FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	SR 44/Johnson County
Designation Number(s):	1900153
Project Description/Termini:	Small structure project/approximately 10.70 miles west of SR 37; project termini extend 260 feet east and west of the center of the structure, with a total project length of 520 feet.

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

Approval

INDOT DE Signature and Date

INDOT ESD Signature and Date

FHWA Signature and Date

Release for Public Involvement

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INDOT DE Initials and Date

INDOT ESD Initials and Date

Certification of Public Involvement

INDOT Consultant Services Signature and Date

INDOT DE/ESD Reviewer Signature and Date:

Name and Organization of CE/EA Preparer: Shelby Lutz, SJCA Inc.

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 Survey letters were mailed to potentially affected property owners near the project area on April 4, 2022, 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 Survey letter is included in Appendix G1.

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) INDOT District: Seymour

Local Name of the Facility: SR 44 over UNT to Koots Fork

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

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

PURPOSE AND NEED:

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

Need

The need for this project is due to the deteriorating conditions of the existing structure. Deterioration is present including efflorescence and leaking between beams, undermining with exposed footings and piles, and minor scour. According to the March 17, 2020 Culvert Inspection Report (Appendix I2 – I4), the structure was given an overall condition rating of 6 out of 9 (satisfactory). Condition ratings range from “0” to “9”, with “0” being a failed structure and “9” being a structure in excellent condition. Small structures typically include only one overall condition rating; however, due to the size of this structure, the inspection report includes ratings for the superstructure, substructure, and channel protection at 6 out of 9 (satisfactory), and ratings for the headwall and wingwalls at 7 out of 9 (good).

Purpose

The purpose of the project is to provide a structure with condition ratings of at least 7 out of 9 (good) on the superstructure, substructure, channel protection, headwalls, and wingwalls.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Johnson Municipality: N/A

Limits of Proposed Work: Approximately 260 feet east and west of the center of the structure on SR 44

Total Work Length: 0.10 Mile(s) Total Work Area: 0.69 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.

INDOT and the Federal Highway Administration (FHWA) intend to proceed with a small structure project involving SR 44 over an UNT to Koots Fork.

Location

This project is located along SR 44 in Union Township, Johnson County, Indiana. The existing structure is located approximately 10.70 miles west of SR 37 in Sections 28 and 33, Township 12 North, Range 3 East. A project location map, United States Geological Survey (USGS) topographic map, and an aerial imagery map are included in Appendix B1 – B3.

Existing Conditions

SR 44 is an east-west Rural Major Collector roadway with a posted speed limit of 55 miles per hour (mph). The existing roadway provides two 10-foot-wide through travel lanes and two 2-foot-wide usable aggregate shoulders. Existing guardrails extend approximately 90 linear feet from the northwest and southeast quadrants and approximately 160 feet from the northeast and southwest quadrants of the structure. There are no pedestrian facilities present within the project area.

The existing structure (CV 044-041-10.70) is a 26-foot-long reinforced concrete slab top culvert with an 18-foot span, a 5-foot rise, and no skew. The section of SR 44 over the structure provides two 11-foot-wide travel lanes and two usable shoulders that are 4 feet, 4 inches wide. Aluminum W-beam guardrails are present along both sides of the structure. Deterioration is present including efflorescence and leaking between beams, undermining with exposed footings and piles, and minor scour. According to the March 17, 2020 Culvert Inspection Report (Appendix I2 – I4), the culvert was given an overall condition rating of 6 out of 9 (satisfactory).

Within the existing structure, stone abutments from a previous structure are present on both streambanks of UNT to Koots Fork. The stone abutments are located directly beneath the roadway of SR 44 but are freestanding and do not touch the existing structure or roadway. Please refer to Appendix B6 for photos of these stone abutments. Additionally, there is a concrete retaining wall located approximately 4-feet upstream of the structure on the north side of SR 44. An agricultural drainage tile, known as the Johnson County Shuck Legal Tile, exits through the retaining wall and drains into UNT to Koots Fork.

Land use in the vicinity of the project area is agricultural on the north side of SR 44, with a forested tract along UNT to Koots Fork on the south side of SR 44. CR 575 W is approximately 260 linear feet west of the center of the structure. There are no other roads, driveways, or access drives within or adjacent to the project area. Public utilities are present within the project area, including overhead telephone and electric lines parallel to the south side of SR 44 and underground gas lines parallel to the north side of SR 44.

Preferred Alternative

The preferred alternative for the project includes replacing the existing structure with a new precast reinforced concrete three-sided bridge. The new structure (Structure No. 044-41-10721) will be built on the same alignment as the existing structure, and will have one span of 24 feet and no skew. The structure will provide an out-to-out coping width of 38 feet and a clear roadway width of 30 feet, including two 11-foot-wide travel lanes and two 4-foot-wide shoulders. The new structure will have aluminum guardrails on both sides, and new approach slabs on either end of the structure. Wingwalls will be installed at the southern corners of the new structure, and a reinforced concrete weir wall will be installed north of the structure. Riprap will be installed at the north and south ends of the structure, as well as throughout the structure, for erosion control, scour protection, and to provide a flat surface under the structure for wildlife passage. The existing stone abutments will be removed, and the north roadside of SR 44 will be regraded to a more gradual slope. The existing concrete retaining wall north of the structure will be relocated further upstream along UNT to Koots Fork, and the agricultural drainage tile will be shortened to exit through the new wall.

Traffic will be maintained by a road closure and detour utilizing SR 37/Interstate 69 (I-69), SR 252, and SR 135. Please refer to the

Maintenance of Traffic (MOT) section of this document and the project plans (Appendix B9) for additional information. This project will require the acquisition of new permanent right-of-way (ROW). Tree clearing and vegetation disturbance will be required for project activities and incidental construction. Due to the replacement of the existing structure, relocation of the retaining wall north of the structure, and placement of riprap, both permanent and temporary stream impacts are anticipated to occur to UNT to Koots Fork. Mitigation may be necessary for these impacts to terrestrial habitat and the stream and will be determined during the permitting process. Project plans can be found in Appendix B7 – B13. Letting for this project is currently anticipated for Winter 2023.

Project termini extend approximately 260 feet east and west of the center of the structure, from the intersection of SR 44 and CR 575 W to approximately 520 feet east of CR 575 W. The total project length of the structure will be approximately 520 feet (0.10 mile). These termini will allow for the replacement of the existing structure, as well as areas of incidental construction. Therefore, the project has logical termini. The project has independent utility because the project does not rely on any other project to meet its purpose and need.

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.

According to the January 2021 Abbreviated Engineer's Report for the project, three alternatives besides the Preferred and Do Nothing alternatives were considered (Appendix I5 – I12).

No Build/Do Nothing
In the No Build/Do Nothing alternative, no expenditure of funds or construction would occur, and there would be no impacts to the built, social, or natural resources. However, this alternative does not meet the purpose and need of the project as it does not address the existing deficiencies, nor would it provide a structure with a condition rating of at least 7 out of 9 (good). Therefore, this alternative was discarded from further consideration.

Reinforced Concrete Box
This alternative would replace the existing structure with a reinforced concrete box (RCB) structure. The alternative meets the Standard Specification Section 714 for Reinforced Concrete Box Structures. The new structure would provide a 19-foot span and would require a 12-inch sump throughout the structure. The alternative would provide the same low structure elevation and a similar footprint to the other alternatives evaluated and would require the flowline to be lowered by six inches at the inlet. Guardrails would be required over the structure. This alternative meets the purpose and need by providing a structure with a condition rating of at least 7 out of 9 (good); however, the estimated construction cost of this alternative would be higher than the preferred while providing a design life similar to the preferred alternative. This alternative would not provide for wildlife passage wider than the preferred alternative. Therefore, this alternative was not selected as the preferred alternative.

Three-Sided Flat Top Structure
This alternative would replace the existing structure with a 3-sided flat top structure. The new structure would provide a span of at least 19 feet and would meet the Standard Specification Section 723 for Reinforced Concrete Three-Sided Structures. The structure would provide the same low structure elevation and a similar footprint to the other alternatives evaluated and would require the flowline to be lowered six inches at the inlet. The preferred foundation for the structure would be a spread footing, but piles would be required due to the site location, which would increase the estimated construction cost. Guardrails would be required over the structure. The alternative meets the purpose and need by providing a structure with a condition rating of at least 7 out of 9 (good) and would provide a design life similar to the preferred alternative. However, the estimated construction costs are estimated to be higher than the preferred alternative and would not provide for wildlife passage wider than the preferred alternative. Therefore, this alternative was not selected as the preferred alternative.

Three-Sided Arch Top Structure
This alternative would replace the existing structure with a 3-sided arch top structure. The structure would provide a span of 24 feet and would meet the Standard Specification Section 723 for Reinforced Concrete Three-Sided Structures. The structure would provide the same low structure elevation, a similar size footprint, and would also require the flowline to be lowered six inches at the inlet. Guardrails would be required over the structure. The foundation for the structure would require piles due to the site conditions, which would increase construction costs. Although this alternative would meet the purpose and need by providing a structure with a condition rating of at least 7 out of 9 (good) and would provide a design life similar to the preferred alternative, construction costs are estimated to be higher for this alternative than the preferred. This alternative would not provide for wildlife passage wider than the preferred alternative. Therefore, this alternative was not selected as the preferred alternative.

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

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

ROADWAY CHARACTER:

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

Name of Roadway: SR 44
Functional Classification: Rural Major Collector
Current ADT: 2,307 VPD (2023) Design Year ADT: 2,472 VPD (2043)
Design Hour Volume (DHV): 247 Truck Percentage (%): 4.24
Designed Speed (mph): 55 Legal Speed (mph): 55

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	Asphalt Through Lanes		Asphalt Through Lanes	
Pavement Width:	20.0	ft.	22.0	ft.
Shoulder Width:	2.0	ft.	Varies 1.67 to 9.17	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

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

BRIDGES AND/OR SMALL STRUCTURE(S):

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

Structure/NBI Number(s): CV 044-041-10.70 Sufficiency Rating: N/A
(Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	Concrete Slab Top Culvert		Precast Reinforced Concrete Three-Sided Bridge	
Number of Spans:	1		1	
Weight Restrictions:	N/A	ton	36	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	N/A	ft.	30.0	ft.
Outside to Outside Width:	N/A	ft.	38.0	ft.
Shoulder Width:	N/A	ft.	4.0	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 project involves the replacement of the existing structure, CV 044-041-10.70. The structure is a 26-foot-long concrete slab top culvert with an 18-foot span and a 5-foot rise. The proposed replacement structure, Structure No. 044-41-10721, is a precast three-sided reinforced concrete bridge. The new structure will have one span of 24 feet and will provide an out-to-out coping width of 38 feet and a clear roadway width of 30 feet. The replacement structure will be built on the same alignment as the existing structure.

Remnants of stacked stone abutments from a previous structure are present under the existing structure. These abutments are not functional and do not support the existing structure. No other stone features are in the vicinity. The structure lacks a surrounding context, unusual characteristics, or engineering significance and was not recommended individually eligible for the National Register of Historic Places (Appendix D3).

One pipe is located within the project area, an agricultural drainage tile known as the Johnson County Shuck Legal Tile. The existing

drainage tile is located in a concrete retaining wall approximately 4 feet north of the existing structure. The project proposes relocating the retaining wall further upstream along UNT to Koots Fork, and the agricultural drainage tile will be shortened to exit through the new wall. Coordination is ongoing between the project designer and the Johnson County Surveyor's Office. No other small structures, bridges, or pipes are involved in this project.

MAINTENANCE OF TRAFFIC DURING CONSTRUCTION:

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

Discuss closures 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. Any local concerns about access and traffic flow should be detailed as well.

The MOT plan for the project will require a road closure and detour utilizing SR 37/I-69, SR 252 and SR 135, adding approximately 5.1 miles of additional travel. The road closure and detour will occur in conjunction with two other projects in the same contract as this project, Des. No. 1802998 and Des. No. 1593119. The MOT plan and detour will last approximately 120 days.

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

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: $ 81,000.00 (2024) Right-of-Way: $ 46,000.00 (2022) Construction: $ 1,826,766.00 (2024)

Anticipated Start Date of Construction: Spring 2024

RIGHT OF WAY:

	Amount (acres)	
Land Use Impacts	Permanent	Temporary
Residential	0.00	0.00
Commercial	0.00	0.00
Agricultural	0.45	0.00
Forest (Riparian)	0.27	0.00
Wetlands	0.00	0.00
Other:	0.00	0.00
TOTAL	0.72	0.00

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

Within the vicinity of the project, the existing ROW extends to the edge of the existing roadway pavement (Appendix B10).

The project requires approximately 0.72 acre of permanent ROW from agricultural land and the forested riparian corridor adjacent to the roadway. No temporary ROW is anticipated at this time.

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 December 15, 2021 (Appendix C1). Please note that the proposed structure of the preferred alternative has changed since the sending of early coordination letters on December 15, 2021. However, the structure change will not cause any additional impacts than the previously proposed structure; therefore, updated project information was not sent to agencies.

Agency	Date Sent	Response Date	Appendix
Indiana Geological & Water Survey (IGWS)	December 15, 2021 (Automated Letter)	December 15, 2021	C3 – C5
IDEM Groundwater Section	December 15, 2021 (Online Tool)	December 15, 2021	N/A
Local Floodplain Administrator/ Johnson County Planning Engineer	December 15, 2021	December 15, 2021	C6
Natural Resources Conservation Service (NRCS)	December 15, 2021	January 12, 2022	C7 – C8
Indiana Department of Natural Resources, Division of Fish and Wildlife (IDNR-DFW)	December 15, 2021	January 14, 2022	C9 – C11
Federal Highway Administration (FHWA)	December 15, 2021	No Response	N/A
Indianapolis Metropolitan Planning Organization (MPO)	December 15, 2021	No Response	N/A
INDOT Project Manager	December 15, 2021	No Response	N/A
INDOT Seymour District Environmental	December 15, 2021	No Response	N/A
Johnson County Commissioner	December 15, 2021	No Response	N/A
Johnson County Council	December 15, 2021	No Response	N/A
Johnson County Highway Department	December 15, 2021	No Response	N/A
Johnson County Plan Commission	December 15, 2021	No Response	N/A
Johnson County Soil & Water Conservation District	December 15, 2021	No Response	N/A
Johnson County Surveyor	December 15, 2021	No Response	N/A
National Park Service (NPS)	December 15, 2021	No Response	N/A
U.S. Army Corps of Engineers (USACE)	December 15, 2021	No Response	N/A
U.S. Department of Housing & Urban Development (HUD)	December 15, 2021	No Response	N/A

Resource specific recommendations are included in the applicable sections of this Categorical Exclusion (CE) document, and 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			
Navigable Waterways			

Total stream(s) in project area: 135 Linear feet Total impacted stream(s): 84 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 U.S., appendix reference)
UNT 1 to Koots Fork	Riverine, Intermittent, Streambed, Seasonally Flooded (R4SBC)	137 linear feet	84 linear feet permanently impacted	UNT 1 to Koots Fork is an intermittent stream that flows south through the project structure; it is likely a Water of the U.S. Refer to Appendix F6.

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 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 B3), and the Red Flag Investigation (RFI) report (Appendix E2 – E3, E7), there are nine mapped river and stream segments within the 0.5-mile search radius. There is one stream mapped within the project area; UNT to Koots Fork flows through the project structure. This was confirmed by the site visit on September 30, 2021 by SJCA Inc.

No Federal, Wild, and Scenic Rivers; State Natural, Scenic, and Recreational Rivers; Outstanding Rivers for Indiana; navigable waterways or National Rivers Inventory waterways are present within or adjacent to the project area.

A *Waters of the U.S. Determination/Wetland Delineation Report* was approved by the INDOT Ecology and Waterway Permitting Office (EWPO) on February 16, 2022. Please refer to Appendix F1 – F19 for the *Waters of the U.S. Determination/Wetland Delineation Report*. It was determined that one stream flows through the investigated area, UNT to Koots Fork; the stream was determined to likely be a Water of the U.S. and jurisdictional under the authority of the USACE. The USACE makes all final determinations regarding jurisdiction.

UNT to Koots Fork is an intermittent stream that flows south through the investigated area. The stream has a bankfull width of 14 feet, an Ordinary High Water Mark (OHWM) width of 10 feet, an OHWM depth of two inches, and a silt substrate with some cobbles throughout. The stream is influenced by roadside runoff, agricultural drainage from the field north of SR 44, and by the Johnson County Shuck Legal Tile north of the structure. Approximately 12.74 miles downstream of the investigated area, UNT to Koots Fork drains into the White River via Koots Fork, South Prong Stotts Creek, and Scotts Creek. The White River is a traditionally navigable waterway. Therefore, it was determined that UNT to Koots Fork is likely a Waters of the U.S.

Approximately 137 linear feet of UNT to Koots Fork are present within the investigated area. Due to project activities including the structure replacement, installation of riprap, and relocation of the retaining wall north of the structure, approximately 84 linear feet of permanent stream impacts will occur. Approximately 54 linear feet of temporary stream impacts will occur due to incidental construction access. These stream impacts will require a Section 401 permit from IDEM and a Section 404 permit from the USACE. Mitigation is not anticipated to be required for these impacts but will be determined during the permitting process. Complete avoidance of these impacts would not meet the purpose and need of the project to address the deteriorating conditions of the existing structure.

The IDNR-DFW responded to early coordination on January 14, 2022, with recommendations to minimize and contain inchannel disturbance to the project limits; to avoid work in the waterway from April 1 through June 30; to avoid excavation in the low flow area; to not construct any temporary runarounds, access bridges, causeways; to use the proper riprap and underlay the riprap with a bedding layer; to minimize the movement of resuspended bottom sediment; and to use appropriately designed measures for controlling erosion and sediment (Appendix C9 – C11). All applicable recommendations are included in the Environmental Commitments section of this CE document.

	Presence	Impacts	
Open Water Feature(s)		**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 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 B3), and the RFI report (Appendix E2 – E3, E7), there are two (2) lakes present within the 0.5-mile search radius. No lakes or other open water features are present within or adjacent to the project area. This was confirmed by the site visit on September 30, 2021 by SJCA Inc. Therefore, no impacts are expected.

A *Waters of the U.S. Determination/Wetland Delineation Report* was approved by the INDOT EWPO on February 16, 2022. Please refer to Appendix F1 – F19 for the *Waters of the U.S. Determination/Wetland Delineation Report*. It was determined that no open water bodies are present within or adjacent to the investigated area. The USACE makes all final determinations regarding jurisdiction.

Indiana Department of Transportation

County Johnson Route SR 44 Des. No. 1900153

	Presence	Impacts Yes	Impacts No
Wetlands			

Total wetland area: 0.0 Acre(s) Total wetland area impacted: 0.0 Acre(s)

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

Wetlands (*Mark all that apply*)	Documentation	ESD Approval Dates
Wetland Determination	X	February 16, 2022
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 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 B3), and the RFI report (Appendix E2 – E3, E7), there are seven National Wetland Inventory (NWI) wetlands within the 0.5-mile search radius. One NWI line feature is mapped within the project area, but is associated with UNT to Koots Fork. No wetlands are present within or adjacent to the project area. This was confirmed by the site visit on September 30, 2021 by SJCA Inc. Therefore, no impacts are expected.

A *Waters of the U.S. Determination/Wetland Delineation Report* was approved by the INDOT EWPO on February 16, 2022. Please refer to Appendix F1 – F19 for the *Waters of the U.S. Determination/Wetland Delineation Report*. It was determined that no wetland features are present within or adjacent to the investigated area. The USACE makes all final determinations regarding jurisdiction.

	Presence	Impacts Yes	Impacts No
Terrestrial Habitat	X	X	

Total terrestrial habitat in project area: 0.46 Acre(s) Total tree clearing: 0.27 Acre(s)

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

Based on a desktop review, a site visit on September 30, 2021 by SJCA Inc., and the aerial map of the project area (Appendix B3), there are vegetated streambanks and roadside vegetation present within the project area. A forested riparian corridor is adjacent to the south side of the project area, and an agricultural field is adjacent on the north side. Dominant vegetation in the project area includes tall fescue (*Festuca arundinacea*), red fescue (*Festuca rubra*), annual ragweed (*Ambrosia artemisiifolia*), purpletop (*Tridens flavus*), calico aster (*Symphyotrichum lateriflorum*), reed canary grass (*Phalaris arundinacea*), Canada goldenrod (*solidago canadensis*), white snakeroot (*Ageratina altissima*), and amur honeysuckle (*Lonicera maackii*). Trees and saplings within the vicinity of the project area are dominated by Northern red oak (*Quercus rubra*), black walnut (*Juglans nigra*), Eastern red cedar (*Juniperus virginiana*), and white ash (*Fraxinus americana*).

Due to project work and incidental construction, approximately 0.407 acre of terrestrial habitat will be disturbed. A maximum of three trees, or approximately 0.27 acre, will be cleared as a result of the project. These impacts will be unavoidable, and avoidance would not allow the project to proceed. Impacts to terrestrial habitat and tree clearing have been minimized to the extent possible and will not extend beyond 100 feet from the existing roadway. Mitigation may be required for these impacts and will be determined during the permitting process.

The IDNR-DFW responded to early coordination on January 14, 2022 with recommendations to revegetate all bare and disturbed areas as soon as possible after project completion; to minimize and contain tree and brush clearing to the project limits; and to avoid cutting trees suitable for endangered bat roosting from April 1 through September 30 (Appendix C9 – C11). All applicable recommendations are included in the Environmental Commitments section of this CE document.

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

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

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

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

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

Based on a desktop review and the RFI report (Appendix E3 – E4), completed by SJCA Inc. on February 17, 2022 the IDNR Johnson County Endangered, Threatened, and Rare (ETR) Species List has been checked. According to the IDNR-DFW early coordination response letter dated January 14, 2022 (Appendix C9 – C11), the Natural Heritage Program's Database has been checked and no other plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity. An INDOT 0.5-mile bat review occurred on August 23, 2021 and did not indicate the presence of endangered bat species in or within 0.5-mile of the project area.

Indiana Bat and Northern Long-Eared Bat

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C12 – C26). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional species were generated in the IPaC species list other than the Indiana bat and NLEB.

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB)*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. A structure inspection occurred on September 30, 2021 by SJCA Inc. (Appendix C39), and no bats or signs of bats were observed. An effect determination key was completed on December 16, 2021, and based on the responses provided, the project was found to "May Affect – Not Likely to Adversely Affect" the Indiana bat and/or the NLEB (Appendix C27 – C38). INDOT reviewed and verified the effect finding on December 27, 2021, and requested USFWS's review of the finding. No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. Avoidance and Minimization Measures (AMMs) were generated for the project regarding temporary lighting and tree removal. AMMs and/or commitments are included as firm commitments in the Environmental Commitments section of this CE document.

Migratory Birds

Structure No. CV 044-041-10.70 on SR 44 and the project's surrounding habitat is conducive for use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA). Prior to the start of nesting season (May 1) the structure must be inspected for birds or signs of birds. If birds or signs of birds are found during the inspection avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the "Potential Migratory Bird on Structure" USP/RSP.

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

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

Date Karst Study/Report reviewed by INDOT EWPO (if applicable): N/A

Discuss if project is located in Potential Karst Features Area of Indiana 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. Describe if any impacts will occur to any karst features. Include discussion of karst study/report was completed and results. (Karst investigation must comply with the current Karst MOU and coordinated and reviewed by INDOT EWPO).

Based on a desktop preview 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 USGS topographic map of the project area (Appendix B2) and the RFI report (Appendix E2 – E3, E7), there are no karst features identified within or adjacent to the project area. In the early coordination response dated December 15, 2021, the IGWS did not indicate that karst features exist in the project area (Appendix C3 – C5). The IGWS response did indicate a moderate liquefaction potential, a 1% annual chance flood hazard, moderate potential for bedrock resources, and a low potential for sand and gravel resources. These features will not be affected because there are no bedrock, sand, or gravel resource extraction sites near the project area, and the project is not located within a floodway. Response from IGWS has been communicated to the designer on December 15, 2021. No impacts are expected.

SECTION C – OTHER RESOURCES

	Presence	Impacts	
Drinking Water Resources		**Yes**	**No**
Wellhead Protection Area(s)			
Source Water Protection Area(s)			
Water Well(s)			
Urbanized Area Boundary			
Public Water System(s)			
Is the project located in the St. Joseph Sole Source Aquifer (SSA):			**X**
If Yes, is the FHWA/EPA SSA MOU Applicable?			
If Yes, is a Groundwater Assessment Required?			

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

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

Wellhead Protection Area and Source Water
IDEM's Wellhead Proximity Determinator website (https://www.in.gov/idem/cleanwater/information-about/groundwater-monitoring-and-source-water-protection/wellhead-protection-program/source-water-proximity-determination-tool/) was accessed on December 15, 2021 by SJCA Inc. This project is not located within a Wellhead Protection Area or Source Water Area. No impacts are expected.

Water Wells
The IDNR Water Well Record Database website (https://indnr.maps.arcgis.com/apps/webappviewer/index.html?id=4b4f37e1dde744ce865e1be4d157ac93) was accessed on December 20, 2021 by SJCA Inc. No wells are located near this project. Therefore, no impacts are expected.

Urban Area Boundary
Based on a desktop review of the IDEM MS4 Boundary Map for Indiana (https://www.in.gov/idem/cleanwater/ms4s-boundaries-map-for-indiana/) by SJCA Inc. on December 20, 2021, this project is not located in an Urban Area Boundary. No impacts are expected.

Public Water System
Based on a desktop review, a site visit on September 30, 2021 by SJCA Inc., review of the project plans in Appendix B10 and B11, and the aerial map of the project area (Appendix B3), no public water systems were identified. Therefore, no impacts are expected.

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

If applicable, indicate the Floodplain Level?
Level 1 [ ] Level 2 [ ] Level 3 [ ] Level 4 [ ] Level 5 [ ]

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

The Indiana Department of Natural Resources Indiana Floodway Information Portal website (https://indnr.maps.arcgis.com/apps/webappviewer/index.html?id=05026dabc2e8461983e196d56a213c1e) was accessed on December 20, 2021 by SJCA Inc. This project is not located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F9). An early coordination letter was sent on December 15, 2021 to the local Floodplain Administrator. The local Floodplain Administrator responded to early coordination on December 15, 2021 and stated that although the project structure is not located within a regulated floodplain area, the south side of SR 44 is the upper reach of the Shuck Open Ditch, a regulated drain under the jurisdiction of the Johnson County Surveyor (Appendix C6). The local Floodplain Administrator also mentioned that coordination has been completed with the Johnson County Surveyor, and an early coordination letter was also sent to this office and they are informed on the project. Therefore, the project does not fall within the guidelines for the implementation of 23 CFR 650, 23 CFR 771, and 44 CFR. No impacts are expected.

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

Total Points (from Section VII of CPA-106/AD-1006*) **157**
**If 160 or greater, see CE Manual for guidance.*

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

Based on a desktop review, a site visit on September 30, 2021 by SJCA Inc., and the aerial map of the project area (Appendix B3), the project will convert 0.72 acre of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on December 15, 2021 to the NRCS. Coordination with the NRCS resulted in a score of 157 on the AD 1006 Form (Appendix C7 – C8). NRCS's threshold score for significant impacts to farmland that result in 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	A.6, A.9, B.12	July 12, 2022	

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		N/A	N/A
800.11 Documentation		N/A	N/A
Historic Properties Report or Short Report		N/A	N/A
Archaeological Records Check and Assessment	X	November 29, 2021	N/A
Archaeological Phase Ia Survey Report	X	January 7, 2022	N/A
Archaeological Phase Ic Survey Report			
Other:			

		MOA Signature Dates (List all signatories)
Memorandum of Agreement (MOA)		N/A

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 July 12, 2022, the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category A, Types 6 and 9, and Category B, Type 12 under the Minor Projects Programmatic Agreement (MPPA) (Appendix D1 – D4). MPPA Category A, Type 6 involves repair, replacement, or upgrade of existing safety appurtenances such as guardrails, barriers, glare screens, and crash attenuators in previously disturbed soils. MPPA Category A, Type 9 includes the installation, repair, or replacement of erosion control measures along roadways, waterways and bridge piers within previously disturbed soils. MPPA Category B, Type 12 involves the replacement, widening, or raising the elevation of the superstructure on existing bridges. The remnant stone abutments underneath the existing structure were determined to have no ornament or design features, and were determined to not provide functional or structural support to the structure (Appendix D3).

The structure replacement work will occur in undisturbed soils; therefore, an archaeological survey was required. An Archaeological Records Check and Phase Ia Archaeological Survey (Jackson, 2021) was completed on November 29, 2021, and although previously documented archaeological sites have been documented, no archaeological resources were discovered during the site investigation. No National Register-listed or potentially National Register-eligible archaeological resources are present within the project area. 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 National Register of Historic Places (NRHP) eligible or listed historic properties regardless of ownership. Lands subject to this law are considered Section 4(f) resources.

Based on a desktop review, the aerial map of the project area (Appendix B3), and the RFI report (Appendix E2, E6), there are two (2) potential 4(f) resources located within the 0.5-mile search radius. According to additional research and a site visit on September 30, 2021 by SJCA Inc., these two trail segments are mapped within the project area but are planned trails that have not yet been built. The trail segments are mapped as the SR 44 Corridor West from Franklin trail and the CR 500 W, CR 575 W, and CR 600 W Corridor trail, and are both managed by the Johnson County Plan Commission. An early coordination letter was sent to the Johnson County Plan Commission on December 15, 2021, but no response was received. 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 a total of three properties in Johnson County (Appendix I1). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources.

SECTION F – Air Quality

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

Location in STIP: FY 2022-2026 STIP, Initial (Appendix H1)

Name of MPO (if applicable): N/A

Location in TIP (if applicable): N/A

Level of MSAT Analysis required?

Level 1a [X] 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.

STIP/TIP

The Fiscal Year (FY) 2022-2026 Statewide Transportation Improvement Program (STIP) is listed based on the lead designation number (Des. No.) in the contract. The lead Des. No. for this contract is 1802998. The FY 2022-2026 STIP includes Des. No. 1900153 by reference with the contract number B-42218 (Appendix H1).

Attainment Status

This project is located in Johnson County, which is currently a maintenance area for Ozone under the 1997 8-hour Ozone standard which was revoked in 2015 but is being evaluated for conformity due to the February 16, 2018, *South Coast Air Quality Management District V. Environmental Protection Agency, Et. Al.* Decision. The project's design concept and scope are accurately reflected in the Transportation Improvement Program (TIP) which conforms to the State Implementation Plan (SIP). Therefore, the conformity requirements of 40 CFR 93 have been met.

MSAT

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

SECTION G - NOISE

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

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

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

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

SECTION H – COMMUNITY IMPACTS

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

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

The project complies with local and regional development plans for the area. The 2011 Johnson County Comprehensive Plan (found at: https://co.johnson.in.us/) established goals to improve and require a quality transportation system. An Americans with Disabilities Act (ADA) Self-Evaluation and Transition Plan (SETP) for Johnson County was approved May 2015 (https://co.johnson.in.us/egov/documents/1628802747_34064.pdf). The purpose of the ADA SETP is to document and review Johnson County's facilities, programs, services, and activities to determine if there are any discriminatory or potentially discriminatory practices, policies, or procedures. This project does not involve sidewalks or public facilities that would need to comply with an ADA Transition Plan.

This project will not substantially impact the tax base or property values. The project will require approximately 0.72 acre of permanent ROW from adjacent properties. The permanent ROW acquisition will impact roadside, agricultural, and forested riparian corridor use on the properties. The ROW will be acquired in accordance with the Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act).

A search of local festivals, fairs, and events that could potentially be impacted by this project was conducted on February 24, 2022 by SJCA Inc. The following sources were evaluated: the Johnson County website (https://co.johnson.in.us/), the Town of Trafalgar website (http://www.townoftrafalgar.org/), the City of Franklin website (https://www.franklin.in.gov/), and the Johnson County Fairgrounds website (https://www.jocofairin.com/). Recurring events were found to occur year-round, including school academic and sports events, monthly and biweekly meetings for Johnson County Government and the City of Franklin, and the annual Johnson County Fair in mid-July. This project will have a road closure and marked detour in place during construction; traffic to and from events in Johnson County will be restricted, but access to events will not be denied. Therefore, it was concluded that the project will not substantially impact community cohesion or adversely impact local community events.

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 B3), and the RFI report (Appendix E2 and E6), there is one pipeline segment located within the 0.5-mile search radius of the project area. No public facilities are mapped within or adjacent to the project area. However, based on additional research including a site visit by SJCA Inc. on September 30, 2021 and a review of

the project plans (Appendix B10), there are public utilities located within and adjacent to the project area. Overhead electric and telephone lines are located on the south side of SR 44, and underground gas and fiber optic lines are present on the north side of the roadway. Utility relocations will be required for all utilities, and coordination is ongoing between the project designer and the owners of these public utilities. Access to all properties will be maintained during construction.

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

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

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

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT Categorical Exclusion Manual, an Environmental Justice (EJ) Analysis is required for any project that has two (2) or more relocations or 0.5 acre of additional permanent right-of-way. The project will require approximately 0.72 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 exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city, or town, and is called the community of comparison (COC). In this project, the COC is Johnson County, Indiana. The community that overlaps the project area is called the affected community (AC). In this project, the AC is Census Tract 6108.01, Johnson County, Indiana. An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the 2019 ACS 5-Year Estimates was obtained from the U.S. Census Bureau website (https://data.census.gov/) on December 21, 2021 by SJCA Inc. The data collected for minority and low-income populations within the AC are summarized in the below table.

Table: Minority and Low-Income Data (U.S. Census Bureau, 2019 ACS 5-Year Estimates)

	COC – Johnson County, Indiana	AC – Census Tract 6108.01 Johnson County, Indiana
Percent Minority	11.0%	5.5%
125% of COC	13.8%	AC < 125% of COC
EJ Population of Concern	--	No
Percent Low-Income	7.4%	13.6%
125% of COC	9.3%	AC > 125% of COC
EJ Population of Concern	--	Yes

AC Census Tract 6108.01 has a percent minority of 5.5%, which is below 50% and is below the 125% COC threshold. Therefore, AC Census Tract 6108.01 does not contain minority populations of EJ concern.

AC Census Tract 6108.01 has a percent low-income of 13.6%, and is below 50%, but is above the 125% COC threshold. Therefore, AC Census Tract 6108.01 is a low-income population of EJ concern.

Conclusion

The EJ Analysis, including census data sheets, maps, and calculations, can be found in Appendix I13 – I19. During EJ Analysis calculations, the AC was found to have a low-income population of EJ concern. On February 18, 2022, the EJ Analysis was sent to INDOT ESD. In a response dated March 10, 2022, INDOT ESD determined that the project would not disrupt community cohesion or create a physical barrier (Appendix I20). With the information provided, INDOT ESD would not consider the impacts associated with this project as causing a disproportionately high and adverse effect on minority and/or low-income populations of EJ concern relative to a non-EJ populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a. No further EJ Analysis is required.

County Johnson Route SR 44 Des. No. 1900153

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

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

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

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

SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

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

Date RFI concurrence by INDOT SAM (if applicable): February 17, 2022

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

Based on a review of GIS and available public records, the RFI was concurred by INDOT Site Assessment and Management (SAM) on February 17, 2022 (Appendix E3). No sites with hazardous material concerns (hazmat sites) or sites involved with regulated substances were identified in or within 0.5 mile of the project area. Further investigation for hazardous material concerns or regulated substances is not required at this time.

Part IV – Permits and Commitments

PERMITS CHECKLIST

Permits (mark all that apply)	**Likely Required**
Army Corps of Engineers (404/Section10 Permit)	
Nationwide Permit (NWP)	X
Regional General Permit (RGP)	
Individual Permit (IP)	
Other	
IN Department of Environmental Management (401/Rule 5)	
Nationwide Permit (NWP)	X
Regional General Permit (RGP)	
Individual Permit (IP)	
Isolated Wetlands	
Rule 5	
Other	
IN Department of Natural Resources	
Construction in a Floodway	
Navigable Waterway Permit	
Other	
Mitigation Required	
US Coast Guard Section 9 Bridge Permit	
Others (Please discuss in the discussion below)	X

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

Due to permanent and temporary stream impacts to UNT 1 to Koots Fork the project is anticipated to require an IDEM Section 401 permit and a USACE Section 404 permit. Permanent impacts will occur to the Johnson County Schuck Legal Tile, located north of the project structure, as concrete retaining wall will be relocated further north and the drainage tile shortened to exit through the wall. Therefore, permits may be required by Johnson County. Coordination between the Johnson County Surveyor's Office and the project designer are ongoing throughout the design process. No other permits are anticipated to be necessary.

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

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

ENVIRONMENTAL COMMITMENTS

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

Firm

1) If the scope of work or permanent or temporary right-of-way amounts change, the INDOT ESD and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT Seymour District)
2) It is the responsibility of the project sponsor to notify school corporations and emergency services at least two (2) weeks prior to any construction that would block or limit access. (INDOT ESD)
3) USFWS Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after September 30, 2023, an inspection of the structure by a qualified individual must be performed. Inspection of the structure should check of 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)
4) Structure No. CV 044-041-10.70 and the project's surrounding habitat is conducive for use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA). Prior to the start of nesting season (May 1) the structure must be inspected for birds or signs of birds. If birds or signs of birds are found during the inspection avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the "Potential Migratory Bird on Structure" USP/RSP. (INDOT ESD)
5) General AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)
6) Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
7) Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)
8) Tree Removal AMM 2: Apply time of year restrictions (April 1 – September 30) for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and **outside of documented** roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. (USFWS and IDNR-DFW)
9) 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)
10) Tree Removal AMM 4: Do not remove **documented** Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 mile of roosts, or **documented** foraging habitat any time of year. (USFWS)

For Further Consideration

11) Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR-DFW)

12) Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR-DFW)

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

14) Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five (5) trees, 1 inch to 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10 inches dbh or greater (5:1 mitigation based on the number of large trees). (IDNR-DFW)

15) If feasible, a larger bridge opening is recommended to allow for the movement of wildlife under the roadway. The crossing should: maintain at least a 5-foot rise like the current concrete slab culvert, span the entire channel width (a minimum of 1.2 times the current OHWM width); maintain the natural stream substrate within the structure; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel. (IDNR-DFW)

16) 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)

17) Evaluate wildlife crossings under the bridge/culvert 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)

18) 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)

19) 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)

DES 1900153 CE-2 APPENDICES
TABLE OF CONTENTS

Des 1900153

Appendix A

INDOT Supporting Documentation

Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4[1]
Section 106	Falls within guidelines of Minor Projects PA	"No Historic Properties Affected"	"No Adverse Effect"	-	"Adverse Effect" Or Historic Bridge involvement[2]
Stream Impacts[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	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[6])	"Not likely to Adversely Affect" (With any AMMs or commitments)	-	"Likely to Adversely Affect"	Project does not fall under Species Specific Programmatic[7]
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[8]
Sole Source Aquifer	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Section 4(f) Impacts	None	-	-	-	Any[9]
Section 6(f) Impacts	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes[10]
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

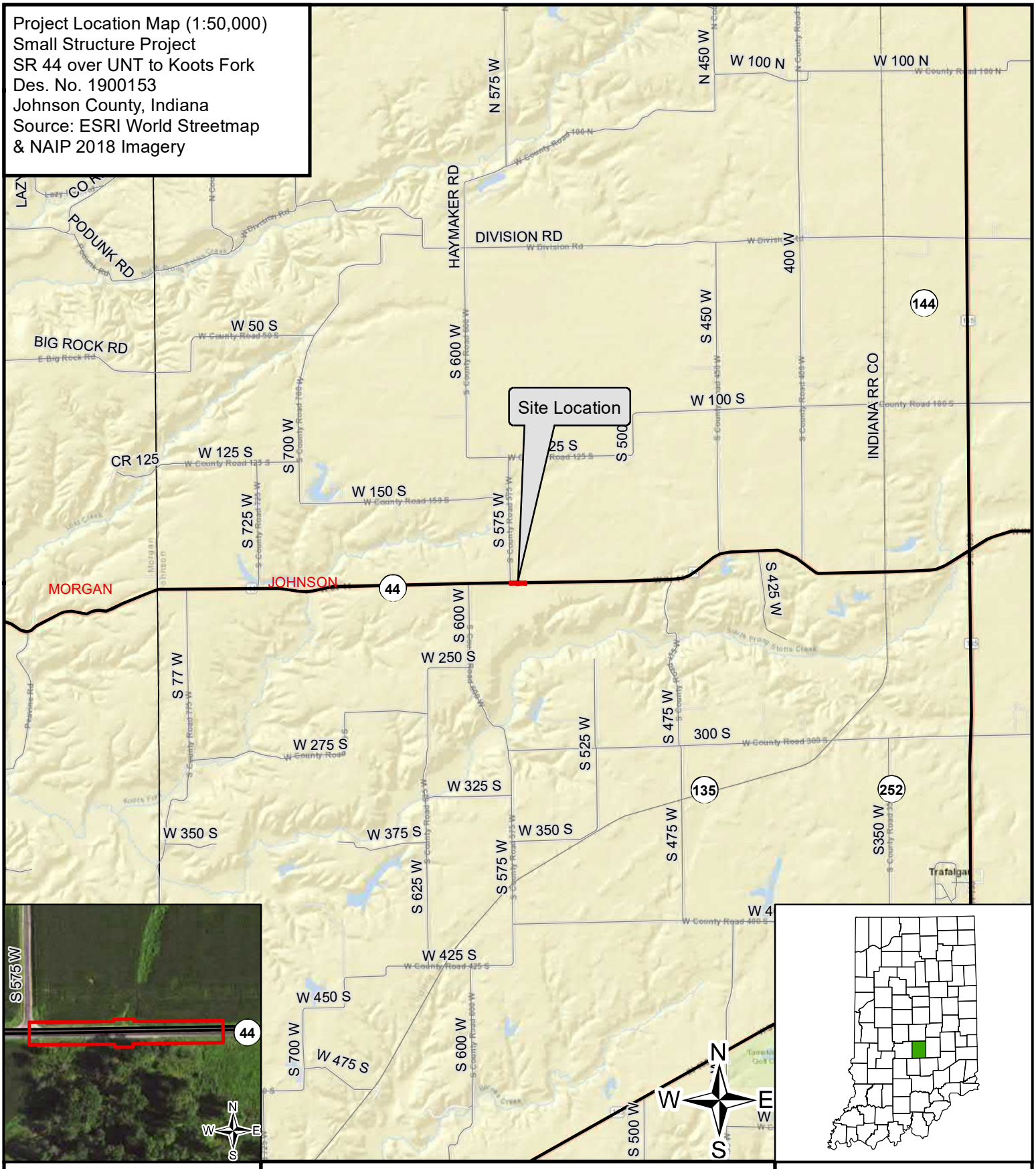
[1] Coordinate with INDOT Environmental Services Division. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.
[2] Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.
[3] Total permanent impacts to streams (linear feet) and wetlands (acres).
[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] Avoidance and Mitigation Measures (AMMs) determined by the IPAC determination key to be required that are not tree AMMs, bridge AMMs, or structure AMMs.
[7] 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.
[8] Potential for causing a disproportionately high and adverse impact.
[9] 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.
[10] 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.

Des 1900153

Appendix B

Graphics

Project Location Map (1:50,000)
Small Structure Project
SR 44 over UNT to Koots Fork
Des. No. 1900153
Johnson County, Indiana
Source: ESRI World Streetmap
& NAIP 2018 Imagery



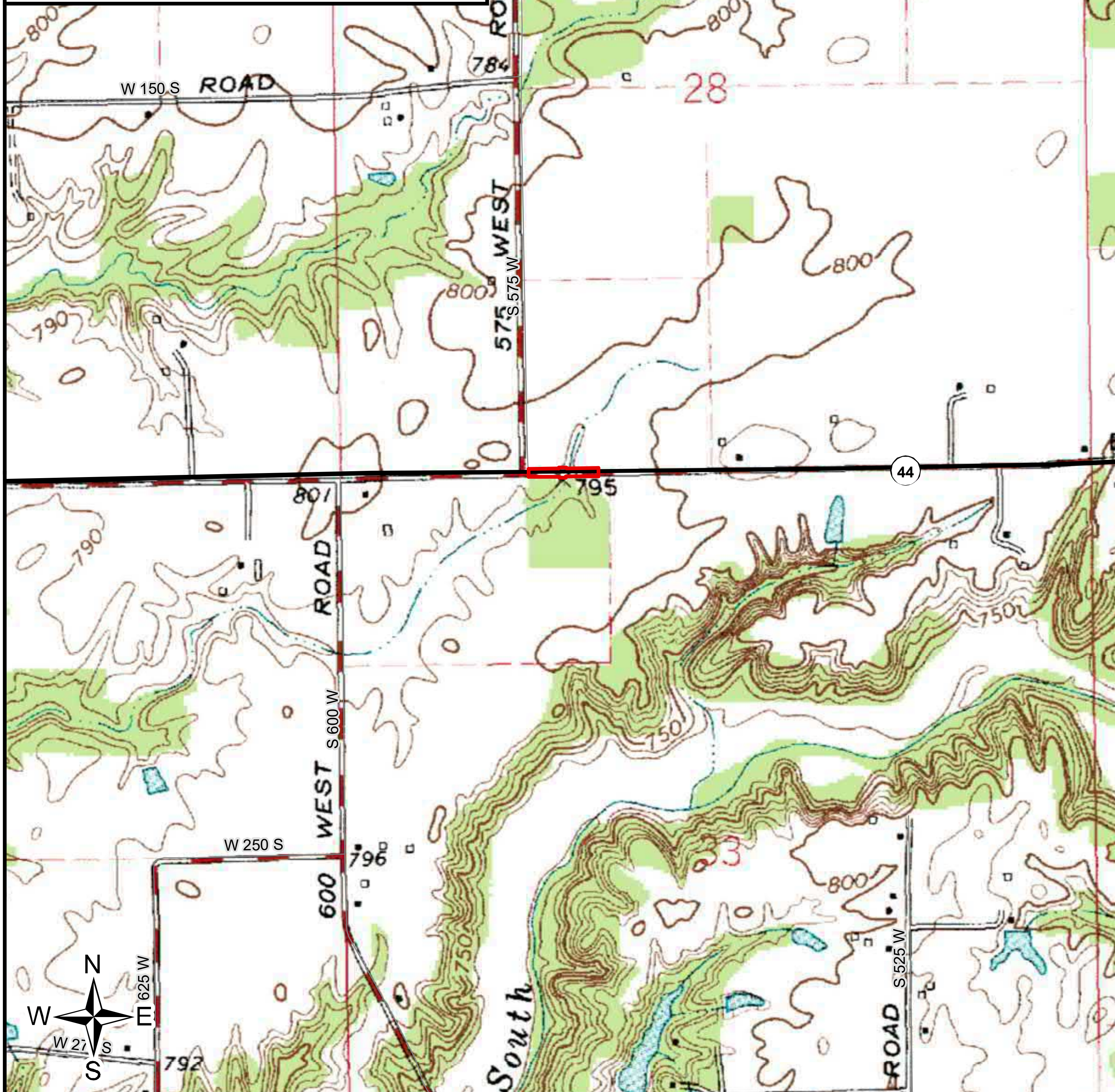
0 0.5 1 Miles

Project Location
County Boundary
Project County

11/22/2021

SJCA

Topographic Map (1:12,000)
Small Structure Project
SR 44 over UNT to Koots Fork
Des. No. 1900153
Trafalgar Quadrangle, Johnson County, Indiana
Source: US Geological Survey, PLSS



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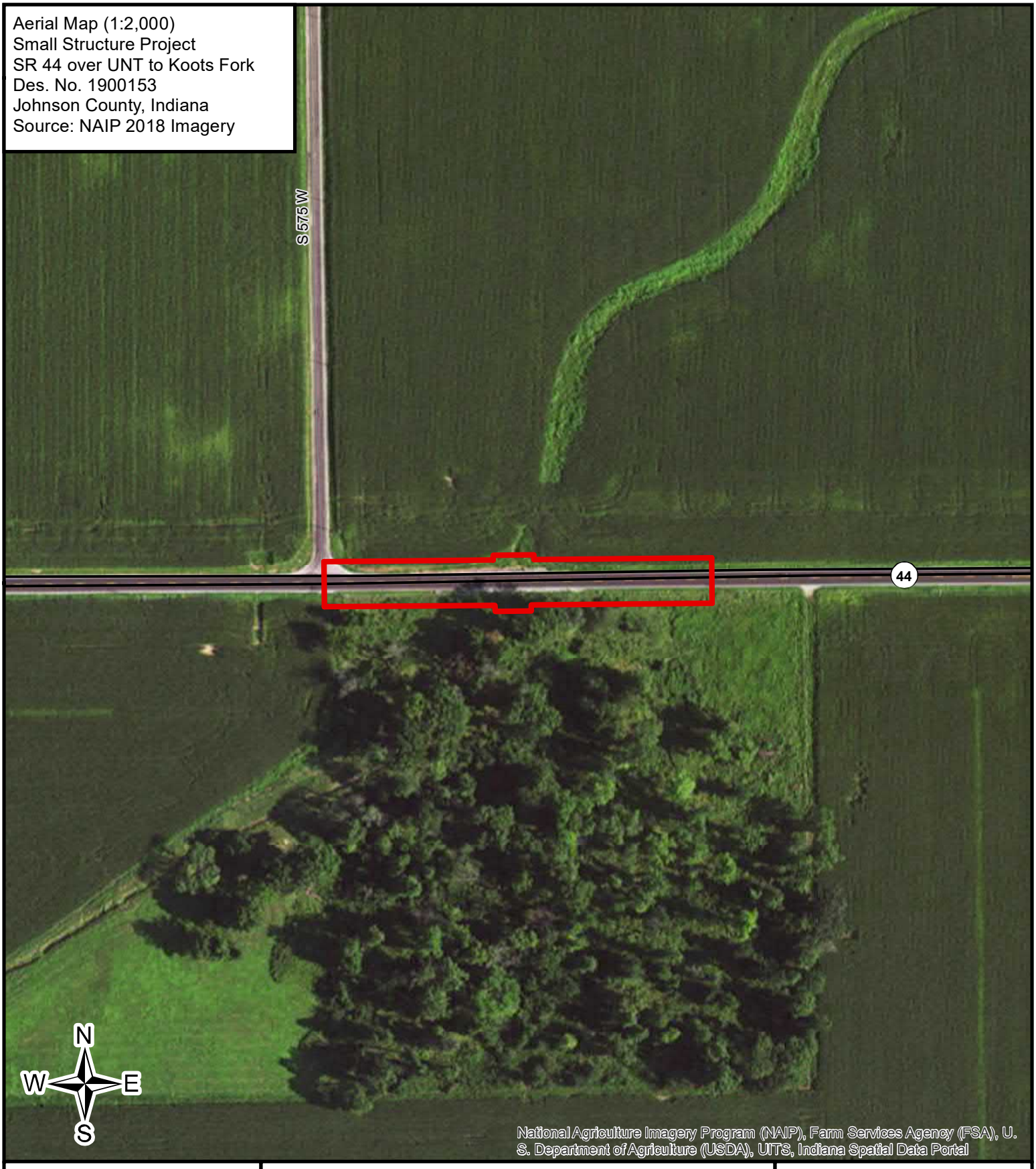
Feet

Project Location

SJCA

11/22/2021



0 110 220
Feet

Project Location

11/22/2021

SJCA

Photo Location and Orientation Map (1:900)
Small Structure Project
SR 44 over Koots Creek
Des. No. 1900153
Johnson County, Indiana
Source: NAIP 2018 Imagery

0 50 100 Feet

Photo Location
Project Location

11/22/2021

SJCA

Photo 1. Facing west from the south side of SR 44, looking towards the intersection of SR 44 and CR 575.

Photo 2. Facing east from the south side of SR 44, looking towards the project structure over UNT to Koots Fork.

Photo 3. Facing south from the south side of SR 44 at the outlet of the project structure, looking downstream at UNT to Koots Fork.

Photo 4. Facing north from the north side of SR 44 at the inlet of the project structure, looking upstream at UNT to Koots Fork.

SJCA

Photo 5. Facing north from within UNT to Koots Fork, looking upstream through the project structure under SR 44.

Photo 6. Facing east towards an agricultural field drainage pipe draining into UNT to Koots Fork at the inlet of the project structure.

Photo 7. Facing west along the north side of SR 44, looking towards the project structure over UNT to Koots Fork.

Photo 8. Facing east along the north side of SR 44 from the northeast boundary of the project area.

PROJECT	DESIGNATION
1900153	1900153
CONTRACT	BRIDGE FILE NO.
B-42218	044-041-10721

INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

FOR SPANS OVER 20 FEET

ROUTE: SR 44 AT: RP 10+70

PROJECT NO. 1900153 P.E.
1900153 R/W
1900153 CONST.

New Bridge on SR 44 over UNT Koots Fork
Located 10.70 Miles East of SR 37
Sections 28 & 33, T-12-N, R-3-E, Franklin Township, Johnson County, Indiana

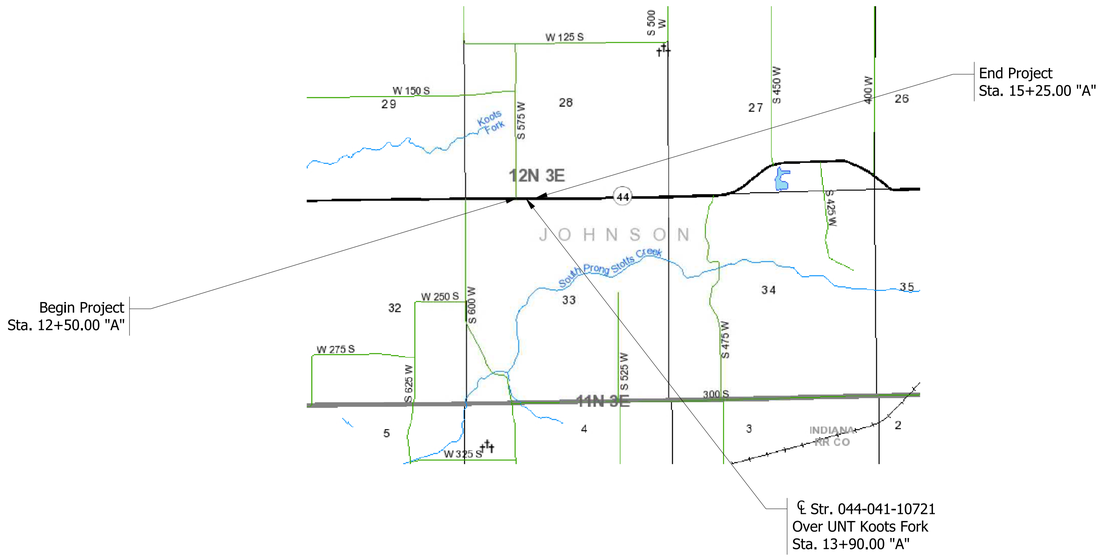
STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
044-041-10721	PRECAST REINFORCED CONCRETE THREE-SIDED BRIDGE	1 Span: 24'-0" Skew: 00°	UNT Koots Fork	13+90.00 Line Designation

KIN PROJECT INFORMATION	
DESIGNATION	PROJECT DESCRIPTION
1802998	Superstructure Replacement
1593119	Superstructure Replacement

Note to Reviewer:

After Stage 1 submittal was returned, plans were sent to the Geotechnical Engineer to start the fieldwork. After the borings had been completed the Geotechnical Engineer indicated that with a shallow layer of stiff clay loan under the structure a three sided precast concrete structure may be more appropriate at this location. After further evaluation of the alternatives and discussing the options with the Seymour District, it was decided to proceed with the three-sided precast alternate. The SS&T documentation has been updated to show this new comparison and it shows that the three-sided alternate is more economical over time than the original alternate. The plans now show a three-sided precast reinforced concrete structure.

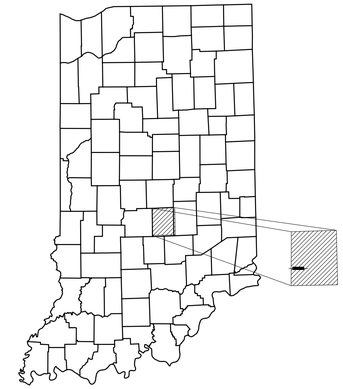
If you have any questions about what has transpired on this project please contact me. Eric Brunn, PE 5/26/22



SCALE: 1" = 2000'

TRAFFIC DATA		
A.A.D.T.	(2023)	2,307 V.P.D.
A.A.D.T.	(2043)	2,472 V.P.D.
D.H.V	(2043)	247 V.P.D.
DIRECTIONAL DISTRIBUTION		50.13 %
TRUCKS		4.84 % A.A.D.T.
		4.24 % D.H.V.

DESIGN DATA	
DESIGN SPEED	55 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	COLLECTOR
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE



PROJECT LOCATION SHOWN BY

LATITUDE: 39° 26' 45" LONGITUDE: 86° 12' 35"

BRIDGE LENGTH: 0.004 MI.
ROADWAY LENGTH: 0.048 MI.
TOTAL LENGTH: 0.052 MI.
MAX. GRADE: -1.39 %

HUC: 051202011404

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

STRAND ASSOCIATES®

PLANS PREPARED BY: STRAND ASSOCIATES, INC. (812) 372-9911
629 WASHINGTON ST., COLUMBUS, IN 47201 PHONE NUMBER

CERTIFIED BY: DATE

APPROVED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE

BRIDGE FILE NO.
044-041-10721
DESIGNATION
1900153

SURVEY BOOK	SHEETS
	1 of 16
CONTRACT	PROJECT
B-42218	1900153

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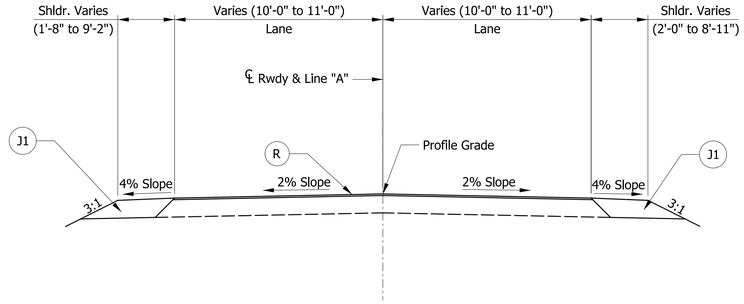
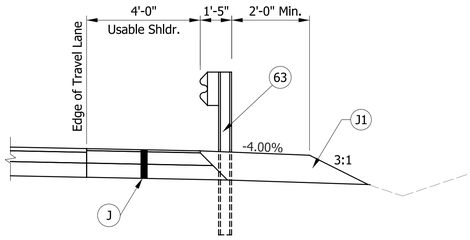


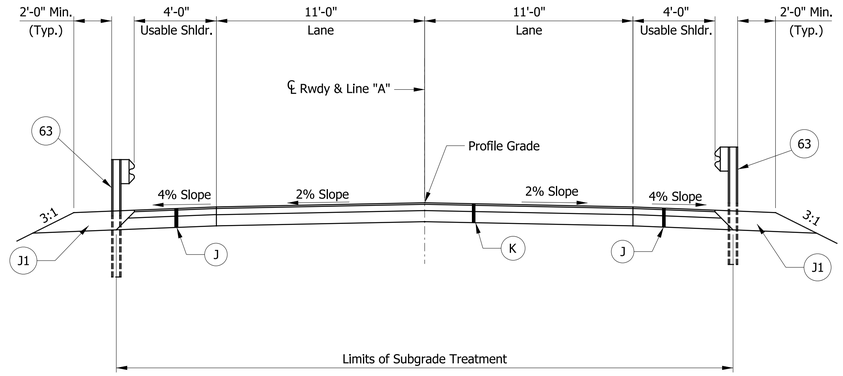
TYPICAL SECTION - INCIDENTAL CONSTRUCTION

Sta. 11+50.00 "A" to Sta. 12+50.00 "A"
Sta. 15+25.00 "A" to Sta. 16+25.00 "A"



SHOULDER TREATMENT WITH GUARDRAIL

Sta. 12+83.67 "A" Lt. to Sta. 15+77.42 "A" Lt.
Sta. 12+03.06 "A" Rt. to Sta. 14+96+18 "A" Rt.



TYPICAL FULL DEPTH SECTION

Sta. 12+50.00 "A" to Sta. 15+25.00 "A"

LEGEND

63	Guardrail, MGS W-Beam, 6'-3" Spacing
J	Full Depth, HMA Shoulder 165 lbs/syd QC/QA-HMA, 2, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 2, 64, Intermediate, 19.0 mm on 660 lbs/syd QC/QA-HMA, 2, 64, Base, 19.0 mm on Subgrade Treatment, Type IC
J1	Compacted Aggregate No. 53
K	Full Depth HMA Pavement 165 lbs/syd QC/QA-HMA, 2, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 2, 64, Intermediate, 19.0 mm on 660 lbs/syd QC/QA-HMA, 2, 64, Base, 19.0 mm on Subgrade Treatment, Type IC
R	165 lbs/syd QC/QA-HMA, 2, 64, Surface, 9.5 mm on Milling Surface

*To be updated with completion of Final Pavement Design

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: DHS DRAWN: TMN
CHECKED: DEB CHECKED: DEB

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
SR 44 OVER UNT KOOTS FORK

HORIZONTAL SCALE	BRIDGE FILE NO.
1/4" = 1'-0"	044-041-10721
VERTICAL SCALE	DESIGNATION NO.
1/4" = 1'-0"	1900153
SURVEY BOOK NO.	SHEETS
	3 of 16
CONTRACT NO.	PROJECT NO.
B-42218	1900153

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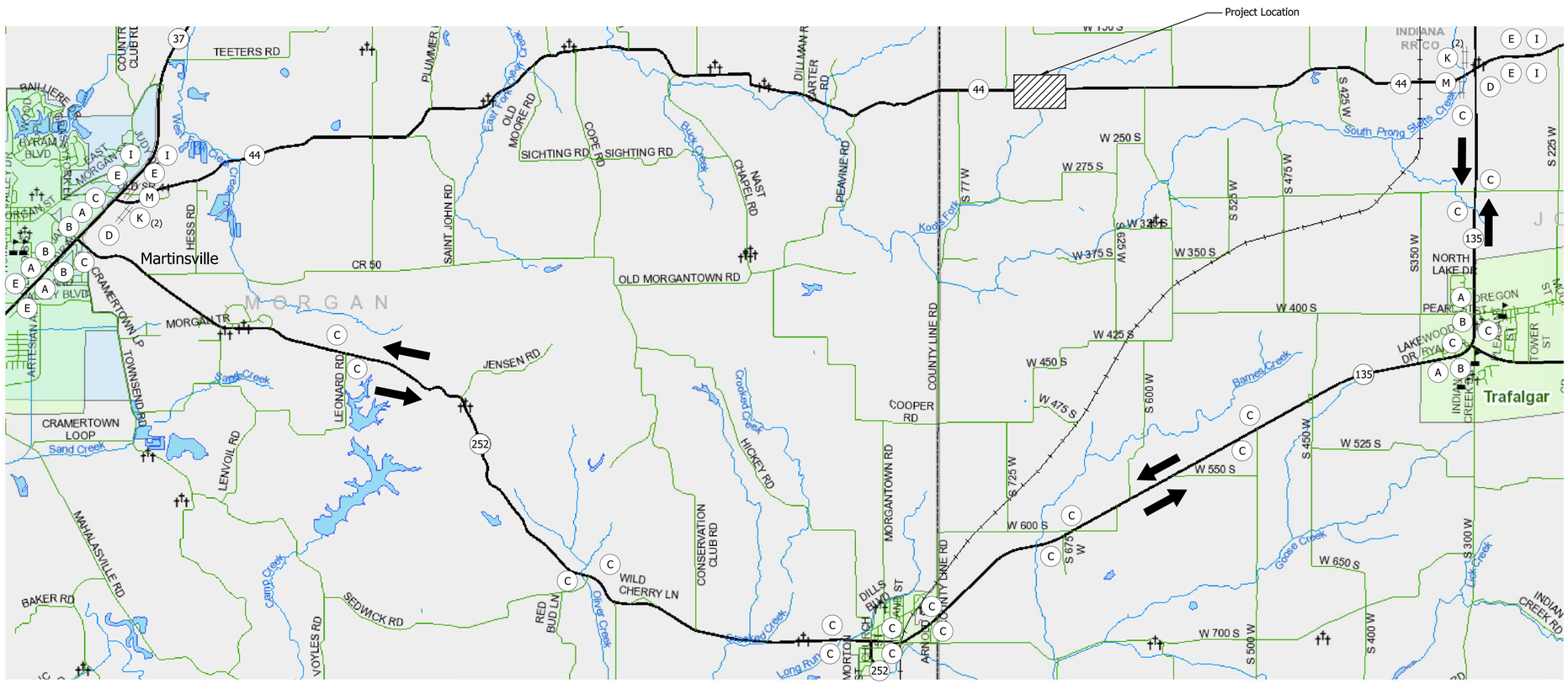

Project Location Detail

Not to Scale

Legend

- Posted Detour Route
- Traffic Flow Arrow
- (?) Construction Sign
- Barricade III-A
- Barricade III-B

Detour Route Marker Assemblies

(A)	DRMA (Advance Turn)	5	Ea.
(B)	DRMA (Directional)	5	Ea.
(C)	DRMA (Confirming)	22	Ea.
(D)	DRMA (End)	2	Ea.

Type A Construction Signs

(E)	XW20-2 (Detour Ahead)	6	Ea.
(F)	XW20-3 (Road Closed _____)	16	Ea.
(G)	XG20-5 (Closure Date)	2	Ea.

Type A Construction Signs

(H)	XG20-2 (End Construction)	2	Ea.
(I)	XW20-1 (Road Construction Ahead)	8	Ea.

Barricades

(J)	Barricade, Type III-A (No. of 12' Units)	72	Lft. (6)
(K)	Barricade, Type III-B (No. of 12' Units)	96	Lft. (8)

Road Closure Sign Assemblies

(L)	RCSA (R11-2)	2	Ea.
(M)	RCSA (R11-3) w/ (XM4-10 L/R)	2	Ea.
(N)	RCSA (R11-2)	2	Ea.

Type C Construction Signs

(O)	XG20-7 Worksite Penalty Sign	4	Ea.

NOTES

1. Typical sign spacing is 500 feet.
2. For detour route marker assemblies (A), (B), (C), and (D), see Standard Drawing E 801-TCDT-04.
3. Construction Signs along SR 37 shall be placed on the Right Shoulder and the Median Shoulder.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: DHS | DRAWN: TMN

CHECKED: DEB | CHECKED: DEB

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
SR 44 OVER UNT KOOTS FORK

HORIZONTAL SCALE	BRIDGE FILE NO.
NA	044-041-10721
VERTICAL SCALE	DESIGNATION NO.
5000.0000 ' / in.	1900153
SURVEY BOOK NO.	SHEETS
	5 of 16
CONTRACT NO.	PROJECT NO.
B-42218	1900153

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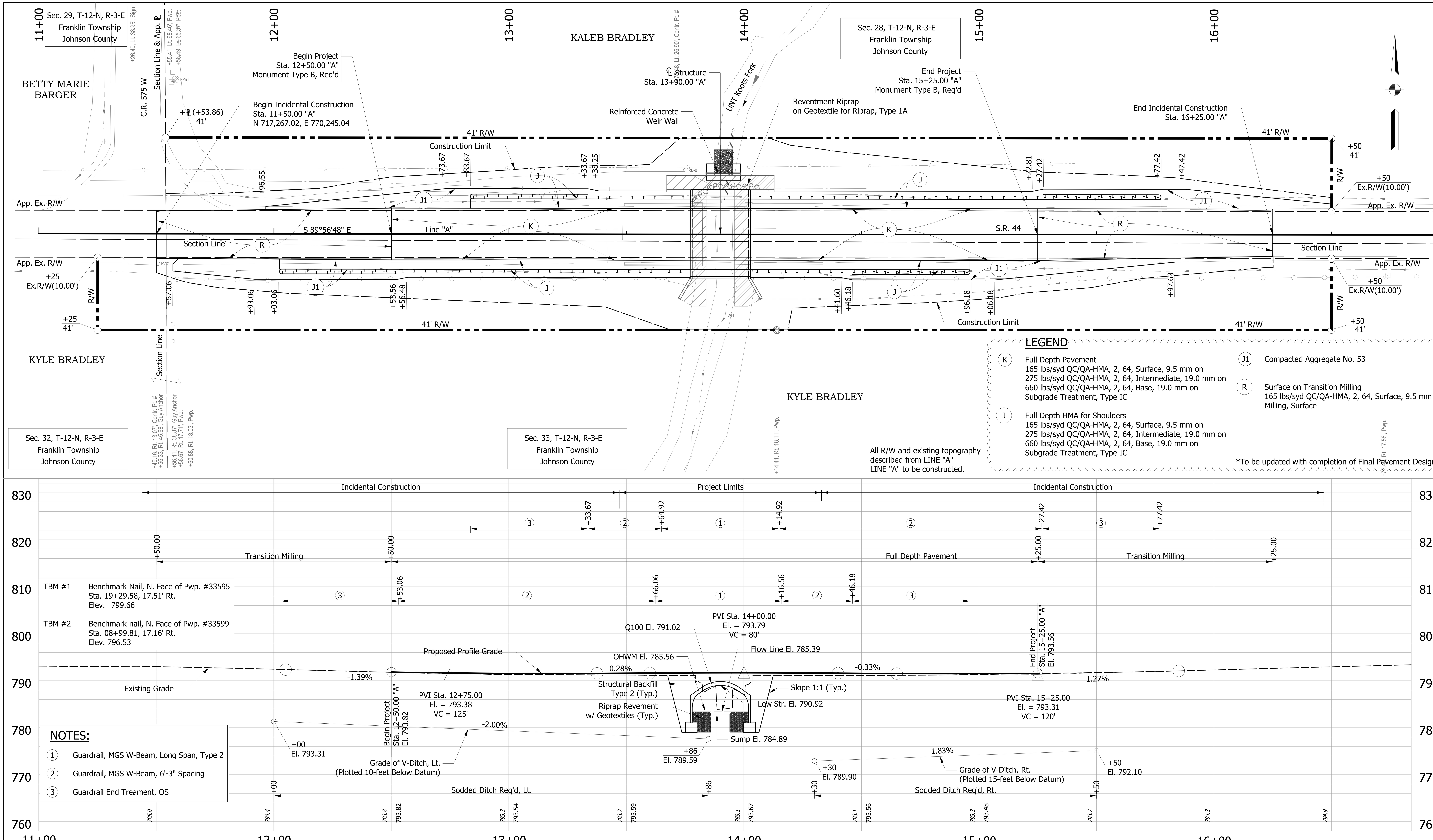
Sec. 29, T-12-N, R-3-E
Franklin Township
Johnson County
BETTY MARIE BARGER
KALEB BRADLEY
Sec. 28, T-12-N, R-3-E
Franklin Township
Johnson County
Begin Project
Sta. 12+50.00 "A"
Monument Type B, Req'd
Begin Incidental Construction
Sta. 11+50.00 "A"
N 717,267.02, E 770,245.04
℄ Structure
Sta. 13+90.00 "A"
Reinforced Concrete Weir Wall
Reventment Riprap on Geotextile for Riprap, Type 1A
End Project
Sta. 15+25.00 "A"
Monument Type B, Req'd
End Incidental Construction
Sta. 16+25.00 "A"
UNT Koots Fork
C.R. 575 W
41' R/W
Construction Limit
App. Ex. R/W
S 89°56'48" E
Line "A"
S.R. 44
Section Line
KYLE BRADLEY
Sec. 32, T-12-N, R-3-E
Franklin Township
Johnson County
Sec. 33, T-12-N, R-3-E
Franklin Township
Johnson County
All R/W and existing topography described from LINE "A"
LINE "A" to be constructed.
Incidental Construction
Project Limits
Transition Milling
Full Depth Pavement
Proposed Profile Grade
Existing Grade
PVI Sta. 14+00.00
El. = 793.79
VC = 80'
Q100 El. 791.02
OHWM El. 785.56
Flow Line El. 785.39
Structural Backfill Type 2 (Typ.)
Riprap Revement w/ Geotextiles (Typ.)
Slope 1:1 (Typ.)
Low Str. El. 790.92
Sump El. 784.89
PVI Sta. 12+75.00
El. = 793.38
VC = 125'
PVI Sta. 15+25.00
El. = 793.31
VC = 120'
Begin Project
Sta. 12+50.00 "A"
El. 793.82
End Project
Sta. 15+25.00 "A"
El. 793.56
Grade of V-Ditch, Lt.
(Plotted 10-feet Below Datum)
Grade of V-Ditch, Rt.
(Plotted 15-feet Below Datum)
Sodded Ditch Req'd, Lt.
Sodded Ditch Req'd, Rt.
-1.39%
0.28%
-0.33%
1.27%
-2.00%
1.83%
11+00
12+00
13+00
14+00
15+00
16+00

LEGEND

- (K) Full Depth Pavement
  165 lbs/syd QC/QA-HMA, 2, 64, Surface, 9.5 mm on
  275 lbs/syd QC/QA-HMA, 2, 64, Intermediate, 19.0 mm on
  660 lbs/syd QC/QA-HMA, 2, 64, Base, 19.0 mm on
  Subgrade Treatment, Type IC
- (J) Full Depth HMA for Shoulders
  165 lbs/syd QC/QA-HMA, 2, 64, Surface, 9.5 mm on
  275 lbs/syd QC/QA-HMA, 2, 64, Intermediate, 19.0 mm on
  660 lbs/syd QC/QA-HMA, 2, 64, Base, 19.0 mm on
  Subgrade Treatment, Type IC
- (J1) Compacted Aggregate No. 53
- (R) Surface on Transition Milling
  165 lbs/syd QC/QA-HMA, 2, 64, Surface, 9.5 mm on
  Milling, Surface

*To be updated with completion of Final Pavement Design

TBM #1 Benchmark Nail, N. Face of Pwp. #33595
Sta. 19+29.58, 17.51' Rt.
Elev. 799.66

TBM #2 Benchmark nail, N. Face of Pwp. #33599
Sta. 08+99.81, 17.16' Rt.
Elev. 796.53

NOTES:

1. Guardrail, MGS W-Beam, Long Span, Type 2
2. Guardrail, MGS W-Beam, 6'-3" Spacing
3. Guardrail End Treament, OS

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	
DESIGNED: DHS	DRAWN: TMN		
CHECKED: DEB	CHECKED: DEB		

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
S.R. 44 OVER UNT KOOT'S FORK

HORIZONTAL SCALE	BRIDGE FILE NO.
1" = 20'	044-041-10721
VERTICAL SCALE	DESIGNATION NO.
1" = 10'	1900153
SURVEY BOOK NO.	SHEETS
	6 of 16
CONTRACT NO.	PROJECT NO.
B-42218	1900153

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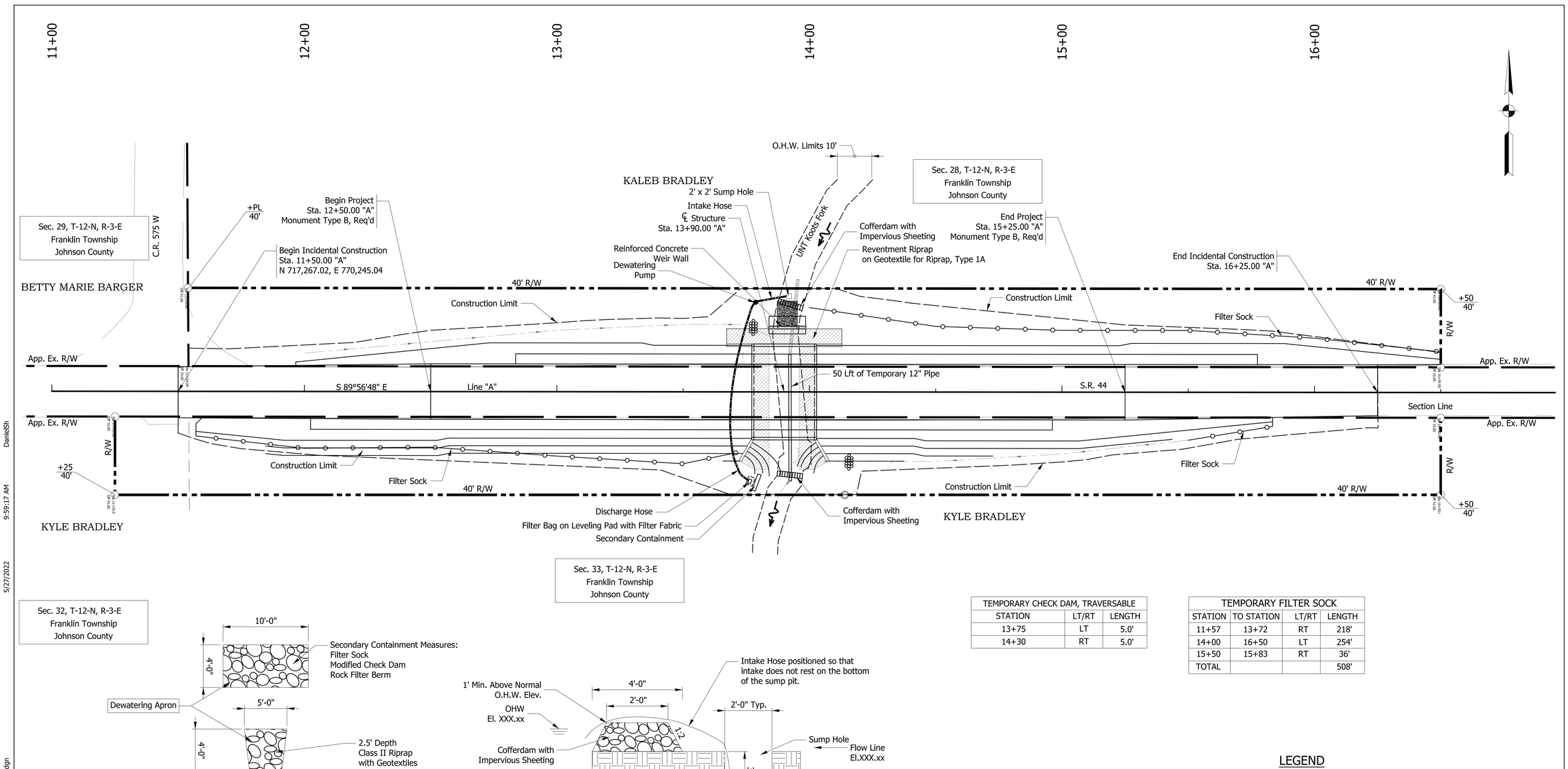

DETAIL
(DEWATER APRON)

Not to Scale

COFFERDAM/SUMP HOLE
WORK AREA

Not to Scale

TEMPORARY CHECK DAM, TRAVERSABLE		
STATION	LT/RT	LENGTH
13+75	LT	5.0'
14+30	RT	5.0'

TEMPORARY FILTER SOCK			
STATION	TO STATION	LT/RT	LENGTH
11+57	13+72	RT	218'
14+00	16+50	LT	254'
15+50	15+83	RT	36'
TOTAL			508'

LEGEND

- Temporary Filter Sock
- Water Flow Direction
- Coffer Dam
- Temporary Check Dam, Traversable

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: DHS DRAWN: TMN

CHECKED: DEB CHECKED: DEB

INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL DETAIL
S.R. 44 OVER UNT KOOT'S FORK

HORIZONTAL SCALE	BRIDGE FILE NO.
1" = 20'	044-041-10721
VERTICAL SCALE	DESIGNATION NO.
NA	1900153
SURVEY BOOK NO.	SHEETS
	7 of 16
CONTRACT NO.	PROJECT NO.
B-42218	1900153

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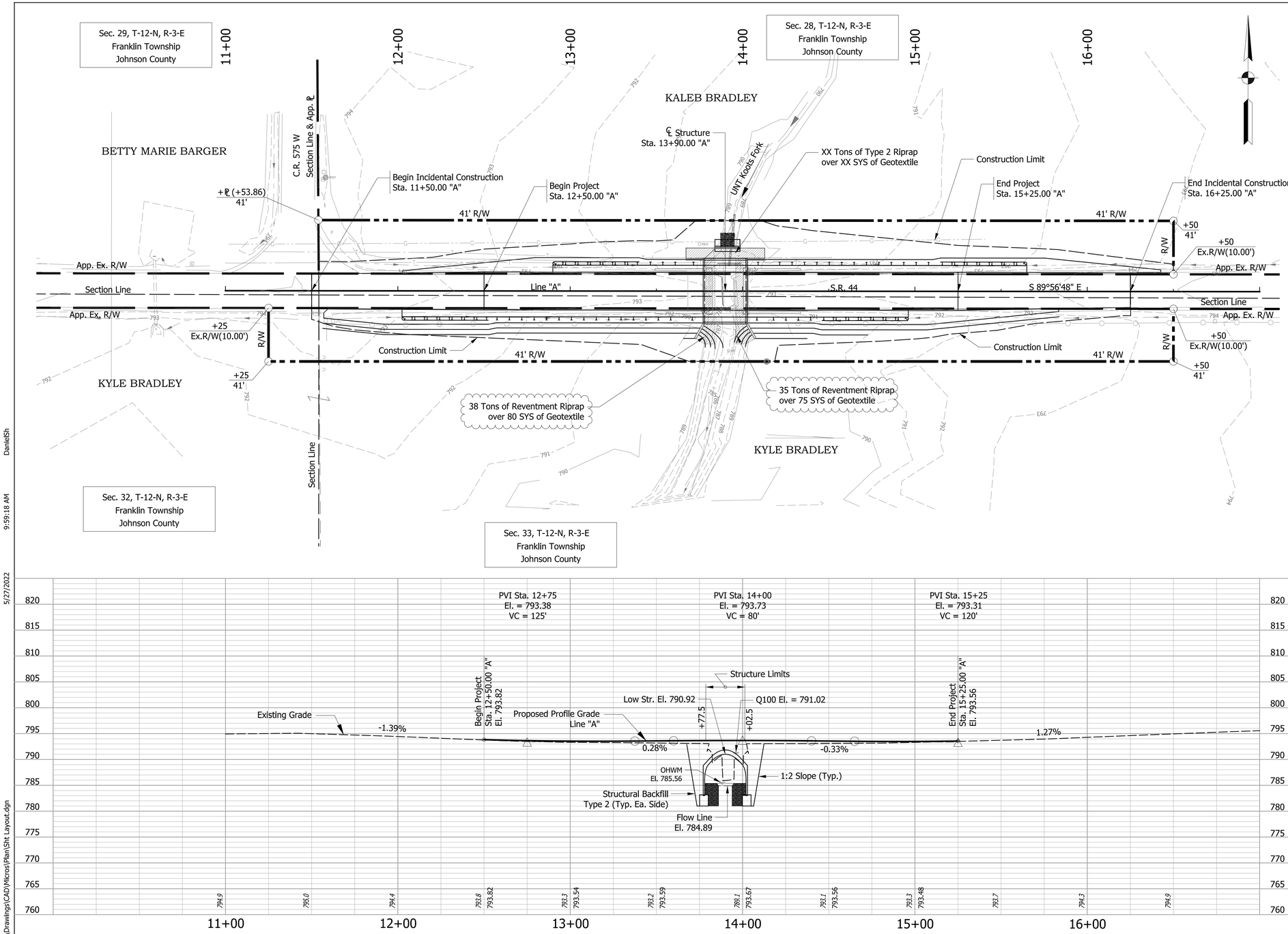

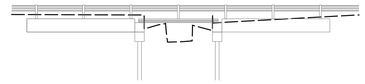

EXISTING STRUCTURE

The existing structure (CV 044-041-10.70) is a reinforced concrete slab that was installed at an unknown construction date. The structure has a span length of 18.0 ft with a vertical opening of 5.0 ft that is approximetly 26.0 ft in length. Existing structure is to be removed.

HYDRAULIC DATA

Drainage Area	0.45	sq. mi.
Q100 Discharge	321.3	cfs
Q100 Water Surface Elevation	791.02	ft
Design Roadway Serviceability Elevation	793.15	ft
Ex. Low Structure Elevation	791.59	ft
Ex. Q100 Headwater Elevation	791.35	ft
Ex. Q25 Headwater Elevation	790.96	ft
Ex. Waterway Area Below Q100	101.34	sft
Ex. Backwater	0	ft
Ex. Outlet Velocity @ Q25	252.39	ft/s
Ex. Natural Channel Velocity @ Q25	251.75	ft/s

3-Sided Precast Flat Top, 21-foot Span

Pr. Low Structure Elevation	790.92	ft
Pr. Q100 Headwater Elevation	791.32	ft
Pr. Q25 Headwater Elevation	790.95	ft
Pr. Waterway Area Below Q100	105.07	sft
Pr. Backwater	0	ft
Pr. Outlet Velocity @ Q25	2.38	ft/s
Pr. Natural Channel Velocity @ Q25	1.75	ft/s

3-Sided Precast Arch Top, 24-foot Span

Pr. Low Structure Elevation	790.92	ft
Pr. Q100 Headwater Elevation	791.35	ft
Pr. Q25 Headwater Elevation	790.96	ft
Pr. Waterway Area Below Q100	107.00	sft
Pr. Backwater	0	ft
Pr. Outlet Velocity @ Q25	2.48	ft/s
Pr. Natural Channel Velocity @ Q25	1.75	ft/s

EARTHWORK TABULATION

Fill + 20%	XX cys
Common Excavation	XX cys
Usable Waterway Excavation	XX cys
Surplus Foundation Excavation	XX cys
Borrow	XX cys
Total Waterway Excavation	XX cys
Excavation Unclassified	XX cys
Benching (Estimated)	XX cys

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

* To be updated at later submittal

PRECAST REINFORCED CONCRETE
THREE-SIDED BRIDGE
SPAN: 24'-0"
30'-0" CLEAR ROADWAY; 0° SKEW
SR 44 OVER UNT KOOTS FORK
JOHNSON COUNTY

*OHWM to be updated when Geotechnical Report is completed

**Riprap and Geotextile quantities to be finalized with completed recommendation at later submittal.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DHS DRAWN: TMN

CHECKED: DEB CHECKED: DEB

INDIANA
DEPARTMENT OF TRANSPORTATION

LAYOUT
SR 44 OVER UNT KOOTS FORK

HORIZONTAL SCALE	BRIDGE FILE NO.
1" = 30'	044-041-10721
VERTICAL SCALE	DESIGNATION NO.
1" = 10'	1900153
SURVEY BOOK NO.	SHEETS
	8 of 16
CONTRACT NO.	PROJECT NO.
B-42218	1900153

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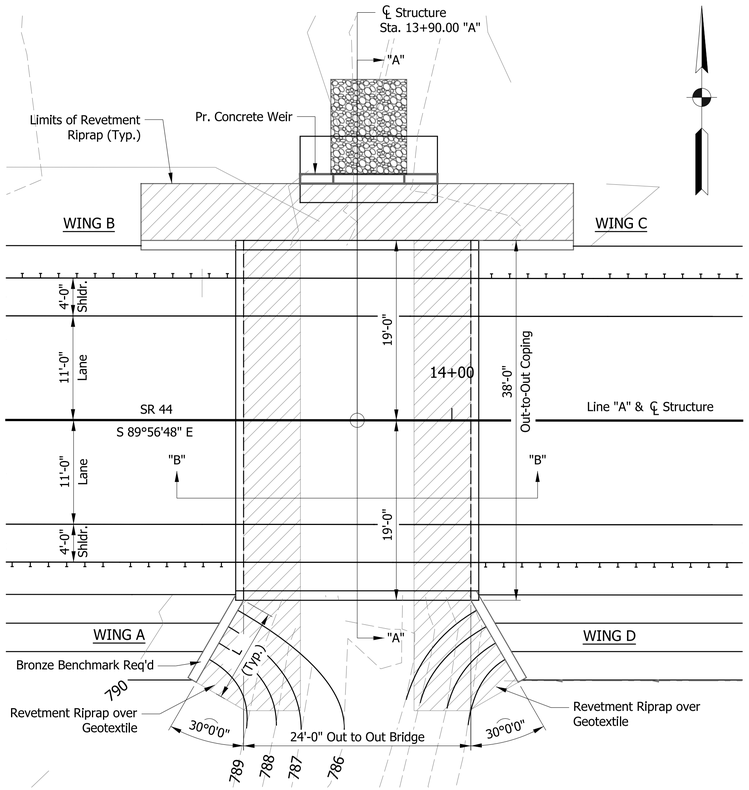
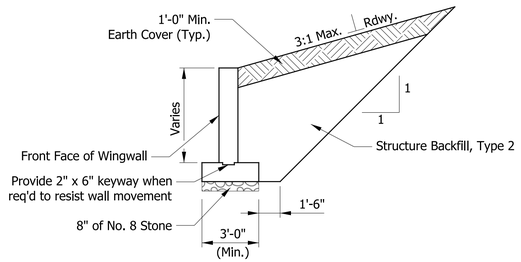
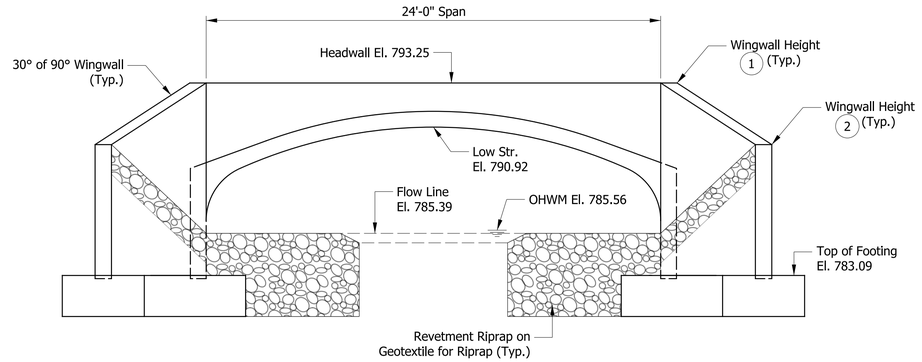


PLAN



WINGWALL BACKFILL

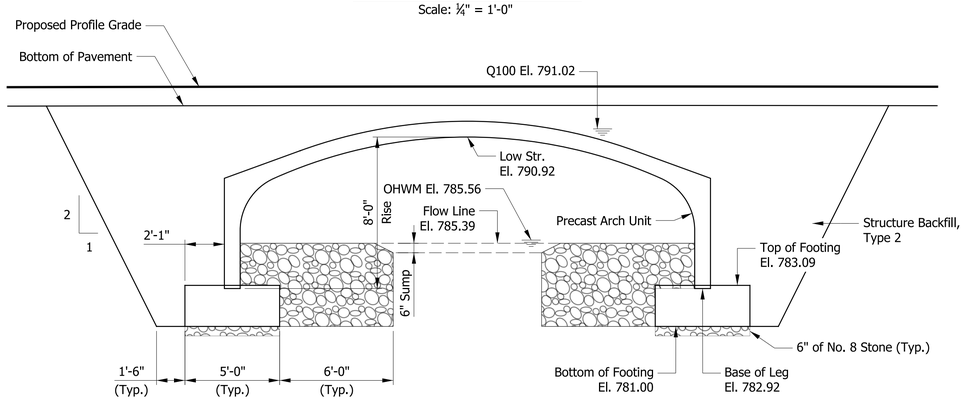
Not to Scale



ELEVATION - END PROFILE

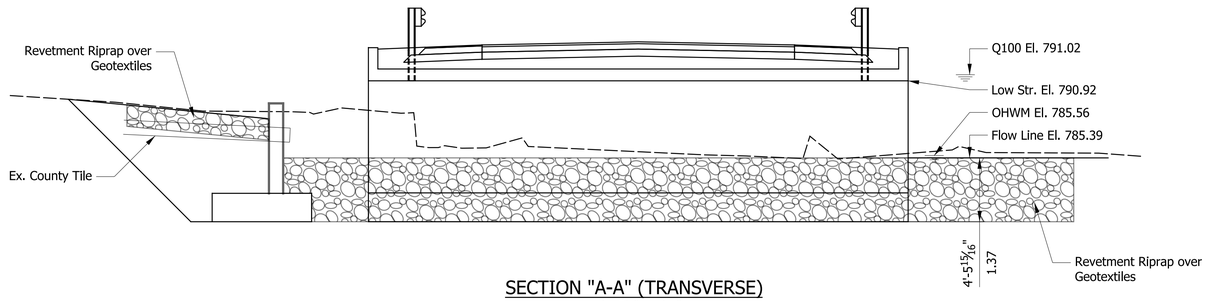
Scale: ¼" = 1'-0"

WINGWALL TABLE				
WING	TOP ELEV (1)	TOP ELEV (2)	LENGTH "L"	AREA
"A"	793.25	790.00	10'-0"	85.4 Sft.
"B"	793.25	793.25	10'-0"	101.6 Sft.
"C"	793.25	793.25	10'-0"	101.6 Sft.
"D"	793.25	790.00	10'-0"	85.4 Sft.



SECTION "B-B" (LONGITUDINAL)

Scale: ¼" = 1'-0"



SECTION "A-A" (TRANSVERSE)

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

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

FOUNDATION DESIGN	
Factored Bearing Resistance	7,450 psf
Resistance factor (φ)	0.45
Nominal Bearing Resistance	16,555 psf
Friction angle between wingwall and soil backfill (δ)	20°
Friction factor between footer, foundation soil (f)	0.34
Cohesion of foundation soil (C)	2,400
Adhesion of foundation soil (Ca)	2,400
Angle of internal friction of foundation soil (φ)	120

DESIGN DATA

Wingwalls and headwalls shall be designed in accordance with Standard Specification 714 for box culverts or 723 for three-sided structure.

LIVE LOAD: Designed for HL-93 loading, in accordance with the AASHTO LRFD Bridge Design Specifications, 8th Edition, and all subsequent interim specifications.

GENERAL NOTES

An alternate three-sided flat-top structure with a 21-ft span and a 8-ft high opening may be substituted for the structure shown.

Contractor shall verify the existing flowline elevation to set the appropriate sump depth.

Manufacturer's dimensions for pre-cast structures (except opening size) shall override shown dimension.

Waterproofing membrane shall be installed on the structure in accordance with the special provisions.

PRECAST REINFORCED CONCRETE
THREE-SIDED BRIDGE
SPAN: 24'-0"
30'-0" CLEAR ROADWAY; 0° SKEW
SR 44 OVER UNT KOOTS FORK
JOHNSON COUNTY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: DHS DRAWN: TMN

CHECKED: DEB CHECKED: DEB

INDIANA
DEPARTMENT OF TRANSPORTATION

GENERAL PLANS
SR 44 OVER UNT KOOTS FORK

HORIZONTAL SCALE	BRIDGE FILE NO.
3/16" = 1'-0"	044-041-10721
VERTICAL SCALE	DESIGNATION NO.
	1900153
SURVEY BOOK NO.	SHEETS
	9 of 16
CONTRACT NO.	PROJECT NO.
B-42218	1900153

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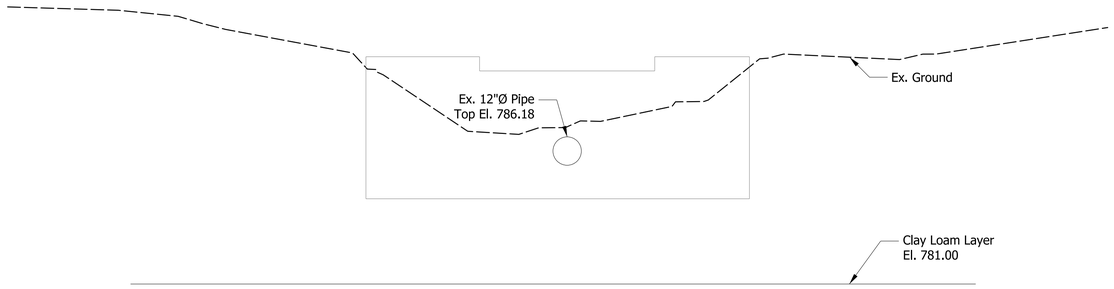
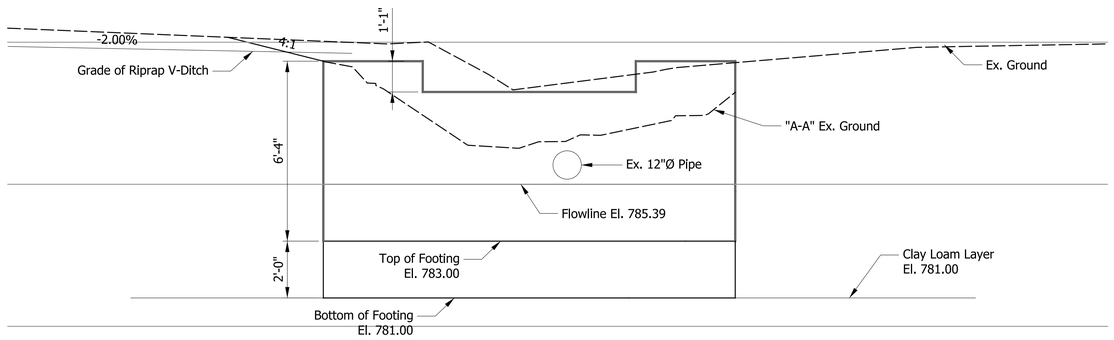


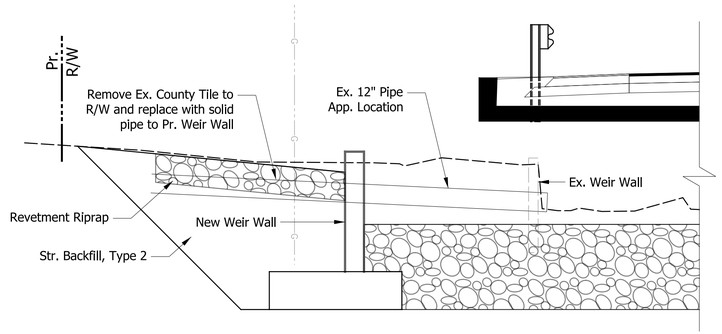
SECTION "A-A" - EXISTING WEIR

Scale: ⅜" = 1'-0"

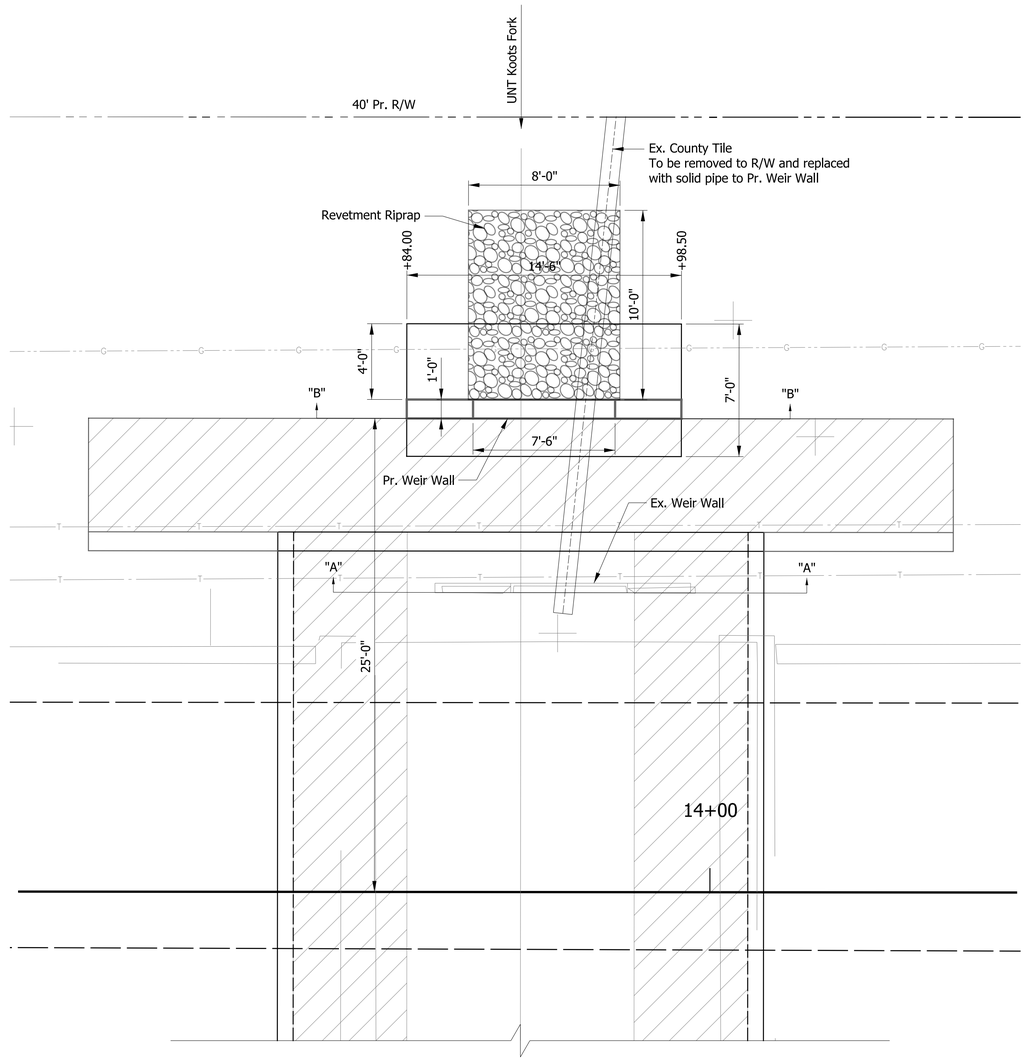


SECTION "B-B" - PROPOSED WEIR

Scale: ⅜" = 1'-0"



ELEVATION



PLAN

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1/4" = 1'-0"	BRIDGE FILE NO. 044-041-10721
		VERTICAL SCALE	DESIGNATION NO. 1900153
DESIGNED: DHS DRAWN: TMN	WEIR DETAIL SR 44 OVER UNT KOOTS FORK	SURVEY BOOK NO.	SHEETS 10 of 16
CHECKED: DEB CHECKED: DEB		CONTRACT NO. B-42218	PROJECT NO. 1900153

5/27/2022 9:59:19 AM DanielSh

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Des 1900153

Appendix C

Early Coordination

Sample Early Coordination Letter

INDIANA DEPARTMENT OF TRANSPORTATION

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

Eric Holcomb, Governor
Joe McGuinness, Commissioner

Please Note: Since the mailing of this early coordination letter, the preferred alternative has been changed to include a different proposed structure. However, no additional impacts will result from the change; therefore, updated project information was not sent to agencies.

December 15, 2021

RE: Des. No. 1900153, SR 44 Small Structure Project, Johnson County, Indiana.

Environmental Reviewer,

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intend to proceed with a bridge project involving State Road (SR) 44 over an unnamed tributary (UNT) to Koots Fork in Union Township, Johnson County. The project is located approximately 10.70 miles west of SR 135, with project termini extending from the intersection of SR 44 and CR 575 to approximately 500 feet east of CR 575. 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 effects associated with this project. **Please use the above designation number (Des. No.) and description in your reply**. We will incorporate your comments into a study of the project's environmental impacts.

SR 44 is a two-lane rural major collector roadway, with two 11-foot-wide through travel lanes, two 3-foot-wide paved shoulders, and a posted speed limit of 55 miles per hour (mph). The project structure over UNT to Koots Fork, CV 044-041-10.70, is a concrete slab top culvert, with an 18-foot span and a 5-foot rise. The existing structure shows signs of deterioration including efflorescence and staining, severely undermined abutments with exposed piles, and minor scour. The proposed scope of work for this project includes replacing the existing structure with a new reinforced concrete slab top bridge, with a span of at least 21 feet. The structure will have concrete barrier railings and new approach slabs with concrete barrier railing transitions. Riprap will also be installed beneath the structure for erosion protection, and the existing headwall north of the structure, weir, and stone abutment will be removed, and the flowline graded to a more gradual slope.

Right-of-way (ROW) will be required for the project, with 40 feet of ROW on each side of the roadway required, totaling 0.72 acre of permanent ROW. No temporary right-of-way is anticipated for this project. No relocation of residents or businesses will be required for the project. The project construction length will be approximately 0.10 mile, including the existing structure carrying SR 44 over UNT to Koots Fork, adjacent roadways of SR 44 for the proposed new bridge approaches, and areas of incidental construction. The Maintenance of Traffic (MOT) plan for this project will require a road closure of the section of SR 44 involving the project structure. Traffic will be rerouted along a detour utilizing SR 135, SR 252, and SR 37, adding approximately 4.7 miles of additional travel.

Land use in the vicinity of the project area is primarily agricultural on the north side of SR 44, and forested riparian corridor along UNT to Koots Fork on the south side of SR 44. The project qualifies for the application of the USFWS range-wide programmatic informal consultation of the Indiana Bat and Northern Long-Eared Bat and project information will be provided to the USFWS for review separately. SJCA Inc. will investigate the site for archaeological and historic resources for compliance with Section 106 and send findings to INDOT Cultural Resources staff and the State Historic Preservation Officer for review and concurrence. A Waters of the U.S. Determination/Wetland Delineation Report will be completed by SJCA Inc.

Information specific to your agency's area of expertise concerning the effects of the project should be forwarded to **Shelby Lutz, SJCA Inc., via email at shelby@sjcainc.com**, or by mail to 9102 N. Meridian Street, Suite 200, Indianapolis, IN. If you have any questions or comments regarding this request, please contact me at **(317) 566-0629** or the above email. The INDOT Project Manager, Chase Schneider, may also be contacted at ChSchneider@indot.in.gov. Your response is requested within 30 days, and we will incorporate any of your comments into a study of the project's environmental impacts. **Should we not receive a response within 30 calendar days from the date of this letter**, it will be assumed that your agency feels that there will be no adverse effects incurred as a result of the proposed project. Thank you for your assistance.

Maps and photographs can be found in Appendix B.

Sincerely,

Shelby Lutz
Environmental Scientist/Ecologist
SJCA Inc.

Attachments:
Early Coordination Recipient List
Project Maps (Location, Topographic, Aerial)
Photo Location Map and Site Photographs

INDIANA DEPARTMENT OF TRANSPORTATION

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

Eric Holcomb, Governor
Joe McGuinness, Commissioner

The following agencies received Early Coordination Letters:

Federal Highway Administration
Seymour District, Erica Tait
Erica.Tait@dot.gov

Indiana Geological and Water Survey
(Online Submission)
https://igws.indiana.edu/eAssessment

IDNR Environmental Coordinator
environmentalreview@dnr.in.gov

Indiana Department of Environmental Management
(Online Submission)
https://www.in.gov/idem/5284.htm

National Park Service
Midwest Regional Office
Regional Environmental Coordinator
Mwro_Compliance@nps.gov

IDEM Groundwater Section
Wellhead Proximity Determinator Online Tool
https://www.in.gov/idem/cleanwater/pages/wellhead/

U.S. Department of Housing & Urban Development
Field Environmental Officer, Erik Sandstedt
Erik.R.Sandstedt@hud.gov

INDOT Seymour District, David Dye
DDye@indot.in.gov

INDOT Project Manager, Chase Schneider
ChSchneider@indot.in.gov

Natural Resources Conservation Service
State Conservationist, Rick Neilson
Rick.Neilson@in.usda.gov

Indianapolis MPO
Executive Director, Anna Gremling
Anna.Gremling@indympo.org

U.S. Army Corps of Engineers
Louisville District, Indianapolis Regulatory Office
RegulatoryApplicationsLRL@usace.army.mil

Johnson County Commissioner
District 2, Kevin Walls
KWalls@co.johnson.in.us

Johnson County Council
District 1, Pete Ketchum
PKetchum@co.johnson.in.us

Johnson County Surveyor, Greg Cantwell
GCantwell@co.johnson.in.us

Johnson County Highway Department
Highway@co.johnson.in.us

Johnson County Soil & Water Conservation District
info@jocoswcd.org

Johnson County Plan Commission
Planning@co.johnson.in.us

Local Floodplain Administrator, Richard Hoover
RHoover@co.johnson.in.us

Organization and Project Information

Project ID:
Des. ID: 1900153
Project Title: SR 44 over UNT to Koots Fork
Name of Organization: SJCA Inc.
Requested by: Shelby Lutz

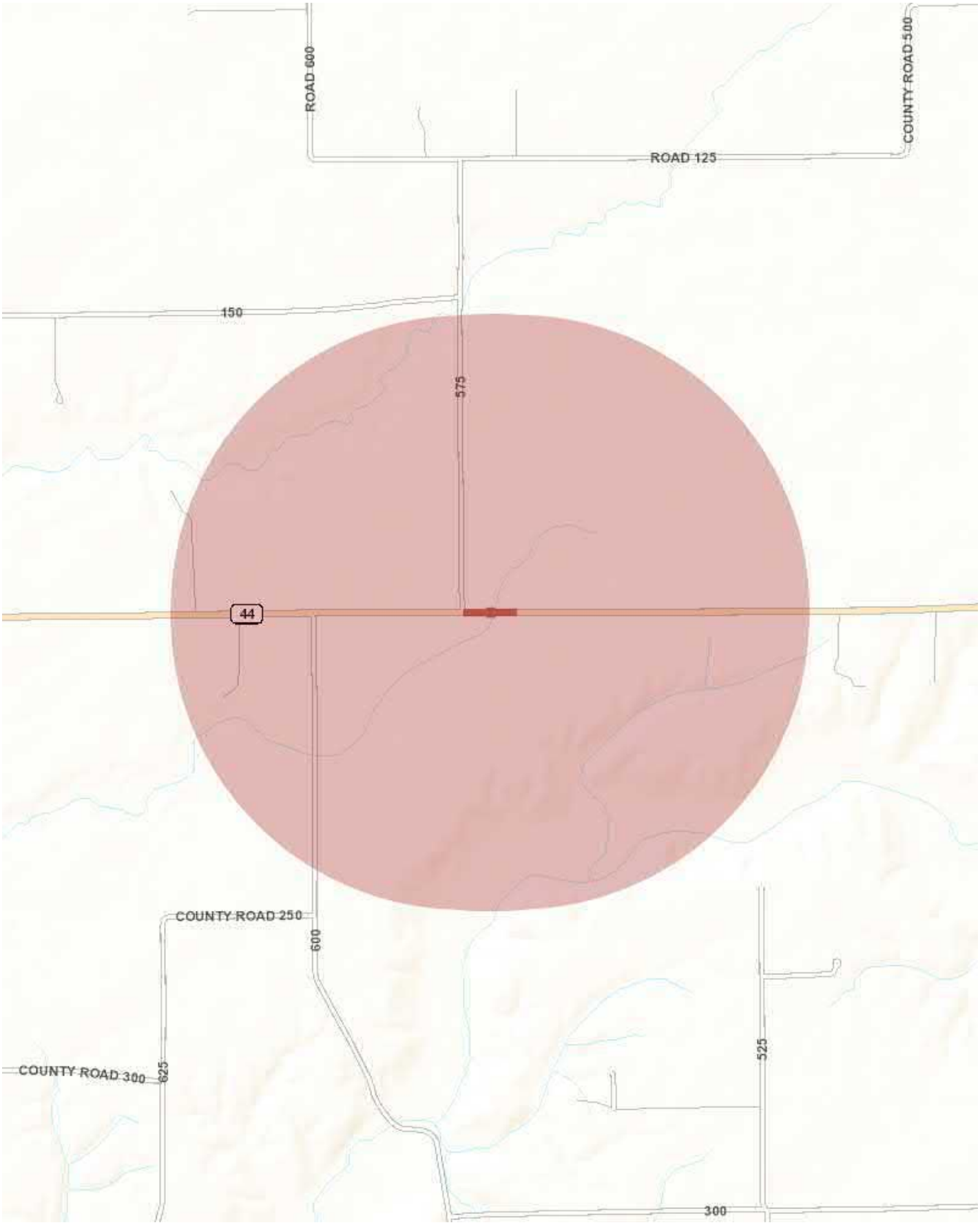
Environmental Assessment Report

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

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

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: December 15, 2021



Metadata:

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

Shelby Lutz

From: Hoover Richard - Planning & Zoning <rhoover@co.johnson.in.us>
Sent: Wednesday, December 15, 2021 11:21 AM
To: Shelby Lutz
Subject: RE: Des 1900153; SR 44 over UNT to Koots Fork Small Structure Project, Johnson Co. Early Coordination

Shelby,

The structure is not located within a regulated floodplain area. The south side of SR 44 is the upper reach of the Shuck Open Ditch (regulated drain) which is under the jurisdiction of the Johnson County Surveyor. I spoke with Joe Bailey of that office who informed me that they were already informed.

Thanks,
Dik

Richard R. Hoover, P.E.
Planning Engineer
Johnson County Planning and Zoning
317-346-4350

From: Shelby Lutz [mailto:Shelby@sjcainc.com]
Sent: Wednesday, December 15, 2021 9:20 AM
To: Hoover Richard - Planning & Zoning <rhoover@co.johnson.in.us>
Subject: Des 1900153; SR 44 over UNT to Koots Fork Small Structure Project, Johnson Co. Early Coordination

Good morning,

I am an Environmental Scientist/Ecologist with SJCA Inc. My company is working on a project for the Indiana Department of Transportation (INDOT) in Johnson County. The project involves the replacement of the culvert carrying SR 44 over an unnamed tributary (UNT) to Koots Fork with a new bridge.

I am reaching out to you with Early Coordination information for the abovementioned project for review and comment. This project is located near regulatory floodplains, and I received your contact information from the Indiana Department of Natural Resources Floodplain Information Portal as the Local Floodplain Administrator.

Please feel free to contact me via email or phone if you have any questions. If you have concerns or comments on this project, your response is kindly requested within 30 days. I will incorporate your response in environmental impact documentation for this project.

Thank you,

Shelby Lutz
Ecologist

SJCA Inc.
9102 N Meridian St, Suite 200
Indianapolis, Indiana 46260

USDA
United States Department of Agriculture

Natural Resources Conservation Service
Indiana State Office
6013 Lakeside Boulevard
Indianapolis, IN 46278
317-290-3200

January 12, 2022

Shelby Lutz
SJCA
9201 North Meridian Street, Suite 200
Indianapolis, Indiana 46260
shelby@sjcainc.com

Dear Ms. Lutz:

The proposed project to proceed with small structure improvements along State Road 44 in Johnson County, Indiana, (Des No 1900153), as referred to in your letters received December 15, 2021, 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: 2022.01.13 11:27:17
-05'00'

JOHN ALLEN
Acting State Soil Scientist

Enclosures

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request December 15, 2021
Name of Project DES1900153_SR44_SmStructure	Federal Agency Involved Federal Highway Administration
Proposed Land Use Right-of-way	County and State Johnson County, Indiana
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 12/15/2021 / 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: 220 ac
Major Crop(s): Corn	Farmable Land In Govt. Jurisdiction Acres: 149468 % 72	Amount of Farmland As Defined in FPPA Acres: 147843 % 72	
Name of Land Evaluation System Used: LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS: 1/12/2022	

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	0.72			
B. Total Acres To Be Converted Indirectly	0			
C. Total Acres In Site	0.72			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	0.72			
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	24			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	97			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	Maximum Points	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	15			
2. Perimeter In Non-urban Use	(10)	10			
3. Percent Of Site Being Farmed	(20)	0			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	15			
6. Distance To Urban Support Services	(15)	10			
7. Size Of Present Farm Unit Compared To Average	(10)	10			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	0			
10. On-Farm Investments	(20)	0			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	60	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	97	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	60	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	157	0	0	0

Site Selected: A	Date Of Selection January 24, 2022	Was A Local Site Assessment Used? YES ☐ NO ☑

Reason For Selection:

The right-of-way will allow for the project to meet the purpose and need of providing an improved stream crossing structure to carry SR 44 over UNT to Koots Fork.

Name of Federal agency representative completing this form:	Date:

(See Instructions on reverse side)

Form AD-1006 (03-02)

THIS IS NOT A PERMIT

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

DNR #: ER-24341 **Request Received:** December 15, 2021

Requestor: SJCA Inc
Shelby Lutz
9102 North Meridian Street, Suite 200
Indianapolis, IN 46260

Project: SR 44 small structure (CV 044-041-10.70) replacement over UNT Koots Fork, about 10.70 miles west of SR 135; Des #1900153

County/Site info: Johnson

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

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

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

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

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

1) Wildlife Passage:
Maintaining or improving wildlife movement under roads is a priority concern for the Division of Fish & Wildlife for the ecological health of wildlife populations in terms of movement and dispersal, habitat connectivity, and to avoid unnecessary wildlife mortality on roads. Facilitating wildlife passage ability under roads means less wildlife crossing traffic lanes and consequently reduced driving hazards. We encourage improving fish and wildlife passage conditions, when possible.

If feasible, a larger bridge opening is recommended to allow for the movement of wildlife under the roadway. The crossing should: maintain at least a 5' rise like the current concrete slab top culvert, span the entire channel width (a minimum of 1.2 times the ordinary highwater mark width); maintain the natural stream substrate within the structure; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel.

There are a number of techniques and materials for incorporating wildlife passage into the design of a crossing structure. The following links are good resources to consider in the design of stream crossing structures to maintain fish and wildlife passage: http://www.fs.fed.us/wildlifecrossings/library/, https://roadecology.ucdavis.edu/files/content/projects/DOT-FHWA_Wildlife_Crossing_Structures_Handbook.pdf, https://www.fs.fed.us/biology/nsaec/fishxing/aop_pdfs.html, https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf.

2) Bank Stabilization:
Establishing vegetation along the banks is critical for stabilization and erosion control. In addition to vegetation, some other form of bank stabilization may be needed. While hard armoring alone (e.g. riprap or glacial stone) may be needed in certain instances, soft armoring and bioengineering techniques should be considered first. In many instances, one or more methods are necessary to increase the likelihood of vegetation establishment. Combining vegetation with most bank stabilization methods can provide additional bank protection and help reduce impacts upon fish and wildlife. Information about bioengineering techniques can be found at http://www.in.gov/legislative/iac/20120404-IR-312120154NRA.xml.pdf. Also, the following is a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization: http://directives.sc.egov.usda.gov/17553.wba.

Riprap must not be placed in the active thalweg channel or placed in the streambed in a manner that precludes fish or aquatic organism passage (riprap must not be placed above the existing streambed elevation). Riprap should be used only at the toe of the sideslopes up to the ordinary high water mark (OHWM). The banks above the OHWM must be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to the area and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion.

3) Riparian Habitat:
We recommend a mitigation plan be developed for any unavoidable habitat impacts that will occur. The DNR's Habitat Mitigation Guidelines (and plant lists) can be found online at: http://iac.iga.in.gov/iac/20200527-IR-312200284NRA.xml.pdf.

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

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:
1. Revegetate all bare and disturbed areas with a mixture of grasses (excluding all varieties of tall fescue), legumes, and native shrub and hardwood tree species as soon as possible upon completion.
2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.
6. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds.

THIS IS NOT A PERMIT

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

7. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
8. Do not use broken concrete as riprap.
9. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
10. Minimize the movement of resuspended bottom sediment from the immediate project area.
11. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
12. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

Contact Staff: Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife

Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.

Christie L. Stanifer **Date:** January 14, 2022

Christie L. Stanifer
Environ. 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: July 22, 2022
Project Code: 2022-0030714
Project Name: Des 1900153 SR 44 over UNT to Koots Fork Small Structure Project, Johnson County, Indiana

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

To Whom It May Concern:

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

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

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

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - http://www.fws.gov/midwest/endangered/section7/

s7process/index.html. This website contains step-by-step instructions which will help you determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process. For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

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

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

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

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

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

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

Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

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

Attachment(s):

- Official Species List
- Migratory Birds
- Wetlands

Official Species List

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

This species list is provided by:

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

Project Summary

Project Code: 2022-0030714
Event Code: None
Project Name: Des 1900153 SR 44 over UNT to Koots Fork Small Structure Project, Johnson County, Indiana
Project Type: Culvert Repair/Replacement/Maintenance
Project Description: The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a small structure replacement project on the structure carrying State Road (SR) 44 over an unnamed tributary (UNT) to Koots Fork. The structure (CV 044-041-10.70) is located approximately 10.70 miles west of SR 135 in Johnson County, Indiana. This project will include the removal of the existing structure, headwall, weir, and stone abutment, and the installation of a new concrete slab top bridge with a span of at least 21 feet. The new structure will have concrete barrier railings and new approach slabs with concrete barrier railing transitions. Riprap will also be installed underneath the structure for erosion protection, and the flowline will be graded to a more gradual slope. Approximately 0.72 acre of permanent right-of-way (ROW) will be required. No temporary ROW is anticipated.

Land use in the vicinity of the project area includes vegetated streambanks, forested tracts, and agricultural fields. Suitable habitat is located within the project area in the form of forested areas south of SR 44. A maximum of three (3) trees, or approximately 0.27 acres, may be cleared as a result of project construction. Approximately 0.407 acre of terrestrial vegetation will be disturbed as a result of the project. No permanent lighting is planned; however, temporary lighting may be used during construction. This project has a current letting date scheduled for December 2023, with construction anticipated to begin in Spring 2024.

A review of the USFWS database by INDOT Seymour District staff on August 23, 2021 did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The small structure was inspected by INDOT staff on March 17, 2020, and by SJCA Inc. staff on September 30, 2021. No bats or evidence of bats were observed during either inspection.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.44594175,-86.20985227511228,14z

Counties: Johnson County, Indiana

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

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

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

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

Mammals

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

Insects

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

Critical habitats

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

Migratory Birds

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

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

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

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

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

NAME	BREEDING SEASON
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
Kentucky Warbler *Oporornis formosus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20

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

Probability Of Presence Summary

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

Probability of Presence (■)

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

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

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

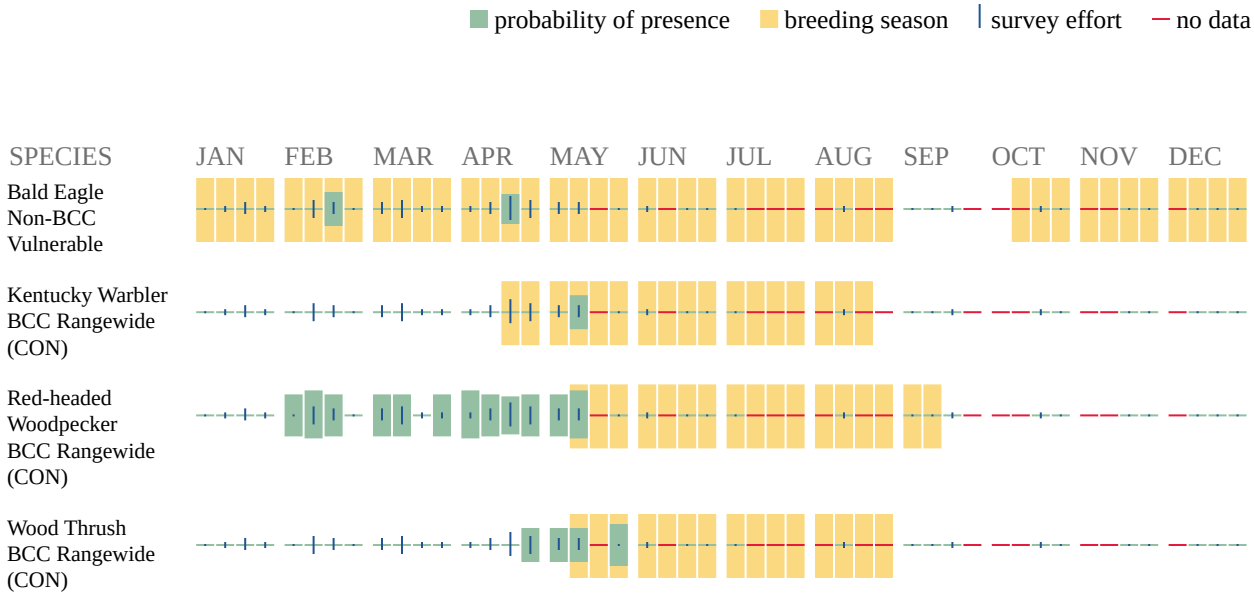
Breeding Season (■)

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

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

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

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



Additional information can be found using the following links:

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

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.
Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very

helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

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

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

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

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

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

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

What are the levels of concern for migratory birds?

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

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

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

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

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

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

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

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

Wetlands

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

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

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

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

IPaC User Contact Information

Agency: SJCA Inc.
Name: Shelby Lutz
Address: 9102 N Meridian St.
Address Line 2: Suite #200
City: Indianapolis
State: IN
Zip: 46260
Email shelby@sjcainc.com
Phone: 3175660629

Lead Agency Contact Information

Lead Agency: Federal Highway Administration

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273
http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html

In Reply Refer To: December 27, 2021
Consultation code: 03E12000-2022-I-0592
Event Code: 03E12000-2022-E-02903
Project Name: Des 1900153 SR 44 over UNT to Koots Fork Small Structure Project, Johnson County, Indiana

Subject: Concurrence verification letter for the 'Des 1900153 SR 44 over UNT to Koots Fork Small Structure Project, Johnson County, Indiana' project under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **Des 1900153 SR 44 over UNT to Koots Fork Small Structure Project, Johnson County, Indiana** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 *et seq.*).

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

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

Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO.

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

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

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

- Monarch Butterfly *Danaus plexippus* Candidate

Project Description

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

Name

Des 1900153 SR 44 over UNT to Koots Fork Small Structure Project, Johnson County, Indiana

Description

The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a small structure replacement project on the structure carrying State Road (SR) 44 over an unnamed tributary (UNT) to Koots Fork. The structure (CV 044-041-10.70) is located approximately 10.70 miles west of SR 135 in Johnson County, Indiana. This project will include the removal of the existing structure, headwall, weir, and stone abutment, and the installation of a new concrete slab top bridge with a span of at least 21 feet. The new structure will have concrete barrier railings and new approach slabs with concrete barrier railing transitions. Riprap will also be installed underneath the structure for erosion protection, and the flowline will be graded to a more gradual slope. Approximately 0.72 acre of permanent right-of-way (ROW) will be required. No temporary ROW is anticipated.

Land use in the vicinity of the project area includes vegetated streambanks, forested tracts, and agricultural fields. Suitable habitat is located within the project area in the form of forested areas south of SR 44. A maximum of three (3) trees, or approximately 0.27 acres, may be cleared as a result of project construction. Approximately 0.407 acre of terrestrial vegetation will be disturbed as a result of the project. No permanent lighting is planned; however, temporary lighting may be used during construction. This project has a current letting date scheduled for December 2023, with construction anticipated to begin in Spring 2024.

A review of the USFWS database by INDOT Seymour District staff on August 23, 2021 did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The small structure was inspected by INDOT staff on March 17, 2020, and by SJCA Inc. staff on September 30, 2021. No bats or evidence of bats were observed during either inspection.

Determination Key Result

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the endangered Indiana bat and/or the threatened Northern long-eared bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

Qualification Interview

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

   [1] See Indiana bat species profile

   Automatically answered
   Yes

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

   [1] See Northern long-eared bat species profile

   Automatically answered
   Yes

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

   A) Federal Highway Administration (FHWA)

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

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

   No

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

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

   No

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

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

   No

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

   No

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

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

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

   Yes

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

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

   Yes

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

    No

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

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

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

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

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

    No

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

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

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

    No

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

    Yes

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

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

    B) During the inactive season

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

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

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

    No

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

    Yes

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

    B) During the inactive season

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

    Yes

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

    No

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

    Yes

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

    No

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

    No

23. Does the project include slash pile burning?

    No

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

    Yes

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

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

    Yes

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

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

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

    Yes

    SUBMITTED DOCUMENTS

    - *3.17.2020_INDOT BIAS Inspection.pdf https://ecos.fws.gov/ipac/project/IMBFR6TKDJCH7ABESW2X7XWO7M/projectDocuments/108263757*
    - *9.30.2021_SJCA Bat Inspection.pdf https://ecos.fws.gov/ipac/project/IMBFR6TKDJCH7ABESW2X7XWO7M/projectDocuments/108311699*

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

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

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

    No

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

    No

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

    No

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

    Yes

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

    Yes

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

    No

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

    No

34. Are *all* project activities that are **not associated with** habitat removal, tree removal/ trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

    Examples: lining roadways, unlighted signage , rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

    Yes

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

    No

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

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

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

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

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

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

39. Is the bridge removal, replacement, or maintenance activities portion of this project consistent with a No Effect determination in this key?

    Automatically answered
    Yes, because the bridge has been assessed using the criteria documented in the BA and no signs of bats were detected

40. **General AMM 1**
    Will the project ensure *all* operators, employees, and contractors working in areas of known or presumed bat habitat are aware of *all* FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures?

    Yes

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

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

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

    Yes

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

    Yes

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

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

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

    Yes

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

    Yes

Project Questionnaire

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

   N/A

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

   N/A

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

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

   0.27

4. Please describe the proposed bridge work:

   The existing structure is a concrete slab top culvert. This structure will be removed and replaced with a new concrete slab top bridge. New concrete barrier railings and approach slabs will be installed, and new riprap will also be installed underneath the structure for erosion protection.

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

   Spring 2024

6. Please enter the date of the bridge assessment:

   September 30, 2021

Avoidance And Minimization Measures (AMMs)

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

LIGHTING AMM 1

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

TREE REMOVAL AMM 2

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

TREE REMOVAL AMM 3

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

TREE REMOVAL AMM 4

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

GENERAL AMM 1

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

TREE REMOVAL AMM 1

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

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

This key was last updated in IPaC on April 22, 2021. Keys are subject to periodic revision.

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

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

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

General Information		
Date of Inspection: 9.30.2021 Time of Inspection: 1:30 pm	Initial Inspection ☑ Follow-up Inspection ☐ Construction ☐	Temp: 76 F Wind: 5 mph from ESE Precip: none Sunrise: 7:40 am Sunset: 7:28 pm
County: Johnson		
Inspected by: Shelby Lutz, Victoria Veach		
GPS Northing: 39.445920 Easting: -86.209853 UTM Zone: 16 N	Contract Number: 42218 Des 1900153	Anticipated Start Date for Construction: Spring 2024

Bridge or Culvert	Bridge or Culvert
Stream or Road Crossed: UNT to Koots Fork	Station: STA 13 + 90.00 "A"
Bridge/Culvert number: CV 044-041-10.70	Number of Spans: N/A
Type of Structure: ☐ Concrete box beam ☐ Steel beam ☐ Concrete I-beam ☐ Steel girder ☐ Concrete bulb tee beam ☐ Steel pony truss ☐ Concrete arch ☐ Welded steel thru girder ☐ Concrete girder ☐ Concrete box culvert ☑ Concrete slab ☐ Concrete pipe ☐ Multi-plate arch ☐ Corrugated steel pipe ☐ Other (list):	Material: ☑ Concrete ☐ Steel ☐ Other (describe): Shape: ☑ Box Culvert ☐ Pipe ☐ Arch ☐ Slab ☐ Other (describe)
Searched entire structure? If not, why not? Yes	Location of bats or signs of use (w/drawing and photos):
Bats Present? ☐ Seen? ☐ Heard? No	
In Clusters? Number of clusters: N/A	
Number of bats in largest cluster: N/A	
Approximate total number of bats found: N/A	
Signs of previous bat use? No ☐ Guano ☐ Staining	

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

Des 1900153

Appendix D

Section 106 of the NHPA

Minor Projects PA Project Assessment Form

Date: 1/12/2022 **UPDATED 7/12/2022

Project Designation Number: 1900153

Route Number: SR 44

Project Description: SR 44 SS Replacement Small Structure Replacement with Bridge 10.70 miles E of SR 37

The proposed project is located on SR 44, approximately 10.70 miles east of SR 37, over UNT to Koots Fork within Union Township in Johnson County, Indiana. In the project area, SR 44 consists of one 10- foot lane in each direction with 2-foot aggregate shoulders. Guardrail is currently located over the structure at a 1-foot offset from the travel lane.

The existing structure is an 18-foot-span by 5-foot-high concrete slab top culvert. The need for this project is due to severe undermining of the substructure and the old, stacked stone abutments from a previous structure being present and restricting the flow and holding debris. An inspection of the structure on April 5, 2018 rated the structure at 5 (fair) out of 9. The inspection noted minor scour of the south side opening and exposed footing and piles from the undermining of the substructure. Also, notable efflorescence and staining of the underside of the superstructure was noted. There is a weir upstream of the structure that holds outlets for field drain tiles. The purpose of this project is to attain a structure rating of 7 or better for this crossing.

The preferred alternative for this project is to replace the existing 18-foot span slab top structure with a new slab top structure that has a span of at least 21 feet. This new structure will have concrete barrier railing and approach slabs with concrete barrier railing transitions. The proposed typical approach section will consist of two 11-foot travel lanes with 2-foot paved shoulders. A 1-foot aggregate shoulder will provide a 3-foot usable shoulder. It is recommended that the guardrail be offset 2-feet from the usable shoulder due to the history of off-road crashes identified at this location. This guardrail offset would result in a bridge barrier offset of 1 foot 8 inches for a FC barrier rail, and a clear roadway width of 31 feet 4 inches. Approximately 150 feet of guardrail will be required in advance of the addition of proposed concrete barrier transitions. The incidental construction limits will be a total of approximately 350 feet and are anticipated to terminate before the intersection of SR 44 with County Road (CR) 575W and a field entrance located opposite the intersection. Revetment riprap on geotextiles will be placed beneath the structure for erosion protection. It is recommended that the headwall north of the structure, weir, and existing stone abutment be removed, that the flowline be graded back at a more gradual slope, and that the outlet of the existing drain tile be removed back to match the proposed flowline. There will be approximately 0.72 acres of permanent right of way needed for this project.

**On 7/12/2022, INDOT-CRO was informed that the scope for the project had changed slightly since the approval on 1/12/2021. The structure that will now be used in replacement is a 3-sided precast concrete bridge. Our original MPPA Section 1 form stated the new structure would be a slab top structure with a 21-foot span. The right-of-way and project area will not change as a result of this change in structure type.

Feature crossed (if applicable): Unnamed Tributary (UNT) to Koots Fork

City/Township: Union Township **County:** Johnson County

Information reviewed (please check all that apply):

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

Other (please specify): Project information, photos and map provided by SJCA, Inc., on 12/9/2021 and updated on 7/12/2022 and on file at INDOT, CRO.

Jackson, Christopher
2021 A Phase Ia Archaeological Reconnaissance for the Proposed SR 44 Small Structure Replacement over an Unnamed Tributary of Koots Fork (Des 1900153), 10.7 Miles East of SR 37, Union Township, Johnson County, Indiana. Report on file, Indiana Department of Transportation, Cultural Resources Office, Indianapolis, In.

Please specify all applicable categories and condition(s) (conditions that are applicable are highlighted):

A-6. Repair, replacement, or upgrade of existing safety appurtenances such as guardrails, barriers, glare screens, and crash attenuators in previously disturbed soils.

A-9. Installation, repair, or replacement of erosion control measures along roadways, waterways and bridge piers within previously disturbed soils.

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

Condition A (Archaeological Resources)

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

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

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

Condition B (Above-Ground Resources)

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

i. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*

ii. With regard to the subject bridge, at least one of the conditions listed below is satisfied *(AT LEAST one of the conditions a, b or c, must be fulfilled)*:

   a. The latest Historic Bridge Inventory identified the bridge as non-historic (see http://www.in.gov/indot/2531.htm);

   b. The bridge was built after 1945, and is a common type as defined in Section V. of the *Program Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges* issued by the Advisory Council on Historic Preservation on November 2, 2012 for so long as that Program Comment remains in effect AND the considerations listed in Section IV of the Program Comment do not apply;

   c. The bridge is part of the Interstate system and was determined not eligible for the National Register under the Section 106 Exemption Regarding Effects to the Interstate Highway System adopted by the Advisory Council on Historic Preservation on March 10, 2005, for so long as that Exemption remains in effect.

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

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

Additional Comments:

Above-ground Resources

With regard to above-ground resources, an INDOT Cultural Resources historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 performed a desktop review. The project occurs in a primarily rural area with farms and scattered residential properties.

The Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for Johnson County was referenced. No listed resources are located near the project area.

The Indiana Historic Sites and Structures Inventory (IHSSI) was checked via the Indiana Historic Building, Bridges, and Cemeteries Map (IHBBCM) and the State Historical Architectural and Archaeological Research Database (SHAARD). There are no surveyed properties within 0.25 miles of the project which is adequate area to account for potential effects.

The subject structure, CV 044-041-10.70 is a concrete slab top culvert. Due to its status as a culvert, it was not surveyed in the Historic Bridge Inventory. The culvert is a simple concrete structure with no ornament or design features. There are remnant stone abutments under the structure. These stone abutments are not functional and do not support the culvert. It appears these stone abutments were associated with a previous structure at this site and were left in place. No archival road plans were found at this location to help identify the type of structure to which these belonged. The project occurs in a rural location with no evidence of other stone features in the vicinity.

A previous INDOT project (Des. No. 1600734) involving a CMP culvert with stone headwalls was determined not individually eligible to the National Register due to the lack of surrounding context, unusual characteristics, or engineering significance by the SHPO. The subject structure also lacks a surrounding context, unusual characteristics, or engineering significance. Therefore, CV 044-041-10.70 is not recommended individually eligible for the National Register.

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

Archaeological Resources

An INDOT Cultural Resources Office (CRO) archaeologist, who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61, reviewed the archaeology report submitted by SJCA, Inc., on behalf of Strand Associates on November 29, 2021.

An archaeological records check and Phase Ia reconnaissance survey of the project area were conducted by SJCA (Jackson 2021). A review of SHAARD and SHAARD GIS indicated that no archaeological sites or previous archaeological studies have been recorded within or adjacent to the survey area. A 2.0 acre survey area was examined through the excavation of shovel probes, and visual inspection of areas of disturbance. No evidence for archaeological deposits was identified by the field reconnaissance and it was recommended that the project be allowed to proceed as planned. It is our opinion that the report is acceptable, and we concur with the evaluations and recommendations made by SJCA (Jackson 2021). Therefore, there are no archaeological concerns.

Accidental Discovery: If any archaeological artifacts or human remains are uncovered during construction, demolition, or earth moving activities, construction within 100 feet of the discovery will be stopped, and the INDOT Cultural Resources Office and the Division of Historic Preservation and Archaeology will be notified immediately.

INDOT Cultural Resources staff reviewer(s): Patricia Jo Korzeniewski and Patrick Carpenter

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

Des 1900153

Appendix E

Red Flag Investigation

INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (855) 463-6848
(855) INDOT4U

Eric Holcomb, Governor
Michael Smith, Commissioner

Date: February 17, 2022

To: Site Assessment & Management (SAM)
Environmental Policy Office - Environmental Services Division (ESD)
Indiana Department of Transportation (INDOT)
100 N Senate Avenue, Room N758-ES
Indianapolis, IN 46204

From: Shelby Lutz
SJCA Inc.
9102 N Meridian St, Suite 200
Indianapolis, IN 46260
Shelby@sjcainc.com

Re: RED FLAG INVESTIGATION
Des. No. 1900153, State Project
Small Structure Project
SR 44 over UNT to Koots Fork, 10.70 Miles East of SR 37
Johnson County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a small structure project involving the existing structure (CV 044-041-10.70) carrying State Road (SR) 44 over an unnamed tributary (UNT) to Koots Fork. The project is located approximately 10.70 miles east of SR 37 in Union Township, Johnson County, Indiana. The existing structure is a concrete slab top culvert, with an 18-foot span and 5-foot rise. The existing structure shows signs of deterioration including efflorescence and staining, severely undermined abutments with exposed piles, and minor scour. The proposed scope of work includes replacing the existing small structure with a new reinforced concrete slab top bridge, with a span of at least 21 feet. The structure will also have concrete barrier railings and approach slabs with concrete barrier railing transitions. Riprap will be installed beneath the new structure for erosion protection, and the existing headwall north of the structure, weir, and stone abutment will be removed, and the flowline graded to a more gradual slope.

Bridge and/or Culvert Project: Yes ☒ No ☐ Structure # CV 044-041-10.70

If this is a bridge project, is the bridge Historical? Yes ☐ No ☐ , Select ☐ Non-Select ☐
(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

Proposed right of way: Temporary ☐ # Acres 0.0 Permanent ☒ # Acres over 0.5 acre , Not Applicable ☐

Type and proposed depth of excavation: Excavation will be required for this project behind the proposed end bents. The anticipated maximum excavation depth will be approximately 11 feet.

Maintenance of traffic: The anticipated Maintenance of Traffic plan for the project includes closing the section of SR 44 that includes the project structure. Traffic will be redirected along a detour utilizing SR 135, SR 252, and SR 37, adding approximately 19.3 miles of additional travel.

Work in waterway: Yes ☒ No ☐ **Below ordinary high water mark:** Yes ☒ No ☐

State Project: ☒ **LPA:** ☐

Any other factors influencing recommendations: N/A

INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	**N/A**	Recreational Facilities	**N/A**
Airports[1]	**N/A**	Pipelines	**1**
Cemeteries	**N/A**	Railroads	**N/A**
Hospitals	**N/A**	Trails	**2**
Schools	**N/A**	Managed Lands	**N/A**

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

Explanation:

Pipelines: One (1) pipeline segment is located within the 0.5 mile search radius. The pipeline segment, a natural gas pipeline managed by Indiana Gas Company, Incorporated, is located approximately 0.12 mile south of the project area. No impact is expected.

Trails: Two (2) trails are located within the 0.5 mile search radius. Both potential trail segments, SR 44 Corridor West from Franklin, and the CR 500 W, CR 575 W, and CR 600 W Corridor, are located within or adjacent to the project area. Coordination with the Johnson County Plan Commission, the managing entity for both trails, will occur.

WATER RESOURCES TABLE AND SUMMARY

Water Resources Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	**N/A**	Canal Routes - Historic	**N/A**
Karst Springs	**N/A**	NWI - Wetlands	**7**
Canal Structures – Historic	**N/A**	Lakes	**2**
NPS NRI Listed	**N/A**	Floodplain - DFIRM	**2**
NWI-Lines	**7**	Cave Entrance Density	**N/A**
IDEM 303d Listed Streams and Lakes (Impaired)	**N/A**	Sinkhole Areas	**N/A**
Rivers and Streams	**9**	Sinking-Stream Basins	**N/A**

Explanation:

NWI – Lines: Seven (7) National Wetland Inventory (NWI) line segments are located within the 0.5 mile search radius. One (1) NWI line segment is located within the project area. A Waters of the U.S. Report will be prepared and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Rivers and Streams: Nine (9) river and stream segments are located within the 0.5 mile search radius. One (1) stream, associated with an UNT to Koots Fork, flows through the project area. A Waters of the U.S. Report will be prepared and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

NWI – Wetlands: Seven (7) wetlands are located within the 0.5 mile search radius. Two (2) wetlands are located approximately 0.21 mile southwest of the project area. No impacts are expected.

Lakes: Two (2) lakes are located within the 0.5 mile search radius. The nearest lake is located approximately 0.32 mile east of the project area. No impacts are expected.

Floodplain – DFIRM: Two (2) floodplain polygons are located within the 0.5 mile search radius. The nearest floodplain is located approximately 0.36 mile southeast of the project area. No impacts are expected.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

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

Explanation: No mining and mineral exploration resources were identified within the 0.5 mile search radius.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

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

Unless otherwise noted, site specific details presented in this section were obtained from documents reviewed on the Indiana Department of Environmental Management (IDEM) Virtual File Cabinet (VFC).

Explanation: No hazardous material concern (hazmat) sites were identified within the 0.5 mile search radius.

ECOLOGICAL INFORMATION SUMMARY

The Johnson County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities can be found at https://www.in.gov/dnr/nature-preserves/files/np_johnson.pdf. A preliminary review of the Indiana Natural Heritage Database by INDOT ESD did not indicate the presence of ETR species within the 0.5 mile search radius. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project area is located in a rural area surrounded by agricultural fields. The March 17, 2020, inspection

report for Culvert #044-041-10.70 states that no evidence of bats was seen or heard in the culvert. The range-wide programmatic consultation for the Indiana Bat and Northern Long-Eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects."

RECOMMENDATIONS SECTION

Include recommendations from each section.

INFRASTRUCTURE:

Trails: Two (2) potential trail segments, the SR 44 Corridor West from Franklin, and the CR 500 W, CR 575 W, and CR 600 W Corridor, are located within or adjacent to the project area. Coordination with the Johnson County Plan Commission, the managing entity for both trails, will occur.

WATER RESOURCES:

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

- One (1) NWI line segment is located within the project area.
- One (1) stream, an UNT to Koots Fork, flows through the project area.

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: N/A

ECOLOGICAL INFORMATION: Coordination with USFWS and IDNR will occur. The range-wide programmatic consultation for the Indiana Bat and Northern Long-Eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects."

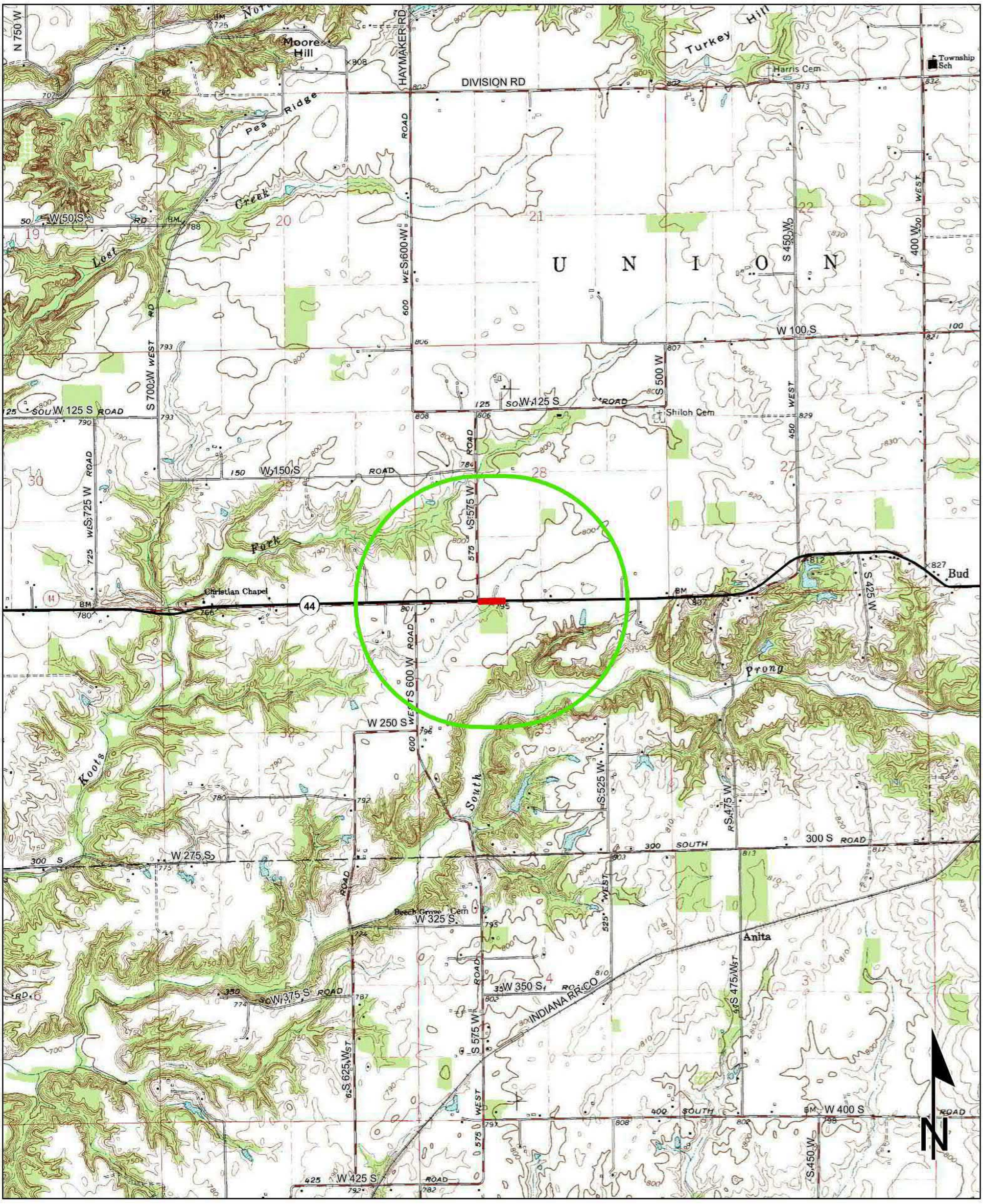
INDOT ESD concurrence: Nicole Fohey-Breting Digitally signed by Nicole Fohey-Breting Date: 2022.02.17 04:58:26 -05'00' (Signature)

Prepared by:
Shelby Lutz
Environmental Scientist/Ecologist
SJCA Inc.

Graphics:
A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached.

SITE LOCATION: YES
INFRASTRUCTURE: YES
WATER RESOURCES: YES
MINING/MINERAL EXPLORATION: N/A
HAZARDOUS MATERIAL CONCERNS: N/A

Red Flag Investigation - Site Location
SR 44 over UNT to Koots Fork, 10.70 Miles East of SR 37
Des. No. 1900153, Small Structure Project
Johnson County, Indiana



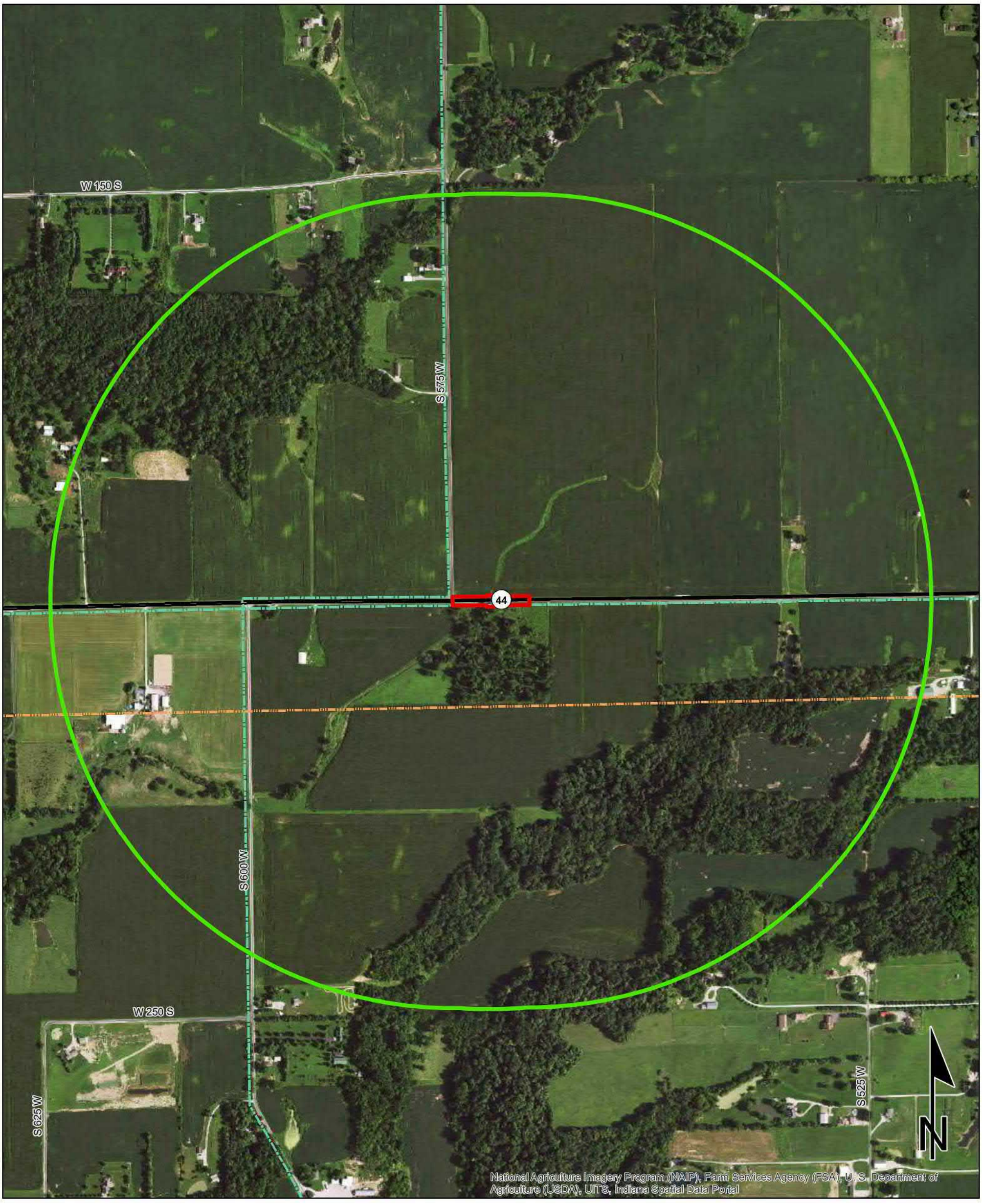
0.5 0.25 0 0.5 Miles

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

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

TRAFALGAR QUADRANGLE
INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)

Red Flag Investigation - Infrastructure
SR 44 over UNT to Koots Fork, 10.70 Miles East of SR 37
Des. No. 1900153, Small Structure Project
Johnson County, Indiana



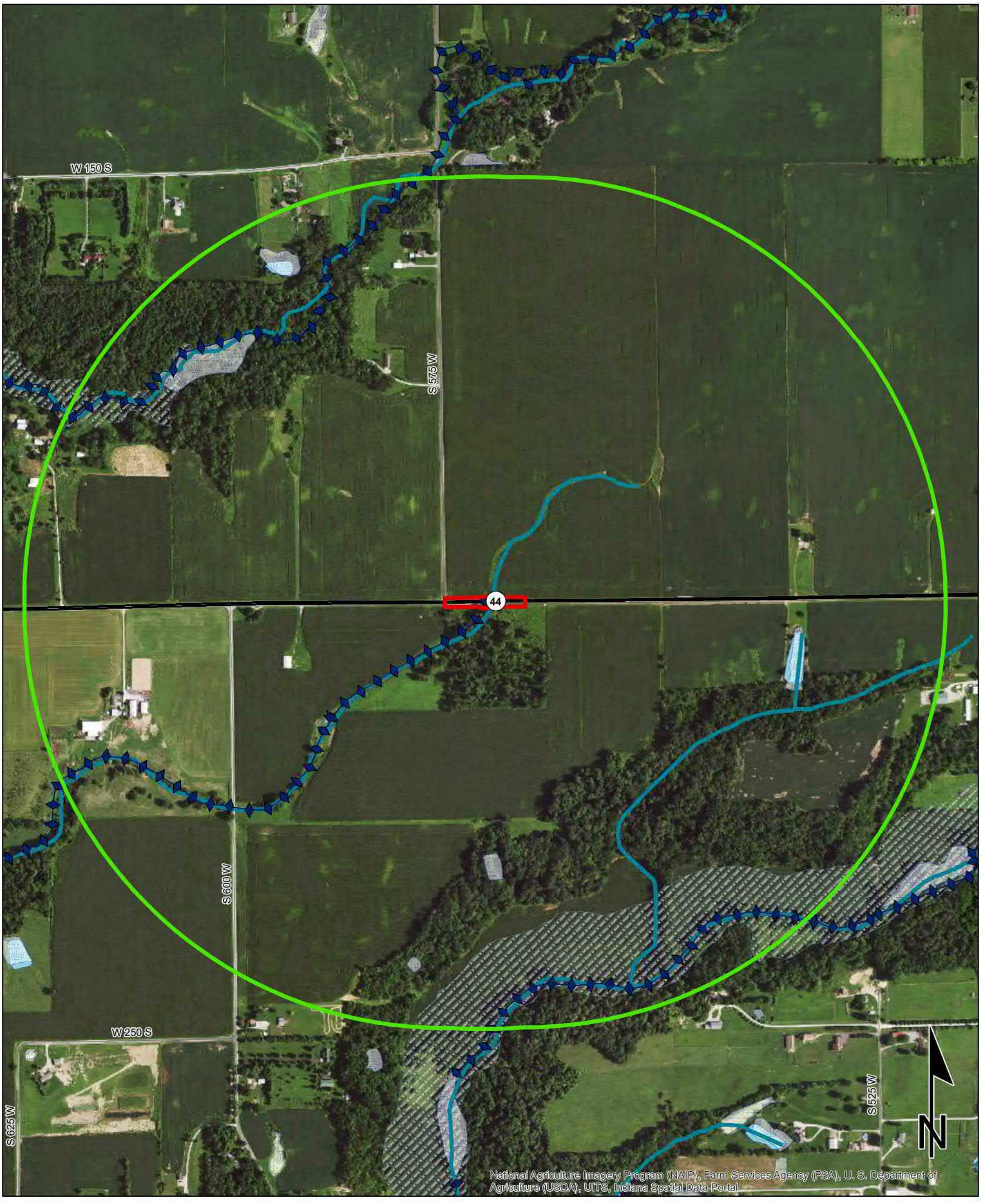
0.15 0.075 0 0.15 Miles

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

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

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

Red Flag Investigation - Water Resources
SR 44 over UNT to Koots Fork, 10.70 Miles East of SR 37
Des. No. 1900153, Small Structure Project
Johnson County, Indiana



0.15 0.075 0 0.15 Miles

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

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

- NWI - Point
- Karst Spring
- NWI- Line
- Impaired_Stream_Lake
- NPS NRI listed
- River
- Canal Structure - Historic
- Canal Route - Historic
- Wetlands
- Lake
- Floodplain - DFIRM
- Cave Entrance Density
- Sinkhole Area
- Sinking-Stream Basin
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Des 1900153

Appendix F

Water Resources

APPROVED: *Stephen C. Sperry*
Ecology and Waterway Permitting Office
Indiana Department of Transportation
3:31 pm, Feb 16 2022

Waters Report
State Road 44 over UNT to Koots Fork
Johnson County, Indiana
Small Structure Project, Structure CV 044-041-10.70
Des. No. 1900153

Report Completed on: February 8, 2022

Prepared for:

Strand Associates, Inc.

Project location maps and site photographs have been removed from this Appendix. However, a full Waters of the U.S. Report can be made available upon request.

Prepared By:

Shelby Lutz
SJCA Inc.
9102 N. Meridian St., Suite 200
Indianapolis, IN 46260

p. 317.566.0629 f. 317.566.0633 e. shelby@sjcainc.com

Project Information

Date of Field Reconnaissance: September 30, 2021

Site Location:
Sections 28 and 33, Township 12 N, Range 3 E
Trafalgar 24K Quadrangle
Johnson County, Indiana
Latitude: 39.445920° N
Longitude: -86.209853° W

Project Description

The Indiana Department of Transportation (INDOT) with funding from the Federal Highway Administration (FHWA) intends to proceed with a small structure replacement project, Designation Number (Des. No.) 1900153, involving the structure carrying State Road (SR) 44 over an Unnamed Tributary (UNT) to Koots Fork. The structure (CV 044-041-10.70) is located approximately 10.70 miles east of SR 37 in Johnson County, Indiana. SR 44 is a rural major collector roadway that provides one (1) 10-foot-wide travel lane with a 2-foot aggregate shoulder in each direction, and a posted speed limit of 55 miles per hour (mph). The existing structure is an 18-foot-span by 5-foot-rise concrete slab top culvert. The preferred alternative is to remove the existing structure, replacing it with a new concrete slab top bridge with a 23.5-foot span. The new structure will have concrete barrier railings and concrete barrier railing transitions along the approach slabs to tie into new guardrail along SR 44. The structure will provide two (2) 11-foot-wide travel lanes and two (2) 3-foot-wide shoulders. Approaches to the structure will be widened to tie the structure into the existing roadway. There is an existing concrete retaining wall located on the north side of SR 44, approximately four (4) feet upstream of the structure. Additionally, an agricultural drainage tile, referred to as the Johnson County Shuck Legal Tile, is present within the concrete retaining wall. The concrete wall will be removed and replaced further upstream, and the Shuck Legal Tile will be shortened to exit through the new wall. Riprap will also be installed underneath the structure along the stream banks for erosion control and scour prevention.

Methodology

The delineation of wetlands and other "Waters of the U.S." on the site were based on the methodology described in the *Corps of Engineers Wetland Delineation Manual (Environmental Laboratory, 1987)* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Environmental Laboratory, 2012)* as required by current U.S. Army Corps of Engineers (USACE) policy.

Prior to the field work, background information, including U.S. Geological Survey (USGS) topographic maps, aerial photographs, the USGS National Hydrography Dataset (NHD) layer on the Indiana Geological and Water Survey's (IGWS) IndianaMap website, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps, and the Natural Resources Conservation Service (NRCS) Web Soil Survey for Johnson County were reviewed to establish the probability and potential location of water resources on the site. Next, a general reconnaissance of the project area was conducted to determine site conditions. Sample points were established at locations within the project area to inspect for any possible wetland areas and to document soil characteristics, evidence of hydrology, and dominant vegetation. Hydrophytic vegetation is present when the Dominance Test is passed, indicating the presence at least 50% vegetation that

is of obligate (OBL), facultative (FAC), and facultative wetland (FACW) indicator status. Hydrophytic vegetation is also present when the Prevalence Index is met, based on a ratio using the total percent (%) cover of each indicator status. Soils were examined to a depth of at least 16-20 inches, when no restrictive layer was encountered, to assess soil characteristics and site hydrology.

Desktop Reconnaissance

Soils: According to the Soil Survey Geographic (SSURGO) Database for Johnson County, Indiana, the project area does contain soil areas with nationally listed hydric soils. Soils mapped within the investigated area include:

Table 1. Soil Types Within the Investigated Area

Soil Abbreviation	Soil Unit Name	Hydric Rating in Area IN081
Br	*Brookston silty clay loam, 0-2% slopes*	Predominantly Hydric (95%)
CrA	*Crosby silt loam, fine-loamy subsoil, 0-2% slopes*	Predominantly Nonhydric (2%)
MtC3	*Miami clay loam, 6-12% slopes, severely eroded*	Nonhydric (0%)

National Wetland Inventory Information: According to the NWI map, one (1) NWI feature is mapped within the investigated area, though it appears to be two (2) separate features. Sections of the feature appear to be incorrectly mapped, including the eastern area mapped through the roadway within the investigated area. The NWI feature is mapped correctly through the project structure within the investigated area and is classified as R4SBC (riverine, intermittent, streambed, seasonally flooded).

Table 2. Nearest Mapped NWI Features to the Investigated Area

Wetland/Water Feature Type	Location
R4SBC	Within the investigated area

HUC: South Prong Stotts Creek Sub-watershed, 12-Digit HUC: 051202011404

Topography: The topography within the investigated area is generally flat, with gently sloped roadsides both north and south of the existing roadway.

Hydrology: According to the attached Indiana Department of Natural Resources (IDNR) Floodplain Map, the project area is not located within any floodplains. According to watershed data provided by the Indiana Department of Environmental Management (IDEM), the project area is located within the South Prong Stotts Creek Watershed (see attached Watershed Map). Based on the NHD (see attached NHD Flowlines Map), one (1) Stream/River is present within the investigated area, flowing through the project structure. The USGS *Stream Stats* report (see attached), also identified one (1) stream feature; the upstream drainage area of the feature is 0.348 square miles, measured from the upstream side of the project structure. The stream identified by these resources corresponds to the investigated feature, UNT to Koots Fork. During heavy rain events, roadside runoff travels along the roadsides of SR 44, and south through the agricultural field, towards UNT to Koots Fork, which flows south through the project structure and continues outside the investigated area. Johnson County's Shuck Legal Tile (https://www.arcgis.com/apps/mapviewer/index.html?layers=ec4bb8321de5415fb9af6b5ea0c38148) is located just north of the project structure at the concrete retaining wall.

Plant Communities: Vegetation in the northwest quadrant of the project structure is dominated by tall fescue (*Schedonorus arundinaceus*, FACU), red fescue (*Festuca rubra*, FACU), hemp dogbane (*Apocynum cannabinum*, FAC), giant ragweed (*Ambrosia trifida*, FAC), and annual ragweed (*Ambrosia artemisiifolia*, FACU). Vegetation in the northeast quadrant of the project structure is dominated by tall fescue (*Schedonorus arundinaceus*, FACU), green foxtail (*Setaria faberi*, FACU), and root pigweed (*Amaranthus retroflexus*, FACU). South of SR 44, both west and east of the project structure is dominated by purpletop (*Tridens flavus*, UPL), calico aster (*Symphyotrichum lateriflorum*, FACW), annual ragweed (*Ambrosia artemisiifolia*, FACU), reed canary grass (*Phalaris arundinacea*, FACW), orchard grass (*Dactylis glomerata*, FACU), and Canada goldenrod (*Solidago canadensis*, FACU). Vegetation in the southeast quadrant of the project structure is also dominated by white snakeroot (*Ageratina altissima*, FACU), tall fescue (*Schedonorus arundinaceus*, FACU), and amur honeysuckle (*Lonicera maackii*, non-indicative (NI)), with trees and saplings including Northern red oak (*Quercus rubra*, FACU), black walnut (*Juglans nigra*, FACU), Eastern red cedar (*Juniperus virginiana*, FACU), and white ash (*Fraxinus americana*, FACU). The agricultural field north of SR 44 contained a crop of soybeans (*Glycine max*, NI) during the time of the site investigation.

Existing Land-Use: Land use in the vicinity of the investigated area primarily includes roadside right-of-way, vegetated streambanks, and agricultural properties. Adjacent to the investigated area south of SR 44, there is also a section of forested riparian corridor.

Field Reconnaissance

Site Conditions: Site conditions were typical for September. Approximately 0.18 inches of rain were recorded in the five (5) days prior to the site visit, according to *Weather Underground* (https://www.wunderground.com/). Temperatures were in the mid-sixties (°F) during the site visit.

Site Analysis: The investigated area included roadside right-of-way along SR 44, vegetated streambanks, agricultural properties to the north, and forested areas to the south. Hydrology within the project area is influenced by agricultural drainage and roadway runoff. According to the desktop review described above, as well as the field reconnaissance, there is one (1) stream that flows through the project area, UNT to Koots Fork.

Stream Features

One (1) stream was observed within the investigated area during the field reconnaissance.

Unnamed Tributary to Koots Fork is an intermittent stream that flows south through the project structure. The stream is accurately shown on the NHD map and classified as a Stream/River, and on the USGS topographic maps as a dashed blue-line (intermittent) stream. The stream is also accurately mapped on the NWI map as the feature flowing through the project structure, classified as R4SBC (riverine, intermittent, streambed, seasonally flooded). The feature shown on the USGS *StreamStats* report indicated that there is an upstream drainage area of 0.348 square miles, measured on the upstream side of the project structure. UNT to Koots Fork is influenced by roadway runoff, as well as agricultural drainage from the field located adjacent to the north side of the roadway and the Johnson County Shuck Legal Tile north of the structure. During the site investigation, the stream exhibited no active flow north of the concrete wall and Shuck Legal Tile, with active water flow present south of the tile and through the project structure. UNT to Koots Fork exhibited a bankfull width of 14 feet, an Ordinary High Water Mark (OHWM) width of 10

Please note: The Waters Report states UNT to Koots Fork has eventual connectivity to the Wabash River; however, this was a typo and should state connectivity to the White River. Jurisdiction status of UNT to Koots Fork, and the connecting streams to the White River remain correct as stated.

feet, and an OHWM depth of 2 inches, measured downstream of SR 44 and outside the influence of the project structure. An OHWM measurement was not able to be taken upstream of the structure, as the close proximity of the concrete retaining wall and Shuck Legal Tile prevented the measurement from being outside the influence of the structure (see photos 6, 9, and 11). Vegetation was present within UNT to Koots Fork at the southern edge of the investigated area, dominated by reed canary grass (*Phalaris arundinacea,* FACW), barnyard grass (*Echinochloa crus-galli*, FACW), and nimblewill (*Muhlenbergia schreberi*, FAC). UNT to Koots Fork was characterized by a defined bed and bank, a low flow velocity at the time of field investigation, a silt substrate with some cobble throughout, low sinuosity, and the presence of riffle/run complexes. UNT to Koots Fork is considered to be of average quality due to these attributes. Approximately 137 linear feet of the stream are present within the investigated area. Approximately 12.74 miles south of the investigated area, UNT to Koots Fork drains into the Wabash River via Koots Fork, South Prong Stotts Creek, and Scotts Creek. The Wabash River is a traditionally navigable waterway and is jurisdictional under the USACE. Due to a discernable bed and bank, the presence of an OHWM, relatively permanent flow conditions, and eventual connectivity to a jurisdictional waterway, UNT to Koots Fork is likely a Waters of the U.S., and is therefore likely jurisdictional under the authority of the USACE. Photos of UNT to Koots Fork can be found in photos 3-6, and 9-12 in the attached photo key.

Table 3. Stream Summary Table

Stream Name	Photos	Lat/Long	OHWM Width (ft.)	OHWM Depth (in.)	USGS Blue-line	Functional Riffles Pools	Quality	Likely Water of the U.S.	Dominant Substrate	Length of Stream in Investigated Area (ft.)
UNT to Koots Fork	3-6 and 9-12	39.445920° N -86.209853° W	10	2	Dashed, Intermittent	Yes	Average	Yes	Silt with Cobble	137

Soil Sample Points and Wetland Features

The investigated area contained a stream with vegetated streambanks and in-stream cover. Vegetation along the streambanks and adjacent roadsides were dominated primarily by upland vegetation (see Plant Communities and Stream Features sections above). Due to a lack of wetland hydrology indicators and hydrophytic vegetation, no soil sample points were taken in the investigated area. No wetland features were found to be present within or adjacent to the investigated area.

Open Water Features

No open water bodies were identified within or immediately adjacent to the investigated area in the desktop review. The field visit confirmed that no open water features are within the investigated area.

Other Water Features and Roadside Ditches

The investigated area was assessed for the presence of other water features. Other water features include roadside ditches, areas that do not have an OHWM but have concentrated flow, historic drainage, and other unusual drainage features. These features may be considered jurisdictional if they exhibit a Significant Nexus to a Traditionally Navigable Waterway. No roadside ditches or other water features were identified within the investigated area.

Please see earlier comment on the previous page regarding the correction of "Wabash River" to "White River."

Conclusions

The investigated area included a mixture of roadside right-of-way and vegetated streambanks, with agricultural areas adjacent to the north side of SR 44. One (1) mapped stream, UNT to Koots Fork, was identified during the site investigation. The stream flows through the project structure within the investigated area, receiving roadside runoff from SR 44, as well as agricultural drainage from the agricultural field north of SR 44 and the field drainage pipe near the structure inlet. UNT to Koots Fork exhibits a discernable bed and bank, an OHWM, and eventual connectivity to the Wabash River, a traditionally navigable waterway. Therefore, UNT to Koots Fork is likely a Waters of the U.S. and is likely jurisdictional under the authority of the USACE.

Every effort should be taken to avoid and minimize impacts to these features. If impacts are necessary, then mitigation may be required. The USACE should be contacted immediately if impacts occur. The final determination of jurisdictional waters is ultimately made by the appropriate regulatory staff of the USACE. This report is our best judgment based on the guidelines set forth by the Corps.

Acknowledgement

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

Shelby Lutz

Environmental Scientist/Ecologist
SJCA Inc.
Date: February 8, 2022

Supporting Documentation

- Project Location Map
- USGS Topographic Maps
- USFWS NWI Map
- NHD Flowline Map
- Floodplain Map
- IDEM Watershed Map
- USGS *StreamStats* Report
- NRCS Hydric Soil Map
- Water Resources Map
- Photo Location and Orientation Map
- Site Photographs
- Preliminary Jurisdictional Determination Form

NWI Wetland Map (1:2,500)
Small Structure Project
SR 44 over UNT to Koots Fork
Des. No. 1900153
Johnson County, Indiana
Source: USFWS & NAIP 2018 Imagery

0 140 280
Feet

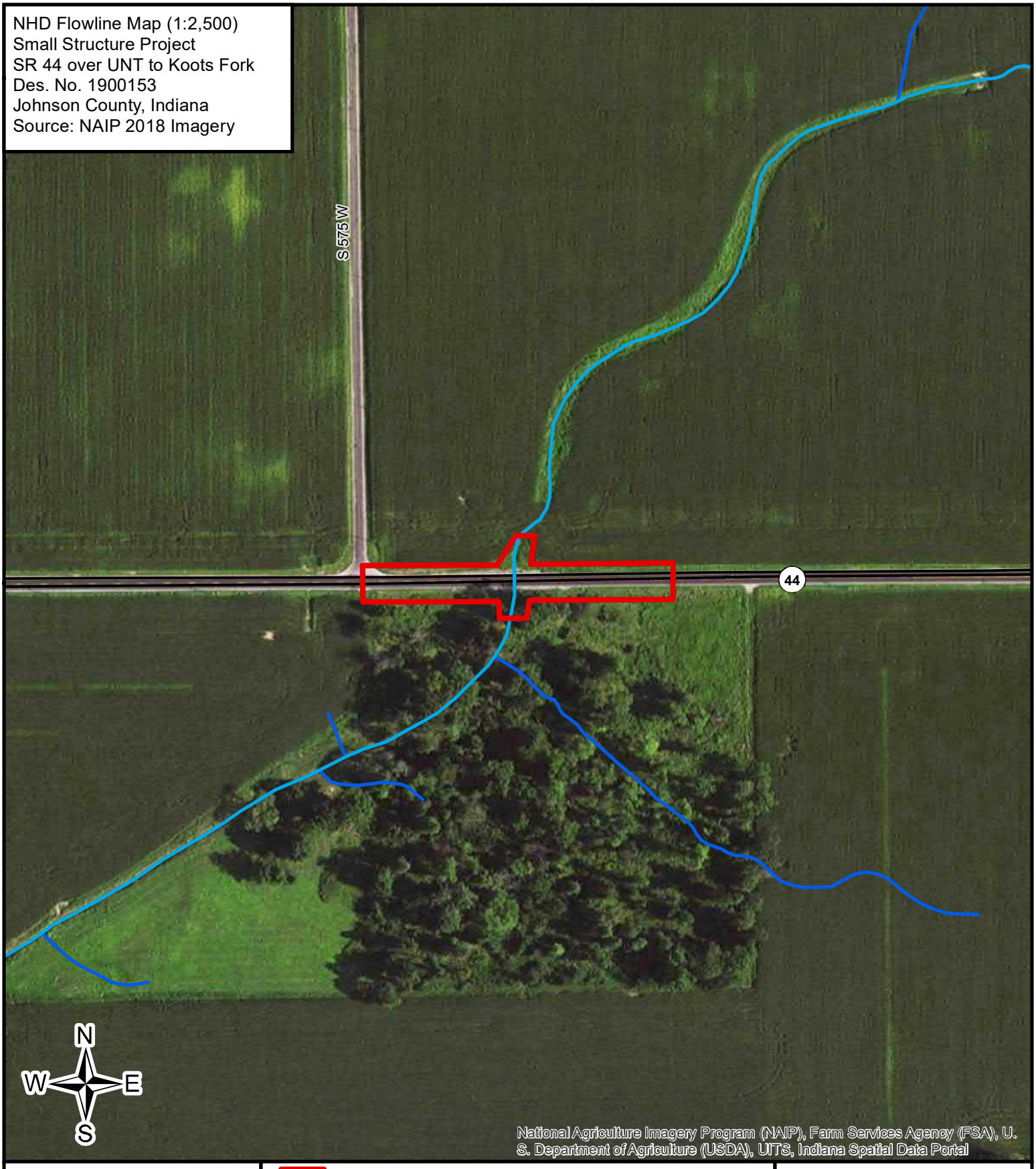
- Investigated Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Other
- County Boundary

10/8/2021

SJCA

F7

Approved 2/16/2022, 10



0 140 280 Feet

Investigated Area
Stream/River
Artificial Path
Canal/Ditch
Pipeline
Connector
Underground Conduit
Coastline
NHD Flowline - Unclassified

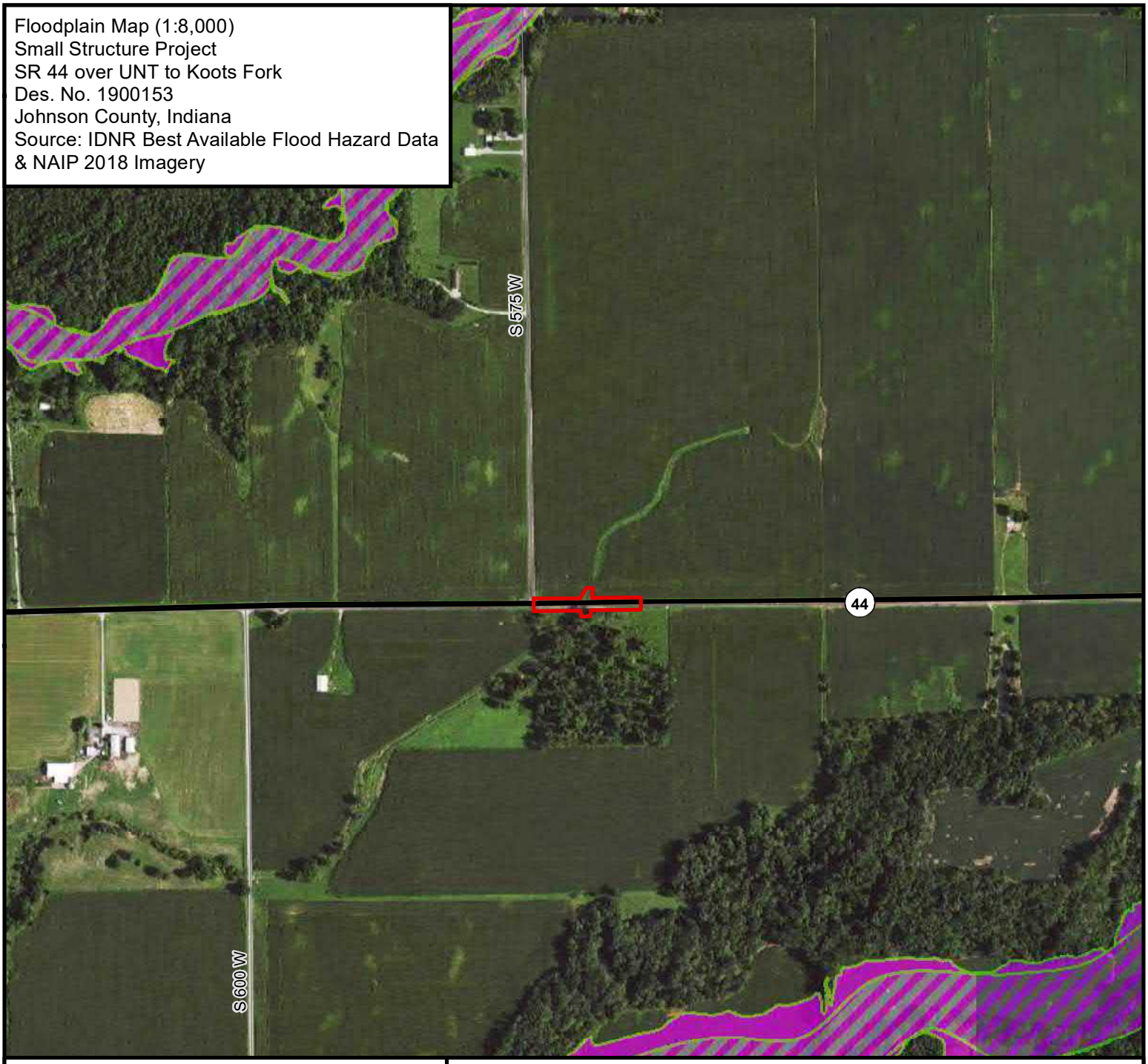
10/8/2021

SJCA

F8

Approved 2/16/2022, 11

Floodplain Map (1:8,000)
Small Structure Project
SR 44 over UNT to Koots Fork
Des. No. 1900153
Johnson County, Indiana
Source: IDNR Best Available Flood Hazard Data & NAIP 2018 Imagery



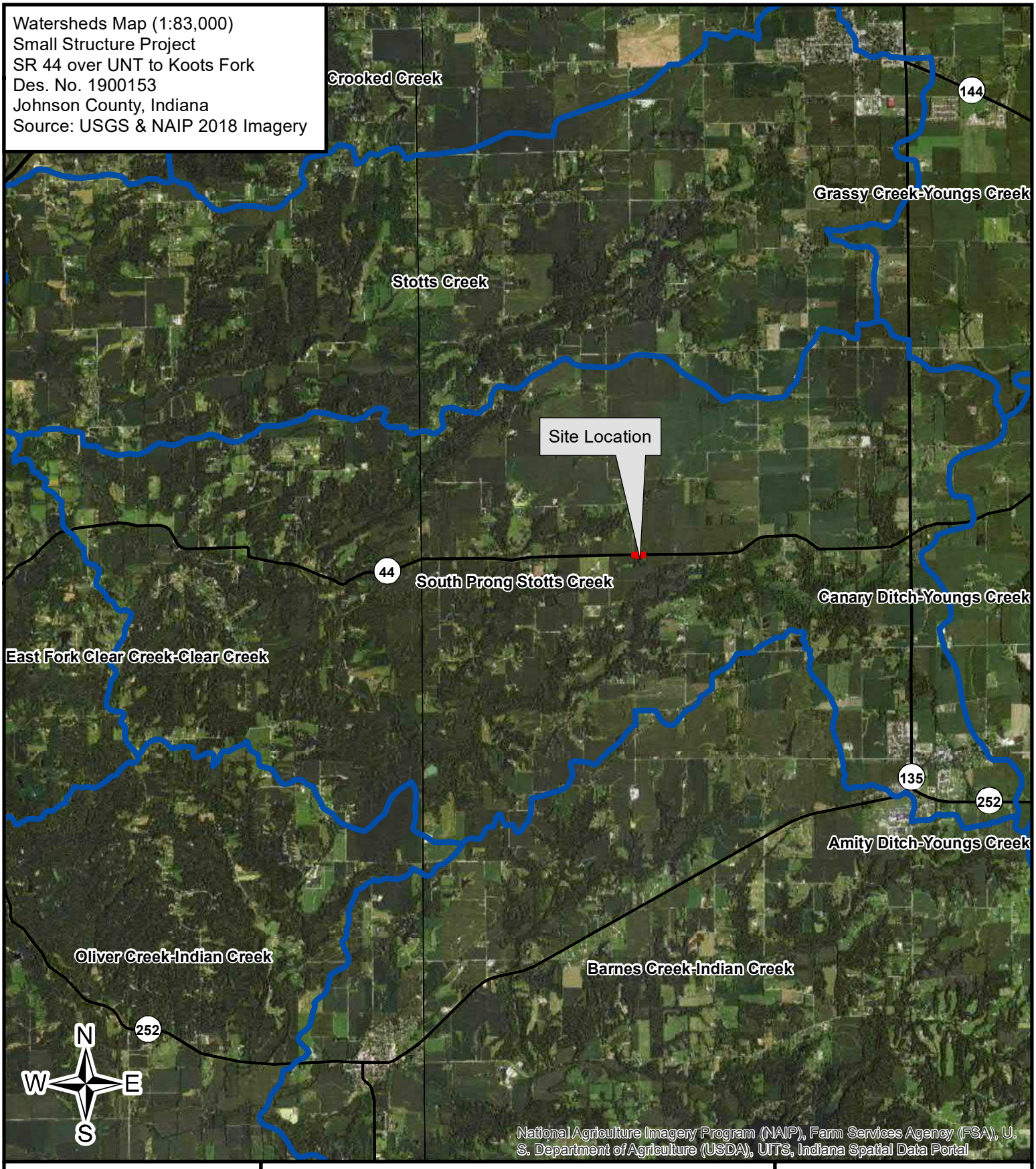
0 475 950 Feet

N
W E
S

SJCA

12/3/2021

- Project Location
- FEMA Zone AE Floodway; FEMA Administrative Floodway
- DNR Detailed Floodway
- DNR Approximate Floodway
- FEMA Zone A
- FEMA Zone AE
- DNR Detailed Fringe
- DNR Approximate Fringe
- Additional Floodplain Area; DNR .2 Percent Flood Hazard
- FEMA Protected by Levee
- FEMA Floodplain - Ponding (Depth)
- FEMA Floodplain - Sheet Flow (Depth)



0 4,900 9,800 Feet

Investigated Area

Watersheds

11/5/2021

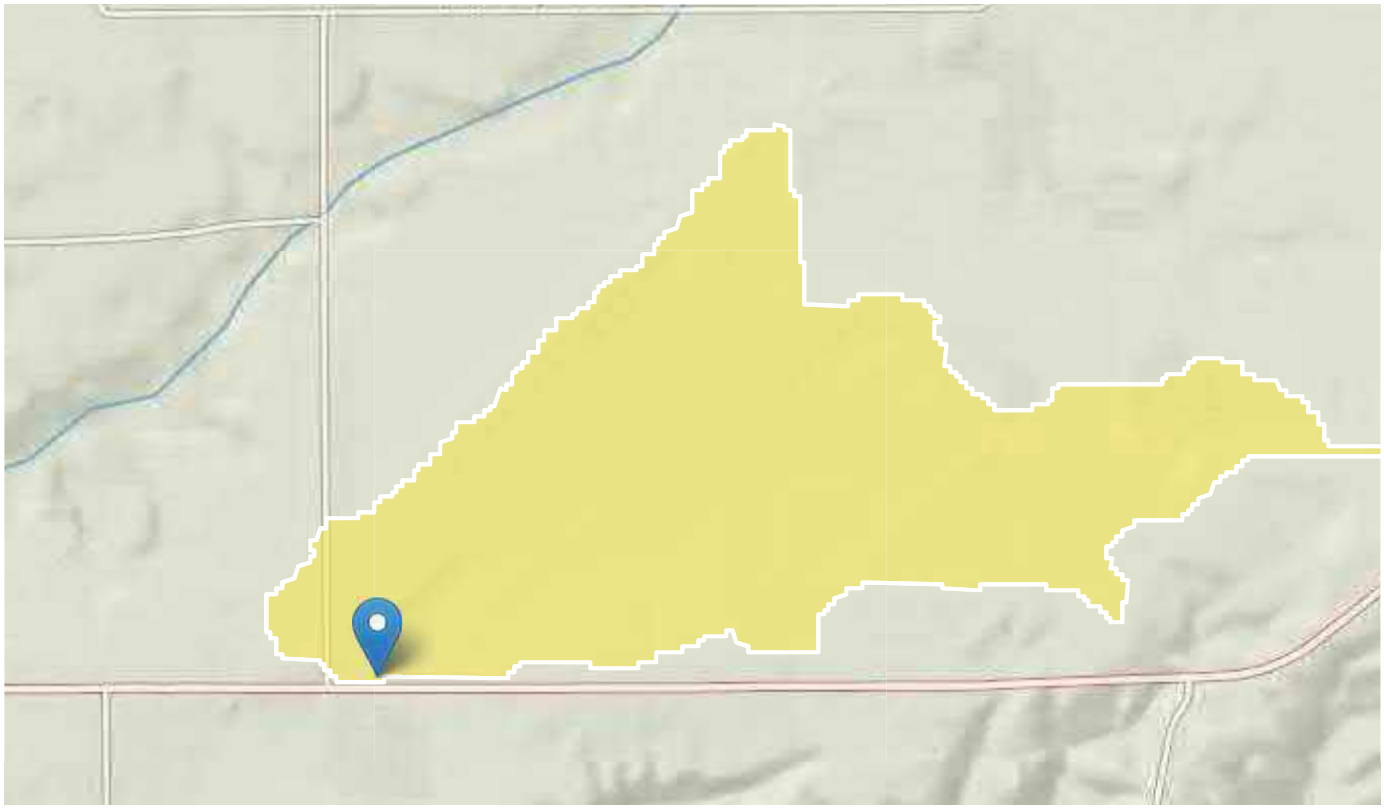
SJCA

F10

Approved 2/16/2022, 13

USGS StreamStats Report

Region ID: IN
Workspace ID: IN20211203133636146000
Clicked Point (Latitude, Longitude): 39.44607, -86.20968
Time: 2021-12-03 08:36:54 -0500



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.348	square miles
BFREGNO	BFREGNO	1566	dimensionless

Bankfull Statistics Parameters [Bankfull Central Till Plain Region 2013 5078]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.348	square miles	0.04	812

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
BFREGNO	BFREGNO	1566	dimensionless		

Bankfull Statistics Parameters [Interior Plains D Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.348	square miles	0.19305	59927.7393

Bankfull Statistics Parameters [Central Lowland P Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.348	square miles	0.200772	59927.66594

Bankfull Statistics Parameters [USA Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.348	square miles	0.07722	59927.7393

Bankfull Statistics Flow Report [Bankfull Central Till Plain Region 2013 5078]

Statistic	Value	Unit
Bankfull Width	12.9	ft
Bankfull Depth	1.35	ft
Bankfull Area	17.2	ft^2

Bankfull Statistics Flow Report [Interior Plains D Bieger 2015]

Statistic	Value	Unit
Bieger_D_channel_width	8.1	ft
Bieger_D_channel_depth	1.22	ft
Bieger_D_channel_cross_sectional_area	13.1	ft^2

Bankfull Statistics Flow Report [Central Lowland P Bieger 2015]

Statistic	Value	Unit
Bieger_P_channel_width	9.44	ft
Bieger_P_channel_depth	1.55	ft
Bieger_P_channel_cross_sectional_area	12.8	ft^2

Soil Map: Hydric Rating by Map Unit
Small Structure Project
SR 44 over UNT to Koots Fork
Des. No. 1900153
Johnson County, Indiana

Map Scale: 1:842 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 10 20 40 60

Feet: 0 40 80 160 240

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

Soil Map: Hydric Rating by Map Unit
Small Structure Project
SR 44 over UNT to Koots Fork
Des. No. 1900153
Johnson County, Indiana

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Lines
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Points
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Johnson County, Indiana
Survey Area Data: Version 29, Sep 8, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

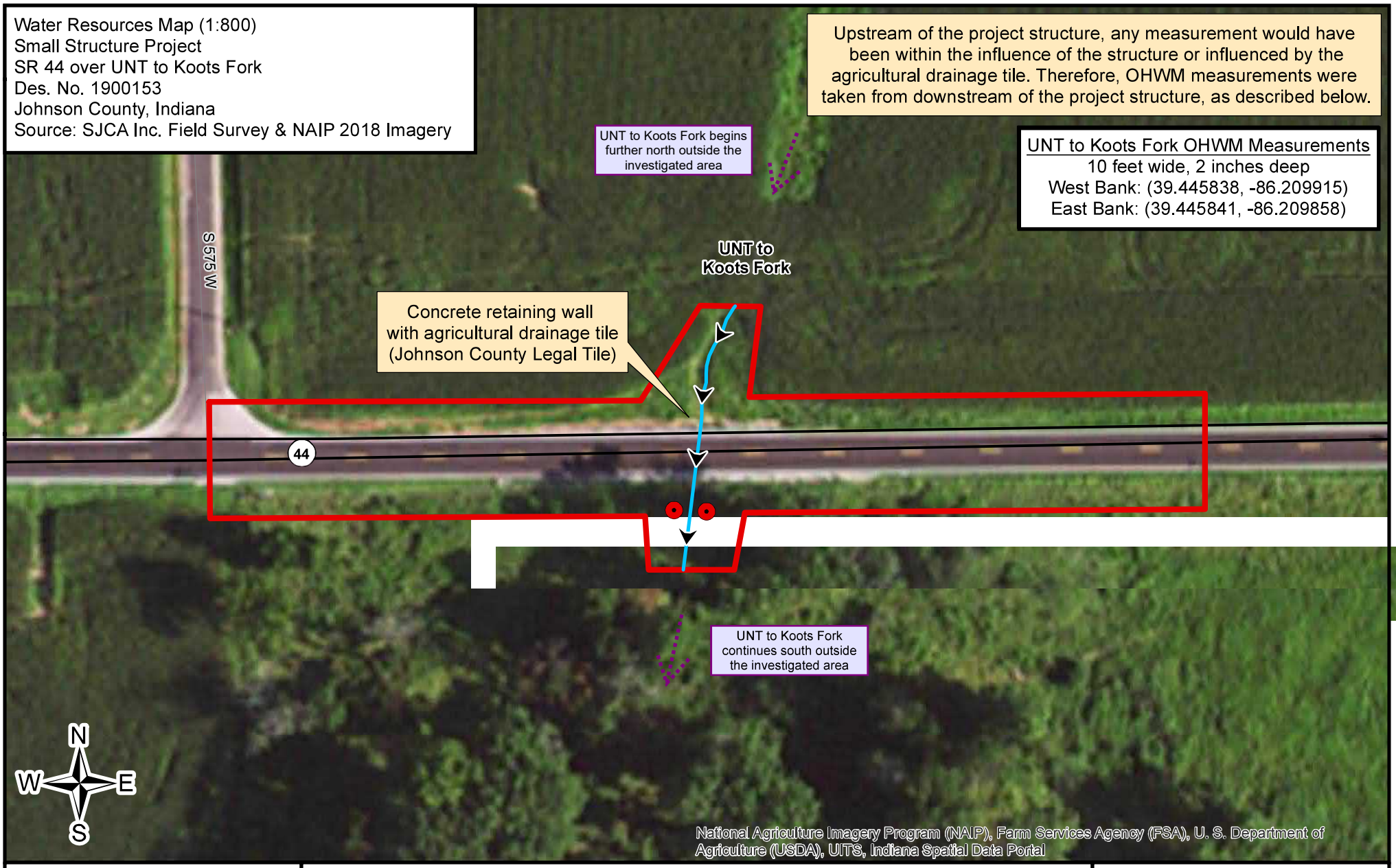
Date(s) aerial images were photographed: Jul 27, 2019—Sep 26, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Water Resources Map (1:800)
Small Structure Project
SR 44 over UNT to Koots Fork
Des. No. 1900153
Johnson County, Indiana
Source: SJCA Inc. Field Survey & NAIP 2018 Imagery

Upstream of the project structure, any measurement would have been within the influence of the structure or influenced by the agricultural drainage tile. Therefore, OHWM measurements were taken from downstream of the project structure, as described below.

UNT to Koots Fork OHWM Measurements
10 feet wide, 2 inches deep
West Bank: (39.445838, -86.209915)
East Bank: (39.445841, -86.209858)



0 45 90 Feet

Ordinary High Water Mark
UNT to Koots Fork
Investigated Area

2/8/2022

SJCA

F15

Approved 2/16/2022, 18

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD:

February 8, 2022

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

Shelby Lutz, SJCA Inc.
9102 N Meridian St, Suite 200
Indianapolis, IN 46260

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The Indiana Department of Transportation (INDOT) with funding from the Federal Highway Administration (FHWA) intends to proceed with a small structure replacement project, Des. No. 1900153, involving the structure carrying State Road (SR) 44 over an Unnamed Tributary (UNT) to Koots Fork. The structure (CV 044-041-10.70) is located approximately 10.70 miles east of SR 37 in Johnson County, Indiana. The existing structure is an 18-foot-long by 5-foot-high concrete slab top culvert. The preferred alternative is to remove the existing structure and replace it with a new 23.5-foot-long concrete slab top bridge. The new structure will have concrete barrier railings and approach slabs with concrete barrier railing transitions. Bridge approaches along SR 44 will be widened at the replacement structure and will taper to tie the structure into the existing roadway. Riprap will also be installed underneath the new structure along the streambanks for erosion control and scour protection. An existing concrete retaining wall at the structure's inlet will be removed and replaced further upstream, and an agricultural drainage pipe will be shorted to exit through the retaining wall.

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

State: IN County/parish/borough: Johnson County City: Trafalgar

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

Lat.: 39.445920° N Long.: -86.209853° W

Universal Transverse Mercator: UTM Zone 16 N

Name of nearest waterbody: UNT to Koots Fork

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

☐ Office (Desk) Determination. Date:

☐ Field Determination. Date(s):

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

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
UNT to Koots Fork	39.445920°N	-86.209853°W	137 linear feet	Non-wetland waters, intermittent stream	Section 404

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

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

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

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

- [x] Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
  Map: Site Location Map.
- [ ] Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - [ ] Office concurs with data sheets/delineation report.
  - [ ] Office does not concur with data sheets/delineation report. Rationale:_____.
- [ ] Data sheets prepared by the Corps:_____.
- [ ] Corps navigable waters' study:_____.
- [x] U.S. Geological Survey Hydrologic Atlas: NHD Map and HUD-12 Watershed Map.
  - [x] USGS NHD data.
  - [x] USGS 8 and 12 digit HUC maps.
- [x] U.S. Geological Survey map(s). Cite scale & quad name: 1:24,000 Trafalgar Quadrangle.
- [x] Natural Resources Conservation Service Soil Survey. Citation: 2021 Web Soil Survey Data.
- [x] National wetlands inventory map(s). Cite name: 2021 NWI Data.
- [ ] State/local wetland inventory map(s): _____.
- [x] FEMA/FIRM maps: 2021 Floodplain Data.
- [ ] 100-year Floodplain Elevation is: _____.(National Geodetic Vertical Datum of 1929)
- [x] Photographs: [x] Aerial (Name & Date): 2018 NAIP Aerial Imagery.
  or [x] Other (Name & Date): Site Photographs - September 30, 2021.
- [ ] Previous determination(s). File no. and date of response letter: _____.
- [ ] Other information (please specify): _____.

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

Shelby C Luke Digitally Signed 2.8.2022

Signature and date of Regulatory staff member completing PJD	Signature and date of person requesting PJD (REQUIRED, unless obtaining the signature is impracticable)[1]

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

Des 1900153

Appendix G

Public Involvement

Strand Associates, Inc.®
629 Washington Street
Columbus, IN 47201
(P) 812-372-9911

Sample Notice of Survey Letter

NOTICE OF SURVEY

April 4, 2022

[redacted]

Re: Location Control Route Survey for the Indiana Department of Transportation
State Road 44 over Unnamed Tributary Koots Fork Small Structure Replacement
Johnson County, Indiana
Des. No. 1900153

Dear Property Owner:

Strand Associates, Inc.® (Strand) information indicates that property is occupied or owned by you near this proposed small structure replacement project. Strand employees will conduct a survey of the project area in the near future. It may be necessary for Strand to come onto your property to complete this work. This is allowed by law as stated in Indiana Code IC 8-23-7-26. The Strand employee will show you their identification, if you are available, before coming onto your property. If you have sold this property, or it is occupied by someone else, please provide any known name and address changes of the new owner or current occupant so that Strand may contact them about the survey.

The survey work will include mapping the location of features such as trees, buildings, fences, driveways, sidewalks, and utilities within Strand project limits. The survey is needed for proper planning and design of this small structure replacement project. Please be assured of Strand's sincere desire to cause you as little inconvenience as possible during this survey.

At this stage, Strand generally does not know what affect, if any, this project may eventually have on your property. If it is determined at a later time that your property will be affected, you will be contacted with additional information. If any problems occur, please contact Strand field crew or me at 812-372-9911 or write to the address provided. Thank you for your cooperation.

Sincerely,

STRAND ASSOCIATES, INC.®

Jacob E. Fitzsimmons, P.L.S.

JEF:vls\S:\COL\4000--4099\4060\707\Survey\Survey Letters\NOTICE OF SURVEY.docx

Des 1900153

Appendix H

Air Quality

Indiana Department of Transportation (INDOT)
State Preservation and Local Initiated Projects FY 2022 - 2026

Des. No. 1900153 is included under contract B-42218 (Lead Des. No. 1802998).

SPONSOR	CONTRACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Total Cost of Project*	PROGRAM	PHASE	FEDERAL	MATCH	2022	2023	2024	2025	2026
Morgan County	41920 / 1802881	Init.	IR 5020	Replace Superstructure	Robb Hill RD over Sycamore Creek	Seymour	.02	STBG	$1,199,300.00	Local Bridge Program	CN	$745,200.00	$0.00			$745,200.00		
										Local Funds	CN	$0.00	$186,300.00			$186,300.00		
Performance Measure Impacted: Bridge Condition																		
Comments:Include DES 1802881																		
Martinsville	41990 / 1802868	Init.	ST 5320	Bike/Pedestrian Facilities	Along Pike St. beginning at Lincoln St. then 7 blocks to the east to the intersection of 2nd	Seymour	.57	STBG	$2,447,920.00	Group III Program	CN	$458,400.00	$0.00			$458,400.00		
										Local Funds	CN	$0.00	$293,600.00			$293,600.00		
										Local Transportation Alternatives	CN	$716,400.00	$0.00			$716,400.00		
Performance Measure Impacted: Reliability and Freight Reliability																		
Comments:Include DES 1802869, 1802868																		
Indiana Department of Transportation	42218 / 1802998	Init.	SR 44	Replace Superstructure	07.32 miles E of SR 37 @ Lost Creek	Seymour	0	STBG	$2,391,241.00	Bridge Consulting	PE	$64,800.00	$16,200.00			$81,000.00		
										Bridge ROW	RW	$36,800.00	$9,200.00	$46,000.00				
										Bridge Construction	CN	$1,461,412.80	$365,353.20			$1,826,766.00		
Performance Measure Impacted: Bridge Condition																		
Comments:Include DES 1900153, 1802998																		
Indiana Department of Transportation	42822 / 1800675	Init.	I 70	Bridge Deck Overlay	3.76 mi W of SR 39, EB over Bayliss State Ditch	Crawfordsville	0	NHPP	$1,447,750.00	Bridge Construction	CN	$1,188,000.00	$132,000.00		$1,320,000.00			
										Bridge Consulting	PE	$0.00	$0.00		$0.00			
Performance Measure Impacted: Bridge Condition																		
Comments:Include DES 1800676, 1800675																		
Indiana Department of Transportation	43333 / 2001901	Init.	SR 135	HMA Overlay Minor Structural	0.33 miles S of W Jct of SR 252 (Indian Creek Bridge) to 0.37 miles N of W Jct SR 252	Seymour	.71	STBG	$1,992,101.00	Road Construction	CN	$1,214,176.80	$303,544.20					$1,517,721.00
Performance Measure Impacted: Pavement Condition																		
Comments:Include DES 2001901																		
Morgan County	43613 / 2002997	Init.	IR 8184	Bridge Replacement	Gore Road, Bridge #104, 0.5 mile east of 875 West	Crawfordsville	.13	STBG	$2,073,000.00	Local Funds	CN	$0.00	$334,600.00					$334,600.00
										Local Bridge Program	RW	$32,000.00	$0.00			$32,000.00		
										Local Bridge Program	CN	$1,338,400.00	$0.00					$1,338,400.00

Report Created:3/31/2022 3:17:09PM

*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

Des 1900153

Appendix I

Additional Studies and Information

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated March 2022)

ProjectNumber	SubProjectCode	County	Property
1800148	1800148	Johnson	Tot Park, New Whiteland Park
1800369	1800369B.10	Johnson	Independence Park
1800369	1800369B	Johnson	Johnson Co. Park/Hoosier Horse Park

*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination with IDNR, Division of Outdoor Recreation, should occur.

Culvert Inspection Report

CV 044-041-10.70
SR 44
over

Inspection Date: 03/17/2020

Inspected By: Stephen F. Hurst

Inspection Type(s): Culvert

Photographs and additional pages have been removed from this Culvert Inspection Report. However, a full report can be made available upon request.

Structure Number: *CV 044-041-10.70* **Inspector:** Hurst, Stephen F.

Large Culvert Inspection Report

(8) Asset Code:	*93005802*	(27) Year Built:	*0000*
Asset Name:	*CV 044-041-10.70*	(90) Inspection Date:	*03/17/2020*
OLD Culvert ID:	*44-41-10.70*	(91) Inspection Frequency:	*36*
Team Assignment:	*05*	■ Additional Treatment Exists	

Identification

(2) Highway Agency District:	*05*	(3) County Code:	*041*
Sub District:	*5200*	Ramp ID:	
(42B) Type of Service (Under):	*5*	■ Adjacent to Roadway	

(7) Facility Carried: *SR 44* (6) Features Intersected:

(9) Location: *SR 44 10.70 E SR 37* (9.01) Location Additional Description:

(11) Milepoint: *2.25* (16) Latitude: *39.445915* (17) Longitude: *-86.209885*

Classification:

(104) Highway System of the Inventory Route: *0* (26) Functional Classification of Inventory Route: *02*

Geometric Data

Culvert: Kind of Material: Culvert: Type of Structure: Min Est Fill Cover (ft): *1.00*

Culvert: Max. Horizontal Opening (ft.): Culvert: Max. Vertical Opening (ft.): (34) Skew:

Barrel Length (ft.): Original Culvert Shape:

Measurement Remarks:

Structure Additional Description: *Concrete Slabtop*

Openings:

Direction	Opening Latitude	Opening Longitude	Direction	Opening Latitude	Opening Longitude
1.			3.		
2.			4.		

Openings Comments:

■ **Follow Up Required:**

**If checked, please describe for follow up:

Endangered Species

Bats: seen or heard under structure? *	*N*
Birds/swallows/nests seen? Empty nests present?	*N*

* If yes, add one photo to the dropdown field

General Condition Ratings

(36A) Bridge Railings:	*1*	(36C) Approach Guardrail:	
(36B) Transitions:		(36D) Approach Guardrail Ends:	

Culvert:

(62) Culvert - Rating:	*6*
(62) Culvert Rating Comments:	*Fair condition all primary structural elements. Some undermining at south end of east abutment but repairs to the west abutment look good.*

Deck:

(58) Deck:	
(58a) Deck Comments:	

Superstructure:

(59) Superstructure:	*6*
(59.01) Superstructure Comments:	*Minor efflorescence between beams.*

Substructure:

(60) Substructure:	*6*
(60.01) Substructure Comments:	*Both abutments have been repaired but there is some undermining at south end of east abutment.*
CV-Headwall/Anchor Rating	*7*
CV-Wingwalls Rating	*7*

Channel:

(61) Channel and Channel Protection:	*6*
(61.01) Channel and Channel Protection Comments:	*The channel has an old structure present and is well fortified.*
Bank Erosion Rating:	*6*
Drift/Sediment Rating	*7*
Channel Alignment Rating	*6*

■ **Check this box if culvert has OBSTRUCTED flow**

Describe Obstruction:	
Overtopping Frequency:	
Overtopping Frequency Comments:	

ABBREVIATED ENGINEER'S REPORT
SR 44 over UNT Koots Fork
CV 044-041-10.70
RP 10+70, Johnson County
Des. No. 1900153

I. PURPOSE OF REPORT

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

II. PROJECT LOCATION

The project is located on State Road (SR) 44 at Reference Post (RP) 10+70, located 10.70 miles east of SR 37 over Unnamed Tributary (UNT) to Koots Fork in Johnson County, Indiana, within the Indiana Department of Transportation's (INDOT) Seymour District (District). The GPS coordinates are 39.445915 Latitude and -86.209885 Longitude. The existing Structure Number is CV 044-041-10.70.

III. PROJECT PURPOSE AND NEED

The need for this project was determined by a culvert inspection that was completed by INDOT on April 5, 2018, which rated the substructure condition as 5 (Fair). During this inspection it was determined that the abutments are severely undermined with exposed piles because of several factors, including the old stacked stone abutment that is still present. There are signs of deterioration of the substructure and notable efflorescence and staining of the underside of the superstructure. The purpose of this project is to attain a structure condition rating of at least 7 for this crossing.

IV. EXISTING FACILITY

A. ROADWAY

The speed limit at the project location is unposted and will be assumed to be 55 miles per hour (mph). The roadway cross section consists of one 10-foot lane in each direction with 2-foot aggregate shoulders. Guardrail is currently located over the structure at a 1-foot offset from the travel lane.

B. STRUCTURE

The structure is an 18-foot span by 5-foot-high concrete slab top culvert. There is severe undermining of the substructure with exposed footing and piles. There is minor scour of the south side opening. Stone abutments from a previous structure are present under the culvert which constrict flow and hold debris. There is a weir upstream of the structure that holds outlets for field drain tiles.

V. FIELD CHECK

A field inspection was held on June 15, 2020, at the project site. Initial Field Check meeting minutes and site photographs are provided in the appendices.

VI. TRAFFIC DATA AND ANALYSIS

The INDOT Traffic Statistics Unit provided the following current and projected traffic data for SR 44 (as shown in Table VI). The per year growth rate used for SR 44 was 0.36 percent applied as linear growth.

	SR 44
2019 Annual Average Daily Traffic (AADT):	2,274 vehicles per day (vpd)
2023 AADT:	2,307 vpd
2043 AADT:	2,472 vpd
2043 Design Hourly Volume:	247 vehicles per hour (vph)
Commercial Vehicles AADT:	4.84%

Table VII Traffic Data for SR 44

VII. CRASH DATA ANALYSIS

The roadway in the vicinity of the structure was analyzed using crashes from January 2017 through December 2019. There were two crashes involving two vehicles that occurred in this vicinity during the assessment period. One crash was caused by an animal in the roadway. The other incident was an off-road accident which involved striking guardrail at the structure.

Table VII summarizes the Crash history for the 3-year period analyzed for SR 44.

YEAR	Summary Data						Collision Diagram		
			Crash Type						
	Crashes	Vehicles Involved	Property Damage Only	Personal Injury	Fatal	Number of Injuries	Off-Road	Rear-End	Animal
2017	1	1	1	0	0	0	1	0	0
2018	0	0	0	0	0	0	0	0	0
2019	1	1	1	0	0	0	0	0	1
Totals	2	2	2	0	0	0	1	0	1
% Total			100	0	0		50	0	50

Table VII Crash Analysis for SR 44

RoadHAT 3.0 was used to analyze the crash data on this segment. The intersection of Country Road (CR) 575W and adjoining segment over the structure were included in the analysis. The Index of Crash Frequency was 0.78 and the Index of Crash Cost was -0.08. Based on these results, this location may experience an average frequency of crashes. The RoadHat analysis is provided in Appendix E.

VIII. ALTERNATIVES AND RECOMMENDATIONS

The alternatives evaluated in this report are the No-Build alternative, an alternative consisting of a reinforced box culvert (RCB) and three-sided structures, and a 21-foot-span slab top structure.

A. ALTERNATIVE 1–NO-BUILD ALTERNATIVE

The No-Build Alternative does not incur any expense to the agency. However, the No-Build Alternative does not address deficiencies and is discarded for not meeting the stated purpose and need.

B. ALTERNATIVE 2–RCB OR THREE-SIDED STRUCTURE

This alternative includes three structure options because Standard Specification Section 714–Reinforced Concrete Box Structures and Section 723–Reinforced Concrete Three-Sided Structures allow for the substitution of each structure within the pay items of these sections. The proposed structures will all have the same low structure elevation and require the flowline at the inlet to be lowered 6 inches according to the approved hydraulic memorandum. The following structure options are approved proposals in the hydraulic memo issued by INDOT:

1. 3-sided flat top structure with a minimum 19-foot span.
2. RCB with a 19-foot span. A 12-inch sump will be required throughout the structure.
3. 3-sided arch top structure with a 24-foot span.

These structures will all have a similar project footprint. Because of span lengths greater than 10-feet, guardrail is required over the structures. Anticipated guardrail lengths of 150-feet in advance of the structures produce project limits approximately 350-feet in total length. Construction limits would be that of the guardrail. CR 575 W is located west of the project and is anticipated to be outside the construction limits.

The estimated construction cost for these structures is approximately $470,000, which includes a 20 percent contingency. The preferred foundation for the three-sided structures is a spread footing; however, site conditions determined with geotechnical investigation could warrant the installation of piles. Pile foundations will increase the cost of the three-sided structure options.

C. RECOMMENDED ALTERNATIVE–REINFORCED CONCRETE SLAB TOP

This alternative includes the replacement of the existing slab top structure with a slab top structure that has a span of at least 21 feet. This is the recommended alternative because the estimated construction cost is anticipated to be less than the other given alternatives.

1. Structure Type Recommendation

The proposed structure is a 21-foot slab top bridge structure. The structure will have concrete barrier railing and approach slabs with concrete barrier railing transitions.

2. Typical Section

The proposed typical approach section will consist of two 11-foot travel lanes with 2-foot paved shoulders. A 1-foot aggregate shoulder will provide a 3-foot usable shoulder. The guardrail should be offset the desirable 2-feet from the usable shoulder because of the history of off-road crashes identified in the crash analysis. This guardrail offset will result in a bridge barrier offset of 1 foot 8- inches for a FC barrier rail, and a clear roadway width of 31 feet 4 inches.

3. Horizontal and Vertical Alignment

The tangent horizontal and vertical alignments of SR 44 is anticipated to remain the same.

4. Guardrail

Approximately 150 feet of guardrail will be required in advance of proposed concrete barrier transitions. The incidental construction limits will be a total of approximately 350 feet and should terminate before the intersection of CR 575W and a field entrance located opposite the intersection. If guardrail is anticipated to cause issues to sight distance, then the guardrail can be flared to reduce the impact.

5. Hydraulics

A hydraulic analysis was performed by INDOT and approved for this structure. The approved memorandum can be found in the Hydraulic Memorandum provided by INDOT in Appendix G. A new hydraulics report is not necessary for the recommended structure.

6. Drainage and Riprap Requirements

Revetment riprap on geotextiles will be placed beneath the structure for erosion protection according to Standard Drawing E723-CCSP. The headwall north of the structure, weir, and existing stone abutment should be removed and the flowline should be graded back at a more gradual slope. The outlet of the existing drain tile should be removed back to match the proposed flowline.

7. Design Criteria

The proposed typical approach section will consist of two 11-foot travel lanes with 2-foot paved shoulders. SR 44 will follow design guidelines of IDM Chapter 55 Geometric Design Criteria for Rural Major Collector, 3R Project Figure 55-3B.

Project Design Criteria	3R (Non-freeway)
Functional Classification	State Collector
Design Element	Rural
Design Class	Two-lane
Design Speed	55 mph
Access Control	None
Lane Width	11 foot (ft)
Shoulder Width	2 ft Paved 3 ft Usable
Obstruction Free Zone	12 ft

Table VIII Design Criteria for SR 44

A Level 2 design exception should be documented for shy line offset. No other design exceptions are anticipated at this time.

IX. MAINTENANCE OF TRAFFIC (MOT)

MOT will consist of a full closure with a detour using SR 37, SR 252, and SR 135. A narrow roadway width and low traffic volume justifies a closure for this project. This project is currently bundled with Des. No. 1802998–SR 44 over Lost Creek, which is using the same detour. These projects should coordinate construction schedules. Coordination with Des No. 2001945 small structure replacement on SR 252 and Des No. 2002305 small structure replacement will also be required.

The contractor will be responsible for following road closure standards as detailed in the INDOT Standard Drawings and the Indiana Manual on Uniform Traffic Control Devices. Coordination with the INDOT District Traffic will take place during design. The final MOT plan will be determined during the design phase in coordination with the District's traffic and construction division.

X. ESTIMATED COST SUMMARY

Table X shows the present value (2020) of Estimated Project Cost. The construction cost breakdown for the recommended alternative is provided in Appendix F.

Cost Item	Alternative 5–Slab Top 21 Foot
Construction Cost	$474,200
R/W	$46,420
Preliminary Engineering	$190,000
Utilities	$20,000
Total Estimated Project Cost (2020)	**$730,700**

Table X Estimated Cost Summary for SR 44

XI. POTENTIAL ENVIRONMENTAL ISSUES

Wetlands–The channel has potential wetlands south of the structure. A waters report should be completed during the design phase.

Permits: Indiana Department of Natural Resources Construction in a Floodway permit is not anticipated due to rural location and drainage area.

Section 401 of Indiana Department of Environmental Management (IDEM) and Section 404 of United States Army Corps of Engineers permits are anticipated due to both temporary and permanent waterway impacts.

A Rule 5 Permit is not anticipated due to limited ground disturbance of this project scope.

Legal Drain–This structure is part of the Shuck Ditch Regulated Drain. It is noted in the hydraulic memorandum that a splash pad on the south side of the weir extends approximately 18 inches under structure opening and may be in the way of proposed riprap. Correspondence with the Johnson County surveyor will be necessary.

XII. SURVEY REQUIREMENTS

The length of the survey should be approximately 700 feet to each side of structure, and 75 feet up and downstream of the structure.

XIII. R/W REQUIREMENTS

The existing apparent R/W for SR 44 appears to be nonexistent. It is anticipated the proposed R/W limits will be in the range of 50 feet to each side of the centerline. The existing R/W will be verified and documented as part of the design phase. Work within the channel should be coordinated within the drainage easement of Johnson County. Temporary R/W may be required for grading impacts outside of proposed R/W.

Land Use	Acreage	Parcels	R/W Acquisition	Land	Subtotal
Agriculture	1.11	2	$10,000	$20,000	$42,200
10% Contingency					$4,220
Total					$46,420

Table XIII R/W Acquisitions for SR 44

XIV. RAILROAD AND UTILITY IMPACTS

There is no existing railroad near the project location. Railroad impacts are not anticipated for this project.

There are three utilities listed in the design ticket for the project vicinity, which is provided in Appendix H. They include CenturyLink, Johnson County R.E.M.C., and Vectren (Franklin). Overhead electric and communications lines are closely located along the south side of the roadway while buried communication lines may exist along the north side of the roadway. These utilities are anticipated to conflict with this project so companies will need to be contacted in efforts to get around or relocate utilities. The INDOT Utility Coordination Procedure will be followed during the design phase.

XV. RELATED PROJECTS

Designation Number	Location	Description	Letting
1802998	SR 44 over Lost Creek	Bridge Superstructure Replacement	December 12, 2023

Table XV Related Projects

XVI. CHANGES TO PROPOSAL

The Seymour District Technical Services and Capital Program Management shall be consulted if deviation from the proposal is determined to be necessary during a later phase of project development. The person initiating changes shall route a memorandum detailing the changes including justification for the change and the estimated cost difference to the Seymour District, System Assessment Manager, and Project Manager for concurrence.

Prepared by: Christopher M. Bland — 1/22/2021
Christopher M. Bland, P.E.
Strand Associates, Inc.®
Date

Concur: Robert F. Tally Jr. — 1/22/2021
Robert F. Tally, Jr., P.E.
System Asset Manager
Date

Chase Schneider — 3/2/2021
Chase Schneider
Project Manager
Date

APPENDIX:

A–PROJECT LOCATION MAPS
B–FIELD INSPECTION MEETING MINUTES
C–PROJECT SITE PHOTOGRAPHS
D–PROJECT TRAFFIC FORECAST REPORT
E–CRASH FREQUENCY AND COST
F–CONSTRUCTION COST ESTIMATE
G–HYDRAULICS MEMORANDUM
H–UTILITIES DESIGN TICKET
I–INSPECTION REPORT

Appendices have been removed for this CE Appendix. However, a full Abbreviated Engineer's Report can be made available upon request.

Des. 1900153 March 7, 2022
SR 44 over UNT to Koots Fork Bridge Project
Johnson County

Project Description

The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a small structure replacement project on State Road (SR) 44 in Union Township, Johnson County, Indiana. The project is located in Sections 28 and 33, Township 12 North, Range 3 East. The proposed scope of work includes replacing the existing small structure (CV 044-041-10.70) with a new reinforced concrete slab top bridge. The new bridge will have a length of 23.5 feet, an out-to-out coping width of 33 feet, and a clear roadway width of 30 feet, 8 inches. The structure will provide two (2) 11-foot-wide through travel lanes and two (2) 4-foot-wide shoulders. New concrete barrier railings and bridge approach slabs with concrete barrier railing transitions will be installed. Riprap will also be installed below the structure for erosion protection. The existing headwall north of the structure, weir, and stone abutment will be removed, and the flow line graded to a more gradual slope. An existing concrete retaining wall north of the project structure will be relocated further north, and an agricultural drainage tile will be shortened to exit through this retaining wall. Project work will provide an improved stream crossing structure to carry SR 44 over UNT to Koots Fork, thereby providing a longer proposed lifespan than the existing structure. The Maintenance of Traffic (MOT) plan for the project will involve a road closure of SR 44 and a detour utilizing SR 135, SR 252, and SR 37, adding approximately 5.1 miles of additional travel.

EJ Analysis

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT Categorical Exclusion Manual, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent right-of-way. The project will require 0.72 acres of permanent right-of-way. 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, the COC is Johnson County, Indiana. The community that overlaps the project area is called the affected community (AC). In this project, the AC is Census Tract 6108.01 in Johnson County. An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the 2019 ACS 5-Year Estimates was obtained from the U.S. Census Bureau website (https://data.census.gov/) on December 21, 2021 by SJCA Inc. The data collected for minority and low-income populations within the AC are summarized in the below table.

Table: Minority and Low-Income Data (U.S. Census Bureau, 2019 ACS 5-Year Estimates)

	COC – Johnson County	AC – Census Tract 6108.01, Johnson County
Percent Minority	11.0%	5.5%
125% of COC	13.8%	AC < 125% of COC
EJ Population of Concern	--	No
Percent Low-Income	7.4%	13.6%
125% of COC	9.3%	AC > 125% of COC
EJ Population of Concern	--	Yes

AC Census Tract 6108.01 has a percent minority of 5.5%, which is below 50% and is below the 125% COC threshold. Therefore, the AC does not contain minority populations of EJ concern.

AC Census Tract 6108.01 has a percent low-income of 13.6%, which is below 50%, but is above the 125% COC threshold. Therefore, the AC does contain low-income populations of EJ concern.

The project will provide community-wide positive impacts by providing an improved stream crossing structure with a longer lifespan than the existing structure carrying SR 44 over UNT to Koots Fork. Right-of-way acquisition will occur in the property parcels immediately surrounding the project area. Approximately 0.72 acres of permanent right-of-way will be required from the immediately adjacent roadsides north and south of SR 44. No temporary right-of-way is anticipated. The project will not require the relocation of any residences or businesses. An estimated 0.27 acre of trees will be cleared as a result of the project, from the forested streambanks along UNT to Koots Fork and the roadsides of SR 44 for the installation of the new stream crossing structure. Additionally, a total of approximately 0.407 acre of terrestrial habitat and vegetation will be disturbed as a result of the project. Vegetation will be replaced in accordance with IDNR recommendations and mitigation requirements as applicable, therefore minimizing impacts to the area. In addition, the MOT plan for the project will impact all travelers regardless of income or ethnicity and will not impact EJ populations more than any other population.

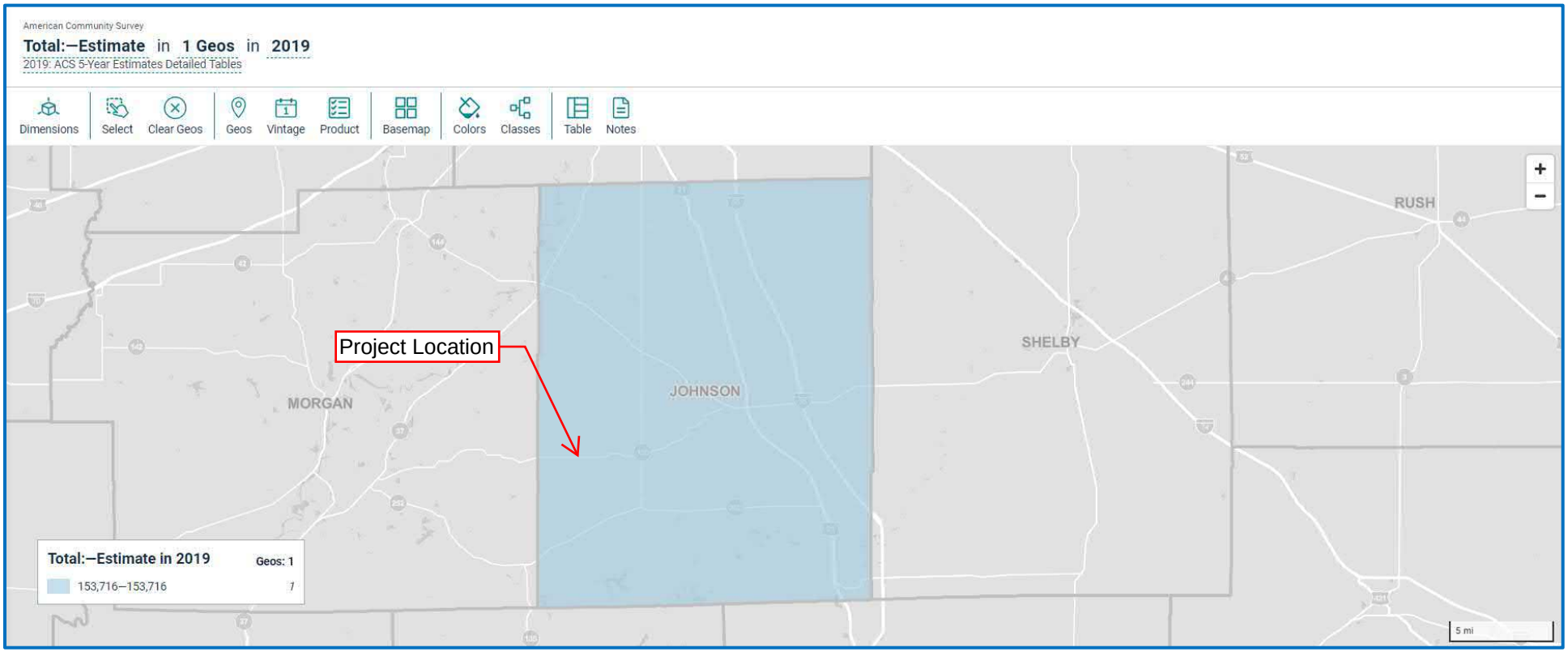
Figure 1: Analysis of Census Tract 6108.01 in Johnson County, Indiana			
		COC	AC
		Johnson County, Indiana	Census Tract 6108.01, Johnson County, Indiana
	LOW-INCOME		
B17001001	Population for whom poverty status is determined: Total	150,832	7,397
B17001002	Population for whom poverty status is determined: Income in past 12 months below poverty level	11,196	1,009
	Percent Low-Income	**7.4%**	**13.6%**
	125 Percent of COC	**9.3%**	**AC > 125% COC**
	Potential Low-Income EJ Impact?		**Yes**
	MINORITY		
B03002001	Total population: Total	153,716	7,630
B03002002	Total population: Not Hispanic or Latino	148,218	7,568
B03002003	Total population: Not Hispanic or Latino; White alone	136,803	7,209
B03002004	Total population: Not Hispanic or Latino; Black or African American alone	3,664	112
B03002005	Total population: Not Hispanic or Latino; American Indian and Alaska Native aline	178	0
B03002006	Total population: Not Hispanic or Latino; Asian alone	5,192	0
B03002007	Total population: Not Hispanic or Latino; Native Hawaiin and Other Pacific Islander alone	27	15
B03002008	Total population: Not Hispanic or Latino; Some other race alone	375	66
B03002009	Total population: Not Hispanic or Latino; Two or more races	1,979	166
B03002010	Total population: Hispanic or Latino	5,498	62
B03002011	Total population: Hispanic or Latino; White alone	3,119	0
B03002012	Total population: Hispanic or Latino; Black or African American alone	137	0
B03002013	Total population: Hispanic or Latino; American Indian and Alaska Native alone	28	0
B03002014	Total population: Hispanic or Latino; Asian alone	0	0
B03002015	Total population: Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	18	0
B03002016	Total population: Hispanic or Latino; Some other race alone	1,662	13
B03002017	Total population: Hispanic or Latino; Two or more races	534	49
	Number Non-white/minority	**16,913**	**421**
	Percent Non-white/minority	**11.0%**	**5.5%**
	125 Percent of COC	**13.8%**	**AC < 125% COC**
	Potential Minority EJ Impact?		**No**

Data Source: U.S. Census Bureau, 2019 ACS 5-Year Estimates

SR 44 over UNT to Koots Fork Bridge Project

Des. No. 1900153

Community of Comparison (COC): Johnson County

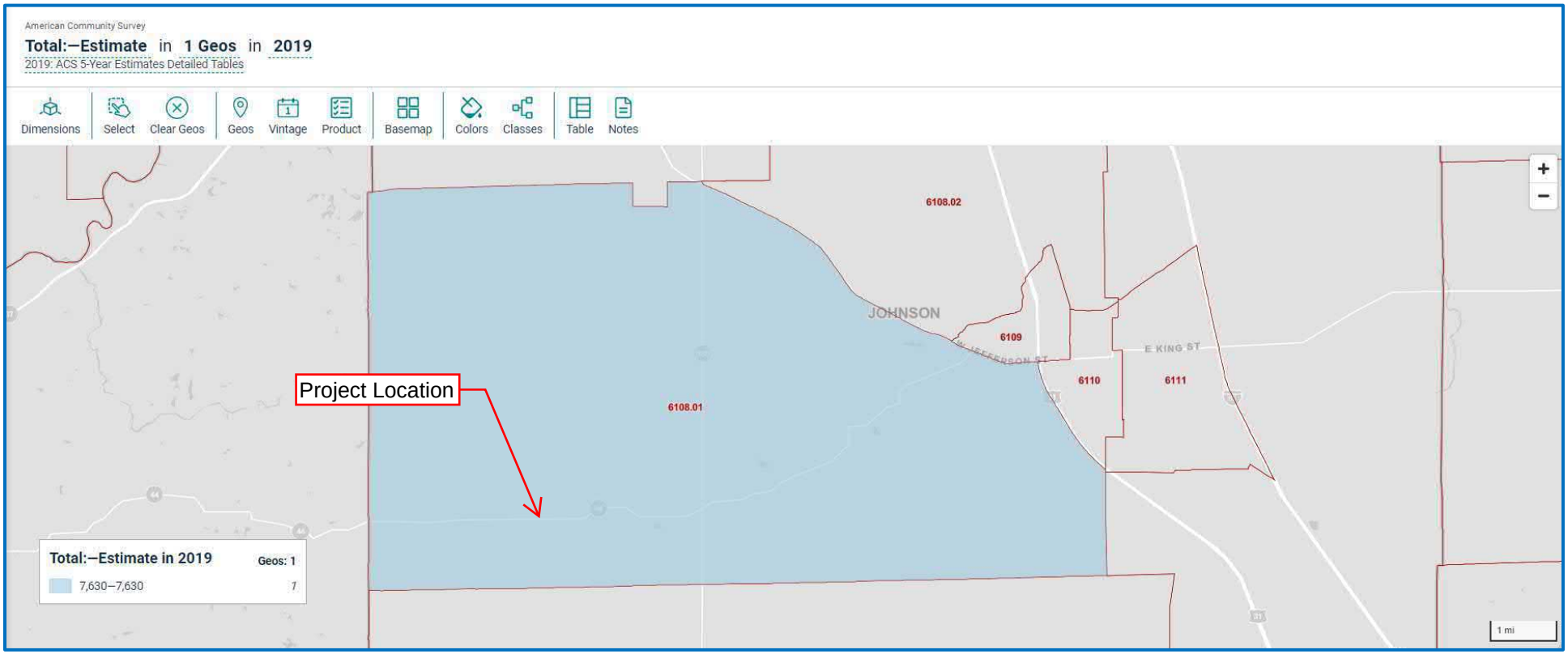


United States Census Bureau (https://data.census.gov/cedsci/); Accessed December 21, 2021

SR 44 over UNT to Koots Fork Bridge Project

Des. No. 1900153

Affected Community (AC): Census Tract 6108.01



Environmental Justice Analysis

United States Census Bureau (https://data.census.gov/cedsci/); Accessed December 21, 2021

Census Data – Minority Populations

Johnson County (COC) and Census Tract 6108.01 (AC)

American Community Survey

B03002 | HISPANIC OR LATINO ORIGIN BY RACE

2019: ACS 5-Year Estimates Detailed Tables | Universe: Total population

Notes | 2 Geos | Years | Topics | Surveys | Codes | Hide | Transpose | Margin of Error | Restore | Excel | Download | Print | Map

	Johnson County, Indiana		Census Tract 6108.01, Johnson County, Indiana	
Label	Estimate	Margin of Error	Estimate	Margin of Error
Total:	153,716	*****	7,630	±446
Not Hispanic or Latino:	148,218	*****	7,568	±467
White alone	136,803	±199	7,209	±482
Black or African American alone	3,664	±327	112	±90
American Indian and Alaska Native alone	178	±189	0	±17
Asian alone	5,192	±232	0	±17
Native Hawaiian and Other Pacific Islander alone	27	±32	15	±24
Some other race alone	375	±211	66	±59
Two or more races:	1,979	±517	166	±136
Two races including Some other race	49	±64	0	±17
Two races excluding Some other race, and three or more races	1,930	±512	166	±136
Hispanic or Latino:	5,498	*****	62	±80
White alone	3,119	±762	0	±17
Black or African American alone	137	±173	0	±17
American Indian and Alaska Native alone	28	±33	0	±17
Asian alone	0	±28	0	±17
Native Hawaiian and Other Pacific Islander alone	18	±29	0	±17
Some other race alone	1,662	±683	13	±27
Two or more races:	534	±282	49	±70
Two races including Some other race	438	±271	49	±70
Two races excluding Some other race, and three or more races	96	±87	0	±17

United States Census Bureau (https://data.census.gov/cedsci/); Accessed December 21, 2021

Census Data – Low-Income Populations

Johnson County (COC) and Census Tract 6108.01 (AC)

American Community Survey

B17001 | POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

2019: ACS 5-Year Estimates Detailed Tables | Universe: Population for whom poverty status is determined

Notes | 2 Geos | Years | Topics | Surveys | Codes | Hide | Transpose | Margin of Error | Restore | Excel | Download | Print | Map

	Johnson County, Indiana		Census Tract 6108.01, Johnson County, Indiana	
Label	Estimate	Margin of Error	Estimate	Margin of Error
Total:	150,832	±377	7,397	±471
Income in the past 12 months below poverty level:	11,196	±1,355	1,009	±482
Male:	5,139	±722	356	±219
Female:	6,057	±878	653	±308
Income in the past 12 months at or above poverty le...	139,636	±1,375	6,388	±646
Male:	68,642	±760	3,301	±370
Female:	70,994	±922	3,087	±380

United States Census Bureau (https://data.census.gov/cedsci/); Accessed December 21, 2021

Shelby Lutz

From: Fair, Terri <TFair@indot.IN.gov>
Sent: Thursday, March 10, 2022 10:25 AM
To: Shelby Lutz
Cc: Bales, Ronald
Subject: FW: Des 1900153 SR 44 Small Structure Project EJ Analysis
Attachments: Des 1900153_Environmental Justice Analysis_3.7.2022.pdf

INDOT-Environmental Services Division (ESD) has reviewed the project information along with the Environmental Justice (EJ) Analysis for the above referenced project. With the information provided, the project may require minimal right-of-way, require no relocations, and would not disrupt community cohesion or create a physical barrier. With the information provided, INDOT-ESD would not consider the impacts associated with this project as causing a disproportionately high and adverse effect on minority and/or low-income populations of EJ concern relative to non EJ populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a. No further EJ Analysis is required.