FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	State Route (SR) 8 / Noble County
Designation Number(s):	2002234
Project Description/Termini:	Small Structure Project located on SR 8 approximately 4.22 Miles East of SR 9

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

Approval

INDOT DE Signature and Date

INDOT ESD Signature and Date

FHWA Signature and Date

Release for Public Involvement

N/A
INDOT DE Initials and Date

ADWP August 14, 2023
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: Jason A. Stone / DLZ Indiana, LLC

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

Part I – Public Involvement

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

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

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

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

Notice of Entry letters were mailed to potentially affected property owners near the project area on August 19, 2021, notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of Entry letter is included in Appendix G, page 1.

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

Public Controversy on Environmental Grounds

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

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

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

Sponsor of the Project: INDOT INDOT District: Fort Wayne

Local Name of the Facility: State Road (SR) 8

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 evidenced in the June 13, 2022 INDOT Abbreviated Engineer's Assessment. INDOT installed a 3.6-foot inside diameter high density polyethylene (HDPE) pipe liner in 2019 because the original 5-foot corrugated metal pipe (CMP) culvert had broken sections that were leaking back-fill material. The original CMP did not meet roadway serviceability requirements

(hydraulic analyses showed the roadway would be overtopped by a 100-year storm event). Installation of the HDPE pipe liner worsened the hydraulic conditions, including increased backwater (Appendix I, page 4).

Purpose:
The purpose of this project is to address the above-noted deficiencies in order to provide a SR 8 crossing over an unnamed tributary (UNT) to Rimmell Branch, such that it will meet roadway serviceability requirements.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Noble Municipality: N/A

Limits of Proposed Work: Approximately 22.5 feet east and west of the existing small structure

Total Work Length: 0.009 Mile(s) Total Work Area: 0.91 Acre(s)

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

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

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

The Indiana Department of Transportation (INDOT) Fort Wayne District and the Federal Highway Administration (FHWA) intend to proceed with a SR 8 small structure improvement project (Des. No. 2002234).

Location:
The project area is located in Sections 14 and 23, T34N, R10E, Jefferson Township, Noble County, Indiana. The project is located approximately 4.22 miles east of SR 9. The involved small structure (CV 008-057-47.08) is located approximately at Reference Post (RP) 47+08. Project location graphics are presented as Appendix B, pages 1 – 3.

Existing Conditions:
Within the project limits, the existing SR 8 roadway consists of a rural two-lane collector carrying two 12-foot through lanes. The existing shoulders consist of 4-foot usable shoulders with 2-foot paved, for a total clear width of 32 feet at the structure. There is no existing guardrail at the structure. There are existing corrugations along each shoulder and at the centerline of the road. There are no existing driveways within project limits (Appendix I, page 4).

The existing structure is a 5-foot diameter CMP that was lined in 2019 with a 3.6-foot diameter HDPE liner due to the deteriorating condition of the existing pipe. The structure has about 5 feet of cover and a length of 73 feet. The existing structure does not meet roadway serviceability requirements, as hydraulic analyses have shown that the roadway would be overtopped by a 100-year flood event (Appendix I, page 4).

UNT of Rimmel Branch is a legal drain and flows from the west on the north side of the road, turns 90 degrees to the south, then crosses under SR 8 and continues south (Appendix I, page 4). Roadway drainage is via sheet flow. The project is in a rural setting with agricultural fields abutting the project area.

Preferred Alternative:
The preferred alternative involves removal of the existing structure and installation of a reinforced concrete box (RCB) structure with a clear span of 10 feet and an 8-foot rise with a 6-inch sump (7.5 feet rise above the flowline). The out-to-out length of the proposed culvert will be approximately 98 feet. The south side of the structure will be extended for the proposed 4:1 roadway side slope to reach the flowline. The north end of the structure will remain approximately in the same location as the existing pipe due to the bend in the stream. The roadway grading on the north side will be 4:1 roadway side slope for 11.5 feet and then 2:1 roadway side slopes

to tie into the existing stream toe of slopes. This grading will eliminate the need for wingwalls and headwall for the structure. Due to the location of the bend in the stream on the north side and location of the stream when it is parallel to the road, it will not be possible to keep the structure buried within the 24-foot clear zone. Therefore, the structure will be buried within the 12-foot obstruction free zone with side slopes at 4:1, which is an improvement over the existing 2:1 and 3:1 side slopes (Appendix I, page 5). During construction, stream flow will be maintained through the project area via pump around.

The proposed typical section will match the existing typical section. Guardrail is not proposed at the site since there is no existing guardrail. Even though guardrail will not be provided, the side slopes will be improved to 4:1 within the project limits, for the runout length in advance of the structure and 100 feet beyond the structure, tying into the existing ground. Where the side slopes are improved, the roadside ditches will require realignment. The ditches will be realigned to be further from the travel lane and to tie into the stream before the structure inlet and after the structure outlet. On the north side of the structure, the side slope will change to a 2:1 slope outside of the obstruction free zone to tie into the existing ground by the toe of the slope of the stream. The existing flat bottom roadside ditch will be maintained (Appendix I, page 5).

The project will result in approximately 75 linear feet of permanent impact and 2.2 linear feet of temporary impacts to likely jurisdictional waterway. The project will require approximately 0.138 acre of permanent impacts to likely jurisdictional wetlands. No temporary wetland impacts are required. Therefore, Section 401/Section 404 permitting is anticipated to be required. The project will require approximately 0.611 acre of permanent impacts to terrestrial habitat. No temporary habitat impacts are required. The project requires approximately 0.678 acres of new permanent right of way. The project does not require acquisition of temporary right of way. Refer to the *Right of Way* section of this document for additional details. Maintenance of traffic for the project will require a roadway closure and a detour. Refer to the *Maintenance of Traffic* section of this document for additional details. Efforts to avoid, minimize, and/or mitigate project impacts, such as limiting the project's construction footprint to the degree practicable, have been made.

The preferred alternative will meet the project purpose and need by replacing the existing small structure, which will improve the SR 8 crossing over an UNT to Rimmell Branch such that it will meet roadway serviceability requirements. The project termini along SR 8 are approximately 22.5 feet east and west of the existing structure, not including incidental construction. The project termini are logical as this project involves only the area needed for replacement of the existing small structure and associated roadway approach work. The project has independent utility as this project does not rely on any other project to satisfy its purpose and need.

Project area photographs are presented as Appendix B, pages 4 and 5 and Appendix F, pages 18 - 33. Project plan sheets are presented as Appendix B, pages 7 – 11.

OTHER ALTERNATIVES CONSIDERED:

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

Do Nothing Alternative:
The Do Nothing Alternative was considered; however, this alternative was discarded as it would not meet the project purpose and need of providing a SR 8 crossing over an UNT to Rimmell Branch, such that it will meet roadway serviceability requirements and traffic needs.

Pipe Liner - 3.6-Foot Inside Diameter HDPE Liner with 3-Foot Bored Pipe:
Installing a 3.6-foot inside diameter HDPE pipe liner with a 3-foot bore pipe was considered. This alternative would improve the condition of the crossing and would result in less stream and terrestrial habitat impacts as compared to the preferred alternative. However, because this alternative would not meet roadway serviceability criteria it would not satisfy the project's purpose and need. Additionally, there is risk associated with boring under the roadway. Therefore, this alternative was discarded from further consideration (Appendix I, pages 5 and 6).

Small Structure Replacement – 9-Foot Span Slab Top Structure:
Replacing the existing small structure with a 9-foot span slab top structure was considered. This alternative would satisfy the project purpose and need and would result in similar roadway approach work, structure lifespan and maintenance requirements, maintenance of traffic and stream and terrestrial habitat impacts as compared to the preferred alternative. However, this alternative is more costly to install as compared to the preferred alternative. For these reasons, this alternative was discarded from further consideration (Appendix I, pages 5 and 6).

Small Structure Replacement – 12-Foot Span Arch Top Structure:
Replacing the existing small structure with a 12-foot span arch top structure was considered. This alternative would satisfy the project purpose and need and would result in similar roadway approach work, structure lifespan and maintenance requirements, maintenance of traffic and stream and terrestrial habitat impacts as compared to the preferred alternative. However, this alternative is more costly to install as compared to the preferred alternative. For these reasons, this alternative was discarded from further consideration (Appendix I, pages 5 and 6).

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): It would not satisfy the project purpose and need.	x

ROADWAY CHARACTER:

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

Name of Roadway: SR 8
Functional Classification: Major Collector
Current ADT: 4788 VPD (2024) Design Year ADT: 5532 VPD (2044)
Design Hour Volume (DHV): 535 Truck Percentage (%): 8
Designed Speed (mph): 55 Legal Speed (mph): 55

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	Through travel		Through travel	
Pavement Width:	28	ft.	28	ft.
Shoulder Width:	4	ft.	4	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 008-057-47.08 / 93001905 Sufficiency Rating: N/A
(Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	3.6-foot diameter HDPE pipe liner		10-Foot Span, 8-Foot Rise RCB with a 6-inch sump	
Number of Spans:	1		1	
Weight Restrictions:	None	ton	None	ton
Height Restrictions:	None	ft.	None	ft.
Curb to Curb Width:	N/A	ft.	N/A	ft.
Outside to Outside Width:	N/A	ft.	N/A	ft.
Shoulder Width:	4	ft.	4	ft.

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

The existing structure (CV 008-057-47.08) is a 5-foot diameter CMP that was lined in 2019 with a 3.6-foot diameter HDPE liner due to the deteriorating condition of the existing pipe. The structure has about 5 feet of cover and a length of 73 feet. The existing structure will be removed and replaced. The existing structure was constructed in 1989 and is not historic.

The replacement structure is a reinforced concrete box (RCB) structure with a clear span of 10 feet and an 8-foot rise with a 6-inch sump (7.5 feet rise above the flowline). The out-to-out length of the proposed culvert will be approximately 98 feet.

Removal of the existing structure and installation of the proposed structure will result in wetland and waterway impacts on the north and south sides of the roadway.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

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

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

The MOT for the project will require a closure of SR 8. Traffic will be detoured to SR 3, US 6 and SR 9 (Appendix I, page 7 and Appendix B, page 9). The detour will add approximately 6.7 miles to a through trip and will add approximately 10 minutes to drive times. The detour duration is anticipated to be up to 60 days.

There are no through-traffic dependent businesses within or near the project limits; therefore, no provisions for such businesses will be made.

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

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: $ 689,300.00 (2022) Right-of-Way: $ 100,000.00 (2024) Construction: $ 1,795,980 (2025)

Anticipated Start Date of Construction: March 2025

Note that this project in bundled with Des. Nos. 2002233 and 2002235 under contract No. 43287 The above-listed funding amounts pertain to the entire contract.

RIGHT OF WAY:

	Amount (acres)	
Land Use Impacts	Permanent	Temporary
Residential	0	0
Commercial	0	0
Agricultural	0.479	0
Forest	0	0
Wetlands	0.023	0
Other: Stream	0.012	0
Other: Grass slope above ordinary high water mark	0.164	0
TOTAL	0.678	0

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

The apparent existing SR 8 right of way (ROW) is 80 feet wide east of the existing small structure and 100 feet wide west of the structure (Appendix I, page 7 and Appendix B, pages 10 and 11), roughly centered on the roadway. The maximum existing ROW width is 100 feet. The maximum proposed ROW width is 170 feet, measured at the structure.

The project requires approximately 0.678 acres of new permanent ROW, consisting of 0.479 acre from agricultural parcels north (0.174 acre) and south (0.305 acre) of the roadway, 0.023 acre of wetland north (0.002 acre) and south (0.021 acre) of the roadway, 0.164 acre of grass road slope north (0.109 acre) and south (0.055 acre) of the roadway and 0.012 acre of stream south of the roadway. The new right of way is required for construction access, installation of the new, longer structure and grading of the roadway and ditch slopes. The project also requires reacquisition of approximately 0.471 acre of apparent existing SR 8 ROW, consisting of 0.149 acre north of the roadway and 0.322 south of the roadway. The project does not require acquisition of temporary ROW, advance acquisition or easements.

If the scope of work or permanent or temporary right-of-way 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 August 27, 2021, Appendix C, pages 1 - 3.

Agency	Date Sent	Date Response Received	Appendix C Page #
Indiana Department of Environmental Management (IDEM)	8/27/2021	8/27/2021	4 - 11
Indiana Department of Natural Resources (IDNR)	8/27/2021	9/24/2021	17 - 19
Indiana Geological and Water Survey (IGWS)	8/27/2021	8/27/2021	12 - 13
INDOT Aviation Section	8/27/2021	8/31/2021	15
Natural Resource Conservation Service (NRCS)	8/27/2021	9/15/2021	20
National Parks Service (NPS)	8/27/2021	No Response	N/A
US Army Corps of Engineers (USACE)	8/27/2021	No Response	N/A
US Department of Housing and Urban Development (USHUD)	8/27/2021	No Response	N/A
Noble County Commissioners	8/27/2021	No Response	N/A
Noble County Surveyor's Office/ Noble County Drainage Board	8/27/2021	No Response	N/A
Noble County Highway Department	8/27/2021	No Response	N/A
Noble County Emergency Management	8/27/2021	8/30/2021	16
Noble County Plan Commission	8/27/2021	No Response	N/A
Noble County Sheriff's Office	8/27/2021	8/30/2021	14
Central Noble Community Schools	8/27/2021	No Response	N/A
Floodplain Coordinator	8/27/2021	No Response	N/A

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

SECTION B – ECOLOGICAL RESOURCES:

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

Total stream(s) in project area: 375 Linear feet Total impacted stream(s): 75.007 Linear feet

Stream Name	Classification	Total Size in Project Area (linear feet)	Impacted linear feet	Comments (i.e. location, flow direction, likely Water of the US, appendix reference)
UNT to Rimmell Branch	R5UBF	375	75	North and south of the roadway, flow north to south, likely Water of the U.S., Appendix F, page 16.

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

Based on the desktop review, the aerial map of the project area (Appendix B, page 3) and the RFI report (Appendix E, page 2), there are three streams, rivers, watercourse or other jurisdictional features within the 0.5-mile search radius. There is one stream, river, watercourse, or other jurisdictional feature within or adjacent to the project area. That number was confirmed by the site visit on September 15, 2021 by DLZ Indiana, LLC (DLZ).

A Waters of the U.S. Determination / Wetland Delineation Report was approved by INDOT Ecology and Waterway Permitting Office on August 12, 2022. Please refer to Appendix F, page 1 for the Waters of the U.S. Determination / Wetland Delineation Report. It was determined that UNT to Rimmell Branch is a likely jurisdictional stream feature. The USACE makes all final determinations regarding jurisdiction.

UNT to Rimmell Branch:
UNT to Rimmell Branch is an intermittent drainage feature since the water source appears to be in part from groundwater in addition to surface drainage. The estimated drainage area of UNT to Rimmel Branch at the project site is approximately 1.351 square miles. UNT to Rimmel Branch displays an ordinary high water mark (OHWM). Approximately 3,800 feet downstream from the project site, UNT to Rimmel Branch joins Rimmel Branch, which joins Skinner Lake, which joins Croft Ditch, which joins South Branch Elkhart River, which joins Elkhart River, which joins St. Joseph River, a traditional navigable water. UNT to Rimmel Branch is considered a Water of the US because it conveys intermittent flow to a traditionally navigable waterway. There is approximately 375 linear feet of UNT to Rimmel Branch in the study limits. The maximum width at the OHWM is approximately 15 feet near the west study limit (upstream of SR 8). Downstream (south) and outside the influence of the existing culvert, the typical width at the OHWM is approximately 10 feet. The depth at the OHWM is approximately 2.0 feet. The substrate consists of silt. The stream quality of UNT to Rimmel Branch is considered poor because it is channelized and does not provide in-stream habitat (riffles or pools) or overhead cover/shade.

The project will result in approximately 75 linear feet of permanent impacts below UNT to Rimmell Branch's OHWM, consisting of 25 feet which relate to installation of the new, longer small structure, 20.3 feet which are for installation of rip-rap and scour protection measures at the new culvert's outlet, and 29.7 feet which are for installation of rip-rap and scour protection measures at the new culvert's inlet. The project will also result in approximately 1.2 feet of temporary impacts below the OHWM for downstream pump around, and approximately 1.0 foot of temporary impacts below the OHWM for upstream pump around. The impacts are necessary for the increased length of the proposed new small structure and riprap required for scour protection; therefore, avoidance is not practicable. The project area has been minimized as much as possible to reduce impacts. Mitigation is not anticipated to be required. A USACE Section 404 Permit will likely be required. In the event a Section 404 Permit is required, a Section 401 Water Quality Certification must also be obtained from the IDEM Office of Water Quality.

The RFI indicated that UNT to Rimmell Branch is impaired for E. coli. Workers who are working in or near UNT to Rimmell Branch should take care to wear appropriate personal protective equipment, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. Best Management Practices will be used to avoid further degradation to the stream.

IDEM's electronically generated response dated August 27, 2021 included recommendations to minimize impacts to streams (Appendix C, page 6).

IDNR-DFW responded on September 24, 2021 with recommendations pertaining to proposed crossing structures, wildlife passage, minimization of in-channel disturbance and sedimentation, seasonal restrictions on work in waterways, erosion control, excavation in low flow areas, and use of temporary runarounds, access bridges, causeways, cofferdams diversions and pump-arounds (Appendix C, page 17 - 19).

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 likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial map of the project area (Appendix B, page 3) and the RFI report (Appendix E, page 2), there are three open water feature(s) within the 0.5-mile search radius. There are no open water features within or adjacent to the project area. That number was confirmed by the site visit on September 15, 2021 by DLZ. Therefore, no impacts are expected.

	Presence	Impacts Yes	Impacts No
Wetlands	x	x	

Total wetland area: 0.162 Acre(s) Total wetland area impacted: 0.138 Acre(s)

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

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments (i.e. location, likely Water of the US, appendix reference)
A	PEM1C	0.075	0.073	South of SR 8, likely Water of the U.S., Appendix F, page 16
B	PEM1C	0.044	0.022	South of SR 8, likely Water of the U.S., Appendix F, page 16
C	PEM1C	0.043	0.043	North of SR 8, likely Water of the U.S., Appendix F, page 16

Wetlands (*Mark all that apply*)	Documentation	ESD Approval Dates
Wetland Determination	x	August 12, 2022
Wetland Delineation	x	August 12, 2022
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.	x

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

Based on the desktop review, the aerial map of the project area (Appendix B, page 3) and the RFI report (Appendix E, page 2), there are 25 wetlands within the 0.5-mile search radius. There are three wetlands within or adjacent to the project area. That number was confirmed by the site visit on September 15, 2021 by DLZ.

A Waters of the U.S. Determination / Wetland Delineation Report was approved by INDOT Ecology and Waterway Permitting Office on August 12, 2022. Please refer to Appendix F, page 1 for the Waters of the U.S. Determination / Wetland Delineation Report. It

was determined that there are three likely jurisdictional wetlands (Wetlands A, B and C) within the project area. The USACE makes all final determinations regarding jurisdiction.

Wetland A:
Wetland A is located in a ditch along the south side of SR 8 and to the west of UNT to Rimmel Branch. Wetland A is dominated by wetland plants consisting of elderberry (*Sambucus nigra*), reed canarygrass (*Phalaris arundinacea*) and stinging nettle (*Urtica dioica*). The plant community type is emergent wetland; however, it does include scattered elderberry shrubs. The quality of Wetland A is considered poor since it is dominated by reed canarygrass, an invasive species. Wetland hydrology and hydric soils were noted to be present. This area therefore meets the three jurisdictional wetland criteria. The size of Wetland A within the study limits is approximately 0.075 acre. Wetland A extends beyond both the west and south study limits. The boundary of Wetland A was determined by observing the change in plant community and corresponding change in topography. Wetland A is considered a jurisdictional Water of the U.S. because it abuts UNT to Rimmel Branch.

Wetland B:
Wetland B is located in a ditch along the south side of SR 8 and to the east of UNT to Rimmel Branch. Wetland B is dominated by reed canarygrass (*Phalaris arundinacea*), a wetland plant. This plant community meets the hydrophytic plant criteria. The plant community type is emergent wetland. The quality of Wetland B is considered poor since it is dominated by reed canarygrass, an invasive species. Wetland hydrology and hydric soils were noted to be present. This area therefore meets the three jurisdictional wetland criteria. The size of Wetland B within the study limits is approximately 0.044 acre. Wetland B extends beyond the east study limits. The boundary of Wetland B was determined by observing the change in plant community and corresponding change in topography. Wetland B is considered a jurisdictional Water of the U.S. because it abuts UNT to Rimmel Branch.

Wetland C:
Wetland C is located in a ditch along the north side of SR 8 and to the east of UNT to Rimmel Branch. Wetland C dominated by reed canarygrass (*Phalaris arundinacea*), a wetland plant. This plant community meets the hydrophytic plant criteria. The plant community type is emergent wetland. The quality of Wetland C is considered poor since it is dominated by reed canarygrass, an invasive species. Wetland hydrology and hydric soils were noted to be present. This area therefore meets the three jurisdictional wetland criteria. The size of Wetland C within the study limits is approximately 0.043 acre. Wetland C extends beyond the east study limits. The boundary of Wetland C was determined by observing the change in plant community and corresponding change in topography. Wetland C is considered a jurisdictional Water of the U.S. because it abuts UNT to Rimmel Branch.

The project will result in a total of approximately 0.138 acre of permanent wetland impacts, consisting of 0.073 acre of impact to Wetland A, 0.022 acre of impact to Wetland B and 0.043 acre of impact to Wetland C. No temporary wetland impacts are required. These impacts relate to the increased length of the proposed new structure and placement of riprap at the inlet and outlet. The proposed riprap is required for scour protection; therefore, avoidance is not practicable. The project area has been minimized as much as possible to reduce impacts. Mitigation will likely be required and will be determined during permitting.

A USACE Section 404 Permit will likely be required. In the event a Section 404 Permit is required, a Section 401 Water Quality Certification must also be obtained from the IDEM Office of Water Quality.

IDEM's electronically generated early coordination response dated August 27, 2021 contained recommendations relating to minimization of impacts to wetlands and permitting requirements (Appendix C, page 5).

IDNR-DFW responded on September 24, 2021 with recommendations pertaining to agency coordination and avoidance of riparian wetlands (Appendix C, pages 17 - 19).

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

	Presence	Impacts	
		Yes	No
Terrestrial Habitat	x	x	

Total terrestrial habitat in project area: 0.611 Acre(s) Total tree clearing: N/A 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 15, 2021, by DLZ and the aerial map of the project area (Appendix B, page 3), there are roadside slopes vegetated with grass species and agricultural fields within the project area. The project requires disturbance to approximately 0.611 acre of terrestrial habitat, consisting of approximately 0.379 acre of grassed roadway slope and approximately 0.232 acre of agricultural fields. No temporary habitat impacts are required, and no trees will be trimmed or removed.

The dominant grass species present in the affected roadside slopes and lawn are smooth brome (*Bromus inermis*), giant foxtail (*Setaria faberi*) and tall fescue (*Schedonorus arundinaceus*). At the time of field reconnaissance, the agricultural fields contained corn (*Zea mays*). Terrestrial habitat impacts are the result of replacement of the existing small structure with a larger small structure and requires the roadway slopes to be regraded. These impacts are necessary to achieve the proposed construction; therefore, avoiding the impacts is not practicable. Impacts have been minimized by keeping work contained to the area necessary for the proposed construction. Rehabilitation of disturbed areas shall be accomplished per the current INDOT Standard Specifications.

IDNR-DFW responded on September 24, 2021, with recommendations pertaining to bank stabilization, revegetation of disturbed areas and seasonal tree clearing restrictions (Appendix C, pages 17 - 19). Mitigation is not anticipated to be required as this project has been determined to meet the exemption criteria for IDNR Construction in a Floodway permitting.

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

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 [x] NLAA [ ] 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 E, page 4), completed by DLZ on March 23, 2022, the IDNR Noble County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR-DFW early coordination response letter dated September 24, 2021 (Appendix C, pages 17 - 19), the Natural Heritage Program's Database has been checked. IDNR-DFW indicated that no 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 September 8, 2021. The review did not indicate the presence of endangered bat species in or within 0.5 mile of the project area.

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, pages 22 – 27). The project is within range of the federally endangered Indiana bat (Myotis sodalis) and northern long-eared bat (NLEB) (Myotis septentrionalis). Other species were generated in the IPaC species list along with the Indiana bat and northern long-eared bat.

The official species list generated from IPaC indicated one other species present within the project area: the federal candidate species Monarch Butterfly (*Danaus plexippus*). Because the Monarch Butterfly is currently listed as a candidate species, no determination of effect or further coordination is required at this time.

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 small structure inspection occurred on September 15, 2021 and no bats/birds or signs of bats/birds using the structure were found (Appendix C, page 37). An effect determination key was completed on October 6, 2021, and based on the responses provided, the project was found to have "No Effect" upon the Indiana bat and/or the NLEB (Appendix C, pages 28 – 36). INDOT reviewed and concurred with the effect finding on October 12, 2021 (Appendix C, page 38).

A small structure inspection occurred on September 15, 2021 and no bats/birds or signs of bats/birds using the structure were found. USFWS Bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after September 15, 2023, an inspection of the structure by a qualified individual, must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately.

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

Geological and Mineral Resources	**Yes**	**No**
Project located within the Indiana Karst Region		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 Evaluation reviewed by INDOT EWPO (if applicable): N/A

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

Based on a desktop review and the Indiana Karst Region map, the project is located outside the designated Indiana Karst Region as outlined in the most current *Protection of Karst Features during Project Development and Construction*. According to the topo map of the project area (Appendix B, page 2) and the RFI report (Appendix E, page 2), there are no karst features identified within or adjacent to the project area. In the early coordination response dated August 27, 2021, the Indiana Geological and Water Survey (IGWS) did not indicate that karst features exist in the project area (Appendix C, page 12).

The IGWS Environmental Assessment Report indicated the following in the general project vicinity:

- Geological Hazards: moderate liquefaction potential
- Bedrock Resources: low potential
- Sand and Gravel Resources - low potential
- Active or abandoned mineral resources extraction sites: none documented in the area.

The features will not be affected because appropriate soils investigations will be conducted to assess the soils in the project area, and the project will be designed accordingly. There are no petroleum exploration wells in the project area. The project involves replacement of an existing small structure and associated roadway work. No excavation which could affect mineral resources is proposed. Response from IGWS has been communicated to the designer on August 27, 2021. No impacts are expected.

SECTION C – OTHER RESOURCES

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

	Yes	No
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.

The project is located in Noble County but located outside 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.

The Indiana Department of Environmental Management's Wellhead Proximity Determinator website (http://www.in.gov/idem/cleanwater/pages/wellhead/) was accessed on February 21, 2023 by DLZ. This project is not located within a Wellhead Protection Area or Source Water Area. No impacts are expected.

The Indiana Department of Natural Resources Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was accessed on February 21, 2023 by DLZ. The nearest well is located to the west of the existing small structure. The features will not be affected because they are set back from the roadway and are not within the ROW or construction limits. Therefore, no impacts are expected. Should it be determined during the right-of-way phase that these wells will be affected, a cost to cure will likely be included in the appraisal to restore the wells.

Based on a desktop review of IDEM's MS4 Boundaries Map for Indiana (https://www.in.gov/idem/cleanwater/ms4s-boundaries-map-for-indiana/) by DLZ on February 21, 2023, and the RFI report; this project is not located in an Urban Area Boundary. No impacts are expected.

Based on a desktop review, a site visit on September 15, 2021 by DLZ and the aerial map of the project area (Appendix B, page 3), no public water systems were identified. Therefore, no impacts are expected.

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

If applicable, indicate the Floodplain Level?

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

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

The Indiana Department of Natural Resources Indiana Floodway Information Portal website (http://dnrmaps.dnr.in.gov/appsphp/fdms/) was accessed on February 13, 2023, by DLZ. This project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix B, page 6). An early coordination letter was sent on August 27, 2021, to the local Floodplain Administrator. The floodplain administrator did not respond within the 30-day time frame.

This project qualifies as a Category 4 per the current INDOT CE Manual, which states that no homes are located within the base floodplain within 1,000 feet upstream and no homes are located within the base floodplain within 1,000 feet downstream. The proposed structure will have an effective capacity such that backwater surface elevations are not expected to substantially increase. As a result, there will be no substantial adverse impacts on natural and beneficial floodplain values; there will be no substantial change in flood risks; and there will be no substantial increase in potential for interruption or termination of emergency service or emergency evacuation routes; therefore, it has been determined that this encroachment is not substantial. A hydraulic design study that addresses various structure size alternatives will be completed during the preliminary design phase. A summary of this study will be included with the Field Check Plans.

This project has been determined to meet the exemption criteria for IDNR Construction in a Floodway permitting.

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

Total Points (from Section VII of CPA-106/AD-1006*) **139**

**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 15, 2021 by DLZ and the aerial map of the project area (Appendix B, page 3), the project will convert 0.5 acre of farmland as defined by the Farmland Protection Policy Act. Note that the 0.5 acre value for acres to be converted directly is a default value applied by the NRCS. An early coordination letter was sent on August 27, 2021, to NRCS. Coordination with NRCS resulted in a score of 139 on the NRCS-AD 1006 Form (Appendix C, page 21). NRCS' threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

SECTION D – CULTURAL RESOURCES

	Category(ies) and Type(s)	INDOT Approval Date(s)	N/A
Minor Projects PA	Category B, Type 9	September 6, 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			
800.11 Documentation			
Historic Properties Report or Short Report			
Archaeological Records Check and Assessment			
Archaeological Phase Ia Survey Report			
Archaeological Phase Ic Survey Report			
Other:			

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

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

On September 6, 2022, the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category B, Type 9, under the Minor Projects Programmatic Agreement, (Appendix D, pages 1 - 6). Category B, Type 9 projects involve installation, replacement, repair, lining, or extension of culverts and other drainage structures. An archaeological survey was required as some of the proposed construction will occur in previously undisturbed soils. The archaeological report recommended that the project be allowed to proceed as planned because the Phase Ia archaeological reconnaissance has located no archaeological sites within the project area and/or previously recorded sites that were investigated warrant no additional investigation.

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.)			
Wildlife and Waterfowl Refuges			
National Wildlife Refuge			
National Natural Landmark			
State Wildlife Area			
State Nature Preserve			
Historic Properties			
Site eligible and/or listed on the NRHP			

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

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

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

Based on a desktop review, the aerial map of the project area (Appendix B, page 3), and the RFI report (Appendix E, page 2), there are no potential 4(f) resources located within the 0.5-mile search radius. According to additional research, and by the site visit on September 15, 2021 by DLZ, there are no Section 4(f) resources within or adjacent to the project area. Therefore, no use is expected.

Section 6(f) Involvement	Presence	Use	
		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 23 properties in Noble County (Appendix I, page 1). 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?		
Is the project exempt from conformity?		
If No, then:		
Is the project in the Transportation Plan (TP)?		
Is a hot spot analysis required (CO/PM)?		

Location in STIP: 2022-2026 STIP Updated Project List, page 305

Name of MPO (if applicable): N/A

Location in TIP (if applicable): N/A

Level of MSAT Analysis required? N/A

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.

This project is included in the Fiscal Year (FY) 2022-2026 Statewide Transportation Improvement Program (STIP) (Appendix H, page 1).

This project is located in Noble County, which is currently in attainment for all criteria pollutants according to the IDEM list of non-attainment areas found on INDOT's website (https://www.in.gov/idem/sips/files/nonattainment_county_list.pdf). Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

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

SECTION 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 is located in an agricultural setting with sparse residential development. No community features are present in the project area. The project is not anticipated to impact community or neighborhood cohesion, the local tax base, property values, public facilities, community centers, community plans or other important resources. No negative community impacts are anticipated.

Coordination has occurred with Noble County during the planning process. Because there are no pedestrian facilities in the project area it was determined that this project would not partake in the Noble County Americans with Disabilities Act (ADA) Transition Plan.

Public Facilities and Services

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

Based on a desktop review, the aerial map of the project area (Appendix B, page 3), and the RFI report (Appendix E, page 2), there are no public facilities within the 0.5-mile search radius. There are no public facilities within or adjacent to the project area, which was confirmed by the site visit on September 15, 2021 by DLZ. Therefore, no impacts are expected. Access to all properties will be maintained during construction.

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

The INDOT Office of Aviation responded on August 31, 2021 (Appendix C, page 15) indicating there are no issues with surrounding airspace or airports due to the project meeting the required glideslope requirements to the nearest public-use facility according to 14 CFR Part 77 – Safe, efficient use, and preservation of the navigable airspace. The INDOT Office of Aviation indicated that if any object will exceed 200 feet in height regardless of location, the object will need to be airspaced with the FAA 45 days prior to construction through the OEAAA portal (https://oeaaa.faa.gov/oeaaa/external/searchAction.jsp). No object used for this project will exceed 200 feet in height.

The Noble County Emergency Management Agency responded on August 30, 2021 (Appendix C, page 16, to indicate there are no foreseeable issues relating to emergency management.

The Noble County Sheriff responded on August 30, 2021 (Appendix C, page 14), requesting the project's projected start date. The project's projected start date was relayed to the Sheriff on August 31, 2021. Coordination with the Sheriff's office will continue.

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 or adverse effect on EJ populations and explain your reasoning. If yes, describe actions to avoid, minimize and mitigate these effects.

Under FHWA Order 6640.23A, FHWA and the project sponsor, 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 acquisition of more than 0.5 acre of new right of way and no relocations. 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 Noble County. The community that overlaps the project area is called the affected community (AC). In this project, the AC is Census Tract 9724. 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 2021 ACS 5-Year Estimates were obtained from the U.S. Census Bureau (https://data.census.gov/) on February 17, 2023 by DLZ (Appendix I pages 9 and 10). The data collected for minority and low-income populations within the AC are summarized in the below table.

Table: Minority and Low-Income Data (Source Data and Year)		
	COC – Noble County	AC-1 - Census Tract 9724
Percent Minority	13.60	5.89
125% of COC	17.01	AC < 125% COC
EJ Population of Concern		No
Percent Low-Income	7.32	8.23
125% of COC	9.15	AC < 125% COC
EJ Population of Concern		No

AC-1, Census Tract 9724 has a percent minority of 5.89 which is below 50% and is below the 125% COC threshold. Therefore, AC-1 does not have a minority population of EJ concern. AC-1, Census Tract 9724 has a percent low-income of 8.23 which is below 50% and is below the 125% COC threshold. Therefore, AC-1 does not have a low-income population of EJ concern.

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

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

Number of relocations: Residences: 0 Businesses: 0 Farms: 0 Other: N/A

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): March 29, 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 completed on March 23, 2022 by DLZ and INDOT SAM provided their concurrence on March 29, 2022 (Appendix E). 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.

The RFI indicated that UNT to Rimmell Branch is impaired for E. coli. Workers who are working in or near UNT to Rimmell Branch should take care to wear appropriate personal protective equipment, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. Best Management Practices will be used to avoid further degradation to the stream.

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	
Construction Stormwater General Permit (CSGP)	
Other	
IN Department of Natural Resources	
Construction in a Floodway	
Navigable Waterway Permit	
Other	
Mitigation Required	x
US Coast Guard Section 9 Bridge Permit	
Others (Please discuss in the discussion below)	

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

The project will impact a likely jurisdictional stream and likely jurisdictional wetlands; therefore, IDEM 401/USACE 404 permitting is likely required. Mitigation for the project's wetland impacts will likely be required. The need for mitigation will be determined during permitting. IDNR-DFW responded on September 24, 2021 with recommendations pertaining to stream and wetland impacts (Appendix C, page 17 - 19). IDEM's electronically generated response dated August 27, 2021 included recommendations to minimize impacts to streams and wetlands (Appendix C, pages 5 and 6).

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 Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT Fort Wayne District)
2. It is the responsibility of INDOT to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
3. Any work in a wetland area within INDOT's right-of-way or in borrow/waste areas is prohibited unless specifically allowed in the US Army Corps of Engineers or IDEM permit. (INDOT ESD)
4. USFWS Bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after September 15, 2023, an inspection of the structure by a qualified individual, must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. (INDOT ESD)
5. The RFI indicated that UNT to Rimmell Branch is impaired for E. coli. Workers who are working in or near UNT to Rimmell Branch should take care to wear appropriate personal protective equipment, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. Best Management Practices will be used to avoid further degradation to the stream. (INDOT SAM)

For Consideration:

1. If box or pipe culverts are used, the bottoms should be buried a minimum of 6 inches (or 20% of the culvert height/pipe diameter, whichever is greater up to a maximum of 2 feet) below the stream bed elevation to allow a natural streambed to form within or under the crossing structure. Crossings should: span the entire channel width (a minimum of 1.2 times the OHWM width); maintain the natural stream substrate within the structure; have a minimum openness ratio (height x width / length) of 0.25; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel. Bank lines should be restored within box and pipe structures to allow for wildlife passage above the OHWM. (IDNR-DFW)
2. The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. (IDNR-DFW)
3. Riprap must not be placed in the active thalweg channel or placed in the streambed in a manner that precludes fish or aquatic organism passage (riprap must not be placed above the existing streambed elevation). Riprap may be used only at the toe of the sideslopes up to the 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 Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. (IDNR-DFW)
4. 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)
5. 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)
6. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30. (IDNR-DFW)
7. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pump-arounds. (IDNR-DFW)
8. 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 OHWM during this time unless the machinery is within the caissons or on the cofferdams. (USFWS)
9. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels, and diversion fencing. (USFWS)
10. 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)
11. 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)
12. Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed

where practicable on an essentially flat slope. When an open-bottom culvert or arch is used in a stream, which has a good natural bottom substrate, such as gravel, cobbles, and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community. (USFWS)

Level 3 Categorical Exclusion
SR 8 Small Structure Project, 4.22 miles East of SR 9 in Noble County
Des. No. 2002234
Indiana Department of Transportation

APPENDICES TABLE OF CONTENTS

H: Air Quality Documentation

I. Additional Information

APPENDIX A

INDOT Supporting Documentation

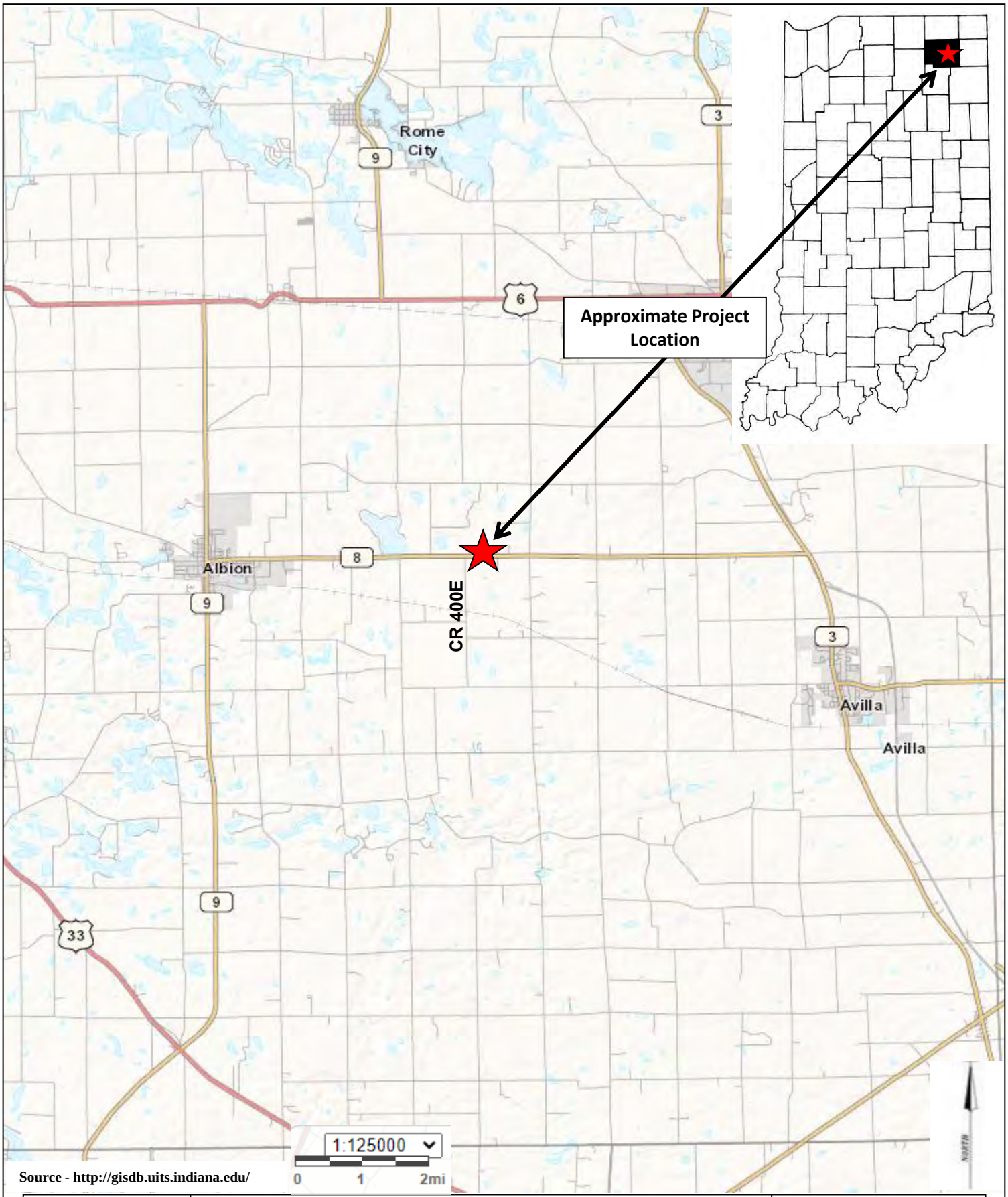
Categorical Exclusion Level Thresholds

	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[6]	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)*	"No Effect", "Not likely to Adversely Affect" (With select AMMs[7])	"Not likely to Adversely Affect" (With any AMMs or commitments)	-	"Likely to Adversely Affect"	Project does not fall under Species Specific Programmatic[8]
Threatened/Endangered Species (Any other species)*	Falls within guidelines of USFWS 2013 Interim Policy or "No Effect"	"Not likely to Adversely Affect"	-	-	"Likely to Adversely Affect"
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential[9]
Sole Source Aquifer	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Section 4(f) Impacts	None	-	-	-	Any[10]
Section 6(f) Impacts	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes[11]
Approval Level • **District Env. (DE)** • **Env. Serv. Div. (ESD)** • **FHWA**	Concurrence by DE or ESD	DE or ESD	DE or ESD	DE and/or ESD	DE and/or ESD; and FHWA

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

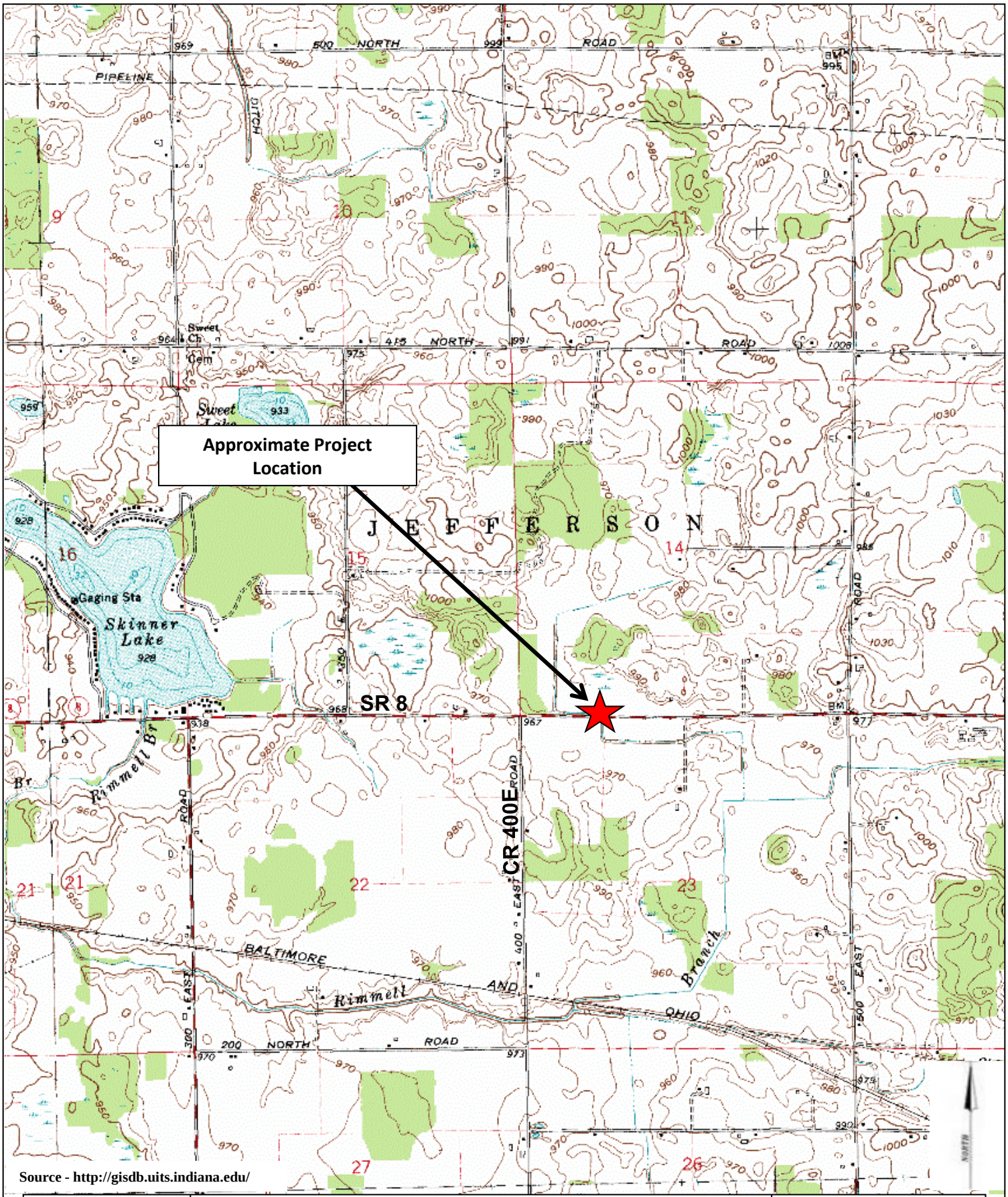
APPENDIX B

Graphics



Source - http://gisdb.uits.indiana.edu/

DLZ	**SR 8 Small Structure Project** **Indiana Department of Transportation** **Des. No.: 2002234**	Scale – 1"= 10,417' Figure 1 Project Location



DLZ	**SR 8 Small Structure Project** **Indiana Department of Transportation** **Des. No.: 2002234**	Scale – 1"= 2,000' Figure 2 - USGS Project Location

DLZ	**SR 8 Small Structure Project** **Indiana Department of Transportation** **Des. No.: 2002234**	Scale: 1” = 115’ Figure 3 – Aerial Photo and Photo Key

Photo 1 – View westerly along SR 8 from small structure CV 008-057-47.08

Photo 2 – View easterly along SR 8 from small structure CV 008-057-47.08

DLZ	**SR 8 Small Structure Project** **Indiana Department of Transportation** **Des. No.: 2002234**	Photos Taken 1/13/2021 Figure 4 – Site Photographs

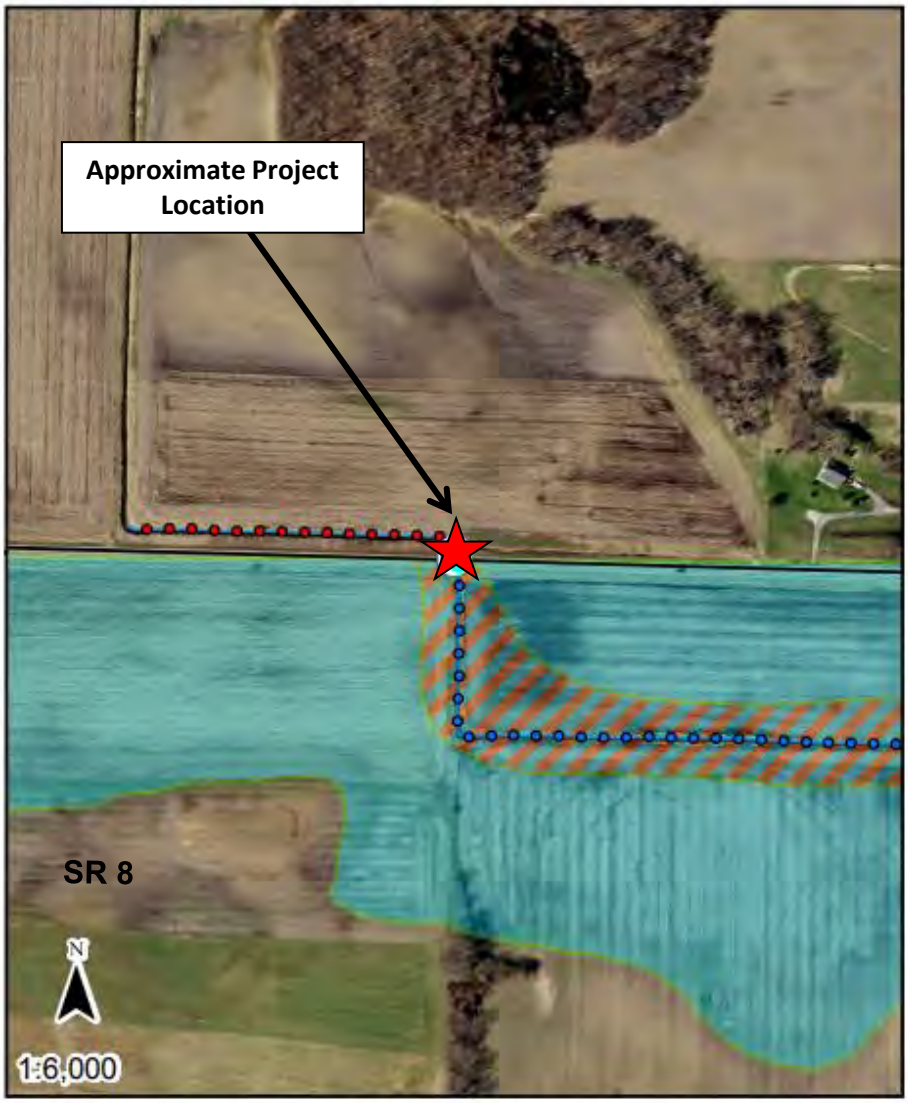
Photo 3 – View westerly, north end of small structure CV 008-057-47.08

Photo 4 – View southeasterly, south end of small structure CV 008-057-47.08

DLZ	**SR 8 Small Structure Project** **Indiana Department of Transportation** **Des. No.: 2002234**	Photos Taken 1/13/2021
		Figure 5 – Site Photographs

DNR Indiana Department of Natural Resources

Floodplain Analysis & Regulatory Assessment (FARA)



Point of Interest

Base Flood Elevation Point

Flood Elevation Points

STUDIED STREAM

JURISDICTIONAL UNSTUDIED STREAM

Rivers and Streams at least 1 square mile

Drainage Area (sq. miles)

1 - 10

FEMA Zone AE Floodway; FEMA Administrative Floodway

FEMA Zone AE

Point of Interest Coordinates (WGS84)

Long: **-85.3428633285**

Lat: **41.3955233103**

The information provided below is based on the point of interest shown in the map above.

County: **Noble**

Stream Name: **Rimmel Ditch**

Approximate Ground Elevation: **962.0 feet (NAVD88)**

Base Flood Elevation: **962.8 feet (NAVD88)**

Drainage Area: **Not available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **Norman Lortie, Building Commissioner**

Community Jurisdiction: **Noble County, County proper**

Phone: **(260) 636-2215**

Email: **nlortie@nobleco.us**

US Army Corps of Engineers District: **Detroit**

Date Generated: 2/16/2023

DLZ	**SR 8 Small Structure Project** **Indiana Department of Transportation** **Des. No.: 2002234**	Figure 6 IDNR Floodplain Map

PROJECT	DESIGNATION
2002234	2002234
CONTRACT	CULVERT ASSET ID
R-43287	CV 008-057-47.08

KIN PROJECT INFORMATION	
DESIGNATION	PROJECT DESCRIPTION
2002233	SMALL STRUCTURE REPLACEMENT ON SR 9 OVER UNT OF DOVE CREEK
2002234 (LEAD)	SMALL STRUCTURE REPLACEMENT ON SR 8 OVER UNT OF RUMMEL BRANCH
2002235	SMALL STRUCTURE REPLACEMENT ON SR 9 OVER UNT OF STEFFY DITCH

INDIANA DEPARTMENT OF TRANSPORTATION

ROAD PLANS

ROUTE: SR 8 AT: RP 47+08

STAGE 2 PLANS
FEBRUARY 2023

PROJECT NO. 2002234 P.E.
2002234 R/W
2002234 CONST.

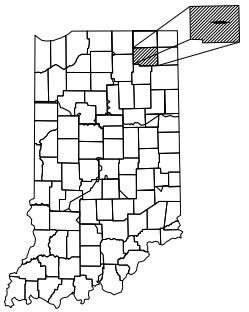
Small Structure Replacement on SR 8 over Unnamed Tributary of Rummel Branch
Located on SR 8, approximately 4.22 Miles E of SR 9
Sections 14 & 23, T34N, R10E, Jefferson Township, Noble County, Indiana

Structure, Reinforced Concrete Box Section
10' x 8' Span Over UNT of Rummel Branch
W/ Waterproofing Membrane &
2' Tall Cutoff Walls at Inlet and Outlet
Skew: 04°00'00" Lt.
℄ Structure Sta. Line 224+76.00 "A"

SCALE: 1" = 2,000'

TRAFFIC DATA		
A.A.D.T.	(2024)	4788 V.P.D.
A.A.D.T.	(2044)	5532 V.P.D.
D.H.V	(2044)	535 V.P.H.
DIRECTIONAL DISTRIBUTION		EAST 51.28% & WEST 48.72%
TRUCKS		8% A.A.D.T.
		5% D.H.V.

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



PROJECT LOCATION SHOWN BY
Noble County

LATITUDE: 41°23'44"N LONGITUDE: 85°20'34"W

ROADWAY LENGTH: 0.009 MI.
TOTAL LENGTH: 0.009 MI.
MAX. GRADE: 0.01 %

HUC 040500011603

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

CERTIFIED BY:
REGISTERED PROFESSIONAL ENGINEER
STATE OF INDIANA NO. 19910597
COVERING OVERALL DESIGN
DATE

NOT FOR CONSTRUCTION
DLZ INDIANA, LLC

PLANS PREPARED BY:
DLZ INDIANA, LLC
2211 East Jefferson Boulevard
South Bend, Indiana 46615
(574) 236-4400

APPROVED
FOR LETTING:
INDIANA DEPARTMENT OF TRANSPORTATION
DATE

CULVERT ASSET ID
CV 008-057-47.08
DESIGNATION
2002234
SHEETS
1 of 15
CONTRACT / PROJECT
R-43287 / 2002234

2/10/2023
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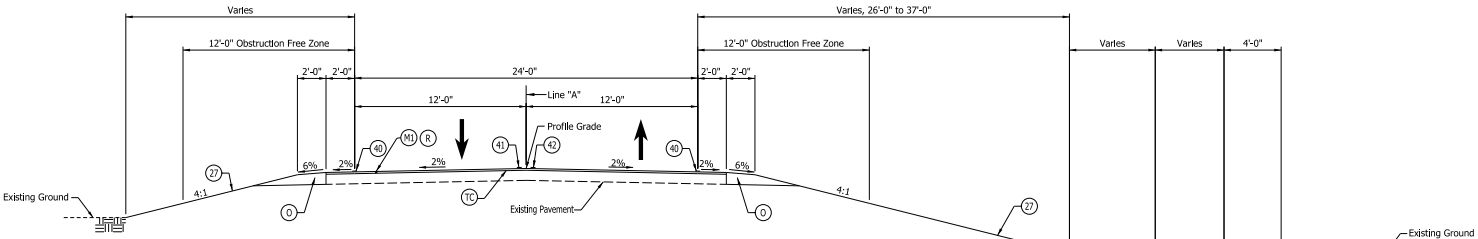
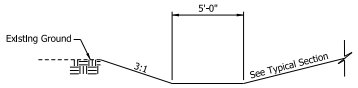


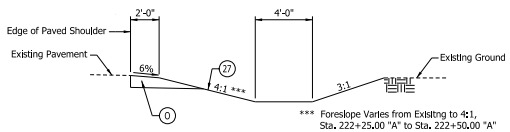
TYPICAL INCIDENTAL MILLING SECTION - S.R. 8

Sta. 224+05.00 "A" to Sta. 224+55.00 "A"
Sta. 225+00.00 "A" to Sta. 225+50.00 "A"



LEFT DITCH DETAIL

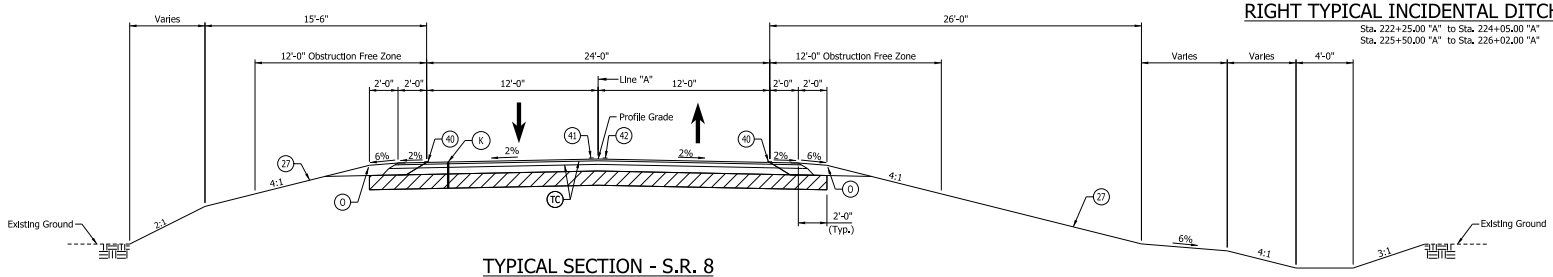
Sta. 224+79.00 "A" to Sta. 227+27.00 "A"



*** Foreslope Varies from Existing to 4:1,
Sta. 222+25.00 "A" to Sta. 222+50.00 "A"
Sta. 225+80.00 "A" to Sta. 226+02.00 "A"

RIGHT TYPICAL INCIDENTAL DITCH GRADING

Sta. 222+25.00 "A" to Sta. 224+05.00 "A"
Sta. 225+50.00 "A" to Sta. 226+02.00 "A"



TYPICAL SECTION - S.R. 8

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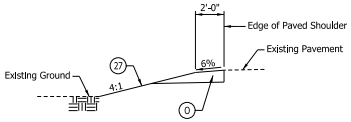

LEFT TYPICAL INCIDENTAL GRADING

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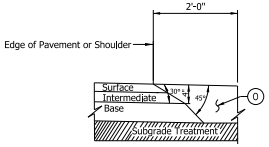
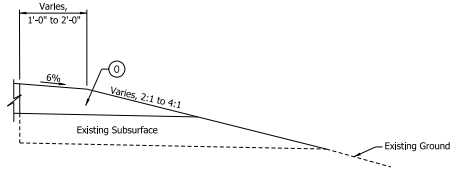
Sta. 225+50.00 "A" to Sta. 227+02.00 "A"



SAFETY EDGE DETAIL

Scale: None



TAPER EDGE DETAIL

Scales None
Sta. 223+50.00 "A" to Sta. 223+70.00 "A", Lt.
Sta. 222+25.00 "A" to Sta. 222+50.00 "A", Rt.
Sta. 227+02.00 "A" to Sta. 227+27.00 "A", Lt.
Sta. 225+82.00 "A" to Sta. 226+02.00 "A", Rt.

LEGEND:

K	165#/SYD QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 275#/SYD QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 660#/SYD QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade treatment Type IC on Geotextile for Pavement, Type 2B
O	Variable Depth Compacted Aggregate, No. 53
M1	Transition Milling
R	165 #/SYD QC/QA-HMA, 3, 64, Surface, 9.50mm
TC	Asphalt for Tack Coat
27	Mulched Seeding, R
40	Line, Paint, Solid, White, 6"
41	Line, Paint, Broken, Yellow, 6"
42	Line, Paint, Solid, Yellow, 6"

NOTES:

1. All Pavements Shall have a Safety Edge Installed at the Edge of the Pavement or Shoulder.
2. For Each Lane of Traffic, the Intermediate Layer should be Placed Simultaneously for Mainline and Adjacent Shoulder.
3. For Each Lane of Traffic the Surface Layer should be Placed Simultaneously for Mainline and Adjacent Shoulder.
4. After milling the existing pavement surface, any cracks that remain visible with 0.25 inch width or greater shall be sealed before applying tack coat to the milled surface. The materials used to fill the cracks shall be PG 64-22 only ; no emulsion should be used. The sealed cracks should not be overbanded.

DLZ

NOT FOR CONSTRUCTION

DLZ INDIANA, LLC

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: CJD 2/2023 DRAWN: DPH 2/2023

CHECKED: JFM 2/2023 CHECKED: CJD 2/2023

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE	CULVERT ASSET ID
NONE	CV 008-057-47.08
	DESIGNATION
	2002234
	SHEETS
	3 of 15
CONTRACT	PROJECT
R-43287	2002234

2/10/2023
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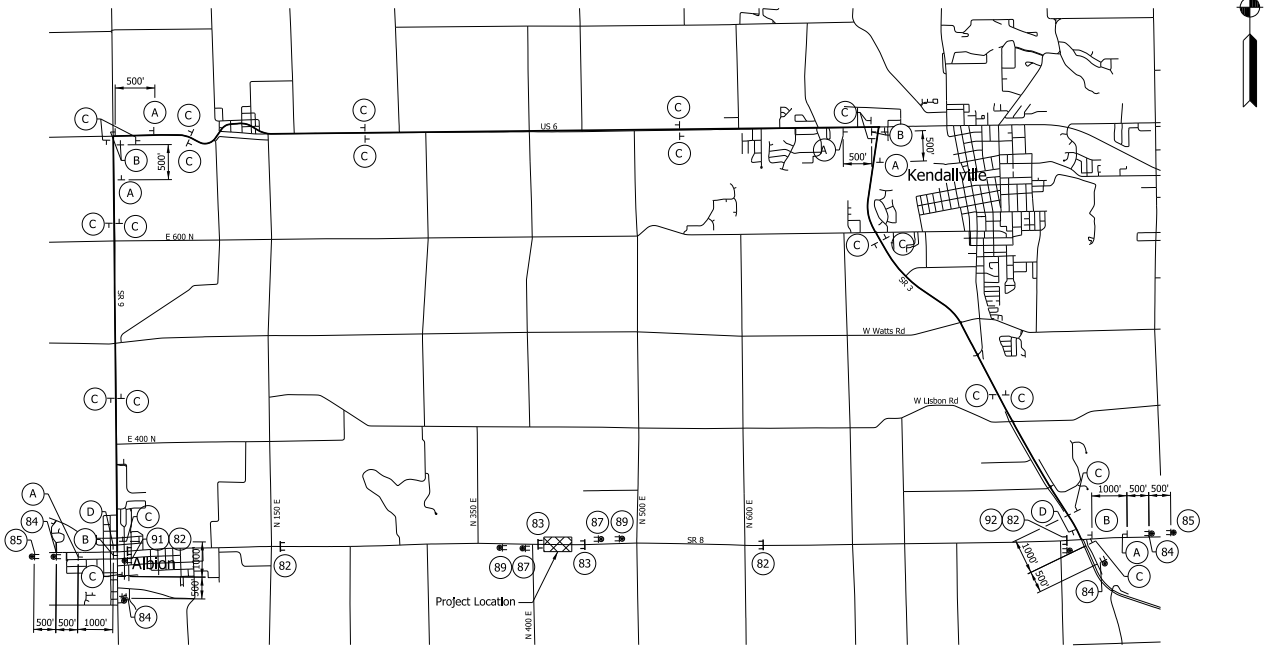

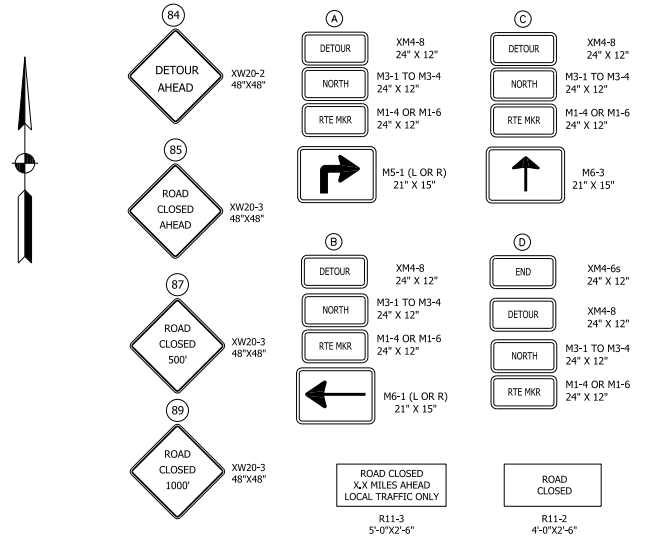

LEGEND

- (82) Road Closure Sign Assembly with R11-3 and 12 LFT Type III-B Barricade
- (83) Road Closure Sign Assembly with R11-2 and 24 LFT Type III-B Barricade
- (84) XW20-2 "Detour Ahead" Sign
- (85) XW20-3 "Road Closed Ahead " Sign
- (87) XW20-3 "Road Closed 500 ft" Sign
- (89) XW20-3 "Road Closed 1000 ft" Sign
- (91) XM4-10L "Detour Arrow Left" Symbol
- (92) XM4-10R "Detour Arrow Right" Symbol
- (A) Advance Turn Detour Route Marker Assembly with M3-2 Plaque
- (B) Directional Detour Route Marker Assembly with M3-2 Plaque
- (C) Confirming Detour Route Marker Assembly
- (D) End Detour Route Marker Assembly
- Construction Sign
- Type 'A' Construction Warning Light
- Type III-B Barricade
- Area Under Construction
- Detour Route
- Route Marker Assembly

CONSTRUCTION SIGN SCHEDULE	
ITEM	TOTALS
Type 'A' Sign	
XW20-2	4 Each
XW20-3	6 Each
R11-2	2 Each
R11-3	4 Each
Total Type 'A' Sign	16 Each
Type 'B' Sign	
XM4-10L	1 Each
XM4-10R	1 Each
Total Type 'B' Sign	2 Each
Detour Route Marker Assembly	36 Each
Road Closed Sign Assembly	6 Each
Type III-B Barricade	96 LFT

SIGN LEGEND		
SIGN	DESCRIPTION	SIZE (In x In)
R11-2	"Road Closed" Sign	48 X 30
R11-4	"Road Closed __ Miles Ahead" Sign	60 X 30
XW20-2	"Detour Ahead" Sign	48 X 48
XW20-3	"Road Closed ____" Sign	48 X 48
XM4-10(R OR L)	"Detour" (Inside Orange Arrow) Sign	48 X 18

NOTES

1. All signs, barricades, and pavement markings shall conform to the Indiana Manual on Traffic Control Devices for Streets and Highways, 2011 and any current supplements thereto.
2. Contractor shall maintain access to all commercial and private properties during construction.

2/10/2023
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DLZ

NOT FOR CONSTRUCTION

DLZ INDIANA, LLC

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

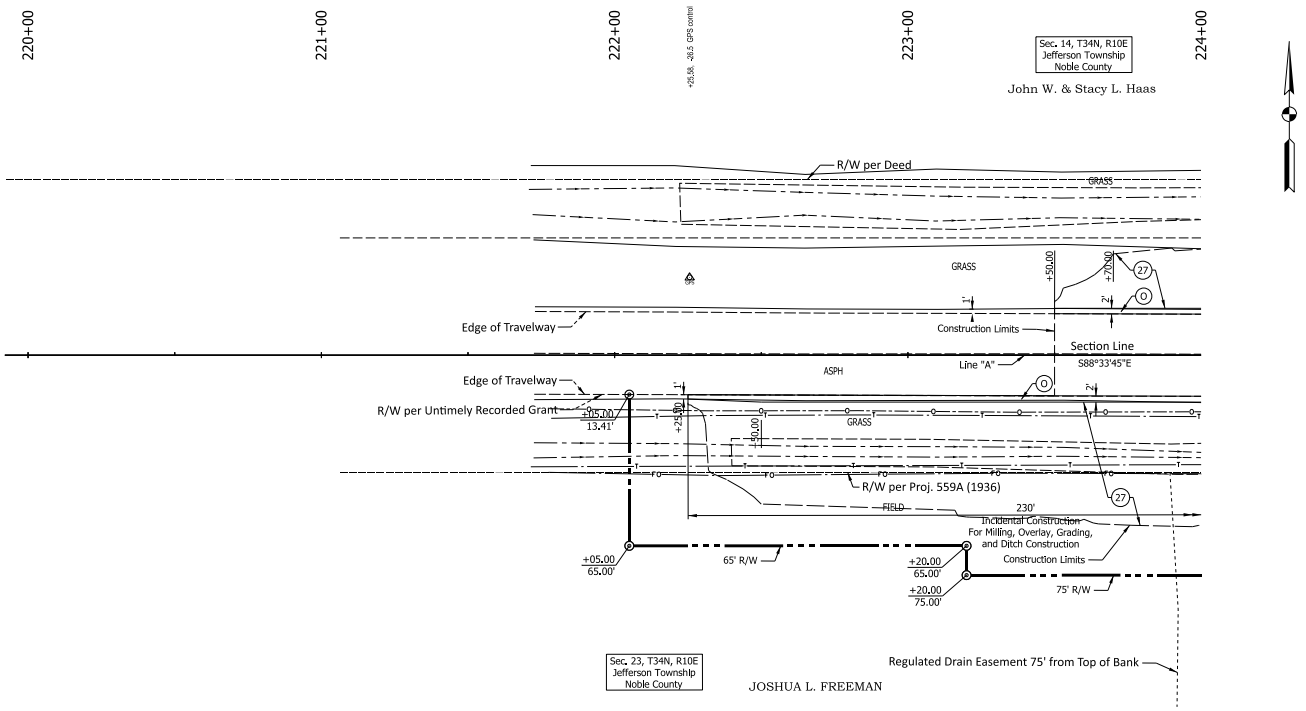
DESIGNED: CJD 2/2023 | DRAWN: DPH 2/2023

CHECKED: JFM 2/2023 | CHECKED: CJD 2/2023

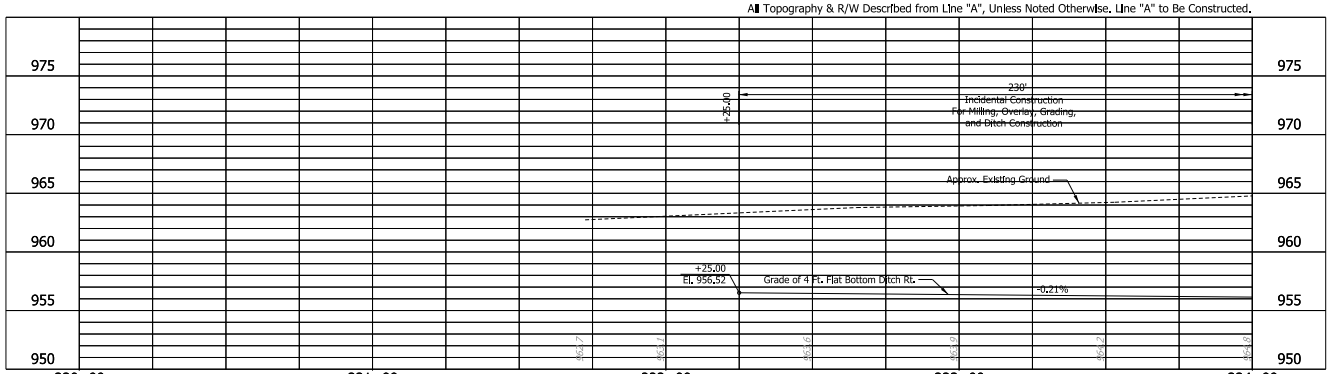
INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC

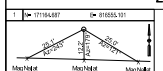
SCALE	CULVERT ASSET ID
1"=3000'	CV 008-057-47.08
	DESIGNATION
	2002234
	SHEETS
	5 of 15
CONTRACT	PROJECT
R-43287	2002234



All Topography & R/W Described from Line "A", Unless Noted Otherwise. Line "A" to Be Constructed.



LEGEND:
(O) Variable Depth Compacted Aggregate, No. 53
(27) Mulched Seeding, R



DLZ

NOT FOR CONSTRUCTION

DLZ INDIANA, LLC

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: CJD 2/2023 | DRAWN: DPH 2/2023

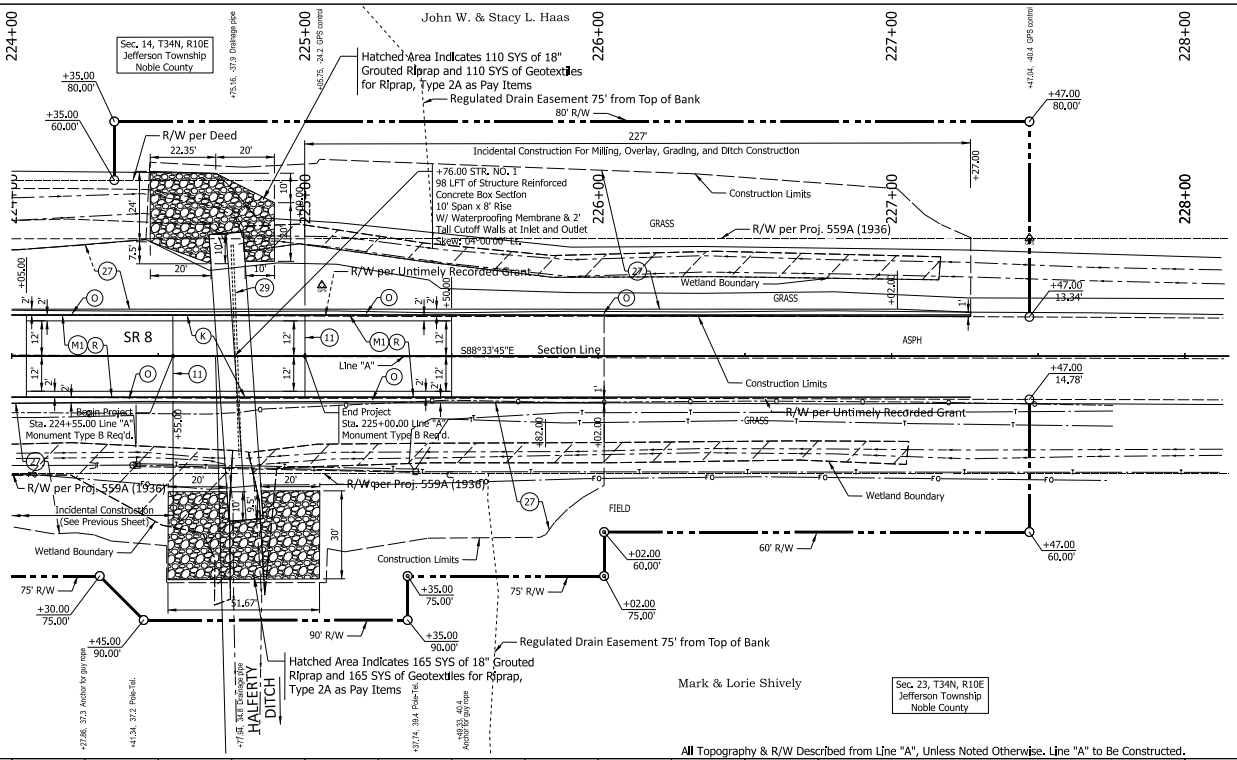
CHECKED: JFM 2/2023 | CHECKED: CJD 2/2023

INDIANA
DEPARTMENT OF TRANSPORTATION

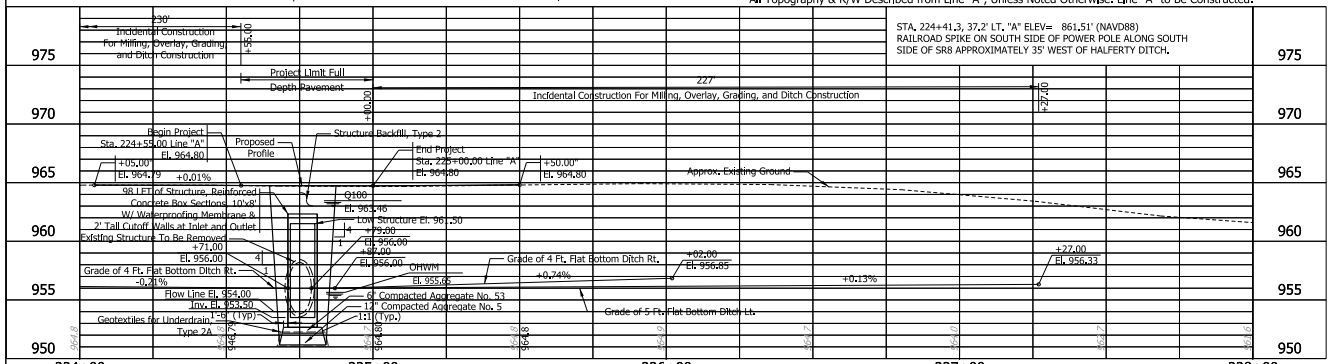
PLAN AND PROFILE LINE "A"

HORIZONTAL SCALE	CULVERT ASSET ID
1"=20'	CV 008-057-47.08
VERTICAL SCALE	DESIGNATION
1"=5'	2002234
	SHEETS
	6 of 15
CONTRACT	PROJECT
R-43287	2002234

2/10/2023
X:\Projects\2021\216\1280350 SR 8 SS 2002234\01_CivilDocs\CAD\Sheet Files\2002234PP01.dgn



All Topography & R/W Described from Line "A", Unless Noted Otherwise. Line "A" to Be Constructed.



NOTE TO REVIEWER:
EARTHWORK SUMMARY TABLE
DEWATERING PLAN, AND CONTOURS FOR THE RIPRAP
WILL BE PROVIDED AT STAGE 3

EARTHWORK SUMMARY TABLE	
COMMON EXCAVATION	
LINE "A"	CYS
TOTAL COMMON EXCAVATION	CYS
Unusable Excavation	CYS
Usable Excavation	CYS
FILL	
LINE "PRA"	CYS
SWELL (25%)	CYS
FILL	CYS
TOTAL BORROW	CYS
Structure Backfill, Type 1	CYS
Structure Backfill, Type 2	CYS
Structure Backfill, Type 5	CYS

HYDRAULIC DATA

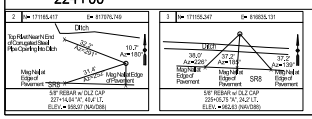
Drainage Area	= 6.25 sq. mi.
Design Discharge Q100	= 470 cfs
Outlet Velocity @ Q50	= 5.76 ft/s
Natural Channel Velocity @ Q50	= 1.69 ft/s
Q100 Elevation	= 963.46 ft.
Backwater at Q100	= 0.56 ft.
Waterway Opening Provided Below Q100 El.	= 74.19 sq. ft.
Proposed Low Structure	= 961.50 ft.
Skew	= 4°00'00" Lt.
Existing Waterway Opening Below Q100 El.	= 10.18 sq.ft
Existing Low Structure	= 957.59 ft.
Existing Backwater	= 2.71 ft.

GENERAL NOTES FOR STR. NO. 1:

1. Present Structure at Proposed Site to be Removed.
2. Allowable Factored Soil Bearing Resistance for Footing is 2,500 psf.
3. For Additional Scour Protection Details , see INDOT Standard Drawing E 714-BCSP-01
4. Contractor Shall Verify the Existing Flow Line Elevation to Set the Appropriate Sump Depth.
5. A Waterproofing Membrane shall be applied to the structure in accordance with 714.11.
6. Waterproofing shall be placed on all vertical and top surfaces.
7. In order to fully comply with RSP section 714.11 (b), the membrane shall not be damaged when backfill is placed.
8. The top joints shall be filled with a non-shrink grout in accordance with 707.09 and ASTM C1107.

LEGEND:

- (K) 165#/SYD QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 275#/SYD QC/QA-HMA, 3, 64,Intermediate, 19.0 mm,on 660#/SYD QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment Type IC, On Geotextile for Pavement, Type 2B
- (M1) Transition Milling
- (R) 165#/SYD QC/QA-HMA, 3, 64, Surface, 9.5 mm
- (O) Varfable Depth Compacted Aggregate, No. 53
- (11) Sawcut
- (27) Mulched Seedlng, R
- (29) Remove
- Existing Wetlands



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INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PLOT LINE "A"

HORIZONTAL SCALE	CULVERT ASSET ID
1"=20'	CV 008-057-47.08
VERTICAL SCALE	DESIGNATION
1"=5'	2002234
	SHEETS
	7 of 15
CONTRACT	PROJECT
R-43287	2002234

2/15/2023
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APPENDIX C

Early Coordination Documentation

DLZ
ARCHITECTURE • ENGINEERING • PLANNING
SURVEYING • CONSTRUCTION SERVICES

INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

Sample Early Coordination Request
Note: Graphics that accompanied this request have been removed. Similar graphics are provided in Appendix B.

August 27, 2021

See Appended List

Re: Early Coordination Request
SR 8 Small Structure Project, 4.22 Miles East of SR 9 in Noble County
Indiana Department of Transportation
INDOT Des. No. 2002234 DLZ No. 2161-2803-50

Dear Interested Party:

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intend to proceed with a small structure project in Noble County. This letter is part of the early coordination phase of the environmental review process. DLZ Indiana, LLC (DLZ) is under contract to advance environmental documentation for the referenced project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with these projects. Please use the above designation number and description in your reply. We will incorporate your comments into a study of the project's environmental impacts.

This project is located along SR 8, approximately 4.22 miles east of SR 9. Within the project area, SR 8 is a two-lane Major Collector roadway with an existing roadway typical section consisting of two 12-foot lanes with 2-foot shoulders. Roadway drainage is via sheet flow. The apparent existing right-of-way is 100 feet wide, centered on the roadway, throughout the project area. No driveways are located within the project limits.

The existing small structure (Str. No. CV 008-057-47.08) is a 5-foot diameter corrugated metal pipe (CMP) that has been lined with a 3.6-foot high density polyethylene (HDPE) liner. The structure has a length of approximately 56 feet and is under approximately 8 feet of cover. There is no guardrail at the structure.

The condition of the structure warrants improvements. The HDPE liner was installed in 2019 to avoid a collapse of the structure; however, the liner created an increase in backwater at the structure. The existing structure does not meet the roadway serviceability criteria for a 100-year flood event.

Project alternatives under consideration include replacement of the existing small structure with larger small structure, and maintaining the existing pipe and HDPE liner and adding a bored pipe to reduce the backwater back to the original level. It is anticipated that the structure will be extended to eliminate the need for guardrail on both sides of SR 8. The structure length will be confirmed based on survey data, clear zone requirements and the final profile grade of SR 8. The existing horizontal and vertical alignments of SR 8 at this location will be maintained.

SR 8 will be designed based on the posted speed limit of 55 mph. Roadway approach work may extend along

SR 8 up to 200 feet east and west of the structure (replacement alternative only). The proposed roadway typical section consists of two 12-foot lanes with 2-foot minimum shoulders. Existing drainage patterns will be perpetuated.

The project's right of way needs have not yet been determined; however, if land is acquired for new right of way, it is anticipated that less than 0.5 acre will be acquired. It is anticipated that SR 8 will be closed during construction. The detour route would likely use SR 3, US 6 and SR 9. Access to properties within the project limits will be maintained during construction.

Land in agricultural use abuts the project area. Waters and wetlands determinations will be performed. This project qualifies for USFWS range-wide programmatic informal consultation for the Indiana bat and northern long-eared bat. A Section 106 compliance review will be conducted to assess effects upon historic properties. The results of this investigation will be forwarded to the State Historic Preservation Officer for review and concurrence, as appropriate.

Should we not receive your response within thirty (30) calendar days from the date of this letter, it will be assumed that your agency feels that there will be no adverse effects incurred as a result of the proposed project. However, should you find that an extension to the response time is necessary, a reasonable amount may be granted upon request.

If you have any questions regarding this matter, please feel free to contact Jason A. Stone, DLZ Indiana, LLC, 2211 E. Jefferson Blvd., South Bend, Indiana 46615, Telephone - 574 245-1674, E-mail – jstone@dlz.com, or Matthew Witt, INDOT Project Manager, 5333 Hatfield Rd., Fort Wayne, Indiana 46808, Telephone – 260 399-7320, E-mail - mwitt@indot.in.gov.

Thank you in advance for your input.

DLZ INDIANA, LLC

Jason A. Stone
Environmental Scientist

cc: MAK, DLZ file
emc: FHWA, INDOT Ft. Wayne District

The following agencies received this early coordination request

Indiana Department of Environmental Management
(on-line)

Environmental Geology Section
Indiana Geological Survey
(on-line)

Indiana Department of Natural Resources
environmentalreview@dnr.in.gov

Manager, Aviation Section
Indiana Department of Transportation
jcourtade@indot.in.gov

State Conservationist
Natural Resource Conservation Service
rick.neilson@in.usda.gov

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

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

Environmental Officer
Chicago Regional Office, USHUD
Melanie.H.Castillo@hud.gov

Noble County Commissioners
Gleatherman@nobleco.us
Ddolezal@nobleco.us
Ahess@nobleco.us

Noble County Surveyor's Office / Noble County Drainage Board
rsexton@nobleco.us

Noble County Highway Department
highway@nobleco.org

Noble County Emergency Management
jstump@nobleco.us

Noble County Plan Commission
planning@nobleco.us

Noble County Sheriff's Office
mweber@nobleco.us

Central Noble Community Schools
gafft@centralnoble.k12.in.us

Floodplain Coordinator
albionmanager@frontier.com

Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

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

INDOT Ft. Wayne District
Alex Zembala, INDOT Project Manager
5333 Hatfield Road
Fort Wayne , IN 46808

DLZ Indiana, LLC
Jason A. Stone
Environmental Services Dept. Manager
2211 E Jefferson Blvd
South Bend , IN 46615

Date

Dear Grant Administrator or Other Finance Approval Authority:

RE: This INDOT project is located along SR 8, approximately 4.22 miles east of SR 9 in Noble County. Within the project area, SR 8 is a two-lane Major Collector roadway with an existing roadway typical section consisting of two 12-foot lanes with 2-foot shoulders. Roadway drainage is via sheet flow. The apparent existing right-of-way is 100 feet wide, centered on the roadway, throughout the project area. No driveways are located within the project limits. The existing small structure (Str. No. CV 008-057-47.08) is a 5-foot diameter corrugated metal pipe (CMP) that has been lined with a 3.6-foot high density polyethylene (HDPE) liner. The structure has a length of approximately 56 feet and is under approximately 8 feet of cover. There is no guardrail at the structure. The condition of the structure warrants improvements. The HDPE liner was installed in 2019 to avoid a collapse of the structure; however, the liner created an increase in backwater at the structure. The existing structure does not meet the roadway serviceability criteria for a 100-year flood event. Project alternatives under consideration include replacement of the existing small structure with larger small structure, and maintaining the existing pipe and HDPE liner and adding a bored pipe to reduce the backwater back to the original level. It is anticipated that the structure will be extended to eliminate the need for guardrail on both sides of SR 8. The structure length will be confirmed based on survey data, clear zone requirements and the final profile grade of SR 8. The existing horizontal and vertical alignments of SR 8 at this location will be maintained. SR 8 will be designed based on the posted speed limit of 55 mph. Roadway approach work may extend along SR 8 up to 200 feet east and west of the structure (replacement alternative only). The proposed roadway typical section consists of two 12-foot lanes with 2-foot minimum shoulders. Existing drainage patterns will be perpetuated. The project's right of way needs have not yet been determined; however, if land is acquired for new right of way, it is anticipated that less than 0.5 acre will be acquired. It is anticipated that SR 8 will be closed during construction. The detour route would likely use SR 3, US 6 and SR 9. Access to properties within the project limits will be maintained during construction.

The Indiana Department of Environmental Management (IDEM) is aware that many local government or not-for-profit entities are seeking grant monies, a bond issuance, or another public funding mechanism to cover some portion of the cost of a public works, infrastructure, or community development project. IDEM also is aware that in order to be eligible for such funding assistance, applicants are required to first evaluate the potential impacts that their particular project may have on the environment. In order to assist applicants seeking such financial assistance and to ensure that such projects do not have an adverse impact on the environment, IDEM has prepared the following list of environmental issues that each applicant must consider in order to minimize environmental impacts in compliance with all relevant state laws.

IDEM recommends that each applicant consider the following issues when moving forward with their project. IDEM also requests that, in addition to submitting the information requested above, each applicant also sign the attached certification, attesting to the fact that they have read the letter in its entirety, agree to abide by the recommendations of the letter, and to apply for any permits required from IDEM for the completion of their project.

IDEM recommends that any person(s) intending to complete a public works, infrastructure, or community development project using any public funding consider each of the following applicable recommendations and requirements:

WATER AND BIOTIC QUALITY

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

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

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

   Additional information on contacting these U.S. Army Corps of Engineers (USACE) District Offices, government agencies with jurisdiction over wetlands, and other water quality issues, can be found at http://www.in.gov/idem/4396.htm (http://www.in.gov/idem/4396.htm). IDEM recommends that impacts to wetlands and other water resources be avoided to the fullest extent.

2. In the event a Section 404 wetlands permit is required from the USACE, you also must obtain a Section 401 Water Quality Certification from the IDEM Office of Water Quality. To learn more about the water quality certification program, visit: http://www.in.gov/idem/4384.htm (http://www.in.gov/idem/4384.htm).

3. If the USACE determines that a wetland or other body of water is isolated and not subject to Clean Water Act regulation, it is still regulated by the state of Indiana . A state isolated wetland permit from IDEM's Office

of Water Quality is required for any activity that results in the discharge of dredged or fill materials into isolated wetlands. To learn more about isolated wetlands, contact the Office of Water Quality at 317-233-8488.

4. If your project will impact more than 0.5 acres of wetland, stream relocation, or other large-scale alterations to bodies of water such as the creation of a dam or a water diversion, you should seek additional input from the Office of Water Quality, Wetlands staff at 317-233-8488.

5. Work within the one-hundred year floodway of a given body of water is regulated by the Department of Natural Resources, Division of Water. Contact this agency at 317-232-4160 for further information.

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

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

    To obtain, and operate under, a Rule 5 permit you will first need to develop a Construction Plan (http://www.in.gov/idem/4917.htm#constreq (http://www.in.gov/idem/4917.htm#constreq)), and as described in 327 IAC 15-5-6.5 (http://www.in.gov/legislative/iac/T03270/A00150 [PDF] (http://www.in.gov/legislative/iac/T03270/A00150.PDF), pages 16 through 19). Before you may apply for a Rule 5 Permit, or begin construction, you must submit your Construction Plan to your county Soil and Water Conservation District (SWCD) (http://www.in.gov/isda/soil/contacts/map.html (http://www.in.gov/isda/soil/contacts/map.html)).

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

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

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

    Regardless of the size of your project, or which agency you work with to meet storm water requirements, IDEM recommends that appropriate structures and techniques be utilized both during the construction phase, and after completion of the project, to minimize the impacts associated with storm water runoff. The

use of appropriate planning and site development and appropriate storm water quality measures are recommended to prevent soil from leaving the construction site during active land disturbance and for post construction water quality concerns. Information and assistance regarding storm water related to construction activities are available from the Soil and Water Conservation District (SWCD) offices in each county or from IDEM.

8. For projects involving impacts to fish and botanical resources, contact the Department of Natural Resources - Division of Fish and Wildlife (317-232-4080) for additional project input.

9. For projects involving water main construction, water main extensions, and new public water supplies, contact the Office of Water Quality - Drinking Water Branch (317-308-3299) regarding the need for permits.

10. For projects involving effluent discharges to waters of the State of Indiana , contact the Office of Water Quality - Permits Branch (317-233-0468) regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit.

11. For projects involving the construction of wastewater facilities and sewer lines, contact the Office of Water Quality - Permits Branch (317-232-8675) regarding the need for permits.

AIR QUALITY

The above-noted project (see page 1) should be designed to minimize any impact on ambient air quality in, or near, the project area. The project must comply with all federal and state air pollution regulations. Consideration should be given to the following:

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

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

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

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

3. The U.S. EPA and the U.S. Surgeon General recommend that people not have long-term exposure to radon at levels above 4 pCi/L. For a county-by-county map of predicted radon levels in Indiana , visit http://www.in.gov/idem/4267.htm (http://www.in.gov/idem/4267.htm).

   The U.S. EPA further recommends that all homes and apartments (within three stories of ground level) be tested for radon. If in-home radon levels are determined to be 4 pCi/L or higher, then U.S. EPA recommends a follow-up test. If the second test confirms that radon levels are 4 pCi/L or higher, then U.S. EPA recommends the installation of radon-reduction measures. For a list of qualified radon testers and radon mitigation (or reduction) specialists, visit http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf (http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf). Also, is recommended that radon reduction measures be built into all new homes, particularly in areas like Indiana that have moderate to high predicted radon levels.

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

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

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

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

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

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

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

5. With respect to lead-based paint removal, IDEM encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDEM is particularly concerned that young children exposed to lead can suffer from learning disabilities. Although lead-based paint abatement efforts are not mandatory, any abatement

that is conducted within housing built before January 1, 1978 , or a child-occupied facility is required to comply with all lead-based paint work practice standards, licensing and notification requirements. For more information about lead-based paint removal, visit http://www.in.gov/idem/permits/guide/waste/leadabatement.html (http://www.in.gov/idem/permits/guide/waste/leadabatement.html).

6. Ensure that asphalt paving plants are permitted and operate properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months of April through October. See 326 IAC 8-5-2 , Asphalt Paving Rule (http://www.ai.org/legislative/iac/T03260/A00080.PDF (http://www.ai.org/legislative/iac/T03260/A00080.PDF)).

7. If your project involves the construction of a new source of air emissions or the modification of an existing source of air emissions or air pollution control equipment, it will need to be reviewed by the IDEM Office of Air Quality (OAQ). A registration or permit may be required under 326 IAC 2 (www.ai.org/legislative/iac/t03260/a00020.pdf (http://www.ai.org/legislative/iac/t03260/a00020.pdf).). New sources that use or emit hazardous air pollutants may be subject to Section 112 of the Clean Air Act and corresponding state air regulations governing hazardous air pollutants.

8. For more information on air permits, visit http://www.in.gov/idem/4223.htm (http://www.in.gov/idem/4223.htm), or to initiate the IDEM air permitting process, please contact the Office of Air Quality Permit Reviewer of the Day at (317) 233-0178 or oamprod at idem.in.gov.

LAND QUALITY

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

1. If the site is found to contain any areas used to dispose of solid or hazardous waste, you need to contact the Office of Land Quality (OLQ) at 317-308-3103.

2. All solid wastes generated by the project, or removed from the project site, need to be taken to a properly permitted solid waste processing or disposal facility. For more information, visit http://www.in.gov/idem/4998.htm (http://www.in.gov/idem/4998.htm).

3. If any contaminated soils are discovered during this project, they may be subject to disposal as hazardous waste. Please contact the OLQ at 317-308-3103 to obtain information on proper disposal procedures.

4. If Polychlorinated Biphenyls (PCBs) are found at this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding management of any PCB wastes from this site.

5. If there are any asbestos disposal issues related to this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding the management of asbestos wastes. (Asbestos removal is addressed above, under Air Quality.)

6. If the project involves the installation or removal of an underground storage tank, or involves contamination from an underground storage tank, you must contact the IDEM Underground Storage Tank program at 317-308-3039(http://www.in.gov/idem/4999.htm (http://www.in.gov/idem/4999.htm)).

FINAL REMARKS

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

Please note that this letter does not constitutes a permit, license, endorsement, or any other form of approval on the part of either the Indiana Department of Environmental Management or any other Indiana state agency.

Should you have any questions relating to the content or recommendations of this letter, or if you have additional questions about whether a more complete environmental review of your project should be conducted, please feel free to contact Steve Howell at (317) 232-8587, snhowell@idem.in.gov.

Signature(s) of the Applicant

I acknowledge that I am seeking grant monies, a bond issuance, or other public funding mechanism to cover some portion of the cost of the public works, infrastructure, or community development project as described herein, which I am working (possibly with others) to complete.

Project Description

This INDOT project is located along SR 8, approximately 4.22 miles east of SR 9 in Noble County. Within the project area, SR 8 is a two-lane Major Collector roadway with an existing roadway typical section consisting of two 12-foot lanes with 2-foot shoulders. Roadway drainage is via sheet flow. The apparent existing right-of-way is 100 feet wide, centered on the roadway, throughout the project area. No driveways are located within the project limits. The existing small structure (Str. No. CV 008-057-47.08) is a 5-foot diameter corrugated metal pipe (CMP) that has been lined with a 3.6-foot high density polyethylene (HDPE) liner. The structure has a length of approximately 56 feet and is under approximately 8 feet of cover. There is no guardrail at the structure. The condition of the structure warrants improvements. The HDPE liner was installed in 2019 to avoid a collapse of the structure; however, the liner created an increase in backwater at the structure. The existing structure does not meet the roadway serviceability criteria for a 100-year flood event. Project alternatives under consideration include replacement of the existing small structure with larger small structure, and maintaining the existing pipe and HDPE liner and adding a bored pipe to reduce the backwater back to the original level. It is anticipated that the structure will be extended to eliminate the need for guardrail on both sides of SR 8. The structure length will be confirmed based on survey data, clear zone requirements and the final profile grade of SR 8. The existing horizontal and vertical alignments of SR 8 at this location will be maintained. SR 8 will be designed based on the posted speed limit of 55 mph. Roadway approach work may extend along SR 8 up to 200 feet east and west of the structure (replacement alternative only). The proposed roadway typical section consists of two 12-foot lanes with 2-foot minimum shoulders. Existing drainage patterns will be perpetuated. The project’s right of way needs have not yet been determined; however, if land is acquired for new right of way, it is anticipated that less than 0.5 acre will be acquired. It is anticipated that SR 8 will be closed during construction. The detour route would likely use SR 3, US 6 and SR 9. Access to properties within the project limits will be maintained during construction.

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

Dated Signature of the Public Owner Contact/Responsible Elected Official Alex J. Zembala

Alex Zembala, INDOT Project Manager

Dated Signature of the Project Planner/Consultant Contact Person Jason Stone 4-6-2022

Jason A. Stone

Organization and Project Information

Project ID:	2161-2803-50
Des. ID:	2002234
Project Title:	SR 8 Small Structure Project
Name of Organization:	DLZ Indiana, LLC
Requested by:	Jason Stone

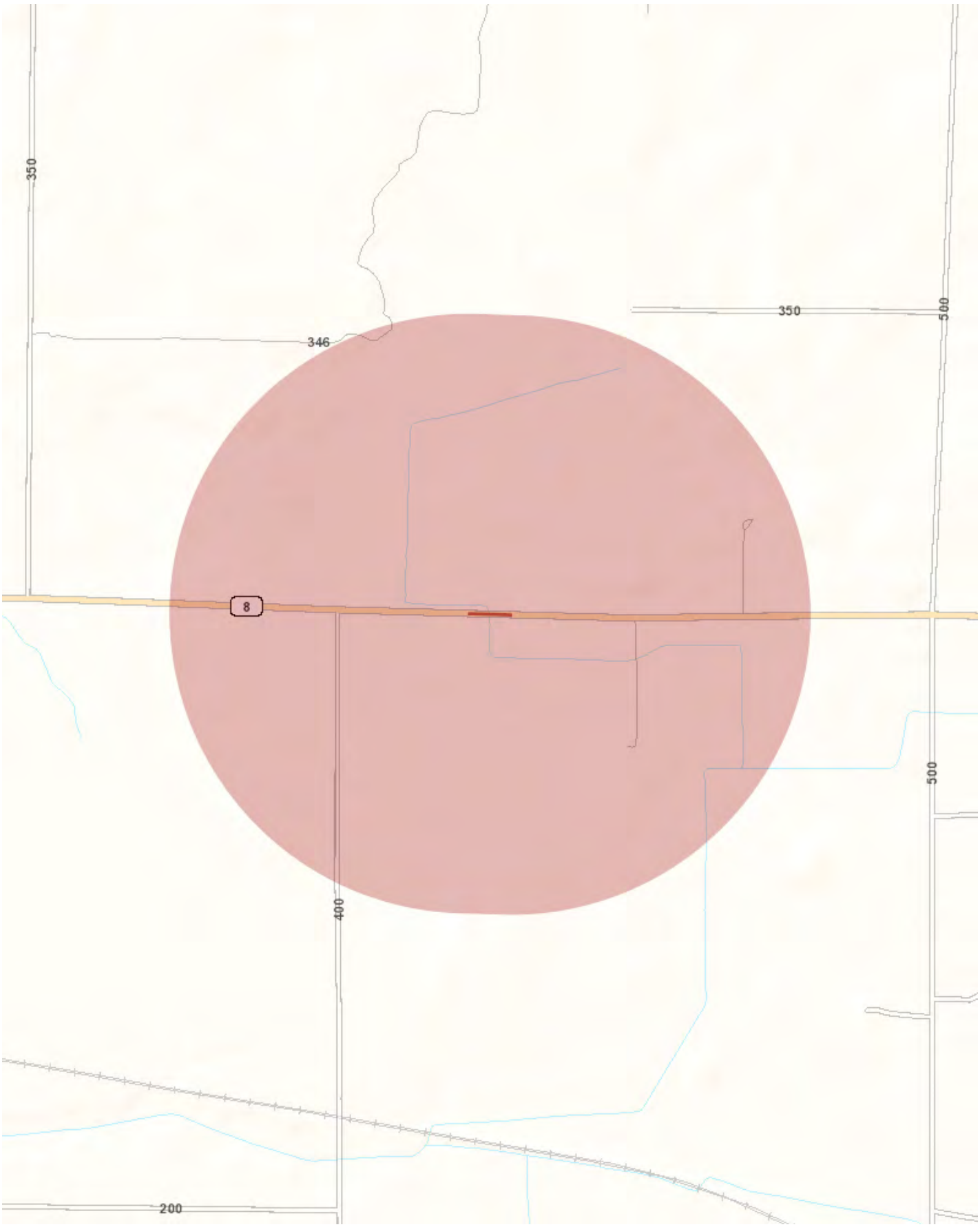
Environmental Assessment Report

1. Geological Hazards:
    - Moderate liquefaction potential
    - Floodway
2. Mineral Resources:
    - Bedrock Resource: Low 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: August 27, 2021



Jason Stone

From: Jason Stone
Sent: Tuesday, August 31, 2021 8:45 AM
To: Max Weber
Subject: RE: INDOT, SR 8 Small Structure Project, 4.22 Miles East of SR 9 in Noble County, Des No 2002234 - Early Coordination Request

Mr. Weber,

The project's letting date is September 11,2024. Based on that, the earliest that construction would start is October 2024. Let me know if you have any other questions. Thanks very much.

From: Max Weber <mweber@nobleco.us>
Sent: Monday, August 30, 2021 7:47 AM
To: Jason Stone <jstone@dlz.com>
Subject: RE: INDOT, SR 8 Small Structure Project, 4.22 Miles East of SR 9 in Noble County, Des No 2002234 - Early Coordination Request

Mr. Stone,

Is there a projected start date to this project?

Respectfully,
Max C. Weber
Sheriff
Noble County
210 7th St.
P.O. Box 22,
Albion, IN 46701
Office (260) 636-2182
Fax (260) 636-3158

From: Jason Stone <jstone@dlz.com>
Sent: Friday, August 27, 2021 1:30 PM

Jason Stone

From: Courtade, Julian <JCourtade@indot.IN.gov>
Sent: Tuesday, August 31, 2021 2:58 PM
To: Jason Stone
Subject: RE: INDOT, SR 8 Small Structure Project, 4.22 Miles East of SR 9 in Noble County, Des No 2002234 - Early Coordination Request

Jason –

I reviewed the Early Coordination Letter and found no issues with any surrounding airspace or public-use airports. This is due to the project meeting the required glideslope criteria from the nearest public-use facility according to 14 CFR Part 77 – Safe, efficient use, and preservation of the navigable airspace.

If any object will exceed 200 ft in height regardless of location, the object will need to be airspaced with the FAA 45 days prior to construction through the OEAAA portal below.

https://oeaaa.faa.gov/oeaaa/external/searchAction.jsp

Please let me know if you have any questions!

Thanks,

Julian L. Courtade
Chief Airport Inspector
100 North Senate Ave, N758-MM
Indianapolis, IN 46204
Cell: (317) 954-7385
Email: jcourtade@indot.in.gov

From: Jason Stone <jstone@dlz.com>
Sent: Friday, August 27, 2021 1:30 PM
To: DNR Environmental Review <environmentalreview@dnr.IN.gov>; Courtade, Julian <JCourtade@indot.IN.gov>; Neilson, Rick - NRCS, Indianapolis, IN <rick.neilson@in.usda.gov>; 'Mwro_Compliance@nps.gov' <Mwro_Compliance@nps.gov>; 'regulatoryapplicationslrl@usace.army.mil' <regulatoryapplicationslrl@usace.army.mil>; Castillo, Melanie H <Melanie.H.Castillo@hud.gov>; Gleatherman@nobleco.us; Ddolezal@nobleco.us; Ahess@nobleco.us; highway@nobleco.org; Justin Stump <jstump@nobleco.us>; planning@nobleco.us; mweber@nobleco.us; gafft@centralnoble.k12.in.us; albionmanager@frontier.com
Cc: Witt, Matthew <MWitt@indot.IN.gov>; Novak, Karen <KNovak@indot.IN.gov>; Michael Kummeth <mkummeth@dlz.com>; Pedro Trana, P.E. <ptrana@dlz.com>; Carmany-George, Karstin (FHWA)

Jason Stone

From: Justin Stump <jstump@nobleco.us>
Sent: Monday, August 30, 2021 2:36 PM
To: Jason Stone
Subject: RE: INDOT, SR 8 Small Structure Project, 4.22 Miles East of SR 9 in Noble County, Des No 2002234 - Early Coordination Request

Good afternoon Jason,

After reviewing Des No 2002234, I do not see any issues from an Emergency Management Standpoint.

Thanks,

Justin J. Stump, FF/NREMT
Director
Noble County Emergency Management Agency
107 Weber Road
Albion, IN 46701
Office: 260-636-2938
Cell: 260-347-7378
Email: jstump@nobleco.us
Web: http://nobleco.squarespace.com/emergency-management/

Emergency preparedness is a team sport.

THIS IS NOT A PERMIT

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

DNR #: ER-24013 **Request Received:** August 27, 2021

Requestor: DLZ Indiana, LLC
Jason A Stone
2211 East Jefferson Boulevard
South Bend, IN 46615-2607

Project: SR 8 small structure replacement or additional bored pipe adjacent to existing structure, about 4.22 miles east of SR 9; Des #2002234, DLZ #2161-2803-50

County/Site info: Noble

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

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

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

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

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

1) Crossing Structure:
For purposes of maintaining fish and wildlife passage through a crossing structure, the Environmental Unit recommends bridges rather than culverts and bottomless culverts rather than box or pipe culverts. Wide culverts are better than narrow culverts, and culverts with shorter through lengths are better than culverts with longer through lengths. If box or pipe culverts are used, the bottoms should be buried a minimum of 6" (or 20% of the culvert height/pipe diameter, whichever is greater up to a maximum of 2') below the stream bed elevation to allow a natural streambed to form within or under the crossing structure. Crossings should: span the entire channel width (a minimum of 1.2 times the OHWM width); maintain the natural stream substrate within the structure; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel. Banklines should be restored within box and pipe structures to allow for wildlife passage above the ordinary highwater mark.

The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. When determining an appropriate bridge or culvert size, consider whether or not wildlife/vehicle collisions are a concern at the crossing site. If feasible, a larger bridge or culvert opening can allow for the movement of wildlife under the roadway in order to minimize wildlife/vehicle collisions.

Attachments: A - Bridge Exemption Criteria

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 may be used only at the toe of the sideslopes up to the ordinary high water mark (OHWM). The banks above the OHWM must be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion.

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

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:
1. Revegetate all bare and disturbed areas within the project area using a mixture of grasses (excluding all varieties of tall fescue), sedges, wildflowers, shrubs, and trees native to Northern Indiana and specifically for stream bank/floodway stabilization purposes 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.
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. Do not deposit or allow construction/demolition materials or debris to fall or otherwise enter the waterway.
12. Appropriately designed measures for controlling erosion and sediment must be

Attachments: A - Bridge Exemption Criteria

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.
13. 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.
14. Do not excavate or place fill in any riparian wetland.

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

Christie L. Stanifer **Date:** September 24, 2021

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

Attachments: A - Bridge Exemption Criteria

USDA
United States Department of Agriculture

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

September 15, 2021

Jason A. Stone
DLZ
2211 East Jefferson Boulevard
South Bend, Indiana 46615

Dear Mr. Stone:

The proposed project to make small structure improvements along State Road 8 in Noble County, Indiana, (Des No 2002234), as referred to in your letter received August 27, 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.

Sincerely,

RICHARD NEILSON
Digitally signed by RICHARD NEILSON
Date: 2021.09.16 06:45:16 -04'00'

RICK NEILSON
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	
Name of Project DES2002234_SR8_Small Structure		Federal Agency Involved	
Proposed Land Use		County and State Noble County, Indiana	
PART II *(To be completed by NRCS)*		Date Request Received By NRCS 8/27/2021	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 197 ac
Major Crop(s) Corn	Farmable Land In Govt. Jurisdiction Acres: 240534 % 90	Amount of Farmland As Defined in FPPA Acres: 192796 % 72	
Name of Land Evaluation System Used LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS 9/15/2021	

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	0.5			
B. Total Acres To Be Converted Indirectly	0			
C. Total Acres In Site	0.5			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	0.00			
B. Total Acres Statewide Important or Local Important Farmland	0.25			
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	12			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	94			

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)	10			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	N/A			
6. Distance To Urban Support Services	(15)	N/A			
7. Size Of Present Farm Unit Compared To Average	(10)	5			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	5			
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	45	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	94	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	45	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	139	0	0	0

Site Selected: Site A	Date Of Selection 2/22/2023	Was A Local Site Assessment Used? YES ☐ NO ☑

Reason For Selection:

Since this project received a total point value of less than 160 points, this site will receive no further consideration for farmland protection. No other alternatives other than those already discussed in this document will be considered without a re-evaluation of the project's potential impacts upon farmland.

Name of Federal agency representative completing this form: Jason A. Stone / DLZ Indiana, LLC	Date: 2/22/2023

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

United States Department of the Interior

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

In Reply Refer To: October 12, 2021
Consultation Code: 03E12000-2022-SLI-0057
Event Code: 03E12000-2022-E-00324
Project Name: INDOT, SR 8 Small Structure Project, Des No 2002234

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

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

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

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - http://www.fws.gov/midwest/endangered/section7/s7process/index.html. This website contains step-by-step instructions which will help you determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process.

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

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

Project Summary

Consultation Code: 03E12000-2022-SLI-0057
Event Code: Some(03E12000-2022-E-00324)
Project Name: INDOT, SR 8 Small Structure Project, Des No 2002234
Project Type: TRANSPORTATION
Project Description: The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intend to proceed with a small structure project in Noble County. This project is located along SR 8, approximately 4.22 miles east of SR 9. Within the project area, SR 8 is a two-lane Major Collector roadway with an existing roadway typical section consisting of two 12-foot lanes with 2-foot shoulders. Roadway drainage is via sheet flow. The apparent existing right-of-way is 100 feet wide, centered on the roadway, throughout the project area. No driveways are located within the project limits.

The existing small structure (Str. No. CV 008-057-47.08) is a 5-foot diameter corrugated metal pipe (CMP) that has been lined with a 3.6-foot high density polyethylene (HDPE) liner. The structure has a length of approximately 56 feet and is under approximately 8 feet of cover.

The HDPE liner was installed in 2019 to avoid a collapse of the structure; however, the liner created an increase in backwater at the structure. The existing structure does not meet the roadway serviceability criteria for a 100-year flood event. No bats or evidence of use by bats was observed during the November 27, 2019 culvert inspection.

Project alternatives under consideration include replacement of the existing small structure with larger small structure, and maintaining the existing pipe and HDPE liner and adding a bored pipe to reduce the backwater back to the original level. It is anticipated that the structure will be extended to eliminate the need for guardrail on both sides of SR 8. The structure length will be confirmed based on survey data, clear zone requirements and the final profile grade of SR 8. The existing horizontal and vertical alignments of SR 8 at this location will be maintained.

Roadway approach work may extend along SR 8 up to 200 feet east and west of the structure (replacement alternative only). The proposed roadway typical section consists of two 12-foot lanes with 2-foot minimum shoulders. Existing drainage patterns will be perpetuated.

The project’s right of way needs have not yet been determined; however, it is anticipated that less than 0.5 acre will be acquired. SR 8 will be closed during construction. The detour route would likely use SR 3, US 6 and SR 9.

INDOT checked the USFWS database for occurrences of bat species of concern within 0.5 of the project on September 8, 2021 and no such occurrences were found. The small structure was inspected on September 15, 2021 by DLZ Indiana, LLC. No evidence of bats or use by bats was observed during this inspection. No suitable summer habitat is within the project area; however, suitable summer habitat is present within 1000 feet. No tree removal is required. All work will take place within 100 feet of the roadway.

Construction is anticipated to begin by April 1, 2025 and end by November 30, 2025. The project will not involve temporary lighting or installation or replacement of permanent lighting. Mitigation is not anticipated to be required.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.39547145,-85.3428429,14z

Counties: Noble 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.

---

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.

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

IPaC Record Locator: 985-106306726 October 06, 2021

Subject: Consistency letter for the 'INDOT, SR 8 Small Structure Project, Des No 2002234' project (no current TAILS record) 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 **INDOT, SR 8 Small Structure Project, Des No 2002234** (Proposed Action) may rely on 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 (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 will have no effect on the endangered Indiana bat (*Myotis sodalis*) or the threatened Northern long-eared bat (*Myotis septentrionalis*). If the Proposed Action is not modified, **no consultation is required for these two species.**

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

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

- Monarch Butterfly *Danaus plexippus* Candidate

Project Description

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

Name

INDOT, SR 8 Small Structure Project, Des No 2002234

Description

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intend to proceed with a small structure project in Noble County. This project is located along SR 8, approximately 4.22 miles east of SR 9. Within the project area, SR 8 is a two-lane Major Collector roadway with an existing roadway typical section consisting of two 12-foot lanes with 2-foot shoulders. Roadway drainage is via sheet flow. The apparent existing right-of-way is 100 feet wide, centered on the roadway, throughout the project area. No driveways are located within the project limits.

The existing small structure (Str. No. CV 008-057-47.08) is a 5-foot diameter corrugated metal pipe (CMP) that has been lined with a 3.6-foot high density polyethylene (HDPE) liner. The structure has a length of approximately 56 feet and is under approximately 8 feet of cover.

The HDPE liner was installed in 2019 to avoid a collapse of the structure; however, the liner created an increase in backwater at the structure. The existing structure does not meet the roadway serviceability criteria for a 100-year flood event. No bats or evidence of use by bats was observed during the November 27, 2019 culvert inspection.

Project alternatives under consideration include replacement of the existing small structure with larger small structure, and maintaining the existing pipe and HDPE liner and adding a bored pipe to reduce the backwater back to the original level. It is anticipated that the structure will be extended to eliminate the need for guardrail on both sides of SR 8. The structure length will be confirmed based on survey data, clear zone requirements and the final profile grade of SR 8. The existing horizontal and vertical alignments of SR 8 at this location will be maintained.

Roadway approach work may extend along SR 8 up to 200 feet east and west of the structure (replacement alternative only). The proposed roadway typical section consists of two 12-foot lanes with 2-foot minimum shoulders. Existing drainage patterns will be perpetuated.

The project’s right of way needs have not yet been determined; however, it is anticipated that less than 0.5 acre will be acquired. SR 8 will be closed during construction. The detour route would likely use SR 3, US 6 and SR 9.

INDOT checked the USFWS database for occurrences of bat species of concern within 0.5 of the project on September 8, 2021 and no such occurrences were found. The small structure was inspected on September 15, 2021 by DLZ Indiana, LLC. No evidence of bats or use by bats was observed during this inspection. No suitable summer habitat is within the project area; however, suitable summer habitat is present within 1000 feet. No tree removal is required. All work will take place within 100 feet of the roadway.

Construction is anticipated to begin by April 1, 2025 and end by November 30, 2025. The project will not involve temporary lighting or installation or replacement of permanent lighting. Mitigation is not anticipated to be required.

Determination Key Result

Based on the information you provided, you have determined that the Proposed Action will have no effect on the endangered Indiana bat and/or the threatened Northern long-eared bat. Therefore, no 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 for these two species.

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.

   No

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

   No

10. Does the project include slash pile burning?

    No

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

    Yes

12. 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

13. 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

    - *StructureInspection_2002234.pdf https://ecos.fws.gov/ipac/project/M4FF5WCFDZB7TM35CDMWNXLFTM/projectDocuments/106306454*
    - *CulvertInspectionReport_2002234.pdf https://ecos.fws.gov/ipac/project/M4FF5WCFDZB7TM35CDMWNXLFTM/projectDocuments/106306595*

14. 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

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

    No

16. 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

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

    No

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

    No

19. 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

20. 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

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

    No

22. Is the location of this project consistent with a No Effect determination in this key?

    Automatically answered

    Yes, because the project action area is not within suitable Indiana bat and/or NLEB summer habitat and is outside of 0.5 miles of a hibernaculum.

23. 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

Project Questionnaire

1. Please enter the date of the bridge assessment:

   9/15/2021

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.

Bridge/Structure Bat Assessment Form

Date & Time of Assessment: 9/15/2021 2:30pm	DOT Project Number: Des. 2002234	Route/Facility Carried: SR 8 over	County: Noble
Federal Structure ID: CV008-057-47.08	Structure Coordinates (latitude and longitude): 41.395462° -85.342841°	Structure Height (approximate): 3.6'	Structure Length: 56'

Structure Type (check one)

Bridge Construction Style

- ○ Cast-in-place
- ○ Flat Slab/Box
- ○ Truss (Side View)
- ○ Parallel Box Beam
- ○ Pre-stressed Girder
- ○ Steel I-beam
- ○ Covered
- ○ Other:

Culvert Type

- ○ Box
- ● Pipe/Round
- ○ Other:

Other Structure

- ○

Structure Material (check all that apply)

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

Creosote Evidence

- ● Yes ○ No
- ○ Unknown

Culvert Material

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

Notes:

Crossings Traversed (check all that apply)

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

Surrounding Habitat (check all that apply)

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

Areas Assessed (check all that apply)

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

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

Name: Daniel J. Stevens

Signature: Daniel J Stevens

Jason Stone

From: Novak, Karen <KNovak@indot.IN.gov>
Sent: Tuesday, October 12, 2021 2:58 PM
To: Jason Stone
Cc: Mettler, Madeline; Pedro Trana, P.E.; Michael Kummeth
Subject: RE: INDOT SR 8 Small Structure Project, 4.22 Miles East of SR 9 in Noble County, Des No 2002234

Hi Jason,

I concur with the NE finding. There are no edits needed. Please be aware that one or more bat/bird inspections (9/2023) will most likely need to be completed prior to construction.

Have a great day!

Karen M. Novak
Sr Environmental Mgr Supervisor
5333 Hatfield Road
Fort Wayne, IN 46808
Office: (260) 969-8302
Email: knovak@indot.in.gov

From: Jason Stone <jstone@dlz.com>
Sent: Tuesday, October 05, 2021 2:23 PM
To: Novak, Karen <KNovak@indot.IN.gov>
Cc: Mettler, Madeline <MMettler1@indot.IN.gov>; Pedro Trana, P.E. <ptrana@dlz.com>; Michael Kummeth <mkummeth@dlz.com>
Subject: INDOT SR 8 Small Structure Project, 4.22 Miles East of SR 9 in Noble County, Des No 2002234

Hello Karen

Another NE determination. Please have a look and let me know if you concur. Thanks very much.

From: Papadakis, Arianna <APapadakis@indot.IN.gov>
Sent: Wednesday, September 8, 2021 2:28 PM
To: Jason Stone <jstone@dlz.com>
Cc: Brad Smith <bwsmith@dlz.com>
Subject: RE: INDOT SR 8 Small Structure Project, 4.22 Miles East of SR 9 in Noble County, Des No 2002234

APPENDIX D

Section 106 Documentation

SECTION 1

Submittal of this form is only required for projects where Category B applies. Projects qualifying under Category A do not require submittal of this form. SECTION 2 (for Conditions of Category B.1 for curb/sidewalk) or SECTION 3 (for Conditions of Category B.9 for drainage structures) may be required as determined by INDOT-Cultural Resources Office (INDOT-CRO) review. INDOT-CRO will notify applicant if the Minor Projects PA does not apply.

Part 1: Project Information-Completed by Applicant (Consultant/PM/Project Sponsor/INDOT District Staff)*

**A qualified professional historian (QP) is not required to complete Part I INDOT-Cultural Resources Office (INDOT-CRO) staff will be responsible for completion of Part II.*

Original Submission Date: July 21, 2022 **Amended Submission Date*:**

**Consult with INDOT-CRO to determine whether an amendment is required. For revisions/updates to original form, please detail in applicable sections below. Please use red font to distinguish the revisions/updates.*

Submitted By (Provide Name and Firm/Organization): Jason A. Stone /DLZ Indiana, LLC

Project Designation Number: 2002234

Route Number: SR 8

Feature crossed (if applicable): Unnamed Tributary to Rimmell Branch

City/Township: Jefferson Township **County:** Noble

Project Description: Small Structure Replacement SR 8 over UNT Rimmell Branch, 4.22 Miles East of SR 9

**Provide a full project description—include the same level of specificity and detail as expected in the NEPA document—in order to ensure a timely review by INDOT-CRO staff. For bridge and culvert projects, include specific details on the rehab or replacement including potential changes to width, height and materials. Be sure to include the specific elements listed below as applicable.*

This INDOT project is located along SR 8, approximately 4.22 miles east of SR 9. Within the project area, SR 8 is a two-lane Major Collector roadway with an existing roadway typical section consisting of two 12-foot lanes with 2-foot shoulders. Roadway drainage is via sheet flow. The apparent existing right-of-way is 100 feet wide, centered on the roadway, throughout the project area. No driveways are located within the project limits.

The existing small structure (Str. No. CV 008-057-47.08) is a 5-foot diameter corrugated metal pipe (CMP) that has been lined with a 3.6-foot high density polyethylene (HDPE) liner. The structure has a length of approximately 56 feet and is under approximately 8 feet of cover. There is no guardrail at the structure.

The condition of the structure warrants improvements. The HDPE liner was installed in 2019 to avoid a collapse of the structure; however, the liner created an increase in backwater at the structure. The existing structure does not meet the roadway serviceability criteria for a 100-year flood event.

The preferred alternative will replace the existing small structure with a 10-foot span, 8-foot rise, four sided reinforced concrete box. The structure will be extended to eliminate the need for guardrail on both sides of SR 8. The existing horizontal and vertical alignments of SR 8 at this location will be maintained.

SR 8 will be designed based on the posted speed limit of 55 mph. Roadway approach work may extend along SR 8 up to 220 feet east and west of the structure. The proposed roadway typical section consists of two 12-foot lanes with 2-foot minimum shoulders. Existing drainage patterns will be perpetuated.

The project will require acquisition of approximately 0.42 acre of new permanent right of way. It is anticipated that SR 8 will be closed during construction. The detour route would likely use SR 3, US 6 and SR 9. Access to properties within the project limits will be maintained during construction.

If the project includes any curb, curb ramp, or sidewalk work, please specify the location(s) of such work: N/A

For bridge or small structure projects, please list feature crossed, structure number, NBI number, and structure type: Unnamed Tributary to Rimmell Branch, Structure Number CV 008-057-47.08, NBI Number 93001905, corrugated metal pipe.

B-9: Installation, replacement, repair, lining, or extension of culverts and other drainage structures under the conditions listed below ***[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)

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

i. Work does not involve installation of a new culvert and other drainage structure, and there are no impacts to unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under one of the following conditions *(Condition a, Condition b, or Condition c must be satisfied)*:

a. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*

b. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*

c. The structure exhibits non-modern wood, stone, or brick structures or parts therein and the following conditions are met *(BOTH Condition 1 AND Condition 2 must be met):*

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

2. The structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.

ii. Work involves the installation of a new culvert and other drainage structures AND/OR there may be impacts to unusual features, including historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under the following conditions *(BOTH Condition a and Condition b must be satisfied)*:

a. Work does not occur adjacent to or within a National Register-listed or National Register-eligible

district or individual above-ground resource; *AND*

b. The subject structure exhibits one of the characteristics described below *(Condition 1, Condition 2 or Condition 3 must be satisfied)*.

1. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*

2. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*

3. The structure exhibits non-modern wood, stone, or brick structures or parts therein but lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.

For bridge projects, is the bridge included in INDOT's Historic Bridge Inventory (https://www.in.gov/indot/2531.htm)?

☐ **Yes** ☐ **No**

If yes, did the inventory determine the bridge eligible for or listed in the National Register of Historic Places? Please provide page # of entry in Historic Bridge Inventory.

☐ **Yes** ☐ **No**

Inventory Page #_____

Will there be right-of-way acquisition as part of this project?

☒ **Yes** ☐ **No**

If yes was checked above, please check all that apply:

☒ **Permanent** ☐ **Temporary** ☒ **Reacquisition**

If applicable, identify right-of-way acquisition locations in text below and in attached mapping. Please specify how much (both temporary and permanent) and indicate what activities are included in the proposed right-of-way: New permanent right of way is proposed in the northeast, southeast and southwest project quadrants, and totals to approximately 0.42 acre. No temporary right of way is proposed. New permanent right of way is needed for regrading of the roadway slopes and ditch banks.

Is there *any* potential for additional temporary right-of-way to be needed later for purposes such as access, staging, etc.?

☐ **Yes** ☒ **No**

Archaeology (check one):

☒ **All proposed activities are presumed to occur in previously disturbed soils***

**INDOT-CRO will notify you if project area incudes undisturbed soils and requires an archaeological reconnaissance.*

☐ **Project takes place in undisturbed soils and the archaeology report is included in submission or will be forthcoming***

** If an archaeology report is required, the Minor Projects PA Form will not be finalized until the report is reviewed and approved by INDOT-CRO. For INDOT-sponsored projects, INDOT-CRO may be able to complete the archaeological investigation. If you would like to request that INDOT-CRO complete an archaeological investigation, please contact the INDOT-CRO archaeology team lead. See CRM Pt. 1 Ch. 3 for current contact information.*

Please specify all applicable categories and condition(s) (highlight applicable conditions in yellow)*:
**Include full category text, including any conditions. INDOT-CRO will finalize categories upon their review.*

Check ☐ if SECTION 2: Minor Projects PA Category B-1, Condition B-ii Submission is included

Check ☐ if SECTION 3: Minor Projects PA Category B-9, Condition B-i-c-2 or B-ii-b-3 Submission is included

Part II: Completed by INDOT-CRO

Amendments will be shown in red font.

Information reviewed (please check all that apply):

General project location map ☒ USGS map ☒ Aerial photograph ☒ Soil survey data ☒

General project area photos ☒ Archaeology Reports ☒ Historic Property Reports ☐

Indiana Historic Buildings, Bridges, and Cemeteries Map/Interim Report ☒

Bridge inspection information/BIAS ☒ Historic Bridge Inventory Database ☒

SHAARD ☒ SHAARD GIS ☒ Streetview Imagery ☒ County GIS Data/Property Cards ☐

Other (please specify):

Snell, Samuel P.
2022 Phase Ia Archaeological Reconnaissance for the SR 8 over the Unnamed Tributary to Rimmell Branch Small Structure Replacement Project (INDOT Des. No. 2002234), 4.22 miles east of SR 9, Jefferson Township, Noble County, Indiana. Report on file, Indiana Department of Transportation, Cultural Resources Office, Indianapolis, In.

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:

<u>Above-ground Resources</u>

An INDOT-CRO historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 performed a desktop review of the surrounding area. Based on a review of online street-view imagery and aerial photography, the area immediately adjacent to the subject structure consists of agricultural fields as well as wooded areas. No above-ground resources are present that are or that will be 50 years of age by the project's proposed 2024 letting. In addition, no unusual features are present that may be impacted by the project.

According to BIAS, the subject structure (CV 008-057-47.08) is a 5-foot diameter corrugated metal pipe (CMP) that has been lined with a 3.6-foot-high density polyethylene (HDPE) liner. It was constructed in 1989. Based on an examination of BIAS reports and photographs, the structure exhibits no wood, stone, or brick structures or parts therein. In addition, there is no evidence to suggest that it possesses historical or engineering significance.

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 Metric Environmental, LLC on behalf of DLZ Indiana July 13, 2022.

An archaeological records check and Phase Ia reconnaissance survey of the project area were conducted by Metric Environmental, LLC (Snell 2022). 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 2.2 acre survey area was examined through visual inspection of areas of disturbance, soil cores to confirm disturbance and pedestrian survey of agricultural fields. 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 Metric Environmental, LLC (Snell 2022). 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 INDOT-CRO and the Division of Natural Resources-Division of Historic Preservation and Archaeology (DNR-DHPA) will be notified immediately.

INDOT-CRO staff reviewer(s): Patricia Jo Korzeniewski & Susan Branigin

INDOT Approval Date: September 6, 2022

Amendment Approval Date (if applicable):

****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.*

Please attach the following to this form:

- **General Location Map.** This map should allow the INDOT-CRO reviewer to quickly locate the project.
- **Aerial photography map(s) of project area.** This map must include project limits. It may also include SHAARD data, but SHAARD data is not required.
- **If bridge or small structure project, please attach photographs of bridge or small structure.** Photographs can be found in inspection reports located in INDOT's Bridge Inspection Application System (BIAS), as well as other project documents, such as engineering assessments or mini-scopes.

Map depicting potential temporary and/or permanent right-of-way acquisitions. In the email submission to INDOT-CRO, please also include:

- **A GIS polygon shapefile or KMZ file of the project area** (shapefiles are preferred). Shapefiles should use "NAD_1983_UTM" projected coordinate system. In addition, these files should contain the following *text* attribute field: DES_NO. The project designation number should be entered in this field.
- **If the project takes place in undisturbed soils, attach the results of the archaeological investigation, if completed.** *Note: The MPPA Submission Form may be submitted before the archaeology report. INDOT-CRO staff will process the above-ground portion of the form in advance of the archaeological portion of the form. However, a completed determination form will not be returned to the applicant until after the archaeology report has been reviewed and approved by INDOT-CRO.*

Note: Graphics that accompanied this document have been removed to avoid duplication. Similar graphics are provided in Appendix B.

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
Joe McGuinness,
Commissioner

Date: March 23, 2022

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

From: DLZ Indiana, LLC
2211 East Jefferson Boulevard
South Bend, IN 46615

Re: RED FLAG INVESTIGATION
DES #2002234, State Project
Project Description: Small Structure Replacement/Improvement
State Road 8, 4.22 Miles East of State Road 9
Noble County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The project is for the replacement or improvement of the existing small structure, a 5-foot diameter corrugated metal pipe (CMP) with a 3.6-foot high density polyethylene (HDPE) liner. The structure has a length of approximately 56 feet and is under 8 feet of cover. The project alternatives being considered include replacement of the existing structure with a larger small structure and maintaining the existing pipe and HDPE liner and adding a bored pipe to reduce the backwater to its original level before the HDPE pipe was installed. The structure length will be confirmed based on survey data, clear zone requirements and the final profile grade of SR 8. The existing horizontal and vertical alignments of SR 8 will be maintained. If the replacement alternative is chosen, roadway approach work may extend along SR 8 up to 200 feet east and west of the structure. The proposed roadway typical section for this alternative will consist of two 12-foot lanes with 2-foot shoulders. Existing drainage patterns will be maintained.

Bridge and/or Culvert Project: Yes ☒ No ☐ Structure # CV 008-057-47.08

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 <0.5 Permanent ☒ # Acres <0.5, Not Applicable ☐

Type and proposed depth of excavation: Maximum depth of excavation will not exceed 14 feet.

Maintenance of traffic: Road closure with detour.

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	**N/A**
Cemeteries	**N/A**	Railroads	**N/A**
Hospitals	**N/A**	Trails	**N/A**
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:

No infrastructure resources were identified within the 0.5 mile search radius.

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	**25**
Canal Structures – Historic	**N/A**	Lakes	**3**
NPS NRI Listed	**N/A**	Floodplain - DFIRM	**6**
NWI-Lines	**1**	Cave Entrance Density	**N/A**
IDEM 303d Listed Streams and Lakes (Impaired)	**3**	Sinkhole Areas	**N/A**
Rivers and Streams	**3**	Sinking-Stream Basins	**N/A**

Explanation:

NWI-Lines

One (1) NWI line is located within the 0.5 mile search radius. The line is located approximately 0.23 mile west of the western terminus of the project area. No impact is expected.

IDEM 303d Listed Streams and Lakes (Impaired)

Three (3) 303d listed stream segments are located within the 0.5 mile search radius. One (1) segment, an unnamed tributary of the Rimmel Branch, is located within the project area. The segment is listed as impaired for E. coli and Impaired Biotic Communities (IBC). Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. Concerning IBC, Best Management Practices (BMPs) will be used to avoid further degradation to the stream.

Rivers and Streams

Three (3) stream segments are located within the 0.5 mile search radius. One segment, an unnamed tributary of the Rimmel Branch, is located within the project area. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

NWI - Wetlands

Twenty-five (25) wetlands are located within the 0.5 mile search radius. The nearest is located approximately 0.13 mile southwest of the western terminus of the project area. No impact is expected.

Lakes

Three (3) lakes are located within the 0.5 mile search radius. The nearest is located approximately 0.08 mile north of the project area. No impact is expected.

Floodplain - DFIRM

Six (6) floodplain polygons are located within the 0.5 mile search radius. The project area is located within three (3) of the polygons. Coordination with INDOT ES Ecology and Waterway Permitting will occur.

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 or 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 concerns were located within the 0.5 mile search radius.

ECOLOGICAL INFORMATION SUMMARY

The Noble County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities are provided at https://www.in.gov/dnr/naturepreserve/files/np_noble.pdf. A preliminary review of the Indiana Natural Heritage Database by INDOT ESD did 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 November 27, 2019 inspection report for Culvert #008-057-47.08 states that no evidence of bats was seen or heard in the culvert. However, because the most recent inspection report is more than two (2) years old, additional investigation to confirm the presence or absence of bats in the culvert will be necessary. The range-wide programmatic consultation for the Indiana Bat and the Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects."

RECOMMENDATIONS SECTION

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

INFRASTRUCTURE: N/A

WATER RESOURCES:

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

- One (1) stream segment, an unnamed tributary of the Rimmel Branch, flows through the project area.
- The project is located within three (3) floodplain polygons (coordination only).

One (1) 303d listed stream segment, an unnamed tributary of the Rimmel Branch, is located within the project area. The segment is listed as impaired for E. coli and Impaired Biotic Communities (IBC). Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. Concerning IBC, Best Management Practices (BMPs) will be used to avoid further degradation to the stream.

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 the 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: Chad Pitcher, CHMM Digitally signed by Chad Pitcher, CHMM Date: 2022.03.29 13:10:22 -04'00' (Signature)

Prepared by:
Bradley W. Smith
Survey Mapping Assistant
DLZ Indiana, LLC

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. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES

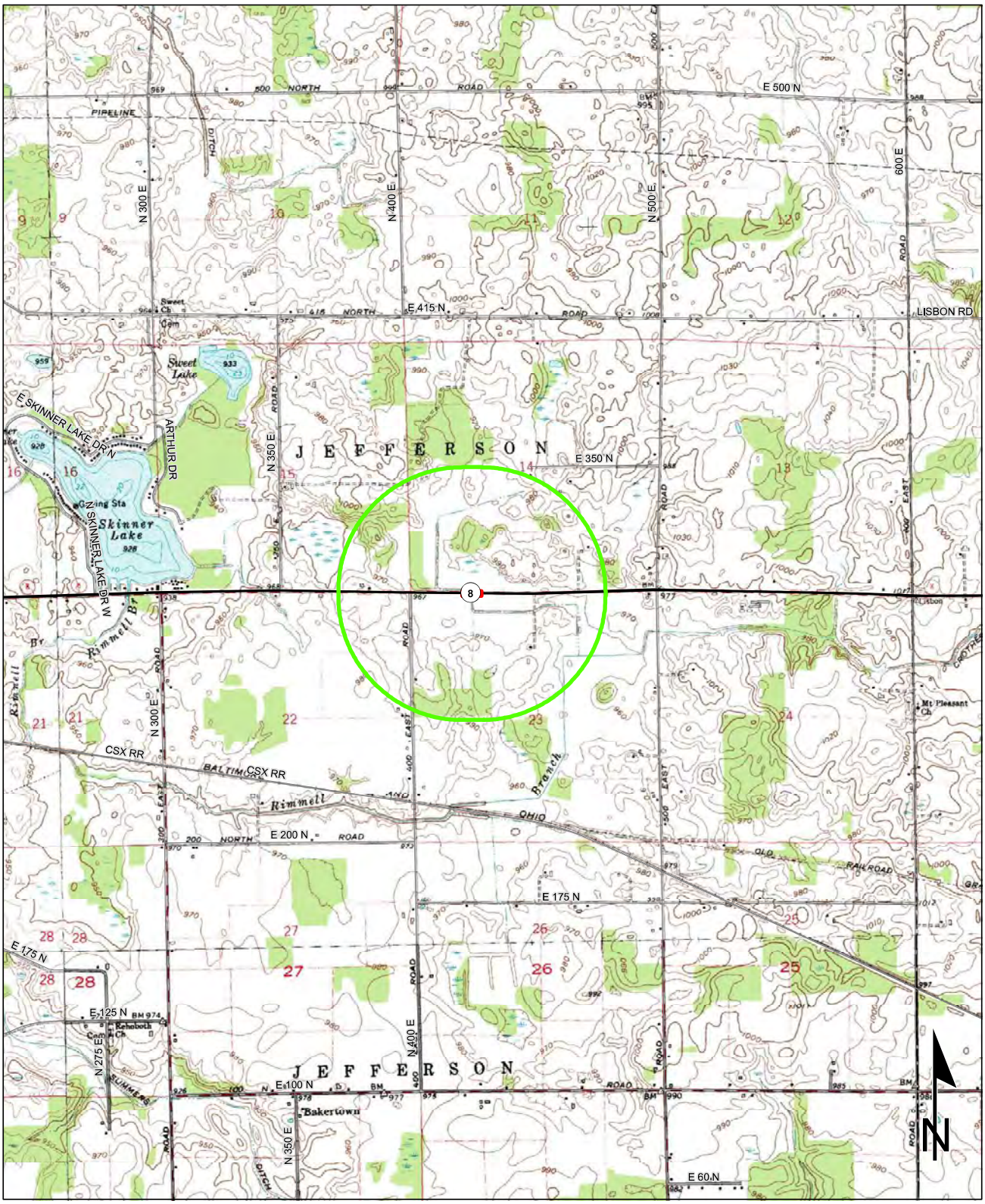
INFRASTRUCTURE: N/A

WATER RESOURCES: YES

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: N/A

Red Flag Investigation - Site Location
SR 8, 4.22 Miles East of SR 9
Des. No.2002234, Small Structure Replacement
Noble County, Indiana



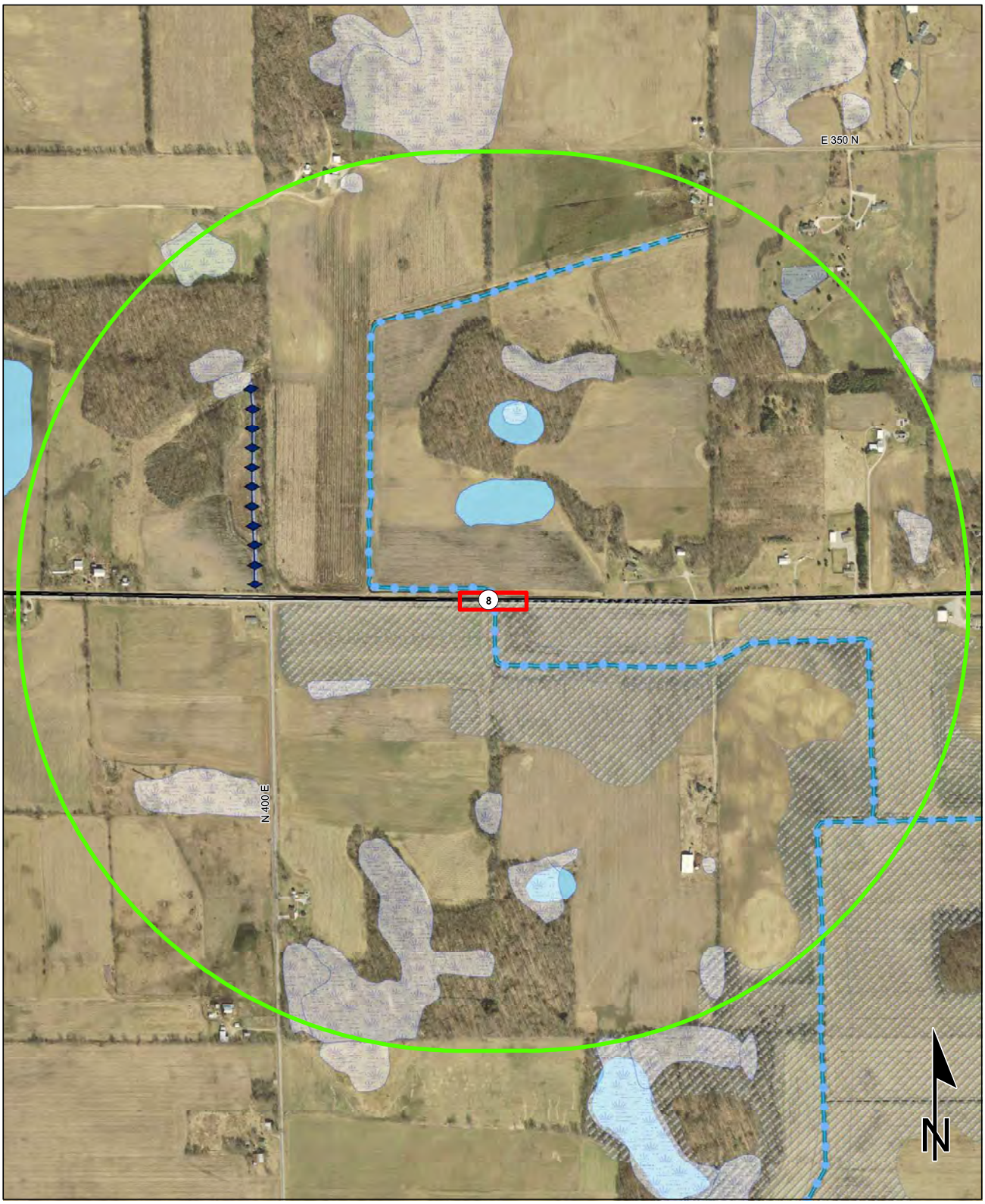
0.5 0.25 0 0.5 Miles

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.

KENDALLVILLE QUADRANGLE
INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)

Red Flag Investigation - Water Resources
SR 8, 4.22 Miles East of SR 9
Des. No.2002234, Small Structure Replacement
Noble County, Indiana



0.1 0.05 0 0.1 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

APPENDIX F

Water Resources

Approved 8.12.22

WATERS REPORT

SR 8 in Noble County, Indiana
Small Structure Replacement over UNT to Rimmel Branch
4.22 Miles East of SR 9
Des. No.: 2002234
Asset ID No.: 93001905
Structure No.: CV 008-057-47.08

Prepared By:

DLZ Indiana, LLC
2211 E. Jefferson Blvd.
South Bend, IN 46615

August 2, 2022

Waters Report
SR 8 in Noble County, Indiana
Small Structure Replacement over UNT to Rimmel Branch
4.22 Miles East of SR 9
INDOT Des. No.: 2002234
Asset ID No.: 93001905
Structure No.: CV 008-057-47.08

Prepared by: Dan Stevens, Environmental Scientist
Contact Information: dstevens@dlz.com, 574-236-4400
DLZ Indiana, LLC
Completed Date: August 2, 2022

Date of Field Reconnaissance: September 15, 2021

Location:
Sections 14 and 23, Township 34N, Range 10E
Kendallville, Indiana, Quadrangle
Noble County, Indiana
Latitude: 41.395462°, Longitude: -85.342841°

Project Description:
This SR 8 small structure replacement project (Des. No.: 2002234) is located along SR 8, approximately 4.22 miles east of SR 9 (Figure 1). The project is also located 1,320 feet east of CR 400E. Within the project area, SR 8 is a two-lane Major Collector roadway with an existing roadway typical section consisting of two 12-foot lanes with 2-foot shoulders. Roadway drainage is via sheet flow. The existing small structure (Str. No. CV 008-057-47.08) conveys UNT to Rimmel Branch which flows north to south under the SR 8 roadway. The apparent existing right-of-way is 100 feet wide, centered on the roadway, throughout the project area. No driveways are located within the project limits. The existing small structure (Str. No. CV 008-057-47.08) is a 5-foot diameter corrugated metal pipe (CMP) that has been lined with a 3.6-foot high density polyethylene (HDPE) liner. The structure has a length of approximately 56 feet and is under approximately 8 feet of cover. There is no guardrail at the structure.

The hydraulic condition of the structure warrants improvements. The HDPE liner was installed in 2019 to avoid a collapse of the structure; however, the liner created an increase in backwater at the structure. The existing structure does not meet the roadway serviceability criteria for a 100-year flood event. The preferred alternative is the replacement of the existing small structure with larger small structure. It is anticipated that the structure will be extended to eliminate the need for guardrail on both sides of SR 8. The structure length will be confirmed based on survey data, clear zone requirements and the final profile grade of SR 8. The existing horizontal and vertical alignments of SR 8 at this location will be maintained. SR 8 will be designed based on the posted speed limit of 55 mph. Roadway approach work may extend along SR 8 up to 200 feet

east and west of the structure. The proposed roadway typical section consists of two 12-foot lanes with 2-foot minimum shoulders. Existing drainage patterns will be perpetuated.

The Kendallville, IN USGS Quadrangle Map shows Unnamed Tributary (UNT) to Rimmel Branch as an intermittent blue-line drainage feature in the study limits (Figure 2-1 and Figure 2-2).

The project is located within the limits of the Federal Emergency Management Agency (FEMA) mapped floodway (Figure 3).

The National Hydrography Dataset (NHD) was examined (Figure 3). The Streams (NHD) layer and the Streams (Local Resolution NHD) layer both show UNT to Rimmel Branch as a canal/ditch feature. The ditch in the northeast quadrant of SR 8 and Rimmel Branch (Wetland C, described below) is also shown on the Streams (Local Resolution NHD) layer as a canal/ditch feature. In addition, the Streams (Unclassified Local Resolution NHD) layer shows unclassified drainage flowlines that appear to be subsurface field drain tiles.

Soils:
According to the Soil Survey Geographic (SSURGO) Database for Noble County, Indiana, the project area does contain soil areas with nationally listed hydric soils (Figure 4). The hydric soils in the project area are indicated in the table below.

Table 1: Soil Summary

Soil Name	Map Abbreviation	Hydric Range
Houghton muck, drained	Ho	Hydric (100%)

National Wetland Inventory (NWI) Information:
NWI features are located in proximity to the study limits as described in the following table and are shown on Figure 5. UNT to Rimmel Branch is shown as a R5UBF feature in the project limits.

Table 2: NWI Summary

Wetland/Water Feature Type		Location
PEM1C	Palustrine, Emergent, Persistent, Seasonally Flooded	780 feet southwest
R5UBF	Riverine, Unknown Perennial, Unconsolidated Bottom, Permanently Flooded, Excavated	Project crossing

HUC-12:
040500011603 (Skinner Lake-Croft Ditch)

Attached documents:

- Maps (Project Location, Topographic, Floodplain/NHD, Soils, NWI, Drainage Area Map, Aerial Photograph)
- Photographs with location/orientation map
- Wetland Data Sheets
- Preliminary Jurisdictional Determination

Field Reconnaissance:

The project study limits contain the existing roadway and small structure and agricultural land. One stream (UNT to Rimmel Branch) and three jurisdictional wetland features (Wetland A, Wetland B and Wetland C) were identified in the study limits and are described below. The small structure was evaluated and no evidence of bird or bat use was observed.

The delineation procedures and wetland criteria outlined in the 1987 Corps of Engineers Wetland Delineation Manual were used for this study. In addition, the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0) was applied to the project location. The findings of the wetland sample points are described under the wetlands section below and summarized in Table 4 and Table 5.

Stream Feature(s):

<u>UNT to Rimmel Branch</u>

Field reconnaissance identified UNT to Rimmel Branch in the study limits. This is considered an intermittent drainage feature since the water source appears to be in part from groundwater in addition to surface drainage. The estimated drainage area of UNT to Rimmel Branch at the project site is approximately 1.351 square miles. UNT to Rimmel Branch displays an ordinary high water mark (OHWM). Approximately 3,800 feet miles downstream from the project site, UNT to Rimmel Branch joins Rimmel Branch, which joins Skinner Lake, which joins Croft Ditch, which joins South Branch Elkhart River, which joins Elkhart River, which joins St. Joseph River, a traditional navigable water. UNT to Rimmel Branch is considered a Water of the US because it conveys intermittent flow to a traditionally navigable waterway. There is approximately 375 linear feet or 0.096 acre of UNT to Rimmel Branch in the study limits. The maximum width at the OHWM is approximately 15 feet near the west study limit (upstream of SR 8) that appears to be the result of slightly wider ditch excavation in this area. Downstream (south) and outside the influence of the existing culvert, the typical width at the OHWM is approximately 10 feet (measured at Latitude 41.395324° and Longitude -85.342830°). The depth at the OHWM is approximately 2.0 feet. The substrate consists of silt. The stream quality of UNT to Rimmel Branch is considered poor because it is channelized and does not provide in-stream habitat (riffles or pools) or overhead cover/shade. The OHWM of UNT to Rimmel Branch was field flagged and is shown on **Figure 7**.

Table 3: Stream Summary

Stream Name	Photos	Lat (N)	Lon (W)	OHWM		USGS Blue line?	Stream type (Perennial, Intermittent, Ephemeral)	Substrate	Riffles Pools?	Quality	Likely Water of U.S.?
				Width (feet)	Depth (feet)						
UNT to Rimmel Branch	1, 2, 3, 4, 5, 6, 7, 8, 11, 15, 16	41.395462°	-85.342841°	10	2.0	Yes	Intermittent	Silt	No	Poor	**Yes**

Wetlands:

Three wetland features (Wetlands A, B and C) were identified in the study limits (Figure 7). Six representative sample points were studied for the presence of wetlands. Wetland Data Sheets are attached (Appendix B). Summaries of each sample point are provided below.

Wetland A (Sample Point A1)

Wetland A is located in a ditch along the south side of SR 8 and to the west of UNT to Rimmel Branch. Wetland A is dominated by wetland plants consisting of elderberry (*Sambucus nigra*, FAC), reed canarygrass (*Phalaris arundinacea*, FACW) and stinging nettle (*Urtica dioica*, FACW). The plant community type is emergent wetland; however, it does include scattered elderberry shrubs. The quality of Wetland A is considered poor since it is dominated by reed canarygrass, an invasive species. Wetland hydrology was evidenced by the presence of the primary indicator of Saturation (A3). In addition, the secondary indicator of the FAC-Neutral Test (D5) was observed. The soil showed Munsell Soil Colors of 10YR 2/1 muck from 0 to 20 inches. The presence of the hydric soil indicator of 2cm Muck (A10) demonstrates that the site contains hydric soils. This area therefore meets the three jurisdictional wetland criteria. The size of Wetland A within the study limits is approximately 0.075 acre. Wetland A extends beyond both the west and south study limits. The boundary of Wetland A was determined by observing the change in plant community and corresponding change in topography. Wetland A is considered a jurisdictional Water of the U.S. because it abuts UNT to Rimmel Branch. However, the U.S. Army Corps of Engineers will make the determination of this feature's regulatory status.

The contrasting upland sample point (Sample Point A2) did not meet all three wetland criteria. The dominant plant was corn (*Zea mays*, UPL). This plant community does not meet the hydrophytic plant criteria. No hydrology indicators were observed. The soil showed Munsell Soil Colors of 10YR 2/1 muck from 0 to 20 inches. The presence of the hydric soil indicator of 2cm Muck (A10) demonstrates that the site contains hydric soils. However, this area is in agricultural use and appears to have good soil drainage. This plot does not meet the three wetland criteria and is not a wetland.

Wetland B (Sample Point B1)

Wetland B is located in a ditch along the south side of SR 8 and to the east of UNT to Rimmel Branch. Wetland B is dominated by reed canarygrass (*Phalaris arundinacea,* FACW), a wetland

plant. This plant community meets the hydrophytic plant criteria. The plant community type is emergent wetland. The quality of Wetland B is considered poor since it is dominated by reed canarygrass, an invasive species. Wetland hydrology was evidenced by the presence of the secondary indicators of Drainage Patterns (B10), Geomorphic Position (D2) and the FAC-Neutral Test (D5). The soil showed Munsell Soil Colors of 10YR 3/1 muck from 0 to 9 inches and 10YR 6/1 clay loam with 10YR 5/6 mottles from 9 to 20 inches. The presence of the hydric soil indicators of Histic Epipedon (A2), Black Histic (A3), 2cm Muck (A10), Depleted Below Dark Surface (A11) and Depleted Matrix (F3) demonstrate that the site contains hydric soils. This area therefore meets the three jurisdictional wetland criteria. The size of Wetland B within the study limits is approximately 0.044 acre. Wetland B extends beyond the east study limits. The boundary of Wetland B was determined by observing the change in plant community and corresponding change in topography. Wetland B is considered a jurisdictional Water of the U.S. because it abuts UNT to Rimmel Branch. However, the U.S. Army Corps of Engineers will make the determination of this feature's regulatory status.

The contrasting upland sample point (Sample Point B2) did not meet all three wetland criteria. The dominant plants were corn (*Zea mays*, UPL) and Canada thistle (*Cirsium arvense*, FACU). This plant community does not meet the hydrophytic plant criteria. No hydrology indicators were observed. The soil showed Munsell Soil Colors of 10YR 2/1 muck from 0 to 20 inches. The presence of the hydric soil indicator of 2cm Muck (A10) demonstrates that the site contains hydric soils. However, this area is in agricultural use and appears to have good soil drainage. This plot does not meet the three wetland criteria and is not a wetland.

<u>Wetland C (Sample Point C1)</u>

Wetland C is located in a ditch along the north side of SR 8 and to the east of UNT to Rimmel Branch. Wetland C dominated by reed canarygrass (*Phalaris arundinacea,* FACW), a wetland plant. This plant community meets the hydrophytic plant criteria. The plant community type is emergent wetland. The quality of Wetland C is considered poor since it is dominated by reed canarygrass, an invasive species. Wetland hydrology was evidenced by the presence of the primary indicators of High Water Table (A2) and Saturation (A3) and the secondary indicators of Geomorphic Position (D2) and the FAC-Neutral Test (D5). The soil showed Munsell Soil Colors of of 10YR 3/1 clay loam with 10YR 5/6 mottles from 0 to 10 inches and 10YR 5/1 clay loam with 10YR 5/6 mottles from 10 to 20 inches. The presence of the hydric soil indicators of Depleted Below Dark Surface (A11) and Depleted Matrix (F3) demonstrate that the site contains hydric soils. This area therefore meets the three jurisdictional wetland criteria. The size of Wetland C within the study limits is approximately 0.043 acre. Wetland C extends beyond the east study limits. The boundary of Wetland C was determined by observing the change in plant community and corresponding change in topography. Wetland C is considered a jurisdictional Water of the U.S. because it abuts UNT to Rimmel Branch. However, the U.S. Army Corps of Engineers will make the determination of this feature's regulatory status.

The contrasting upland sample point (Sample Point C2) did not meet all three wetland criteria. The dominant plants were corn (*Zea mays*, UPL), pigweed (*Amaranthus retroflexus*, FACU), velvetleaf (*Abutilon theophrasti*, FACU) and panic grass (*Panicum virgatum*, FAC). These plants

do not meet the hydrophytic plant criteria. No hydrology indicators were observed. The soil showed Munsell Soil Colors of 10YR 2/1 muck from 0 to 20 inches. The presence of the hydric soil indicator of 2cm Muck (A10) demonstrates that the site contains hydric soils. However, this area is in agricultural use and appears to have good soil drainage. This plot does not meet the three wetland criteria and is not a wetland.

Table 4: Wetland Summary Table

Wetland ID	Photos	Lat (N)	Lon (W)	Type	Total Area (acres)	Quality	Likely Water of U.S.?
Wetland A	12, 13, 21, 22, 23, 24, 35, 36, 37, 38, 39	41.395325°	-85.342875°	Emergent	0.075 acre	Poor	Yes
Wetland B	9, 10, 29, 30, 31, 32, 45, 46, 47, 48, 49	41.395368°	-85.342763°	Emergent	0.044 acre	Poor	Yes
Wetland C	17, 18, 27, 28, 33, 34, 55, 56, 57, 58, 59	41.395547°	-85.342463°	Emergent	0.043 acre	Poor	Yes

Table 5: Wetland Sample Point Summary Table

Plot				
	Hydrophytic Vegetation	Hydric Soils	Wetland Hydrology	Within a wetland
SP-A1	Yes	Yes	Yes	Yes
SP-A2	No	Yes	No	No
SP-B1	Yes	Yes	Yes	Yes
SP-B2	No	Yes	No	No
SP-C1	Yes	Yes	Yes	Yes
SP-C2	No	Yes	No	No

Other Features:

Roadside Ditches

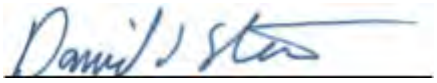
Wetland A, Wetland B and Wetland C are manmade roadside ditch features that meet the three wetland criteria. Therefore, these features were delineated as wetland features. No other roadside ditches were identified in the study limits.

Conclusions:
The Kendallville, IN USGS Quadrangle Map shows an UNT to Rimmel Branch as an intermittent blue-line drainage feature in the study limits. In addition, field reconnaissance identified three jurisdictional wetland features (Wetland A, Wetland B and Wetland C). These wetland features are manmade roadside ditches. Since these features meet the three wetland criteria they were delineated as wetland features. The small structure was evaluated and no evidence of bird or bat use was observed.

These waterways are likely Waters of the U.S. Every effort should be taken to avoid and minimize impacts to the waterway and wetlands. If impacts are necessary, then mitigation may be required. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by the U.S. Army Corps of Engineers. 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 U.S. Army Corps of Engineers* (USACE) *Wetland Delineation Manual (Technical Report Y-87-1)*, the *2010 U.S. Army Corps of Engineers Midwest Regional Supplement, the USACE Jurisdictional Determination Form Instructional Guidebook*, and other appropriate agency guidelines.

Daniel J. Stevens



Date: 8/2/2022

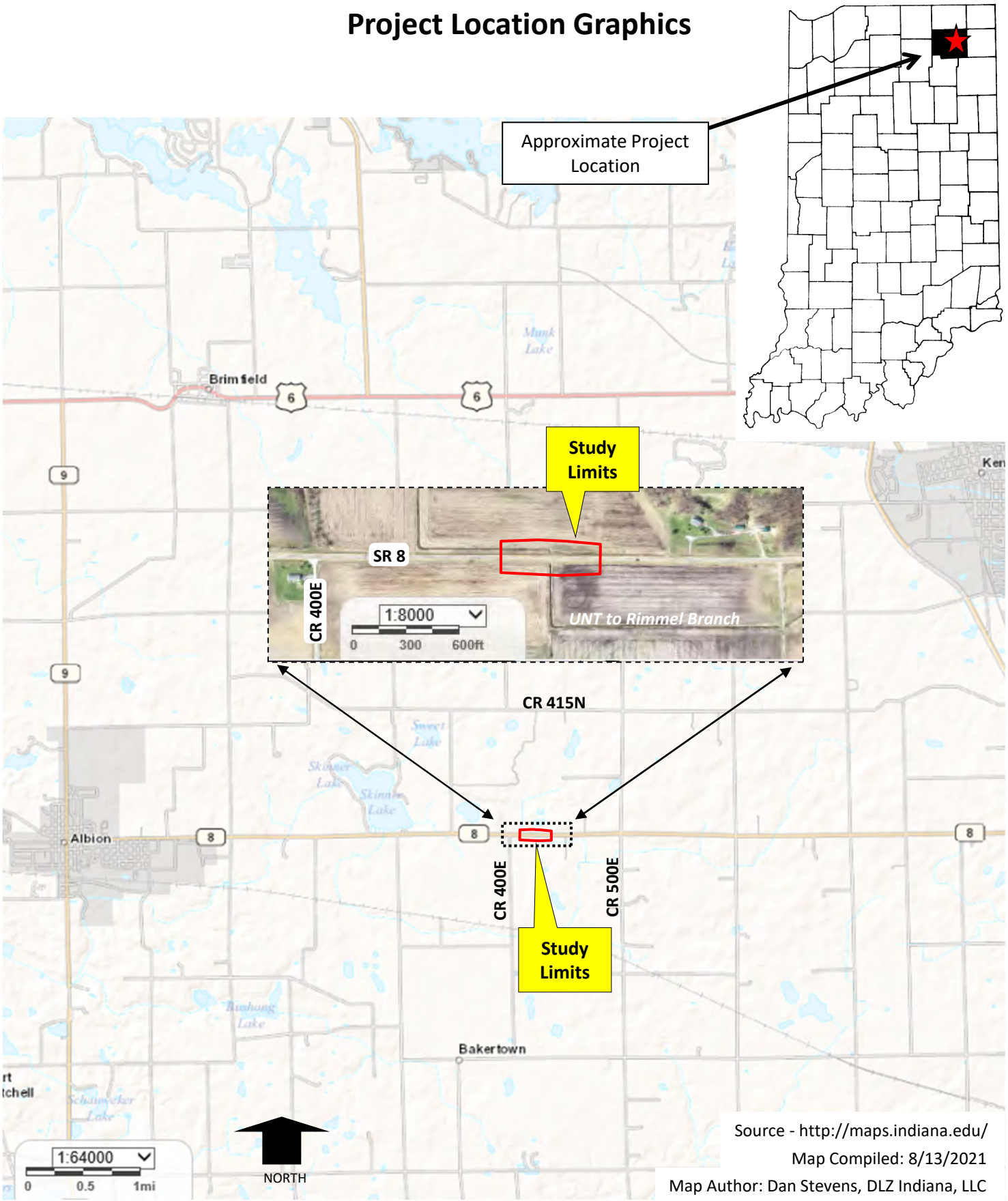
Environmental Scientist
DLZ Indiana, LLC

Supporting Documentation:

- Maps:
  - Figure 1 - Project Location Map
  - Figure 2-1 and 2-2 – Topographic Map
  - Figure 3 – Floodplain/NHD Map
  - Figure 4 – Soils Map
  - Figure 5 – NWI Map
  - Figure 6 – Drainage Area Map
  - Figure 7 – Site Map and Aerial Photograph

- Appendix A - Photographs with Location/Orientation Map
- Appendix B - Wetland Data Sheets
- Appendix C – Preliminary Jurisdictional Determination

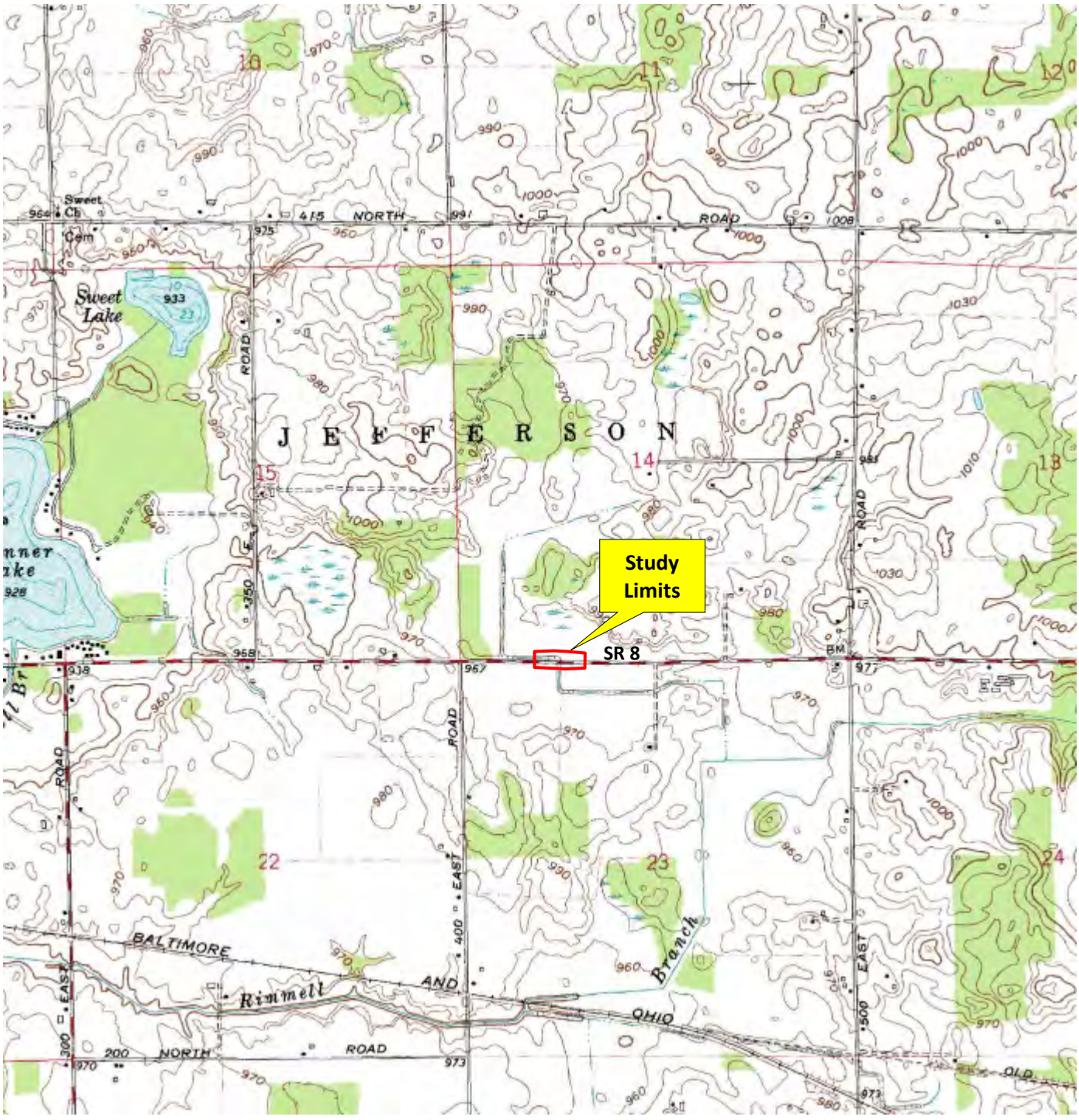
Project Location Graphics



Source - http://maps.indiana.edu/
Map Compiled: 8/13/2021
Map Author: Dan Stevens, DLZ Indiana, LLC

DLZ	**WATERS REPORT** SR 8 in Noble County, Indiana Small Structure Replacement over UNT to Rimmel Branch 4.22 Miles East of SR 9 Des: 2002234, Asset ID: 93001905, Structure: CV 008-057-47.08	Scale: See Map Figure: 1

USGS Quadrangle Map



Kendallville, Indiana 7.5 Minute Quadrangle

Source - http://gisdb.uits.indiana.edu/singlefile/map/IN24k_quad_index_1139_m10000.html

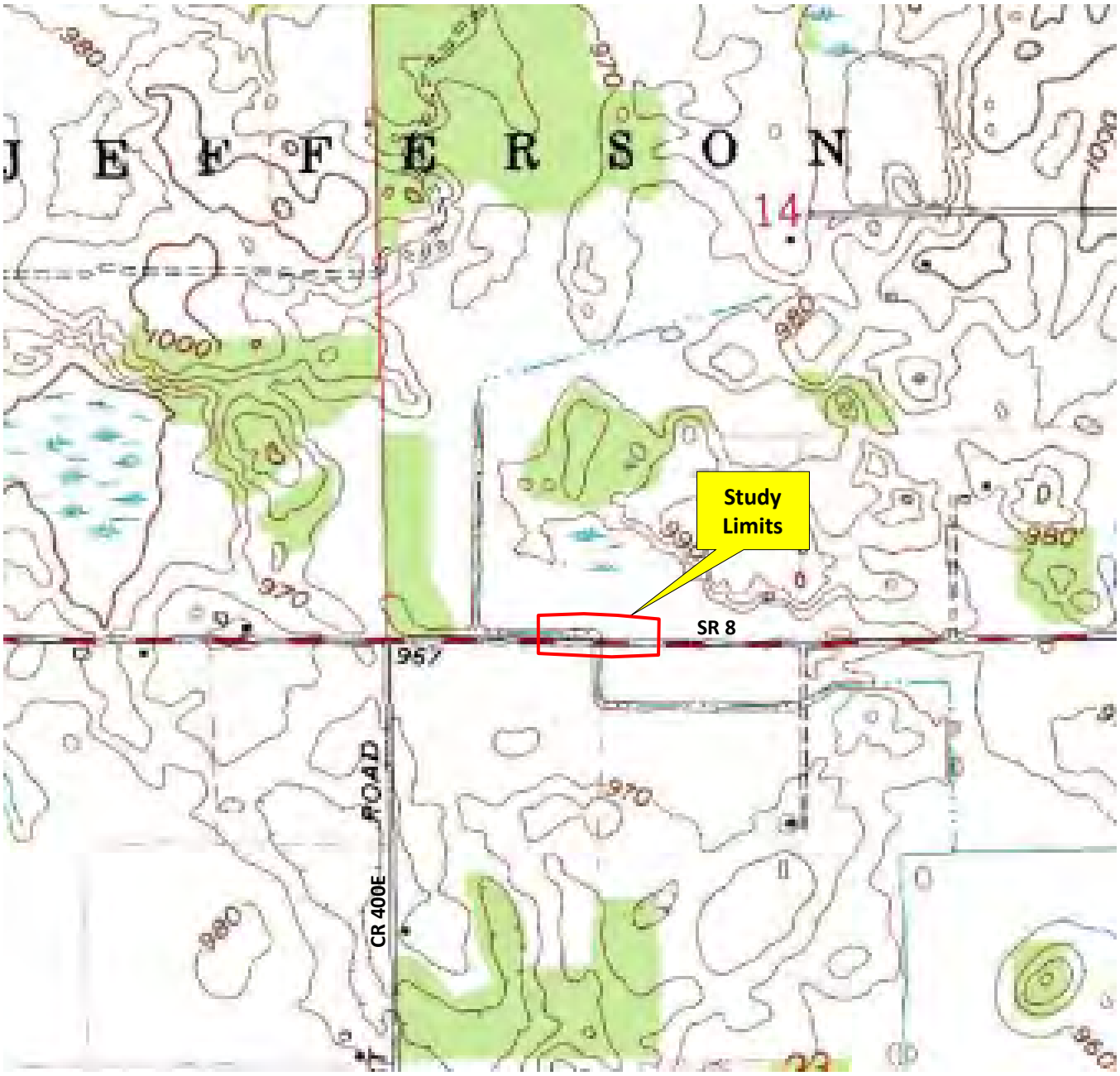
Map Compiled: 8/13/2021

Map Author: Dan Stevens, DLZ Indiana, LLC

NORTH

DLZ	**WATERS REPORT** SR 8 in Noble County, Indiana Small Structure Replacement over UNT to Rimmel Branch 4.22 Miles East of SR 9 Des: 2002234, Asset ID: 93001905, Structure: CV 008-057-47.08	Scale: 1”=2000’ Figure: 2-1

USGS Quadrangle Map



Kendallville, Indiana 7.5 Minute Quadrangle

Source - http://gisdb.uits.indiana.edu/singlefile/map/IN24k_quad_index_1139_m10000.html

Map Compiled: 8/13/2021

Map Author: Dan Stevens, DLZ Indiana, LLC

NORTH

DLZ	**WATERS REPORT** SR 8 in Noble County, Indiana Small Structure Replacement over UNT to Rimmel Branch 4.22 Miles East of SR 9 Des: 2002234, Asset ID: 93001905, Structure: CV 008-057-47.08	Scale: 1”=1000’ Figure: 2-2

Floodplain/NHD Map

DES. NUMBER: 2002234

Date: 2/1/2022

Legend

- Unclassified Drainage Flowlines

Streams (Local-Resolution NHD)

- ArtificialPath
- CanalDitch
- Coastline
- Connector
- Pipeline
- StreamRiver
- Underground Conduit
- Lakes (NHD)
- Rivers (NHD)
- Streams (NHD)

Floodplains - FIRM (Mar 2020)

- Floodway
- 1% Annual Chance Flood Hazar
- 0.2% Annual Chance, Protected
- 0.2% Annual Chance Flood Haz
- 2017 Orthophotography - Placeh

Author: Dan Stevens, DLZ

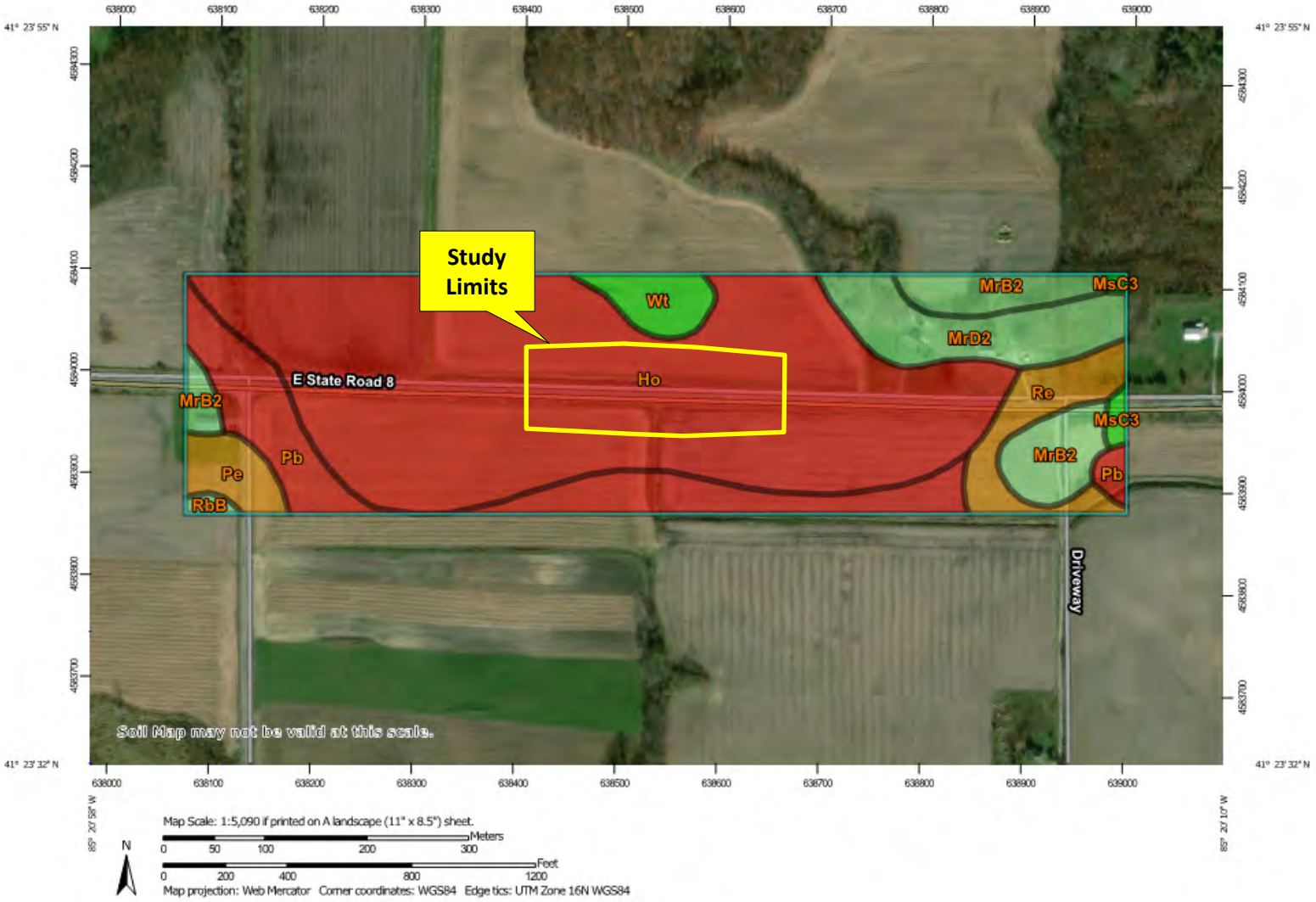
0 0.02 mi

IndianaMAP

Figure: 3

Soil Survey

DES. NUMBER: 2002234



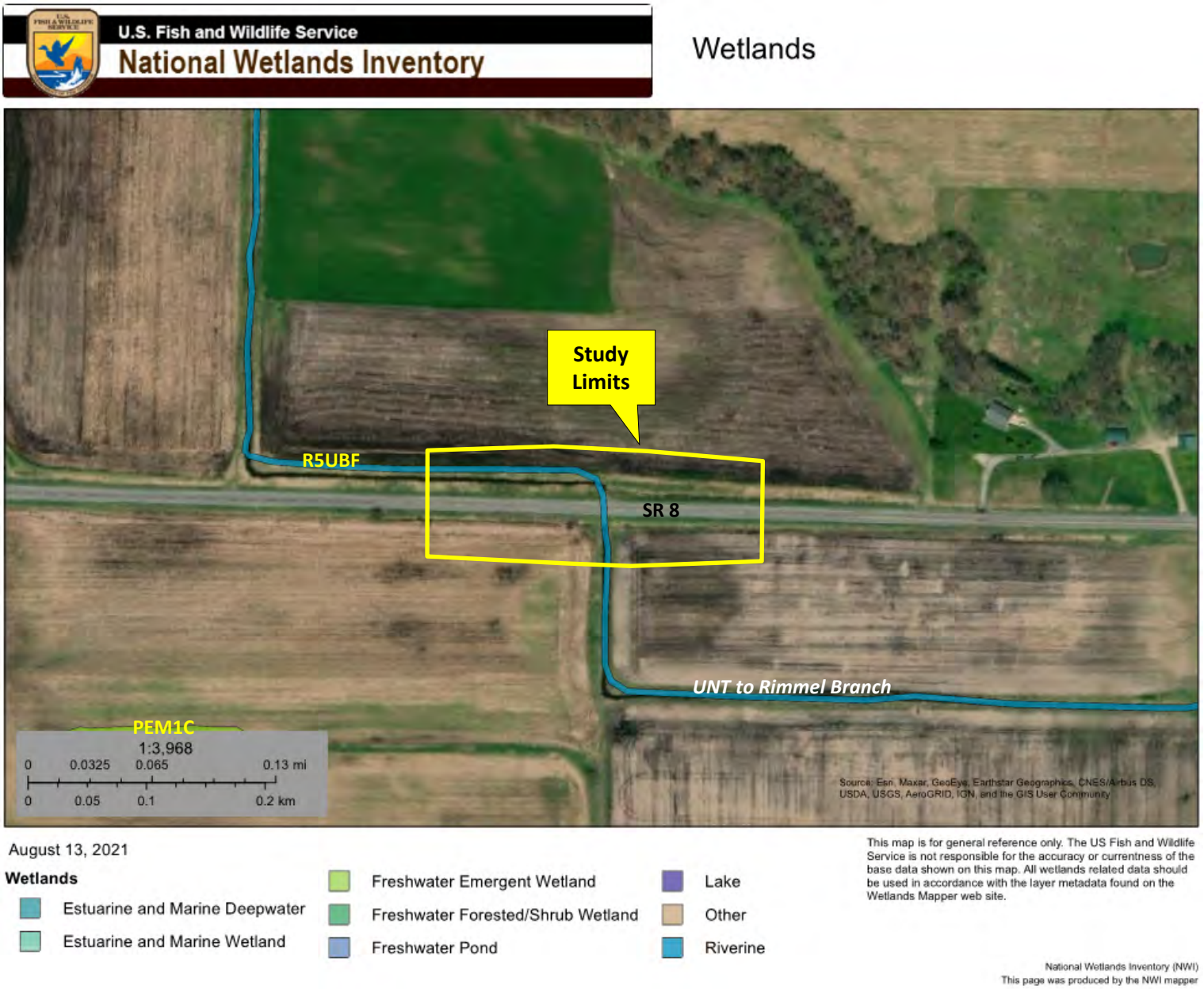
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ho	Houghton muck, drained	100	32.5	60.1%
MrB2	Glynwood silt loam, 2 to 6 percent slopes, eroded	4	4.1	7.6%
MrD2	Morley silt loam, 12 to 18 percent slopes, eroded	2	4.1	7.5%
MsC3	Morley silty clay loam, 6 to 12 percent slopes, severely eroded	0	0.4	0.7%
Pb	Palms muck, drained	100	7.2	13.4%
Pe	Pewamo silty clay loam, 0 to 1 percent slopes	91	1.4	2.6%
RbB	Rawson loam, 2 to 6 percent slopes	5	0.2	0.4%
Re	Rensselaer loam, 0 to 1 percent slopes	88	2.7	5.0%
Wt	Whitaker loam	0	1.4	2.6%

Figure: 4

Map Author: Dan Stevens, DLZ Indiana, LLC

NWI Map

DES. NUMBER: 2002234



NORTH

R5UBF

Riverine, Unknown Perennial, Unconsolidated Bottom, Permanently Flooded, Excavated

PEM1C

Palustrine, Emergent, Persistent, Seasonally Flooded

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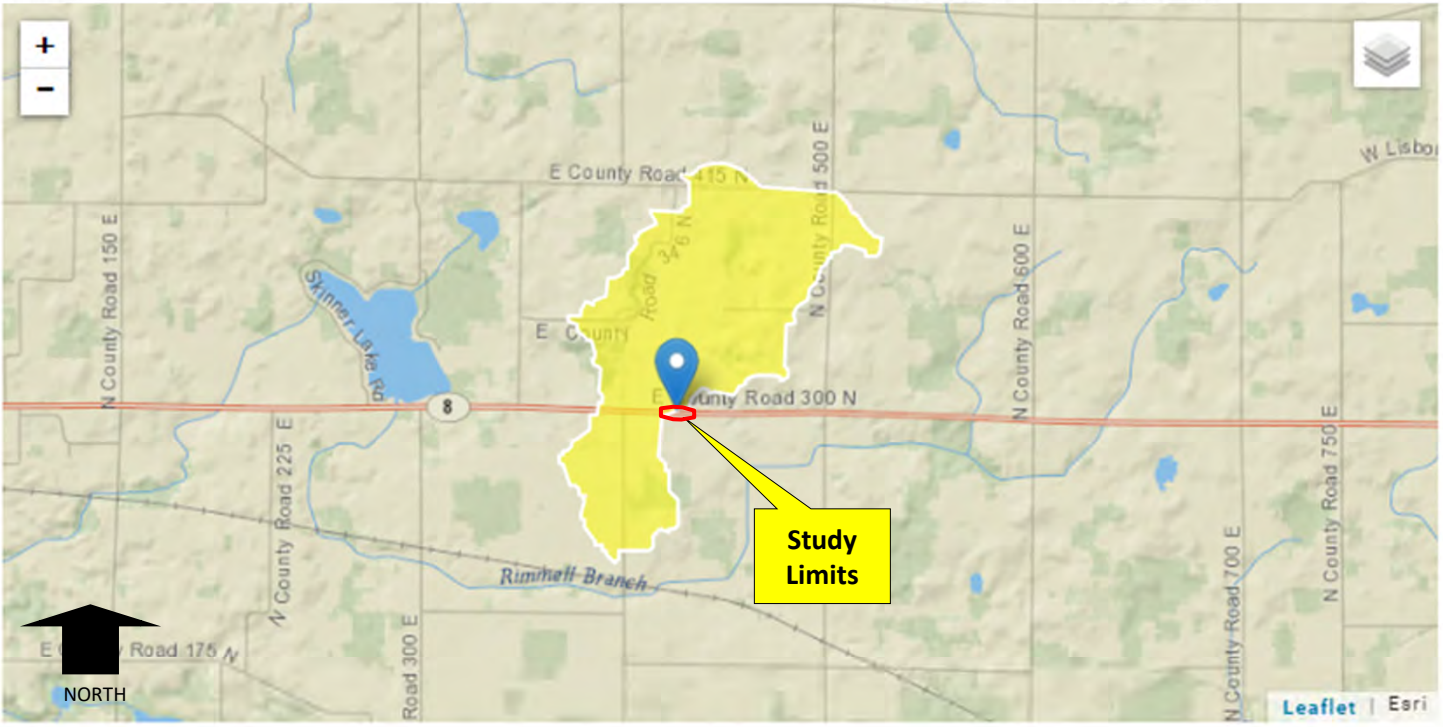
Figure: 5

Drainage Area Map

DES. NUMBER: 2002234

StreamStats Report

Region ID:	IN
Workspace ID:	IN20220425170358545000
Clicked Point (Latitude, Longitude):	41.39543, -85.34284
Time:	2022-04-25 13:04:25 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	1.351	square miles
K2INDNR	Average hydraulic conductivity (ft/d) for the full depth of unconsolidated deposits from InDNR well database.	11	ft per day
LC01FOREST	Percentage of forest from NLCD 2001 classes 41-43	8.5	percent
LOWREG	Low Flow Region Number	1728	dimensionless
QSSPERMTHK	Index of the permeability of surficial Quaternary sediments computed as in SIR 2014-5177	5834.21	dimensionless
T2INDNR	Average transmissivity (ft2/d) for the full depth of unconsolidated deposits from InDNR well database.	1470	square feet per day

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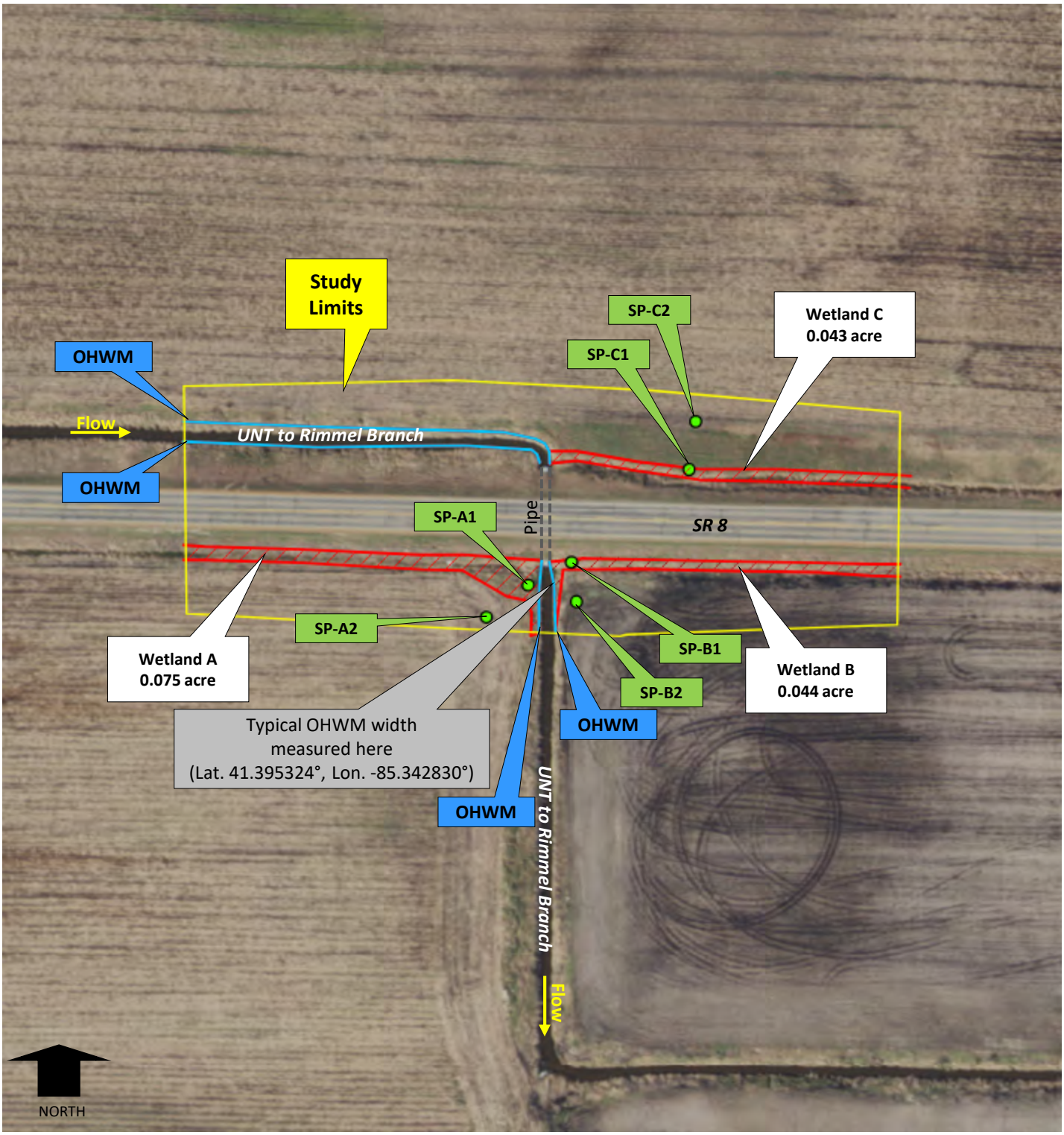
Figure: 6

Site Map

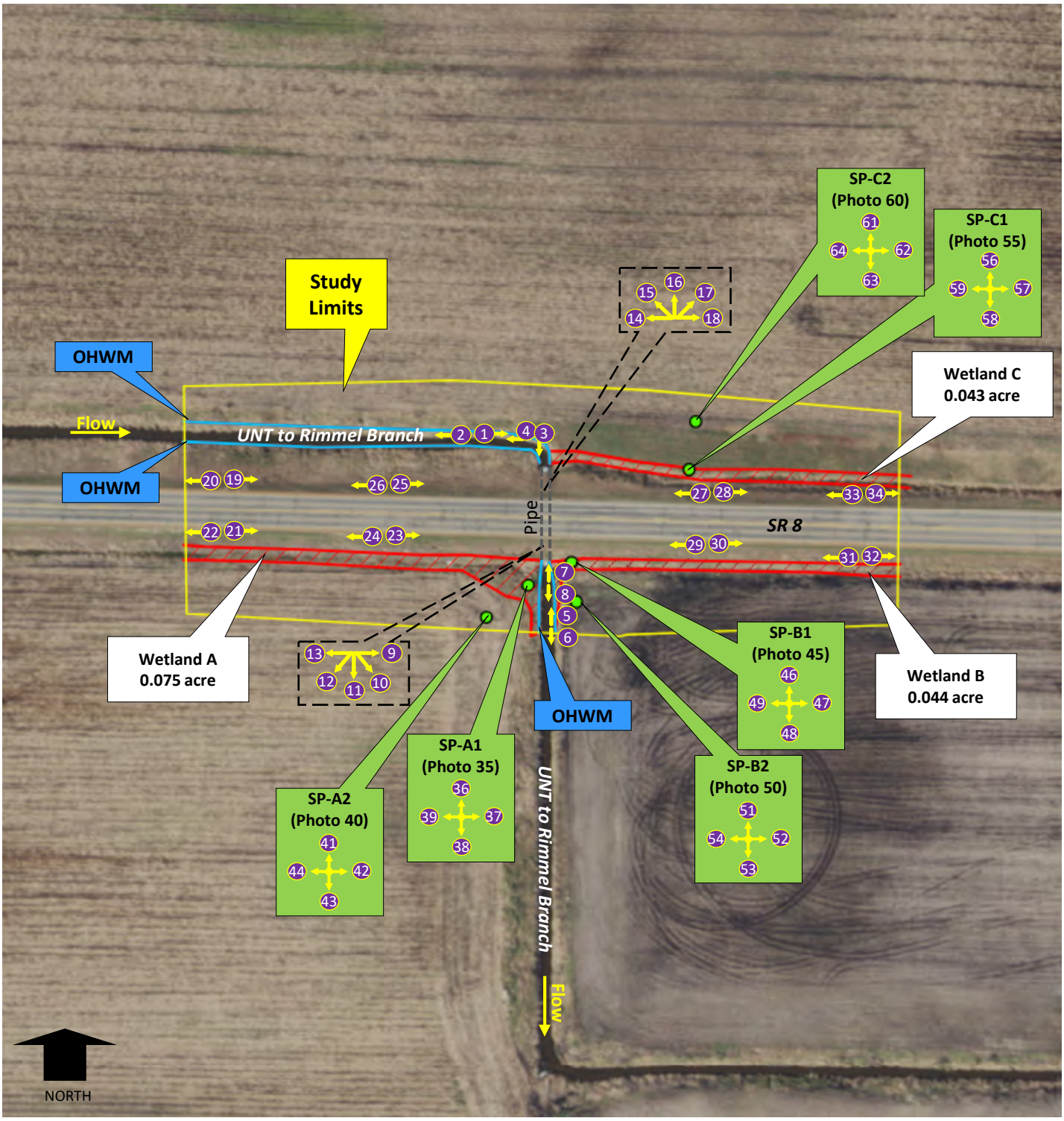


Aerial Source - http://maps.indiana.edu/
Map Compiled: 4/25/2022
Map Author: Dan Stevens, DLZ Indiana, LLC

SP-1 Sample Point
OHWM
Wetland

DLZ	**WATERS REPORT** SR 8 in Noble County, Indiana Small Structure Replacement over UNT to Rimmel Branch 4.22 Miles East of SR 9 Des: 2002234, Asset ID: 93001905, Structure: CV 008-057-47.08	Scale: 1”=100’ Figure: 7

Photolog



Aerial Source - http://maps.indiana.edu/
Map Compiled: 4/25/2022
Map Author: Dan Stevens, DLZ Indiana, LLC

11 Photo Location
SP-1 Sample Point
OHWM
Wetland

DLZ	**WATERS REPORT** SR 8 in Noble County, Indiana Small Structure Replacement over UNT to Rimmel Branch 4.22 Miles East of SR 9 Des: 2002234, Asset ID: 93001905, Structure: CV 008-057-47.08	Scale: 1”=100’ Appendix A-1

Photo 1: View east (downstream) along UNT to Rimmel Branch on the north side of SR 8.

Photo 2: View west (upstream) along UNT to Rimmel Branch on the north side of SR 8.

Photo 3: View south (downstream) along UNT to Rimmel Branch on the north side of SR 8. Structure CV 008-057-47.08 is also shown.

Photo 4: View west (upstream) along UNT to Rimmel Branch on the north side of SR 8.

DLZ	**WATERS REPORT** SR 8 in Noble County, Indiana Small Structure Replacement over UNT to Rimmel Branch 4.22 Miles East of SR 9 Des: 2002234, Asset ID: 93001905, Structure: CV 008-057-47.08	Scale: NTS Appendix A-2

Photo 5: View north (upstream) along UNT to Rimmel Branch on the south side of SR 8. Structure CV 008-057-47.08 is also shown.

Photo 6: View south (downstream) along UNT to Rimmel Branch on the south side of SR 8.

Photo 7: View north (upstream) along UNT to Rimmel Branch on the south side of SR 8. Structure CV 008-057-47.08 is also shown.

Photo 8: View south (downstream) along UNT to Rimmel Branch on the south side of SR 8. The typical OHWM width was measured here (Latitude 41.395324° and Longitude -85.342830°).

Photo 9: View east from the small structure along the south side of SR 8. Wetland B is also shown.

Photo 10: View southeast from the small structure. Wetland B is also shown

Photo 11: View south from the small structure along the south side of SR 8. UNT to Rimmel Branch is also shown.

Photo 12: View southwest from the small structure. Wetland A is also shown.

Photo 13: View west from the small structure along the south side of SR 8. Wetland A is also shown.

Photo 14: View west from the small structure along the north side of SR 8.

Photo 15: View northwest from the small structure. UNT to Rimmel Branch is also shown.

Photo 16: View north from the small structure. UNT to Rimmel Branch is also shown.

Photo 17: View northeast from the small structure. Wetland C is also shown.

Photo 18: View east from the small structure along the north side of SR 8. Wetland C is also shown.

Photo 19: View east along the north side of SR 8 from near the west study limit.

Photo 20: View west along the north side of SR 8 from near the west study limit.

Photo 21: View east along the south side of SR 8 from near the west study limit. Wetland A is also shown.

Photo 22: View west along the south side of SR 8 from near the west study limit. Wetland A is also shown.

Photo 23: View east along the south side of SR 8 from west of the small structure. Wetland A is also shown.

Photo 24: View west along the south side of SR 8 from west of the small structure. Wetland A is also shown.

Photo 25: View east along the north side of SR 8 from west of the small structure.

Photo 26: View west along the north side of SR 8 from west of the small structure.

Photo 27: View west along the north side of SR 8 from east of the small structure. Wetland C is also shown.

Photo 28: View east along the north side of SR 8 from east of the small structure. Wetland C is also shown.

Photo 29: View west along the south side of SR 8 from east of the small structure.
Wetland B is also shown.

Photo 30: View east along the south side of SR 8 from east of the small structure.
Wetland B is also shown.

Photo 31: View west along the south side of SR 8 from near the east study limit.
Wetland B is also shown.

Photo 32: View east along the south side of SR 8 from near the east study limit.
Wetland B is also shown.

Photo 33: View west along the north side of SR 8 from near the east study limit.
Wetland C is also shown.

Photo 34: View east along the north side of SR 8 from near the east study limit.
Wetland C is also shown.

Photo 35: View of SP-A1 soil profile, within Wetland A

Photo 36: View north from SP-A1, within Wetland A

Photo 37: View east from SP-A1, within Wetland A

Photo 38: View south from SP-A1, within Wetland A

Photo 39 View west from SP-A1, within Wetland A

Photo 40: View of SP-A2, upland data point

Photo 41: View north from SP-A2, upland data point

Photo 42: View east from SP-A2, upland data point

Photo 43: View south from SP-A2, upland data point

Photo 44: View west from SP-A2, upland data point

DLZ	**WATERS REPORT** SR 8 in Noble County, Indiana Small Structure Replacement over UNT to Rimmel Branch 4.22 Miles East of SR 9 Des: 2002234, Asset ID: 93001905, Structure: CV 008-057-47.08	Scale: NTS Appendix A-12

Photo 45: View of SP-B1 soil profile, within Wetland B

Photo 46: View north from SP-B1, within Wetland B

Photo 47: View east from SP-B1, within Wetland B

Photo 48: View south from SP-B1, within Wetland B

Photo 49: View west from SP-B1, within Wetland B

Photo 50: View of SP-B2, upland data point

Photo 51: View north from SP-B2, upland data point.

Photo 52: View east from SP-B2, upland data point

DLZ	**WATERS REPORT** SR 8 in Noble County, Indiana Small Structure Replacement over UNT to Rimmel Branch 4.22 Miles East of SR 9 Des: 2002234, Asset ID: 93001905, Structure: CV 008-057-47.08	Scale: NTS Appendix A-14

Photo 53: View south from SP-B2, upland data point

Photo 54: View west from SP-B2, upland data point

Photo 55: View of SP-C1 soil profile, within Wetland C

Photo 56: View north from SP-C1, within Wetland C

DLZ	**WATERS REPORT** SR 8 in Noble County, Indiana Small Structure Replacement over UNT to Rimmel Branch 4.22 Miles East of SR 9 Des: 2002234, Asset ID: 93001905, Structure: CV 008-057-47.08	Scale: NTS Appendix A-15

Photo 57: View east from SP-C1, within Wetland C

Photo 58: View south from SP-C1, within Wetland C

Photo 59: View west from SP-C1, within Wetland C

Photo 60: View of SP-C2, upland data point

Photo 61: View north from SP-C2, upland data point

Photo 62: View east from SP-C2, upland data point

Photo 63: View south from SP-C2, upland data point

Photo 64: View west from SP-C2, upland data point

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: SR 8 over UNT Rimmel Branch City/County: Noble Sampling Date: 9-15-2021

Applicant/Owner: INDOT State: IN Sampling Point: A1

Investigator(s): Dan Stevens Section, Township, Range: S23, T34N, 10E

Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): none

Slope (%): 2% Lat: 41.395325° Long: -85.342875° Datum: WSG 84

Soil Map Unit Name: Ho (Houghton Muck, Drained) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
The sample point does meet the three wetland criteria and is considered a jurisdictional wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. *Sambucus nigra*	5	Yes	FAC
2.			
3.			
4.			
5.			
	5 =Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	90	Yes	FACW
2. *Urtica dioica*	40	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	130 =Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	130	x 2 =	260
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	135 (A)		275 (B)

Prevalence Index = B/A = 2.04

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
The hydrophytic vegetation criteria was met.

SOIL

Sampling Point: A1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 2/1	100					Muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Hydric soil indicators were observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- x Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___
Water Table Present?	Yes ___	No x	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes x	No ___	Depth (inches): 10

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology indicators were observed.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: SR 8 over UNT Rimmel Branch City/County: Noble Sampling Date: 9-15-2021

Applicant/Owner: INDOT State: IN Sampling Point: A2

Investigator(s): Dan Stevens Section, Township, Range: S23, T34N, 10E

Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): none

Slope (%): 2% Lat: 41.395263° Long: -85.342980° Datum: WSG 84

Soil Map Unit Name: Ho (Houghton Muck, Drained) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The sample point does not meet the three wetland criteria and is not considered a jurisdictional wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Herb Stratum (Plot size: 5')			
1. *Zea mays*	90	Yes	UPL
2. *Equisetum arvense*	10	No	FAC
3. *Amaranthus retroflexus*	10	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	110 =Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	____ =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	10	x 4 =	40
UPL species	90	x 5 =	450
Column Totals:	110 (A)		520 (B)

Prevalence Index = B/A = 4.73

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)
The hydrophytic vegetation criteria was not met.

SOIL

Sampling Point: A2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 2/1	100					Muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Hydric soil indicators were observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? Yes ___ No x Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology indicators were not observed.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: SR 8 over UNT Rimmel Branch | City/County: Noble | Sampling Date: 9-15-2021

Applicant/Owner: INDOT | State: IN | Sampling Point: B1

Investigator(s): Dan Stevens | Section, Township, Range: S23, T34N, 10E

Landform (hillside, terrace, etc.): terrace | Local relief (concave, convex, none): none

Slope (%): 2% | Lat: 41.395368° | Long: -85.342763° | Datum: WSG 84

Soil Map Unit Name: Ho (Houghton Muck, Drained) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
The sample point does meet the three wetland criteria and is considered a jurisdictional wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. *Sambucus nigra*	2	No	FAC
2.			
3.			
4.			
5.			
	2 =Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	2	x 3 =	6
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	102 (A)		206 (B)

Prevalence Index = B/A = 2.02

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
The hydrophytic vegetation criteria was met.

SOIL

Sampling Point: B1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 3/1	100					Muck	
9-20	10YR 6/1	80	10YR 5/6	20	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- X Histic Epipedon (A2)
- X Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X 2 cm Muck (A10)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Hydric soil indicators were observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- x Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology indicators were observed.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: SR 8 over UNT Rimmel Branch City/County: Noble Sampling Date: 9-15-2021

Applicant/Owner: INDOT State: IN Sampling Point: B2

Investigator(s): Dan Stevens Section, Township, Range: S23, T34N, 10E

Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): none

Slope (%): 2% Lat: 41.395293° Long: -85.342750° Datum: WSG 84

Soil Map Unit Name: Ho (Houghton Muck, Drained) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The sample point does not meet the three wetland criteria and is not considered a jurisdictional wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Zea mays*	40	Yes	UPL
2. *Cirsium arvense*	40	Yes	FACU
3. *Abutilon theophrasti*	15	No	FACU
4. *Setaria faberi*	15	No	FACU
5. *Urtica dioica*	15	No	FACW
6.			
7.			
8.			
9.			
10.			
	125	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	40	x 5 =	200
Column Totals:	125 (A)		510 (B)

Prevalence Index = B/A = 4.08

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)
The hydrophytic vegetation criteria was not met.

SOIL

Sampling Point: B2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 2/1	100					Muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Hydric soil indicators were observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology indicators were not observed.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: SR 8 over UNT Rimmel Branch | City/County: Noble | Sampling Date: 9-15-2021

Applicant/Owner: INDOT | State: IN | Sampling Point: C1

Investigator(s): Dan Stevens | Section, Township, Range: S14, T34N, 10E

Landform (hillside, terrace, etc.): terrace | Local relief (concave, convex, none): none

Slope (%): 2% | Lat: 41.395547° | Long: -85.342463° | Datum: WSG 84

Soil Map Unit Name: Ho (Houghton Muck, Drained) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
The sample point does meet the three wetland criteria and is considered a jurisdictional wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	

Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	90	Yes	FACW
2. *Typha latifolia*	20	No	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	110	=Total Cover	

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	90	x 2 =	180
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	110 (A)		200 (B)

Prevalence Index = B/A = 1.82

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
The hydrophytic vegetation criteria was met.

SOIL

Sampling Point: C1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/1	90	10YR 5/6	10			Loamy/Clayey	
10-20	10YR 5/1	90	10YR 5/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Hydric soil indicators were observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- x High Water Table (A2)
- x Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___
Water Table Present?	Yes x	No ___	Depth (inches): 12
Saturation Present? (includes capillary fringe)	Yes x	No ___	Depth (inches): 10

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology indicators were observed.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: SR 8 over UNT Rimmel Branch City/County: Noble Sampling Date: 9-15-2021

Applicant/Owner: INDOT State: IN Sampling Point: C2

Investigator(s): Dan Stevens Section, Township, Range: S14, T34N, 10E

Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): none

Slope (%): 2% Lat: 41.395638° Long: -85.342447° Datum: WSG 84

Soil Map Unit Name: Ho (Houghton Muck, Drained) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The sample point does not meet the three wetland criteria and is not considered a jurisdictional wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Herb Stratum (Plot size: 5')			
1. *Zea mays*	50	Yes	UPL
2. *Amaranthus retroflexus*	20	Yes	FACU
3. *Abutilon theophrasti*	20	Yes	FACU
4. *Panicum virgatum*	20	Yes	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	110 =Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	____ =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	40	x 4 =	160
UPL species	50	x 5 =	250
Column Totals:	110 (A)		470 (B)

Prevalence Index = B/A = 4.27

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)
The hydrophytic vegetation criteria was not met.

SOIL

Sampling Point: C2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 2/1	100					Muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Hydric soil indicators were observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___
Water Table Present?	Yes ___	No x	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No x	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology indicators were not observed.

PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: August 2, 2022

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

Daniel J. Stevens
DLZ Indiana, LLC
2211 E. Jefferson Blvd.
South Bend, IN 46615
Phone: 574-236-4400

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

DLZ conducted a Waters of the United States determination on September 15, 2021 for the project involving the replacement of the small structure (CV 008-057-47.08) that carries SR 8 over UNT to Rimmel Branch located approximately 4.22 miles east of SR 9. The project is also located 1,320 feet east of CR 400E. The preferred alternative is the replacement of the existing small structure with larger small structure. It is anticipated that the structure will be extended to eliminate the need for guardrail on both sides of SR 8. The structure length will be confirmed based on survey data, clear zone requirements and the final profile grade of SR 8. The existing horizontal and vertical alignments of SR 8 at this location will be maintained. The project is located in Sections 14 and 23, Township 34N, Range 10E in Noble County, Indiana (INDOT Des. No. 2002234).

State: Indiana County/parish/borough: Noble County City: n/a

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

Lat.: 41.395462° Long.: -85.342841°

Universal Transverse Mercator: 16T, 638535.71 m E, 4583983.58 m N

Name of nearest waterbody: Rimmel Branch

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 Rimmel Branch	41.395462°	-85.342841°	0.096 acre, or 375 linear feet	Non-wetland Water	Section 404
Wetland A	41.395325°	-85.342875°	0.075 acre	Wetland	Section 404
Wetland B	41.395368°	-85.342763°	0.044 acre	Wetland	Section 404
Wetland C	41.395547°	-85.342463°	0.043 acre	Wetland	Section 404

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

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

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

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

- [x] Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
  Map: Project location, Topographic, Floodplain/NHD, Soils, NWI, Site, and Drainage Area maps
- [x] Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - [ ] Office concurs with data sheets/delineation report.
  - [ ] Office does not concur with data sheets/delineation report. Rationale:_____.
- [ ] Data sheets prepared by the Corps:_____.
- [ ] Corps navigable waters' study:_____.
- [ ] U.S. Geological Survey Hydrologic Atlas:_____.
  - [ ] USGS NHD data.
  - [ ] USGS 8 and 12 digit HUC maps.
- [x] U.S. Geological Survey map(s). Cite scale & quad name: Kendallville, 1:24,000 scale.
- [x] Natural Resources Conservation Service Soil Survey. Citation:
  Web Soil Survey (https://websoilsurvey.sc.egov.usda.gov/)
- [x] National wetlands inventory map(s). Cite name: USFWS Wetlands Mapper (https://www.fws.gov/wetlands/data/mapper.html).
- [ ] State/local wetland inventory map(s):_____.
- [x] FEMA/FIRM maps: IndianaMap (FIRM Floodplains and Flood Hazard Zones in Indiana, IDNR).
- [ ] 100-year Floodplain Elevation is:_____.(National Geodetic Vertical Datum of 1929)
- [x] Photographs: [x] Aerial (Name & Date): 2018 IndianaMap.
  or [x] Other (Name & Date): Site photographs, 9/15/2021.
- [ ] 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.

Daniel J Stec August 2, 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.

APPENDIX G

Public Involvement Documentation

DLZ
ARCHITECTURE • ENGINEERING • PLANNING
SURVEYING • CONSTRUCTION SERVICES

INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

August 19, 2021

Sample Notice of Entry for Survey Letter

RE: Survey Notice for SR 9 Small Structure Project
Noble County, IN
INDOT Des. No. 2002234
DLZ Project #2161-2803-50

Dear Property Owner:

Our firm has been retained by the Indiana Department of Transportation (INDOT) to perform a topographic survey for the proposed SR 9 small structure improvements (INDOT Des. No. 2002234).

Our information indicates that you either own or occupy property near this proposed street project. Our employees will be conducting a survey of the project area in the near future. It may be necessary for them to come onto your property to complete this work. This is allowed by law in accordance with Indiana Code IC 8-23-7-26 (see attached). They 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 let us know the name and address of the new owner or current occupant so we can contact them about the survey.

The survey work will include locating such features as sidewalks, curbs, driveways, ditches, buildings, trees, fences, utilities, sewer structures, and obtaining ground elevations. We will also be re-establishing public road right-of-way lines by looking for and locating property corners and section corners. This survey is needed for the proper planning and design of this project.

Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey. If any problems do occur, please contact our field crew or myself at (260) 702-4835. A copy of IC-8-23-7-26 thru 28 is provided to help with your understanding of the process. In accordance with IC 8-23-7-28, any request for damages shall be made in writing to the Indiana Department of Transportation Matthew Witt - Project Manager, 5333 Hatfield Road, Fort Wayne, IN 46808.

Sincerely,

DLZ INDIANA, LLC

Aaron E. Springer, PS

CC: MK, SJ, Matthew Witt -INDOT Project Manager

APPENDIX H

Air Quality Documentation

Indiana Department of Transportation (INDOT)

State Preservation and Local Initiated Projects FY 2022 - 2026

SPONSOR	CONTRACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	DISTRICT	MILES	FEDERAL CATEGORY	Total Cost of Project*	PROGRAM	PHASE	FEDERAL	MATCH	2022	2023	2024	2025	2026
Noble County	42776 / 1902841	Init.	IR 6300	Road Reconstruction (3R/4R Standards)	Fort Wayne	.25	STBG	$827,000.00	Local Funds	CN	$0.00	$61,200.00				$61,200.00	
Location: Ball Road - Approx. 1,750 ft E of CR 750W to 2,900 ft E of 750W																	
Comments:Include DES 1902841																	
Noble County	42777 / 1902842	Init.	IR 2037	Bridge Replacement	Fort Wayne	.13	STBG	$4,351,711.00	Local Bridge Program	CN	$2,737,000.00	$0.00			$16,000.00	$2,721,000.00	
									Local Bridge Program	RW	$220,000.00	$0.00		$220,000.00			
									Local Funds	RW	$0.00	$84,000.00		$84,000.00			
									Local Funds	CN	$0.00	$903,000.00			$4,000.00	$899,000.00	
Performance Measure Impacted: Bridge Condition																	
Location: Bridge 134 - CR 225E over CSX RR																	
Comments:Include DES 1902842																	
Indiana Department of Transportation	43115 / 2000254	Init.	SR 3	Channel Clearing And Protection	Fort Wayne	0	STBG	$557,240.00	Bridge Construction	CN	$334,821.60	$83,705.40	$418,527.00				
Performance Measure Impacted: Safety																	
Location: SR 3 over Handshoe Ditch, 1.09 miles N of SR 8																	
Comments:Include DES 2000244, 2000259, 2000262, 2000264, 2000328, 2000254																	
Indiana Department of Transportation	43185 / 2000980	Init.	SR 9	HMA Overlay, Preventive Maintenance	Fort Wayne	1.8	STBG	$1,300,120.00	Road Construction	CN	$914,496.00	$228,624.00		$1,143,120.00			
Performance Measure Impacted: Pavement Condition																	
Location: From 0.53 miles South of SR 8 to 1.07 miles North of SR 8 (Albion).																	
Comments:Include DES 2000980																	
Indiana Department of Transportation	43287 / 2002234	Init.	SR 8	Small Structure Replacement	Fort Wayne	0	STBG	$2,582,280.00	Bridge ROW	RW	$80,000.00	$20,000.00			$100,000.00		
									Toll Lease Amendment Proceeds	PE	$178,000.00	$44,500.00	$222,500.00				
									Bridge Construction	CN	$1,436,784.00	$359,196.00				$1,795,980.00	
									Bridge Consulting	PE	$371,040.00	$92,760.00	$463,800.00				
Performance Measure Impacted: Bridge Condition																	
Location: 4.22 Miles East of SR 9, Large Culvert for UNT of RUMMEL BRANCH.																	
Comments:Include DES 2002233, 2002235, 2002234																	

Report Created:2/15/2023 3:38:12PM

*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.

APPENDIX I

Additional Information

Excerpt from INDOT list of Indiana LWCF Properties (https://www.in.gov/indot/engineering/environmental-services/environmental-policy/), Accessed on February 16, 2023.

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

ProjectNumber	SubProjectCode	County	Property
1800002	1800002	Noble	Chain O'Lakes State Park
1800118	1800118A	Noble	Chain O' Lakes
1800135	1800135	Noble	Noble Co. Fairgrounds, Kendallville Fair Grounds
1800161	1800161G	Noble	Chain O' Lakes State Park
1800171	1800171B	Noble	Chain O' Lakes State Park
1800305	1800305H	Noble	Chain O' Lakes State Park
1800312	1800312B	Noble	Chain O' Lakes State Park
1800319	1800319	Noble	G. Martin Kenney Memorial Park
1800327	1800327C	Noble	Chain O' Lakes State Park
1800353	1800353	Noble	Kelly St. Park
1800358	1800358	Noble	Avilla Park
1800363	1800363D	Noble	Chain O' Lakes State Park
1800369	1800369E	Noble	Gaff Park (Mainland Park)
1800378	1800378A	Noble	Chain O' Lakes State Park
1800391	1800391	Noble	Cromwell Community Park
1800405	1800405B	Noble	Big Lake Public Access Site
1800405	1800405AA	Noble	Crane Lake Public Access Site
1800405	1800405J	Noble	Eagle Lake Wetland Conservation Area
1800405	1800405T	Noble	Rome City Wetlands Fish and Wildlife Area
1800405	1800405U	Noble	Smalley Lake Public Access Site
1800413	1800413J	Noble	Chain O' Lakes State Park
1800492	1800492	Noble	Hidden Diamonds Community Park
1800513	1800513	Noble	Hidden Diamonds Community 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.

Excerpt from Large Culvert Inspection Report

Structure Number: *CV 008-057-47.08* **Inspector:** Herber, Andrew

Large Culvert Inspection Report

(8) Asset Code:	*93001905*	(27) Year Built:	*1989*
Asset Name:	*CV 008-057-47.08*	(90) Inspection Date:	*11/27/2019*
OLD Culvert ID:	*008-57-047.08*	(91) Inspection Frequency:	*60*
Team Assignment:	*02*	☐ Additional Treatment Exists	

Identification

(2) Highway Agency District:	*02*	(3) County Code:	*057*
Sub District:	*2200*	Ramp ID:	
(42B) Type of Service (Under):	*5*	☐ Adjacent to Roadway	

(7) Facility Carried: *SR 8* (6) Features Intersected: *UNT OF RIMMEL BRANCH*

(9) Location: *4.22 MI E SR 9* (9.01) Location Additional Description: *0.25 mi. E of CR 400 E Branch of Rimmel (UNT of Rimmel Branch)*

(11) Milepoint: *4.22* (16) Latitude: *41.39554* (17) Longitude: *-85.34670*

Classification:

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

Geometric Data

Culvert: Kind of Material: *3. Steel* Culvert: Type of Structure: *3. Pipe* Min Est Fill Cover (ft): *8.00*

Culvert: Max. Horizontal Opening (ft.): *5.0000* Culvert: Max. Vertical Opening (ft.): *5.0000* (34) Skew: *00*

Barrel Length (ft.): *56.000* Original Culvert Shape: *Round*

Measurement Remarks:

Structure Additional Description: *Bituminous Coated Corrugated Metal Pipe FBCCMP*
HDPE liner installed in November of 2019

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:	*N*	(36C) Approach Guardrail:	*N*
(36B) Transitions:	*N*	(36D) Approach Guardrail Ends:	*N*

Culvert:

(62) Culvert - Rating: *8*

(62) Culvert Rating Comments: *HDPE liner installed in November 2019; liner is very good condition; installation was done by INDOT maintenance because steel pipe was in poor shape, see below for previous pipe condition comments.*
Comments prior to liner installation:
Bituminous coating missing on bottom 1/2; moderate to heavy corrosion to bottom 1/2; thinning and scattered perforations throughout; large section of east wall near middle of pipe has broken and is actively leaking back-fill material; similar broken section near north end on west wall;

Deck:

(58) Deck: *N*

(58a) Deck Comments:

Superstructure:

(59) Superstructure: *N*

(59.01) Superstructure Comments:

Substructure:

(60) Substructure: *N*

(60.01) Substructure Comments:

Channel:

(61) Channel and Channel Protection: *6*

(61.01) Channel and Channel Protection Comments: *slopes are well vegetated; channel flows from south to north; channel bends to the west beyond the north end of the structure; 6 inches of soft sediment throughout*

Bank Erosion Rating: *7*

Drift/Sediment Rating *6*

Channel Alignment Rating *4*

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

Describe Obstruction:

Overtopping Frequency:

Overtopping Frequency Comments:

Excerpt from the Abbreviated Engineer's Assessment

ABBREVIATED ENGINEER'S ASSESSMENT

June 13, 2022

Project No.:	2002234
Des. Nos.:	2002234
Contract No.:	R-43287
Structure No.:	CV 008-057-047.08
Route No.:	SR 8 at RP 47+08
Latitude:	41° 23' 44" N
Longitude:	85° 20' 34" W
County:	Noble
Federal Oversight:	Not Required

Project Location:

This project involves the replacement of the existing small structure on SR 8 over UNT of Rimmel Branch with approximately 60 feet of approach roadway work and 442 feet of incidental construction. The UNT of Rimmel Branch is a legal drain per the Nobel County Surveyor. The structure is located approximately 4.22 miles east of SR 9 within Sections 14 and 23, of Township 34N, Range 10E, in Jefferson Township, Noble County, Indiana.

Project Need and Purpose:

The need for this project is due to the existing structure being hydraulically inadequate. The existing 3.6-foot ID HDPE Liner was placed by INDOT maintenance because the 5-foot CMP was in poor shape with broken sections actively leaking back-fill material. According to the INDOT Hydraulic Memo, this structure did not meet roadway serviceability requirements before the liner was placed, and the current hydraulic condition is worsened, including increased backwater. The purpose of this project is to increase the hydraulic capacity by replacing the existing structure with a new structure that is consistent with current INDOT standards.

Existing Facility:

The existing typical section within the project limits consists of a rural two-lane collector carrying two 12-foot travel lanes. The existing shoulders consist of 4-foot usable shoulders with 2-foot paved, for a total clear width of 32 feet at the structure. There is no existing guardrail at the structure location. There are existing corrugations along each shoulder and at the centerline of the road. UNT of Rimmel Branch is a legal drain and flows from the west on the north side of the road, turns 90 degrees to the south, then crosses under SR 8 and continues south. There are no existing driveways within project limits. There is ditch grading proposed along the road for the runout length of 220 feet before the structure. The existing side slopes are approximately 2:1 on the south side and 3:1 on the north side.

The existing horizontal alignment of SR 8 is tangent over the structure with a crown section consisting of 2% to 2.5% cross slope.

The existing vertical profile is generally in a cresting vertical curve over the survey limits with sections having a constant slope. At the culvert, the profile is approximately flat for 190 feet. The grade at the west end of the survey has the profile at a 1.1% grade, and at the east end of the survey, the profile is at a -2.9% grade.

The existing structure is a 5-foot diameter corrugated metal pipe that was lined in 2019 with a 3.6-foot diameter HDPE liner due to the deteriorating condition of the existing pipe. The structure has about 5 feet of cover and a length of 73 feet. The structure has an approximate skew of 2-degrees left.

Traffic Data:

Functional Classification:	Rural State Collector
A.A.D.T. (2024 projected):	4,788 V.P.D.
A.A.D.T. (2044 projected):	5,532 V.P.D.
D.H.V. (2044 projected):	535 V.P.H.
Comm. Vehicles:	8 % A.A.D.T.
	5 % D.H.V.

Identification of Proposal:

SR 8 is considered a rural state collector throughout the project section with a design speed of 55 mph. The total project length, including incidental construction, is approximately 502 feet.

The horizontal alignment and vertical profile are anticipated to be maintained within the project limits.

The proposed typical section will match the existing typical section. It will consist of two 12-foot travel lanes and 4-foot usable shoulder that will consist of a 2-foot aggregate shoulder and a 2-foot paved shoulder. It is anticipated that a Level 1 Design Exception will be required as the usable shoulder width does not meet the current minimum design standards of a 6-foot usable shoulder. Guardrail is not proposed at the site since there is no existing guardrail. Due to the location of the bend in the stream on the north side and location of the stream when it is parallel to the road, it will not be possible to keep the structure buried within the 24-foot clear zone. Therefore, the structure will be buried within the 12-foot obstruction free zone with side slopes at 4:1, which is an improvement over the existing 2:1 and 3:1 side slopes. However, a Level 2 Design Exception will still be required for not keeping the structure buried within the clear zone at a 4:1 slope with no guardrail. The existing crash data at this location shows two nearby crashes that had to do with deer crossings and the vehicles impacting the deer head on. The vehicles did not veer off into the existing ditches. Even though guardrail will not be provided, the side slopes will be improved to 4:1 within the project limits, for the runout length in advance of the structure and 100 feet beyond the structure, tying into the existing ground. Where the side slopes are improved, the roadside ditches will require realignment. The ditches will be realigned to be further from the travel lane and to tie into the stream before the structure inlet and after the structure outlet. On the north side of the structure, the side slope will change to a 2:1 slope outside of the obstruction free zone to tie into the existing ground by the toe of the slope of the stream. The existing 2% lane cross slope with 2% paved shoulder slope will be maintained through the project limits. The unpaved shoulders will have a 6% cross slope. The existing flat bottom roadside ditch will be maintained.

The INDOT Hydraulic Memo listed 4 proposed options. The first option in the memo is a 3-foot bored pipe with the existing 3.6-foot ID HDPE Liner. The other 3 options in the memo are a 10-foot span by 8-foot rise reinforced concrete box option, a 9-foot span slab top option, and a 12-foot span arch top option.

All three replacement options will meet INDOT roadway serviceability standards and require the same amount of road work and maintenance of traffic. Based on engineering judgment and past history, the 10-foot span by 8-foot rise reinforced concrete box (RCB) option will be the most cost-effective option compared to the other replacement options. The 3-foot bored pipe option was not considered due to not meeting roadway serviceability and due to the risks associated with boring under the existing road. The proposed structure will be the RCB structure with a clear span of 10 feet and an 8-foot rise with a 6-inch sump (7.5 feet rise above the flowline) as recommended by the Hydraulic Memo.

The out-to-out length of the proposed culvert will be approximately 98 feet. The south side of the structure will be extended for the proposed 4:1 roadway side slope to reach the flowline. The north end of the structure will remain approximately in the same location as the existing pipe due to the bend in the stream. The roadway grading on the north side will be 4:1 roadway side slope for 11.5 feet and then 2:1 roadway side slopes to tie into the existing stream toe of slopes. This grading will eliminate the need for wingwalls and headwall for the structure. It will be skewed 4 degrees to the left. The structure will be "sumped" 6-inches to comply with hydraulic and County requirements. Revetment riprap over geotextile will be placed at the inlet and outlet of the structure for scour protection.

Cost Estimate:

Preliminary Engineering (2022):	$	231,800
Right of Way (2024):	$	40,000
Wetland Mitigation:	$	38,400
Construction (2024):	$	641,000
Total Cost:	**$**	**951,200**

Environmental Issues:

A CE Level 1 is being prepared for this project.

Three wetlands were found during the investigation that is part of the Waters of the US Determination Report for this project. The wetlands are located in the three roadside ditches in the southwest, southeast, and northeast corners of the project. The field work for the Waters Report investigation has been completed. The report has been submitted.

It is anticipated that 0.16 acres of emergent wetland will be impacted. Based on the IDNR standard minimum mitigation ratio of 2:1 for emergent wetlands, 0.32 acres of wetland mitigation via the IDNR In-lieu fee mitigation program will be needed.

It is anticipated that this project will impact less than 300 linear feet of existing streams considered to be waters of the United States. Stream mitigation is not anticipated to be required as a part of this project.

It is anticipated that stream flow will be maintained via a pump around with a velocity dissipater. Dewatering will occur with using a filter bag and secondary containment measure.

It is anticipated that the project will impact approximately 1 acre of land; therefore, an IDEM Construction Stormwater General permit will likely be required. The acreage of impact will be confirmed during design.

It is anticipated that IDEM Section 401 Individual and USACOE Section 404 permits will be required for the construction of this project. Prior to the start of any permit preparation, a permit determination request will be submitted to INDOT to confirm the need of the permits listed above. The drainage area is greater than 1 square mile, but less than 50 square miles and outside of an incorporated area; therefore, it qualifies under the IDNR exemption and an IDNR Construction in a Floodway permit will not be required.

Utilities:

Frontier has buried wires on the south side of the project. One remains buried, and two are aerial over the stream. It is anticipated they will have to relocate.

Ligtel Communications has 2 – 1 ¼" ducts on the south side of SR 8. Fiber optic cable is in one of the ducts, and the other is empty. The line will need to be potholed to confirm whether a conflict exists or not. The facilities may still need to be relocated.

Ligonier Telephone Co., Inc. has no facilities within the anticipated project limits.

Noble County R.E.M.C. has no facilities within the anticipated project limits.

Right-of-way Impact:

The apparent existing right-of-way will have to be reacquired. Based on existing plans, the right-of-way was 80 feet wide on the east side of the structure and widened to 100 feet on the west side due to the stream; Additional right-of-way will be required outside of the limits of apparent right-of-way to reconstruct the roadside spill slopes and ditches.

Geotechnical Investigation:

The Geotechnical investigation will need to include borings for the structure replacement and pavement cores for the approach work.

Traffic Maintenance during Construction:

It is anticipated that SR 8 will be closed during construction. An anticipated detour route would likely use SR 3 to US 6 to SR 9. The detour has been confirmed with Fort Wayne District personnel, and the final detour route will be coordinated to ensure that other projects are not in conflict. Based on engineering judgement, this closure is Non-Significant because it will not significantly reduce mobility or disrupt the local community.

Attachments:

Appendix A – Hydraulic Memo
Appendix B – Abbreviated Engineers Report Field Check Meeting Minutes
Appendix C – Significant Work Zone Determination Worksheet
Appendix D – Culvert Inspection Report

Concurrence

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DLZ Indiana, LLC

Reviewed by:

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Date: 7/7/2022

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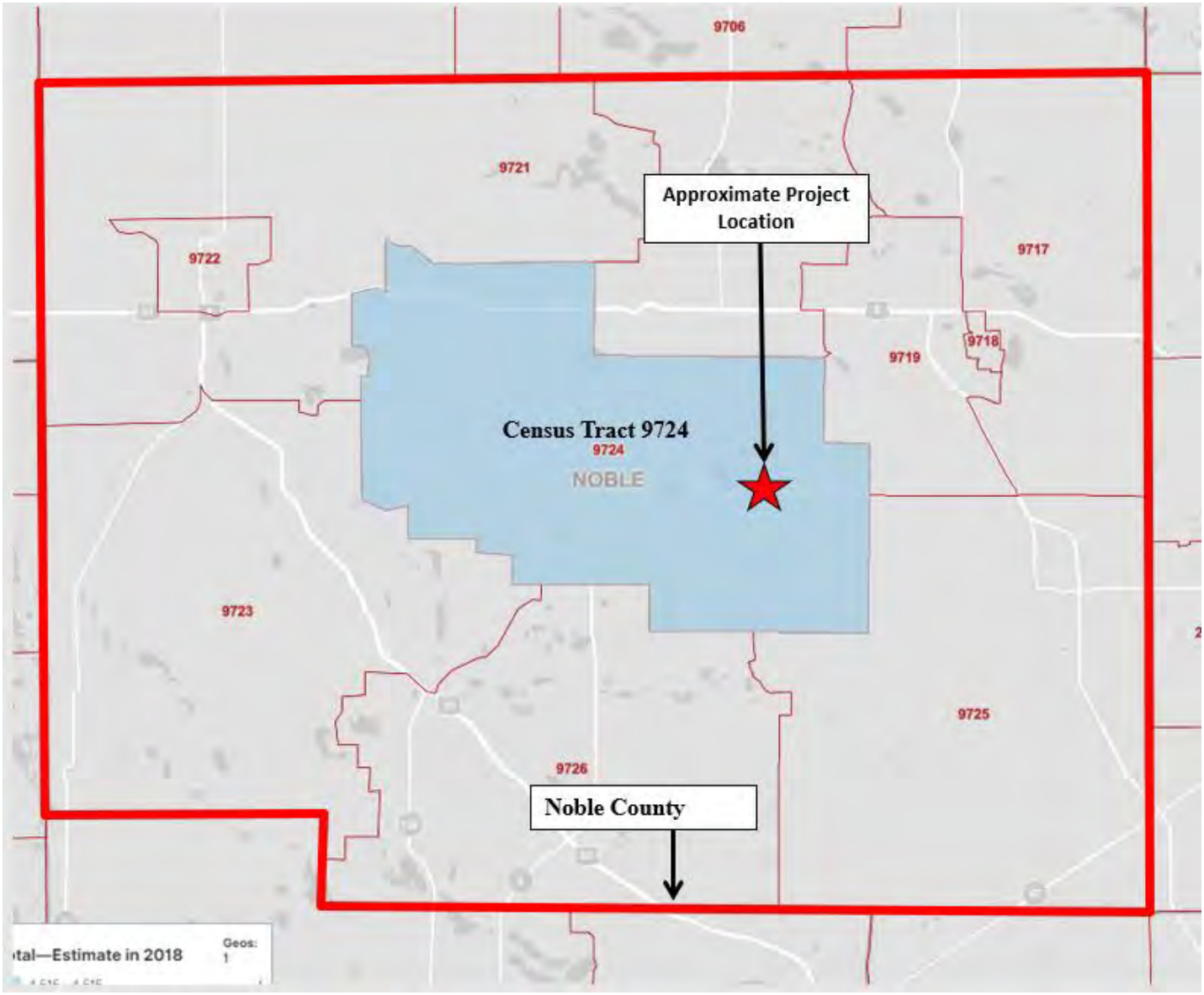
Noble County and Census Tract 9724:



American Community Survey

B03002 | HISPANIC OR LATINO ORIGIN BY RACE

2021: ACS 5-Year Estimates Detailed Tables | Universe: Total population

Notes | Geos | Years | Topics | Surveys | Codes | Hide | Transpose | Margin of Error | Restore | Excel | CSV | ZIP | Share | Print | Map

Label	Noble County, Indiana	Census Tract 9724, Noble County, Indi...
	Estimate	Estimate
Total:	47,293	5,024
Not Hispanic or Latino:	42,291	4,834
White alone	40,859	4,728

B03002: HISPANIC OR LATINO ORIGIN BY RACE - Universe: Total population		
	COC	AC 1
Total:	47,293	5,024
White alone	40,859	4,728
% Minority	13.60%	5.89%
125% COC	17.01%	
AC Greater than 50% or Greater than 125% COC?		No
Minority EJ Population of Concern?		No

B17001: POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE		
	COC	AC 1
Total:	46,237	4,740
Income in the past 12 months below poverty level:	3,384	390
% Low Income	7.32%	8.23%
125% COC	9.15%	
AC Greater than 50% or Greater than 125% COC?		No
Low Income EJ Population of Concern?		No