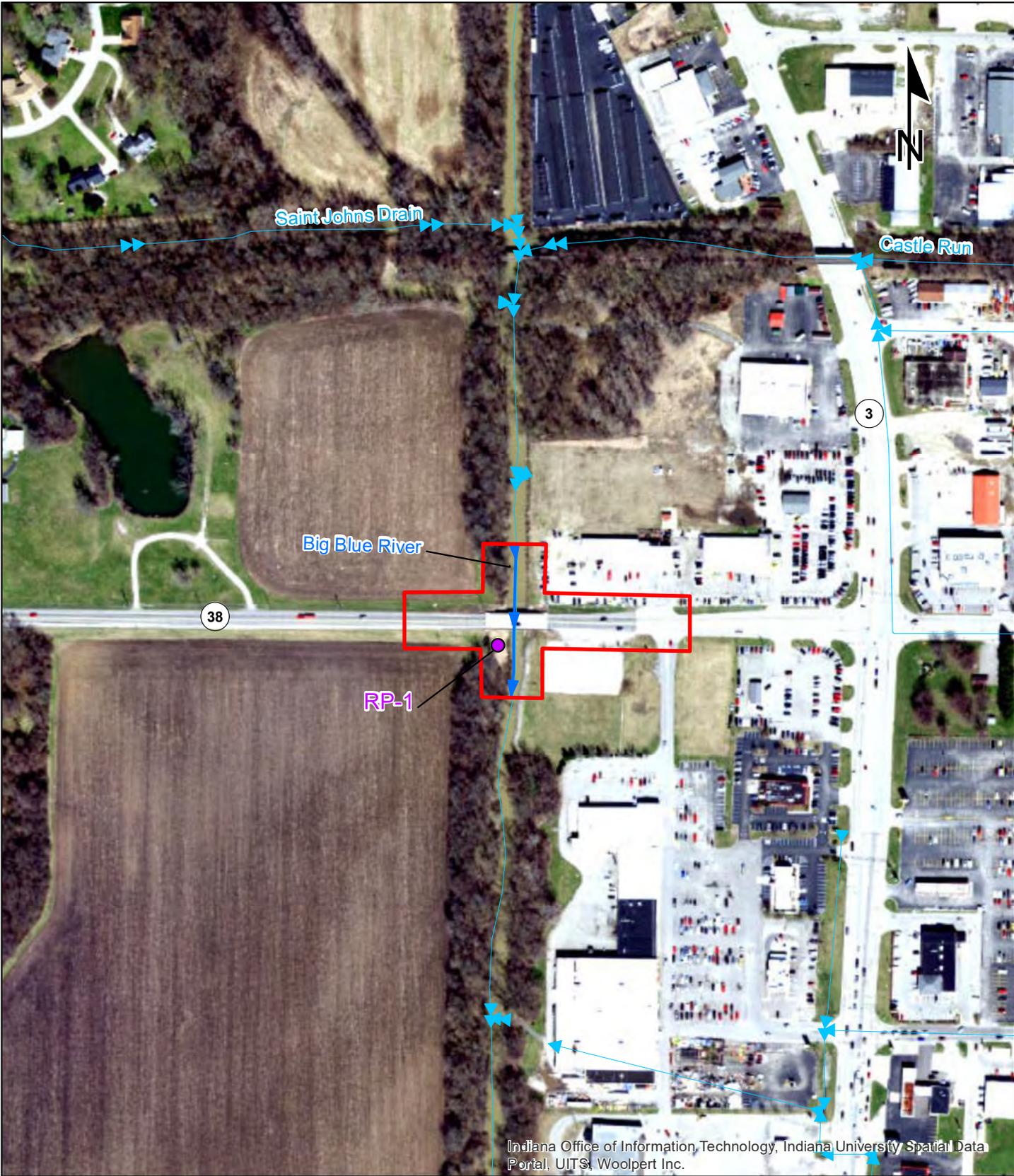
U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov

December 23, 2019

Wetlands

- | | | |
|--|---|--|
|  Estuarine and Marine Deepwater |  Freshwater Emergent Wetland |  Lake |
|  Estuarine and Marine Wetland |  Freshwater Forested/Shrub Wetland |  Other |
|  Freshwater Pond | |  Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



Indiana Office of Information, Technology, Indiana University Spatial Data Portal, UITS, Woolpert Inc.

	Data Points		Delineated Streams
	Project Area		National Hydrography Flowlines

0 200 400
 Feet

Water Resources Map SR 38 over Big Blue River Bridge Replacement, Henry County	
Des. No. 1593238	 Graphics created by HNTB Corporation (2019)
1 inch = 400 feet	



Indiana Floodplain Information Portal Report

Point of Interest

Approximate Address:

124 State Rd 38
NEW CASTLE, IN 47362

Effective Flood Zone:

AE

Preliminary Flood Zone:

N/A

Best Available Flood Zone:

Approximate Flood Elevation:

973.5ft NAVD88

Source:

Zone AE Profile Delineation

Nearest Stream:

BIG BLUE RIVER

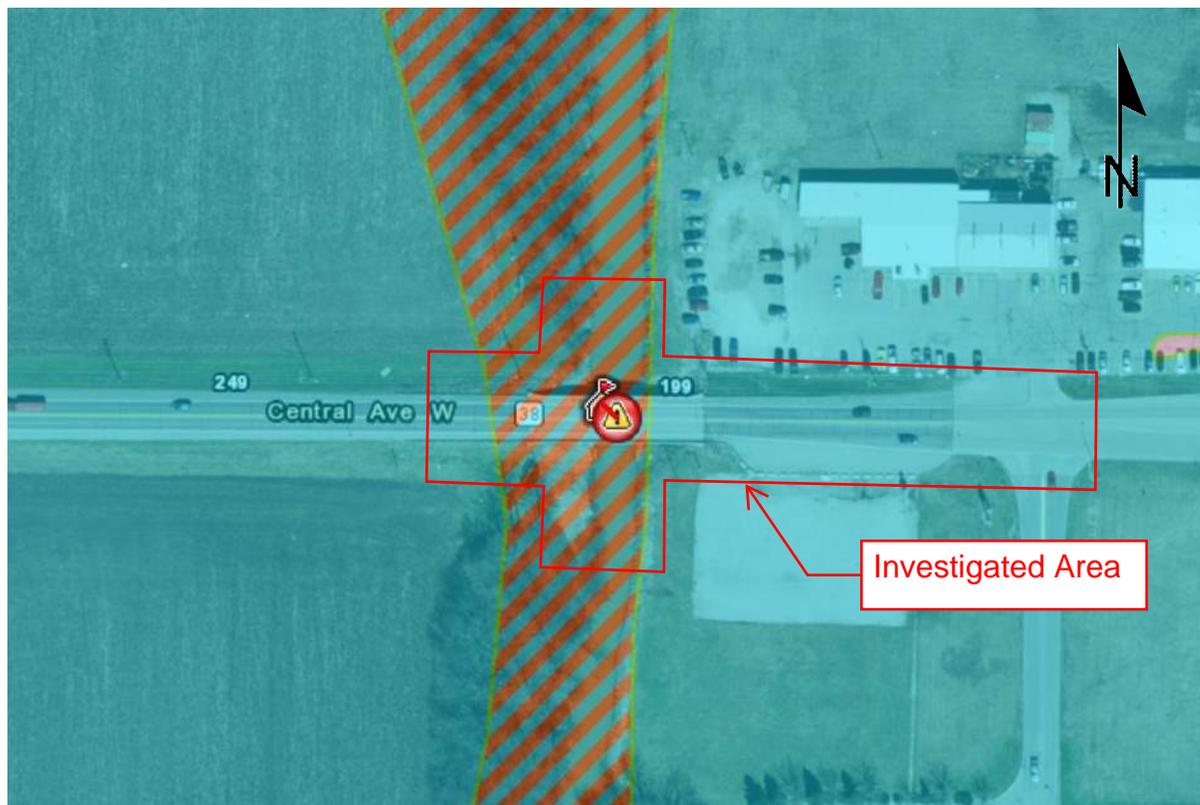
Map Legend

-  Point of Interest
-  Nearest Point on Stream

Best Available Flood Zone

-  FEMA Zone AE Floodway
-  DNR Detailed Floodway
-  DNR Approximate Floodway
-  FEMA Zone A
-  FEMA Zone AE
-  DNR Detailed Fringe
-  DNR Approximate Fringe
-  Additional Floodplain Area
-  FEMA Protected by Levee
-  FEMA Floodplain - Ponding (Depth)
-  FEMA Floodplain - Sheet Flow (Depth)

Site Map with Best Available Flood Zone

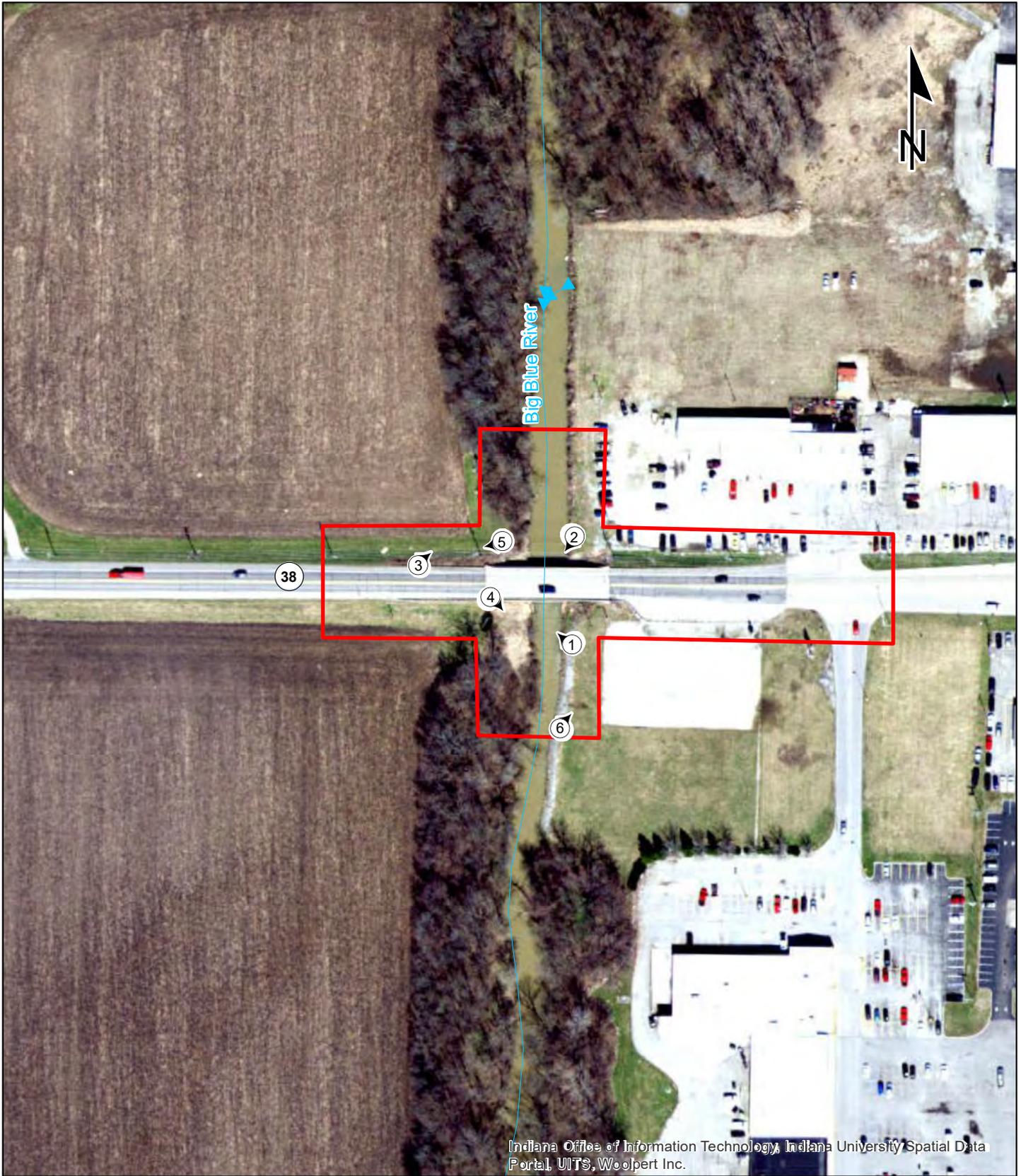


Approximate scale 1:2,400

Disclaimer

Generated on Wednesday January 22nd 2020 at 04:08:12pm

The data shown on this map represents FEMA floodplain data enhanced with additional studies that have been reviewed and approved by the Division of Water. While this data has not yet been submitted to FEMA for inclusion in the Flood Insurance Rate



 Investigated Area  National Hydrography Flowlines  Photo Locations	Photo Location Map SR 38 over Big Blue River Bridge Replacement, Henry County	
	0 100 200  Feet 1 inch = 200 feet	 Graphics created by HNTB Corporation (2020)



1. Facing northwest—view of Big Blue River



2. Facing southwest—view of Big Blue River.



3. Facing northeast—view of the northwest quadrant of the investigated area.



4. Facing southeast—view of the southwest quadrant of the investigated area.



5. Facing west—view of the northwest quadrant of the investigated area.



6. Facing northeast—view of the southeast quadrant of the investigated area.

PROJECT	DESIGNATION
1593238	1593238
CONTRACT	BRIDGE FILE
B-40502	038-33-10161

INDIANA DEPARTMENT OF TRANSPORTATION



STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
038-33-10161	CONTINUOUS COMPOSITE STEEL BEAM BRIDGE	3 SPANS: 44'-0", 56'-6", 44'-0" SKEW: 00°00'00"	BIG BLUE RIVER	110+78.50

TRAFFIC DATA			
A.A.D.T. (2021)	7,887	V.P.D.	
A.A.D.T. (2041)	8,698	V.P.D.	
D.H.V (2041)	863	V.P.H.	
DIRECTIONAL DISTRIBUTION	52.01	%	
TRUCKS	3.62	% A.A.D.T.	
	3.56	% D.H.V.	

DESIGN DATA		
DESIGN SPEED	40	M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)	
FUNCTIONAL CLASSIFICATION	MINOR ARTERIAL	
RURAL/URBAN	URBAN	
TERRAIN	LEVEL	
ACCESS CONTROL	NONE	

NOTE TO REVIEWER

PLEASE SEE
CORRESPONDENCE FILE
FOR DOCUMENTATION OF
DESIGN DECISIONS

BRIDGE PLANS

FOR SPANS OVER 20 FEET

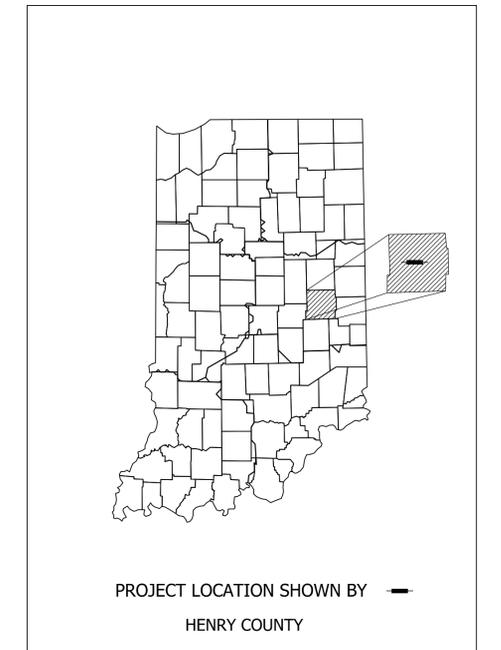
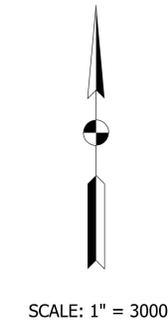
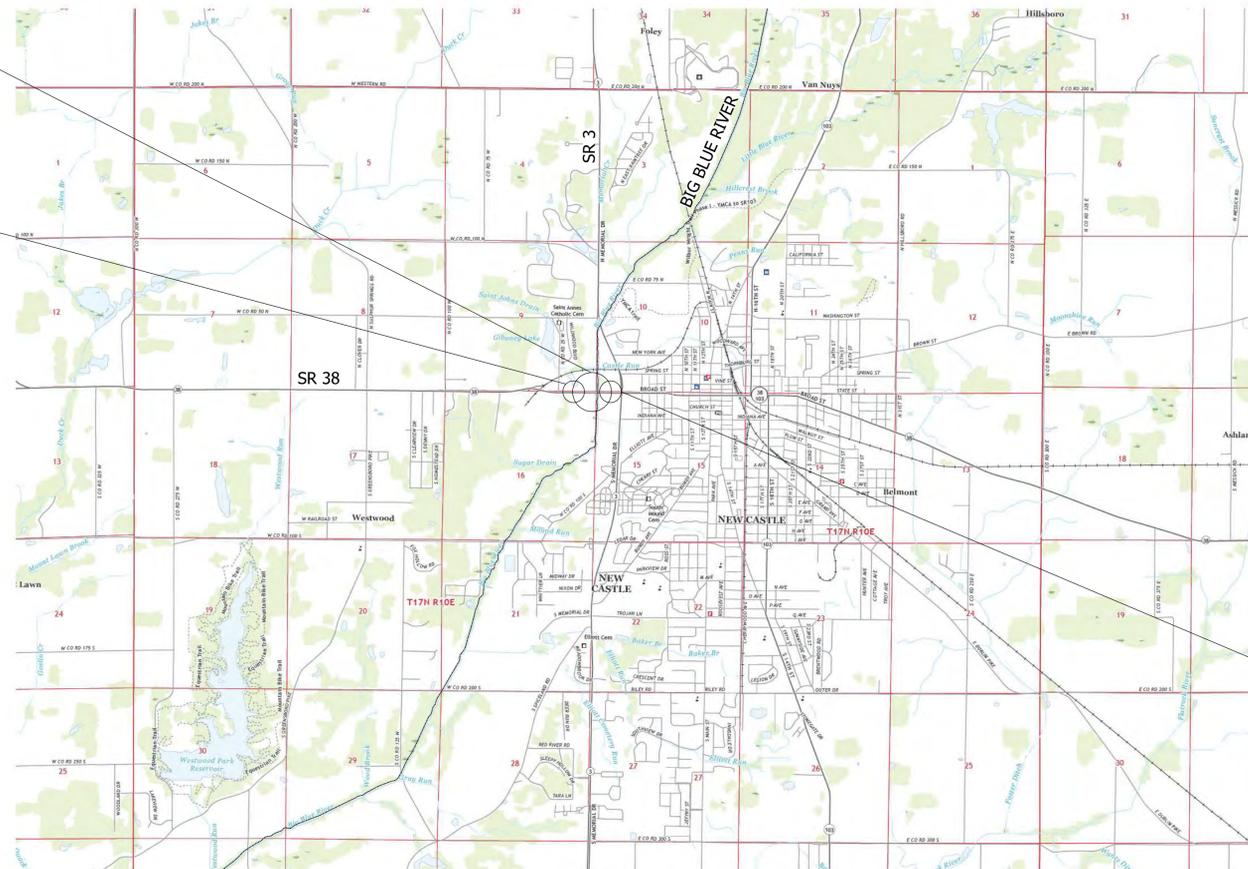
ROUTE: SR 38 AT: RP 92+23

PROJECT NO. 1593238 (P.E., CONST., R/W)

BRIDGE REPLACEMENT ON SR 38 OVER BIG BLUE RIVER, LOCATED 0.16 MILES WEST OF SR 3, IN SECTIONS 9, 10, 15, & 16, T-17-N, R-10-E, HENRY TOWNSHIP, HENRY COUNTY, INDIANA

BRIDGE FILE NO. 038-33-10161
SR 38 OVER BIG BLUE RIVER
STA. 110+78.50

BEGIN PROJECT
STA. 108+78 LINE "A"



LATITUDE: 39° 55' 53" LONGITUDE: -85° 23' 04"

BRIDGE LENGTH: 0.028 MI.
ROADWAY LENGTH: 0.087 MI.
TOTAL LENGTH: 0.115 MI.
MAX. GRADE: 1.17 %

HUC: 051202040103

END PROJECT
STA. 114+33 LINE "A"

STAGE 1 PLANS
FEBRUARY 14, 2020

LOCATION MAP
(HENRY COUNTY)

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



HNTB Indiana, Inc.
The HNTB Companies
Infrastructure Solutions
111 Monument Circle
Suite 1200
Indianapolis, IN 46204

DRAFT
NOT FOR CONSTRUCTION

PLANS PREPARED BY: HNTB Indiana, Inc. (317) 636-4682
PHONE NUMBER

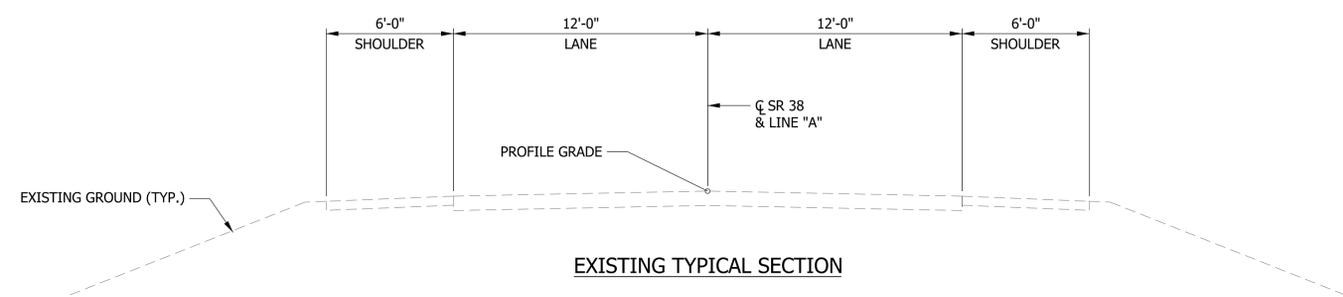
CERTIFIED BY: _____ DATE _____

APPROVED FOR LETTING: _____ DATE _____

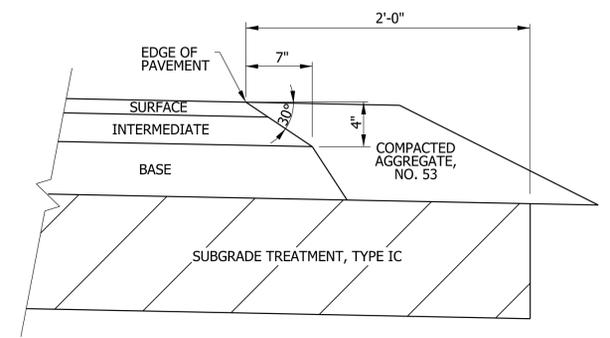
INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE FILE	
038-33-10161	
DESIGNATION	
1593238	
SURVEY BOOK	SHEETS
ELECTRONIC	1 of 13
CONTRACT	PROJECT
B-40502	1593238

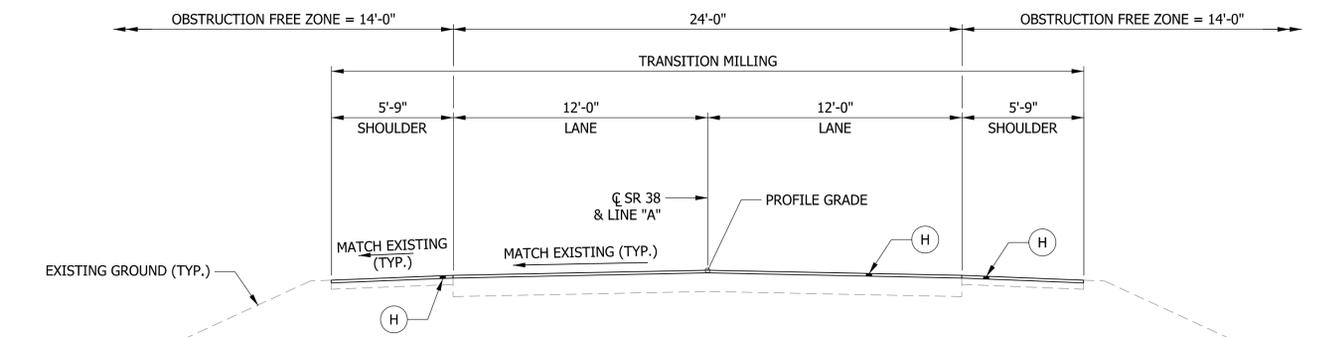
jmoedrick
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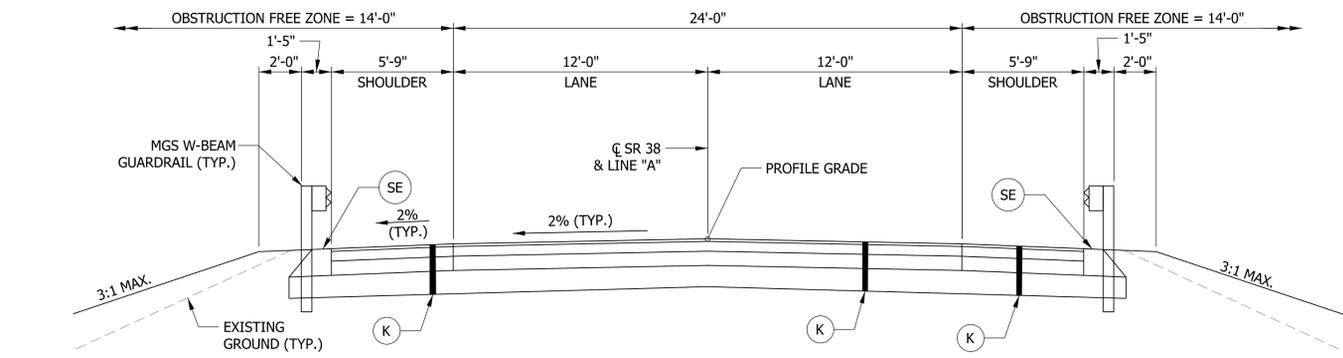
EXISTING TYPICAL SECTION



SAFETY EDGE ON HMA PAVEMENT
N.T.S.



TYPICAL INCIDENTAL SECTION
STA. 108+48 TO 108+78
STA. 114+33 TO 114+53



TYPICAL FULL DEPTH SECTION
STA. 108+78 TO 109+83
STA. 111+74 TO 114+33

NOTE TO REVIEWER

GRADING AND PROPOSED R/W LIMITS TO BE REFINED PRIOR TO THE NEXT SUBMISSION.

NOTE TO REVIEWER

PAVEMENT COMPOSITION TO BE REVISED UPON RECEIPT OF PAVEMENT DESIGN.

LEGEND

- (H) 165 LB/SYS QC/QA - HMA, 3, 64, SURFACE, 9.5 MM
- (K) 165 LB/SYS QC/QA - HMA, 3, 64, SURFACE 9.5 MM ON 605 LB/SYS QC/QA - HMA, 3, 64, INTERMEDIATE 19.0 MM ON 880 LB/SYS QC/QA - HMA, 3, 64, BASE 19.0 MM ON SUBGRADE TREATMENT TYPE IC
- (SE) SAFETY EDGE (SEE DETAIL THIS SHEET)

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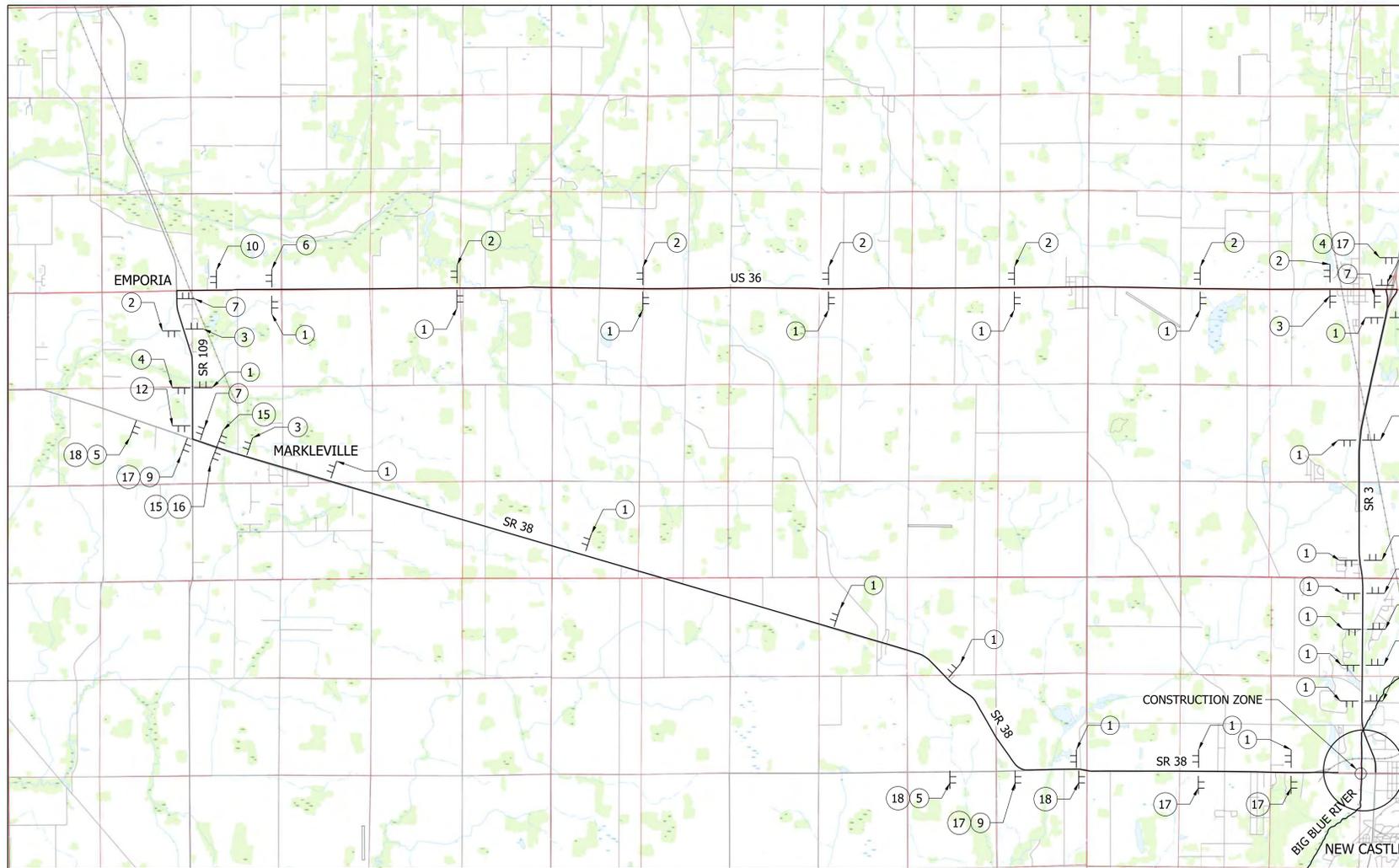
DRAFT
 NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: JMR	DRAWN: JMR	
CHECKED: CDC	CHECKED: CDC	

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

SCALE	BRIDGE FILE
1/4" = 1'-0"	038-33-10161
VERTICAL SCALE	DESIGNATION
1/4" = 1'-0"	1593238
SURVEY BOOK	SHEETS
ELECTRONIC	3 of 13
CONTRACT	PROJECT
B-40502	1593238

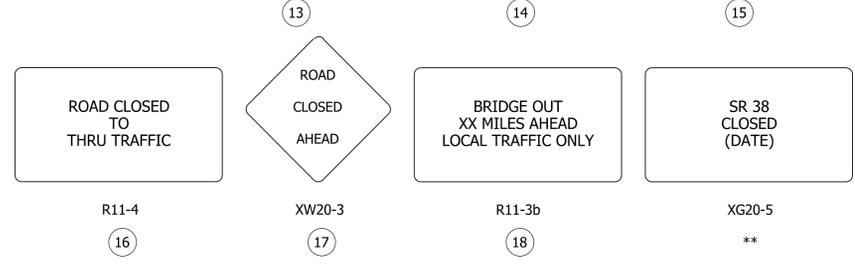
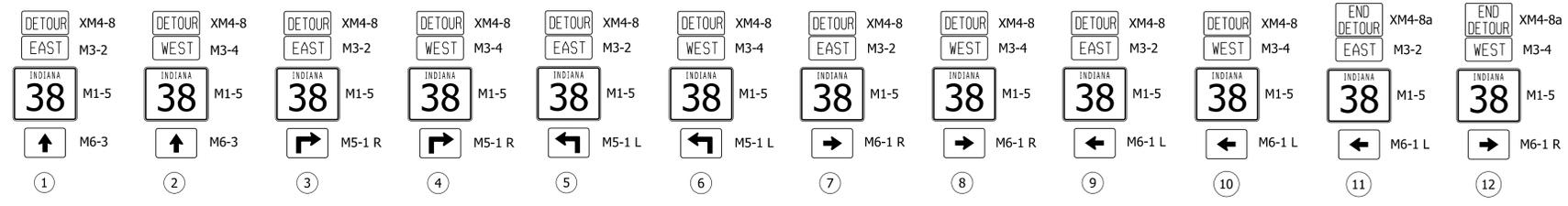
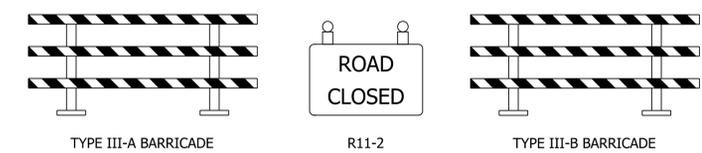
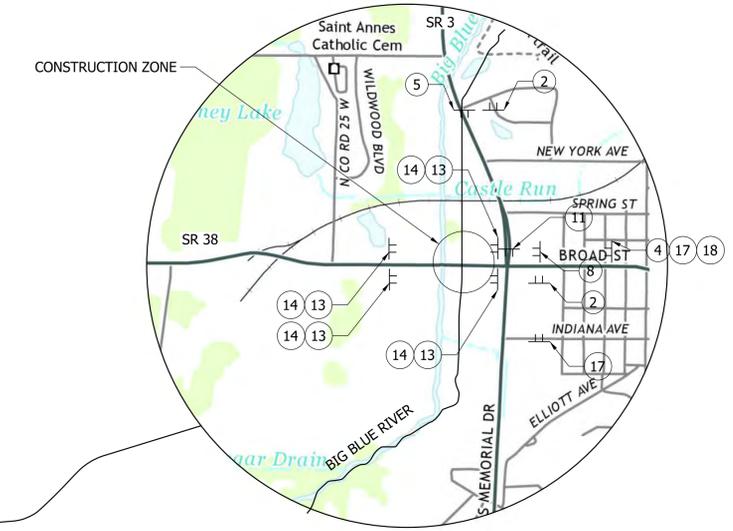


MOT SUMMARY		
ITEM	UNITS	TOTALS
DETOUR ROUTE MARKER ASSEMBLIES	EA	59
** CONSTRUCTION SIGN, A	EA	15
ROAD CLOSURE SIGN ASSEMBLY	EA	4
BARRICADE, III-A	LFT	48
BARRICADE, III-B	LFT	24
MAINTAINING TRAFFIC	LS	1

** INCLUDES 2 XG20-5 ROUTE CLOSURE NOTICE SIGNS (LOCATION TO BE DETERMINED BY PROJECT ENGINEER IN THE FIELD)

NOTES

- FOR ADDITIONAL MAINTENANCE OF TRAFFIC DETAILS, SEE STD. DWG. E 801-TCDDT-01 THROUGH 04.



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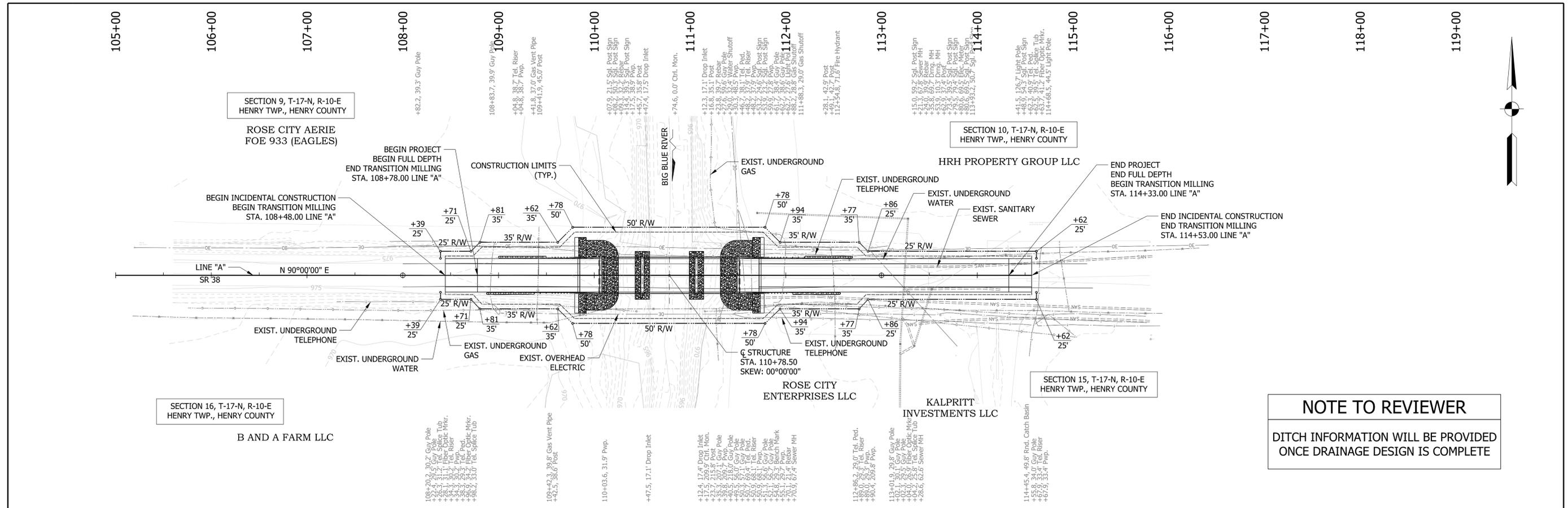
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NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: JMR	DRAWN: JMR	
CHECKED: CDC	CHECKED: CDC	

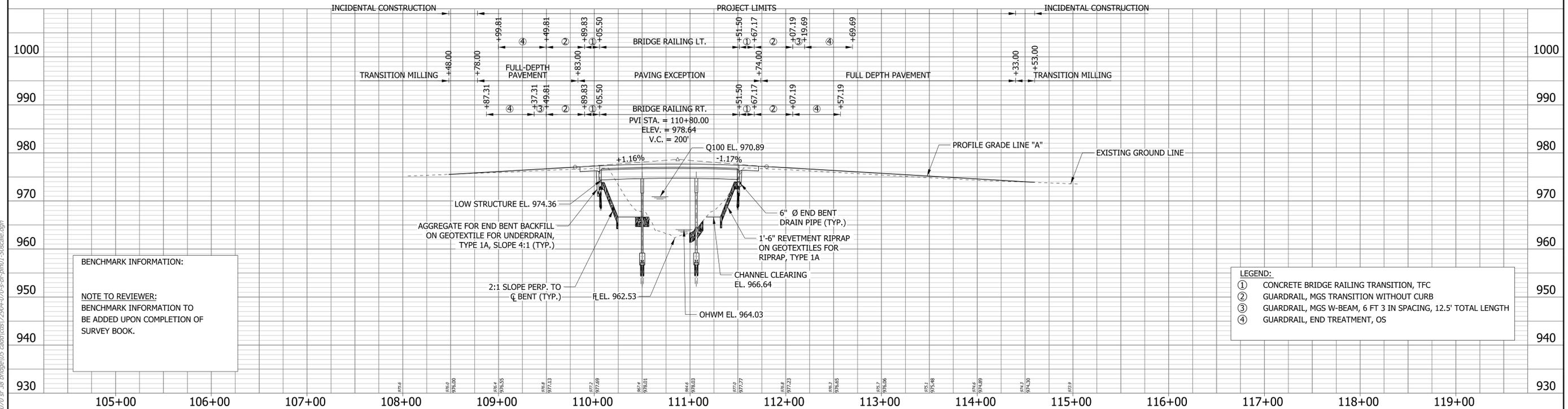
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC

SCALE	BRIDGE FILE
NTS	038-33-10161
VERTICAL SCALE	DESIGNATION
NTS	1593238
SURVEY BOOK	SHEETS
ELECTRONIC	4 of 13
CONTRACT	PROJECT
B-40502	1593238



NOTE TO REVIEWER
 DITCH INFORMATION WILL BE PROVIDED
 ONCE DRAINAGE DESIGN IS COMPLETE



BENCHMARK INFORMATION:
 NOTE TO REVIEWER:
 BENCHMARK INFORMATION TO
 BE ADDED UPON COMPLETION OF
 SURVEY BOOK.

LEGEND:
 ① CONCRETE BRIDGE RAILING TRANSITION, TFC
 ② GUARDRAIL, MGS W-BEAM, 6 FT 3 IN SPACING, 12.5' TOTAL LENGTH
 ③ GUARDRAIL, MGS W-BEAM, 6 FT 3 IN SPACING, 12.5' TOTAL LENGTH
 ④ GUARDRAIL, END TREATMENT, OS

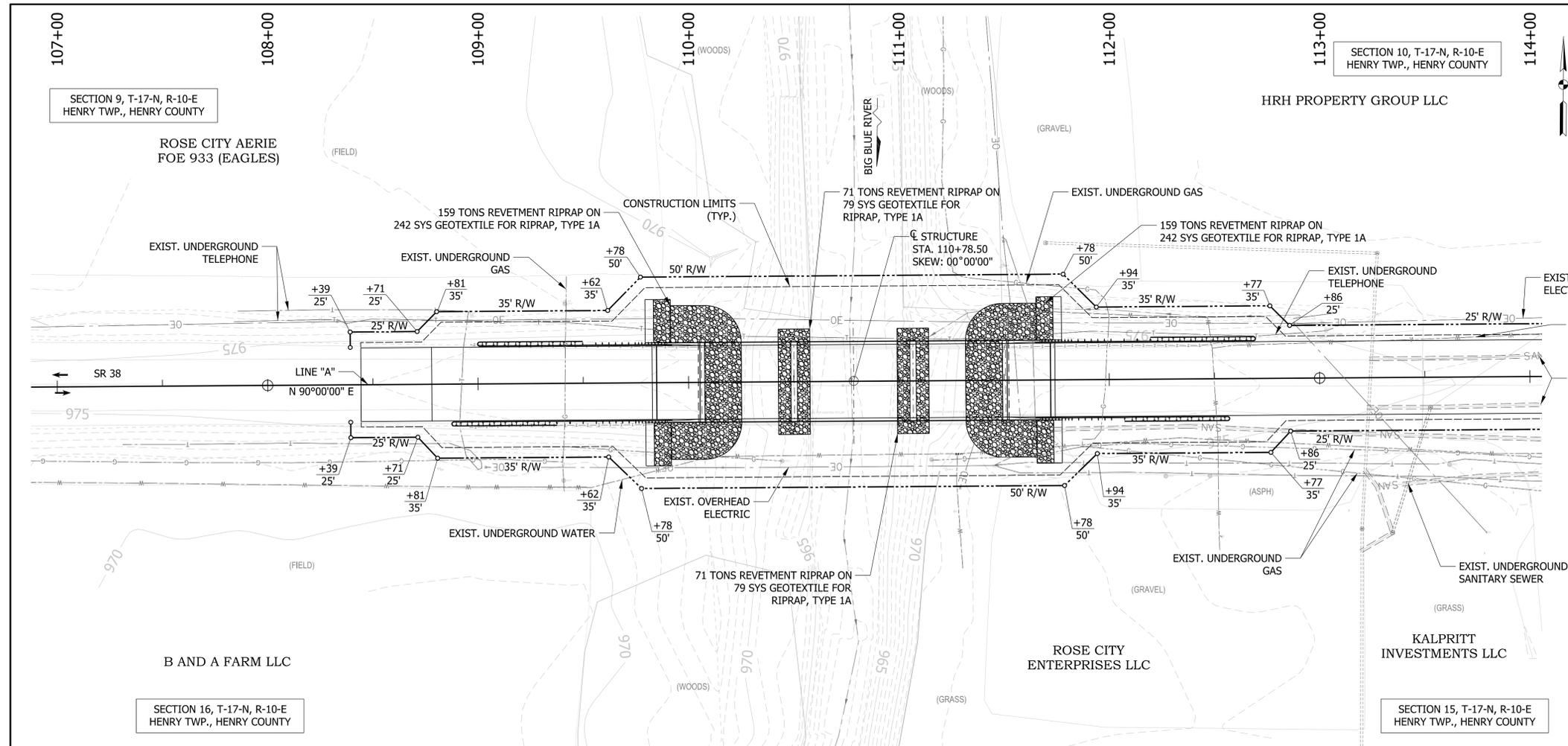
DRAFT
 NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: JMR	DRAWN: JMR	
CHECKED: CDC	CHECKED: CDC	

INDIANA
 DEPARTMENT OF TRANSPORTATION
 PLAN & PROFILE
 LINE "A"

SCALE 1" = 50'	BRIDGE FILE 038-33-10161
VERTICAL SCALE 1" = 10'	DESIGNATION 1593238
SURVEY BOOK ELECTRONIC	SHEETS 5 of 13
CONTRACT B-40502	PROJECT 1593238

jmm@ndick
 2/14/2020 3:50:14 pm
 model: PlanProfile
 file: m:\12904\ndick of on call\070 sr 38 bridge\05_cadd\cadd\12904-070-sr-38-pp01-50scale.dgn



EXISTING STRUCTURE
 THE EXISTING STRUCTURE (038-33-04063 A) IS A THREE SPAN REINFORCED CONCRETE GIRDER BRIDGE BUILT IN 1958 WITH A DECK RECONSTRUCTION AND OVERLAY IN 1987 3 SPANS OF 40'-0" AND A CLEAR ROADWAY WIDTH OF 34'-10" (TO BE REMOVED)

HYDRAULIC DATA

WATERWAY OPENING REQUIRED	630	SFT
WATERWAY OPENING PROVIDED	630	SFT
DRAINAGE AREA	47.48	SQ MI
DESIGN DISCHARGE, Q100	2,821	CFS
VELOCITY	3.94	FT/S
Q100 ELEV.	970.89	FT
BACKWATER AT Q100	0.72	FT
EXISTING WATERWAY OPENING	494.8	SFT
EXISTING BACKWATER	0.68	FT
MIN. LOW STRUCTURE ELEV. REQ.	974.36	FT
EXISTING LOW STRUCTURE ELEV.	974.36	FT

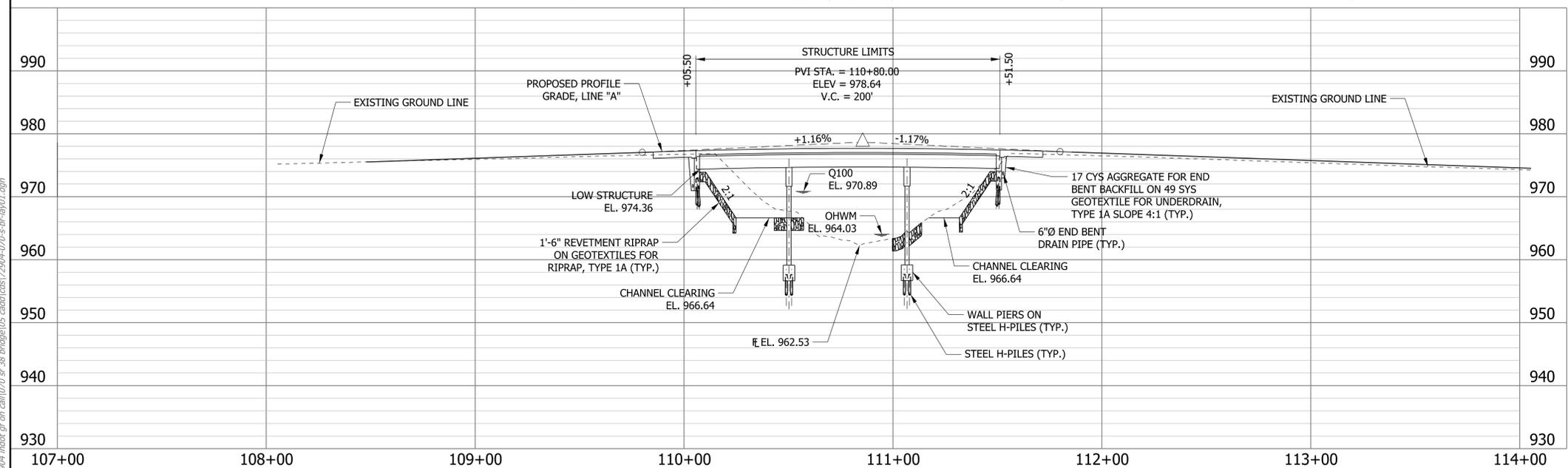
HYDRAULIC SCOUR DATA

Q100 DISCHARGE	2,821	CFS
Q100 ELEV.	970.89	FT
VELOCITY AT Q100 (MAX.)	4.98	FT/S
SCOUR DEPTH (CONTRACTION)	21.92	FT
SCOUR DEPTH (TOTAL)	26.72	FT
LOW SCOUR ELEV.	935.81	FT
Q500 DISCHARGE	3,808	CFS
Q500 ELEV.	971.29	FT
VELOCITY AT Q500 (MAX.)	5.88	FT/S
SCOUR DEPTH (CONTRACTION)	15.75	FT
SCOUR DEPTH (TOTAL)	20.55	FT
LOW SCOUR ELEV.	941.98	FT

EARTHWORK TABULATION

FILL + 20%	XX	CYS
COMMON EXCAVATION	XX	CYS
USABLE WATERWAY EXCAVATION (70%)	XX	CYS
SURPLUS FOUNDATION EXCAVATION (70%)	XX	CYS
BORROW	XX	CYS
TOTAL WATERWAY EXCAVATION	XX	CYS
EXCAVATION UNCLASSIFIED	XX	CYS
Ø BENCHING (ESTIMATED)	XX	CYS

NOTE TO REVIEWER
 EARTHWORK TABULATION TO BE COMPLETED AT STAGE 3



CONTINUOUS COMPOSITE STEEL BEAM BRIDGE
 3 SPANS: 44'-0", 56'-6", 44'-0"
 SKEW: 00°00'00"
 34'-10" CLEAR ROADWAY
 SR 38 OVER BIG BLUE RIVER
 HENRY COUNTY

DRAFT
 NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: JMR	DRAWN: JMR	
CHECKED: CDC	CHECKED: CDC	

INDIANA DEPARTMENT OF TRANSPORTATION
 LAYOUT

SCALE	BRIDGE FILE
1" = 30'-0"	038-33-10161
VERTICAL SCALE	DESIGNATION
1" = 10'-0"	1593238
SURVEY BOOK	SHEETS
ELECTRONIC	6 of 13
CONTRACT	PROJECT
B-40502	1593238

jmmadnick
 2/14/2020 3:50:58 pm
 model: Layout 01
 file: \\india01\289\projects\172904\indot.gr.on.call\070 sr 38 bridge\05 cad\cadd\172904-070-sr-br-1a1.dgn

APPENDIX C: EARLY COORDINATION



January 22, 2020

Sample Early Coordination Letter

Jenni Curry
Environmental Manager, Greenfield District
Indiana Department of Transportation
32 S Broadway Street
Greenfield, IN 46140

Via Email: jcurry1@indot.in.gov

Re: Early Coordination Letter
Des. No. 1593238
SR 38 over Big Blue River
Henry County, Indiana

Dear Ms. Curry:

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intend to proceed with a project involving the bridge (Bridge No. 038-33-04063 A) carrying State Road (SR) 38 over Big Blue River, approximately 0.16 mile west of SR 3 in Henry County, Indiana. This letter is part of the early coordination phase of the environmental review process. We request comments from you within your area of expertise regarding any potential environmental or community effects associated with this proposed project. **Please use the above designation number and description in your reply.** We will incorporate your comments into a study of the project's environmental effects.

Project Location: This project is located on SR 38, approximately 0.16 mile west of SR 3, in an urban portion of Henry County. More specifically, the project is located in Sections 9, 10, 15, and 16, Township 17 North, Range 10 East in Henry Township.

Existing Conditions: The three-span reinforced concrete girder bridge was built in 1958 and reconstructed in 1987. This section of SR 38 is a two-lane Urban Minor Arterial. The existing structure has a 37.8 foot out to out deck width. The INDOT Bridge Inspection Report, dated September 13, 2018, details that the existing deck and wearing surface are in fair condition. The wearing surface has some random cracks and patches at the joints. The existing deck has minor delaminations and leakage at the underside of the longitudinal construction joints. There are delaminations, spalls, and exposed rebar located in the southwest corner of Span C, the north joint in Span B, and several small previously repair patches throughout. The substructure is in fair structure. Piers 2 and 3 each have wide vertical cracking with heavy efflorescence and spalling noted throughout each of the piers. Rebar is exposed as some of the spalling locations.

Purpose and Need: The need for this project is due to the deteriorated condition of the bridge, as documented in the last two INDOT Bridge Inspection Reports dated October 17, 2016 and September 13, 2018. The purpose of this project is to maintain a safe vehicular crossing of SR 38 over the Big Blue River, while maintaining adequate hydraulic function of the bridge at this location.

Proposed Project: The current proposed project includes replacement of the existing bridge. Roadway improvements on SR 38 will be limited to minor pavement work required to provide a smooth transition to the bridge and replacement of approach guardrail. Scour protection will be placed at the end bents. Bridge replacement includes construction of new piers and end bents. No tree clearing is necessary for this project. There are no potential relocations. HNTB will perform utility coordination to verify the location of surrounding utilities.

Right-of-Way: The project requires the acquisition of 0.63 acre of permanent right-of-way. Temporary right-of-way is necessary for driveway reconstruction.

Maintenance of Traffic (MOT): During construction, SR 38 will be closed at the bridge and an official detour will be provided.

Surrounding Resources: Land use in the vicinity of the project is primarily urban to the east and agricultural to the west. The project is within a wellhead protection area. Big Blue River flows through the project area and is mapped as a National Wetlands Inventory (NWI) riverine wetland. This project lies within the New Castle Urbanized Area Boundary (UAB). An early coordination letter with topographic and aerial maps showing the project area should be sent to the MS4 Coordinator, at 227 N Main Street, New Castle IN 47362. A waters and wetlands determination will be completed to identify any ecological resources that may be present. All applicable permits will be obtained before construction begins. Post construction Storm Water Quality Best Management Practices (BMPs) may need to be considered.

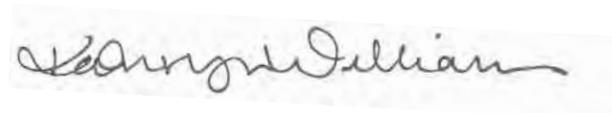
This project qualifies for the application of the United States Fish and Wildlife Service (USFWS) range-wide programmatic informal consultation for the Indiana bat and northern long-eared bat. The USFWS Information, Planning, and Consultation System (IPaC) will be utilized to determine the project's potential to affect the Indiana bat and northern long-eared bat. The INDOT Bridge Inspection Report for Structure No. #038-33-04063 A September 13, 2018, does not mention bats being seen under the bridge. A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area.

Comments Request: You are asked to review this information and provide any comments you may have relative to the anticipated effects of the project on areas which you have jurisdiction or special expertise. Please send your comments to Kate Williams, of HNTB Corporation, at klwilliams@hntb.com or 317-917-5332. Should we not receive your response **within thirty (30) calendar days** from the date of this letter, it will be assumed that your agency feels that there will be no adverse effects incurred as a result of the proposed project. However, should you find that an extension to the response time is necessary; a reasonable amount may be granted upon request.

If you have any questions regarding this matter, please feel free to contact Kate Williams, HNTB, klwilliams@hntb.com, 317-917-5332, or Taylor Darrah, INDOT, tdarrah@indot.in.gov, 317-467-3915. Thank you in advance for your input.

Sincerely,

HNTB CORPORATION

A handwritten signature in black ink, appearing to read "Kate Williams", is written over a light-colored rectangular background.

Kate Williams, PWS
Science Project Manager

Attachments: Figure 1: Project Location Map
Figure 2: Project Area Aerial
Figure 3: USGS 7.5 Minute Topographic Quad Map
Figure 4: Photo Location Map

Cc: Taylor Darrah, INDOT Project Manager
Angela Pearl, HNTB Corporation
Jenni Curry, INDOT Greenfield District
Steve Rust, Henry County Surveyor
Kenny Milton, Building Commissioner/Floodplain Administrator
Richard McCorkle, Henry County Sheriff
Joe Wiley, Henry County Highway Department
Darrin Jacobs, Henry County Area Planning Commission
Ed Hill, City of New Castle MS4 Coordinator
Matthew Shoemaker, New Castle Community School Corporation
Kim Cronk, Henry County Board of Commissioners
Ronald Huffman, Henry County Emergency Services
Rickie Clark, Indiana Department of Transportation, Manager of Public Hearings
Michael Jett, Indiana Department of Transportation Utilities and Railroads
Brian Royer, Indiana Department of Natural Resources Division of Oil and Gas
Christie Stanifer, Indiana Department of Natural Resources
Alisha Turnbow, IDEM Groundwater Section
Rick Neilson, NRCS- State Conservationist
Jerry Raynor, United States Department of Agriculture
Greg McKay, US Army Corps of Engineers, Louisville District
Robert Dirks, Federal Highway Administration
Elizabeth McCloskey, US Fish and Wildlife Service
Patricia Coleman, Fraternal Order of the Eagles 933

Caroline Tegeler

From: McWilliams, Robin <robin_mcwilliams@fws.gov>
Sent: Thursday, January 23, 2020 9:45 AM
To: Caroline Tegeler
Subject: Re: [EXTERNAL] Early Coordination Letter - SR 38 over Big Blue River (Des. No. 1593238)

Dear Caroline,

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

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

The project is within the range of the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) and should follow the new Indiana bat/northern long-eared bat programmatic consultation process, if applicable (*i.e.* a federal transportation nexus is established). We will review that information once it is received.

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

We appreciate the opportunity to comment at this early stage of project planning. If project plans change such that fish and wildlife habitat may be affected, please recoordinate with our office as soon as possible. If you have any questions about our recommendations, please call (812) 334-4261 x. 207.

Sincerely,
Robin McWilliams Munson

Standard Recommendations:

1. Do not clear trees or understory vegetation outside the construction zone boundaries. **(This restriction is not related to the "tree clearing" restriction for potential Indiana Bat habitat.)**
2. Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap.

Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When an open-bottom culvert or arch is used in a stream, which has a good natural bottom substrate, such as gravel, cobbles and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community.

3. Restrict channel work and vegetation clearing to the minimum necessary for installation of the stream crossing structure.

4. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If rip rap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat.
5. Implement temporary erosion and sediment control methods within areas of disturbed soil. All disturbed soil areas upon project completion will be vegetated following INDOT's standard specifications.
6. Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) during the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below Ordinary High Water Mark during this time unless the machinery is within the caissons or cofferdams.
7. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing.

Robin McWilliams Munson

U.S. Fish and Wildlife Service
620 South Walker Street
Bloomington, Indiana 46403
812-334-4261 x. 207 Fax: 812-334-4273

Monday, Tuesday - 7:30a-3:00p
Wednesday, Thursday - telework 8:30a-3:00p

On Thu, Jan 23, 2020 at 8:37 AM McCloskey, Elizabeth <elizabeth_mccloskey@fws.gov> wrote:

----- Forwarded message -----

From: **Caroline Tegeler** <ctegeler@hntb.com>
Date: Wed, Jan 22, 2020 at 3:07 PM
Subject: [EXTERNAL] Early Coordination Letter - SR 38 over Big Blue River (Des. No. 1593238)
To: Elizabeth_McCloskey@fws.gov <Elizabeth_McCloskey@fws.gov>

Dear Ms. McCloskey,

Please see the attached early coordination letter and supporting graphics for the SR 38 over Big Blue River Bridge Project (Des. No. 1593238). If you have any questions regarding this project, please feel free to contact me by phone or email.

Best regards,

January 27, 2020

Kate Williams, PWS
HNTB Corporation
111 Monument Circle, Suite 1200
Indianapolis, Indiana 46204

Dear Ms. Williams:

The proposed project to replace the bridge along State Road 38 over Big Blue River in Henry County, Indiana, (Des No 1593238), as referred to in your letter received January 22, 2020, will cause a conversion of prime farmland.

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

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

Sincerely,

ROGER KULT Digitally signed by ROGER KULT
Date: 2020.01.30 13:53:45 -05'00' Acting For

JERRY RAYNOR
State Conservationist

Enclosures



FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request January 27, 2020				
Name of Project DES1593238 Big Blue River		Federal Agency Involved FHWA				
Proposed Land Use Maintained State Right-of-Way		County and State Henry County, Indiana				
PART II (To be completed by NRCS)		Date Request Received By NRCS 1/22/2020		Person Completing Form: JRA		
Does the site contain Prime, Unique, Statewide or Local Important Farmland? (If no, the FPPA does not apply - do not complete additional parts of this form)		YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Acres Irrigated	Average Farm Size 265 ac	
Major Crop(s) Corn	Farmable Land In Govt. Jurisdiction Acres: 244469 % 97	Amount of Farmland As Defined in FPPA Acres: 22033 % 87				
Name of Land Evaluation System Used LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS 1/27/2020				
PART III (To be completed by Federal Agency)		Alternative Site Rating				
		Site A	Site B	Site C	Site D	
A. Total Acres To Be Converted Directly		0.69				
B. Total Acres To Be Converted Indirectly		0				
C. Total Acres In Site		0.69				
PART IV (To be completed by NRCS) Land Evaluation Information						
A. Total Acres Prime And Unique Farmland		0.30				
B. Total Acres Statewide Important or Local Important Farmland		0.00				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		<0.001				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		29				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)		87				
PART VI (To be completed by Federal Agency) Site Assessment Criteria (Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)		Maximum Points	Site A	Site B	Site C	Site D
1. Area In Non-urban Use		(15)	8			
2. Perimeter In Non-urban Use		(10)	5			
3. Percent Of Site Being Farmed		(20)	0			
4. Protection Provided By State and Local Government		(20)	0			
5. Distance From Urban Built-up Area		(15)	5			
6. Distance To Urban Support Services		(15)	0			
7. Size Of Present Farm Unit Compared To Average		(10)	0			
8. Creation Of Non-farmable Farmland		(10)	0			
9. Availability Of Farm Support Services		(5)	0			
10. On-Farm Investments		(20)	0			
11. Effects Of Conversion On Farm Support Services		(10)	0			
12. Compatibility With Existing Agricultural Use		(10)	0			
TOTAL SITE ASSESSMENT POINTS		160	18	0	0	0
PART VII (To be completed by Federal Agency)						
Relative Value Of Farmland (From Part V)		100	87	0	0	0
Total Site Assessment (From Part VI above or local site assessment)		160	18	0	0	0
TOTAL POINTS (Total of above 2 lines)		260	105	0	0	0
Site Selected: Site A		Date Of Selection 02/14/2020		Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
Reason For Selection: Site A meets the purpose and need of the project. Other bridge alternatives were eliminated due to additional construction consideration resulting in higher construction costs.						
Name of Federal agency representative completing this form: Aaron Grisel - HNTB Indiana					Date: 02/25/2020	

(See Instructions on reverse side)

Form AD-1006 (03-02)



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
Don McGhghy
32 South Broadway Street
Greenfield , IN 46140

HNTB Corporation
Caroline Tegeler
111 Monument Circle
Suite 1200
Indianapolis , IN 46204

Date

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intend to proceed with a project involving the bridge (Bridge No. 038-33-04063 A) carrying State Road (SR) 38 over Big Blue River, approximately 0.16 mile west of SR 3 in Henry County, Indiana. The current proposed project includes replacement of the existing bridge. Roadway improvements on SR 38 will be limited to minor pavement work required to provide a smooth transition to the bridge and replacement of approach guardrail. Scour protection will be placed at the end bents. Bridge replacement includes construction of new piers and end bents. No tree clearing is necessary for this project.

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:
 - o IC 14-26-2 Lakes Preservation Act 312 IAC 11
 - o IC 14-26-5 Lowering of Ten Acre Lakes Act No related code
 - o IC 14-28-1 Flood Control Act 310 IAC 6-1
 - o 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 atdem.state.in.us.

LAND QUALITY

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

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

FINAL REMARKS

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

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

Meanwhile, please note that this letter does not constitute a permit, license, endorsement or any other form of approval on the part of the Indiana Department of Environmental Management regarding any project for which a copy of this letter is used. Also note that it is 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

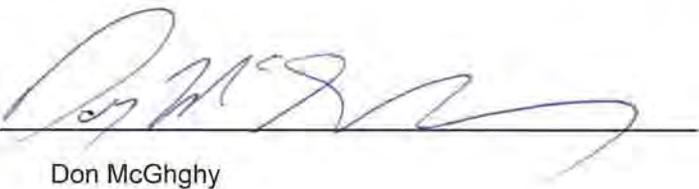
I acknowledge that the following proposed roadway project will be financed in part, or in whole, by public monies.

Project Description

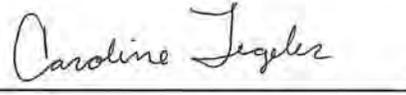
The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intend to proceed with a project involving the bridge (Bridge No. 038-33-04063 A) carrying State Road (SR) 38 over Big Blue River, approximately 0.16 mile west of SR 3 in Henry County, Indiana. The current proposed project includes replacement of the existing bridge. Roadway improvements on SR 38 will be limited to minor pavement work required to provide a smooth transition to the bridge and replacement of approach guardrail. Scour protection will be placed at the end bents. Bridge replacement includes construction of new piers and end bents. No tree clearing is necessary for this project.

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: 2/20/2020

Signature of the INDOT
Project Engineer or Other Responsible Agent 
Don McGhghy

Date: 2/20/2020

Signature of the
For Hire Consultant 
Caroline Tegeler

Organization and Project Information

Project ID:
Des. ID: Des. No. 1593238
Project Title: SR 38 over Big Blue River Bridge Replacement
Name of Organization: HNTB Corporation
Requested by: Caroline Tegeler

Environmental Assessment Report

1. Geological Hazards:
 - Moderate liquefaction potential
 - Floodway
2. Mineral Resources:
 - Bedrock Resource: High Potential
 - Sand and Gravel Resource: High Potential
3. Active or abandoned mineral resources extraction sites:
 - Petroleum Exploration Wells

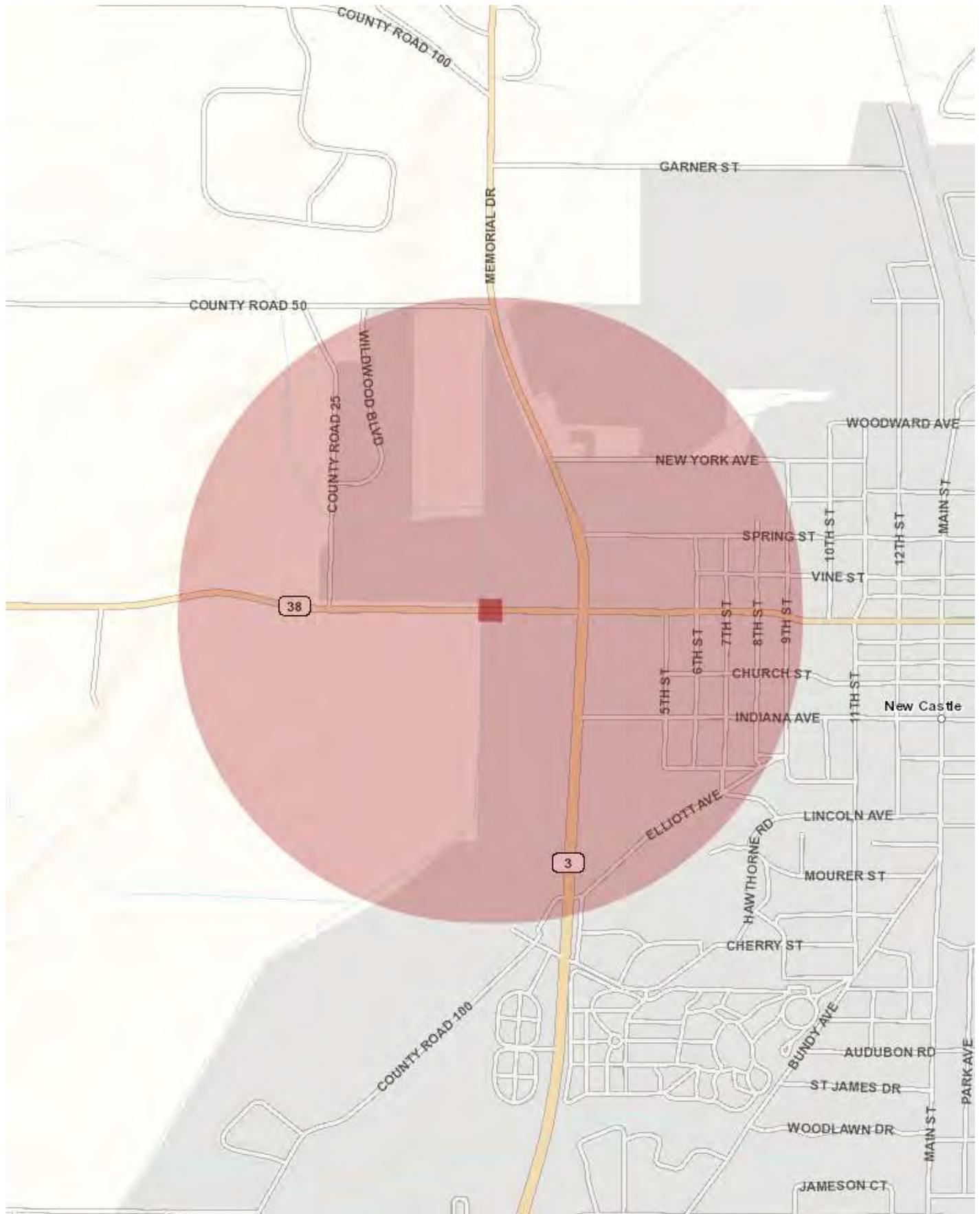
*All map layers from Indiana Map (maps.indiana.edu)

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: February 20, 2020



THIS IS NOT A PERMIT

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

DNR #: ER-22170

Request Received: January 22, 2020

Requestor: HNTB Corporation
Kate Williams
111 Monument Circle, Suite 1200
Indianapolis, IN 46204-5178

Project: SR 38 bridge (#038-33-04063 A) replacement over Big Blue River, about 0.16 mile west of SR 3, New Castle; Des #1593238

County/Site Info: Henry

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) Bank Stabilization & Wildlife Passage:

The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to current conditions. A level area of natural ground under the structure is ideal for wildlife passage. If channel clearing will result in a flat bench area above the normal water level under the structure, this area should allow wildlife passage and should remain free of riprap and other similar materials that can impair wildlife passage.

Minimize the use of riprap and use alternative erosion protection materials whenever possible. Riprap must not be placed in the active thalweg channel or placed in the streambed in a manner that precludes fish or aquatic organism passage (riprap must not be placed above the existing streambed elevation). Where riprap must be used, we recommend placing only enough riprap to provide stream bank toe protection, such as from the toe of the bank up to the ordinary high water mark (OHWM). The banks above the OHWM must be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to the area and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion.

While hard armoring alone (e.g. riprap or glacial stone) may be needed in certain instances, soft armoring and bioengineering techniques should be considered first. In

Attachments: A - Bridge Exemption Criteria

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

many instances, one or more methods are necessary to increase the likelihood of vegetation establishment. Combining vegetation with most bank stabilization methods can provide additional bank protection and help reduce impacts upon fish and wildlife. If hard armoring is needed, wildlife passage can be facilitated by using a smooth-surfaced armoring material instead of riprap, such as articulated concrete block mats, fabric-formed concrete mats, or other similar smooth-surfaced material.

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

2) Nesting Birds/Roosting Bats:

Repairs to the bridge could affect any nesting birds or roosting bats. Cliff and Barn Swallows, among other species, often nest on the underside of road bridges and many bat species roost in expansion joints and other concrete crevices on road bridges. Survey the bridges for any bird nests prior to construction. Nest surveys should occur between May 7 and September 7, which denotes the main nesting season for most bird species. If nests are found with eggs, chicks, or parents actively attending to the nest (building the nest and visiting often), then repairs should be put on hold until the nests complete their nesting cycle (to fledging) or fail (by natural causes).

The Division of Fish and Wildlife (DFW) recommends bridge maintenance activities be restricted to the period between November 1 and March 1 to avoid the summer roosting period for most bats in the central part of the State. However, some endangered bats could use a bridge to roost between November and March. No matter when work is proposed, the bridge must be inspected for the presence of bats. If there is no evidence of active bat use, work can proceed. If there is evidence of active bat use, work must not occur until either the bats leave the structure for the season or a separate permit is issued to remove the bats. Please contact Linnea Petercheff (lpetercheff@dnr.in.gov) regarding permits to handle bats. If bats are present, a more formal survey to determine what species are present may be required.

The DFW recommends consulting with the State Mammologist or the US Fish and Wildlife Service before scheduling a bridge maintenance, repair, or replacement project where evidence of bat use of the structure has been observed. Information about bat use of transportation structures as well as avoidance and exclusion measures can be found at <https://www.batcon.org/pdfs/bridges/BatsBridges2.pdf> and <https://www.whitenosesyndrome.org/mmedia-education/acceptable-management-practices-for-bat-species-inhabiting-transportation-infrastructure>.

3) Wetland Habitat:

Due to the presence or potential presence of wetland habitat on site, we recommend contacting and coordinating with the Indiana Department of Environmental Management (IDEM) 401 program and also the US Army Corps of Engineers (USACE) 404 program. Impacts to wetland habitat should be mitigated at the appropriate ratio according to the 1991 INDOT/IDNR/USFWS Memorandum of Understanding.

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.

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

2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.
6. Do not construct any temporary runarounds or causeways.
7. Operate equipment used to replace the bridge from the existing roadway.
8. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
9. Do not use broken concrete as riprap.
10. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
11. Minimize the movement of resuspended bottom sediment from the immediate project area.
12. Do not deposit or allow demolition/construction materials or debris to fall or otherwise enter the waterway.
13. 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.
14. 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.
15. Do not excavate or place fill in any riparian wetland.

Contact Staff:

Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife
Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.



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

Date: February 21, 2020

RECORD OF TELEPHONE CALL



JOB NO.	Des. 1593238	DATE	4/13/2020
CALL TO	David Barker	OF	New Castle Department of Public Works
CALL FROM	_____	OF	_____

SUBJECT DISCUSSED

David Barker, Director of Public Works and Safety, responded to the April 6, 2020 early coordination letter e-mail by phone. In our phone conversation, David stated concerns for subsurface water main infrastructure adjacent to the existing bridge. He stated that he was aware that these mains are present in the area; however, we was not sure of the exact location and believed the city would need to hire someone to identify the exact location of the water mains. I mentioned that the purpose of the letter was to solicit comments regarding the wellhead protection area or surrounding groundwater impacts. David stated that he did not have any concerns regarding the wellhead protection area at this time. I also stated that a utility coordination will reach out to discuss his concerns of the locaiton of the water mains in the near future.

ACTION TO BE TAKEN

No further action regarding the wellhead protection area is necessary at this time. The concerns regarding the location of subsurface water mains will be addressed during the utility coordination phase.

COPY TO:

NOTE: This record needs to be retained in the master file.

Aaron Grisel

From: Carmanygeorge, Karstin M <KCarmanyGeorge2@indot.IN.gov>
Sent: Wednesday, October 23, 2019 1:36 PM
To: Tenecia Jones
Cc: Kate Lucier
Subject: RE: USFWS Bat Layer Check- Des No 1593238 SR 38 over Big Blue River Bridge Project

A review of the USFWS GIS database for Indiana bat and Northern long-eared bat roosting, hibernacula and capture sites was conducted for Des 1593238 on October 23, 2019. There are no documented sites within a half mile the project area. Please be sure to review bat inspection reports in BIAS to determine if bats have historically been documented under the bridge and to have an environmental professional perform a bat inspection during the project development process. The USFWS Information for Planning and Conservation (IPaC) website must be consulted and a new project created to obtain an official species list and complete the determination key for the project to determine the applicability of the programmatic consultation. Once the key is complete, the project is ready for INDOT review for completeness and accuracy. Provide the record locator number from the IPaC generated consistency letter to INDOT with a request to review or verify the project.

Thanks,

Kari Carmany-George

Environmental Section Manager, Greenfield District

32 South Broadway

Greenfield, IN 46140

Office: (317) 467-3467

Email: kcarmanygeorge2@indot.in.gov



“Our lives begin to end the day we become silent about things that matter.”

— **Martin Luther King Jr.,**

From: Tenecia Jones [mailto:tgjones@HNTB.com]
Sent: Wednesday, October 23, 2019 10:08 AM
To: Carmanygeorge, Karstin M <KCarmanyGeorge2@indot.IN.gov>
Cc: Kate Lucier <klucier@HNTB.com>
Subject: USFWS Bat Layer Check- Des No 1593238 SR 38 over Big Blue River Bridge Project

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

Good Morning,

HNTB would like to request a query of the USFWS Bat Database for inclusion in the environmental documentation for Des No 1593238 – SR 38 over Big Blue River. This project is located approximately 0.62 miles west of SR 3, in a urban portion of Henry County, Greenfield District. The project will include roadway improvements on SR 38 and will be limited to minor pavement work required to provide a smooth transition to the bridge, and replacement of approach guardrail.

INDOT Bridge/Small Structure Bat Inspection Data Sheet (Rev 4/29/2016)

General Information		
Date of Inspection:	Initial Inspection <input type="checkbox"/>	Temp:
Time of Inspection:	Follow-up Inspection <input type="checkbox"/>	Wind:
County:	Construction <input type="checkbox"/>	Precip:
Inspected by:		Sunrise: Sunset:
GPS Northing: Easting: UTM Zone: 16	Contract Number:	Anticipated Start Date for Construction:

Bridge or Culvert	Bridge or Culvert
Stream or Road Crossed:	Station:
Bridge/Culvert number:	Number of Spans:
Type of Structure: <input type="checkbox"/> Concrete box beam <input type="checkbox"/> Steel beam <input type="checkbox"/> Concrete I-beam <input type="checkbox"/> Steel girder <input type="checkbox"/> Concrete bulb tee beam <input type="checkbox"/> Steel pony truss <input type="checkbox"/> Concrete arch <input type="checkbox"/> Welded steel thru girder <input type="checkbox"/> Concrete girder <input type="checkbox"/> Concrete box culvert <input type="checkbox"/> Concrete slab <input type="checkbox"/> Concrete pipe <input type="checkbox"/> Multi-plate arch <input type="checkbox"/> Corrugated steel pipe <input type="checkbox"/> Other (list):	Material: <input type="checkbox"/> Concrete <input type="checkbox"/> Steel <input type="checkbox"/> Other (describe): Shape: <input type="checkbox"/> Box Culvert <input type="checkbox"/> Pipe <input type="checkbox"/> Arch <input type="checkbox"/> Slab <input type="checkbox"/> Other (describe)
Searched entire structure? If not, why not?	Location of bats or signs of use (w/drawing and photos):
Bats Present? <input type="checkbox"/> Seen? <input type="checkbox"/> Heard?	
In Clusters? Number of clusters:	
Number of bats in largest cluster:	
Approximate total number of bats found:	
Signs of previous bat use? <input type="checkbox"/> Guano <input type="checkbox"/> Staining	

If Bats Present
Date and Time Project Supervisor was notified:
Name of Project Supervisor notified:

For bridges and culverts, provide plan, longitudinal and cross section views as appropriate.





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:

October 23, 2019

Consultation Code: 03E12000-2020-SLI-0138

Event Code: 03E12000-2020-E-00597

Project Name: SR 38 over Big Blue River (DES 1593238)

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

To Whom It May Concern:

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

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

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

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

determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process.

For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

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

We appreciate your concern for threatened and endangered species. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

(812) 334-4261

Project Summary

Consultation Code: 03E12000-2020-SLI-0138

Event Code: 03E12000-2020-E-00597

Project Name: SR 38 over Big Blue River (DES 1593238)

Project Type: TRANSPORTATION

Project Description: This project is located on SR 38, approximately 0.62 miles west of SR 3, in an urban portion of Henry County. The current proposed project would include roadway improvements on SR 38 and will be limited to minor pavement work required to provide a smooth transition to the bridge, and replacement of approach guardrail.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.93152314724158N85.38444149498136W>



Counties: Henry, 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.



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:

January 08, 2020

Consultation Code: 03E12000-2020-I-0138

Event Code: 03E12000-2020-E-02417

Project Name: SR 38 over Big Blue River (Des No. 1593238)

Subject: Concurrence verification letter for the 'SR 38 over Big Blue River (Des No. 1593238)' project under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **SR 38 over Big Blue River (Des No. 1593238)** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures, and may affect, but is not likely to adversely affect (NLAA) the endangered Indiana bat (*Myotis sodalis*) and/or the threatened Northern long-eared bat (*Myotis septentrionalis*).

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

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

If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat and/or Northern long-eared bat in a manner or to an extent not considered in the PBO, further review to conclude the requirements of ESA Section 7(a)(2) may be required. If the Proposed Action may affect any other federally-listed or proposed species, and/or any designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please contact this Service Office.

Project Description

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

Name

SR 38 over Big Blue River (Des No. 1593238)

Description

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intends to proceed with a project involving the bridge (Bridge No. 038-33-04063 A) carrying State Road (SR) 38 over Big Blue River, approximately 0.62 miles west of SR 3 in Henry County, Indiana.

The triple span adjacent box beam bridge was built in 1958 and reconstructed in 1987. The bridge is showing signs of minor delamination, leakage, spalls rebar exposure, random cracks, and efflorescence. Utility coordination will be performed to verify location of surrounding utilities for potential relocation. The proposed project includes replacement of the existing bridge including construction of new piers and end bents. Roadway improvements on SR 38 will be limited to minor pavement work required to provide a smooth transition to the bridge and replacement of approach guardrail. Scour protection will be placed at the end bents.

No bats or evidence of bats were noted during the October 20, 2019 site investigation. The INDOT Bridge Inspection Report for Bridge 038-33-04063 A dated September 13, 2018 does not contain any information pertaining to bats. No tree clearing will be necessary for this project.

The project does not involve lighting alterations; however, temporary lighting will be necessary. A query of the USFWS Bat Database by INDOT Greenfield District staff conducted on October 23, 2019 did not identify any documented sites within 0.5 mile of the project area. Work is anticipated to begin in Spring of 2022.

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.

No

10. 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 triangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

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

No

11. Does the project include activities **within documented NLEB habitat**^{[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

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

No

13. Does the project include slash pile burning?

No

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

Yes

15. Is there *any* suitable habitat^[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

16. 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

- *SR 38_INDOT_Bridge_Culvert_Assessment_Form.pdf* <https://ecos.fws.gov/ipac/project/6NTR4NP3P5HQXHMTSNX4BKXOFI/projectDocuments/19715522>

17. 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

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

No

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

No

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

Yes

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

Yes

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

No

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

Yes

24. Will the activities that use percussives (**not including tree removal/trimming or bridge/structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the active season^[1]?

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

No

25. 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

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

No

27. Are the project activities that use percussives (not including tree removal/trimming or bridge/structure work) and/or increase noise levels above existing traffic/background levels consistent with a No Effect determination in this key?

Automatically answered

Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and conducted during the inactive season

28. 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

29. **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

30. **Lighting AMM 1**

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

Yes

Project Questionnaire

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

N/A

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

N/A

3. Please describe the proposed bridge work:

The proposed project includes replacement of the existing bridge. Roadway improvements on SR 38 will be limited to minor pavement work required to provide a smooth transition to the bridge and replacement of approach guardrail. Scour protection will be placed at the end bents. Bridge replacement includes construction of new piers and end bents.

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

Spring 2022

5. Please enter the date of the bridge assessment:

10/20/2019

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.

LIGHTING AMM 1

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

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

This key was last updated in IPaC on December 02, 2019. Keys are subject to periodic revision.

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

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

APPENDIX D: SECTION 106 OF NHPA

Minor Projects PA Project Assessment Form– Category B Projects with Archaeology Work

Date: 2/4/20

Project Designation Number: 1593238

Route Number: SR 38

Project Description: Bridge Replacement over Big Blue River, 0.16 miles west of SR 3

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intend to proceed with a project involving the bridge (Bridge No. 038-33-04063A/NBI No. 012910) carrying State Road (SR) 38 over the Big Blue River. The project is approximately 0.16 mile west mile west of SR 3 in the City of New Castle, Henry County, Indiana.

INDOT bridge inspection data records that the existing bridge ranges in condition from fair to satisfactory. Heavy concrete patches are present on both the eastbound and westbound approaches. The structure exhibits the following: spalling with bituminous patches; exposed rebar; longitudinal cracks; vertical cracks; concrete delamination; and spalling along the road centerline and the south shoulder.

Proposed activities include bridge replacement.

Right-of-way requirements for the proposed project are not currently known.

Feature crossed (if applicable): Big Blue River

Township: Henry Township

City/County: New Castle/Henry County

Information reviewed (please check all that apply):

- General project location map USGS map Aerial photograph Interim Report
- Written description of project area General project area photos Soil survey data
- Previously completed historic property reports Previously completed archaeology reports
- Bridge Inspection Information

Other (please specify): SHAARD GIS; SHAARD; online street-view imagery; Indiana Historic Building, Bridges, and Cemeteries (IHBBC) map; Henry County GIS data: <https://beacon.schneidercorp.com/Application.aspx?AppId=478&LayerId=6864&PageTypeId=1&PageID=0> ; Bridge Inspection Application System (BIAS); 2010 INDOT-sponsored *Historic Bridge Inventory* (HBI); project information provided by Cardno, dated 1/9/2020 and on file with INDOT CRO.

Results of the Records Review for Above-Ground Resources:

With regard to above-ground resources, an INDOT Cultural Resources Office (CRO) historian, who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61, first performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for Henry County. No listed resources are present within 0.25 mile of the project area, a distance that would serve as an adequate area of potential effects (APE) given the scope of the project and the surrounding terrain.

The *Henry County Interim Report* (1993; Henry Township) of the Indiana Historic Sites and Structures Inventory (IHSSI) was also consulted. The National Register & IHSSI information is available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries (IHBBC) map. The SHAARD information was checked against the Interim Report hard copy maps. No IHSSI sites are recorded within 0.25 mile of the project.

Land surrounding the project is exurban; building stock located east of the project location is comprised of modern (late twentieth/early twenty-first century) commercial/industrial structures. Agricultural fields, interspersed with wooded areas, are present to the west. The east and west banks of Big Blue River in the project area are heavily forested. The following property within 0.25 mile of the project area is /will be 50 years old or older by the time of project letting in 2021: 1) Rose City Aerie FOE/Eagles; 14 N. CR 25W; c.-1963 ranch). Examination of the property card and Streetview images show multiple physical alterations made to the property over the years. It does not retain the requisite level of material integrity necessary for National Register eligibility assessment. No other above-ground resources were present.

The subject bridge (Bridge No. 038-33-04063A/NBI No. 012910) is a three-(3) span concrete stringer/multi-beam or girder structure constructed c.-1958 and reconstructed c.-1987. The bridge was not included in the HBI due to its construction after 1965, which was the cutoff year for inclusion in the inventory. On November 2, 2012, the Advisory Council on Historic Preservation (ACHP) issued the *Program Comment for Streamlining Section 106 Review for Actions Affecting Post- 1945 Concrete and Steel Bridges (Program Comment)*. The *Program Comment* relieves federal agencies from the Section 106 requirement to consider the effects of undertakings on most concrete and steel bridges built after 1945. On March 19, 2013, federal agencies were approved to use the *Program Comment* for Indiana projects.

The *Program Comment* applies for this bridge because it has not been previously listed in or determined eligible for listing in the National Register of Historic Places and it is not located in or adjacent to a historic district (Section IV.A of the *Program Comment*). As an example of a concrete stringer/multi-beam or girder bridge, this bridge is also not one of the types to which the *Program Comment* does not apply (arch bridges, truss bridges, bridges with movable spans, suspension bridges, cable-stayed bridges, or covered bridges [Section IV.B]). Additionally, this bridge has not been identified as having exceptional significance for association with a person or event, being a very early or particularly important example of its type in the state or the nation,

having distinctive engineering or architectural features that depart from standard designs, or displaying other elements that were engineered to respond to a unique environmental context (Section IV.C). This bridge also has not been identified as having some exceptional quality. Because the above criteria from the *Program Comment* have been met, no individual consideration under Section 106 is required for Bridge No. 038-33-04063A/NBI No. 012910.

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

Archaeology Report Author/Date:

Scott Hipskind and Veronica Parsell/January 7, 2020

Summary of Archaeology Investigation Results:

An archaeological records check and Phase Ia reconnaissance survey of the project area were conducted by Cardno (Hipskind and Parsell 2020)). The records check found that no previous surveys have covered any portion of the project area, and no previously recorded sites have been identified within or adjacent to the project area. A 1.8 acre survey area was examined through a combination of systematic shovel probing, pedestrian survey, and visual inspection of disturbed areas. Twelve shovel probes were placed in undisturbed areas with 0% visibility. The agricultural fields with greater than 30% surface visibility were pedestrian surveyed at 5m intervals. The existing r/w and parking areas were visually determined to be disturbed. No archaeological sites were identified and no further work was recommended. The report was reviewed by INDOT Cultural Resources personnel who meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. It is our opinion that the report is acceptable, and we concur with the evaluations and recommendations made by Hipskind and Parsell (January 7, 2020). Therefore, there are no archaeological concerns.

Does the project appear to fall under the Minor Projects PA? yes no

If yes, please specify category and number (applicable conditions are highlighted):

B-12. Replacement, widening, or raising the elevation of the superstructure on existing bridges, and bridge replacement projects (when both the superstructure and substructure are removed), under the following conditions [***BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied***]:

Condition A (Archaeological Resources)

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

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

Condition B (Above-Ground Resources)

The conditions listed below must be met (***BOTH Condition i and Condition ii must be satisfied***)

- i. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*
- ii. With regard to the subject bridge, at least one of the conditions listed below is satisfied (*AT LEAST one of the conditions a, b or c, must be fulfilled*):
 - a. The latest Historic Bridge Inventory identified the bridge as non-historic (see <http://www.in.gov/indot/2531.htm>);
 - b. The bridge was built after 1945, and is a common type as defined in Section V. of the *Program Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges* issued by the Advisory Council on Historic Preservation on November 2, 2012 for so long as that Program Comment remains in effect *AND* the considerations listed in Section IV of the Program Comment do not apply;
 - c. The bridge is part of the Interstate system and was determined not eligible for the National Register under the Section 106 Exemption Regarding Effects to the Interstate Highway System adopted by the Advisory Council on Historic Preservation on March 10, 2005, for so long as that Exemption remains in effect.

If no, please explain:

Additional comments: If any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, construction in the immediate area of the find will be stopped and the INDOT Cultural Resources office and the Division of Historic Preservation and Archaeology will be notified immediately.

INDOT Cultural Resources staff reviewer(s): Susan Branigin and Shaun Miller

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

Excerpt of the Phase Ia Archaeological
Reconnaissance Report

Phase Ia Archaeological Reconnaissance

for the Proposed State Road 38 Big
Blue River Bridge Replacement
Project, INDOT Des. # 1593238,
New Castle, Henry County, Indiana

J192079M03





INDIANA ARCHAEOLOGICAL SHORT REPORT

State Form 54566 (1-11)

INDIANA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF HISTORIC PRESERVATION
AND ARCHAEOLOGY
402 West Washington Street, Room W274
Indianapolis, Indiana 46204-2739
Telephone Number: (317) 232-1646
Fax Number: (317) 232-0693
E-mail: dhpa@dnr.IN.gov

Where applicable, the use of this form is recommended but not required by the Division of Historic Preservation and Archaeology.

Author:

Date (month, day, year):

Project Title:

PROJECT OVERVIEW

Project Description:

Cardno, Inc. (Cardno) conducted an archaeological records review and reconnaissance for a proposed bridge replacement project on SR 38 over the Big Blue River in New Castle, Henry County, Indiana (Figure 1). The SR 38 bridge over Big Blue River (Bridge No. 038-33-04063A/NBI No. 12910) is identified as a Non-Historic bridge in the INDOT Historic Bridges Inventory. The Bridge Inspection Report indicates the bridge was constructed in 1958 in the stringer/multi-beam or girder style (Mickler 2016). Currently, the bridge ranges from Fair to Satisfactory Condition, and contains fairly heavy concrete patches on both eastbound and westbound approaches that include spalling with bituminous patches, missing glands, longitudinal cracks, and spalling along the road centerline and the south shoulder (Mickler 2016).

INDOT Designation Number/ Contract Number: Project Number:

DHPA Number: Approved DHPA Plan Number:

Prepared For:

Contact Person:

Address:

City: State: ZIP Code:

Telephone Number: E-mail Address:

Principal Investigator:

Signature:

Company/Institution:

Address:

City: State: ZIP Code:

Telephone Number: E-mail Address:

PROJECT LOCATION

County:

USGS 7.5' series Topographic Quadrangle:

Civil Township:

Legal Location:

<input type="text" value="SE"/> 1/4, <input type="text" value="SE"/> 1/4, <input type="text" value="SE"/> 1/4, <input type="text" value="SE"/> 1/4, Section: <input type="text" value="9"/>	Township: <input type="text" value="17 N"/>	Range: <input type="text" value="10 E"/>
<input type="text" value="SW"/> 1/4, <input type="text" value="SW"/> 1/4, <input type="text" value="SW"/> 1/4, <input type="text" value="SW"/> 1/4, Section: <input type="text" value="10"/>	Township: <input type="text" value="17 N"/>	Range: <input type="text" value="10 E"/>
<input type="text" value="NW"/> 1/4, <input type="text" value="NW"/> 1/4, <input type="text" value="NW"/> 1/4, <input type="text" value="NW"/> 1/4, Section: <input type="text" value="15"/>	Township: <input type="text" value="17 N"/>	Range: <input type="text" value="10 E"/>
<input type="text" value="NE"/> 1/4, <input type="text" value="NE"/> 1/4, <input type="text" value="NE"/> 1/4, <input type="text" value="NE"/> 1/4, Section: <input type="text" value="16"/>	Township: <input type="text" value="17 N"/>	Range: <input type="text" value="10 E"/>

Topographic Map Datum: Grid Alignment:

Comments:

Property Owner:

PROJECT AREA DETAILS

Length meters: feet: Width meters: feet: hectares: acres:

Natural Region:

Topography:

Soil Association:

Soils:

Drainage:

Current Land Use:

Comments:

the roadside embankment, the gravel parking lot, and a buried gas line that ran north to south along the riverbank (Photographs 11, 15-16).

RECOMMENDATION

- The archaeological records check has determined that the project area has the potential to contain archaeological resources and a Phase Ia archaeological reconnaissance is recommended.
- The archaeological records check has determined that the project area does not have the potential to contain archaeological resources and no further work is recommended before the project is allowed to proceed.
- The Phase Ia archaeological reconnaissance has located no archaeological sites within the project area and it is recommended that the project be allowed to proceed as planned.
- The Phase Ia archaeological reconnaissance has determined that the project area includes landforms which have the potential to contain buried archaeological deposits. It is recommended that Phase Ic archaeological subsurface reconnaissance be conducted before the project is allowed to proceed.
- The Phase Ia archaeological reconnaissance has determined that the project area is within 100 feet of a cemetery and a Cemetery Development Plan is required per IC-14-21-1-26.5.

Cemetery Name:

Other Recommendations/Commitments:

During the course of the survey, no archaeological sites were encountered. Based on these findings, the proposed project will have no adverse impacts to archaeological resources and no additional work is recommended for the project to proceed as planned.

Pursuant to IC-14-21-1, if any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646.

Attachments

- Figure showing project location within Indiana.
- USGS topographic map showing the project area (1:24,000 scale).
- Aerial photograph showing the project area, land use and survey methods.
- Photographs of the project area.
- Project plans (if available)

Other Attachments:

Historic Maps: Figures 5, 6, and 7.
Table 1: Historic Structures within the 1.6 km (1 mi) Study Radius.

References Cited:

Beard, Thomas C.
1985 An Archaeological Reconnaissance Report for Indiana Department of Highways Project MAF-201-2(6) Roadway Reconstruction of SR 3 in New Castle, Henry County. Prepared for Indiana Department of Highways. Copy on file at the Indiana Department of Natural Resources-Division of Historic Preservation and Archaeology.

Cree, Don
1991 Archaeological Field Reconnaissance, New Castle Wal Mart, Henry County, Indiana. Prepared for Brown and Dedman, Inc. Prepared by Archaeological Resources Management Service, Ball State University. Copy on file at the Indiana Department of Natural Resources-Division of Historic Preservation and Archaeology.

APPENDIX E: RED FLAG AND HAZARDOUS MATERIALS



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

PHONE: (317) 232-5113
FAX: (317) 233-4929

Eric Holcomb, Governor
Joe McGuinness, Commissioner

Date: February 18, 2020

To: Site Assessment & Management (SAM)
Environmental Policy Office - Environmental Services Division
Indiana Department of Transportation
100 N Senate Avenue, Room N642
Indianapolis, IN 46204

From: Susan Harrington
HNTB Corporation
111 Monument Circle, Suite 1200
Indianapolis, IN 46204
sharrington@hntb.com

Re: RED FLAG INVESTIGATION
DES # 1593238, State Project
Bridge Replacement
SR 38 over Big Blue River, 0.016 Mile West of SR 3
Henry County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: This project is located on SR 38, approximately 0.16 mile west of SR 3, in New Castle, Henry County. The current proposed project includes replacement of the existing bridge with a new structure. The new bridge will be on deep foundations. Channel clearing will occur on the east and west banks in order to provide the required waterway opening. Excavation of up to 18 feet below ground level is anticipated for removal and construction of new foundations, installation of scour protection, and channel clearing. Roadway improvements on SR 38 will be limited to minor pavement work required to provide a smooth transition to the bridge and replacement of approach guardrail. Scour protection will be placed at the end bents. Bridge replacement includes construction of new piers and end bents.

Bridge and/or Culvert Project: Yes No Structure # 038-33-04063 A

If this is a bridge project, is the bridge Historical? Yes No , Select Non-Select

(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

Proposed right of way: Temporary # Acres To be determined (TBD) Permanent # Acres TBD, Not Applicable

Type of excavation: Excavation of up to 18 feet below ground level is anticipated for removal and construction of new foundations, installation of scour protection, and channel clearing.

Maintenance of traffic: During construction, SR 38 will be closed and a detour will be provided.

Work in waterway: Yes No Below ordinary high water mark: Yes No

State Project: LPA:

Any other factors influencing recommendations: The extent of roadway approach work has not yet been determined. Acquisition of right-of-way will likely be necessary, but amounts are currently undetermined.

INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	3*	Recreational Facilities	4
Airports ¹	N/A	Pipelines	5
Cemeteries	3	Railroads	1
Hospitals	N/A	Trails	7
Schools	N/A	Managed Lands	N/A

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

Explanation:

Religious Facilities*: Although not mapped on the GIS layer, three (3) religious facilities were identified within the 0.5 mile search radius. The nearest, First Apostolic Church, is located 0.28 mile north of the project area. No impact is expected.

Recreational Facilities: Four (4) recreational facilities are located within the 0.5 mile search radius. The nearest facility, Fraternal Order of the Eagles (F.O.E.) 933, is adjacent to the project area. Coordination with F.O.E. 933 will occur.

Pipelines: Five (5) pipeline segments are located within the 0.5 mile search radius. One (1) pipeline, associated with Indiana Gas Company, crosses the project area. Coordination with INDOT Utilities and Railroads will occur.

Cemeteries: Three (3) cemeteries are located within the 0.5 mile search radius. The nearest cemetery, Hobson Cemetery, is 0.38 mile east of the project area. No impact is expected.

Railroads: One (1) railroad is located within the 0.5 mile search radius. The railroad segment is 0.11 mile north of the project area. No impact is expected.

Trails: Seven (7) trail segments are located within the 0.5 mile search radius. One (1) potential trail is located 0.07 mile east of the project area. No impact is expected.

WATER RESOURCES TABLE AND SUMMARY

Water Resources			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	N/A	Canal Routes - Historic	N/A
Karst Springs	N/A	NWI - Wetlands	9
Canal Structures – Historic	N/A	Lakes	2
NPS NRI Listed	N/A	Floodplain - DFIRM	12
NWI-Lines	10	Cave Entrance Density	N/A
IDEM 303d Listed Streams and Lakes (Impaired)	4	Sinkhole Areas	N/A
Rivers and Streams	8	Sinking-Stream Basins	N/A

Explanation:

NWI – Lines: Ten (10) NWI Line segments are located within the 0.5 mile search radius. Three (3) NWI Line segments are located within the project area. A Waters of the U.S. Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

IDEM 303d Listed Streams and Lakes: Four (4) 303d Listed Stream segments are located within the 0.5 mile search radius. Big Blue River is located within the project area. Big Blue River is listed as impaired for *E. coli*, Impaired Biotic Communities (IBC), and PCBs in fish tissue.

- Concerning IBC, Best Management Practices (BMPs) will be used to avoid further degradation to the stream.
- Big Blue River is listed for *E. coli*. Workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.
- Big Blue River is impaired for PCBs in fish tissue. Exposure to PCBs in fish tissue is considered low, assuming workers are not eating biota surrounding or associated with the water body. Workers will be informed. If there will be sediment and/or soils disturbed by construction, additional investigation may be necessary. Coordination with INDOT SAM will occur.

Rivers and Streams: Eight (8) river and stream segments are located within the 0.5 mile search radius. One (1) river, Big Blue River, is located within the project area. A Waters of the U.S. Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

NWI-Wetlands: Nine (9) wetlands are located within the 0.5 mile search radius. Two (2) wetlands are located within the project area. A Waters of the U.S. Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

Lakes: Two (2) lakes are located within the 0.5 mile search radius. One (1) lake is located 0.05 mile northwest of the western extent of the project area. No impact is expected. .

Floodplains: Twelve (12) floodplain polygons are located within the 0.5 mile search radius. The project area is located within three of the floodplain polygons. Coordination with INDOT Ecology and Waterway Permitting will occur.

URBANIZED AREA BOUNDARY SUMMARY

Explanation:

Urbanized Area Boundary (UAB): This project lies within the New Castle UAB. Post construction Storm Water Quality BMPs may need to be considered. An early coordination letter with topographic and aerial maps showing the project area should be sent to the New Castle MS4 Coordinator at 227 N Main Street, New Castle IN 47362.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

Mining/Mineral Exploration			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Petroleum Wells	2	Mineral Resources	N/A
Mines – Surface	N/A	Mines – Underground	N/A

Explanation:

Petroleum Wells: Two (2) petroleum wells are located within the 0.5 mile search radius. The nearest petroleum well is located 0.15 mile southeast of the project area. No impact is expected.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

Hazardous Material Concerns			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	N/A	Manufactured Gas Plant Sites	N/A
RCRA Generator/ TSD	3	Open Dump Waste Sites	N/A
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	1
State Cleanup Sites	N/A	Waste Transfer Stations	N/A
Septage Waste Sites	N/A	Tire Waste Sites	1
Underground Storage Tank (UST) Sites	6	Confined Feeding Operations (CFO)	N/A
Voluntary Remediation Program	1	Brownfields	N/A
Construction Demolition Waste	N/A	Institutional Controls	1
Solid Waste Landfill	1	NPDES Facilities	3
Infectious/Medical Waste Sites	N/A	NPDES Pipe Locations	2
Leaking Underground Storage (LUST) Sites	9	Notice of Contamination Sites	N/A

Explanation:

RCRA Generator/ TSD – Three (3) RCRA Generator/ TSD facilities are located within the 0.5 mile search radius. The nearest facility is Allegheny Ludlum Corporation, 516 West SR 38, AI # 11941. This site is located 0.26 mile west of the project area and is also noted as a Restricted Waste Site. Allegheny Ludlum Corporation is a metal manufacturing company which is no longer operational. This company acquired Ingersoll-Johnson which is also noted below as a Solid Waste Landfill. This site is was inspected on May 2, 2016, by IDEM and no violations were discovered. For additional information on this site, see Solid Waste Landfill and Restricted Waste details below. No impact is expected.

Underground Storage Tank (UST) – Six (6) UST sites are located within the 0.5 mile search radius. Goodwin Brothers Auto, 250 Broad Street, FID No. 8827 is located in the northwest corner of SR 38 and SR 3 at the eastern termini of the project. This site is incorrectly mapped at the northeast corner of SR 38 and SR 3. Review of the IDEM Virtual File Cabinet (VFC) indicated that the two USTs on the Goodwin Brothers Auto site are both located north of the existing building. These include a 550 gallon used oil tank that was removed in 1992 and a 250 gallon used oil tank that was permanently taken out of service in 1986. No impact is expected.

Voluntary Remediation Program – One (1) Voluntary Remediation Program site is located within the 0.5 mile search radius. Doug Furbee (DDF Construction Site), 715 S Memorial Drove, AI #45512, is located 0.38 mile south of the project area. The site is also an Institutional Control Site. This site was issued a Covenant Not to Sue on June 25, 2003. No impact is expected.

Solid Waste Landfill – One (1) Solid Waste Landfill site is located within the 0.5 mile search radius. Ingersoll Johnson Exclusion Site, SR 38, AI #47615, is located 0.22 mile southwest of the project area. No impact is expected

Leaking Underground Storage Tank (LUST) – Nine (9) LUST sites are located within the 0.5 mile search radius. Amoco SS, 250 Broad Street, FID No. 1105 is adjacent to the eastern termini of the project area. This site was issued a No Further Action Approval Determination pursuant to the 1994 UST Branch Guidance on January 7, 2008, with residual petroleum contamination remaining on-site; however, CoCs do not appear to extend into the project area. No impact is expected.

Restricted Waste Site – One (1) Restricted Waste Site is located within the 0.5 mile search radius. Allegheny Ludlum Corporation, 516 West SR 38, AI #11941 is mapped 0.26 mile west of the project area. However, review of the project VFC file indicated that the restricted waste site is associated with the off-site landfill managed by Allegheny Ludlum and located approximately 0.63 mile northwest of the project area. This site is also noted as a RCRA Generator/ TSD. No impact is expected.

Tire Waste Site – One (1) Tire Waste Site is located within the 0.5 mile search radius. Raintree Programs Incorporated, 403 Spring Street, AI # 45091 is located 0.16 mile northeast of the project area. This site was registered as a waste tire processing site on January 30, 1995. No impact is expected.

Institutional Controls – One (1) Institutional Control site is located within the 0.5 mile search radius. Doug Furbee (DDF Construction Site), 715 S Memorial Dr, AI #45512, is 0.38 mile south of the project area. No impact is expected.

NPDES Facilities – Three (3) NPDES Facilities are located within the 0.5 mile search radius. The nearest facility is the State Road 38 Pavement Rehabilitation Project located at SR 38 and SR 3, 0.06 mile east of the project area. No impact is expected.

NPDES Pipe Locations – Two (2) NPDES Pipe Locations are located within the 0.5 mile search radius. The nearest pipe location, New Castle Waste Water Treatment Plant (WWTP) is located on the Big Blue River 0.04 mile north of the project area. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Henry County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is attached with ETR species highlighted. A preliminary review of the Indiana Natural Heritage Database by INDOT Environmental Services did not indicate the presence of ETR species within the 0.5 mile search radius. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project area is located in an urban area. The September 13, 2018, inspection report for Bridge #038-33-04063 A contains no information about whether bats are present or absent on the bridge. Additional investigation to confirm the presence or absence of bats on the bridge will be necessary. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent “Using the USFWS’s IPaC System for Listed Bat Consultation for INDOT Projects”.

RECOMMENDATIONS SECTION

Include recommendations from each section. If there are no recommendations, please indicate N/A:

INFRASTRUCTURE:

Recreational Facilities: One (1) recreational facility, Fraternal Order of the Eagles (F.O.E.) 933, is located adjacent to the project area. Coordination with F.O.E. 933 will occur.

Pipelines: One (1) pipeline crosses the project area. Coordination with INDOT Utilities and Railroads should occur.

WATER RESOURCES:

The presence of the following water resources will require the preparation of a Waters of the U.S. Report and coordination with INDOT ES Ecology and Waterway Permitting:

- Three (3) NWI Lines segments are located within the project area.
- One (1) stream segment, Big Blue River, flows through the project area.
- Two (2) NWI wetlands are located within the project area.
- The project area is located within a floodplain (coordination only).

IDEM 303d Listed Streams and Lakes: Four (4) 303d Listed Stream segments are located within the 0.5 mile search radius. Big Blue River is located within the project area. Big Blue River is listed as impaired for *E. coli*, Impaired Biotic Communities (IBC), and PCBs in fish tissue.

- Concerning IBC, BMPs will be used to avoid further degradation to the stream.
- Big Blue River is listed for *E. coli*. Workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.
- Big Blue River is impaired for PCBs in fish tissue. Exposure to PCBs in fish tissue is considered low, assuming workers are not eating biota surrounding or associated with the water body. Workers will be informed. If there will be sediment and/or soils disturbed by construction, additional investigation may be necessary. Coordination with INDOT SAM will occur.

URBANIZED AREA BOUNDARY: This project lies within the New Castle UAB. Post construction Storm Water Quality BMPs may need to be considered. An early coordination letter with topographic and aerial maps showing the project area should be sent to the New Castle MS4 Coordinator at 227 N Main Street, New Castle IN 47362.

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: N/A

ECOLOGICAL INFORMATION: Coordination with USFWS and IDNR will occur. Additional investigation to determine the presence or absence of bats on the bridge will be necessary. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

**Nicole Fohey-
Breting**

Digitally signed by
Nicole Fohey-Breting
Date: 2020.02.20
08:54:13 -05'00'

INDOT Environmental Services concurrence: _____ (Signature)

Prepared by:

Susan Harrington
Scientist III
HNTB

Graphics:

SITE LOCATION: YES

INFRASTRUCTURE: YES

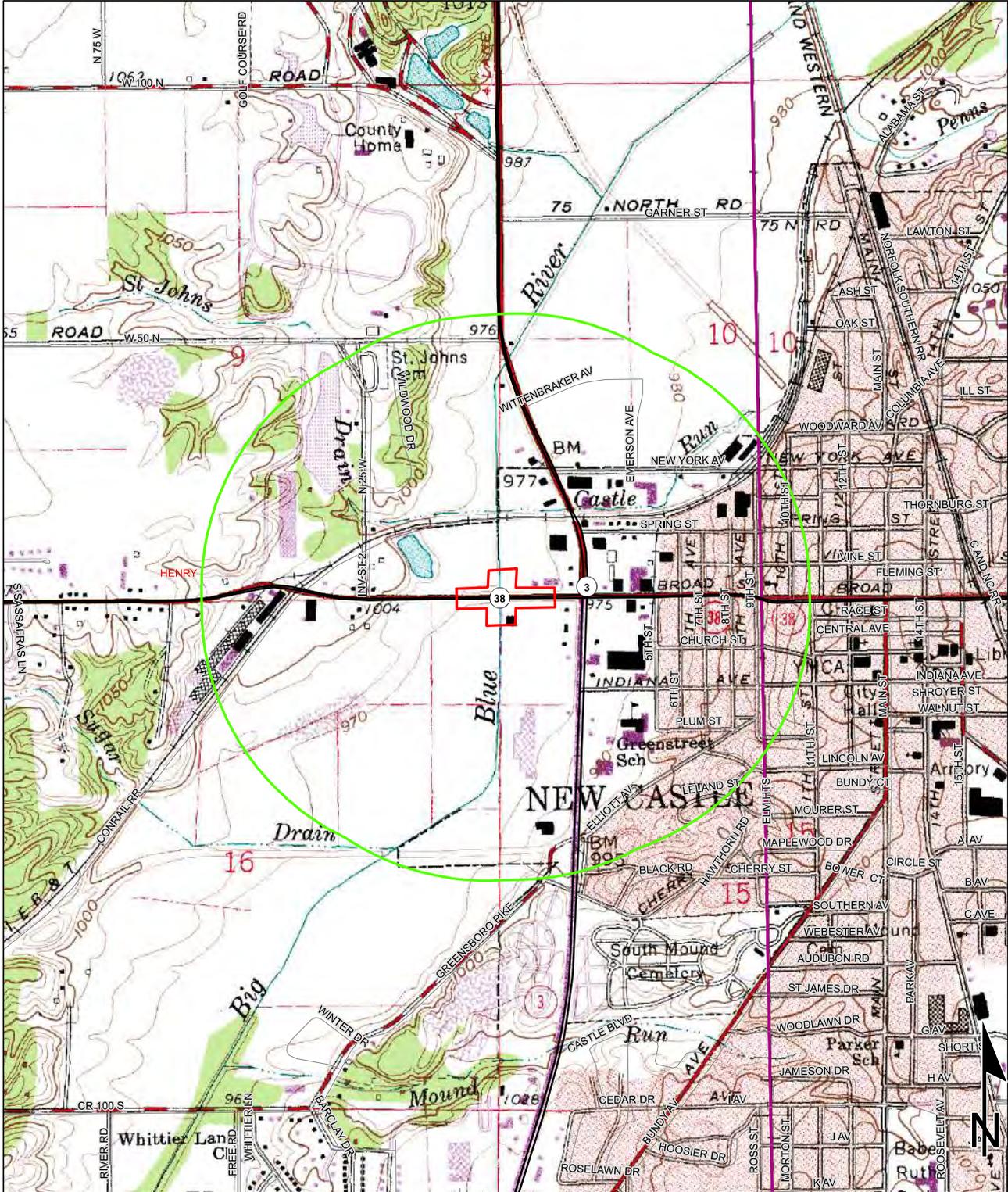
WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: YES

MINING/MINERAL EXPLORATION: YES

HAZARDOUS MATERIAL CONCERNS: YES

Red Flag Investigation - Site Location
 SR 38 over Big Blue River, 0.16 Mile West of SR 3
 Des. No. 1593238, Bridge Replacement
 Henry County, Indiana



Sources: 0.25 0.125 0 0.25 Miles
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83
 This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

**NEW CASTLE EAST AND WEST
 QUADRANGLE
 INDIANA
 7.5 MINUTE SERIES (TOPOGRAPHIC)**

Red Flag Investigation - Infrastructure
 SR 38 over Big Blue River, 0.16 Mile West of SR 3
 Des. No. 1593238, Bridge Replacement
 Henry County, Indiana

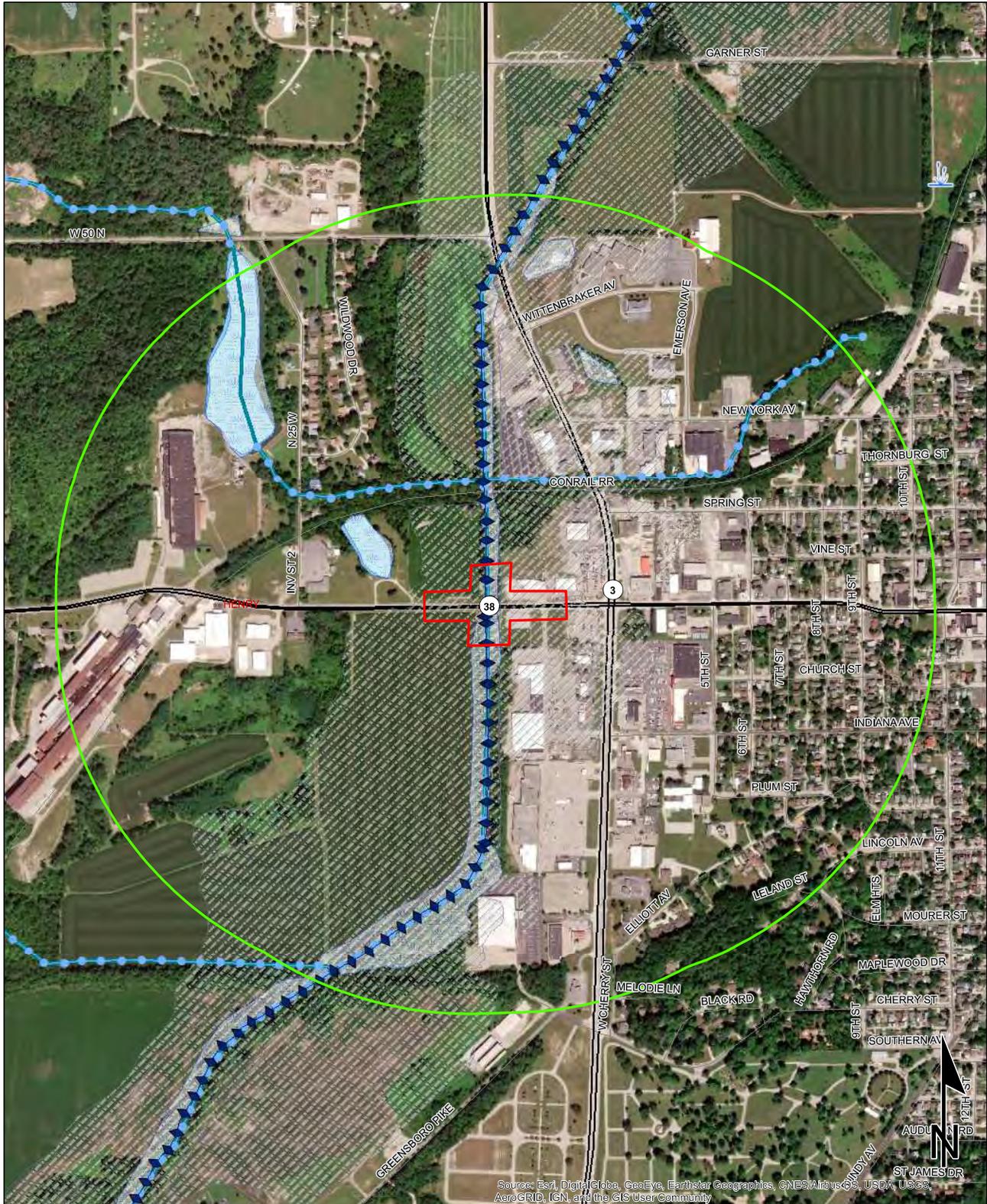


Sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Sources: 0.15 0.075 0 0.15 Miles
Non Orthophotography
 Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
 Map Projection: UTM Zone 16 N Map Datum: NAD83
 This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

	Religious Facility		Recreation Facility		Project Area
	Airport		Pipeline		Half Mile Radius
	Cemeteries		Railroad		Toll
	Hospital		Trails		Interstate
	School		Managed Lands		State Route
			County Boundary		US Route
					Local Road

Red Flag Investigation - Water Resources
 SR 38 over Big Blue River, 0.16 Mile West of SR 3
 Des. No. 1593238, Bridge Replacement
 Henry County, Indiana

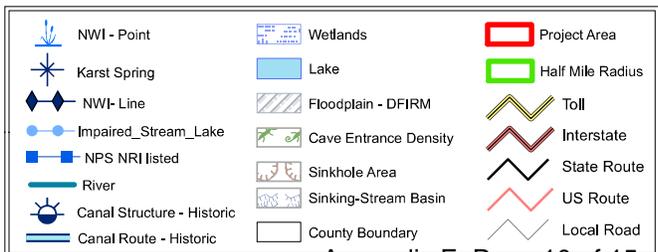


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

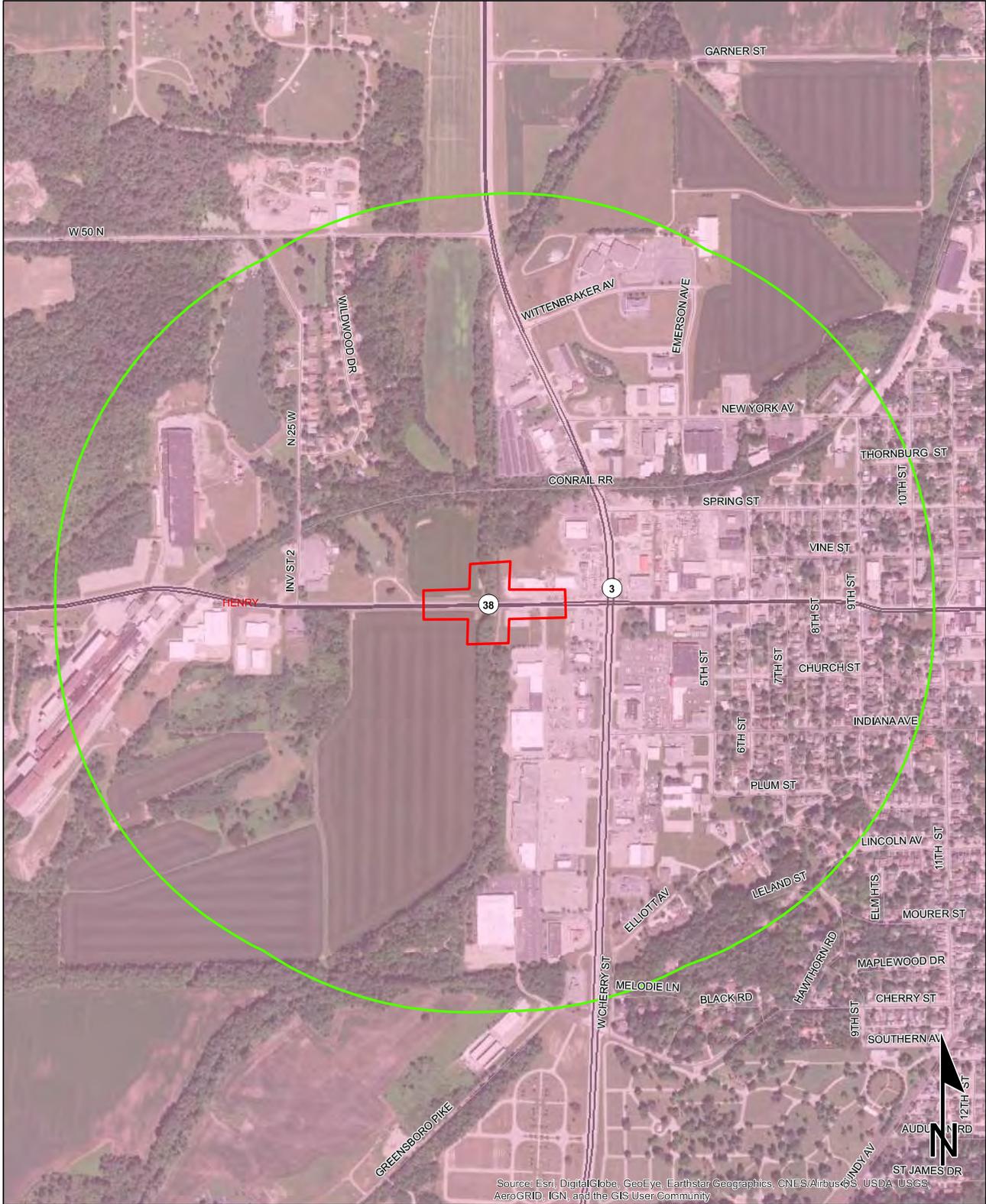
Sources: 0 0.075 0.15 Miles
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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

Des. No. 1593238



Red Flag Investigation - Urbanized Area Boundary
 SR 38 over Big Blue River, 0.16 Mile West of SR 3
 Des. No. 1593238, Bridge Replacement
 Henry County, Indiana

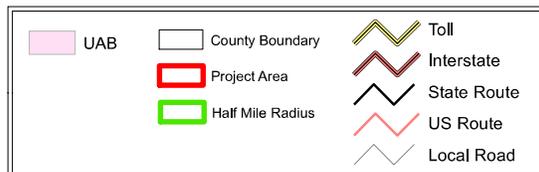


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

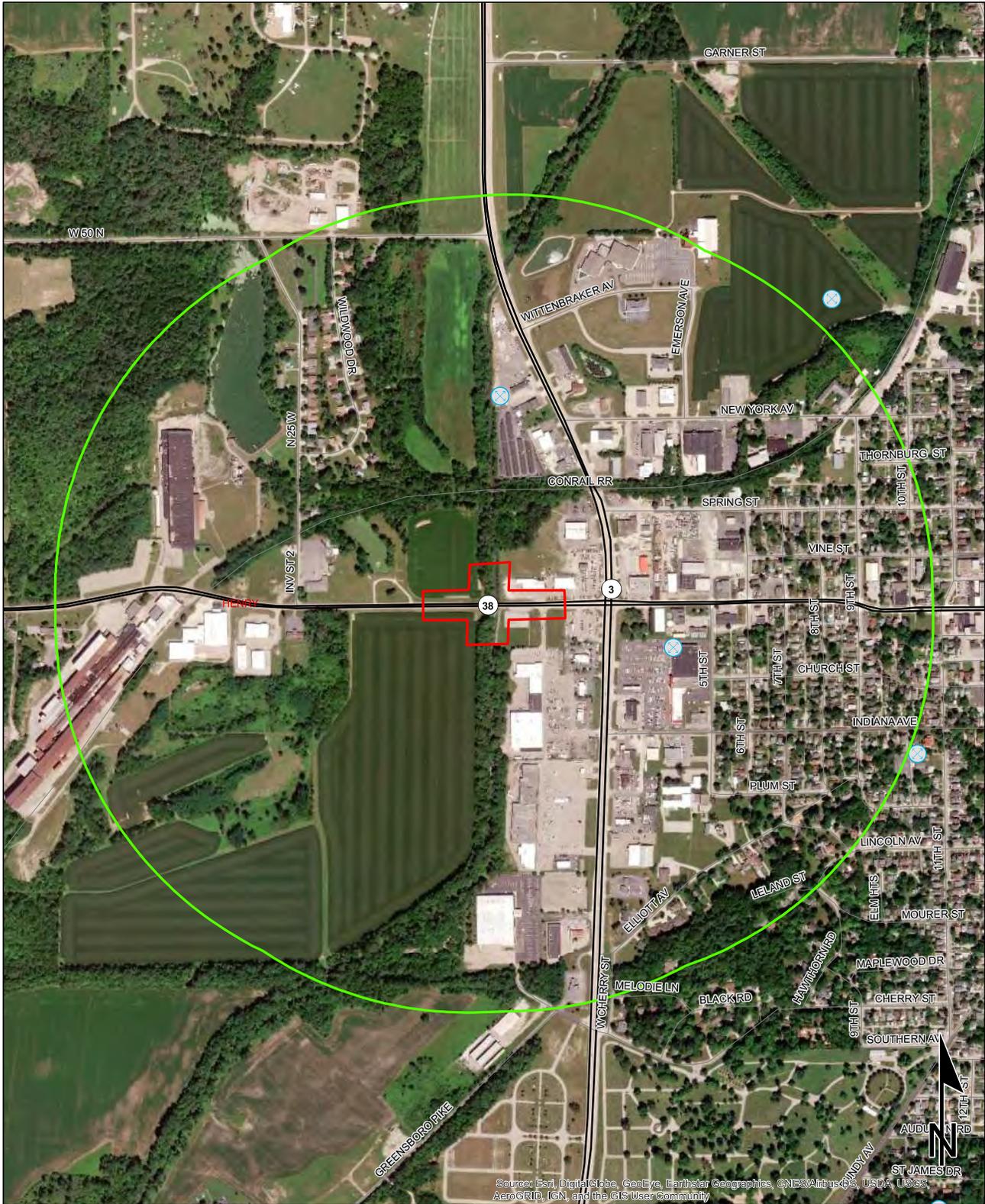
Sources: 0.15 0.075 0 0.15 Miles
Non Orthophotography
 Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
 Map Projection: UTM Zone 16 N Map Datum: NAD83

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Des. No. 1593238



Red Flag Investigation - Mining and Mineral Exploration
 SR 38 over Big Blue River, 0.16 Mile West of SR 3
 Des. No. 1593238, Bridge Replacement
 Henry County, Indiana

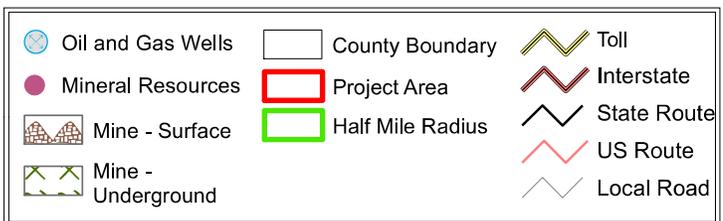


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

0.15 0.075 0 0.15 Miles
Sources:
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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Des. No. 1593238

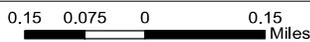
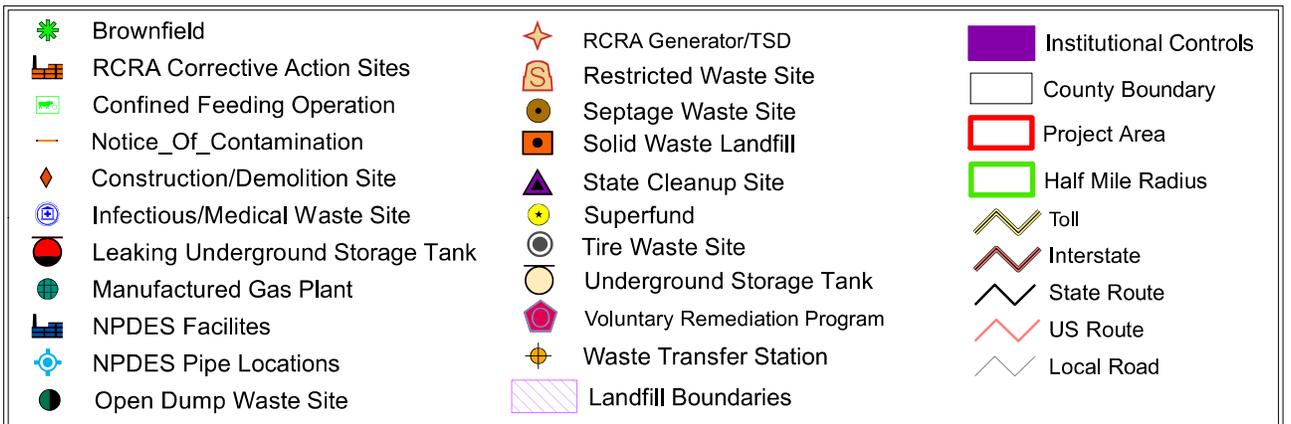


Red Flag Investigation - Hazardous Material Concerns

SR 38 over Big Blue River, 0.16 Mile West of SR 3

Des. No. 1593238, Bridge Replacement

Henry County, Indiana



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

Des. No. 1593238

Sources:
Non Orthophotography
 Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
 Map Projection: UTM Zone 16 N Map Datum: NAD83

Indiana County Endangered, Threatened and Rare Species List

County: Henry

Note: Species highlighted in blue include Federally Listed Species. Species highlighted in yellow include State Listed Species.

Species Name	Common Name	FED	STATE	GRANK	SRANK
Mollusk: Bivalvia (Mussels)					
Lampsilis fasciola	Wavyrayed Lampmussel		SSC	G5	S3
Ptychobranchus fasciolaris	Kidneyshell		SSC	G4G5	S2
Toxolasma lividus	Purple Lilliput	C	SSC	G3Q	S2
Villosa lienosa	Little Spectaclecase		SSC	G5	S3
Insect: Odonata (Dragonflies & Damselflies)					
Somatochlora tenebrosa	Clamp-tipped Emerald		SR	G5	S2S3
Fish					
Notropis ariommus	Popeye Shiner			G3	SX
Amphibian					
Hemidactylum scutatum	Four-toed Salamander		SSC	G5	S2
Reptile					
Clonophis kirtlandii	Kirtland's Snake		SE	G2	S2
Bird					
Cistothorus pa ustris	Marsh Wren		SE	G5	S3B
Cistothorus plentensis	Sedge Wren		SE	G5	S3B
Ixobrychus exilis	Least Bittern		SE	G5	S3B
Nycticorax nycticorax	Black-crowned Night-heron		SE	G5	S1B
Pandion haliaetus	Osprey		SSC	G5	S1B
Rallus elegans	King Rail		SE	G4	S1B
Rallus limicola	Virginia Rail		SE	G5	S3B
Tyto alba	Barn Owl		SE	G5	S2
Mammal					
Myotis sodalis	Indiana Bat	LE	SE	G2	S1
Taxidea taxus	American Badger		SSC	G5	S2
Vascular Plant					
Carex decomposita	Cypress-knee Sedge		ST	G3G4	S2
Carex flava	Yellow Sedge		ST	G5	S2
Carex viridistellata	Green Star Sedge		WL	G2G3	SU
Cypripedium candidum	Small White Lady's-slipper		SR	G4	S3
Hydrastis canadensis	Golden Seal		WL	G3G4	S3
Hypericum pyramidatum	Great St. John's-wort		ST	G4	S2
Melanthium virginicum	Virginia Bunchflower		SE	G5	S1
Platanthera psycodes	Small Purple-fringe Orchis		SR	G5	S2
Rudbeckia fulgida var. fulgida	Orange Coneflower		WL	G5T4?	S3
Triglochin palustris	Marsh Arrow-grass		ST	G5	S2
Turritis glabra	Tower-mustard		WL	G5	S3
High Quality Natural Community					
Forest - flatwoods central till plain	Central Till Plain Flatwoods		SG	G3	S2

Indiana Natural Heritage Data Center
Division of Nature Preserves
Indiana Department of Natural Resources
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting
State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list
GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank
SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

Indiana County Endangered, Threatened and Rare Species List

County: Henry

Species Name	Common Name	FED	STATE	GRANK	SRANK
Forest - upland mesic Central Till Plain	Central Till Plain Mesic Upland Forest		SG	GNR	S3
Wetland - fen	Fen		SG	G3	S3
Wetland - seep circumneutral	Circumneutral Seep		SG	GU	S1

Indiana Natural Heritage Data Center
Division of Nature Preserves
Indiana Department of Natural Resources
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting
State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list
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SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

APPENDIX F: WATER RESOURCES

Note: The Waters of the U.S. Report attachments including figures, data sheets, and project photos have been removed from this appendix to condense the size of the document. Figures and project photos can be found in Appendix B.

Waters of the U.S. Report

SR 38 OVER BIG BLUE RIVER, BRIDGE REPLACEMENT



HENRY COUNTY

DES. NO.
1593238

Prepared by:

HNTB

111 Monument Circle, Suite 1200

Indianapolis, IN, 46204

317.636.4682

January 29, 2020

1. PROJECT INFORMATION

Date of Field Investigation: 10/20/2019

Location

The project is located along SR 38 in Henry County, Indiana (Attachment A4).

- Sections 9, 10, 15, and 16, Township 17 N, Range 10 E
- New Castle West 1:24,000 Quadrangle (Attachments A5-A6)
- GPS Position: 39.93148, -85.38444, World Geodetic System 1984 (WGS 84)

Project Description

The Federal Highway Administration (FHWA) and Indiana Department of Transportation (INDOT), Greenfield District are planning to proceed with a bridge replacement project at the State Road (SR) 38 crossing of Big Blue River in Henry County, Indiana. Additional permanent right-of-way is anticipated.

2. DESKTOP RECONNAISSANCE

SOIL ASSOCIATIONS AND SERIES TYPES

According to the Soil Survey Geographic (SSURGO) Database for Henry County, Indiana, the following mapped soils series are within the SR 38 investigated area (Attachments A8-A12):

Westland silt loam (We): very deep, poorly drained and very poorly drained soils that are deep to calcareous, stratified gravelly and sandy outwash. Westland soils are in depressions and on flats on outwash plains, stream terraces, and glacial drainage channels. Slope ranges from 0 to 1 percent. Westland silt loam is considered a hydric soil with a hydric rating of 100%.

NATIONAL WETLANDS INVENTORY

Based on the U.S. Fish and Wildlife National Wetlands Inventory (NWI) data (www.fws.gov/wetlands/Data/State-Downloads.html) there are nine wetlands mapped within a half-mile of the investigated area (Attachment A7).

Within the investigated area, the Big Blue River riparian corridor (two polygons) is mapped as a palustrine, forested, broad-leaved deciduous, temporarily flooded (PFO1A) wetland according to the classifications defined by Cowardin et al. (1979). In addition:

- Two wetlands within a half-mile of the investigated area are mapped as palustrine, unconsolidated bottom, intermittently exposed, excavated (PUBGx).
- Three wetlands within a half-mile of the investigated area are mapped as palustrine, unconsolidated bottom, intermittently exposed, diked/impounded (PUBGh).
- Two wetlands within a half-mile of the investigated area are mapped as palustrine, forested, broad-leaved deciduous, temporarily flooded (PFO1A).

HYDROLOGY

The project is within the 12-digit Hydrologic Unit Code (HUC) representing Elliot Run – Big Blue River. The 12-digit HUC code is 051202040103 (Attachment A14).

According to the Indiana Floodplain Information Portal, the project is within the 100-year floodplain of Big Blue River with an approximate base flood elevation of 973.5 feet (NAVD88) (<http://dnrmaps.dnr.in.gov/appsphp/fdms/>).

3. FIELD RECONNAISSANCE

HNTB Indiana staff performed a field review of the investigated area on October 20, 2019. The purpose was to determine the presence of Waters of the U.S. within the investigated area. HNTB Indiana staff collected data during the field review to appropriately characterize the investigated area and determine the presence or absence of jurisdictional waters. The field investigation area encompassed the area required for construction access and completion of the bridge replacement work. HNTB staff photographed select features and areas of interest throughout the investigated area. A photo location map and selected photographs are included as Attachments A16-A24.

The investigated area was analyzed using the methods outlined in the Routine Determination, On-site Inspection Necessary procedure in the *Corps of Engineers Wetland Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual Midwest Region* (US Army Corps of Engineers, 2010). Identification indicator status of plant species utilized the USACE 2016 Midwest Region National Wetland Plant List (http://wetland_plants.usace.army.mil/).

4. WATERS

During the October 20, 2019 field investigation for the project, one stream was identified.

WETLANDS

No wetlands were observed during the October 20, 2019 field investigation. One data point was excavated adjacent to Big Blue River where wetland vegetation was visibly present; however, this area was determined to be upland. See Reference Point 1.

RP1

Reference Point 1 (RP1) is located within a flat bench adjacent to the Big Blue River atop a constructed levee where wetland vegetation was visibly present. Vegetation was limited to the herbaceous stratum and consisted of reed canary grass (*Phalaris arundinacea*, FACW), wingstem (*Verbesina alternifolia*, FACW), ash-leaf maple (*Acer negundo*, FAC), and amur honeysuckle (*Lonicera maackii*, UPL). Vegetation within this data point passed the dominance and rapid tests for hydrophytic vegetation. Soils observed within a pit excavated to a depth of 20 inches were 10YR 4/3 silty clay loam throughout the soil profile. This soil does not meet the criteria for a hydric soil. No primary indicators and one secondary indicator of wetland hydrology was observed at RP1. Due to the location of RP1 within a flat bench atop a constructed levee, this area is not likely inundated by flood waters for a sufficient amount of time to develop wetland hydrology indicators. Therefore, wetland hydrology is not present at RP1. Data Point RP1 is not within a wetland due to the lack of wetland soil and hydrology indicators. A wetland determination form for this data point is found in Attachments A1-A2.

TABLE 1: WETLAND DATA POINT SUMMARY TABLE

Data Point-ID	Vegetation	Soils	Hydrology	Within a Wetland?
RP1	Yes	No	No	No

STREAMS

The field investigation resulted in the identification of one likely jurisdictional stream, Big Blue River. A total of approximately 349 linear feet of stream length is within the investigated area.

BIG BLUE RIVER

Big Blue River is a perennial stream feature that enters the investigated area from the north and flows south below SR 38. A wooded riparian corridor is present along the Big Blue River within the investigated area. Big Blue River receives input from agricultural areas surrounding the investigated area. The stream is noted on the USGS 7.5 Minute New Castle West, Indiana Topographic Map as a perennial blue-line stream (Attachments A5-A6). According to the USGS StreamStats website, (<https://water.usgs.gov/osw/streamstats/indiana.html>), Big Blue River drains approximately 47.48 square miles upstream of the investigated area (Attachment A14).

The OHWM of Big Blue River at the widest location, upstream of the existing structure, within the investigated area measures 50 feet wide by 1.5 feet deep. The OHWM beneath the SR 38 bridge and downstream of the structure measure 45 feet and 40 feet, respectively. The substrate of Big Blue River consists of 80 percent silt and 20 percent cobble. According to the classification codes developed by Cowardin et al. (1979), this stream feature would be classified as a riverine, lower perennial, cobble-gravel streambed (R2SB1). Based on a qualitative assessment, this resource is of average quality within this reach due to the perennial regime, average quality substrate, narrow riparian corridor, and presence of riffles and pools. Portions of Big Blue River are considered a traditionally navigable waterway (TNW) within Indiana; however, Big Blue River is not considered a TNW at the location of the SR 38 crossing. Since downstream portions of Big Blue River are considered a TNW, Big Blue River is considered a Waters of the U.S.

TABLE 2: STREAM AND WATERWAY SUMMARY TABLE

Stream Name	Photo #	Lat/Long	OHWM	Quality	Substrate	USGS Blue Line	Riffles/ Pools	Waters of U.S.
Big Blue River	1-8	39.93148 85.38444	50 ft. wide x 1.5 ft. deep	Average	80% silt, 20% cobble	Yes	Yes	Yes

ROADSIDE DRAINAGE FEATURES

Site investigations did not identify roadside drainage features within the investigated area.

OPEN WATERS

Site investigations did not identify open water features within the investigated area.

5. CONCLUSION

The October 20, 2019 field review for the project identified one Waters of the US within the investigated area. Big Blue River is considered a Waters of the U.S. due to the river's downstream classification as a TNW.

Every effort should be taken to avoid and minimize the impacts to the water resources listed above. Disturbance of a wetland or stream could result in a mitigation requirement to secure the required permits for the channel clearing and protection project. If construction exceeds the limits of the survey review area illustrated in this document, further field investigation will be needed. This report is this office's best judgment of water resources that are likely to be under federal jurisdiction, based on the guidelines set forth by the U.S. Army Corps of Engineers (USACE). The final determination of jurisdictional waters is ultimately the responsibility of the USACE. The INDOT Office of Environmental Services should be contacted immediately if impacts occur.

This waters determination has been prepared based on the best available information, interpreted in the light of the investigator's training, experience and professional judgement in conformance with the 1987 *Corps of Engineers Wetlands Delineation Manual*, the appropriate regional supplement, the USACE *Jurisdictional Determination Form Instructional Guidebook*, and other appropriate agency guidelines.



Aaron Grisel, Scientist II

PREPARERS:

HNTB Inc., Staff	Position	Contributing Effort
Aaron Grisel	Scientist II	Report Preparation Field Data Collection
Chris Meador	Science Project Manager	Project Management Technical Review Field Data Collection

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: 1/29/2020

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: Aaron Grisel, 111 Monument Circle Suite 1200, Indianapolis IN, 46202; tgrisel@hntb.com

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The Federal Highway Administration (FHWA) and Indiana Department of Transportation (INDOT), Greenfield District is planning to proceed with bridge replacement project at the SR 38 bridge over Big Blue River in Henry County, Indiana (Des. No. 1593238). The preferred alternative would include replacement of the existing structure with a 3-span, steel beam bridge.

(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: **IN** County/parish/borough: **Henry** City: **Henry Township**

Center coordinates of site (lat/long in degree decimal format):

Lat.: **39.93148** Long.: **-85.38444**

Universal Transverse Mercator: Easting 670896, Northing 4422067, Zone 16S

Name of nearest waterbody: **Big Blue River**

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date:

Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH “MAY BE” SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource “may be” subject (i.e., Section 404 or Section 10/404)
Big Blue River	39.93148	-85.38444	349 feet/ 0.40 acre	non-wetland	Section 404

- 1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
- 2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring “pre-construction notification” (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant’s acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there “*may be*” waters of the U.S. and/or that there “*may be*” navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map: HNTB Indiana, Inc.
- Data sheets prepared/submitted by or on behalf of the PJD requestor.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report. Rationale: _____
- Data sheets prepared by the Corps: _____
- Corps navigable waters' study: _____
- U.S. Geological Survey Hydrologic Atlas: _____
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: New Castle West 1:24.000 Quad
- Natural Resources Conservation Service Soil Survey. Citation: Henry, <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>
- National wetlands inventory map(s). Cite name: US Fish and Wildlife NWI
- State/local wetland inventory map(s): _____
- FEMA/FIRM maps: IDNR Floodplain Database
- 100-year Floodplain Elevation is: 973.5 (National Geodetic Vertical Datum of 1929)
- Photographs:
 - Aerial (Name & Date): 2016 USDA/NRCS NAIP
 - or Other (Name & Date): October 20, 2019
- Previous determination(s). File no. and date of response letter: _____
- Other information (please specify): _____

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and date of
Regulatory staff member
completing PJD

Aaron Grisel  Digitally signed by Aaron Grisel
DN: C=US, E=agrisel@hntb.com, O=HNTB Indiana,
Inc., OU=Environmental Planning, CN=Aaron Grisel
Date: 2020.01.29 12:30:07-0800'

Signature and date of
person requesting PJD
(REQUIRED, unless obtaining
the signature is impracticable)¹

¹ Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

Aaron Grisel

From: Clayton, Juliana <JClayton@indot.IN.gov>
Sent: Thursday, January 30, 2020 12:24 PM
To: Aaron Grisel
Cc: Darrah, Taylor N; Kate Williams
Subject: RE: Draft Wetland and Waterway Delineation Report - Des. No. 1593238 SR 38 over Big Blue River
Attachments: 1593238 Waters Report Approved 1.30.20.pdf

Aaron,

Thank you for submitting the waters report for the SR 38 bridge replacement in Hnery County, Des. number 1593238. The approved report is attached and can be found in ProjectWise ([1593238 Waters Report Approved 1.30.20.pdf](#)). *It is the responsibility of the Project Manager to forward a copy of this report to the Project Designer.*

The information in this report should be used by the Project Designer to determine if waters of the U.S. will be impacted by the project. Avoidance and minimization of impacts must occur *before* mitigation will be considered. If mitigation is required, the Project Manager or Project Designer must coordinate with the Ecology and Waterway Permitting Office to discuss how adequate compensatory mitigation will be provided.

The Project Manager should notify the Ecology and Waterway Permitting Office if there is any change to the project footprint presented in this report. Such changes may require additional fieldwork and submittal of an updated waters report covering areas not previously investigated. *This report is only valid for a period of five years from the date of earliest fieldwork.* If the report expires prior to waterway permit application submittal, additional fieldwork and a revised waters report will be required.

It will not be sent to the United States Army Corps of Engineers (USACE) or the Indiana Department of Environmental Management (IDEM) until the waterways permit applications are submitted to these agencies.

Thanks,
Juliana Clayton
Ecology and Waterway Permitting Specialist
100 N Senate Ave N 642
Indianapolis, IN 46204-2216
Phone: 317-232-0240
Email: jclayton@indot.in.gov



From: Aaron Grisel [mailto:tgrisel@HNTB.com]
Sent: Wednesday, January 29, 2020 5:59 PM
To: Clayton, Juliana <JClayton@indot.IN.gov>
Cc: Darrah, Taylor N <TDarrah@indot.IN.gov>; Kate Williams <klwilliams@HNTB.com>
Subject: RE: Draft Wetland and Waterway Delineation Report - Des. No. 1593238 SR 38 over Big Blue River

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

APPENDIX G: PUBLIC INVOLVEMENT

Sample Notice of Survey Letter

Sept. 11, 2019

HRH Property Group LLC
250 Broad Street
New Castle, IN 47362

Re: Henry County Tax Parcel – 33-12-10-330-116.000-016

NOTICE OF SURVEY

Dear Property Owner:

HNTB, on behalf of The Indiana Department of Transportation (INDOT), will perform a survey for the purpose a bridge replacement on SR 38 over Big Blue River, located 0.16 miles west of SR 3 in Henry County, Indiana. A portion of this survey work may be performed on your property in order to provide design engineers information for project design. The survey work will include mapping the location of features such as trees, buildings, fences, drives, ground elevations, etc. The survey is needed for the proper planning and design of this highway project.

At this stage we generally do not know what effect, if any, our project may eventually have on your property. If we determine later that your property is involved, we will contact you with additional information.

Indiana Code 8-23-7-26 allows HNTB, as the authorized employees of INDOT, *Right of Entry* to the project site (including private property) upon proper notification. A copy of a Notice of Survey discussion sheet, as found on INDOT's website (<http://www.in.gov/indot/2888.htm>), is attached to this letter. Pursuant to Indiana Code 8-23-7-27, this letter serves as written notification that we will be performing the above noted survey in the vicinity of your property on or after Sept 13, 2019

HNTB employees will show you their identification, if you are available, before coming onto your property.

If you own but are not the tenant of this property (i.e. rental, sharecrop), please inform us so that we may also contact the actual tenant of the property prior to commencement of our work. If you have any questions or concerns regarding our proposed survey work or schedule, please contact the HNTB Project Manager. This contact information is as follows:

Chris Buergelin
111 Monument Circle, Suite 1200
Indianapolis, IN 46204
(317) 636-4682

Under Indiana Code 8-23-7-28, you have a right to compensation for any damage that occurs to your land or water as a result of the entry or work performed during the entry. To obtain such compensation, you should contact the Greenfield District Real Estate Manager; contact information is below. The District Real Estate Manager can provide you with a form to request compensation for damages. Once you fill out this form, you can return it to the District Real Estate Manager for consideration. If you are not satisfied with the compensation that INDOT determines is owed to you, Indiana Code 8-23-7-28 provides the following:

The amount of damages shall be assessed by the county agricultural extension educator of the county in which the land or water is located and two (2) disinterested residents of the county, one (1) appointed by the aggrieved party and one (1) appointed by the department. A written report of the assessment of damages shall be mailed to the aggrieved party and the department by first class United States mail. If either the department or the aggrieved party is not satisfied with the assessment of damages, either or both may file a petition, not later than fifteen (15) days after receiving the report, in the circuit or superior court of the county in which the land or water is located.

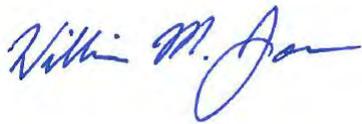
If you have questions regarding the rights and procedures outlined in this letter, please contact the Greenfield District Real Estate Manager. This contact information is as follows:

Josh Betts
32 South Broadway
Greenfield, IN 46140
(855) 463-6848

Thank you in advance for your cooperation in this matter.

Sincerely,

HNTB Corporation

A handwritten signature in blue ink that reads "William M. Jones". The signature is fluid and cursive, with the first name being the most prominent.

William M. Jones
Supervisory Survey Technician

APPENDIX H: AIR QUALITY

APPENDIX I: Additional Studies

Excerpt of Abbreviated
Engineer's Report.

ABBREVIATED ENGINEER'S REPORT

SR 38 over Big Blue River

DES 1593238
Contract No. B-40502
NBI No. 012910
Existing Str. No. 038-33-04063 A
Proposed Str. No. 038-33-10161 A

Prepared For:
INDOT Greenfield District
Taylor Darrah

Prepared By:
HNTB
Angela Pearl, PE

Concur: Angela Pearl Date: 02/03/2020
Name: Angela Pearl, PE
Title: HNTB Project Manager

Concur: _____ Date: _____
Name: Darryl Wineinger
Title: Bridge Asset Engineer, INDOT Greenfield District

Concur: _____ Date: _____
Name:
Title: Scoping Manager, INDOT Greenfield District

Concur: _____ Date: _____
Name:
Title: System Asset Engineer, INDOT Greenfield District

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ATTACHMENTS

Attachment A - Project Location Map

Attachment B - Photographs

Attachment C - 2018 Routine Inspection Report

Attachment D - Traffic Data and Design Criteria

Attachment E - Hydraulic Analysis Report

Attachment F - Superstructure Type Analysis

Attachment G - Alternative Preliminary Cost Comparison

1.0 PURPOSE OF REPORT

The purpose of this report is to document the engineering assessment phase of project development, including all coordination that has been completed in preparation for this bridge project. This document outlines the proposal and is intended to serve as a guide for subsequent survey, design, environmental, right of way and other project activities leading to construction. The preferred alternative identified in this document is considered pre-decisional, pending the outcome of environmental studies.

2.0 PROJECT LOCATION

The project is located on SR 38, 0.16 miles west of SR 3 at reference post 92+23 in Henry County. The project is in the Indiana Department of Transportation's Greenfield District, Cambridge City Sub-District. This location is on the west side of New Castle within the city limits. For a map of the bridge location see Attachment A.

3.0 PURPOSE AND NEED

The purpose of the project is to address the overall structural, geometric, and hydraulic deficiencies associated with the bridge, and to provide continued safe vehicular passage at this location for at least 75 years.

The need for this project is due to the deteriorated condition of the bridge. The existing deck has minor delaminations and leakage at the underside of the longitudinal construction joints. There are delaminations, spalls, and exposed rebar located in the southwest corner of Span C, the north joint in Span B, and several small previous repair patches throughout. The northern most girder in Span C has minor delaminations and vertical exposed rebar. Piers 2 & 3 each have wide vertical cracking with heavy efflorescence and spalling noted throughout each of the piers. Exposed rebar is noted at some of the spalling locations.

4.0 EXISTING FACILITY

This portion of SR 38 is classified as an urban minor arterial and is not on the National Highway System. The SPMS listing for this project notes the bridge as being rural. However, the 2018 INDOT Bridge Inspection Report and INDOT's Roadway Inventory Viewer note the bridge as being Urban. Therefore, this project will be designed as Urban. The posted speed limit at the project location is 40 mph.

4.1 Land Use

East of the bridge is the City of New Castle. The land use in the area adjacent to the bridge is agricultural and commercial. In the northwest and southwest quadrants of the project land use is agricultural. No field entrances or drives were noted within the vicinity of the bridge. See Attachment B for site photos. In the northeast quadrant there is an existing business - Goodwin Bros Collision Center. This business has a drive located off SR 38 approximately 350 ft east of the centerline of the bridge. The southeast quadrant has a gated parking lot, currently listed for sale, with entrance located approximately 150 ft east of the centerline of the bridge.

4.2 Existing Roadway

The existing west approach roadway width is 30 feet. The existing east approach roadway width varies due to the presence of the nearby businesses and drives. SR 38 consists of two 12'-0" lanes (one in each direction) and 3'-0" compacted aggregate shoulders. See Table 4-1 for a summary of roadway information and Table 4-2 for the history of SR 38 in the project area. The proposed design criteria listed in Table 4-1 is 3R for an Urban Minor Arterial (IDM Figure 55-3F). This bridge replacement falls under 3R design criteria per IDM 40-6.01(06) and IDM Figure 40-6A.

Table 4-1: Roadway Information

Roadway Information			
Geometric Criteria			
Proposed Design Speed	40 mph	Functional Class	Minor Arterial
Proposed Design Criteria	3R (Non-Freeway)	Rural / Urban	Urban
Terrain	Level	Access Control	None
Approach Cross Section			
IDM Figure Reference	IDM 55-3F		
Travel Lane Count	2 (1 each direction)	Travel Lane Width	12'-0" (existing) 12'-0" (proposed)
Shoulder Width (Usable)	3'-0" (existing) 4'-0" (proposed - roadway) 5'-5" (proposed - bridge)	Shoulder Width (Paved)	6'-0" (existing) 4'-0" (proposed - roadway) 5'-5" (proposed - bridge)
Mainline Pavement	Asphalt	Shoulder Pavement	Asphalt
Alignment			
Horizontal	Tangent (existing) Tangent (proposed)	Vertical	200' Vertical Crest Curve (existing) 200' Vertical Crest Curve (proposed)

Table 4-2: Road History

SR 38 Pavement History Within Project Limits		
Year	Clear Width	Type of Work
1958	28'-0"	New Construction
1987	42'-0"	Bituminous Wedge at each approach and bituminous shoulder widening at all four bridge corners.
No other roadway plans were provided by the INDOT Research and Documents Library.		

4.3 Existing Bridge

The existing bridge was constructed in 1958. There was a deck reconstruction and overlay project in 1987. The reconstruction project included removal of the existing curb and sidewalk and installation of a new concrete barrier, resulting in a wider clear roadway width on the bridge.

The existing bridge data is as follows:

Structure Number:	038-33-04063 A
NBI Number:	012910
Feature Intersected:	Big Blue River
Superstructure Type:	Reinforced Concrete Girder
Substructure Type:	Concrete End Bents on Steel Encased Concrete Piles, Hammerhead Piers on Untreated Timber Piles
Span Length:	3 clear spans: 40'-0", 40'-0", 40'-0"
Overall Structure Length:	129'-0"
Deck Geometry:	34'-10" clear roadway width + two 1'-6" concrete barrier = 37'-10" out-to-out coping
Deck Railing:	Concrete
Skew Angle:	0°

The existing bridge is in fair condition. See Attachment B for photographs of the existing structure. See Attachment C for the 2018 Routine Inspection Report.

The existing deck and wearing surface are in fair condition. The wearing surface has random cracks and patches at the joints. The concrete girders are in satisfactory condition and have minor vertical cracks. The substructure is in fair condition. See Section 3.1 Purpose and Need for additional evidence on condition of the existing bridge.

4.4 Existing Drainage

Existing drainage through the project is primarily through sheet flow away from the road into the Big Blue River. The existing bridge has deck drains that outlet directly into the Big Blue River. The hydraulics analysis shows that the existing bridge is not under

pressure flow, the existing low structure elevation of 974.79' is 3.90 feet above the Q100 event.

5.0 PHOTOGRAPHS

See Attachment B for photographs of the existing structure.

6.0 TRAFFIC DATA

The INDOT traffic forecast for SR 38 in the vicinity of the bridge indicates a 0.53% growth rate for the area. The Construction Year (2021) AADT is estimated to be 7,887 vehicles per day. The Design Year (2041) AADT is estimated to be 8,698 vehicles per day. Commercial vehicles are estimated to be 3.62% of the AADT. See Attachment D for traffic data and design criteria.

7.0 CRASH DATA AND ANALYSIS

The crash data provided by the Greenfield District indicates minor crashes have occurred from 2016 to 2019 within the vicinity of the bridge. There were 141 crashes within a 1/4-mile radius of the bridge. Only one of the 141 crashes occurred within the limits of the proposed project.

The majority of the crashes occurred at the SR 3 & SR 38 intersection, located approximately 750 feet east of bridge, or along SR 3, at city street intersections and not within the vicinity of the bridge. See Table 7-1 for a summary of the crash data for the single crash which occurred within the limits of the proposed project. See Attachment D for an aerial view of the project location and nearby crash locations.

Table 7-1: Summary of Crash Data

Date	Location	Manner of Collision	Severity Level
3/9/2018	SR 38 W / Goodwin Bros Collision Center	Ran Off Road	Non-Severe

8.0 ALTERNATIVES AND RECOMMENDATIONS

Bridge replacement is warranted based on condition of the existing bridge and in order to meet the project purpose and need. A new bridge carrying SR 38 over Big Blue River has been checked to meet the requirements of the Indiana Design Manual (IDM).

This bridge replacement falls under 3R design criteria per IDM 40-6.01(06) and IDM Figure 40-6A. This portion of SR 38 is classified as an Urban Minor Arterial. Therefore,

this project will follow 3R design criteria for an urban two-lane minor arterial, per IDM Figure 55-3F. See Attachment D for traffic data and design criteria.

8.1 Typical Section

The typical section of the proposed structure consists of a 2" coping offset, a 1'-4" outside barrier, a 5'-5" shoulder, two 12'-0" lanes, a 5'-5" shoulder, a 1'-4" outside barrier, and a 2" coping offset. The out-to-out bridge width is 37'-10" and the clear roadway width is 34'-10". The profile grade line and roadway crown are located at the centerline of the lanes.

The proposed bridge is designed with an Urban Minor Arterial functional classification using the criteria set forth in IDM Figure 55-3F. The approach roadway is proposed to have MGS guardrail and concrete bridge railing transitions.

8.2 Horizontal Alignment

The proposed horizontal alignment of SR 38 will match the existing horizontal alignment of the road and bridge and remain in a tangent.

8.3 Vertical Alignment

The structure will be built on a 200-foot crest vertical curve with a +1.16% entrance grade and a -1.19% exit grade. The proposed entrance and exit grades meet the criteria in IDM 402-6.02(02). The low structure elevation is set to match the existing low structure elevation of 974.79', per INDOT directive.

8.4 Span Arrangement

The proposed bridge configuration includes three spans with a 0-degree skew. Hydraulically, the existing bridge did not need to increase significantly, therefore the proposed spans were set to avoid interaction with the existing bridge deep foundations. Proposed span lengths are 44'-0", 56'-6", and 44'-0". The span arrangement provides an interior span length to end span length ratio of 1.28, meeting the criteria in IDM 402-8.02. Spill slopes are proposed at each end bent.

The completed hydraulic analysis for Big Blue River indicated a gross waterway area of 630 square feet below the Q100 elevation is required at the SR 38 crossing. The proposed configuration provides a gross waterway area of 630 square feet.

See Attachment E for the Hydraulic Analysis Report.

8.5 Description of Alternates

Structure types were examined using comprehensive evaluation criteria. The objective of all alternates is to maintain the existing low structure elevation and minimize the amount of grade change due to structure depth due to an increase in the span length. There are a number of superstructure types applicable to this bridge geometry per the IDM. Using engineering judgment and experience with these structure types, all but the following structure types were eliminated.

Three superstructure alternates were considered:

- Alternate 1 - Three-span precast prestressed concrete bulb-tee beam bridge
- Alternate 2 - Three-span continuous steel beam bridge
- Alternate 3 - Three-span precast prestressed concrete I-beam bridge

Each alternative has the same span arrangement: 44'-0" from the centerline of Bent 1 to the centerline of Pier 2, 56'-6" from the centerline of Pier 2 to the centerline of Pier 3, and 44'-0" from the centerline of Pier 3 to the centerline of Bent 4. Each alternate is assumed to have integral end bents supported with a single row of steel H-piles. Integral end bents will allow the bridge to expand and contract without the need for a physical expansion joint. The jointless bents reduce the initial construction costs and long-term maintenance costs. In all cases, the end bents have a spill slope and will be located behind the existing foundations. Each of the alternates are assumed to have wall piers supported on two rows of steel H-piles since the existing bridge is also supported on two rows of piles. The new piers will be located on the side of the existing pier closest to the adjacent end bent due to the existing piers having said piles.

A no-build alternate would allow the existing roadway and bridge to remain in place with no improvements. This alternate does not meet the need or purpose of the project and will not be considered further.

See Attachment F for Superstructure Type Analysis and Cost Comparisons.

8.5.1 Alternate 1 - Precast Prestressed Concrete BT 36x49 Bulb-Tee Beam Bridge

Alternate 1 consists of a three-span precast prestressed concrete BT 36x49 bulb-tee beam bridge. This alternative utilizes four girders. This alternate requires a grade raise of approximately 1.23 feet at the bridge ends. Road work to accommodate the grade raise and will extend approximately 950 feet east of the bridge and approximately 950 feet west of the bridge. 900 ft of full depth pavement replacement due grade change +

30 feet of full depth HMA pavement due to terminal joint + 20 feet of reinforced concrete bridge approach equals 950 feet of road work each side of the bridge.

The estimated construction cost of Alternate 1 is \$3,253,000.

8.5.2 Alternate 2 - W24x131 Steel Beam Bridge

Alternate 2 consists of a three-span W24x131 steel beam bridge. A deeper but lighter rolled beam could work for the span arrangement. However, the length of required road work is controlled by vertical shift in alignment. Since the required road work would be significantly affected by the grade change due to the required low structure elevation, the shallower, heavier beam shape was shown to be the more economical option.

Weathering steel is assumed for this alternate to reduce the life cycle maintenance costs associated with painted steel. The beams would be greater than 8 feet above the average low-water level for Big Blue River, and therefore meet the criteria of IDM 407-2.01(01) Item 3.

This alternative utilizes five girders. This alternate requires a grade raise of approximately 0.27 feet at the bridge ends. Road work to accommodate the grade raise and will extend approximately 250 feet east of the bridge and approximately 250 feet west of the bridge. 200 ft of pavement transition milling and paving due grade change + 30 feet of full depth HMA pavement due to terminal joint + 20 feet of reinforced concrete bridge approach equals 250 feet of road work.

The estimated construction cost of Alternate 2 is \$1,739,000.

8.5.3 Alternate 3 -Precast Prestressed Concrete Type II I-Beam Bridge

Alternate 3 consists of a three-span precast prestressed concrete Type II I-Beam bridge. This alternative utilizes five girders. This alternate requires a grade raise of approximately 1.23 feet at the bridge ends. Road work to accommodate the grade raise and will extend approximately 950 feet east of the bridge and approximately 950 feet west of the bridge. 900 ft of full depth pavement replacement due grade change + 30 feet of full depth HMA pavement due to terminal joint + 20 feet of reinforced concrete bridge approach equals 950 feet of road work each side of the bridge.

The estimated construction cost of Alternate 3 is \$3,352,000.

8.6 Structure Recommendations

Structure alternative recommendations need to take into account more than the initial construction cost. IDM Chapter 402-4.02 lists nine costs associated with long term use to consider when preparing cost comparisons, including future overlays, deck

replacements, and superstructure replacements. Table 8-1 summarizes the construction and lifecycle costs for each superstructure alternate. All other factors listed in 402-4.02 do not differ between alternates and are not included in the comparative costs for this report.

Table 8-1: Summary of Comparative Costs

Alternate and Description	Construction Cost	Lifecycle Cost	Total Cost
Alternate 1 - Precast Prestressed Concrete BT 36x49 Bulb-Tee Beam Bridge	\$3,253,000	\$611,000	\$3,864,000
Alternate 2 - W24x131 Weathering Steel Beam Bridge	\$1,739,000	\$647,000	\$2,386,000
Alternate 3 - Precast Prestressed Concrete Type II I-Beam Bridge	\$3,352,000	\$675,000	\$4,027,000

Prestressed beam bridges (Alternate 1 & 3) and unpainted weathering steel beam bridges (Alternate 2) both have good ratings for maintenance. Each alternate has similar lifecycle costs.

Therefore, the benefit of one alternate over another is driven primarily by construction cost and INDOT preference. Alternate 1 is approximately 62% more expensive than Alternate 2. Alternate 3 is approximately 69% more expensive than Alternate 2. Alternate 3, Concrete I-Beams, is not a preferred option for new bridges, per INDOT. Additionally, Alternatives 1 & 3 require approximately 2000 CYS of B Borrow and 900 LF of full depth pavement each side of the bridge to account for the increase in grade change with these Alternatives. Alternative 2 will require 30 LF of full depth pavement replacement and 200 LF of pavement transition milling and paving due to the grade change. For these reasons, Alternate 1 & 3 are eliminated.

Based on these factors, Alternative 2, a W24x131 Steel Beam Bridge is recommended.

8.7 Subsurface Conditions and Foundation Recommendation

The subsurface investigation will take place after Stage 1. The geotechnical recommendations will be incorporated into the Stage 3 submission.

For this submittal, the foundations are assumed to be steel H-piles for the end bents and the piers (stated in Section 8.5 Description of Alternates). Actual pile type and sizes

will be determined as part of the final design after the geotechnical analysis is complete and recommendations are provided.

8.8 Sight Distance

The sight distance along the proposed SR 38 vertical and horizontal alignments is adequate per Level One Design Criteria for new construction projects on an Urban Arterial per IDM Figure 55-3F. Sight distance analysis will be provided with the Level One Checklist as part of the Stage 1 submission.

8.9 Design Exceptions

A Level One Design Exception is not anticipated for this project.

9.0 MAINTENANCE OF TRAFFIC

SR 38 is expected to be closed to through traffic and traffic detoured for the duration of the construction project. The proposed bridge closure and traffic detour will utilize State Roads 3, 38, 109 and US 36. The estimated bridge closure time is 8 months.

10.0 COST ESTIMATE

The preliminary construction cost estimate for the SR 38 over Big Blue River bridge is \$1,739,000. See Attachments F and G for a cost estimate and cost comparison for the selected Alternate 2.

This cost estimate was completed using current bid tab data and does not include inflation. A 15% contingency was included at this stage. A more detailed cost estimate will be included with the Stage 1 plans.

11.0 ENVIRONMENTAL ISSUES

Categorical Exclusion Level 2 is anticipated for this project due to right of way acquisition.

No evidence of bats was noted; however, evidence of swallows was noted at the site visit on September 20, 2019

The asbestos report for the existing bridge notes 30 square feet of presumed Category I non-friable material between the wingwalls and spandrel walls and between the

intermediate pier stems and spandrel walls. A special provision will be included with the contract to address the removal of asbestos material.

This bridge has no historic significance.

IDEM 401, USACE 404, and IDNR Construction in a Floodway permits are anticipated.

12.0 SURVEY REQUIREMENTS

Survey was completed in September 2019. Approximately 1050 feet along SR 38 was surveyed beginning at Sta 105+50. The width of the roadway survey was approximately 200 feet on the west side of the centerline of SR 38 and approximately 140 feet on the east side. Cross sections of Big Blue River were obtained for approximately 360 feet to the north of the existing bridge and approximately 280 feet to the south of the existing bridge.

13.0 RIGHT OF WAY IMPACTS

Right of way acquisitions are anticipated to complete the scope of the proposed project. It is anticipated 0.7 acres of right of way will need to be acquired, affecting a total of 5 parcels. Proposed right of way lines will be shown on the Stage 1 plans.

14.0 RAILROAD IMPACT

There are no railroads in the vicinity of SR 38 over Big Blue River; therefore, no impacts to the railroad are anticipated.

15.0 UTILITY IMPACT

Overhead and buried utilities are located within the project limits. Utility coordination will begin after the Stage 1 plan submission.

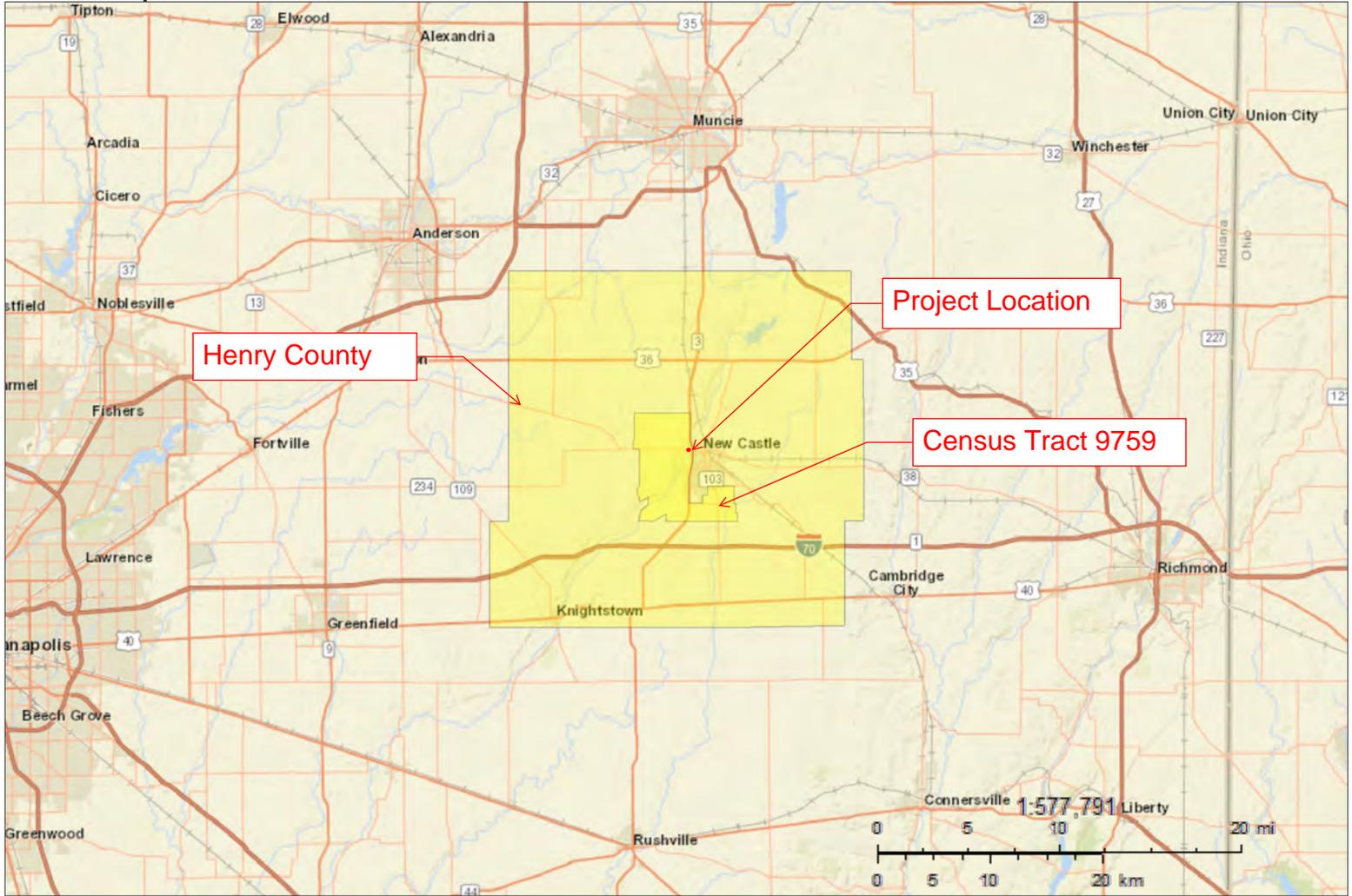
16.0 RELATED PROJECTS

There are no other projects bundled with the SR 38 over Big Blue River bridge replacement project. This project is scheduled for the October 2021 letting.

There are two pavement projects on SR 3 planned for lettings in 2020. They are not anticipated to affect construction of this bridge replacement project.



SR 38 EJ Map



Legend

Your Selections

2017 boundaries were used to map 'Your Selections'

Selection Results

No Legend

Boundaries

No Legend



B03002

HISPANIC OR LATINO ORIGIN BY RACE

Universe: Total population

2013-2017 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

	Henry County, Indiana		Census Tract 9759, Henry County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
Total:	48,649	*****	4,351	+/-318
Not Hispanic or Latino:	47,836	*****	4,341	+/-318
White alone	45,652	+/-64	4,264	+/-328
Black or African American alone	1,109	+/-166	7	+/-11
American Indian and Alaska Native alone	112	+/-39	0	+/-11
Asian alone	228	+/-42	70	+/-64
Native Hawaiian and Other Pacific Islander alone	9	+/-13	0	+/-11
Some other race alone	39	+/-64	0	+/-11
Two or more races:	687	+/-184	0	+/-11
Two races including Some other race	39	+/-42	0	+/-11
Two races excluding Some other race, and three or more races	648	+/-183	0	+/-11
Hispanic or Latino:	813	*****	10	+/-11
White alone	560	+/-87	0	+/-11
Black or African American alone	9	+/-12	0	+/-11
American Indian and Alaska Native alone	11	+/-15	0	+/-11
Asian alone	0	+/-24	0	+/-11
Native Hawaiian and Other Pacific Islander alone	3	+/-5	0	+/-11
Some other race alone	135	+/-59	10	+/-11
Two or more races:	95	+/-57	0	+/-11
Two races including Some other race	79	+/-57	0	+/-11
Two races excluding Some other race, and three or more races	16	+/-21	0	+/-11

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Explanation of Symbols:

1. An '***' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An '****' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.



B17001

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

Universe: Population for whom poverty status is determined
2013-2017 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

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	Henry County, Indiana		Census Tract 9759, Henry County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
Total:	45,046	+/-303	4,262	+/-318
Income in the past 12 months below poverty level:	7,253	+/-726	837	+/-225
Male:	3,315	+/-424	272	+/-117
Under 5 years	386	+/-110	98	+/-51
5 years	42	+/-28	0	+/-11
6 to 11 years	315	+/-114	60	+/-53
12 to 14 years	232	+/-98	8	+/-13
15 years	148	+/-62	0	+/-11
16 and 17 years	147	+/-96	14	+/-22
18 to 24 years	291	+/-115	0	+/-11
25 to 34 years	373	+/-99	12	+/-24
35 to 44 years	386	+/-119	50	+/-60
45 to 54 years	392	+/-100	0	+/-11
55 to 64 years	373	+/-125	30	+/-31
65 to 74 years	143	+/-63	0	+/-11
75 years and over	87	+/-50	0	+/-11
Female:	3,938	+/-402	565	+/-137
Under 5 years	284	+/-91	48	+/-49
5 years	115	+/-55	70	+/-45
6 to 11 years	349	+/-114	45	+/-51
12 to 14 years	161	+/-75	23	+/-25
15 years	68	+/-42	0	+/-11
16 and 17 years	181	+/-78	42	+/-58
18 to 24 years	452	+/-116	98	+/-50
25 to 34 years	666	+/-180	80	+/-64
35 to 44 years	403	+/-97	19	+/-23
45 to 54 years	509	+/-124	69	+/-66
55 to 64 years	276	+/-80	12	+/-19
65 to 74 years	286	+/-78	37	+/-36
75 years and over	188	+/-77	22	+/-18
Income in the past 12 months at or above poverty level:	37,793	+/-740	3,425	+/-380
Male:	18,747	+/-469	1,762	+/-222
Under 5 years	787	+/-109	79	+/-71

	Henry County, Indiana		Census Tract 9759, Henry County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
5 years	151	+/-59	10	+/-16
6 to 11 years	1,310	+/-147	140	+/-90
12 to 14 years	693	+/-99	47	+/-37
15 years	236	+/-88	0	+/-11
16 and 17 years	525	+/-102	24	+/-31
18 to 24 years	1,648	+/-166	130	+/-79
25 to 34 years	2,274	+/-146	226	+/-99
35 to 44 years	2,359	+/-156	105	+/-54
45 to 54 years	2,665	+/-139	235	+/-76
55 to 64 years	2,688	+/-135	355	+/-100
65 to 74 years	2,080	+/-77	205	+/-53
75 years and over	1,331	+/-62	206	+/-70
Female:	19,046	+/-419	1,663	+/-212
Under 5 years	860	+/-96	41	+/-35
5 years	162	+/-62	25	+/-26
6 to 11 years	1,241	+/-163	104	+/-74
12 to 14 years	678	+/-120	0	+/-11
15 years	126	+/-50	0	+/-11
16 and 17 years	510	+/-91	44	+/-34
18 to 24 years	1,234	+/-130	115	+/-55
25 to 34 years	1,841	+/-118	102	+/-76
35 to 44 years	2,343	+/-111	173	+/-65
45 to 54 years	2,763	+/-125	213	+/-92
55 to 64 years	3,075	+/-89	406	+/-86
65 to 74 years	2,342	+/-106	212	+/-51
75 years and over	1,871	+/-108	228	+/-63

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

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Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

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8. An '(X)' means that the estimate is not applicable or not available.

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated December 2019)

ProjectNumber	SubProjectCode	County	Property
1800294	1800294	Henry	Sunset Park
1800393	1800393	Henry	Dietrich Memorial Park

Please note, some of the property names are cut off on the ends due to character limits
Also, park names may have changed and is not reflected on the list.

*Various - this may include multiple sites in multiple counties and should always be included in your search