FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	State Route (SR) 140, Rush and Henry Counties
Designation Number(s):	2002071
Project Description/Termini:	Bridge replacement project on SR 140 over Big Blue River, 0.68 mile south of US 40 in Rush and Henry Counties, IN. The limits of the project extend from 378 feet north of the north corner of CR 1200 N to 922-feet south of CR 1200 N, for a total of 1300 feet (including incidental construction), encompassing the SR 140 bridge over Big Blue River and approaches.

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

Approval

INDOT DE Signature and Date

INDOT ESD Signature and Date

FHWA Signature and Date

Release for Public Involvement

N/A
INDOT DE Initials and Date

ADWP September 17, 2024
INDOT ESD Initials and Date

Certification of Public Involvement

INDOT Consultant Services Signature and Date

INDOT DE/ESD Reviewer Signature and Date:

Name and Organization of CE/EA Preparer: April Arroyo-Monroe, Kaskaskia Engineering Group, LLC

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

Part I – Public Involvement

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

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

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

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

Notice of Entry letters were mailed to potentially affected property owners near the project area on August 30, 2021, 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 (Page 1).

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

Public Controversy on Environmental Grounds

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

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

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 140 over Big Blue River

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

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

PURPOSE AND NEED:

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

The need for this project is due to the deterioration of the bridge (140-70-06039 B/ NBI 026970). Per the Indiana Department of Transportation's (INDOT's) November 18, 2022, Bridge inspection report (Appendix I, Page 1), overall, the bridge is in poor condition (condition rating of 4), on a scale from 0 (failed) to 9 (excellent). The post-tensioned precast deck panels are in serious condition (condition rating 3 out of possible 9) with scattered delaminations, spall, exposed rebar, and some full-depth holes. Copings have heavy spalls with rebar exposure. The wearing surface is in fair condition (5 out of 9) with wide transverse reflective cracks and spalling areas at joints between the precast panels. The continuous steel beams are in fair condition (5 out of 9) with areas of heavy corrosion, pack rust, and section loss. The substructure is in fair condition (5 out of 9) with cracking, areas of heavy spalling, and

exposed rebar. The channel below the bridge is in fair condition (5 out of 9) with the bank damaged by major erosion. There are roots exposed and trees leaning approximately 30 feet north of the structure.

The purpose of the project is to address the overall deficiencies associated with the bridge, and to provide continued vehicular passage, with a minimum condition rating of 7 (good), on SR 140 over Big Blue River at this location for at least 75 years.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Rush and Henry Counties Municipality: Knightstown

Limits of Proposed Work: The limits of the project extend from 180 feet north of the intersection of CR 1200 N to 922-feet south of CR 1200 N, for a total of approximately 700 feet (including incidental construction), encompassing the SR 140 bridge over Big Blue River and approaches.

Total Work Length: 0.17 Mile(s) Total Work Area: 2.92 Acre(s)

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

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

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

The INDOT and the Federal Highway Administration (FHWA) intend to proceed with the bridge replacement project.

The project is located within Henry and Rush Counties, on SR 140 over Big Blue River, 0.68 mile south of US 40, Section 4 Township 16 North Range 9 East and Township 15 North Range 9 East Ripley Township, Rush and Henry Counties (Appendix B, Page 1).

This section of SR 140 is classified as a Rural Major Collector. Within the project limits, the roadway consists of 2 paved, 12-feet wide travel lanes (one north bound, one southbound) with 8-feet usable shoulders, 6-feet paved, 2-feet gravel up to/away from the approaches of bridge. The existing 241.50 feet long SR 140 bridge over Big Blue River (140-70-06039B/NBI 026970) is a 5-span continuous composite steel beam bridge with longitudinally post-tensioned prestressed concrete deck panels. The deck is 39-feet wide including the 7.5-feet concrete shoulders, with a 70-feet maximum span and a 13.24-feet clearance from the low structure to the flow line. The bridge width curb-to-curb is 36 feet, and the out-to-out width is 39 feet. The existing bridge was built in 1970 re-using the 1902 original bridge stone abutments. (Appendix I, Page 1). This bridge is not listed in INDOT's Historic Bridges Inventory and is not eligible for listing in the National Register of Historic Places.

The most recent INDOT Bridge Inspection Report (November 11, 2022) determined that the overall condition of the SR 140 over Big Blue River bridge is poor. The deck is in serious condition, with a condition rating of 3 (primary structure affected) on a scale from 0 (failed) to 9 (excellent). There are minor spalls at the panel joints, scattered delaminations, heavy spalls and exposed rebar on the copings below the drains, all of the panel brackets are heavily corroded along the top flanges of the beams (most have fallen off), full depth holes at some of the joints, some of the post-tensioning strands are heavily corroded or fractured in both directions at the ends, and there are panels fractured and they deflect as cars cross the southbound lane. The wearing surface is in fair condition (condition rating 5). There are wide longitudinal and transverse cracks at the joints between precast deck panels and there is some spalling. The superstructure is in fair condition (condition rating 5, minor section loss) with minor section loss, fairly heavy corrosion on some beams. The substructure is also in fair condition (condition rating 5, minor section loss) with areas of heavy spalling and exposed rebar, especially at the ends. The bank is eroded in the channel (condition rating 5, major damage). There is fairly heavy bank erosion with exposed roots and leaning trees (Appendix I, Page 6). Existing right of way varies from approximately 37 to 51 feet from centerline on the west side of SR 140 and from approximately 41 to 74 feet from centerline on the east side of SR 140.

The surrounding area consists of forest, rural residential, rural commercial, and row crop agriculture.

The preferred alternative is to completely replace the bridge with a 3-span continuous composite prestressed concrete bulb-tee beam bridge and rebuild the approaches. The new bridge number will be 140-70-10811 and will be 262 feet long with an out-to-out width of 42 feet. Thirty feet of Class 2 rip rap, on Type 3 geotechnical cloth, will be placed on 3:1 slopes under the north and south sides of bridge. All existing guardrail will be removed and replaced with approximately 91 feet of guardrail at each corner. The new guardrail will be a Midwest guardrail system (MGS) with outside shoulder (OS) end treatments, placed after the concrete bridge rail transitions on the approach slabs. This alternative includes 196.5 linear feet of permanent impacts to a small perennial stream (UNT to Big Blue River) for scour protection and bank repair and relocating UNT to Big Blue River 15 feet east to avoid the riprap footprint. The total of new right-of-way (ROW) needed for this alternative is 1.15 acres acquired from all around the bridge. This ROW will be used to replace the structure, correct side slopes, reshape ditches, and access the streams. There were no wetlands found within the project area so no impacts to wetlands are expected. Also, no more than 0.91 acre of trees will need to be removed and mitigation will be completed. The streams, ROW and terrestrial habits, including mitigation, are discussed further in the individual sections of this document. The details for the new bridge and all other work discussed in this document are located on the plan sheets Appendix B pages 23-26.

The proposed maintenance-of-traffic (MOT) involves closing the road to traffic and using an 11.1 mile detour. The detour will follow US 40, SR 3, CR 900, and Rushville Rd (Appendix B Pages 29-30). The MOT for the project is discussed in further detail in the MOT During Construction section of this document.

This alternative satisfies both the purpose and need by removing all the deficiencies of the existing bridge by replacing it with a completely new bridge and setting the age of the structure to 0. This will provide a minimum of approximately 75 years of operation for the traveling public to cross Big Blue River using SR 140 at the same location.

This project is focused on SR 140 over Big Blue River bridge. The termini for the project and the subsequent review of its environmental impacts extend from approximately 180-feet north of the SR 140 intersection with CR 1200 N to 700-feet south of CR 1200 N, for a total of 700-feet (including incidental construction, all lengths are approximate), encompassing the SR 140 bridge over Big Blue River and approaches.

This project demonstrates independent utility because it will replace the existing SR 140 bridge over Big Blue River as an independent project and does not depend on any other planned projects.

OTHER ALTERNATIVES CONSIDERED:

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

Do Nothing Alternative: The do nothing alternative involves allowing the bridge to continue to deteriorate until failure, resulting in an unsafe facility necessitating an unscheduled road closure. This will result in long-term impacts and loss of a safe facility for the traveling public. This neither meets the purpose nor need of the project.

Neither the Engineer's Report nor the INDOT scope mention rehabilitation as an alternative that was considered for this bridge.

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

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

ROADWAY CHARACTER:

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

Name of Roadway: SR 140

Functional Classification: Major Collector

Current ADT: 2365 VPD: 2025 Design Year ADT: 2365 VPD: 2045

County Rush and Henry Route SR 140 Des. No. 2002071

Design Hour Volume (DHV): 257 Truck Percentage (%) 4.28%
Designed Speed (mph): 30 mph Legal Speed (mph): 50 mph

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	12-foot travel lanes		12-foot travel lanes	
Pavement Width:	36	ft.	36	ft.
Shoulder Width:	6 ft paved 2 ft unpaved Total 8 ft usable	ft.	6 ft paved 2 ft unpaved Total 8 ft usable	ft.
Median Width:	0	ft.	0	ft.
Sidewalk Width:	0	ft.	0	ft.

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

BRIDGES AND/OR SMALL STRUCTURE(S):

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

Structure/NBI Number(s): 140-70-06039B/026970 Sufficiency Rating: Poor, Bridge Inspection Report November 18, 2022
(Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	continuous composite steel beam bridge		continuous composite prestressed concrete bulb-tee beam bridge	
Number of Spans:	5		3	
Weight Restrictions:	NA	ton	NA	ton
Height Restrictions:	NA	ft.	NA	ft.
Curb to Curb Width:	36	ft.	39.33	ft.
Outside to Outside Width:	39	ft.	42.33	ft.
Shoulder Width:	8	ft.	7.66	ft.

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

The existing 5-span continuous composite steel beam bridge with longitudinally post-tensioned prestressed concrete deck panels SR 140 over Big Blue River bridge (140-70-06039B/NBI 026970) and all approaches will be replaced with a 3-span continuous composite prestressed concrete bulb-tee beam bridge and rebuild the approaches; new bridge number 140-70-10811. This bridge is not listed as historic on the Indiana Historic Bridges Inventory. No small structures or pipes are located within the project area.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

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

	Yes	No
Is there substantial controversy associated with the proposed method for MOT?		X
Will the project require a sidewalk, curb ramp, and/or bicycle lane closure? (describe below)		X
Provisions will be made for access by pedestrians and/or bicyclist and so posted (describe below).		X

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

The MOT for the project is to close the road to traffic and use an 11.1-mile official detour route on US 40, SR 3, CR 900, and Rushville Rd. Lane closures will be in effect for no more than 12 months (Appendix B Pages 29-30). The official detour was created with the discussion and approval of INDOT and Rush County.

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

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: $ 165,000* (2024) Right-of-Way: $ 20,000* (2025) Construction: $ 5,735,000* (2025)

**A request to update the STIP has been sent to the PM (July 29, 2024).*

Anticipated Start Date of Construction: Spring 2025

RIGHT OF WAY:

	Amount (acres)	
Land Use Impacts	Permanent	Temporary
Residential	NA	NA
Commercial	NA	NA
Agricultural	0.10	NA
Forest	0.91	NA
Wetlands	NA	NA
Other: mowed roadside	0.14	NA
Other:	NA	NA
TOTAL	1.15	NA

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

The right-of-way (ROW) is measured from the centerline of the road. The existing right-of-way on the north side of CR 1200 N, is 40-feet on the west side and 73-feet on the east side. On the south side of CR 1200 N, the existing ROW is 44 to 52-feet on the west side and 58 to 73-feet on the east side, up to and over the bridge. The existing ROW consists of forested, agricultural, riparian, and mowed roadside vegetation.

New ROW necessary for the project is 1.15 acres of permanent ROW, and no temporary ROW. Evey effort to avoid, minimize, and/or mitigate project impacts will be made. The permanent ROW impacts are 0.38 acre in the northwest quadrant, 0.35 acre in the southwest quadrant, 0.20 acre in the northeast quadrant (including 0.1 acre of farmland), and 0.22 acre in the southeast quadrant of the project area. The permanent ROW will be used to replace the structure, correct sideslopes and reshape ditches, place riprap, and clear the channel.

The new ROW limits will be 40 feet on the west side and 64 feet on the east side north of CR 1200 N. On the south side of CR 1200 N, the ROW will be from 85 to 100 feet on the west side and 100 feet on the east side up to and over the bridge. On the south side of the bridge, the new ROW limits will be from 100 feet to 55 on the west side and from 100 feet to 75 feet on the east side.

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

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

SECTION A - EARLY COORDINATION:

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

Early coordination letters were sent on October 9, 2023 (Appendix C, Pages 1).

Agency	Date Sent	Response Date	Appendix
Indiana Geological and Water Survey	October 9, 2023	October 9, 20223	Appendix C, Page 5
National Resources Conversation Service (NRCS), State Conservationist	October 9, 2023	October 12, 2023	Appendix C, Page 8
Indiana Department of Environmental Management (IDEM), Groundwater Section	October 9, 2023	October 13, 2023	Appendix C, Page 10
Indiana Department of Natural Resources (IDNR), Division of Fish and Wildlife (DFW)	October 9, 2023	November 8, 2023	Appendix C, Page 12
US Fish and Wildlife Service (USFWS), Bloomington Indiana Field Office	October 9, 2023	December 5, 2023	Appendix C, Page 31
Federal Highway Administration (FHWA)	October 9, 2023	No response received	N/A
INDOT Greenfield Project Manager	October 9, 2023	No response received	N/A
Eighth Coast Guard District	October 9, 2023	No response received	N/A
Rush County Emergency Management Agency	October 9, 2023	No response received	N/A
INDOT Greenfield District Environmental Section Manager	October 9, 2023	No response received	N/A
US Army Corps of Engineers, Louisville District	October 9, 2023	No response received	N/A
National Park Service, Midwest Regional Office	October 9, 2023	No response received	N/A
US Department of Housing and Urban Development	October 9, 2023	No response received	N/A
Rush County, Northern District County Commissioner	October 9, 2023	No response received	N/A
Rush County, Planning and Zoning Department	October 9, 2023	No response received	N/A
IDEM Wetlands and Stormwater Section	October 9, 2023	No response received	N/A
Western Indiana Regional Planning Commission	October 9, 2023	No response received	N/A
Rush County Sherriff	October 9, 2023	No response received	N/A
Knights Town Police Department	October 9, 2023	No response received	N/A
Henry County Emergency Management Services	October 9, 2023	No response received	N/A
Presbyterian Church Bethel	October 9, 2023	No response received	N/A
Rush County, Ripley Township Trustee	October 9, 2023	No response received	N/A
Knightstown Town Council	October 9, 2023	No response received	N/A
Knightstown Water Utility	October 9, 2023	No response received	N/A
Knightstown Friend Church	October 9, 2023	No response received	N/A
Knightstown United Methodist	October 9, 2023	No response received	N/A
Rush County Surveyor	October 9, 2023	No response received	N/A
Rush County, County Council	October 9, 2023	No response received	N/A
Knights Town Clerk-Treasurer	October 9, 2023	No response received	N/A
Knightstown Fire Department	October 9, 2023	No response received	N/A
Knightstown High School	October 9, 2023	No response received	N/A
Knightstown Christian Church	October 9, 2023	No response received	N/A
Hoosier Youth Challenge Academy	October 9, 2023	No response received	N/A
IDNR Gas & Oil Inspector District 5	August 14, 2024	No response received	N/A

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

SECTION B – ECOLOGICAL RESOURCES:

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

Total stream(s) in project area: 998 Linear feet

Total impacted stream(s): 205 (Permanent) 88.3 (Temporary) Linear feet

Stream Name	Classification	Total Size in Project Area (linear feet)	Impacted (linear feet)	Comments (i.e. location, flow direction, likely Water of the US)
Big Blue River	Perennial	683	0	Flows southwest under the bridge, Likely Waters of the US
Unnamed Tributary (UNT) to Big Blue River	Perennial	315	338.3	Located approximately 27-feet southeast of the bridge/east of SR 140, it flows northeast to Big Blue River, Likely Waters of the US

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

Based on the desktop review, the aerial map of the project area (Appendix B, Page 1), and the RFI report (Appendix E, Page 2) there are seven rivers, streams, watercourses, or other jurisdictional features within the 0.5-mile search radius. There are two streams, rivers, watercourses, or other jurisdictional features within or adjacent to the project area. That number was confirmed on July 5, 2023, by Kaskaskia Engineering Group, LLC (KEG) staff.

The Big Blue River is located within the project area and is mapped as an IDEM 303d Listed Stream. Big Blue River is listed for E. coli. (Appendix E Page 3). 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. This has been added as a firm commitment.

Big Blue River is impaired for PCBs and mercury in fish tissue (Appendix E Page 3). Exposure to PCBs and mercury 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 ESD SAM will occur.

Big Blue River is a salmonid stream, is on the Indiana Outstanding Rivers list within Rush County and is an Indiana Navigable Waterway. No Federal, Wild and Scenic Rivers; State Natural, Scenic, and Recreational Rivers; or National Rivers Inventory waterways are present in or adjacent to the project area.

A *Waters of the US Determination/ Wetland Delineation Report* was completed for the project December 13, 2023, and approved by INDOT Ecology, Waterway Permitting, and Stormwater (EWPSO) office December 27, 2023. Please refer to Appendix F for the *Waters of the US Determination/ Wetland Delineation Report*. It was determined that Big Blue River and UNT to Big Blue River are likely jurisdictional waters. The US Army Corps of Engineers (USACE) makes all final determinations.

Big Blue River is a perennial stream with well-defined bed and bank. The substrate was sand, silt, muck over native limestone rock. There are forested riparian corridors on both sides of the river, with the southern side extending into a forest while the north side was much thinner and bordered by row crops in the north (Appendix B, Page 4). The stream was deemed “average” during a qualitative assessment of the reach within the project area. The ordinary high water mark (OHWM) was approximately 27 feet wide and 1 foot deep as measured 210 feet upstream from the bridge. There will be no permanent or temporary impacts to Big Blue River from this project. Big Blue River will be labeled on the plans as “Do Not Disturb.” This is included as a firm commitment in the Environmental

Commitments Section of this CE document.

UNT to Big Blue River is a perennial stream with a well-defined bed and bank. There are forested riparian zones on both sides of the stream, the northeast side extends into the forest while the southwest side is thinner between SR 140 and the stream (Appendix B, Page 4). The stream was deemed "average" during a qualitative assessment of the reach within the project area. The OHWM was approximately 7.1 feet wide and 0.34 feet deep. Permanent impacts to UNT to Big Blue River include 196.5 linear feet (0.033 acre) of Class 2 riprap (for scour protection around the bridge) and clean soil fill (for stream relocation to avoid riprap area). Temporary impacts include 88.3 linear feet (0.0131 acre) from traversable check dams, filter sock, and temporary construction access. Avoidance was not practicable, as project limits have been constrained to the smallest possible to complete the project.

Per coordination with INDOT Ecology and Waterway Permitting (EWPO), due to impacts to Waters of the US, a USACE Section 404 Permit (NWP) and an IDEM Section 401 Water Quality Certification (WQC) will be required. Likely there will be no stream mitigation required regarding this permit.

IDNR DFW responded during early coordination on November 8, 2023, with recommendations on reducing impacts to the streams such as erosion control and revegetation, stream crossing design, fish and wildlife crossing considerations, and best management practices of working within and along the banks of Big Blue River and UNT to Big Blue River (Appendix C, Page 12). All applicable recommendations are included in the Environmental Commitments section of this CE document.

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

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

Based on the desktop review, the aerial map of the project area (Appendix B, Page 1), and the RFI report (Appendix E, Page 3) there are 2 open water features within the 0.5-mile search radius. There are no open water features within or adjacent to the project area. This was confirmed on July 5, 2023, by KEG staff. No impact to open water features is expected.

A *Waters of the US Determination/ Wetland Delineation Report* was completed for the project December 13, 2023, and approved by INDOT Ecology and Waterway Permitting (EWPO) office December 27, 2023. Please refer to Appendix B, Page 4 and Appendix F, Page 5, for the *Waters of the US Determination/ Wetland Delineation Report*. It was determined that there are no jurisdictional open water features within or adjacent to the project area. Therefore, no impacts are expected.

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

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

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

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

Wetlands (*Mark all that apply*)	**Documentation**	**ESD Approval Dates**
Wetland Determination		
Wetland Delineation		
USACE Isolated Waters Determination		

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

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

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

Based on the desktop review, the aerial map of the project area (Appendix B, Page 1), and the RFI report (Appendix E, Pages 2 to 3) there are 7 National Wetland Inventory (NWI) features within the 0.5-mile search radius. There are no wetlands within or adjacent to the project area. This was confirmed on July 5, 2023, by KEG staff.

A *Waters of the US Determination/ Wetland Delineation Report* was completed for the project December 13, 2023, and approved by INDOT Ecology and Waterway Permitting (EWPO) office December 27, 2023. Please refer to Appendix B, Page 4 and Appendix F, Page 5, for the *Waters of the US Determination/ Wetland Delineation Report*. It was determined that there are no jurisdictional, or isolated, wetland features within or adjacent to the project area. No impacts to wetlands are expected.

	Presence	**Impacts**	
		YES	**NO**
Terrestrial Habitat	X	X	

Total terrestrial habitat in project area: 1.076 Acre(s) Total tree clearing: 0.91 Acre(s)

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

Based on a desktop review, a site visit July 5, 2023, by KEG staff, the aerial map of the project area (Appendix B, Page 1) there are two types of terrestrial habitat in the project area: forest (including riparian) and row crop agriculture. The dominant vegetation within the forest (including riparian) is comprised of Eastern black walnut (*Juglans nigra*), American sycamore (*Platanus occidentalis*), silver maple (*Acer saccharinum*), box elder (*Acer negundo*), bristly greenbrier (*Smilax tamnoides*), amur honeysuckle (*Lonicera maackii*), wrinkled leaf goldenrod (*Solidago rugosa*), and Canadian wood nettle (*Laportea canadensis*). Approximately a total of 1.076, including 0.91 acres of tree removal and 0.1 acre of agricultural vegetation, are likely to be impacted due to construction access for the bridge replacement and installation of riprap. Avoidance alternatives would not be practical as the project limits have been constrained to the smallest area possible to complete the project. Mitigation for terrestrial impacts is anticipated to be required by permits.

INDR DFW responded during early coordination on November 8, 2023, with recommendations on reducing terrestrial impacts such as erosion control and revegetation, best management practices of tree removal, and habitat impact reduction (Appendix C, Page 12). All applicable recommendations are included in the Environmental Commitments section of this CE document.

County Rush and Henry Route SR 140 Des. No. 2002071

Protected Species						
Federally Listed Bats			**Yes**		**No**	
Information for Planning and Consultation (IPaC) determination key completed			X			
Section 7 informal consultation completed (IPaC cannot be completed)					X	
Section 7 formal consultation Biological Assessment (BA) required					X	
Determination Received for Listed Bats from USFWS:	NE		NLAA		LAA	X
Other Species not included in IPaC			**Yes**		**No**	
Additional federal species found in project area (based on IPaC species list)					X	
State species (not bird) found in project area (based upon consultation with IDNR)					X	
Migratory Birds			**Yes**		**No**	
Known usage or presence of birds (i.e. nests)			X			
State bird species based upon coordination with IDNR					X	

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

Based on a desktop review, and the RFI report (Appendix E, Page 5) completed by KEG August 31, 2023, and approved by INDOT Site Assessment and Management (SAM) September 1, 2023, the IDNR Rush and Henry Counties Endangered, Threatened and Rare (ETR) Species list has been checked. According to the IDNR DFW early coordination letter dated November 8, 2023, (Appendix C, Page 12), the Natural Heritage Program's Database has been checked and stated, "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." There was also no mention of critical habits, therefore, it is assumed there aren't any in the area. An INDOT 0.5-mile bat review occurred on May 19, 2023. The USFWS database indicated there were 10 documented capture sites within a half mile of the project area.

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, Page 36). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and northern long-eared bat (NLEB) (*Myotis septentrionalis*).

The official species list generated from IPaC indicated three other species that may be present within the project area: proposed endangered species- tricolored bat (*Perimyotis subflavus)*, experimental population non-essential species- whooping crane (*Grus americana*), and the candidate species monarch butterfly (*Danaus plexippus*). This project does qualify for the most current INDOT/USFWS agreement.

The project qualified and completed Limited Formal Programmatic Consultation for the Indiana bat and northern long-eared bat (NLEB) due to the originally anticipated 1.02 acres of tree removal within documented Indiana bat habitat causing an incidental take of Indiana Bats. Tree removal has now been reduced to 0.91 acre. A bridge inspection occurred on July 5, 2023, and there were no bats or signs of bats, though there were bird nests found. (Appendix C, Page 31). An effect determination key was completed November 13, 2023, and based on the responses provided, the project received a "likely to adversely affect" the Indiana bat and/or the NLEB determination. INDOT verified the effect finding and submitted it to USFWS on November 14, 2023. On December 5, 2023, USFWS issued a concurrence letter confirming the "likely to adversely affect" finding (Appendix C, Page 32). Proposed impacts have been minimized to the extent practicable and cannot be avoided due to construction access for the bridge replacement.

Avoidance and Minimization Measures (AMMs) and/or commitments are included as firm commitments in the Environmental Commitments section of this document. These AMMs include directing temporary lighting away from suitable habitat during the active season, avoiding tree removal and clearly marking only those trees that must be removed, and ensuring everyone involved with the project are aware of potential bat habitat and all of the environmental commitments (Appendix C, Page 27).

A "Reinitiation Notice" is required if: more than 1.02 acres of suitable habitat is to be cleared; new information about listed species is encountered; the project is modified in a manner that causes an effect to the listed species; or a new species or critical habitat is listed that the project may affect. These requirements, and the Avoidance and Minimization Measures (AMMs) from the Project Submittal Form, are included as firm commitments for this project.

"Reasonable and Prudent Measures" (RPM) are required. The sole RPM of the BO requires the Federal Transportation Agencies to ensure that State/Local transportation agencies offer training to appropriate personnel about using the BO, and promptly report sick,

injured, or dead bats (regardless of species) or any other federally listed species located at the project site.

Additionally, "Reporting Dead or Injured Bats" is required. Any contractors must take care when handling dead or injured Indiana bats and NLEBs, or any other federally listed species that are found at the project site to preserve biological material in the best possible condition and to protect the handler from exposure to diseases, such as rabies. Project personnel are responsible for ensuring that any evidence about determining the cause of death or injury is not unnecessarily disturbed. Reporting the discovery of dead or injured listed species is required in all cases.

INDOT shall satisfy the compensatory mitigation requirements of the formal consultation with USFWS for the Indiana bat (mitigation is not required for the NLEB) through one of the conservation options outlined on page 41 of the May 20, 2016, Programmatic Biological Opinion for Transportation Projects (BO) in the Range of the Indiana bat and NLEB. The amount to be paid to the Range-wide In-lieu Fee Program, to be administered by The Conservation Fund, shall be $20,259.75. The purchase of species conservation credits and/or in-lieu fee contributions shall occur prior to construction of a transportation project covered under this programmatic BO.

USFWS bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after July 5, 2025, an inspection of the structure by a qualified individual, must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately.

The official species list generated from IPaC indicated three other listed species present within the project area: the tricolored bat (*Perimyotis subflavus*), the whooping crane (*Grus americana*) and the monarch butterfly (*Danaus plexippus*). The whooping crane is listed as endangered wherever found, except where listed as an experimental population according to the Environmental Conservation Online System (https://ecos.fws.gov/ecp/species/758). The whooping crane is listed as an experimental population in this location. The monarch butterfly is identified as a candidate species and is not yet listed or proposed for listing. The tricolored bat is proposed for listing. Therefore, these species were not considered as part of this project, and the USFWS Interim Policy is not applicable because there are no other federally protected species identified within the project area. No further coordination is needed with USFWS.

Prior to any demolition, the structure(s) will be inspected for bats or evidence of bats. If bats, or evidence of bats, are found coordination will occur with INDOT ESD and USFWS before demolition may occur. If further coordination is needed no demolition shall occur until coordination is concluded with INDOT ESD and USFWS. This firm commitment is included in the Environmental Commitments of this document.

Migratory Birds

Bridge 140-70-06039B/NBI 026970 has shown evidence of use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA) during the May 3, 2023, 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" Unique Special Provision (USP). 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.

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

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

Discuss if project is located in the Indiana Karst Region and if any karst features have been identified in the project area (from RFI). Discuss response received from IGWS coordination. Discuss if any mines, oil/gas, or exploration/abandoned wells were identified and if impacts will occur. Include discussion of karst study/report was completed and results. (Karst investigation must comply with

the current Protection of Karst Features during Planning and Construction guidance and coordinated and reviewed by INDOT EWPO)

Based on a desktop review and the Indiana Karst Region map, the project is located outside the designated Indiana Karst Region as outlined in the most current *Protection of Karst Features during Project Development and Construction*. According to the topo map of the project area (Appendix B, Pages 2 and 3), the RFI report (Appendix E, Page 2), and the field visit by KEG staff on July 5, 2023, there are no karst features identified within or adjacent to the project area. In the early coordination response October 9, 2023, the Indiana Geological and Water Survey (IGWS) did not indicate that karst features exist in the project area (Appendix C, Page 5) The IGWS also indicated that the geological hazards could be a floodway and the potential for high liquefaction. There is a high potential for bedrock resources and sand and gravel resources. The features will not be affected because they do not exist within the project area. Response from IGWS has been communicated with the designer on March 1, 2023. No impacts are expected.

Based on the RFI report (Appendix E, Page 3), one (1) petroleum well is located within the project area. A coordination letter was sent to the IDNR Oil & Gas inspector for district 5, August 14, 2024 (Appendix C Page 1).

SECTION C – OTHER RESOURCES

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

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

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

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

This project is not located within a Wellhead Protection Area or Source Water Area. In an early coordination letter dated October 13, 2023, IDEM stated the project is not located within a wellhead area (Appendix C, Page 10). No impacts are expected.

The Indiana Department of Natural Resources Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was accessed on March 1, 2024, by KEG staff. No wells are located near this project. Therefore, no impacts are expected.

Based on a desktop review of the Indiana Map (https://www.indianamap.org/) by KEG staff on March 1, 2024, this project is not located in an Urban Area Boundary. No impacts are expected.

Based on a desktop review, a site visit on July 5, 2023, the aerial map of the project area (Appendix B, Page 1), and discussion with INDOT Utilities and Railroads, March 7, 2024, (Appendix I Page 15), no public water systems were identified. Therefore, no impacts are expected.

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

If applicable, indicate the Floodplain Level?

Level 1 [ ] Level 2 [ ] Level 3 [ ] Level 4 [X] Level 5 [ ]

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

Based on a desktop review of The Indiana Department of Natural Resources Indiana Floodway Information Portal website (https://www.in.gov/dnr/water/surface-water/indiana-floodplain-mapping/indiana-floodplain-information-portal/) by KEG staff on September 28, 2023, and the RFI report, this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, Page 9). An early coordination letter was sent on October 9, 2023, to the local Floodplain Administrator. The floodplain administrator did not respond within the 30-day time frame. This project qualifies as a Category 4 per the current INDOT CE Manual, which states:

No homes are located with the base floodplain within 1,000 feet upstream and no homes are located within the base floodplain within 1,000 feet downstream. The proposed structure will have an effective capacity such that backwater surface elevations are not expected to substantially increase. As a result, there will be no substantial adverse impacts on natural and beneficial floodplain values; there will be no termination of emergency service or emergency evacuation routes; therefore, it has been determined that this encroachment is not substantial. A hydraulic design study that addresses various structure size alternatives will be completed during the preliminary design phase. A summary of this study can be found in Appendix I (Page 27).

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

Total Points (from Section VII of CPA-106/AD-1006*) 87

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

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

Based on a desktop review, a site visit on July 5, 2023, by KEG staff and the aerial map of the project area (Appendix B, Page 1) the project will convert 0.096-acre of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on October 9, 2023, to Natural Resources Conservation Service (NRCS). Coordination with NRCS resulted in a score of 87 on the (AD 1006 Form) (Appendix C, Page 9). NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

SECTION D – CULTURAL RESOURCES

	Category(ies) and Type(s)	INDOT Approval Date(s)	N/A
Minor Projects PA	B-12	May 2, 2024	

Indiana Department of Transportation

County Rush and Henry Route SR 140 Des. No. 2002071

Full 106 Effect Finding

No Historic Properties Affected ☐ No Adverse Effect ☐ Adverse Effect ☐

Eligible and/or Listed Resources Present

NRHP Building/Site/District(s) ☐ Archaeology ☐ NRHP Bridge(s) ☐

Documentation Prepared (mark all that apply)		**ESD Approval Date(s)**	**SHPO Approval Date(s)**
APE, Eligibility and Effect Determination			
800.11 Documentation			
Historic Properties Report or Short Report			
Archaeological Records Check and Assessment			
Archaeological Phase Ia Survey Report	X	May 2, 2024	
Archaeological Phase Ic Survey Report			
Other:			

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

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

On May 2, 2024, the INDOT Cultural Resources Office (CRO) determined that this project falls within the guidelines of Category B, Type 12 under the Minor Projects Programmatic Agreement, (Appendix D, Page 1).

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) 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):
    - 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.

An Archaeological Phase 1a Reconnaissance Survey was completed April 8, 2024, and approved May 2, 2024, by INDOT CRO. There were no archaeological resources identified or located (Appendix D Page 5). INDOT CRO submitted the survey to SHAARD and INSCOPE for record keeping purposes only. No further consultation is required. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

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

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

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

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

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

Based on a desktop review, the aerial map of the project area (Appendix B, Page 1), and the RFI report (Appendix E, Page 2) there are 3 potential 4(f) resources located within the 0.5-mile search radius. Knightstown Public Access Site to the Big Blue River is located approximately 0.10 mile west of the bridge. According to communication with the designer on August 13, 2024, the public access site is outside of the project limits and will remain accessible to the public during construction. According to the site visit on July 5, 2023, by KEG staff, there are no Section 4(f) resources within or adjacent to the project area. An early coordination letter was submitted to IDNR DFW October 9, 2023, and no response was received within the 30-day response time frame. The project will not use this resource by taking permanent ROW and will not indirectly use the resource in such a way that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. Therefore, no 4(f) use is expected.

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

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

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

A review of 6(f) properties on the INDOT ESD website revealed no 6(f) properties in Rush County (no list) and two in Henry County (Appendix I Page 16). None of these properties are located within or adjacent to the project area. Therefore, there will be no impact to 6(f) resources.

SECTION F – Air Quality

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

Location in STIP: FY 2024-2028, Initial, September 21, 2023

Name of MPO (if applicable):

Location in TIP (if applicable):

Level of MSAT Analysis required?

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

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

The project is included in the Fiscal Year (FY) 2024-2028 Statewide Transportation Improvement Program (STIP) (Appendix H, Page 1).

This project is located in Rush and Henry Counties, which are currently in attainment for all criteria pollutants according to the EPA Greenbook (https://www3.epa.gov/airquality/greenbook/anayo_in.html) and IDEM's Current Status and Nonattainment History, by County (https://www.in.gov/idem/sips/nonattainment-status-of-counties/). 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 Clear Air Act conformity rule under 40 CFR 93.126, and as such, a Mobile Source Air Toxics analysis is not required.

SECTION G - NOISE

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

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

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

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

SECTION H – COMMUNITY IMPACTS

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

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

A comprehensive plan for Rush County was not available for review of online resources by KEG staff, March 4, 2024; however, the project is not anticipated to negatively affect community cohesion, the local tax base, or property values, since transportation within the county and connectivity to community resources will not be permanently affected.

SR 140 is shown as a *Major Collector* connecting Knightstown to the rest of the county, especially the county seat of New Castle in the Henry County Comprehensive Plan (Appendix I Page 29). The project supports the stated transportation outcomes for Henry County, by maintaining the crossing over Big Blue River for the next 75 years, thus allowing continued travel between Rush and Henry Counties. This project is not anticipated to negatively affect community cohesion, the local tax base, or property values within the county, and connectivity to community resources will not be permanently affected.

On March 4, 2024, KEG staff reviewed www.indianafestivals.org for any special events or festivals in Knightstown (Henry County) and Rush County throughout the year. The following special event was noted: Wendal Willkie Days September 20-22, 2024. There will be a detour for the traveling public. Delays shall occur during construction but will cease with project completion. Temporary community and economic impacts will occur due to increased travel time and expense; therefore, no long-term negative impacts to the community or its economy are expected.

Public Facilities and Services

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

Based on a desktop review, the aerial map of the project area (Appendix B, Page 1), the RFI report (Appendix E, Page 2), there is one public facility, Bethel Church, within the 0.5-mile search radius. The RFI Addendum indicated pipelines within the project area (Appendix E Page 12). Communication with INDOT Railroads and Utilities, March 7, 2024, disclosed that there are no pipelines within the project area (Appendix I, Page 15). There are no public facilities within or adjacent to the project area, which was confirmed by the site visit July 5, 2023. Therefore, no impacts are expected. Access to all properties will be maintained during construction.

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

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

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

Under FHWA Order 6640.23A, FHWA and the project sponsor (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 ROW. Relocations of people or businesses will not be required. This project will require 1.15 acre of permanent ROW. Therefore, an EJ analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exist and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city or town and is called the community of comparison (COC). In this project, COC-H is the population of Henry County, COC-R is the population in Rush County, and COC-T is the combined populations of COC-H + COC-R. The community that overlaps the project area is called the affected community (AC). In this project the AC-H is Henry County, Census Tract 9767, AC-R is Rush County Census Tract 9742, and AC-T is the combined population of AC-H + AC-R. An AC has a population of concern for EJ if the EJ population is over 50% or is 125% of the COC's EJ population. Data from the US Census Bureau, American Community Survey 2022, was obtained from https://data.census.gov/ on March 26, 2024, by KEG staff. The data collected for minority and low income populations within the ACs are summarized in the below table.

Table: Minority and Low-Income Data (US Census Bureau, American Community Survey, 5 Year Estimates 2022; Data Set ACSDT52022)

	COC-H	**AC-H**	**COC-R**	**AC-R**	**COC- T**	**AC-T**
Percent Low-Income	13.72 %	23.51 %	11.71 %	12.96 %	13.19%	18.98%
125% of COC	17.14 %	AC > 125% COC	14.64 %	AC > 125% COC	16.48%	AC < 125% COC
EJ Population of Concern		**Yes**		No		**Yes**
Percent Minority	7.27 %	1.84 %	5.04 %	1.28 %	6.70 %	1.60 %
125% of COC	9.09 %	AC < 125% COC	6.30 %	AC < 125% COC	8.37 %	AC < 125% COC
EJ Population of Concern		No		No		No

Appendix I, Page 18

AC-H has a percent low-income of 23.51% which is below 50% but is above the 125% COC threshold. Therefore, AC-H has a low-income population of concern.

AC-R has a percent low-income of 12.96% which is below 50% and is below the 125% COC threshold. Therefore, AC-R does not have a low-income population of concern.

AC-T has a percent low-income of 18.98% which is below 50% but is above the 125% COC threshold. Therefore, the AC-T has a low-income of concern.

AC-H has a percent minority of 1.84% which is below 50% and is below the 125% COC threshold. Therefore, AC-H does not have a minority population of concern.

AC-R has a percent minority of 1.28% which is below 50% and is below the 125% COC threshold. Therefore, the AC-R does not have a minority population of concern.

AC-T has a percent minority of 1.60% which is below 50% and is below the 125% COC threshold. Therefore, the AC-T does not have a minority population of concern.

The identified EJ populations will benefit from the project by having an improved crossing at this location. Overall, the negative impacts to the identified EJ populations of concern will consist of short-term construction impacts resulting from potential short term travel delays during construction due to the maintenance of traffic (MOT). The MOT will use phased construction resulting in a single lane being open for traffic (Appendix B Pages 29-30). This MOT will last no more than 12 months. In relationship to the project, the nearest urbanized area likely servicing the affected community is Greenfield, which is approximately 13 miles to the West on US 40 and the Town of Knightstown, which is approximately 0.10 mile to the North on SR 140. Once construction is complete, full access along SR 140 at this location will be restored.

The prepared EJ Analysis was sent to INDOT ESD on March 27, 2024. INDOT ESD concurred on May 2, 2024 (Appendix I, Page

29). Impacts have been reduced as much as possible via project design. In addition, the project's detour will be experienced by both EJ and non-EJ populations. Several unofficial detours, offering a slightly shorter route concerning vehicle miles, are also available. The positive impacts of the project will equally benefit the EJ and the non-EJ populations. Therefore, the identified population of EJ concern is not expected to experience disproportionately high and adverse impacts from the project.

The completed analysis, census data sheets, map, and calculations can be found in Appendix I, Pages 18 to 26. No further environmental justice analysis is warranted.

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

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

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

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

SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)	**Documentation**
Red Flag Investigation (RFI)	X
Phase I Environmental Site Assessment (Phase I ESA)	
Phase II Environmental Site Assessment (Phase II ESA)	
Design/Specifications for Remediation required?	

Date RFI concurrence by INDOT SAM (if applicable): September 1, 2023 and RFI Addendum: October 23, 2023

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

Based on a review of GIS and available public records, the RFI was completed on August 31, 2023, and INDOT SAM provided their concurrence on September 1, 2023. An RFI Addendum was completed on October 23, 2023, and INDOT SAM provided their concurrence on October 23, 2023. There are 3 potential hazmat sites located within the 0.5-mile search radius of the project area, 2 USTs and one NPDES facility (Appendix E, Page 4). None of the hazmat sites will impact the project. Further investigation for hazardous material concerns is not required at this time.

Part IV – Permits and Commitments

PERMITS CHECKLIST

Permits (mark all that apply)	**Likely Required**
Army Corps of Engineers (404/Section10 Permit)	
Nationwide Permit (NWP)	X
Regional General Permit (RGP)	
Individual Permit (IP)	
Other	

IN Department of Environmental Management (401/Rule 5)	
Nationwide Permit (NWP)	
Regional General Permit (RGP)	
Individual Permit (IP)	X
Isolated Wetlands	
Rule 5	X
Other	
IN Department of Natural Resources	
Construction in a Floodway	X
Navigable Waterway Permit	
Other	
Mitigation Required	X
US Coast Guard Section 9 Bridge Permit	
Others (Please discuss in the discussion below)	

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

Per coordination with INDOT EWPSO on January 11, 2024, due to impacts to likely Waters of the U.S., a U.S. Army Corps of Engineers (USACE) Section 404 Nationwide Permit (NWP), an IDEM 401 Individual Permit, and an IDNR Construction in a Floodway (CIF) Permit, and an IDEM construction Stormwater General Permit (CGSP) (formerly Rule 5) will be required. Stream mitigation will likely be required due to cumulative impacts to streams greater than 300 feet. Tree mitigation will likely be required due to tree removal greater than 0.1 acre.

Bat mitigation is necessary per the USFWS.

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

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

ENVIRONMENTAL COMMITMENTS

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

Firm:

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

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

3) A "Reinitiation Notice" is required if: more than 1.02 acres of trees are to be cleared; the amount or extent of incidental take of Indiana bat and/or northern long-eared bat is exceeded; new information about listed species in encountered; new species is listed or critical habitat designated that the project may affect; the project is modified in a manner that causes an effect to the listed species; or, new information reveals that the project may affect listed species or critical habitat in a manner not considered in the BO or the project information. (USFWS)

4) Contractors must take care when handling dead or injured bats (regardless of species), and any other federally listed species that are found at the Project site in order to preserve biological material in the best possible condition and protect the handler from exposure to diseases, such as rabies. Project personnel are responsible for ensuring that any evidence

about determining the cause of death or injury is not unnecessarily disturbed. Reporting the discovery of dead or injured listed species is required in all cases to enable the USFWS to determine whether the level of incidental take exempted by the BO is exceeded, and to ensure that the terms and conditions are appropriate and effective. Parties finding a dead, injured, or sick specimen of any bat (regardless of species), or other endangered or threatened species, must promptly notify the USFWS Bloomington Office at (812) 334-4261. (USFWS)

5) The INDOT Project Manager will assure that $20,259.75 of Preliminary Engineering funds will be allocated to the Rangewide In-Lieu Fee Program, administrated by The Conservation Fund, to resolve formal consultation under the Rangewide Programmatic (1.02- acres X 1.75 X $11,350 = $20,259.75). Payment shall be in process for Ready for Contracts (RFC) date. (USFWS)

6) USFWS bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after July 5, 2025, an inspection of the structure by a qualified individual, must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. (INDOT ESD and USFWS)

7) Bridge (140-70-06039B/NBI 026970) has shown evidence of use (i.e. nests) by a bird species protected under the Migratory Bird treaty Act (MBTA) during the July 5, 2023, 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 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 disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the “Potential Migratory Bird on Structure USP”. (INDOT ESD)

8) Big Blue River will be labeled as “Do Not Disturb” on project plans. (INDOT ESD)

9) The Big Blue River is located within the project area and is mapped as an IDEM 303d Listed 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. This has been added as a firm commitment. (INDOT ESD)

10) Big Blue River is impaired for PCBs and mercury in fish tissue. Exposure to PCBs and mercury 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 ESD SAM will occur. This has been added as a firm commitment. (INDOT ESD)

11) 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)

12) Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)

13) Tree Removal AMM 1: Modify all phases/aspect of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)

14) Tree Removal AMM 3: Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits). (USFWS)

For Further Consideration:

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

16) Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels, and diversion

fencing. (USFWS and IDNR)

17) Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat. (USFWS and IDNR)

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

19) All plant material, mud, debris should be removed, and all water drained from any equipment before entering or leaving the waterway to prevent the spread of aquatic and terrestrial invasive species. (IDNR)

20) Do not construct any temporary run arounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR)

21) Ensure that all repairs are completed with the least toxic epoxy product available, both now and during future maintenance. (USFWS)

22) Plant five trees, at least 2 inches in diameter-at-breast height (DBH), for each tree which is removed that is ten inches or greater DBH. (IDNR)

23) Protect the area around and below any concentrated discharge points, down to the waterway's normal flow level, with appropriate structural armament such as riprap. (IDNR)

24) Riprap must not be placed in the active thalweg channel or placed in the streambed in a manner that precludes fish or aquatic 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 geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Rush and Henry Counties and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. (IDNR)

25) Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR)

Table of Contents for Appendix Items

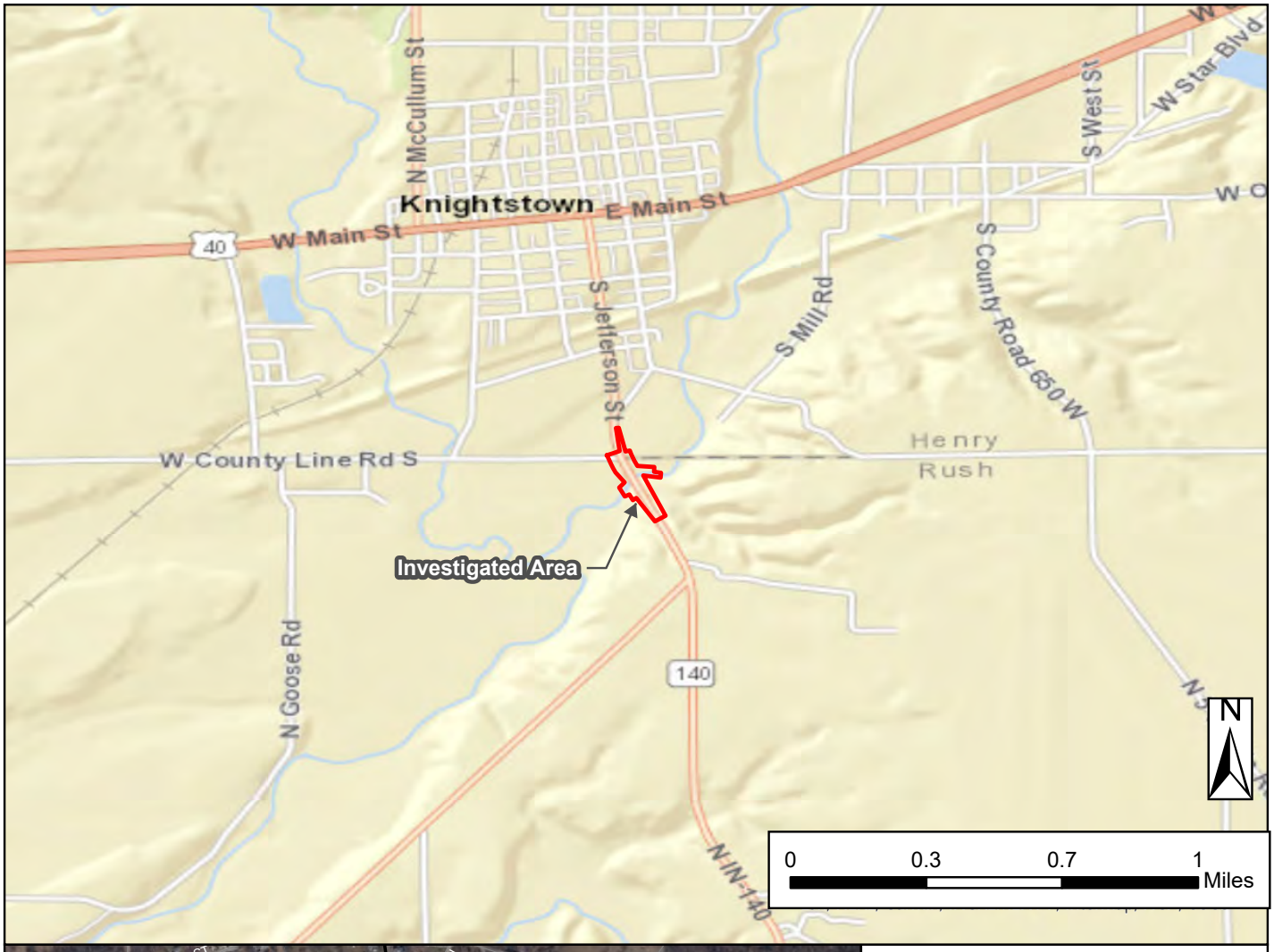
Appendix A
INDOT Supporting Information

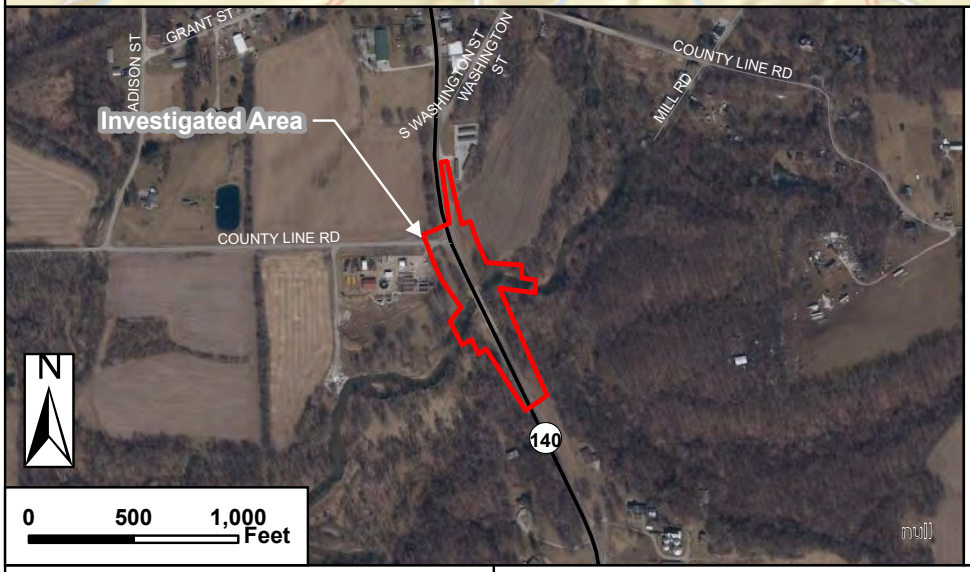
Categorical Exclusion Level Thresholds Des 2002071

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

[1] Coordinate with INDOT Environmental Services Division. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.
[2] Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.
[3] Total permanent impacts to streams (linear feet) and wetlands (acres).
[4] US Army Corps of Engineers Individual 404 Permit
[5] Total permanent and temporary right-of-way. This does not include reacquisition of existing apparent right-of-way.
[6] If any relocations are within an area with a known or suspected Environmental Justice (EJ) or disadvantaged population, or has greater than 5 relocations, a conversation with FHWA, through INDOT ESD, is needed to confirm NEPA classification and outreach plan for the project.
[7] Avoidance and Mitigation Measures (AMMs) determined by the IPAC determination key to be required that are not tree AMMs, bridge AMMs, or structure AMMs.
[8] Projects that do not fall under a Species Specific Programmatic and results in a "Likely to Adversely Affect". Other findings can be processed as a lower-level CE.
[9] Potential for causing a disproportionately high and adverse impact.
[10] Section 4(f) use resulting in an Individual, Programmatic, or *de minimis* evaluation. The only exception is a *de minimis* evaluation for historic properties (Effective January 2, 2020). If a historic property *de minimis* and no other use, mark the *None* column.
[11] Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.
* Includes the threatened/endangered species critical habitat
Note: Substantial public or agency controversy may require a higher-level NEPA document.

Appendix B
Graphics





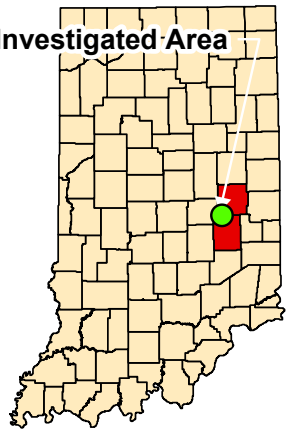


Figure 1
Site Location Map
Bridge Replacement
SR 140 over Big Blue River
0.68 mile south of US 40
Henry and Rush Counties, Indiana
Des No 2002071, State Project

Investigated Area

Map Source: Esri and IndianaMAP, 2023

Kaskaskia Engineering Group, LLC

Created on Date:11/8/2023

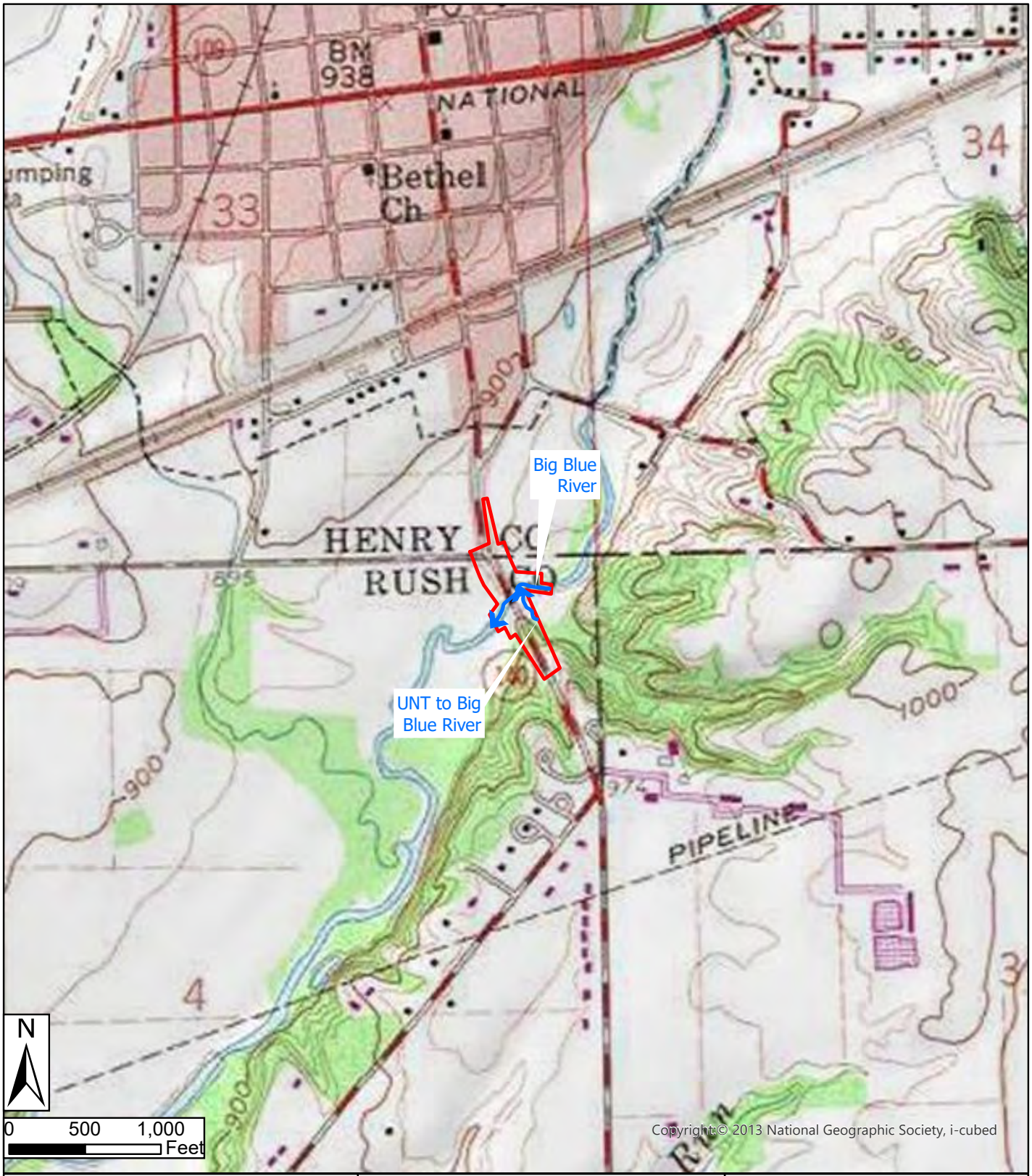


Figure 2
USGS Topographic West Lafayette Quadrangle
Large Scale Map 1:10,000

Bridge Replacement
SR 140 over Big Blue River
0.68 mile south of US 40
Henry and Rush Counties, Indiana
Des No 2002071, State Project

Investigated Area
Stream

Map Source: Esri and IndianaMAP, 2023

Kaskaskia Engineering Group, LLC

Created on Date:11/8/2023

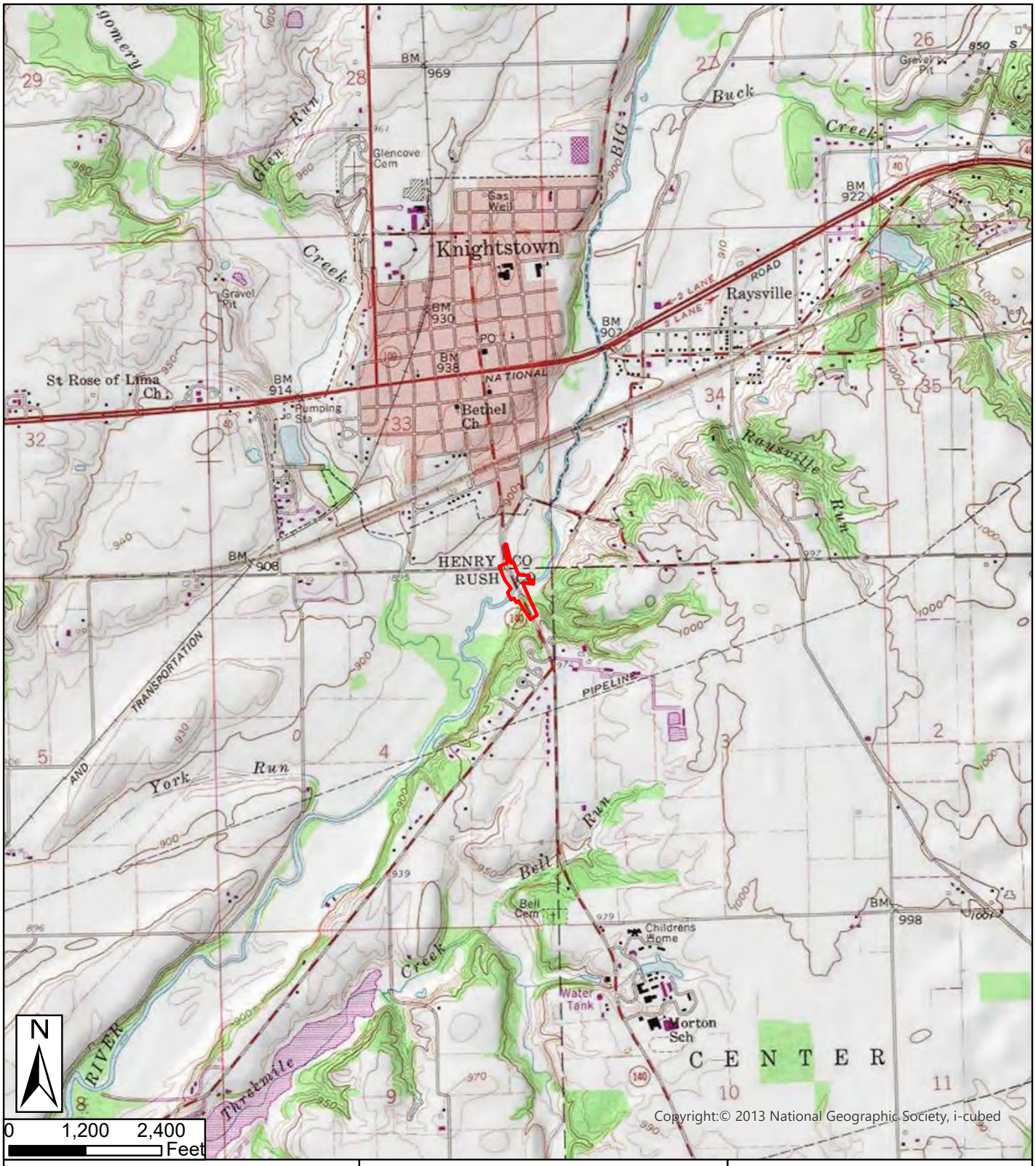


Figure 3
USGS Topographic West Lafayette Quadrangle
Small Scale Map 1:24,000

Bridge Replacement
SR 140 over Big Blue River
0.68 mile south of US 40
Henry and Rush Counties, Indiana
Des No 2002071, State Project

Investigated Area

Map Source: Esri and IndianaMAP, 2023

Kaskaskia Engineering Group, LLC

Created on Date:11/8/2023

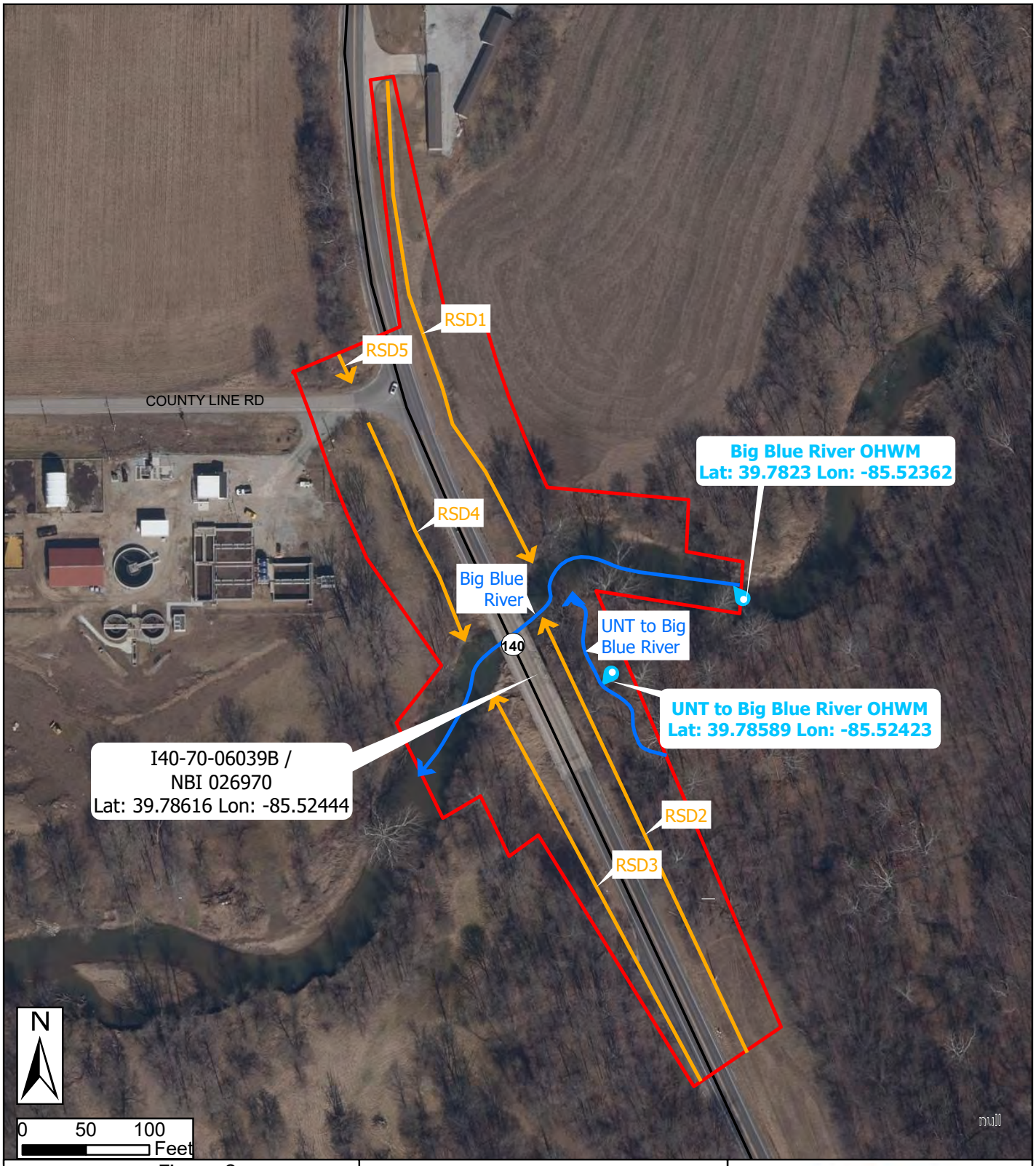


Figure 8
Water Resources Map

Bridge Replacement
SR 140 over Big Blue River
0.68 mile south of US 40
Henry and Rush Counties, Indiana
Des No 2002071, State Project

Investigated Area
Stream
Roadside Ditch
Stream Data Point

Kaskaskia Engineering Group, LLC

Created on Date:11/15/2023

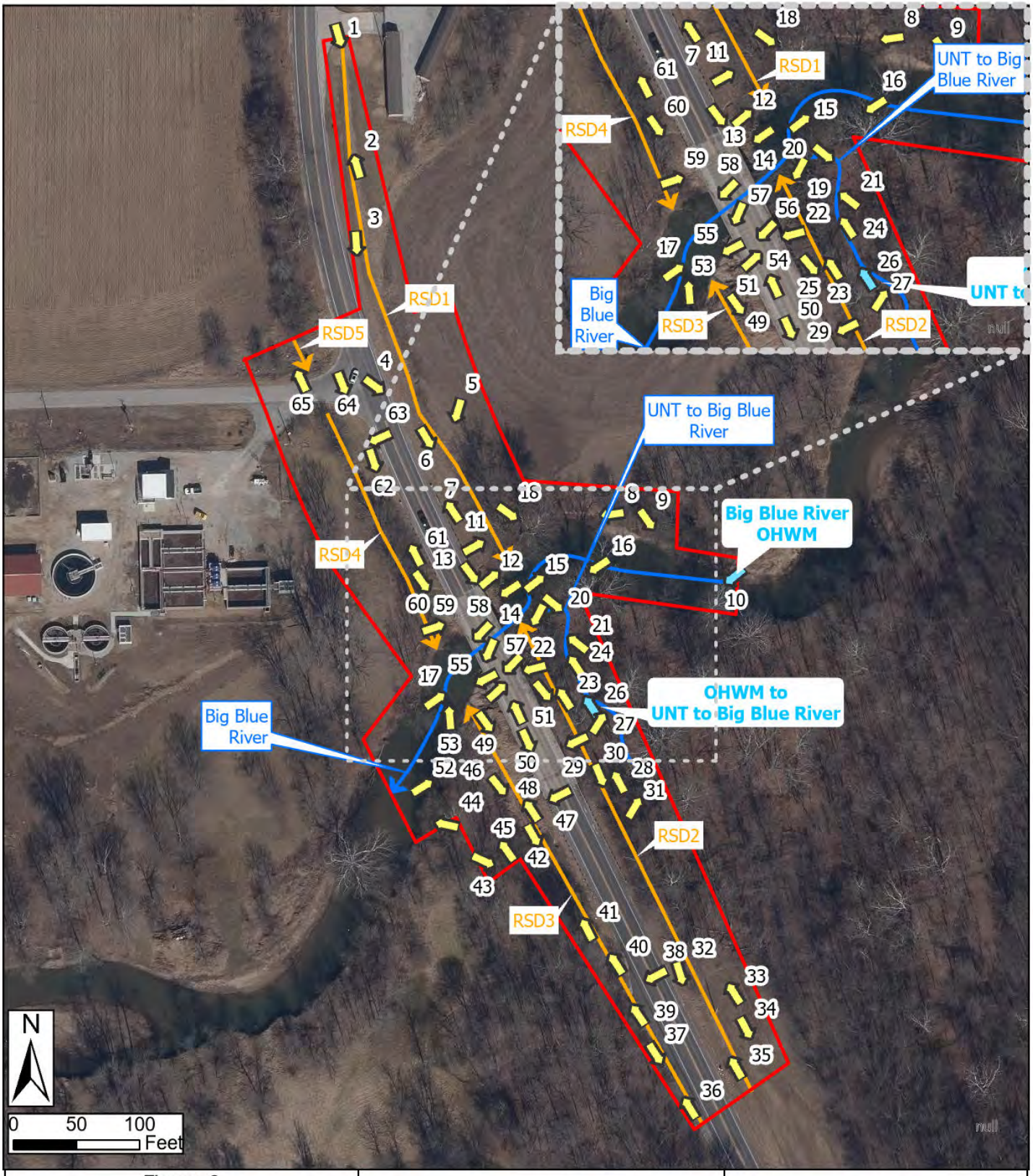


Figure 9
Photo Direction Map
Bridge Replacement
SR 140 over Big Blue River
0.68 mile south of US 40
Henry and Rush Counties, Indiana
Des No 2002071, State Project

Investigated Area
Photo
Stream Data Point
Stream
Roadside Ditch

Kaskaskia Engineering Group, LLC

Created on Date:12/13/2023

Photo 1: Looking southeast along RSD1, from the northeast corner of the investigated area.

Photo 2: Looking northwest along RSD1, within the northeast quadrant of the investigated area.

Photo 3: Looking southeast along RSD1, within the northeast quadrant of the investigated area.

Photo 4: Looking southeast, along RSD1, toward where the riparian corridor of the south bank of Big Blue River meets SR 140.

Photo 5: Looking southwest from the southwest edge of the south bank riparian corridor and the intersection of SR 140.

Photo 6: Looking southeast along RSD1 toward Big Blue River from the northeast quadrant of the investigated area.

Photo 7: Looking northwest along RSD1 from the southeast edge of the south bank riparian corridor and the intersection of SR 140.

Photo 8: Looking southwest, along the north bank the riparian corridor, from the central northeast edge of the investigated area.

Photo 9: Looking southeast, along the north bank the riparian corridor, from the central northeast edge of the investigated area.

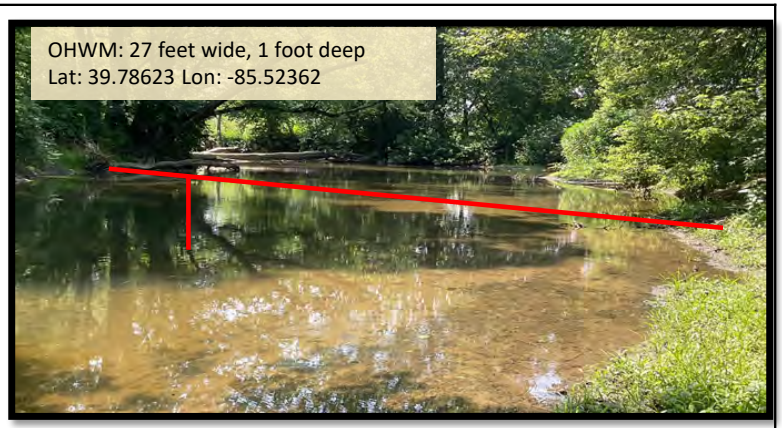


Photo 10: Looking southwest (downstream) at the OHWM of Big Blue River from approximately 250 feet northeast (upstream) from the bridge (140-70-06039 B / NBI 026970).
(Lat: 39.78623 Lon: -85.52362)

Photo 11: Looking northeast along a short drainage from the northeast corner of the bridge.

Photo 12: Looking northeast along the drainage from the northeast corner of the bridge.

Photo 13: Looking southeast, across Big Blue River, from the northeast bank.

Photo 14: Looking southwest, under the bridge from the northeast corner of the bridge. There were no signs of bats or birds.

Photo 15: Looking northeast (upstream) from the south bank at the southeast corner of the bridge.

Photo 16: Looking southwest (downstream) at the opening of the bridge from the south bank southeast of the bridge.

Photo 17: Looking northeast (upstream) from the southwest side of the bridge. There were no signs of bats.

Photo 18: Looking southeast (slightly upstream) at the southeast bank from the northeast bank of Big Blue River.

Photo 19: Looking southwest (downstream) at the west opening of the bridge from the south bank of Big Blue River southeast of the bridge.

Photo 20: Looking southeast (upstream) at UNT to Big Blue River from where it joins Big Blue River southeast of the bridge.

Photo 21: Looking northwest (downstream) from just inside the forest at the outlet of UNT to Big Blue River.

Photo 22: Looking west at the drainage from the southeast corner of the bridge.

Photo 23: Looking northwest along the bridge from the southeast corner of the bridge.

Photo 24: Looking northwest (upstream) along UNT to Big Blue River from upstream.

Photo 25: Looking southeast at the southwest corner of the bridge from the south bank of Big Blue River.

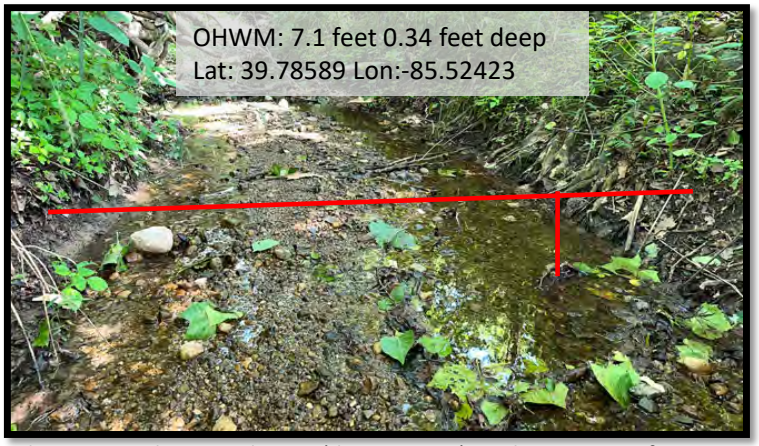


Photo 26:Looking northwest (downstream) at the OHWM of UNT to Big Blue River. The OHWM was 7.1 feet wide and 0.34 feet deep.
Lat: 39.78589 Lon:-85.52423

Photo 27: Looking northeast at the forest on the east bank of UNT to Big Blue River

Photo 28: Looking northwest from the top of the southeast slope and southeast corner of the bridge.

Photo 29: Looking southwest under the bridge from the southeast corner. There were no signs of birds or bats.

Photo 30: Looking southeast along the southeast slope of SR 146 and the southeast corner of the bridge.

Photo 31: Looking northeast into the forest adjacent to the southeast corner of the bridge between the southeast side of SR 140 and UNT to Big Blue River.

Photo 32: Looking southeast along RSD2 from its center.

Photo 33: Looking northwest where the residential lawn meets the forest in the southwest quadrant of the investigated area.

Photo 34: Looking southeast along the residential lawn between RSD2 and the forest in the southeast quadrant of the investigated area.

Photo 35: Looking northwest along RSD2 from the southeast corner of the investigated area.

Photo 36: Looking northwest along RSD3 from the southeast corner of the investigated area.

Photo 37: Looking southeast at the beginning of RSD3, from the southwest corner of the investigated area.

Photo 38: Looking southwest at the entrance to the road/path over RSD3 in the southwest quadrant of the investigated area.

Photo 39: Looking northwest at the drive pipe along RSD3 that goes under the entrance to the road/path in the southwest investigated area.

Photo 40: Looking northwest along RSD3 from the entrance to the road/path in the southwest quadrant of the investigated area.

Photo 41: Looking northwest toward the end of the concrete section of RSD3.

Photo 42: Looking southeast along RSD3 from the southwest corner of the bridge.

Photo 43: Looking southeast at the forest in the central west of the investigate area.:

Photo 44: Looking northwest from the south bank of Big Blue River southwest of the bridge.

Photo 45: Looking northwest from the top of the slope adjacent to the southwest corner of the bridge.

Photo 46: Looking southeast, upslope, along RSD3 as it comes along the southwest side of the bridge.

Photo 47: Looking southwest at the edge of the forest adjacent to the utility corridor on the southwest side of the bridge.

Photo 48: Looking northwest at the grassy area along the southwest side of the bridge.

Photo 49: Looking southeast along the southwest side of the bridge.

Photo 50: Looking southeast at the south headwall of the bridge. There were no signs or bats or birds.

Photo 51: Looking northwest from under the south side of the bridge.

Photo 52: Looking northeast from the south bank of Big Blue River on the southwest side of the bridge.

Photo 53: Looking north at the southwest (downstream) opening of the bridge from the south bank in southwest corner of the bridge.

Photo 54: Looking northeast at the terrestrial animal tracks under the south end of the bridge.

Photo 55: Looking southwest (downstream) along Big Blue River from under the southwest end of the bridge.

Photo 56: Looking southwest at the nest of an indeterminate species of bird under the south end of the bridge.

Photo 57: Looking southwest at the scour under the south end of the bridge.

Photo 58: Looking southwest (downstream) at Big Blue River from the deck of the bridge.

Photo 59: Looking northeast through the north end of the bridge. There were no signs of bat or birds.

Photo 60: Looking southeast along the west side of the bridge from the northwest bank of Big Blue River.

Photo 61: Looking northwest along RSD4 from the northwest corner of the bridge.

Photo 62: Looking southeast along RSD4 from the northwest approach.

Photo 63: Looking southwest across the row crops in the northwest corridor.

Photo 64: Looking southeast along RSD4 from the intersection of County Line Rd (1200 N) and SR 140.

Photo 65: Looking northwest along RSD5 from the intersection of County Line Road and SR 140.

PROJECT	DESIGNATION
2002071	2002071
CONTRACT	BRIDGE FILE
B-43545	140-70-10811

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
140-70-10811	Continuous Composite Prestressed Concrete Bulb-Tee Beam Bridge	3 Spans: 78'-0", 104'-0", 78'-0" Skew: 25° Lt.	Big Blue River	85+74.60 Line "A-1"

INDIANA DEPARTMENT OF TRANSPORTATION

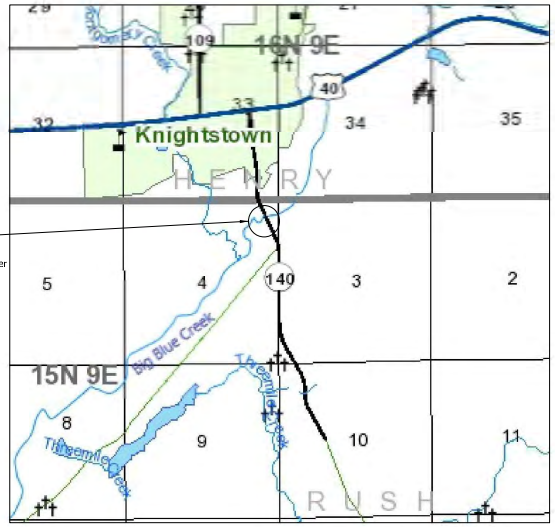
BRIDGE PLANS

FOR SPANS OVER 20 FEET

ROUTE: SR 140 AT: RP 1 + 57

PROJECT NO. 2002071 P.E.
2002071 R/W
2002071 CONST.

Bridge Replacement on SR 140 over Big Blue River
Located 0.68 Miles South of US 40
Section 04, T-15-N, R-9-E, Ripley Township, Rush County, Indiana

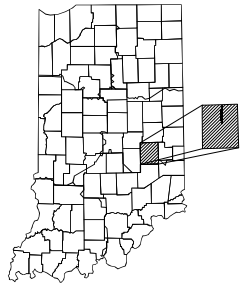


Project Location
Str. 140-70-10811
Sta. 85+74.60, Line "A-1" over Big Blue River
Begin Project: Sta. 82+50, Line "A-1"
End Project: Sta. 89+50, Line "A-1"

SCALE: 1" = 2000'

TRAFFIC DATA		
A.A.D.T.	(2025)	2,365 V.P.D.
A.A.D.T.	(2045)	2,365 V.P.D.
D.H.V.	(2045)	257 V.P.H.
DIRECTIONAL DISTRIBUTION		50 %
TRUCKS		3.43 % A.A.D.T.
		4.28 % D.H.V.

DESIGN DATA	
DESIGN SPEED	30 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	MAJOR COLLECTOR
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE



PROJECT LOCATION SHOWN BY
RUSH COUNTY

LATITUDE: N 39°47'9" LONGITUDE: W 85°31'28"

BRIDGE LENGTH:	0.06	MI.
ROADWAY LENGTH:	0.07	MI.
TOTAL LENGTH:	0.13	MI.
MAX. GRADE:	5.77	%

HUC: 051202040108

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2024
TO BE USED WITH THESE PLANS.

PLANS PREPARED BY: _____ PHONE NUMBER

CERTIFIED BY: _____ DATE

RECOMMENDED FOR LETTING: _____ DATE
INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE FILE
140-70-10811
DESIGNATION
2002071
SHEETS
1 of 32
CONTRACT	PROJECT
B-43545	2002071

4/16/2024 1:57 PM

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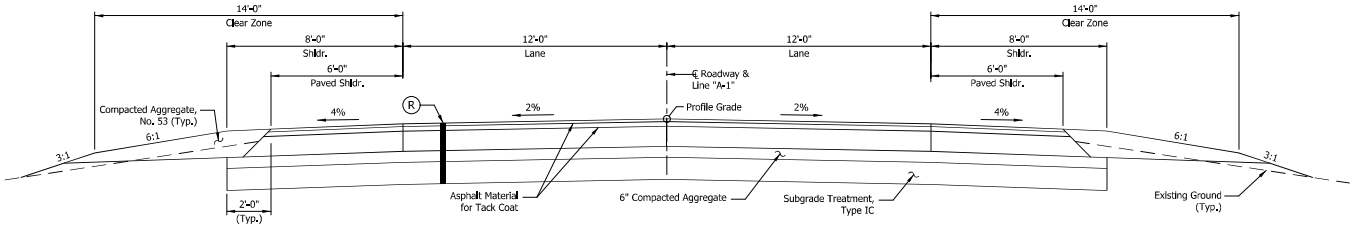
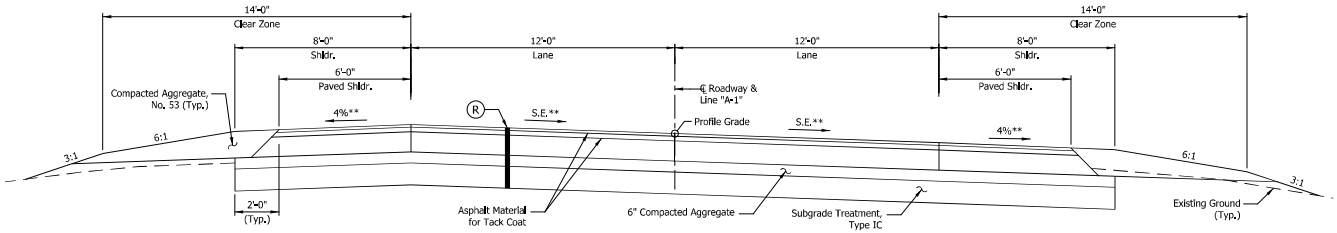
Model: BR_Title



TYPICAL ROADWAY SECTION - FULL-DEPTH HMA

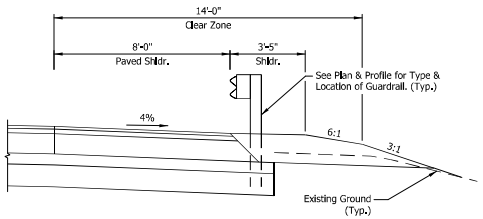
Sta. 82+50.00 "A-1" to Sta. 83+30.00 "A-1"
Scale: ⅜" = 1'-0"



TYPICAL SUPERELEVATION SECTION - FULL-DEPTH HMA

Sta. 83+30.00 "A-1" to Sta. 84+11.81 "A-1"
Sta. 87+37.68 "A-1" to Sta. 89+50.00 "A-1"
Scale: ⅜" = 1'-0"

** See Superelevation Transition Details, Sht. XX



TYPICAL SECTION WITH GUARDRAIL

Sta. 83+28.64 "A-1" to Sta. 84+11.81 "A-1" Left
Sta. 83+46.97 "A-1" to Sta. 84+11.81 "A-1" Right
Sta. 87+37.68 "A-1" to Sta. 88+02.23 "A-1" Left
Sta. 87+37.68 "A-1" to Sta. 88+20.56 "A-1" Right
Scale: ⅜" = 1'-0"

LEGEND

(R) 165 lbs/yd² QC/QA-HMA, 3, 64, Surface, 9.5 mm on
275 lbs/yd² QC/QA-HMA, 3, 64, Intermediate, 19.0 mm on
1210 lbs/yd² QC/QA-HMA, 3, 64, Base, 25.0 mm on
6 in. Compacted Aggregate, No. 53 on
Subgrade Treatment, Type IC on
Geotextile for Pavement, Type 2B
(Tack Coat between HMA layers.)

NOTE TO REVIEWER: Change in profile is greater than 12" on the North approach. A pavement design will be requested for this project.

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: CRF 08/2023 | DRAWN: CRF 08/2023

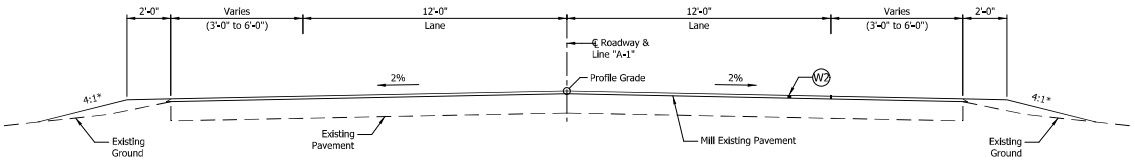
CHECKED: MAS 08/2023 | CHECKED: MAS 08/2023

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE	BRIDGE FILE
AS NOTED	140-70-10811
	DESIGNATION
	2002071
	SHEETS
	3 of 32
CONTRACT	PROJECT
B-43545	2002071

Plot: 4/16/2024 1:58 PM
File: pw:\\indot-pw.bentley.com:indot-pw-01\Documents\Greenfield\2002071\Design\MS\Sht Road Details.dgn
Model: Rd Typical Sections 1

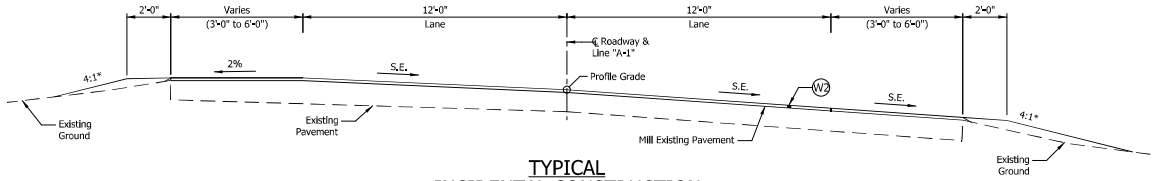


TYPICAL INCIDENTAL CONSTRUCTION

Sta. 81+60.00 "A-1" to Sta. 82+50.00 "A-1"

Scale: $\frac{3}{8}$" = 1'-0"

* See cross sections for slope.



TYPICAL INCIDENTAL CONSTRUCTION

Sta. 89+50.00 "A-1" to Sta. 90+40.00 "A-1"

Scale: $\frac{3}{8}$" = 1'-0"

* See cross sections for slope.

LEGEND

W2 Bituminous Wedge
165 lbs/yd² QC/QA-HMA, 3, 64, Surface, 9.5 mm

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: CRF 08/2023 DRAWN: CRF 08/2023

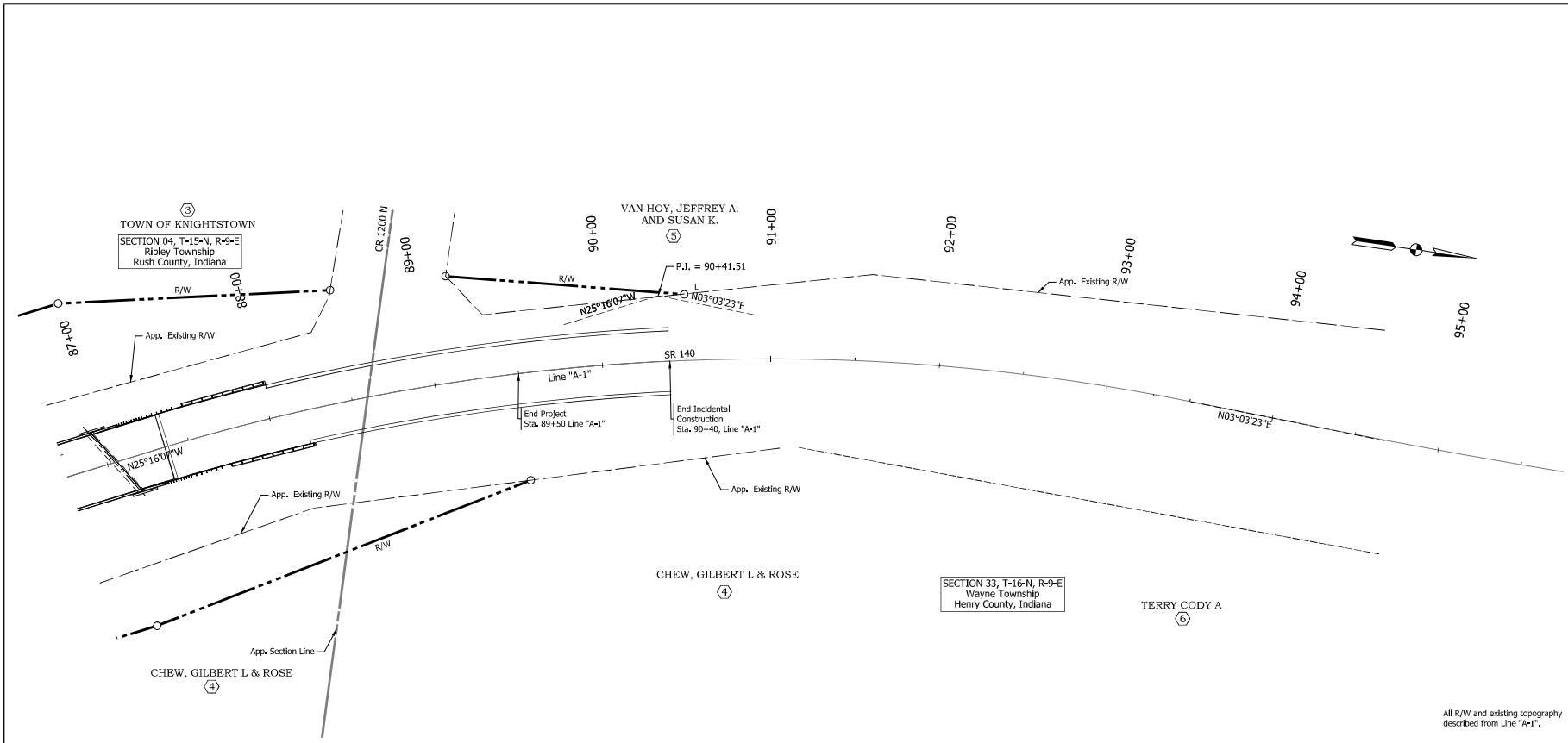
CHECKED: MAS 08/2023 CHECKED: MAS 08/2023

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE	BRIDGE FILE
AS NOTED	140-70-10811
	DESIGNATION
	2002071
	SHEETS
	4 of 32
CONTRACT	PROJECT
B-43545	2002071

Plot: 4/16/2024 1:58 PM
File: pw:\\indot-pw.bentley.com:indot-pw-01\Documents\Greenfield\2002071\Design\MS\Sht Road Details.dgn
Model: Rd Typical Sections 2



RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
			1" = 30'	140-70-10811
			VERTICAL SCALE	DESIGNATION
				2002071
DESIGNED: MAS 09/2023	DRAWN: MAS 09/2023	PLAT NO. 1	SURVEY BOOK	SHEETS
				5 of 32
CHECKED: MB 09/2023	CHECKED: MAS 09/2023		CONTRACT	PROJECT
			B-43545	2002071

Plot: 4/16/2024 1:56 PM
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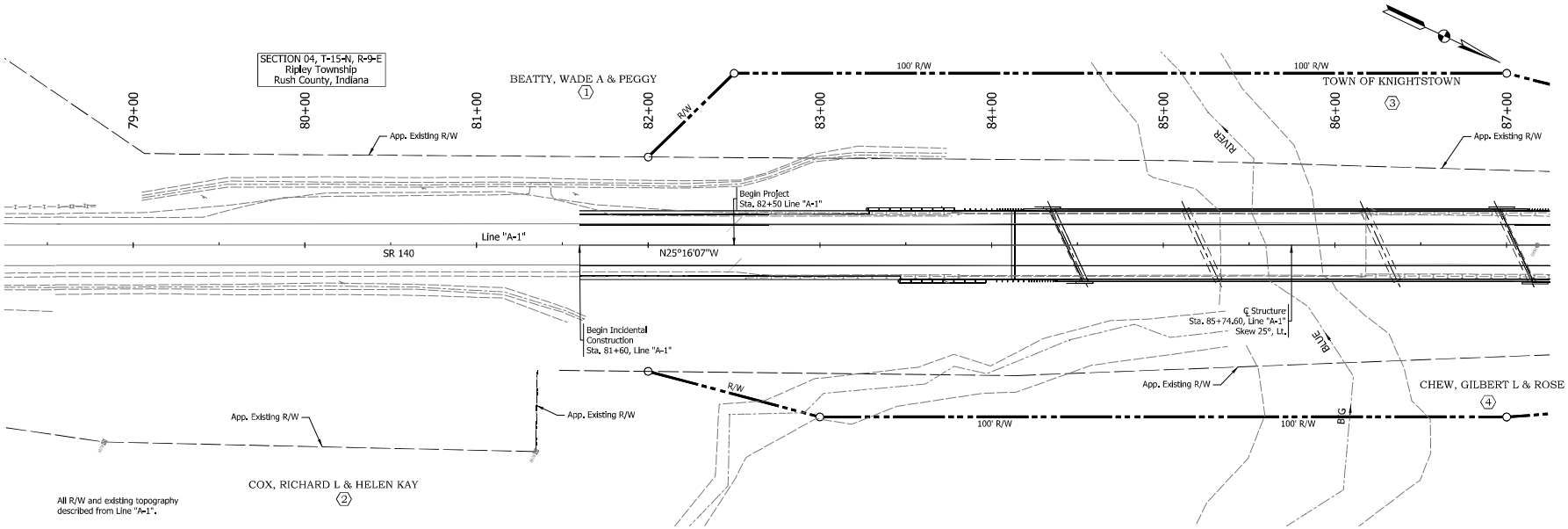

	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 30'	BRIDGE FILE 140-70-10811
				VERTICAL SCALE	DESIGNATION 2002071
	DESIGNED: MAS 09/2023	DRAWN: MAS 09/2023	PLAT NO. 1	SURVEY BOOK	SHEETS 6 of 32
	CHECKED: MB 09/2023	CHECKED: MAS 09/2023		CONTRACT B-43545	PROJECT 2002071

Plot: 4/16/2024 1:56 PM

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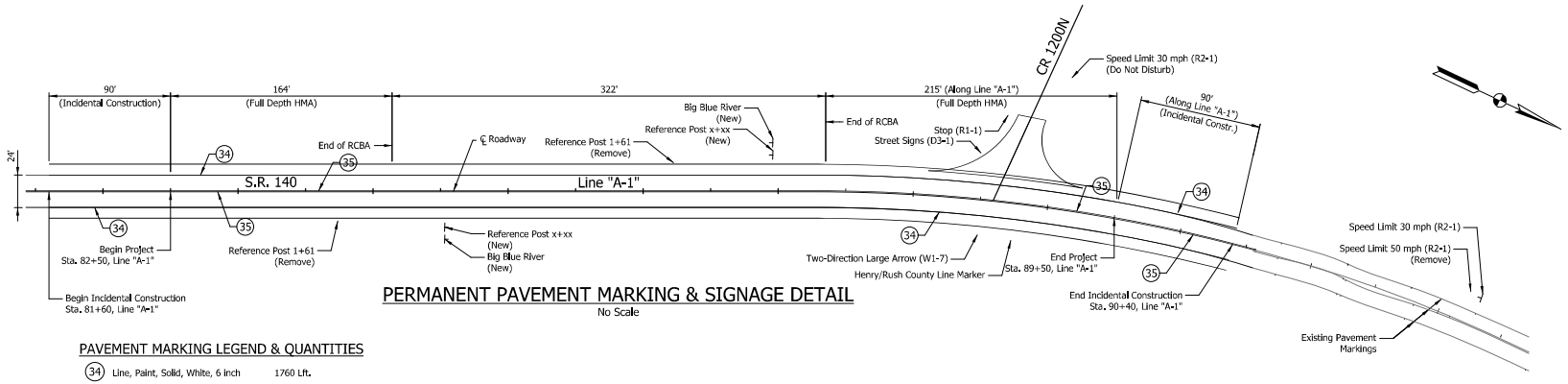

PERMANENT PAVEMENT MARKING & SIGNAGE DETAIL

No Scale

PAVEMENT MARKING LEGEND & QUANTITIES

(34) Line, Paint, Solid, White, 6 inch 1760 Lft.

(35) Line, Paint, Solid, Yellow, 6 inch 1760 Lft.

SHEET SIGN & POST SUMMARY

LOCATION					SIGN	SQUARE POST			
SIGN LOCATION	LEFT	RIGHT	SIGN CODE	SIGN DESCRIPTION	SIGN SIZE (IN. x IN.)	GROUND - MOUNTED SIGN AREA (Sq. Ft.)	2-1/4" x 2-1/4" x 12 ga. (TYPE S) REINFORCED POST LENGTH (Ft.)		REMARKS
						0.080 0.100 0.125	1	TOTAL	
80+20		X	W1-2 (Rt)	Curve Ahead	30 x 30				Do Not Disturb
80+69	X		W1-2 (Rt)	Curve Ahead	30 x 30				Do Not Disturb
81+57	X		R2-1 (50 mph)	Speed Limit 50 mph	24 x 30				Do Not Disturb
84+55		X		Ref. Post x+xx					
84+55		X		Big Blue River					
86+95	X			Ref. Post x+xx					
86+95	X			Big Blue River					
88+47	X		D3-1	Street Sign					
88+47	X		D3-1	Street Sign					
88+50		X	W1-7	Two-Direction Large Arrow	48 x 24				
88+64	X		R1-1	Stop	30 x 30				
88+76		X		County Line Marker					
89+04	X		R2-1 (30 mph)	Speed Limit 30 mph	24 x 30				
91+46		X	R2-1 (30 mph)	Speed Limit 30 mph	24 x 30				
TOTALS									

SIGN, SHEET & SUPPORT, REMOVE

LOCATION				
SIGN LOCATION	LEFT	RIGHT	SIGN DESCRIPTION	QUANTITY (EACH)
83+75		X	Ref. Post 1+61	1
86+23	X		Ref. Post 1+61	1
88+47	X		Street Sign	1
88+50		X	Two-Direction Large Arrow	1
88+64	X		Stop	1
88+76		X	County Line Marker	1
89+04	X		Speed Limit 50 mph	1
91+46		X	Speed Limit 30 mph	1
TOTALS				8

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: CRF 08/2023 DRAWN: CRF 08/2023

CHECKED: MAS 08/2023 CHECKED: MAS 08/2023

INDIANA
DEPARTMENT OF TRANSPORTATION

SIGNING & PAVEMENT MARKING DETAIL

SCALE	BRIDGE FILE
AS NOTED	140-70-10811
	DESIGNATION
	2002071
	SHEETS
	7 of 32
CONTRACT	PROJECT
B-43545	2002071

Plot: 4/16/2024 1:58 PM

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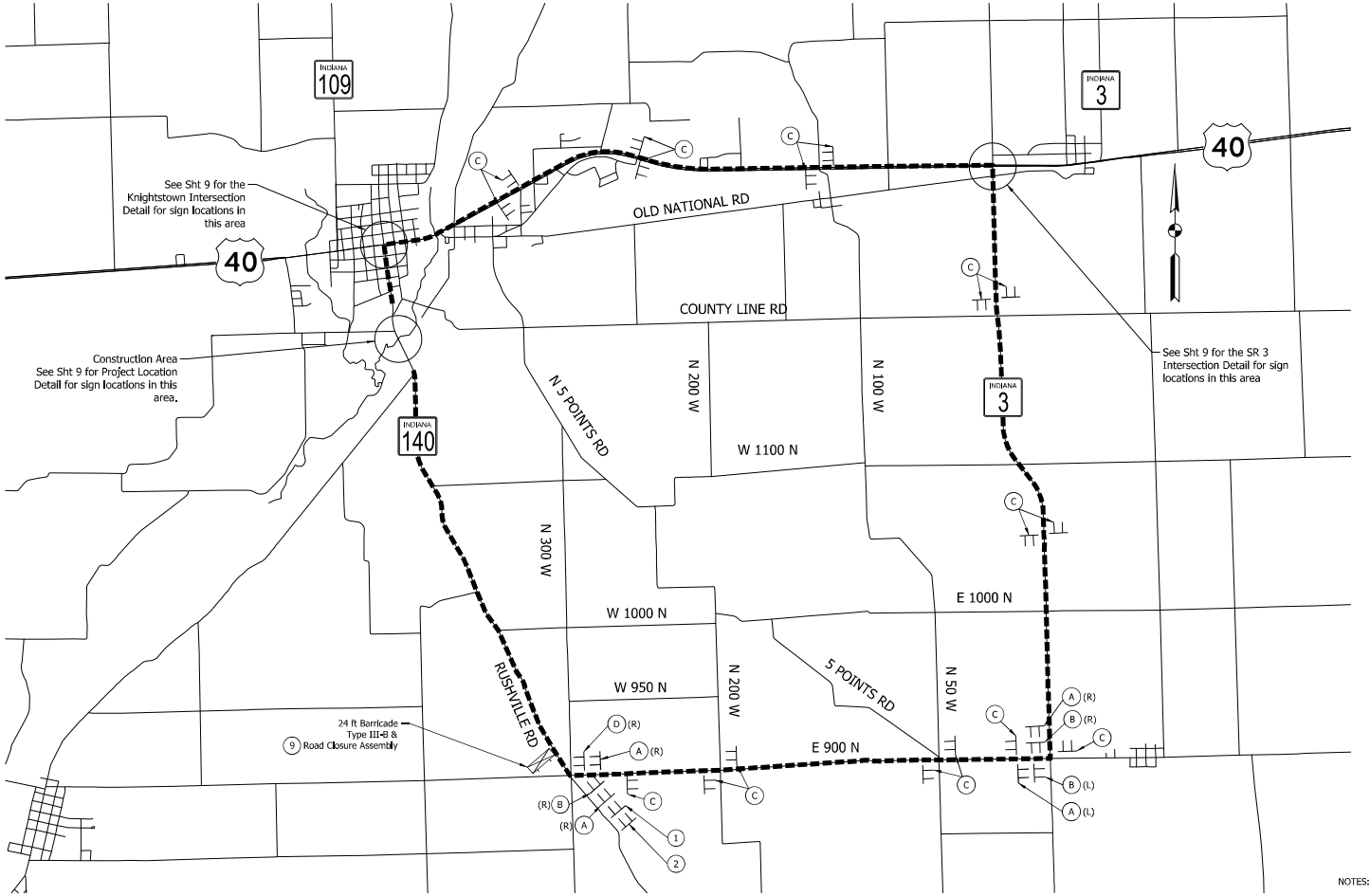
Model: Pavement Markings



NOTES:

See Sheet 9 for Legend.

See Std. Dwg 801-TCDT-01 for sign locations.

Estimated XX Ton quantity of HMA patching included for repairing detour route as directed by the Engineer.

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MAS 4/2024 DRAWN: TLA 4/2024

CHECKED: CRF 4/2024 CHECKED: MAS 4/2024

INDIANA
DEPARTMENT OF TRANSPORTATION

DETOUR
SHEET NO. 1

SCALE	BRIDGE FILE
NOT TO SCALE	140-70-10811
	DESIGNATION
	2002071
	SHEETS
	8 of 32
CONTRACT	PROJECT
B-43545	2002071

Plot: 4/16/2024 1:58 PM

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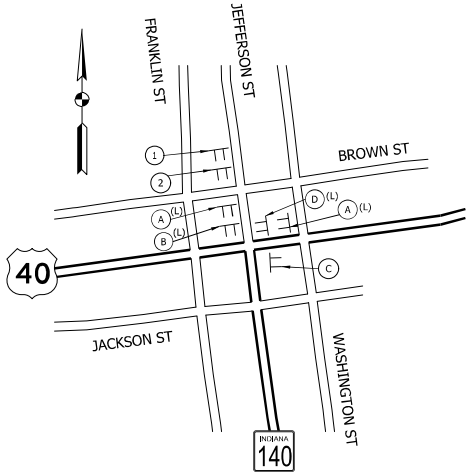
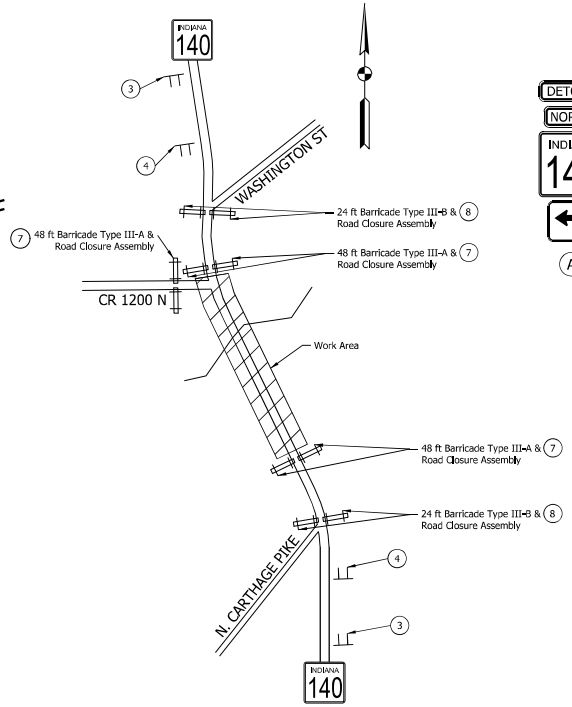
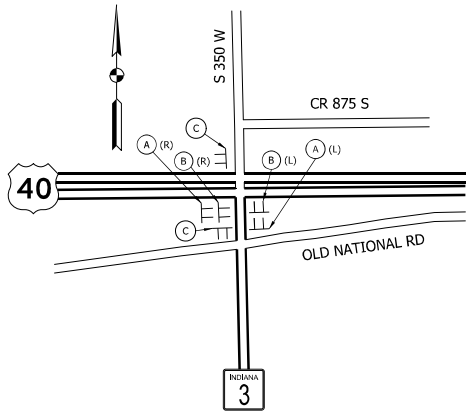
Model: BR_Detour 1



KNIGHTSTOWN INTERSECTION DETAIL
Not to Scale



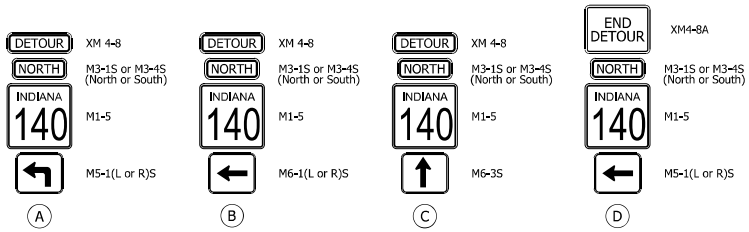
PROJECT LOCATION DETAIL
Not to Scale



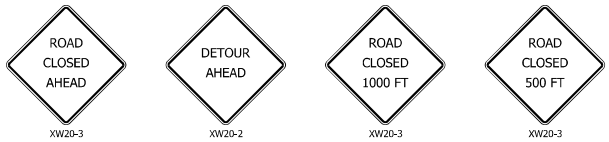
SR 3 INTERSECTION DETAIL
Not to Scale

MOT QUANTITIES

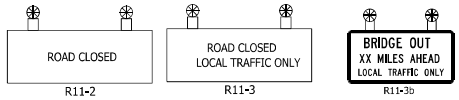
DESCRIPTION	QUANTITY
Detour Route Marker Assemblies	36 Ea.
Construction Signs	8 Ea.
Road Closure Sign Assemblies	6 Ea.
Barricade, Type III-A	144 Lft.
Barricade, Type III-B	72 Lft.



DETOUR ROUTE MARKER ASSEMBLIES



CONSTRUCTION SIGNS



ROAD CLOSURE SIGN ASSEMBLIES

LEGEND

- Construction Sign
- Type III Barricade
- Type III Barricade & Road Closure Sign Assembly
- Type "A" Low Intensity Light
- L Left
- R Right

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MAS 4/2024 DRAWN: TLA 4/2024

CHECKED: CRF 4/2024 CHECKED: MAS 4/2024

INDIANA
DEPARTMENT OF TRANSPORTATION

DETOUR
SHEET NO. 2

SCALE	BRIDGE FILE
NOT TO SCALE	140-70-10811
	DESIGNATION
	2002071
	SHEETS
	9 of 32
CONTRACT	PROJECT
B-43545	2002071

Plot: 4/16/2024 1:58 PM
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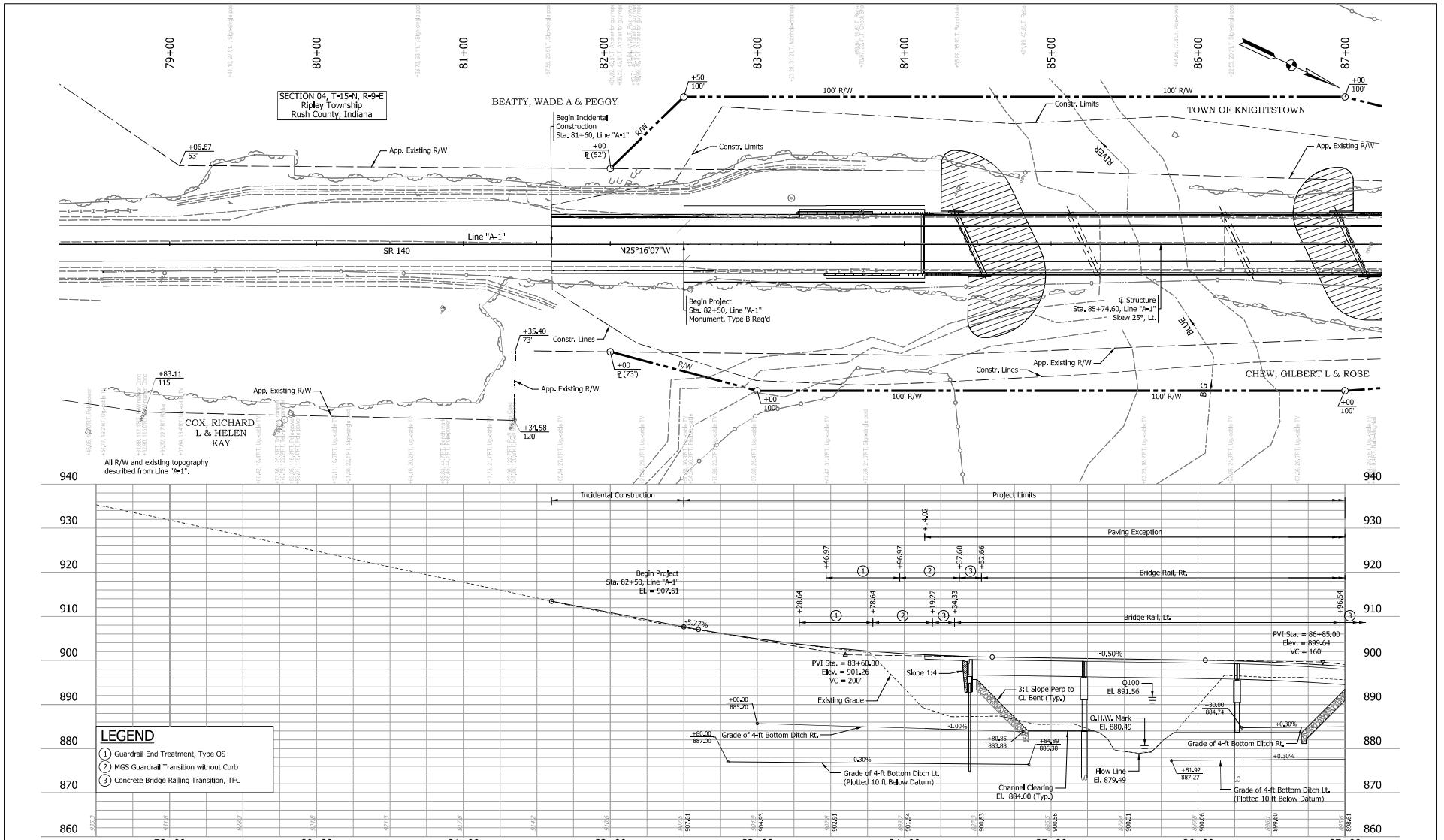
Model: BR_Detour 2



RECOMMENDED FOR APPROVAL	DESIGN ENGINEER DATE
DESIGNED: CRF 07/2023	DRAWN: CRF 08/2023
CHECKED: MCB 08/2023	CHECKED: MCB 08/2023

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE LINE "A-1"

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	140-70-10811
VERTICAL SCALE	DESIGNATION
1" = 10'	2002071
SURVEY BOOK	SHEETS
	10 of 32
CONTRACT	PROJECT
B-43545	2002071

Files:pw:\\indot-pw.bentley.com:indot-pw-01\Documents\Greenfield\2002071\Design\ORD\Sht_2002071_PlanProfile_Mainline.dgn
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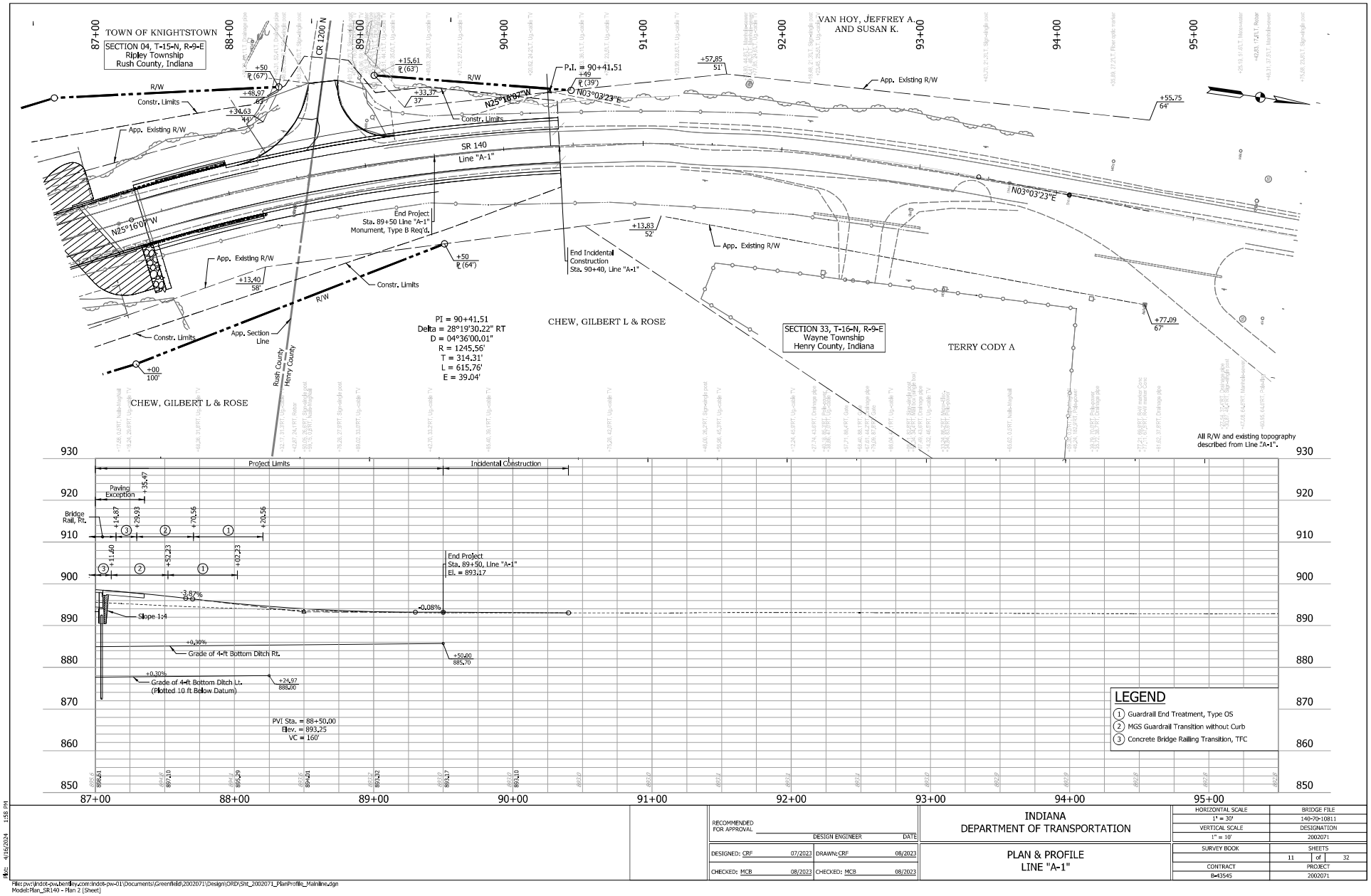

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 30' / VERTICAL SCALE 1" = 10' / BRIDGE FILE 140-70-10811 / DESIGNATION 2002071
DESIGNED: CRF 07/2023	DRAWN: CRF 08/2023	PLAN & PROFILE LINE "A-1"	SURVEY BOOK / SHEETS 11 of 32
CHECKED: MCB 08/2023	CHECKED: MCB 08/2023		CONTRACT B-43545 / PROJECT 2002071

Plot: 4/16/2024 1:56 PM
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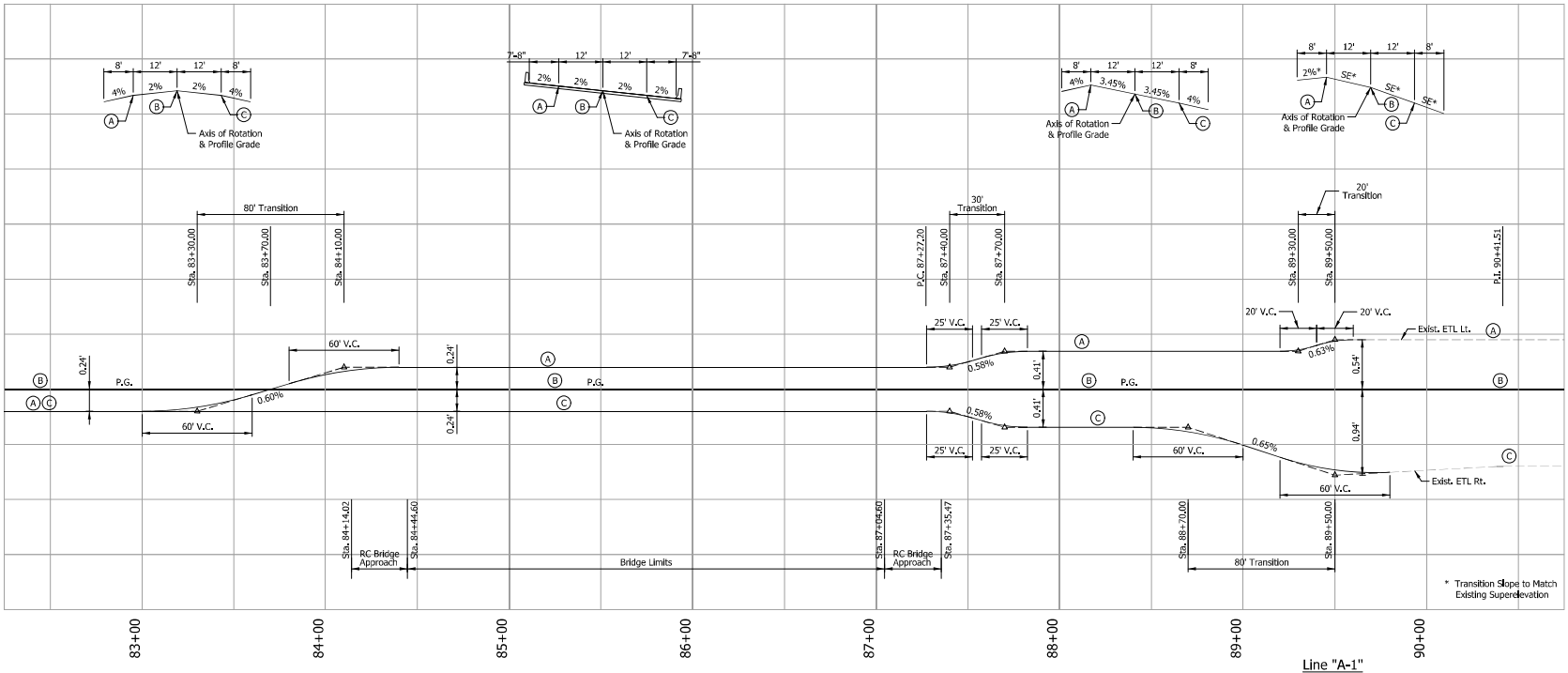

Line "A-1"
P.I. 90+41.51
Radius 1245.56 ft; Curve Rt.
SE = 3.45%* (8% max)
30 mph Design Speed

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: CRF 08/2023 DRAWN: CRF 08/2023

CHECKED: JB 08/2023 CHECKED: MAS 08/2023

INDIANA
DEPARTMENT OF TRANSPORTATION

SUPERELEVATION TRANSITION
LINE "A-1"

SCALE	BRIDGE FILE
NOT TO SCALE	140-70-10811
	DESIGNATION
	2002071
	SHEETS
	12 of 32
CONTRACT	PROJECT
B-43545	2002071

Plot: 4/16/2024 1:58 PM
File: pw:\\indot-pw.bentley.com:Indot-pw-01\Documents\Greenfield\2002071\Design\MS\SM_Superelevation.dgn
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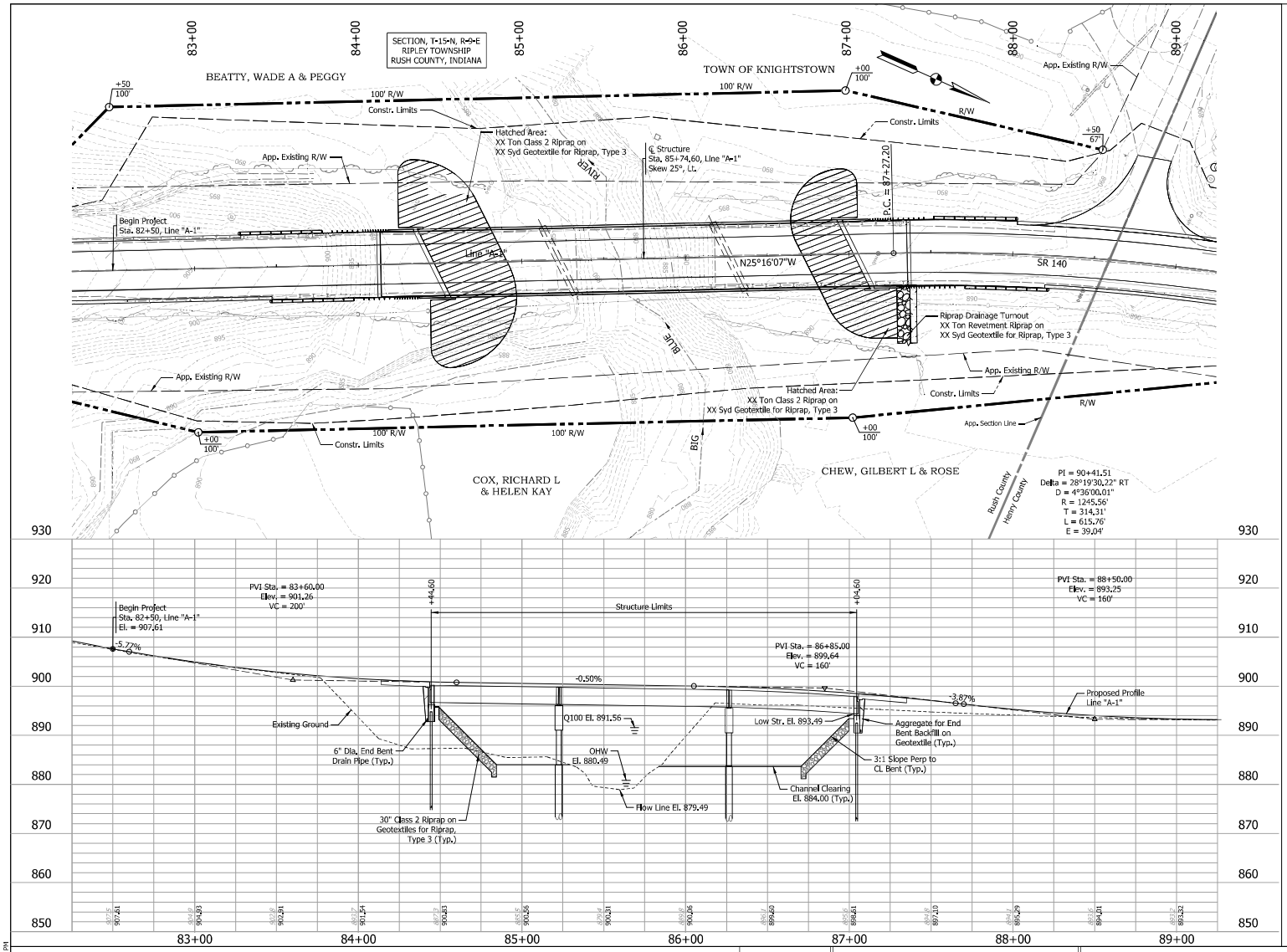


EXISTING STRUCTURE

Existing Structure is a 5-Span Continuous Composite Steel Beam Bridge with Prestressed Concrete Deck Panels that are Longitudinally Post-Tensioned (60'-0", 70'-0", 70'-0") with 2 Reinforced Concrete Slab Approach Spans (17'-0" South & 17'-0" North) and a 36'-0" Clear Roadway. (To be removed.)

HYDRAULIC DATA

Waterway Opening Required	1611.8 sq. ft.
Waterway Opening Provided	1686.9 sq. ft.
Drainage Area	134.1 sq. mi.
Q100 Discharge	8,800 cfs
Velocity @ Q100	5.11 ft./sec.
Q100 Elevation	891.46 ft.
Estimated Scour Elevation	864.45 ft.
Backwater @ Q100	0.71 ft
Existing Waterway Opening	1371.1 sq. ft.
Existing Backwater	1.99 ft.
Low Structure Elevation	893.49 ft.
Existing Low Structure Elevation	892.73 ft
Flowline Elevation	879.49 ft.

HYDRAULIC SCOUR DATA

Q100 Discharge	8,800 cfs
Q100 Elevation	891.46 ft.
Q100 Max Velocity	6.72 ft./sec.
Scour Depth (Contraction)	6.98 ft.
Scour Depth (Total)	14.18 ft.
Low Scour Elevation	865.31 ft.
Q500 Discharge	10,000 cfs
Q500 Elevation	891.89 ft.
Q500 Max Velocity	7.15 ft./sec.
Scour Depth (Contraction)	7.84 ft.
Scour Depth (Total)	15.04 ft.
Low Scour Elevation	864.45 ft.

EARTHWORK TABULATION

Fill + 20%	3,982 cys
Common Excavation	1,030 cys
Usable Waterway Excavation (70%)	1,533 cys
Surplus Foundation Excavation	74 cys
Borrow	1,345 cys
Total Waterway Excavation	2,190 cys
Excavation Unclassified	0 cys
Benching (Estimated)	573 cys

No direct payment for Benching. Benching will not be paid for as Common Excavation.

LEGEND

Class 2 Riprap

NOTES

All R/W on this sheet described from Line "A-1".

For General Notes, see Sht. 20.

CONTINUOUS COMPOSITE PRESTRESSED CONCRETE
BULB-TEE BEAM BRIDGE
3 SPANS: 78'-0", 104'-0", 78'-0"
39'-4" CLEAR ROADWAY SKEW: 25° LT.
S.R. 140 OVER BIG BLUE RIVER
RUSH COUNTY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: CRF 8/2023 | DRAWN: CRF 8/2023

CHECKED: MCB 8/2023 | CHECKED: MCB 8/2023

INDIANA
DEPARTMENT OF TRANSPORTATION

LAYOUT

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	140-70-10811
VERTICAL SCALE	DESIGNATION
1" = 10'	2002071
SURVEY BOOK	SHEETS
	18 of 32
CONTRACT	PROJECT
B-43545	2002071

Plot: 4/16/2024 1:56 PM
File: pw:\\indot-pw.bentley.com:indot-pw-01\Documents\Greenfield\2002071\Design\ORD\Sht_2002071_Layout.dgn
Model: Plan_SR140 - Plan 1 [Sheet]

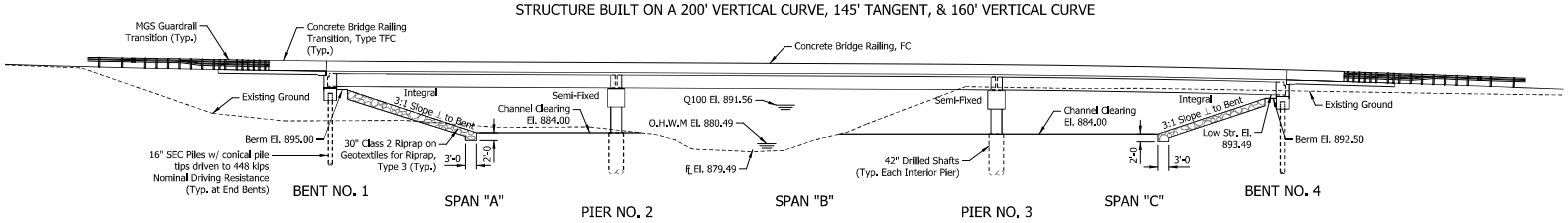
-5.77% -0.50% -3.87%

Sta. 83+60.00 "A-1" Elev. 901.26 V.C. = 200'

Sta. 86+85.00 "A-1" Elev. 899.64 V.C. = 160'

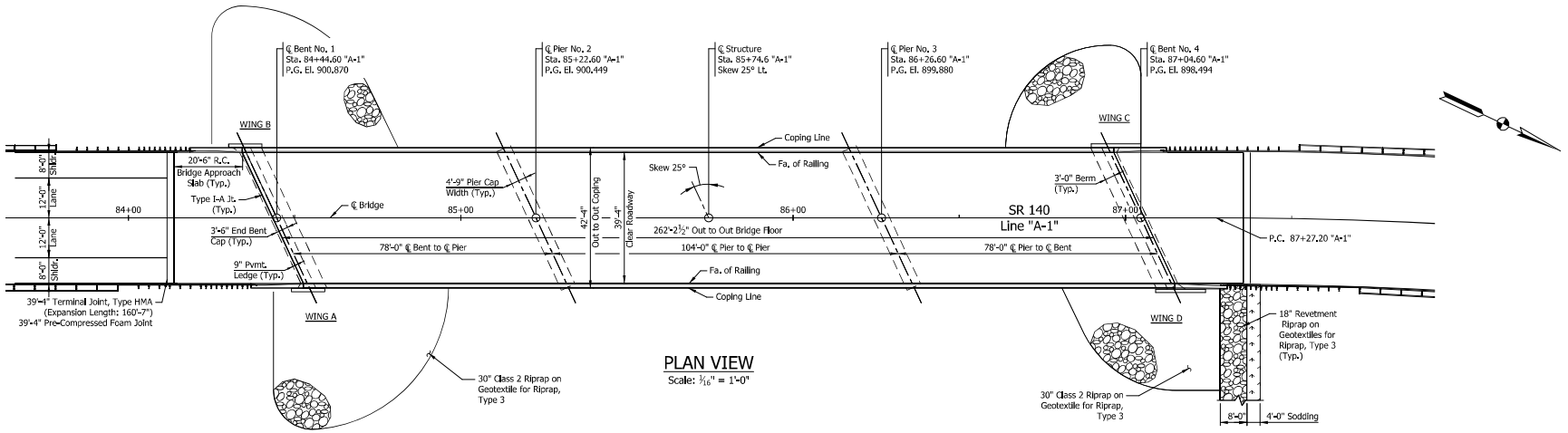
PROPOSED PROFILE GRADE

STRUCTURE BUILT ON A 200' VERTICAL CURVE, 145' TANGENT, & 160' VERTICAL CURVE



ELEVATION

Scale: 1/16" = 1'-0"



PLAN VIEW

Scale: 1/16" = 1'-0"

NOTES

For General Notes, see Sht. 20.

For Terminal Joint, Type HMA Detail and Pre-Compressed Foam Joint Detail, see Std. Dwg. 503-BATJ-01 & -03.

For Riprap Turnout Pad Detail, see Sht. 20.

For Full-Depth HMA Pavement, see Sht. 3.

CONTINUOUS COMPOSITE PRESTRESSED CONCRETE BULB-TEE BEAM BRIDGE
3 SPANS: 78'-0", 104'-0", 78'-0"
39'-4" CLEAR ROADWAY SKEW: 25° LT.
SR 140 OVER BIG BLUE RIVER
RUSH COUNTY

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: CRF 06/2023 DRAWN: MCB 07/2023

CHECKED: JB 08/2023 CHECKED: MAS 08/2023

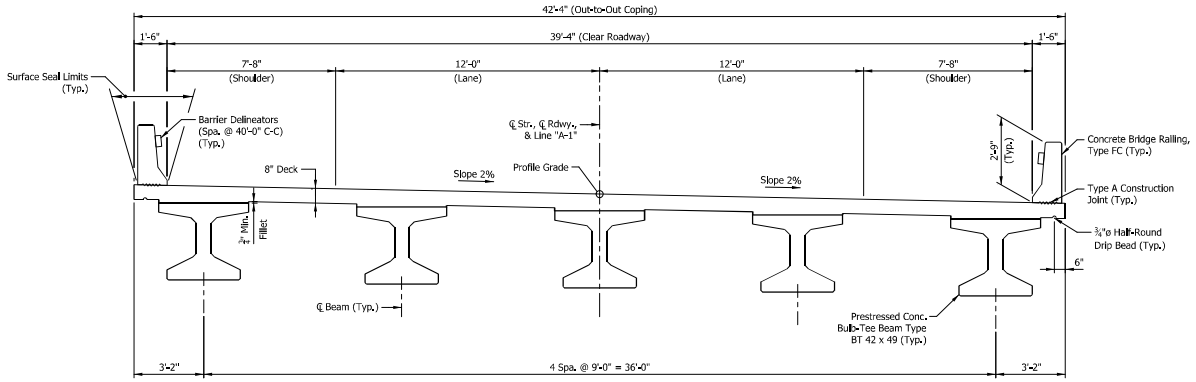
INDIANA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

SCALE	BRIDGE FILE
AS NOTED	140-70-10811
	DESIGNATION
	2002071
	SHEETS
	19 of 32
CONTRACT	PROJECT
B-43545	2002071

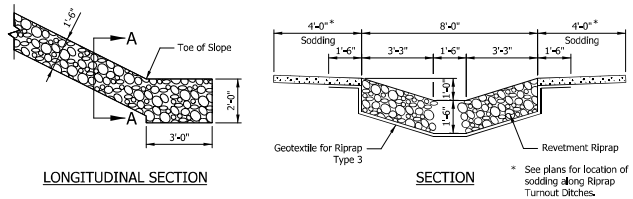
4/16/2024 1:58 PM

File: pw:\\indot-pw.bentley.com:indot-pw-01\Documents\Greenfield\2002071\Design\MS\Sht General Plan.dgn
Model: BR_Proposed General Plan Sheet



PROPOSED STRUCTURE SECTION

Scale: ⅜" = 1'-0"



LONGITUDINAL SECTION

SECTION

* See plans for location of sodding along Riprap Turnout Ditches.

RIPRAP TURNOUT DITCH DETAIL

Scale: ⅜" = 1'-0"

GENERAL NOTES

Plans for the existing structure are on file and available upon request from the Research & Documents Library, Indiana Department of Transportation as: Str. No. 140-70-06039, 140-70-06039-A, and 140-70-06039-B.

Reinforcing steel covering shall be 2½" minimum in the top and 1" minimum in the bottom of the slab and 2" in all other parts unless otherwise noted.

The following surfaces shall be Surface Sealed:
The exposed faces of the concrete bridge railings.
(Estimated Quantity = x,xxx Sft)

All disturbed areas not sodded or covered with riprap will be reseeded using Mulched Seeding, R.

DESIGN DATA

Live Load: Designed for HL-93 Loading in accordance with the AASHTO LRFD Bridge Design Specifications, 9th Edition, 2020.

Dead Load: Designed for actual dead load plus 35 lbs/sft future wearing surface and 15 lbs/sft to permit use of Permanent Metal Deck Forms.

Floor Slab: Designed with a 7½" structural depth and ½" integral wearing course.

Design Stresses:

Concrete, Class A	f'c = 3,500 psi
Concrete, Class B	f'c = 3,000 psi
Concrete, Class C	f'c = 4,000 psi
Reinforcing Steel (Grade 60)	fy = 60,000 psi

SEISMIC DESIGN DATA

Seismic Performance Zone: Zone 1
Acceleration Coefficient (SD_1): 0.071
Seismic Soil Profile Type: Class C

CONSTRUCTION LOADING

The exterior girder has been checked for strength, deflection, and overturning using the constructions loads shown below. Cantilever overhang brackets were assumed for support of the deck overhang past the edge of the exterior girder. The finishing machine was assumed to be supported 6 in. outside the vertical coping form. The top overhang brackets were assumed to be located 6 in. past the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the girder bottom flange and web.

Deck Falsework Loads: Designed for 15 lb/ft² for permanent metal stay-in-place deck forms, removable deck forms, and 2-ft exterior walkway.

Construction Live Load: Designed for 20 lb/ft² extending 2 ft past the edge of coping and 75 lb/ft vertical force applied at a distance of 6 in. outside the face of coping over a 30-ft length of the deck centered with the finishing machine.

Finishing Machine Load: 4500 lb distributed over 10 ft along the coping.

Wind Load: Structure designed for 70 mph horizontal wind loading in accordance with LRFD 3.8.1.

CONTINUOUS COMPOSITE PRESTRESSED
CONCRETE BULB-TEE BEAM BRIDGE
3 SPANS: 78'-0", 104'-0", 78'-0"
39'-4" CLEAR ROADWAY SKEW: 25° LT.
SR 140 OVER BIG BLUE RIVER
RUSH COUNTY

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: CRF 06/2023 DRAWN: MCB 07/2023

CHECKED: JB 08/2023 CHECKED: MAS 08/2023

INDIANA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

SCALE	BRIDGE FILE
AS NOTED	140-70-10811
	DESIGNATION
	2002071
	SHEETS
	20 of 32
CONTRACT	PROJECT
R-43545	2002071

Plot: 4/16/2024 1:58 PM
File: pw:\\indot-pw.bentley.com:Indot-pw-01\Documents\Greenfield\2002071\Design\MS\Sht General Plan.dgn
Model: BR_Structure Sections Sheet

Appendix C
Early Coordination

INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (317) 694-8283

Eric Holcomb, Governor
Michael Smith, Commissioner

DATE SAMPLE LETTER (Sent out October 9, 2023 and August 14, 2024)

Re: Early Coordination Letter, Des. No.: 2002071, Bridge Project on SR 140 over Big Blue River, 0.68 Mile South of US 40, Rush County, Indiana
KEG No. 19-1164.04

Dear Interested Party,

The Indiana Department of Transportation (INDOT), with federal funding, intends to proceed with a project involving the aforementioned bridge in Rush County. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above designation number and description in your reply**. We will incorporate your comments into a study of the project's environmental impacts.

This project is located on State Route (SR) 140 over Big Blue River, 0.68 mile south of US 40 in Rush County, Indiana. This section of SR 140 is a two lane *Rural Major Collector*. The existing SR 140 approach cross section consists of two 12-foot through lanes bordered by a 6-foot paved shoulder. The existing structure is a 5-span continuous composite steel beam with prestressed concrete deck panels (Str. #140-70-06039 B / NBI 026970). The draft need is due to the deterioration of the structure: the deck (rating 3 out of 9) is in serious condition, and the wearing surface, superstructure, substructure, and channel/channel protection (rating 5 out of 9) are in fair condition. The draft purpose is to have a structure with a condition rating of at least 7 (good condition) out of 9. The approximate existing right-of-way (ROW) varies within the project limits: west of SR 140, the existing ROW varies from 44 feet to 52 feet, and east of SR 140, the existing ROW varies from 58 feet to 73 feet, measured from the SR 140 centerline.

The proposed project is anticipated to include a total bridge replacement and reconstruction of the approach roadway. The replacement structure is anticipated to be a 3 span (78'-0", 104'-0", 78'-0") Continuous Composite Prestressed Concrete Bulb-Tee bridge, with a 42'-4" clear roadway width. The proposed bridge will be skewed at a 25 degree (left) skew. Revetment riprap turnouts are also anticipated. The project includes the acquisition of 0.43 acres of temporary right-of-way and 1.15 acres of permanent right-of-way. Proposed permanent right-of-way widths along SR 140 are 100 feet from centerline. The proposed temporary right-of-way is 120 feet from centerline, east of SR 140. The project will be approximately 1300 feet in length. The proposed maintenance of traffic (MOT) is anticipated to be a full road closure with a temporary runaround to the east of SR 140. Approximately 1.02 acres of trees will be cleared for this project. The project is anticipated to begin construction in November 2024.

Land use in the vicinity of the project is typical of a rural area with agricultural, and forested acres, in addition to be directly south of Knightstown, Indiana. Kaskaskia Engineering Group, LLC will perform the waters and wetlands determinations to identify water resources that may be present. The project is anticipated to qualify for the Rangewide Programmatic Agreement for the Indiana bat and northern long-eared bat by completing the Information for Planning and Consultation

(IPaC). Coordination will occur with INDOT Cultural Resources Office (CRO) to evaluate the project area for archaeological and historic resources and for Section 106 compliance. The results of this investigation will be forwarded to the State Historic Preservation Officer (SHPO) for review and concurrence as appropriate.

Please provide your response within thirty (30) calendar days from the date of this letter. 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 me, Brigitte Moneymaker at 618-233-5877 or bmoneymaker@kaskaskiaeng.com, or Don McGhghy, INDOT Project Manager at 317-467-3920 or dmcghghy@indot.in.gov. Thank you in advance for your input.

Sincerely,

Brigitte Moneymaker
Environmental Scientist
Kaskaskia Engineering Group, LLC

Attachment -

- Early Coordination Letter Recipient List
- Maps (Location, Aerial, Topographic)
- Photo Log

cc: Jeff Bislich, PE, WSP
Cheryl Folz, PE, INDOT

The following agencies received Early Coordination Letters:

Federal Highway Administration
Federal Office Building, Room 254
575 North Pennsylvania Street
Indianapolis, Indiana 46204
(electronic coordination)

Chief
Indiana Department of Environmental Management
Groundwater Section
100 N. Senate Avenue
Indianapolis, Indiana 46204
(electronic coordination)

Regional Environmental Coordinator
Midwest Regional Office
National Park Service
601 Riverfront Drive
Omaha, Nebraska 68102
(electronic coordination)

Indiana Geological and Water Survey
611 North Walnut Grove
Bloomington, Indiana 47405
(electronic coordination)

Environmental Coordinator
Indiana Department of Natural Resources
Division of Fish and Wildlife
402 West Washington Street
Room W273
Indianapolis, Indiana 46204
(electronic coordination)

Field Environmental Officer, Chicago Regional Office
U.S. Dept. of Housing & Urban Development
Metcalfe Federal Building
77 West Jackson Boulevard, Room 2401
Chicago, Illinois 60604
(electronic coordination)

INDOT Project Manager
Indiana Department of Transportation
Greenfield District
32 S Broadway St
Hancock County
Greenfield, Indiana 46140
(electronic coordination)

Environmental Section Manager
Indiana Department of Transportation
Greenfield District
33 S Broadway St
Hancock County
Greenfield, Indiana 46140
(electronic coordination)

Field Supervisor
U.S. Fish and Wildlife Service
Bloomington Indiana Field Office
620 South Walker Street
Bloomington, Indiana 0
(electronic coordination)

Commander
Eighth Coast Guard District
Attn: Bridge Branch
1222 Spruce Street
Room 2.102D
St Louis, Missouri 0
(electronic coordination)

U.S. Army Corps of Engineers
Louisville District
Indianapolis Regulatory Office
Indianapolis, Indiana 46216
(electronic coordination)

County Commissioner
Rush County
Northern District
101 East Second Street
Room 102
Rushville, Indiana 46173
(electronic coordination)

Director
Emergency Management Agency
Rush County
101 East Second Street, Room 102
Rushville, Indiana 46173
(electronic coordination)

Highway Superintendent
Highway Department
Rush County
1352 East State Road 44
Rushville, Indiana 46173
(electronic coordination)

Executive Director
Planning and Zoning Department
Rush County
101 East Second Street
Room 102
Rushville, Indiana 46173
(electronic coordination)

Section Chief, Wetlands and Stormwater Programs Indiana Department of Environmental Management 100 N. Senate Avenue
Indianapolis, IN 46204

State Conservationist
Natural Resources Conservation Service
6013 Lakeside Boulevard
Indianapolis, Indiana 46278

Surveyor
Rush County
101 East Second Street
Room 102
Rushville, Indiana 46173
(electronic coordination)

Eastern Indiana Regional Planning Commission
721 W 21st Street
Connersville, Indiana 47331

Ripley Township Trustee
Rush County
P. O. Box 182
Carthage, Indiana 46115
(electronic coordination)

President
Rush County Council
101 East Second Street
Room 102
Rushville, Indiana 46173
(electronic coordination)

Sheriff
Rush County
131 East First Street
Rushville, Indiana 46173

President
Town Council
Knightstown
120 E. Main Street
Knightstown, Indiana 46148

Clerk-Treasurer
Knightstown
120 E. Main Street
Knightstown, Indiana 46148
(electronic coordination)

Chief
Knightstown Police Department
24 S Washington Street
Knightstown, Indiana 46148
(electronic coordination)

Superintendent of Water
Knightstown Water Utility
7500 W 1200 N
Knightstown, Indiana 46148
(electronic coordination)

Knightstown Fire Department
30 S Washington Street
Knightstown, Indiana 46148
(electronic coordination)

Knightstown Police Department
120 East Street
Knightstown, Indiana 46148

Southwest District Ambulance
7984 W US-40
Knightstown, Indiana 46148

Principal
Knightstown High School
8149 W US HWY 40
Knightstown, Indiana 46148
(electronic coordination)

Henry County Emergency Medical Services
127 N 12th Street
New Castle, Indiana 47362

Knightstown Friends Church
214 E Brown Street
Knightstown, Indiana 46148

Knightstown Christian Church
138 W Main Street
Knightstown, Indiana 46148
(electronic coordination)

Terry Cody
Hoosier Youth Challenge Academy
10892 N State Road
Knightstown, Indiana 46148
(electronic coordination)

Presbyterian Church Bethel
112 S Franklin Street
Knightstown, Indiana 46148

Knightstown United Methodist
27 S Jefferson Street
Knightstown, Indiana 46148
(electronic coordination)

Added August 14, 2024
IDNR Oil & Gas Program
Inspector District 5
402 W. Washington St, Rm 293
Indianapolis, IN 46204

Organization and Project Information

Project ID:	19-1164.04
Des. ID:	2002071
Project Title:	SR 140 over Big Blue River Bridge Project
Name of Organization:	Kaskaskia Engineering Group LLC
Requested by:	Brigitte Moneymaker

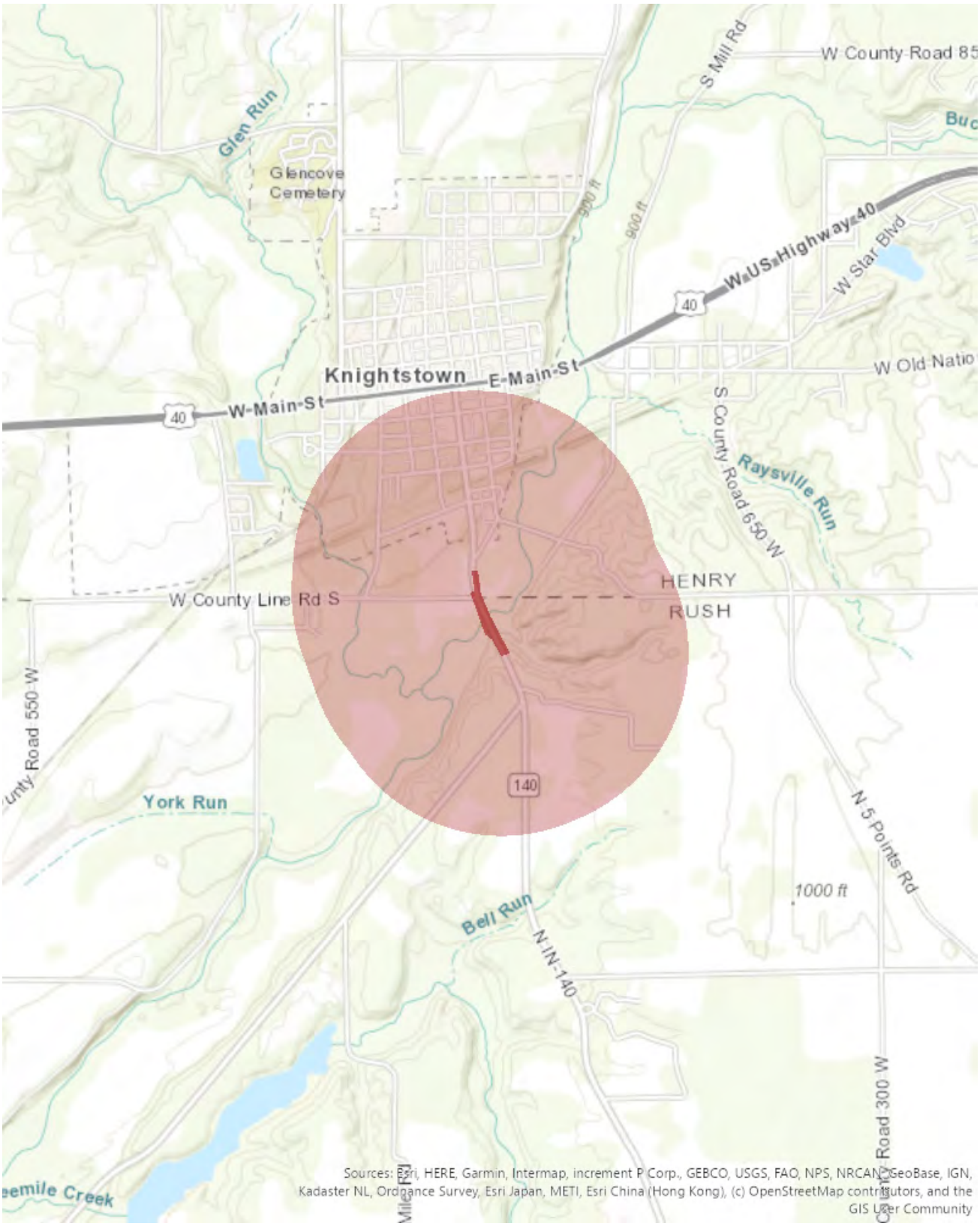
Environmental Assessment Report

1. Geological Hazards:
    - High 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)

This information was furnished by Indiana Geological Survey
Address: 1001 E. 10th St., Bloomington, IN 47405
Email: IGSEnvir@indiana.edu
Phone: 812 855-7428

Date: October 09, 2023



Metadata:

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

United States Department of Agriculture
Farm Production and Conservation
Natural Resources Conservation Service
Indiana State Office
6013 Lakeside Boulevard
Indianapolis, Indiana 46278
317-295-5800

October 12, 2023

Brigitte Moneymaker
208 E Main Street #100
Belleville, Illinois 62220

Dear Ms. Moneymaker:

The proposed Bridge Project on SR 140 over Big Blue River, 0.68 Mile South of US 40, Rush County (Des.No.2002071) as referred to in your letter received October 9, 2023, will cause a conversion of prime farmland.

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

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

Sincerely,

JOHN ALLEN

Digitally signed by JOHN ALLEN
Date: 2023.10.12 12:36:30 -04'00'

JOHN ALLEN
State Soil Scientist

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request	
Name of Project DES2002071_SR140 over Big Blue R		Federal Agency Involved FHWA	
Proposed Land Use INDOT ROW, slopes and drainage		County and State Rush County, IN	
PART II *(To be completed by NRCS)*		Date Request Received By NRCS	Person Completing Form: JRA
Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☑ NO ☐	Acres Irrigated	Average Farm Size: 379 ac
Major Crop(s): Corn	Farmable Land In Govt. Jurisdiction Acres: 255429 % 98	Amount of Farmland As Defined in FPPA Acres: 24196 % 93	
Name of Land Evaluation System Used: LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS: 10/12/2023	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	0.096			
B. Total Acres To Be Converted Indirectly	0			
C. Total Acres In Site	0.096			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	0.95			
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	97			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	57			

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)	10			
2. Perimeter In Non-urban Use	(10)	10			
3. Percent Of Site Being Farmed	(20)	0			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	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)	5			
TOTAL SITE ASSESSMENT POINTS	160	30	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	57	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	30	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	87	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES ☐ NO ☐

Reason For Selection:

Location of the property in relation to the needs of the project

Name of Federal agency representative completing this form: April Arroyo-Monroe | Date: March 1, 2023

(See Instructions on reverse side) **Form AD-1006 (03-02)**

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov
Eric J. Holcomb, *Governor*
Brian C. Rockensuess, *Commissioner*

October 13, 2023

Kaskaskia Engineering Group, LLC
Attention: Brigitte Moneymaker
323 Main Street
Evansville, IN 47708

Dear Brigitte Moneymaker:

Re: Wellhead Protection Area
Proximity Determination
Des No 2002071
Bridge Project on SR 140 over Big Blue River,
0.68 Mile South of US 40,
Rush County, Indiana

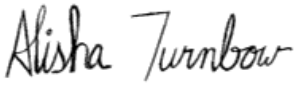
Upon review of the above referenced project site, it has been determined that the proposed project area **is not located within** a Wellhead Protection Area. However, the proposed project area **is located within 2,700 feet** of a Wellhead Protection Area If the contact information is needed for the WHPA, please contact the reference located at the bottom of the letter for the appropriate information. The information is accurate to the best of our knowledge; however, there are in some cases a few factors that could impact the accuracy of this determination. Some Wellhead Protection Area Delineations have not been submitted, and many have not been approved by this office. In these cases, we use a 3,000-foot fixed radius buffer to make the proximity determination. To find the status of a Public Water Supply System's (PWSS's) Wellhead Protection Area Delineation please visit our tracking database at http://www.in.gov/idem/cleanwater/2456.htm and scroll to the bottom of the page.

The project area **is not located within** a Source Water Assessment Area for a PWSS's surface water intake. The Source Water Assessment Area relates to the surface water drainage area that water could potentially flow and influence water quality for a PWSS's source of drinking water.

In the future, **please consider using this self-service tool** if it suits your needs. The Drinking Water Branch has a self-service tool which allows one to determine wellhead proximity without submitting the application form. Go to https://www.in.gov/idem/cleanwater/pages/wellhead/ and use the instructions at the bottom of the page.

If you have any additional questions, please feel free to contact me at the address above or at 317-233-9158 and aturnbow@idem.in.gov.

Sincerely,



Alisha Turnbow,
Environmental Manager
Ground Water Section
Drinking Water Branch
Office of Water Quality

THIS IS NOT A PERMIT

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

DNR#: ER-26006

Request Received: October 9, 2023

Requestor:
Brigitte Moneymaker
Kaskaskia Engineering Group, LLC
208 East Main Street, Suite 100
Belleville, IL 62220

Project:
SR 140 bridge (#140-70-06039 B / NBI 026970) replacement over Big Blue River, 0.68 miles south of US 40; KEG #19-1164.04, Des #2002071

County/Site Info: Rush County

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

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

Regulatory Assessment:
This proposal will require the formal approval for construction in a floodway under the Flood Control Act, IC 14-28-1. Please submit a copy of this letter with the permit application.

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

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

A) Stream Crossing Design
Bridges are preferred over culverts, and three-sided culverts are preferred over box or pipe culverts. Multiple culverts or culverts with multiple openings are not recommended for approval. These types of structures are often problematic for fish and wildlife passage as they tend to accumulate debris and become blocked. If box and pipe culverts are used, the culvert bottoms should be sumped a minimum of 6” (or 20% of the culvert height or diameter, whichever is greater up to a maximum of 2’) below the stream bed elevation. Sumping is not required for bridges or three-sided culverts. Crossings must span the entire channel width (a minimum of 1.2 times the ordinary high-water mark width). Crossings must maintain the natural stream substrate within the structure (natural stream substrate must be replaced in sumped box and pipe culverts up to the existing flowline). Scour protection at the inlet and outlet must not extend above the existing flowline elevation. Stream depth, channel width and water velocities in the crossing structure during low-flow conditions must approximate those in the natural stream channel.

The new/replacement/rehabilitated crossing structure, and any bank stabilization under or around the structure, must not create conditions that are less favorable for wildlife passage when compared to existing conditions. Upgrading wildlife passage for replacement/rehabilitated structures is recommended whenever possible to improve wildlife/vehicle safety. White-tailed deer passage must be incorporated into all new structures where no structure previously existed. Minimum structure dimensions for white-tailed deer passage are 20 feet of width clearance (overall span of the structure) and 8 feet of height clearance measured from the ordinary high-water mark (OHWM). Bank lines must be maintained or restored within structures to allow for wildlife passage above the OHWM. All wildlife passage designs must include a smooth level pathway a minimum of 1-3 feet in width composed of natural substrate (soil, sand, gravel, etc.) or compacted aggregate fill over riprap (#2, #53, #73, etc.) tied into existing elevations both upstream and downstream. The width and location of the wildlife pathway is dependent on the wildlife species using the area.

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

https://www.fs.usda.gov/ccrc/tool/fishxing-fish-passage-learning-systems
https://www.fs.usda.gov/wildlifecrossings/library/index.php
https://www.fhwa.dot.gov/clas/ctip/wildlife_crossing_structures/
https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf

B) Streambank Stabilization

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

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

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

C) Riparian Habitat

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

Impacts to non-wetland forest of one (1) acre or more in a rural or urban area should be mitigated at a minimum 2:1 ratio based on area of impact. Impacts to non-wetland forest under one (1) acre but at least 0.10 acre in a rural or urban area should be mitigated at a minimum 1:1 ratio based on area of impact. Impacts under 0.10 acre in a rural area typically do not require mitigation or additional plantings beyond seeding and stabilizing disturbed areas, though there are exceptions for high quality habitat sites. Impacts under 0.10 acre

in an urban area should be mitigated by replacing trees that are 10” diameter-at-breast height (dbh) or greater by planting five trees, 1” to 2” in dbh, for each tree which is removed that is 10" dbh or greater. Seeding and stabilizing disturbed areas is required regardless of the impact amount and location. If floodway impacts to forested wetland and non-wetland habitat areas combine to be 0.10 acres or more, mitigation should be done and coordinated with the biologist, as needed.

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

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

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

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

Rachel Van Voorhis **Date:** November 8, 2023
Rachel Van Voorhis
Environmental Coordinator
Division of Fish and Wildlife

United States Department of the Interior

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

In Reply Refer To: November 13, 2023
Project code: 2024-0014940
Project Name: SR 140 over Big Blue River, Bridge Replacement, DES 2002071

Subject: Consistency letter for the 'SR 140 over Big Blue River, Bridge Replacement, DES 2002071' project under the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (NLEB).

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated November 13, 2023 to verify that the **SR 140 over Big Blue River, Bridge Replacement, DES 2002071** (Proposed Action) may rely on the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

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

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

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

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

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

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

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

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

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

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

PROJECT DESCRIPTION

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

NAME

SR 140 over Big Blue River, Bridge Replacement, DES 2002071

DESCRIPTION

This project is located on State Route (SR) 140 over Big Blue River, approximately 0.68 mile south of US 40 in Rush and Henry Counties, Indiana. The proposed project is anticipated to include a total bridge replacement (Str. #140-70-06039 B / NBI 026970). In addition to the structure replacement activities, the project will include reconstruction of the approach roadway, roadside ditch work, grading, revetment riprap turnouts, and replacement of the guardrails. There is suitable summer habitat within the project area. The removal of 1.02 acres of trees within 100 feet of the roadway east and west of SR 140 is anticipated during the inactive season. The dominant species of the trees to be removed includes Norway Maple (Acer platanoides), Sycamore (Platanus occidentalis), Eastern Black Walnut (Juglans nigra), and Tree-of-Heaven (Ailanthus altissima). INDOT personnel from the Greenfield District stated on May 19, 2023 that a review of the USFWS database indicated ‘there are ten documented Indiana Bat capture sites within a half mile of the project area’. The BIAS inspection by INDOT on November 18, 2022 did not find any evidence indicating bats were seen or heard on the bridge. An environmental inspection of the bridge by Kaskaskia Engineering Group, LLC on July 5, 2023 did not find evidence indicating bats were seen or heard on the bridge. Construction is anticipated to begin in Fall 2024. No permanent lighting is anticipated; however, temporary lighting changes are possible due to nighttime construction. This project will require mitigation under the In-Lieu Fee Program, (1.02 acres x 1.75 x $11,350) = $20,259.75.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.7862765,-85.52465711478192,14z

DETERMINATION KEY RESULT

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

QUALIFICATION INTERVIEW

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

   [1] See Indiana bat species profile

   Automatically answered
   Yes

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

   [1] See northern long-eared bat species profile

   Automatically answered
   Yes

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

   A) Federal Highway Administration (FHWA)

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

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

   No

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

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

   No

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

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

   No

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

   No

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

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

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

   Yes

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

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

   Yes

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

    No

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

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

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

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

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

    No

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

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

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

    Yes

13. Will the project remove or trim *any* habitat or trees that occur **within documented Indiana bat roosting/foraging habitat**[1] or travel corridors[2]?

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

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

    Yes

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

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

    B) During the inactive season

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

    Yes

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

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

    B) During the inactive season

17. Does the project include activities **within documented NLEB habitat**[1][2]?

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

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

    No

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

    Yes

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

    B) During the inactive season

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

    Yes

21. Will the tree removal alter *any* **documented** Indiana bat roosts and/or alter any surrounding summer habitat **within** 0.25 mile of a documented roost?

    Yes

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

    No

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

    Yes

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

    No

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

    Yes

26. Does the project include slash pile burning?

    No

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

    Yes

28. 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

29. 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

    - *Bat Assessment 2002071.pdf https://ipac.ecosphere.fws.gov/project/WWYYS42T6VHP7CMNWKX7X5OIVA/projectDocuments/134492237*
    - *SR 140 Bridge Inspection Report_2022.pdf https://ipac.ecosphere.fws.gov/project/WWYYS42T6VHP7CMNWKX7X5OIVA/projectDocuments/134492242*

30. 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

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

    No

32. 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

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

    Yes

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

    Yes

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

    No

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

    No

37. 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

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

    No

39. Are the wetland or stream protection activities associated with compensatory wetland/ stream mitigation portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

    Automatically answered
    Yes, because your activities associated with compensatory wetland/stream mitigation activities do not clear suitable summer habitat and are not within 0.5 miles of Indiana bat or NLEB hibernaculum.

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

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

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

    Automatically answered
    Yes, because tree removal that occurs within documented Indiana bat roosting/foraging habitat or travel corridors outside the active season will be done ≤300 feet from the existing road/rail surface

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

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

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

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

44. 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

45. **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

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

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

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

    Yes

47. **Tree Removal AMM 3**
    Can tree removal be limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits)?

    Yes

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

    Yes

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

    1. Range-wide In Lieu Fee Program, The Conservation Fund

PROJECT QUESTIONNAIRE

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

   N/A

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

   N/A

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

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

   1.02

4. **Please verify:**
   All tree removal will occur greater than 0.5 mile from any hibernaculum.

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

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

   Yes

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

   No

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

   No, this is not the case.

8. **Please verify:**

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

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

9. Please describe the proposed bridge work:

   The proposed project is anticipated to include a total bridge replacement (Str. #140-70-06039 B / NBI 026970). In addition to the structure replacement activities, the project will include reconstruction of the approach roadway, roadside ditch work, grading, revetment riprap turnouts, and replacement of the guardrails.

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

    Fall 2024

11. Please enter the date of the bridge assessment:

    BIAS: 11/18/22; Env. Inspection: 7/5/2023

12. You have indicated that the following Avoidance and Minimization Measures (AMMs) will be implemented as part of the proposed project:
    - *Tree Removal AMM 1*
    - *Lighting AMM 1*
    - *Tree Removal AMM 3*
    - *General AMM 1*

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

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

TREE REMOVAL AMM 1

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

LIGHTING AMM 1

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

TREE REMOVAL AMM 3

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

GENERAL AMM 1

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

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

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

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

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

IPAC USER CONTACT INFORMATION

Agency: Indiana Department of Transportation
Name: Brigitte Moneymaker
Address: 323 Main Street Suite E
City: Evansville
State: IN
Zip: 47708
Email bmoneymaker@kaskaskiaeng.com
Phone: 6182335877

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

Bridge/Structure Bat Assessment Form

Date & Time of Assessment	DOT Project Number	Route/Facility Carried	County
7/5/2023 14:00	2002071	SR 140, over Big Blue River	Rush
Federal Structure ID Str. #140-70-06039 B / NBI #026970	**Structure Coordinates (latitude and longitude)** Latitude: 39.78607 Longitude: -85.52455	**Structure Height (approximate)** 36 feet	**Structure Length** 241.5 feet

Structure Type (check one)

Bridge Construction Style

- ○ Cast-in-place
- ○ Flat Slab/Box
- ○ Truss (Side View)
- ○ Parallel Box Beam
- ○ Pre-stressed Girder
- ○ Steel I-beam
- ○ Covered
- ◉ Other: 5-span continuous composite steel beam with prestressed concrete deck panels

Culvert Type

- ○ Box
- ○ Pipe/Round
- ○ Other:

Other Structure

- ○

Structure Material (check all that apply)

Deck Material	*Beam Material*	*End/Back Wall Material*
☐ Metal	☐ None	☒ Concrete
☒ Concrete	☒ Concrete	☐ Timber
☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Open grid	☐ Timber	☐ Other:
☐ Other:	☐ Other:	

Creosote Evidence

- ○ Yes ○ No ○ Unknown

Culvert Material

- ☐ Metal
- ☐ Concrete
- ☐ Plastic
- ☐ Stone/Masonry
- ☐ Other:

Notes:

Crossings Traversed (check all that apply)

☐ Bare ground	☐ Open vegetation	
☐ Rip-rap	☐ Closed vegetation	
☒ Flowing water	☐ Railroad	
☐ Standing water	☐ Road/trail - Type:	
☐ Seasonal water	☐ Other:	

Surrounding Habitat (check all that apply)

☐ Agricultural	☐ Grassland
☒ Commercial	☐ Ranching
☐ Residential-urban	☒ Riparian/wetland
☒ Residential-rural	☐ Mixed use
☒ Woodland/forested	☐ Other:

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)	Assessment Notes	Evidence of Bats (include photos if present)
☒ All crevices and cracks: **Bridges/culverts:** rough surfaces or imperfections in concrete **Other structures:** soffits, rafters, attic areas	☐ Not present: No evidence of Bats Present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Concrete surfaces (open roosting on concrete)	☐ Not present: No evidence of Bats Present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Spaces between concrete end walls and the bridge deck	☐ Not present: No evidence of Bats Present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Crack between concrete railings on top of the bridge deck (Gap / Railing)	☐ Not present: No evidence of Bats Present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Vertical surfaces on concrete I-beams	☐ Not present: No evidence of Bats Present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Spaces between walls, ceiling joists	☐ Not present: No evidence of Bats Present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Weep holes, scupper drains, and inlets/pipes	☐ Not present: No evidence of Bats Present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ All guiderails	☐ Not present: No evidence of Bats Present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ All expansion joints	☐ Not present: No evidence of Bats Present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species

Name: Brigitte Moneymaker

Signature: Brigitte Moneymaker

United States Department of the Interior
Fish and Wildlife Service

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

December 5, 2023

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

USFWS Project Code #:2024-0014940

RE: SR 140 over Big Blue River, Bridge Replacement, Henry and Rush Counties, Des. 2002071

Dear Ms. Carmany-George:

The U.S. Fish and Wildlife Service (Service) is responding to your request dated November 13, 2023 to verify that the proposed SR 140 over Big Blue River Bridge Replacement (the Project) may rely on the amended February 5, 2018, Programmatic Biological Opinion (BO) (dated March 23, 2023) for federally funded or approved transportation projects that may affect the federally listed endangered Indiana bat (*Myotis sodalis*) and/or federally listed endangered northern long-eared bat (NLEB) (*Myotis septentrionalis*). We received your request and the associated Likely to Adversely Affect (LAA) Consistency Letter on November 14, 2023.

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

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

Conclusion

The Service has reviewed the effects of the proposed Project, which includes the FHWA's commitment to implement any applicable mitigation measures as indicated on the LAA Consistency Letter. We confirm that the proposed Project's effects are consistent with those analyzed in the BO. The Service has determined that projects consistent with the conservation measures and scope of the program analyzed in the BO are not likely to jeopardize the continued existence of the Indiana bat or the NLEB. In coordination with your agency and the other

sponsoring Federal Transportation Agencies, the Service will reevaluate this conclusion annually in light of any new pertinent information under the adaptive management provisions of the BO.

Incidental Take

Indiana Bat and Northern Long-eared Bat

Tree Removal

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

The proposed Project will remove **1.02 acre(s)** of trees from habitat that is suitable for the Indiana bat and NLEB and has documented Indiana bat use. All tree removal will occur in winter and comply with all other conservation measures in the BO. Based on the BO, all 1.02 acres of tree removal are anticipated to result in adverse effects to Indiana bats.

The FHWA used the mitigation ratio of 1.75 from Table 3 of the BO[1] to calculate the compensatory mitigation required to offset adverse impacts to the Indiana bat for a total of **1.785** acres[2] of trees that is suitable for the Indiana bat. **Mitigation is not required for the NLEB.**

To comply with the mitigation requirements of the BO, the FHWA will contribute **$20,259.75** to The Conservation Fund (TCF), the Program Sponsor, within 1 year of this letter or prior to the start of construction, whichever is earliest. These calculations are based on the mitigation identified above[2] and the 2023 Land Use Values in Table 2 of Exhibit E in TCF's ILF Instrument[3]. If payment is made later than 1 year from the date of this letter, the mitigation cost may change as a result of updated land use values in Table 2 of Exhibit E. The FHWA or designated non-federal representative must notify TCF at least five days prior to payment so that TCF can verify that the appropriate land value has been used. At the time of payment, the FHWA or designated non-federal representative shall notify the Service of compliance with the compensatory mitigation requirements as described above.

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

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

2 XX acres * XX ratio

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

Bridge, Culvert, and/or Structure Activities

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

Tricolored Bat

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

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

Reasonable and Prudent Measures

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

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

Reporting Dead or Injured Bats

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

Reinitiation Notice

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

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

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

- the Project removes more than 1.02 acres of documented Indiana bat habitat or tree removal extends beyond 100 feet from the edge of pavement; and/or
- the Project takes more than 5 Indiana bats and/or 5 NLEBs resulting from bridge, culvert, or structure activities[4].

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

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

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

Sincerely,

ROBIN MCWILLIAMS-MUNSON

Digitally signed by ROBIN MCWILLIAMS-MUNSON
Date: 2023.12.05 10:19:02 -05'00'

For Susan E. Cooper
Field Office Supervisor

United States Department of the Interior

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

In Reply Refer To: 05/09/2024 14:42:16 UTC
Project Code: 2024-0014940
Project Name: SR 140 over Big Blue River, Bridge Replacement, DES 2002071

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

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

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

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

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

Attachment(s):

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

OFFICIAL SPECIES LIST

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

This species list is provided by:

Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
(812) 334-4261

PROJECT SUMMARY

Project Code: 2024-0014940

Project Name: SR 140 over Big Blue River, Bridge Replacement, DES 2002071

Project Type: Bridge - Replacement

Project Description: This project is located on State Route (SR) 140 over Big Blue River, approximately 0.68 mile south of US 40 in Rush and Henry Counties, Indiana. The proposed project is anticipated to include a total bridge replacement (Str. #140-70-06039 B / NBI 026970). In addition to the structure replacement activities, the project will include reconstruction of the approach roadway, roadside ditch work, grading, revetment riprap turnouts, and replacement of the guardrails. There is suitable summer habitat within the project area. The removal of 1.02 acres of trees within 100 feet of the roadway east and west of SR 140 is anticipated during the inactive season. The dominant species of the trees to be removed includes Norway Maple (Acer platanoides), Sycamore (Platanus occidentalis), Eastern Black Walnut (Juglans nigra), and Tree-of-Heaven (Ailanthus altissima). INDOT personnel from the Greenfield District stated on May 19, 2023 that a review of the USFWS database indicated ‘there are ten documented Indiana Bat capture sites within a half mile of the project area’. The BIAS inspection by INDOT on November 18, 2022 did not find any evidence indicating bats were seen or heard on the bridge. An environmental inspection of the bridge by Kaskaskia Engineering Group, LLC on July 5, 2023 did not find evidence indicating bats were seen or heard on the bridge. Construction is anticipated to begin in Fall 2024. No permanent lighting is anticipated; however, temporary lighting changes are possible due to nighttime construction. This project will require mitigation under the In-Lieu Fee Program, (1.02 acres x 1.75 x $11,350) = $20,259.75.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.7862765,-85.52465711478192,14z

Counties: Henry and Rush counties, Indiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 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 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

MAMMALS

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

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

INSECTS

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

CRITICAL HABITATS

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

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

BALD & GOLDEN EAGLES

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

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

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

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

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

Probability of Presence (▪)

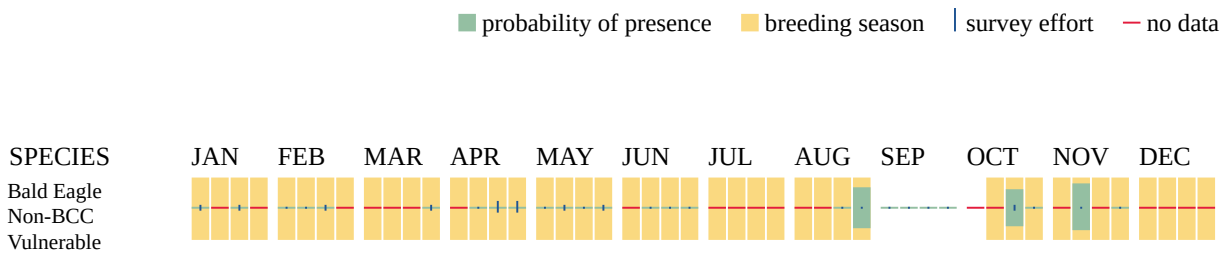
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (▪)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

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

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

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

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

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

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

Probability of Presence (■)

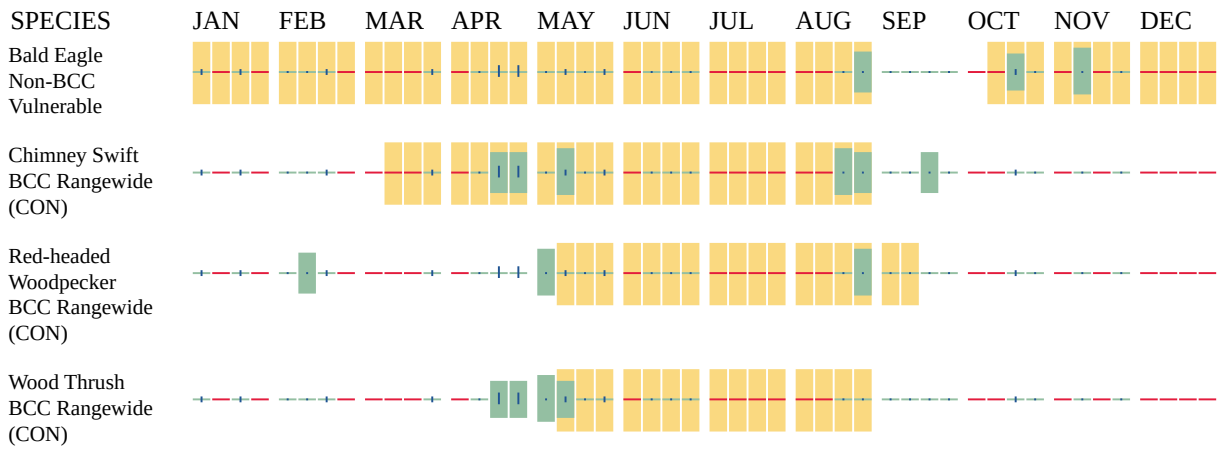
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

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

■ probability of presence ■ breeding season | survey effort – no data



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

WETLANDS

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

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

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

RIVERINE

- R2UBH

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LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration