Indiana Department of Transportation

County Bartholomew Route State Road 58 Des. No. 1700012

FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	**State Road 58, Bartholomew County**
Designation Number:	**1700012**
Project Description/Termini:	**Small Structure Replacement, 1.95 miles west of I-65**

After completing this form, I conclude that this project qualifies for the following type of Categorical Exclusion (FHWA must review/approve if Level 4 CE):

X	**Categorical Exclusion, Level 2** – The proposed action meets the criteria for Categorical Exclusion Manual Level 2 - table 1, CE Level Thresholds. Required Signatories: ESM (Environmental Scoping Manager)
	Categorical Exclusion, Level 3 – The proposed action meets the criteria for Categorical Exclusion Manual Level 3 - table 1, CE Level Thresholds. Required Signatories: ESM, ES (Environmental Services Division)
	Categorical Exclusion, Level 4 – The proposed action meets the criteria for Categorical Exclusion Manual Level 4 - table 1, CE Level Thresholds. Required Signatories: ESM, ES, FHWA
	Environmental Assessment (EA) – EAs require a separate FONSI. Additional research and documentation is necessary to determine the effects on the environment. Required Signatories: ES, FHWA

Note: For documents prepared by or for Environmental Services Division, it is not necessary for the ESM of the district in which the project is located to release for public involvement or sign for approval.

Approval _____ _____ _____ _____
ESM Signature Date ES Signature Date

_____ _____
FHWA Signature Date

Release for Public Involvement

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_____ _____ _____ _____
ESM Initials Date ES Initials Date

Certification of Public Involvement _____ _____
Office of Public Involvement Date

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

INDOT ES/District Env.
Reviewer Signature: _____ Date: _____

Name and Organization of CE/EA Preparer: Bryce Froderman and Brandi Rodriguez, Strand Associates, Inc.

Part I - PUBLIC INVOLVEMENT

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

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

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

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

Remarks: Notice of entry letters were mailed to potentially affected property owners near the project on October 15, 2018 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 G-1.

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

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

Remarks: 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: Seymour
Local Name of the Facility: State Road 58

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

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

PURPOSE AND NEED:

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

Need: The need for this project is evidenced by the deterioration and structural deficiencies of the existing culvert. The November 14, 2018 Inspection Report noted the Superstructure is rated 4 out of 10 (poor condition) because the outside beams of the structure have considerable deterioration. The channel below the structure has a drift/sediment rating of 5 out of 10 due to sediment accumulation below the structure. The guardrail is damaged along the north edge of the structure.

Purpose: The purpose of the proposed project is to provide a structurally-sufficient waterway crossing, improve safety of the crossing, and improve the hydraulic efficiency of the existing crossing.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Bartholomew Municipality: N/A

Limits of Proposed Work: 170 feet west to 280 feet east of the centerline of Culvert #058-003-120.30 over UNT to East Fork White Creek in Ohio Township, Bartholomew County

Total Work Length: 0.09 Mile(s) Total Work Area: 0.69 Acre(s)

	Yes[1]	No
Is an Interchange Modification Study / Interchange Justification Study (IMS/IJS) required?		X
If yes, when did the FHWA grant a conditional approval for this project?	Date:	

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

In the remarks box below, describe existing conditions, provide in detail the scope of work for the project, including the preferred alternative. Include a discussion of logical termini. Discuss any major issues for the project and how the project will improve safety or roadway deficiencies if these are issues.

Location: The project is located in Ohio Township in Bartholomew County, Indiana. The culvert is located on SR 58 over UNT to East Fork White Creek, approximately 1.95 miles west of Interstate-65. See Appendix B for project location maps (pages B-1 through B-3) and site photographs (pages B-4 through B-6).

Existing Conditions: The existing structure is a concrete box culvert with steel beams measuring 32 feet in length, and with a span of 8 feet and rise of 3 feet under shallow fill (<2 feet). The steel beams along the structure have considerable deterioration and the guardrail on the north side of the structure is damaged and provides no protection. The culvert carries SR 58, a Collector roadway, over UNT to East Fork White Creek. The roadway consists of two 10-foot travel lanes with no shoulder on either side of the roadway. The posted speed along the roadway is 45 miles-per-hour (mph). There is no documentation of ROW within the project area. Apparent ROW is edge of pavement, approximately 10 feet from the centerline of SR 58. The project area is surrounded residential lawns, grassed meadows, and agricultural fields.

Preferred Alternative: The preferred alternative includes the replacement of the existing culvert with a 9-foot span by 4-foot rise concrete box culvert sumped 1 foot, measuring 50 foot, 6 inches in length. The project will also include the replacement of the existing guardrail and installation of new guardrail for a total length of approximately 231 feet as well as a full-depth replacement of the roadway 70-foot west of the centerline of the proposed structure to 180-foot east of the centerline of the proposed structure. The bridge will consist of two 10-foot travel lanes with 2-foot shoulder on the south side of the roadway and a 4-foot shoulder on the north side of the roadway.

The Maintenance of Traffic (MOT) plan for this project is to implement a full road closure with detour. See the MOT section of this document for additional information.

This alternative has an estimated 2022 construction cost of $441,000 and a target construction date of Spring 2022. It will require the acquisition of permanent ROW. There are no relocations associated with this alternative.

The preferred alternative will meet the purpose and need outlined in the above section by improving the rating of the crossing to at least 7 out of 10, providing a structurally-sufficient waterway crossing, improving the safety of the crossing with the installation of new guardrail, and improving the hydraulic efficiency of the waterway crossing with a larger structure.

OTHER ALTERNATIVES CONSIDERED:

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

No-Build Alternative: Under the No-Build alternative, no improvements to the existing structure would occur and the structural condition of the culvert would continue to deteriorate and the guardrail on the north side of the roadway would not function properly. The No-Build alternative was discarded because it would not address the purpose or meet the need of this project.

The Do Nothing Alternative is not feasible, prudent or practicable because (*Mark all that apply*):

It would not correct existing capacity deficiencies;	
It would not correct existing safety hazards;	X
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)	

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ROADWAY CHARACTER:

Functional Classification: Collector

Current ADT: 5,070 VPD (2022) Design Year ADT: 5,120 VPD (2042)

Design Hour Volume (DHV): 455 Truck Percentage (%) 3.81

Designed Speed (mph): 45 Legal Speed (mph): 45

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	Non-Freeway		Non-Freeway	
Pavement Width:	10	ft.	10	ft.
Shoulder Width:	0	ft.	2-4	ft.
Median Width:	0	ft.	0	ft.
Sidewalk Width:	0	ft.	0	ft.

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

If the proposed action has multiple roadways, this section should be filled out for each roadway.

DESIGN CRITERIA FOR BRIDGES:

Structure/NBI Number(s): 058-003-120.30 Sufficiency Rating: _____ (Rating, Source of Information)

	Existing		Proposed	
Bridge Type:	Concrete Girder		Continuous Composite Prestressed Concrete Box Beam	
Number of Spans:	1		1	
Weight Restrictions:	N/A	ton	N/A	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	20	ft.	26	ft.
Outside to Outside Width:	N/A	ft.	N/A	ft.
Shoulder Width:	0	ft.	2-4	ft.
Length of Channel Work:			90	ft.

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

Remarks: The project will involve the replacement of the existing culvert under SR 58. It is a concrete box structure with a span of 9 feet and a rise of 4 feet. The structure would be 50-foot, 6-inches in length and have a clear roadway width of 26 feet. This structure is not constructed of materials classified as historic.

There are three corrugated metal pipe culverts located along the north side of SR 58 within the project area. No impacts are anticipated to occur to the 27-foot, 16-inch culvert located in the northwest corner of the project area Appendix B, page B-11). The 25-foot, 15-inch culvert located within the access drive adjacent to culvert crossing SR 58 and 45-foot, 12-inch culvert located in the northeast corner of the project area will be replaced in similar locations to the existing culverts (Appendix B, page B-11). None of the culverts have structure numbers associated with them and none are constructed of materials classified as historic.

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

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

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

	Yes	No
Is a temporary bridge proposed?		X
Is a temporary roadway proposed?		X
Will the project involve the use of a detour or require a ramp closure? (describe in remarks)	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

Remarks: The MOT for the project will require a full road closure with detour using Interstate-65, SR 11, and SR 258. The total length of the detour would be approximately 26 miles.

The closures/lane restrictions will pose a temporary inconvenience to traveling motorists (including school buses and emergency services); however, no significant delays are anticipated and all inconveniences will cease upon project completion. Delays would occur during construction but will cease with project completion.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: $ 161,500 (2019) Right-of-Way: $ 16,000 (2021) Construction: $ 441,000 (2022)

Anticipated Start Date of Construction: March 2022

Date project incorporated into STIP July 3, 2017 and July 2, 2019

	Yes	No
Is the project in an MPO Area?		X

If yes,

Name of MPO _____

Location of Project in TIP _____

Date of incorporation by reference into the STIP _____

RIGHT OF WAY:

Land Use Impacts	Amount (acres) Permanent (reacquisition/new)	Temporary
Residential	0/0.26 ~~0.26~~	
Commercial		
Agricultural	0/0.43 ~~0.43~~	
Forest		
Wetlands	0/0.08 ~~0.08~~	
Other: Roadway	0.25/0 ~~0.25~~	
Other:		
TOTAL	0.25/0.77 ~~1.02~~	

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

Remarks:

There is no existing ROW along SR 58 for the entire length of the proposed project area.

0.77

The project requires approximately ~~1.02~~ acres of permanent ROW to the east and west of the project area for the entire length of the project. 0.25 acre is under pavement and reacquisition of apparent ROW. The properties on either side of the roadway consist of residential yards, agricultural fields, and grassed meadow areas with three driveway entrances and are residentially owned. The new permanent ROW varies from 10 feet from the centerline of SR 58 at the west project termini to 45 feet from the centerline of SR 58 adjacent to the bridge structure to 10 feet from the centerline of SR 58 at the east project termini.

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 – ECOLOGICAL RESOURCES

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

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Remarks:

Based on a desktop review, a site visit on November 26, 2019 by Strand Associates Inc., the aerial map of the project area (Appendix B, page B-2), and the water resources map in the RFI report (Appendix E, page E-8), there are 7 streams located within the 0.5 mile search radius. The nearest stream, UNT to East Fork White Creek, flows through the project area. UNT to East Fork White Creek is not listed as a Federal Wild and Scenic River, a State Natural, Scenic, and Recreational River, an Outstanding River in Indiana, a navigable waterway, or on the National River Inventory.

A Waters of the U.S. Determination Report was INDOT Ecology and Waterway Permitting approved on February 20, 2020. Please refer to Appendix F, page F-3 for the Waters of the U.S. Determination Report. It was determined that one named, perennial stream, UNT to East Fork White Creek, flows through the project area and is considered a jurisdictional "Waters of the U.S." subject to Federal regulation under the Clean Water Act (CWA). Five roadside ditches were identified within the project area. No ordinary high water mark (OHWM) was observed for any of the ditches. Therefore, the ditches are considered non-jurisdictional. The United States Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

Approximately 90 linear feet of UNT to East Fork White Creek will be permanently impacted from the installation of the new structure and placement of revetment riprap within the construction limits. Due to the scope of the project, impacts to the UNT to East Fork White Creek are unavoidable. Mitigation is not anticipated, but will be determined during permitting.

Early coordination letters were sent to Indiana Department of Environmental Management (IDEM), Indiana Department of Natural Resources (IDNR), and USACE on December 30, 2019. USACE did not respond within the 30-day time frame. IDEM and IDNR responded on December 30, 2019 and January 29, 2020 respectively with recommendations to avoid or minimize impacts to UNT to East Fork White Creek (Appendix C, pages C-15 through C-21 and pages C-3 through C-7). Recommendations from IDNR include construction measures to minimize impacts to the soil and vegetation in and around the stream channel including revegetation, riprap placement, tree removal, etc. Recommendations from IDEM include guidelines for managing a variety of contaminants/resources if found to occur within the project area. All applicable IDNR and IDEM recommendations are included in the Environmental Commitments section of this document.

Other Surface Waters	**Presence**	**Impacts**	
		Yes	**No**
Reservoirs			
Lakes			
Farm Ponds			
Detention Basins			
Storm Water Management Facilities			
Other:			

Remarks:

Based on a desktop review, a site visit on November 26, 2019 by Strand Associates Inc., the aerial map of the project area (Appendix B, page B-2), and the water resources map in the RFI report (Appendix E, page E-8), there are 5 lakes located within the 0.5 mile search radius. The nearest lake is approximately 0.07 miles north of the project area. A Waters of the U.S. Determination Report was INDOT Ecology and Waterway Permitting approved on February 20, 2020. Please refer to Appendix F, page F-3 for the Waters of the U.S. Determination Report. It was determined that no lakes are located within the project area. The USACE makes all final determinations regarding jurisdiction. The project will be limited to within the ROW of SR 58 and all construction pollutants will be contained within the project area. Therefore, no impacts are expected.

Early coordination letters were sent to IDEM, IDNR, and USACE on December 30, 2019. IDEM and IDNR responded on December 30, 2019 and January 29, 2020 respectively with recommendations to avoid or minimize impacts to other surface waters (Appendix C, pages C-15 through C-21 and pages C-3 through C-7). USACE did not respond within the 30-day time frame. Recommendations from IDNR include construction measures to minimize impacts to surface waters and bank erosion. Recommendations from IDEM include guidelines for managing a variety of contaminants/resources if found to occur within the project area. All applicable IDNR and IDEM recommendations are included in the Environmental Commitments section of this document.

	Presence	Impacts Yes	Impacts No
Wetlands	X	X	

Total wetland area: 0.107 acre(s) Total wetland area impacted: 0.074 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 Permanent/Temporary	Comments
A	Palustrine emergent persistent, temporarily flooded (PEM1A)	0.042	0.023/0.003	This wetland is classified as a PEM1A wetland of poor quality and is located in a concave depression south of SR 58 at the southern outlet of the existing structure. This wetland will be permanently and temporarily impacted by construction activities. Construction activities will be limited to within the project area and all sediment and contaminants generated by construction will be contained on site. Due to the scope of the project, impacts to this wetland are unavoidable.
B	(PEM1A)	0.065	0.044/0.004	This wetland is classified as a PEM1A wetland of poor quality and is located in a concave depression north of SR 58 at the northern inlet of the existing structure. This wetland will be permanently and temporarily impacted by construction activities. Construction activities will be limited to within the project area and all sediment and contaminants generated by construction will be contained on site. Due to the scope of the project, impacts to this wetland are unavoidable.

Wetlands (*Mark all that apply*)	Documentation	ES Approval Dates
Wetland Determination	X	**February 20, 2020**
Wetland Delineation	X	**February 20, 2020**
USACE Isolated Waters Determination		
Mitigation Plan		

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

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

Measures to avoid, minimize, and mitigate wetland impacts need to be discussed in the remarks box.

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Remarks: Based on a review of the National Wetlands Inventory (NWI) online mapper (https://www.fws.gov/wetlands/data/Mapper.html), the United States Geological Survey (USGS) topographic map (Appendix B, page B-3), and the RFI report (Appendix E, page E-2), there are 12 wetlands located within the 0.5 mile search radius. The nearest wetland is located approximately 370 feet north of the project area. A Waters of the U.S. Determination Report was INDOT Ecology and Waterway Permitting office approved on February 20, 2020. Please refer to Appendix F, page F-3 for the Waters of the U.S. Determination Report. It was determined that two wetlands (described in table above) were identified within the project area. The wetland resources were identified as a jurisdictional "Waters of the U.S." subject to Federal regulation under the CWA. The USACE makes all final determinations regarding jurisdiction.
A total of 0.067 acre of permanent impacts within the project area are anticipated. The design of the project should take into account the location, quality, and ecological role of this resources and should, to the greatest degree possible, avoid and minimize impacts to the resource. Given the proposed project location, avoiding all impacts in any scenario besides a no-build scenario would will be impossible. Temporary impacts to the documented wetlands may include up to 0.007 acre that are within the construction limits. Mitigation is not anticipated but will be determined during permitting.

Early coordination letters were sent to IDEM and USACE on December 30, 2019. IDEM responded on December 30, 2019 with recommendations to avoid or minimize impacts to wetlands (Appendix C, pages C-15 through C-21). USACE did not respond within the 30-day time frame. All applicable IDEM recommendations are included in the Environmental Commitments section of this document.

	Presence	Impacts	
		Yes	No
Terrestrial Habitat	X	X	
Unique or High Quality Habitat			

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

Remarks: Based on a desktop review, a site visit on November 26, 2019 by Strand Associates Inc., and the aerial map of the project area (Appendix B, page B-2), there are residential lawns on the north side of the structure and agricultural fields and meadow areas on the south side of the structure. Approximately 0.37 acre of terrestrial habitat is within the construction footprint and will be temporarily impacted by the project. Approximately 0.12 acre of terrestrial habitat will be permanently impacted by the project by conversion to transportation use. No trees will be required to be removed. The vegetation impacted is limited to within the ROW and limited to construction disturbance for equipment access, installation of the new structure, riprap, and widening of the roadway shoulders. Due to the scope of the project, impacts to terrestrial habitat with any option other than a no-build alternative would be impossible.

An early coordination letter was sent to IDNR on December 30, 2019. IDNR responded on January 29, 2020 with recommendations to avoid or minimize impacts to fish, wildlife, and botanical resources (Appendix C, pages C-3 through C-7). Recommendations from IDNR include construction measures to minimize impacts to the vegetation in and around the stream channel including revegetation, riprap placement, tree removal, etc. All applicable IDNR recommendations are included in the Environmental Commitments section of this document.

If there are high incidences of animal movements observed in the project area, or if bridges and other areas appear to be the sole corridor for animal movement, consideration of utilizing wildlife crossings should be taken.

Karst	Yes	No
Is the proposed project located within or adjacent to the potential Karst Area of Indiana?		X
Are karst features located within or adjacent to the footprint of the proposed project?		X
If yes, will the project impact any of these karst features?		

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

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Remarks: Based on a desktop review, the project is located outside the designated karst region of Indiana as outlined in the October 13, 1993 Memorandum of Understanding (MOU). According to the topo map of the project area (Appendix B, page B-3) and the RFI report (Appendix E, page E-8), there are no karst features identified within or adjacent to the project area. In the early coordination response, the Indiana Geological Survey (IGS) did not indicate that karst features exist in the project area (Appendix C, pages C-8 through C-10). IGS did indicate the project area had high liquefaction potential and was within a floodway. Response from IGS has been communicated with the designer on December 30, 2019. No impacts are expected.

Threatened or Endangered Species	**Presence**	**Impacts**	
		Yes	**No**
Within the known range of any federal species	X	X	
Any critical habitat identified within project area			
Federal species found in project area (based upon informal consultation)			
State species found in project area (based upon consultation with IDNR)			

	Yes	**No**
Is Section 7 formal consultation required for this action?		X

Remarks: Based on a desktop review and the RFI report completed by Strand Associates, Inc. on January 31, 2019, the IDNR Bartholomew County Endangered, Threatened, and Rare (ETR) Species List has been checked and is included in Appendix E, pages E-10 through E-11. The highlighted species on the list reflect the federal and state identified ETR species located within the county. According to the IDNR, Division of Fish and Wildlife (DFW) early coordination response, dated January 29, 2020, (Appendix C, pages C-3 through C-7), the Natural Heritage Program's Database has been checked and to date, no plant or animal species listed as state or federally threatened, endangered, or rare, have been reported to occur in the vicinity of the project area. IDNR DFW provided recommendations to minimize the potential for impacts to fish and wildlife.

Indiana Bat and Northern Long-Eared Bat

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, page C-33). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional species were found within or adjacent to the project area other than the Indiana bat and northern long-eared bat.

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 Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and United States Fish and Wildlife Service (USFWS). An effect determination key was completed on February 10, 2020, and based on the responses provided, the project was found to "may affect - not likely to adversely affect" the Indiana bat and/or the NLEB (Appendix C, pages C-25 through C-32). INDOT reviewed and verified the effect finding on February 10, 2020 and requested USFWS's review of the finding (Appendix C, page C-22). No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. Avoidance and Mitigation Measures (AMMs) are included as firm commitments in the Environmental Commitments section of this document.

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

SECTION B – OTHER RESOURCES

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	Presence	Impacts	
Drinking Water Resources		Yes	No
Wellhead Protection Area			
Public Water System(s)			
Residential Well(s)			
Source Water Protection Area(s)			
Sole Source Aquifer (SSA)			

If a SSA is present, answer the following:

	Yes	No
Is the Project in the St. Joseph Aquifer System?		
Is the FHWA/EPA SSA MOU Applicable?		
Initial Groundwater Assessment Required?		
Detailed Groundwater Assessment Required?		

Remarks:

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

The IDEM Wellhead Proximity Determinator website (http://www.in.gov/idem/cleanwater/pages/wellhead/) was accessed on December 30, 2019 by Strand Associates Inc. This project is not located within a Wellhead Protection Area or Source Water Area. No impacts are expected.

The IDNR Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was accessed on December 30, 2019 by Strand Associates Inc. The database indicated no wells are located near this project. Therefore, no impacts are expected.

Based on a desktop review of the INDOT Municipal Separate Storm Sewer System (MS4) website (https://entapps.indot.in.gov/MS4/) by Strand Associates Inc. on December 30, 2019, and the RFI report; this project is not located in an Urban Area Boundary location. No impacts are expected.

Based on a desktop review, a site visit on November 26, 2019 by Strand Associates Inc., and the aerial map of the project area (Appendix B, page B-2), this project is located where there is a public water system. The public water system will not be affected because excavation will not occur to the depth of the water line located within the project area. Early Coordination letter was sent on March 15, 2020 to Southwest Bartholomew Water Corporation. Southwest Bartholomew Water Corporation did not respond within the 30-day time frame. Therefore, no impacts are expected.

	Presence	Impacts	
Flood Plains		Yes	No
Longitudinal Encroachment			
Transverse Encroachment			
Project located within a regulated floodplain			
Homes located in floodplain within 1000' up/downstream from project			

Discuss impacts according to classification system described in the "Procedural Manual for Preparing Environmental Studies".

Remarks:

The Indiana Department of Natural Resources Indiana Floodway Information Portal website (http://dnrmaps.dnr.in.gov/appsphp/fdms/) was accessed on December 30, 2019 by Strand Associates Inc. This project is not located in a regulatory floodplain as determined from approved IDNR floodplain maps. Therefore, it does not fall within the guidelines for the implementation of 23 CFR 650, 23 CFR 771, and 44 CFR. No impacts are expected.

	Presence	Impacts	
Farmland		Yes	No

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Agricultural Lands	X	X	
Prime Farmland (per NRCS)	X	X	

Total Points (from Section VII of CPA-106/AD-1006* **142**
**If 160 or greater, see CE Manual for guidance.*

See CE Manual for guidance to determine which NRCS form is appropriate for your project.

Remarks: Based on a desktop review, a site visit on November 26, 2019 by Strand Associates Inc., the aerial map of the project area (Appendix B, page B-1), the project will convert 0.28 acre of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on December 30, 2019 to Natural Resources Conservation Service (NRCS). Coordination with NRCS resulted in a score of 142 on the *AD 1006 Form* (Appendix C, page C-13 through C-14). NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

SECTION C – CULTURAL RESOURCES

	Category	Type	INDOT Approval Dates	N/A
Minor Projects PA Clearance	B	9	May 27, 2020	

Results of Research

	Eligible and/or Listed Resource Present
Archaeology	
NRHP Buildings/Site(s)	
NRHP District(s)	
NRHP Bridge(s)	

Project Effect

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

Documentation (mark all that apply)	Documentation Prepared	ES/FHWA Approval Date(s)	SHPO Approval Date(s)
Historic Properties Short Report			
Historic Property Report			
Archaeological Records Check/ Review			
Archaeological Phase Ia Survey Report			
Archaeological Phase Ic Survey Report			
Archaeological Phase II Investigation Report			
Archaeological Phase III Data Recovery			
APE, Eligibility and Effect Determination			
800.11 Documentation			

County Bartholomew Route State Road 58 Des. No. 1700012

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

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

Remarks: On May 27, 2020 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 D-1 through D-3). The type of work included within this category consists of installing, replacing, repair, lining, or extension of culverts and other drainage structures. Since work occurs in undisturbed soils, an archaeology report was required for the project. The archaeology report completed on April 29, 2020, indicated no evidence of archaeological deposits within the project area (Appendix D, Page, D-2). No further consultation is required. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

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

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

	Presence	Use	
Parks & Other Recreational Land		Yes	No
Publicly owned park	☐	☐	☐
Publicly owned recreation area	☐	☐	☐
Other (school, state/national forest, bikeway, etc.)	☐	☐	☐

	Evaluations Prepared	FHWA Approval date
Programmatic Section 4(f)*	☐	
"De minimis" Impact*	☐	
Individual Section 4(f)	☐	☐

	Presence	Use	
Wildlife & Waterfowl Refuges		Yes	No
National Wildlife Refuge	☐	☐	☐
National Natural Landmark	☐	☐	☐
State Wildlife Area	☐	☐	☐
State Nature Preserve	☐	☐	☐

	Evaluations Prepared	FHWA Approval date
Programmatic Section 4(f)*	☐	
"De minimis" Impact*	☐	
Individual Section 4(f)	☐	☐

	Presence	Use	
Historic Properties		Yes	No
Sites eligible and/or listed on the NRHP	☐	☐	☐

	Evaluations Prepared	FHWA Approval date
Programmatic Section 4(f)*		
"De minimis" Impact*		
Individual Section 4(f)		

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

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

Remarks:

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

Based on a desktop review, a site visit on November 26, 2019 by Strand Associates Inc., the aerial map of the project area (Appendix B, page B-2), and the RFI report (Appendix E, page E-2) there are no 4(f) resources located within the 0.5 mile search radius. 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 proposed alternatives that satisfy the requirements of Section 6(f). Discuss any Section 6(f) involvement.

Remarks:

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

A review of 6(f) properties on the Land and Water Conservation Fund (LWCF) website at https://www.lwcfcoalition.com/tools revealed a total of 5 properties in Bartholomew County (Appendix I, pages I-1 and I-2). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources as a result of this project.

SECTION E – Air Quality

Air Quality

Conformity Status of the Project	Yes	No
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 the project is NOT exempt from conformity, then:		
Is the project in the Transportation Plan (TP)?		
Is a hot spot analysis required (CO/PM)?		

County Bartholomew Route State Road 58 Des. No. 1700012

Level of MSAT Analysis required?

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

Remarks:

The Fiscal Year (FY) 2018-2021 Statewide Transportation Improvement Program (STIP) and FY 2020-2024 STIP is listed based on the lead DES number in the contract. The lead DES number for this contract is 1600503. The FY 2018-2021 STIP and FY 2020-2024 STIP includes DES number 1700012 by reference with the contract number B-40407 (Appendix H, page H-1).

This project is located in Bartholomew County, which is currently in attainment for all criteria pollutants according to IDEM Nonattainment Status for Indiana Counties. Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

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

SECTION F - NOISE

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

	No	**Yes/ Date**
ES Review of Noise Analysis		

Remarks:

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

SECTION G – COMMUNITY IMPACTS

Regional, Community & Neighborhood Factors	**Yes**	**No**
Will the proposed action comply with the local/regional development patterns for the area?	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 remarks box)	X	

County Bartholomew Route State Road 58 Des. No. 1700012

Remarks: There are no pedestrian facilities, existing or proposed, associated with the project; therefore, the project is in compliance with the August 2016 *Bartholomew County, Indiana Americans with Disabilities Act Self-Evaluation and Transition Plan*.

Indirect and Cumulative Impacts

Will the proposed action result in substantial indirect or cumulative impacts?	Yes	No
		X

Remarks: Indirect impacts are effects which are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate. Cumulative impacts affect the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions.

The proposed culvert replacement project is expected to have neutral impact on the local community and economy as it is not of a type to increase development in the area or cause changes in the traffic pattern. Therefore, it is not expected to have indirect or cumulative impacts in the immediate or extended area.

Public Facilities & Services

Will the proposed action result in substantial impacts on health and educational facilities, public and private utilities, emergency services, religious institutions, airports, public transportation or pedestrian and bicycle facilities? *Discuss how the maintenance of traffic will affect public facilities and services.*	Yes	No
		X

Remarks: Based on a desktop review, a site visit on November 26, 2019 by Strand Associates Inc., the aerial map of the project area (Appendix B, page B-2), and the RFI report (Appendix E, page E-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. Access to all properties will be maintained during construction. Therefore, no impacts are expected.

Temporary disruption of emergency services and school bus routes will occur as the proposed project will require a full road closure during the duration of the project.

The closures/lane restrictions will pose a temporary inconvenience to traveling motorists (including school buses and emergency services); however, no significant delays are anticipated and all inconveniences will cease upon project completion. Access to all properties will be maintained during construction. Delays may occur during construction but will cease with project completion.

An early coordination letter was sent to Bartholomew County School Corporation, Southwest Bartholomew Volunteer Fire Department, and Columbus Fire Station 6 on December 30, 2019. There were no responses to the early coordination letter.

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

Environmental Justice (EJ) (Presidential EO 12898)

	Yes	No
During the development of the project were EJ issues identified?		X
Does the project require an EJ analysis?	X	
If YES, then:		
Are any EJ populations located within the project area?		X
Will the project result in adversely high or disproportionate impacts to EJ populations?		X

Indiana Department of Transportation

County Bartholomew Route State Road 58 Des. No. 1700012

Remarks:

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 1.02 acre of additional ROW. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city or town and is called the community of comparison (COC). In this project, the COC is Bartholomew County. The community that overlaps the project limits is called the affected community (AC). In this project, the AC is Census Tract 110 and 115. 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 American Community Survey (ACS) 2017 5-year data was obtained from the US Census Bureau Website https://data.census.gov/cedsci/ on June 2, 2020 by Strand Associates Inc. The data collected for minority and low-income populations within the AC are summarized in the below table.

	Table: Minority and Low-Income Data (U.S. Census Bureau, Data from ACS 2017 5-Year Results)		
	COC: Bartholomew County, Indiana	AC-1: Census Tract 110, Bartholomew County, Indiana	AC-2: Census Tract 115, Bartholomew County, Indiana
Percent Minority	14.4%	7.8%	13.1%
125% of COC	18.0%	AC < 125% COC	AC < 125% COC
EJ Population of Concern		No	No
Percent Low Income	12.4%	6.3%	12.5%
125% of COC	15.5%	AC < 125% COC	AC < 125% COC
EJ Population of Concern		No	No

AC-1, Census Tract 110, has a percent minority of 7.8%, which is below 50% and is below the 125% COC threshold. AC-2, Census Tract 115, has a percent minority of 13.1%, which is below 50% and is below the 125% COC threshold. Therefore, both AC's do not contain minority populations of EJ concern.

AC-1, Census Tract 110, has a percent minority of 6.3%, which is below 50% and is below the 125% COC threshold. AC-2, Census Tract 115, has a percent low-income of 12.5%, which is below 50% and is below 125% COC threshold. Therefore, both AC's do not contain low-income populations of EJ concern.

The census data sheets and map can be found in Appendix I, starting on Page I-3. 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 Business Information Survey (BIS) required?		X
Is a Conceptual Stage Relocation Study (CSRS) required?		X
Has utility relocation coordination been initiated for this project?	X	

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

If a BIS or CSRS is required, discuss the results in the remarks box.

County Bartholomew Route State Road 58 Des. No. 1700012

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

SECTION H – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

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

	No	**Yes/ Date**
ES Review of Investigations		January 31, 2019

Include a summary of findings for each investigation.

Remarks: Based on a review of geographic information system (GIS) and available public records, an RFI was approved on January 31, 2019 by INDOT Environmental Services (Appendix E, page E-1). One underground storage tank (UST) site is located within 0.5 mile of the project area and is approximately 0.41 mile west of the project area. No impacts are expected because of distance. Further investigation for hazardous material concerns is not required at this time.

SECTION I – PERMITS CHECKLIST

Permits (mark all that apply)	**Likely Required**
Army Corps of Engineers (404/Section10 Permit)	
Individual Permit (IP)	
Nationwide Permit (NWP)	
Regional General Permit (RGP)	X
Pre-Construction Notification (PCN)	
Other	
Wetland Mitigation required	
Stream Mitigation required	
IDEM	
Section 401 WQC	X
Isolated Wetlands determination	
Rule 5	X
Other	
Wetland Mitigation required	
Stream Mitigation required	
IDNR	

Construction in a Floodway	
Navigable Waterway Permit	
Lake Preservation Permit	
Other	
Mitigation Required	
US Coast Guard Section 9 Bridge Permit	
Others (Please discuss in the remarks box below)	

Remarks:

An IDEM, Section 401 Water Quality Certification (WQC) General Permit and a USACE, Section 404 Clean Water Act Regional General Permit are anticipated for the proposed project. If there is one acre or more of soil disturbance, then a Rule 5 Notice of Intent will be required.

It is anticipated that this project qualifies for a Construction in a Floodway (CIF) exemption under IC 14-28-1 Section 22.

Applicable recommendations provided by IDEM and USACE are included in the Environmental Commitments section of this document. If a permit is found to be necessary, the conditions of the permit will be requirements of the project and will supersede these recommendations. It is the responsibility of INDOT to identify and obtain all required permits.

SECTION J- ENVIRONMENTAL COMMITMENTS

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

Remarks:

Firm:

1. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT ESD and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT District)

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

3. General AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)

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

For Further Consideration:

1. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30. (IDNR)

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

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

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

5. Do not construct any temporary runarounds, access bridges, casuseways, cofferdams, diversions, or pumparounds. (IDNR)

6. Plant native hardwood trees along the top of the bank and right-of-way to replace the vegetation destroyed during construction. (IDNR)
7. Post "Do Not Mow or Spray" signs along the right-of-way. (IDNR)

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

9. Any riprap placed at the culvert's outlet should match the outlet/invert elevation at the upstream edge of the riprap apron. Smaller stone and fines should be mixed in to match the existing stream substrate particle distribution and provide impermeability of riprap apron's surface. The slope of the riprap should be no steeper than 20:1 from the lip of the culvert pipe to the streambed. Riprap on the inlet side should have a slope no steeper than 5:1. Natural streambed material should be backfilled within the structure where possible as it can provide refuge for species using the culvert. Natural bed materials such as large cobble and boulders should be placed within the structure (anchored if necessary) to provide flow diversity and roughness/energy dissipation. (IDNR)

SECTION K- EARLY COORDINATION

Please list the date coordination was sent and all agencies that were contacted as a part of the development of this Environmental Study. Also, include the date of their response or indicate that no response was received. INDOT and FHWA are automatically considered early coordination participants and should only be listed if a response is received.

Remarks:

AGENCY	DATE MATERIALS SENT	DATE OF RESPONSE
U.S. Fish and Wildlife Service	February 10, 2020	February 10, 2020
Natural Resources Conservation Service	December 30, 2019	January 13, 2019
Indiana Geological Survey	December 30, 2019	December 30, 2019
IDNR Division of Fish and Wildlife	December 30, 2019	January 29, 2020
U.S. Department of Housing and Urban Development	December 30, 2019	No Response
IDEM Automated Response	December 30, 2019	December 30, 2019
IDEM Groundwater Section Self-Service	December 30, 2019	December 30, 2019
Army Corps of Engineers, Louisville District	December 30, 2019	No Response
National Park Service	December 30, 2019	No Response
INDOT, Environmental Policy Manager	December 30, 2019	January 6, 2020
INDOT, Project Manager	December 30, 2019	December 30, 2019
Bartholomew County School Corporation	December 30, 2019	No Response
Columbus Fire Station 6	December 30, 2019	No Response
Southwest Bartholomew Volunteer Fire Department	December 30, 2019	No Response
Southwestern Bartholomew Water Corporation	March 15, 2020	No Response

SR 58 over UNT to East Fork White Creek (DES. NO. 1700012)

Page No.
or Following

APPENDIX G - PUBLIC INVOLVEMENT

APPENDIX H - AIR QUALITY

APPENDIX I - ADDITIONAL STUDIES

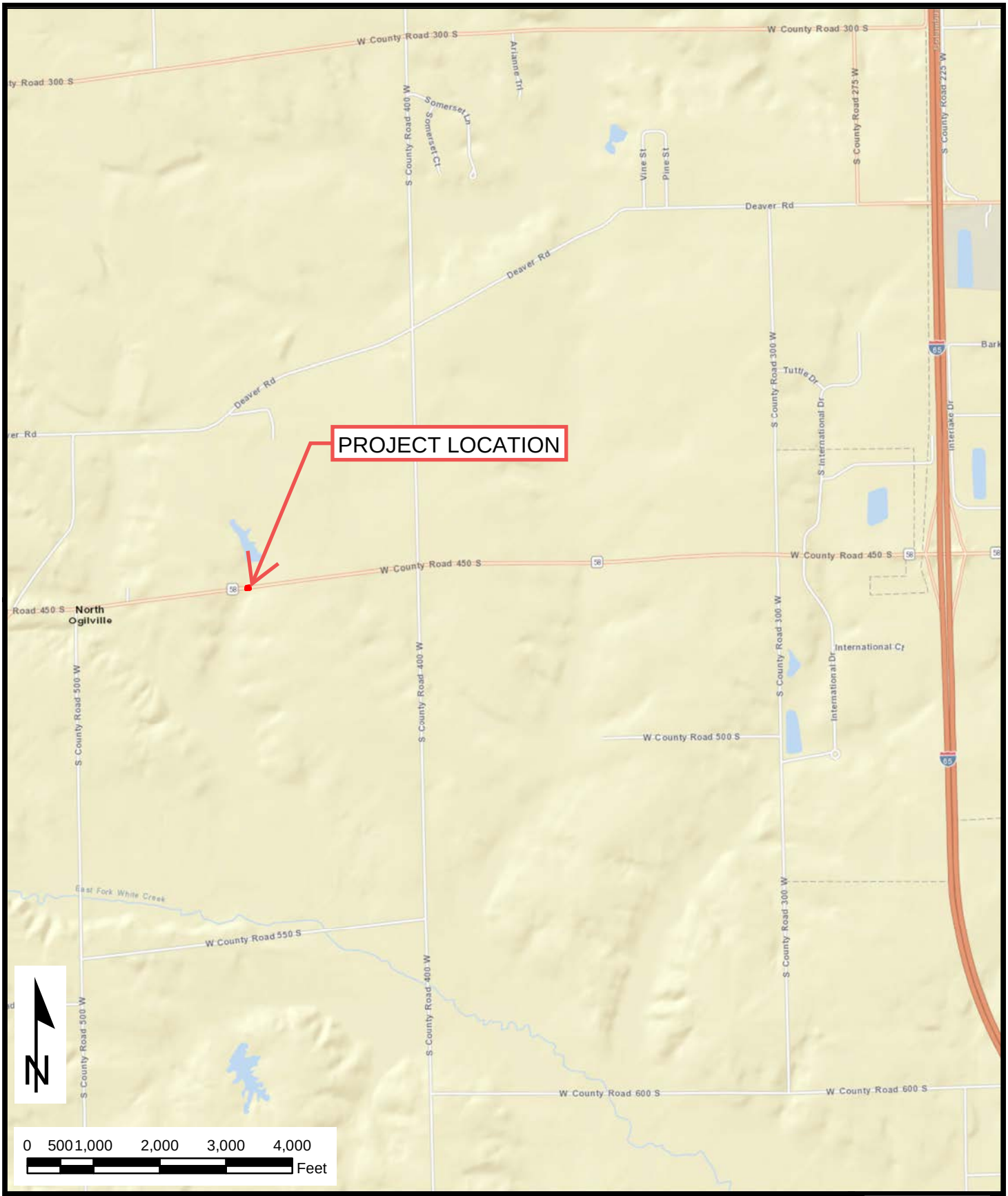
APPENDIX A
INDOT SUPPORTING DOCUMENTATION

Categorical Exclusion Level Thresholds

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

[1]Coordinate with INDOT Environmental Services. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.
[2]Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.
[3]Permanent and/or temporary right-of-way.
[4]AMMs = Avoidance and Mitigation Measures.
[5]AMMs determined by the IPAC decision key to be needed that are listed in the USFWS *User's Guide for the Range-wide Programmatic Consultation for Indiana bat and Northern long-eared bat* as "required for all projects".
[6]Potential for causing a disproportionately high and adverse impact.
[7]Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.
*Substantial public or agency controversy may require a higher-level NEPA document.

APPENDIX B
GRAPHICS



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BRIDGE PROJECT

PROJECT LOCATION MAP

DES. 1700012

S.R. 58 OVER UNNAMED TRIBUTARY TO EAST FORK WHITE CREEK

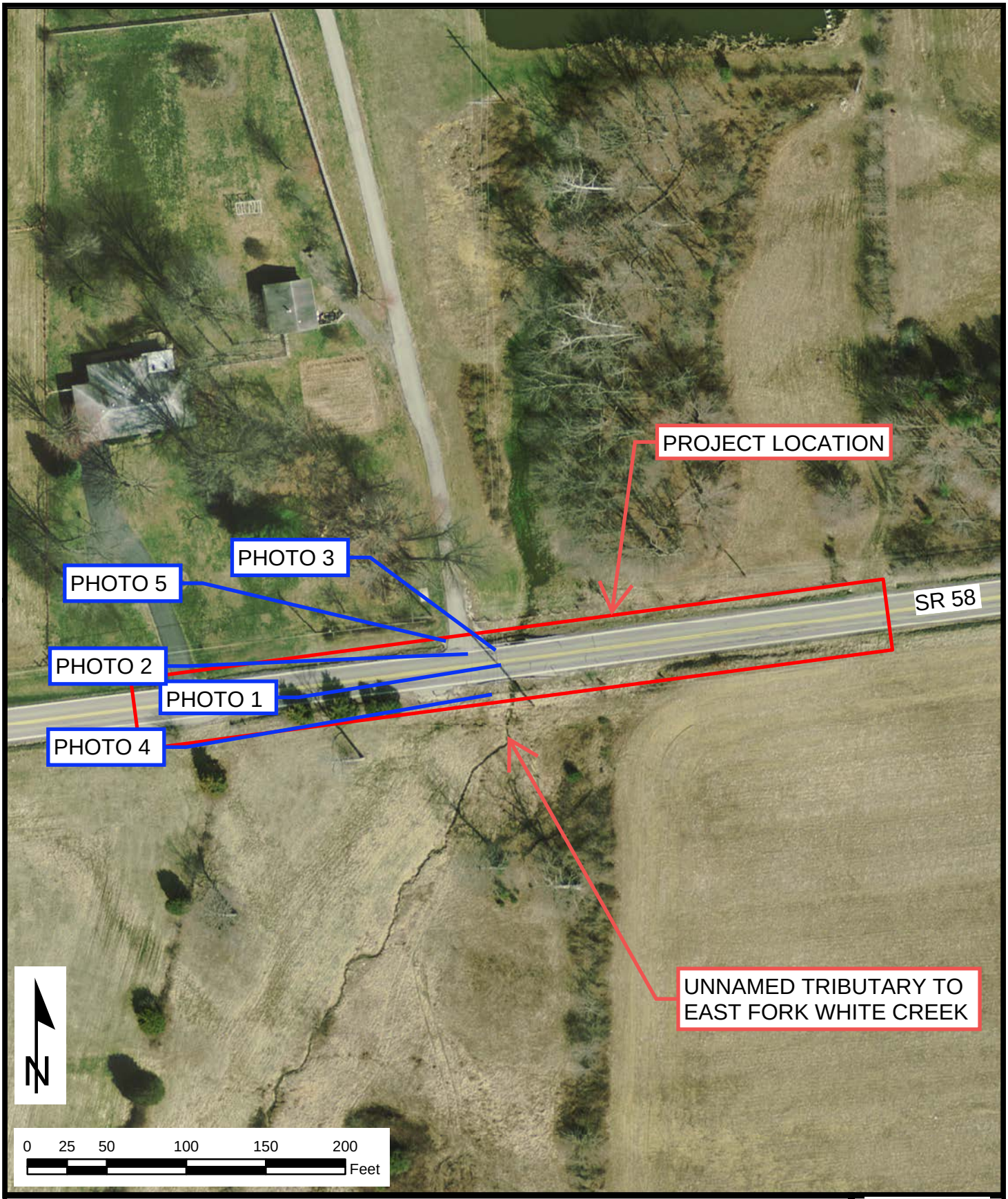
BARTHOLOMEW COUNTY, INDIANA

STRAND ASSOCIATES®

FIGURE 1

4060.314

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



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BRIDGE PROJECT

AERIAL PHOTOGRAPHY MAP

DES. 1700012

S.R. 58 OVER UNNAMED TRIBUTARY TO EAST FORK WHITE CREEK

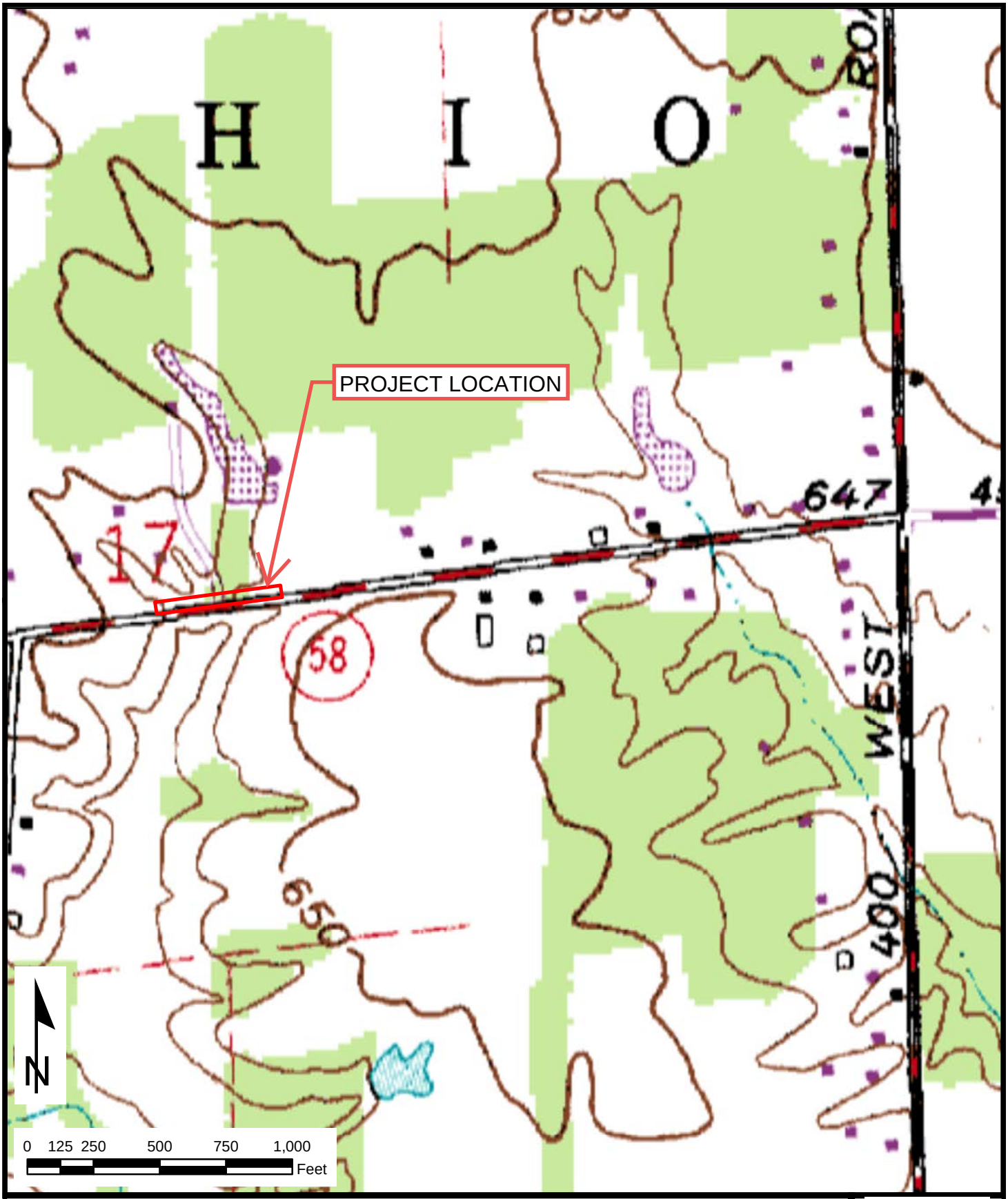
BARTHOLOMEW COUNTY, INDIANA

STRAND ASSOCIATES®

FIGURE 2

4060.314

Service Layer Credits: State of Indiana, 2012 Imagery



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BRIDGE PROJECT

AERIAL PHOTOGRAPHY MAP

DES. 1700012

S.R. 58 OVER UNNAMED TRIBUTARY TO EAST FORK WHITE CREEK

BARTHOLOMEW COUNTY, INDIANA

STRAND ASSOCIATES®

FIGURE 3

4060.314

Service Layer Credits: USGS Columbus Quadrangle Map

Date: January 10, 2018

Time:

Description: Photograph 1

State Road 58, looking east.

Date: November 16, 2017

Time:

Description: Photograph 2

West side of structure showing approach and roadway pavement, looking east.

SMALL STRUCTURE REPLACEMENT PROJECT
SITE PHOTOGRAPHS

S.R. 58 OVER UNNAMED TRIBUTARY TO
EAST FORK WHITE CREEK
BARTHOLOMEW COUNTY, INDIANA

STRAND ASSOCIATES®

Date: January 10, 2018

Time:

Description: Photograph 3

North side of structure showing water channel, looking southeast.

Date: May 18, 2018

Time:

Description: Photograph 4

South side of structure, looking east.

SMALL STRUCTURE REPLACEMENT PROJECT
SITE PHOTOGRAPHS

S.R. 58 OVER UNNAMED TRIBUTARY TO
EAST FORK WHITE CREEK
BARTHOLOMEW COUNTY, INDIANA

STRAND ASSOCIATES®

Date: May 18, 2018

Time:

Description: Photograph 5

West side of driveway near northwest corner of structure, looking east.

Date:

Time:

Description:

SMALL STRUCTURE REPLACEMENT PROJECT
SITE PHOTOGRAPHS

S.R. 58 OVER UNNAMED TRIBUTARY TO
EAST FORK WHITE CREEK
BARTHOLOMEW COUNTY, INDIANA

STRAND ASSOCIATES®

PROJECT	DESIGNATION
1700012	1700012
CONTRACT	BRIDGE FILE NO.
B-40407	N/A

INDIANA DEPARTMENT OF TRANSPORTATION

ROAD PLANS

ROUTE: SR 58 AT: RP 120+30

PROJECT NO. 1700012 P.E.
1700012 R/W
1700012 CONST.

Small Structure Replacement on SR 58 over UNT to East Fork White Creek
Located 1.95 Miles West of Interstate 65 in Section 17, T-8-N, R-5-E, Ohio Township, Bartholomew County.

Partial plans relevant to this document.

STRUCTURE INFORMATION

STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
CV 058-003-120.30	REINF. CONC. BOX CULVERT	1 @ 9'-0" 16° Skew Rt.	UNT East Fork White Creek	15+20 "A"

KIN PROJECT INFORMATION

DESIGNATION	PROJECT DESCRIPTION
1600503 (Lead Des.)	Bridge Replacement on SR 58, 3.35 miles west of I-65
1700012	Small Structure Replacement on SR 58 1.95 miles west of I-65
1700171	Superstructure Replacement on SR 58 0.84 miles east of SR 258
1701428	Bridge Replacement on SR 58 1.89 miles east of SR 258
1701431	Bridge Replacement on SR 58 2.28 miles east of SR 258

CULVERT ASSETS	
DES. NO.	CULVERT ASSET ID
1700012	CV 058-003-120.30

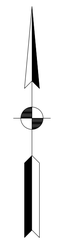
TRAFFIC DATA

A.A.D.T.	(2022)	5,070 V.P.D.
A.A.D.T.	(2042)	5,120 V.P.D.
D.H.V	(2042)	455 V.P.H.
DIRECTIONAL DISTRIBUTION		51.43 %
TRUCKS		3.13 % A.A.D.T.
		3.81 % D.H.V.

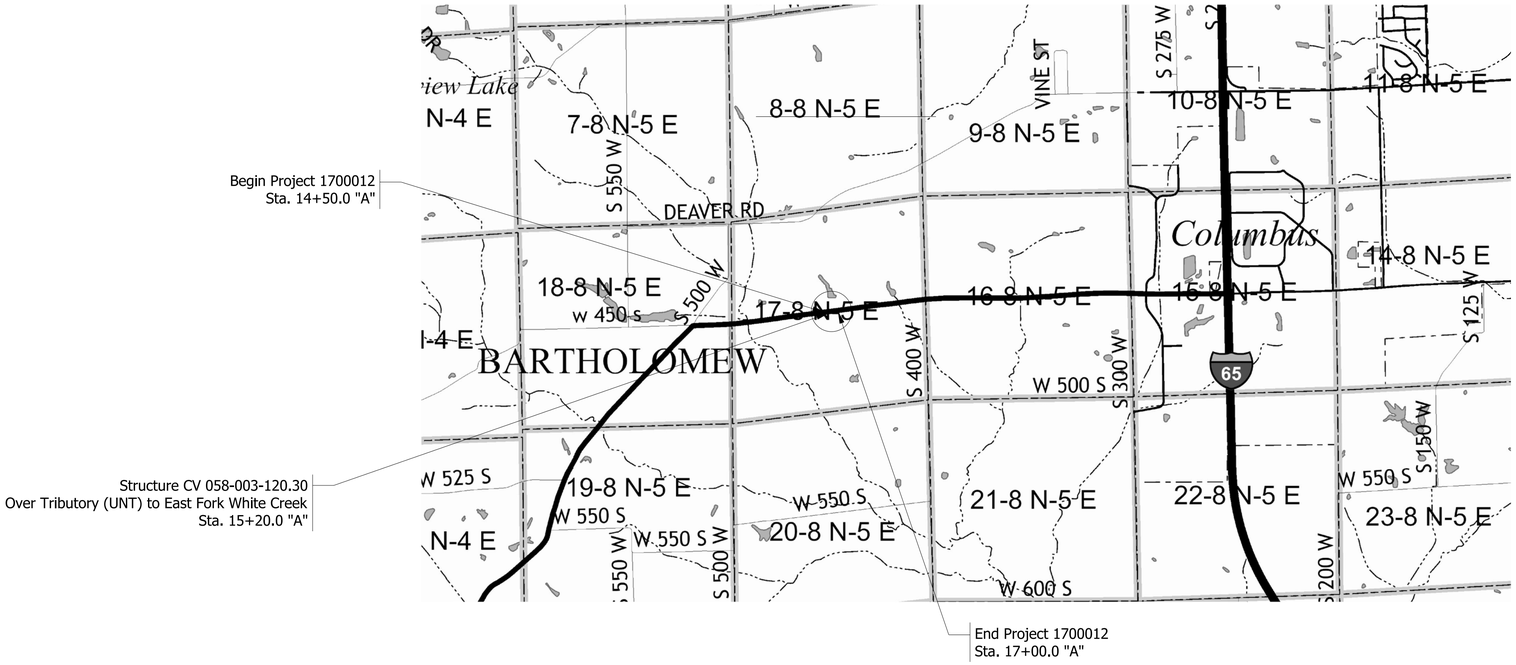
DESIGN DATA

DESIGN SPEED	45 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	STATE COLLECTOR
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE

PROJECT LOCATION SHOWN BY
Bartholomew County



SCALE: 1" = 2000'



BRIDGE LENGTH:	NA MI.
ROADWAY LENGTH:	0.047 MI.
TOTAL LENGTH:	0.047 MI.
MAX. GRADE:	3.08 %

LATITUDE: 39° 07' 59.92" N LONGITUDE: 85° 59' 42" W

HUC: 05120206050040

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

STRAND ASSOCIATES®

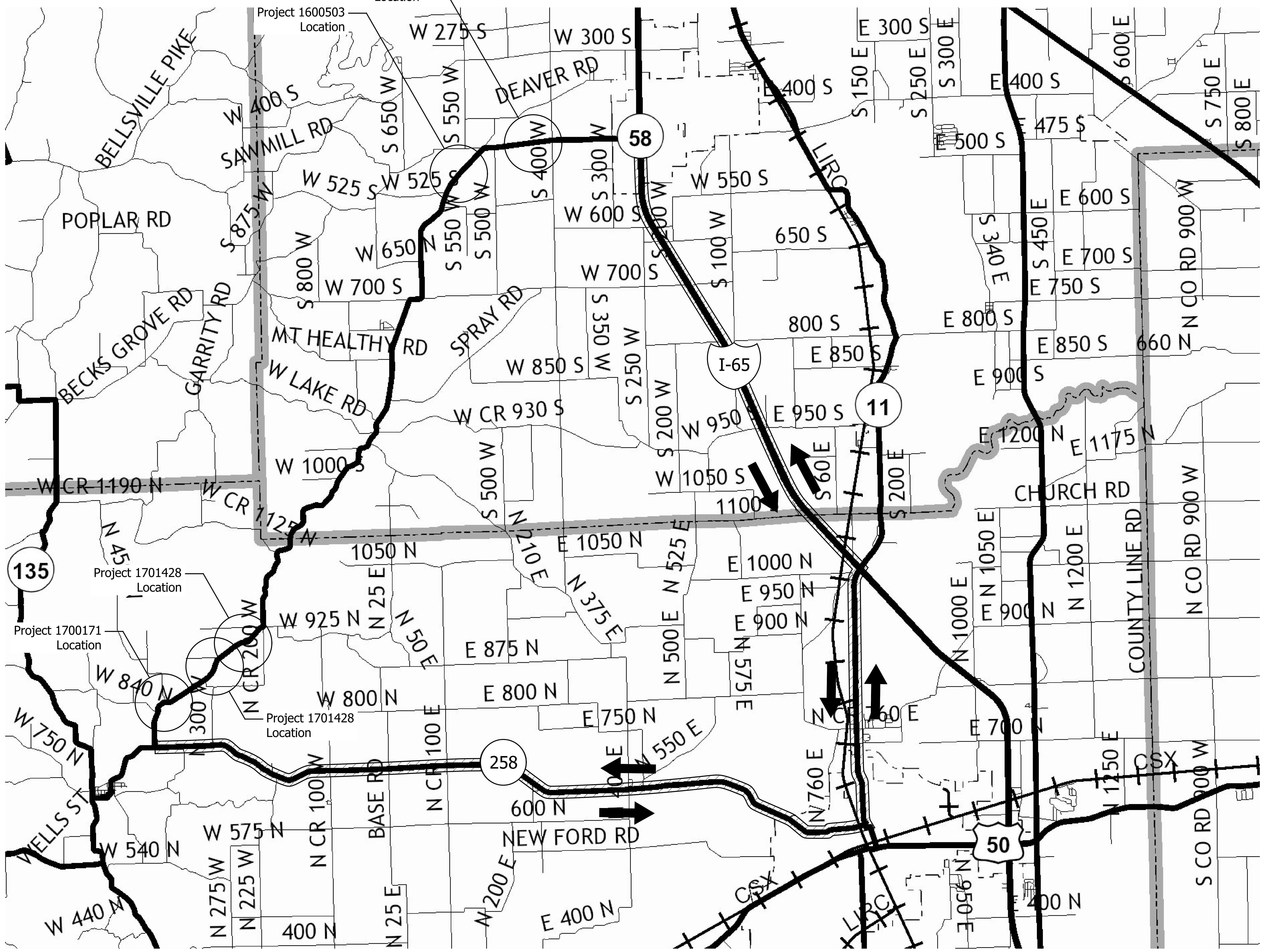
PLANS PREPARED BY: STRAND ASSOCIATES, INC. (812) 372-9911
629 WASHINGTON ST., COLUMBUS, IN 47201 PHONE NUMBER

CERTIFIED BY: DATE

APPROVED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE

BRIDGE FILE NO.
NA
DESIGNATION
1700012

SURVEY BOOK	SHEETS
	1 of 16
CONTRACT	PROJECT
B-40407	1700012



Legend

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

Detour Route Marker Assemblies

A	DRMA (Advance Turn)	-	Ea.
B	DRMA (Directional)	-	Ea.
C	DRMA (Confirming)	-	Ea.
D	DRMA (End)	-	Ea.

Type A Construction Signs

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

Type A Construction Signs

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

Barricades

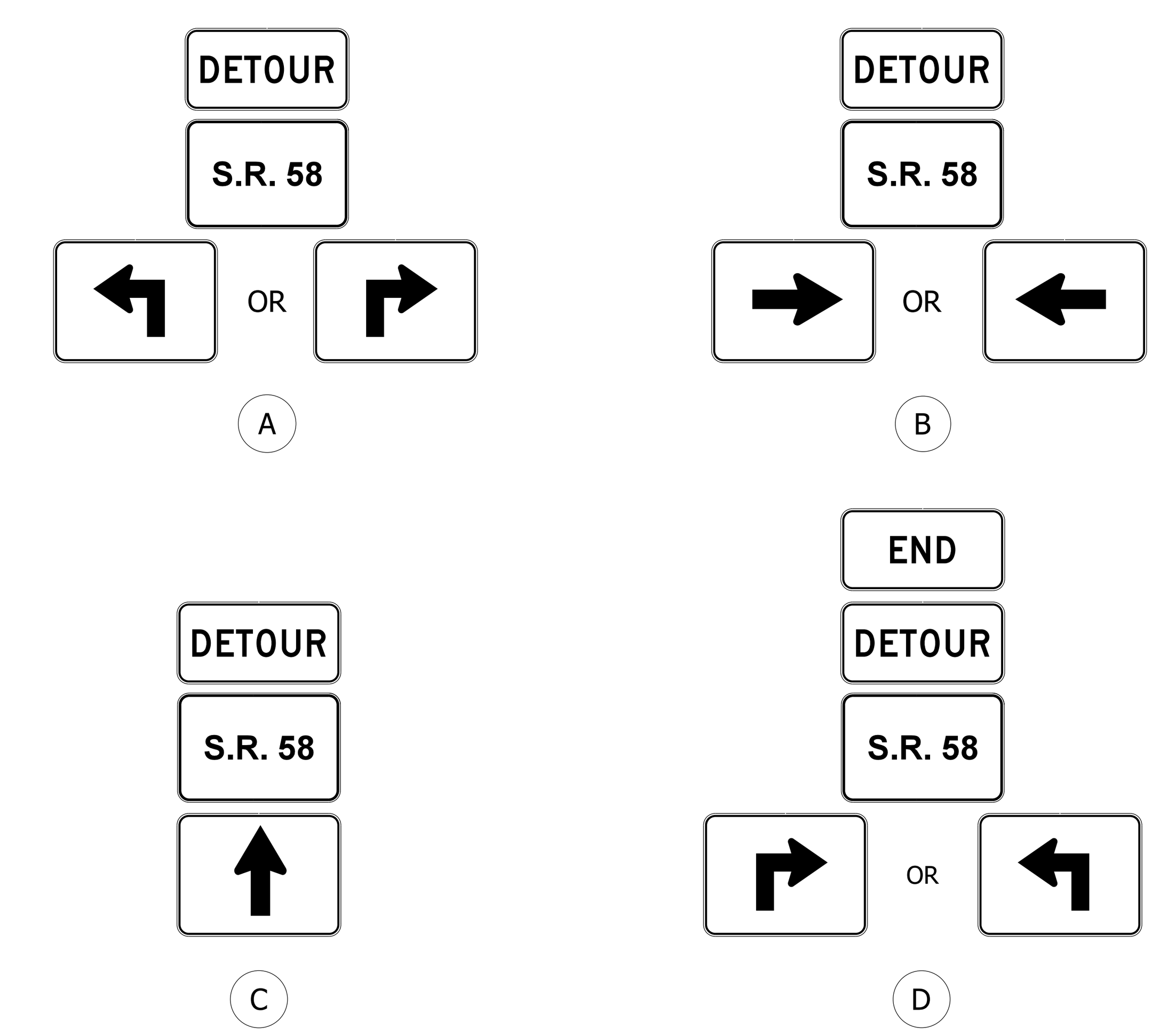
K	Barricade, Type III-A (No. of 12' Units)	-	Lft. (-)
L	Barricade, Type III-B (No. of 12' Units)	-	Lft. (-)

Road Closure Sign Assemblies

N	RCSA (R11-3)	-	Ea.
O	RCSA (R11-3)	-	Ea.
P	RCSA (R11-2)	-	Ea.

Type C Construction Signs

Q	XG20-7 Worksite Penalty Sign	-	Ea.



Note to Reviewer: Quanities, Labels, and additional details to be updated after scheme is agreed upon at PFC.

RECOMMENDED FOR APPROVAL ______ DESIGN ENGINEER ______ DATE

DESIGNED: DHS DRAWN: DHS
CHECKED: JMH CHECKED: JMH

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
SR 58 OVER UNT E. FORK WHITE CREEK

HORIZONTAL SCALE	BRIDGE FILE NO.
NA	NA
VERTICAL SCALE	DESIGNATION NO.
NA	1700012
SURVEY BOOK NO.	SHEETS
	3 of 16
CONTRACT NO.	PROJECT NO.
B-40407	1700012

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10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00

GARY D. &
CHERYL L. MURPHY

ROBERT O. & MARY E. SIMPSON

LOT 1

R SIMPSON ADMINISTRATIVE SUBDIVISION

LOT 2

ROBERT D. &
JULIE A. SIMPSON

STEVEN R. FOLEY

Sec. 17, T-8-N, R-5-E
Ohio Township
Bartholomew County

FOLEY & RICHARDSON ADMINISTRATIVE SUBDIVISION
PLAT BOOK "R", PAGE 387C
LOT 1

App. ℄

Electric Line Easement

App. ½ Section Line

Begin Incidental Construction
Sta. 13+50.00 "A"

Begin Project
Sta. 14+50.00 "A"

Class II Drive Req'd. Lt.
W = 10'

±88.2

Class V Drive Req'd. Lt.
W = 24'

±49.0

TBM #1

TBM #2

45' R/W

P.I. = 10+00.00

P.I. = 20+00.00

Ex. R/W

Line "A"

SR 58
N 83°26'16" E

17

App. ½ Section Line

Ex. R/W

Gas Line Easement

45' R/W

App. ½ Section Line

End Project
Sta. 17+00.00 "A"

End Incidental Construction
Sta. 18+00.00 "A"

Sec. 17, T-8-N, R-5-E
Ohio Township
Bartholomew County

JUDITH ANN STRAHL

JUDITH ANN STRAHL

All R/W and existing topography
described from LINE "A"
LINE "A" to be constructed.

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5/8/2020

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RECOMMENDED
FOR APPROVAL _____
DESIGN ENGINEER DATE

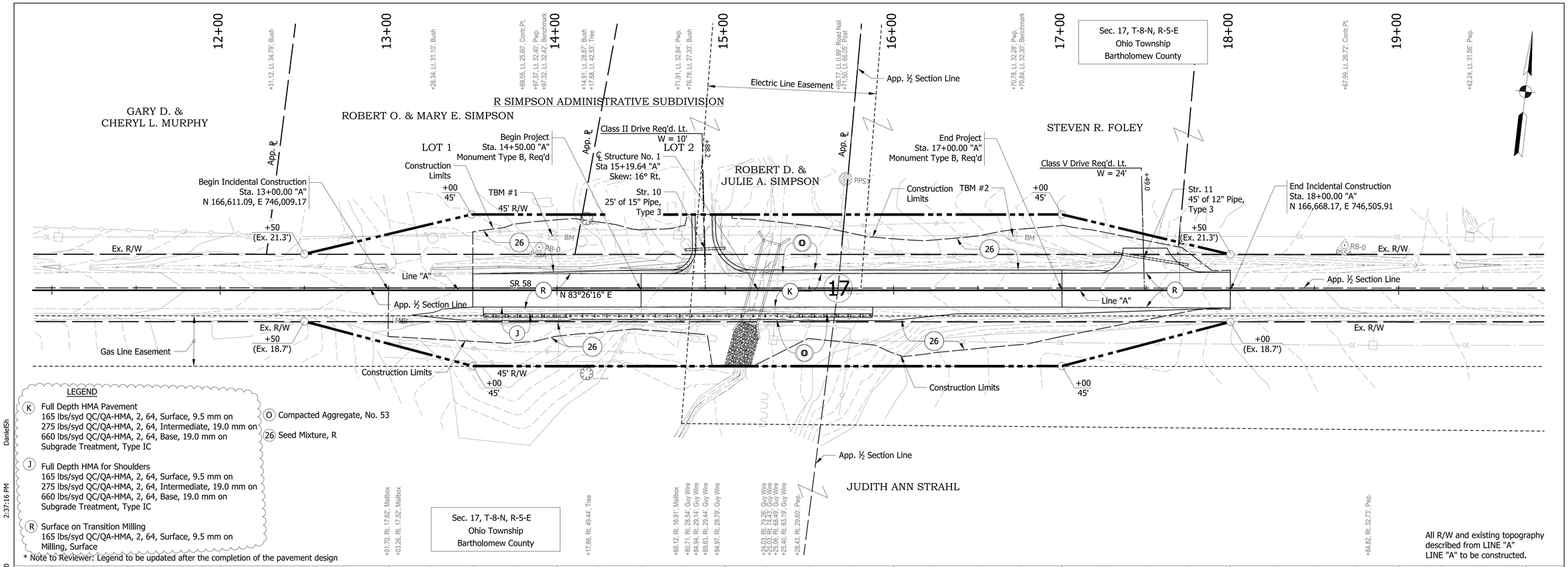
DESIGNED: DHS
DRAWN: DHS
CHECKED: JMH
CHECKED: JMH

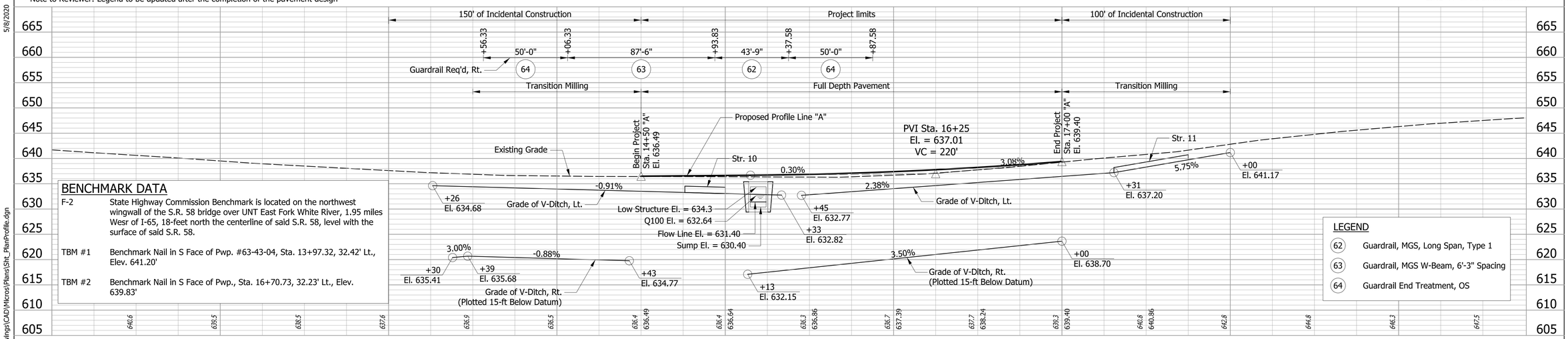
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAT NO. 1
SR 58 OVER UNT E. FORK WHITE CREEK

HORIZONTAL SCALE	BRIDGE FILE NO.
1" = 40'	NA
VERTICAL SCALE	DESIGNATION NO.
NA	1700012

SURVEY BOOK NO.	SHEETS		
	7	of	16
CONTRACT NO.	PROJECT NO.		
B-40407	1700012		





RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 30'	BRIDGE FILE NO. NA
		VERTICAL SCALE 1" = 10'	DESIGNATION NO. 1700012
DESIGNED: DHS DRAWN: DHS	PLAN AND PROFILE SR 58 OVER UNT E. FORK WHITE CREEK	SURVEY BOOK NO.	SHEETS 8 of 16
CHECKED: JMH CHECKED: JMH		CONTRACT NO. B-40407	PROJECT NO. 1700012

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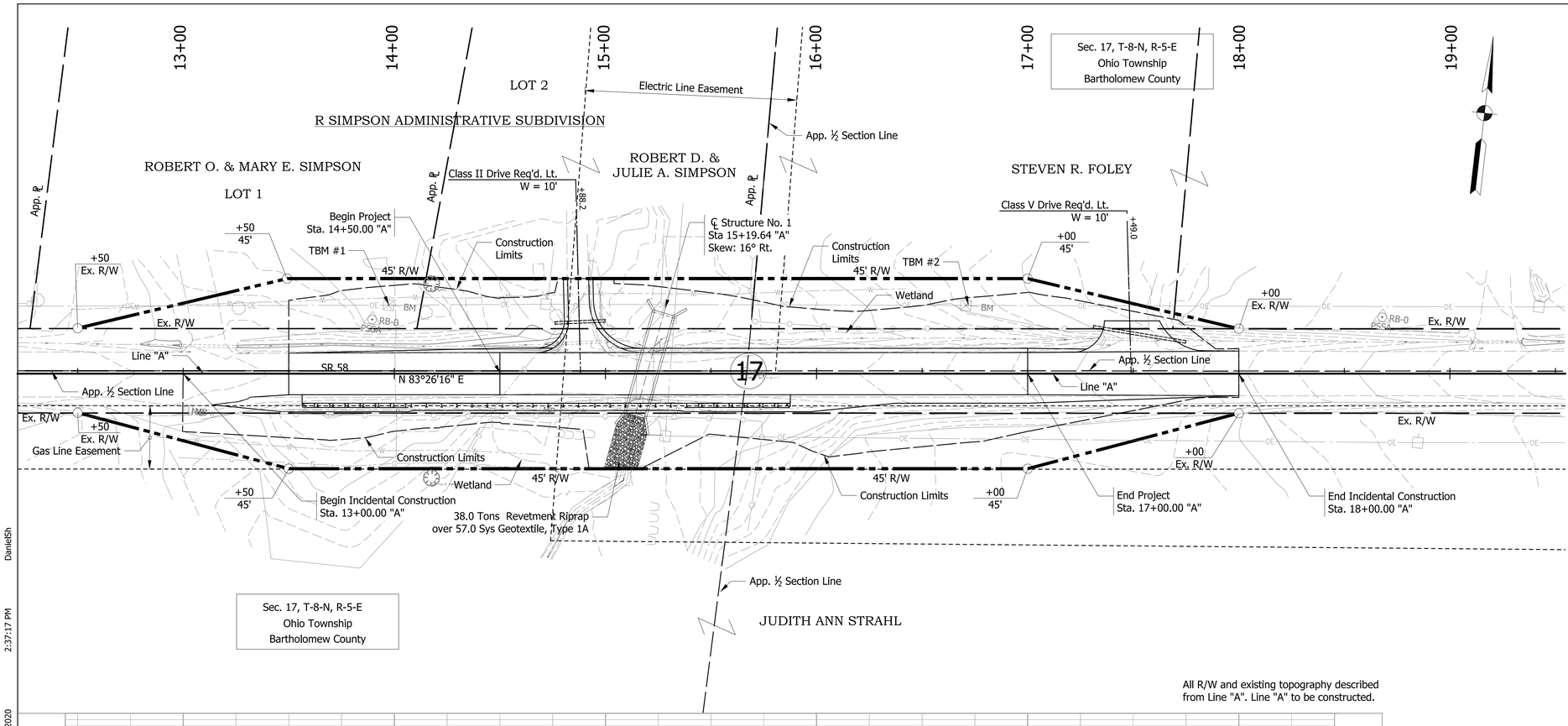
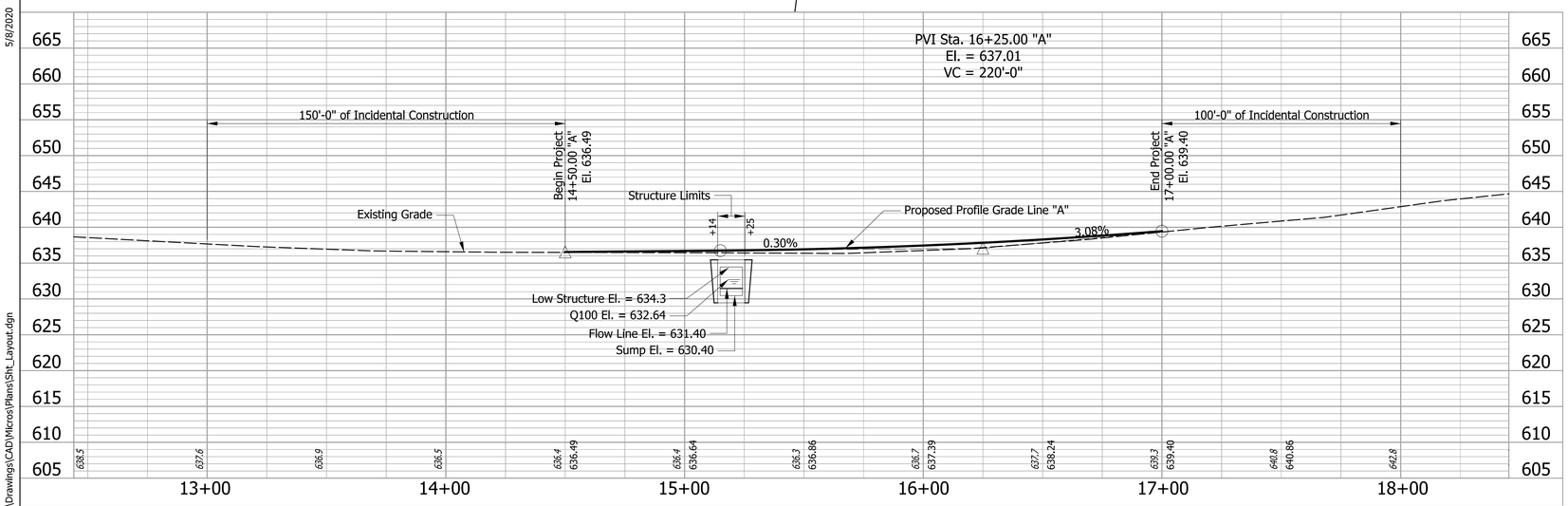
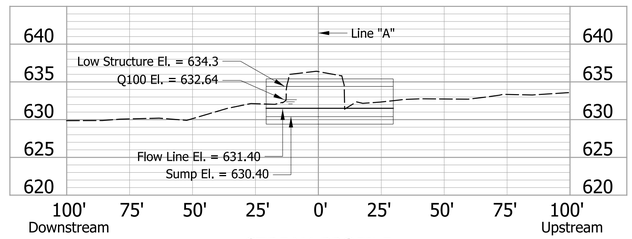


All R/W and existing topography described from Line "A". Line "A" to be constructed.





STREAM PROFILE

EXISTING STRUCTURE

The existing structure (CV 058-003-120.30) is a reinforced concrete culvert that was installed at an unknown construction date. The structure has an 8.0 ft. culvert with a 3.0 ft. opening that is approximately 22.0 ft. in length. Existing structure is to be removed.

HYDRAULIC DATA

Drainage Area	70.40	Acres.
Q100 Discharge	74.64	cfs.
Q100 Water Surface Elevation	632.64	ft.
Design Roadway Serviceability Elevation	634.80	ft.
Sump Depth		
Existing	3.6	in.
Proposed	12	in.
Q100 Headwater Elevation	633.72	ft.
Backwater		
Existing	1.22	ft.
Proposed	1.08	ft.
Outlet Velocity @ Q50		
Existing	6.26	ft./sec.
Proposed	5.62	ft./sec.
Natural Channel Velocity @ Q50		
Existing	2.03	ft./sec.
Proposed	2.03	ft./sec.

EARTHWORK BALANCE

Fill + 25%	=	437 CYS
Common Excavation	=	541 CYS
Waste	=	104 CYS

REINFORCED CONCRETE BOX CULVERT
SPAN: 9'-0"
SKEW: 16° 41' 49.86" RT., RISE: 4'-0",
SUMP: 1'-0", CLEAR HEIGHT: 3'-0", LENGTH: 50'-6"
SR 58 OVER UNT TO EAST FORK WHITE RIVER
BARTHOLOMEW COUNTY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: DHS DRAWN: DHS
CHECKED: JMH CHECKED: JMH

INDIANA
DEPARTMENT OF TRANSPORTATION

LAYOUT
SR 58 OVER UNT E. FORK WHITE CREEK

HORIZONTAL SCALE	BRIDGE FILE NO.
1" = 30'	NA
VERTICAL SCALE	DESIGNATION NO.
1" = 10'	1700012
SURVEY BOOK NO.	SHEETS
	9 of 16
CONTRACT NO.	PROJECT NO.
B-40407	1700012

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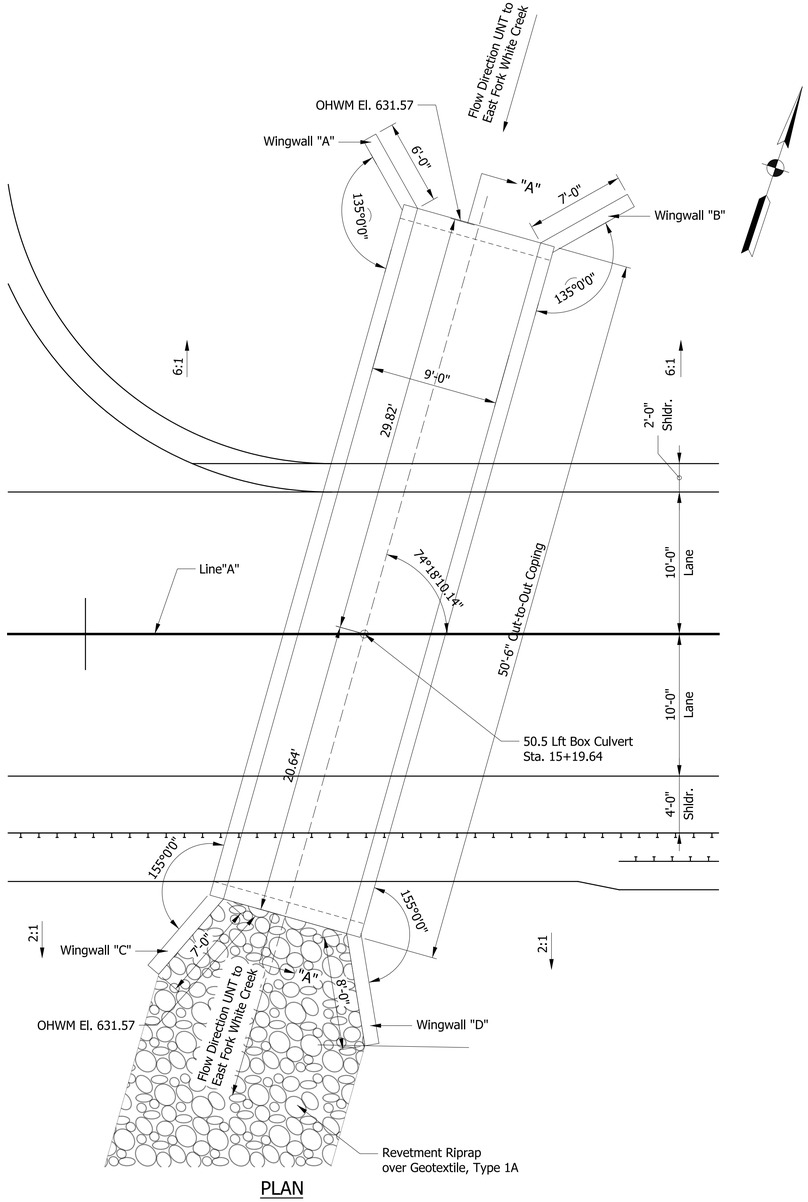
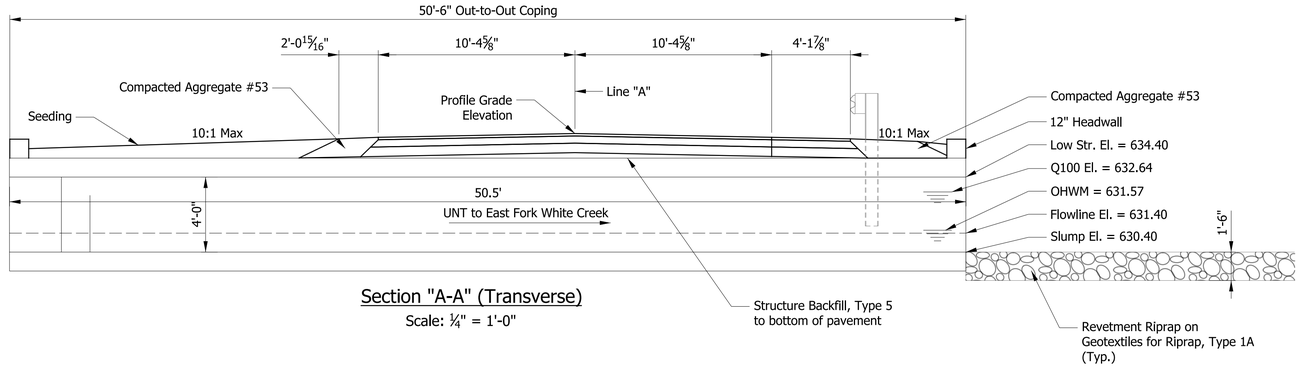


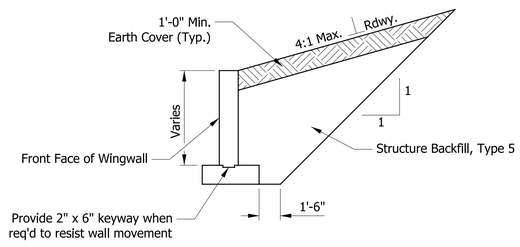
PLAN



Section "A-A" (Transverse)

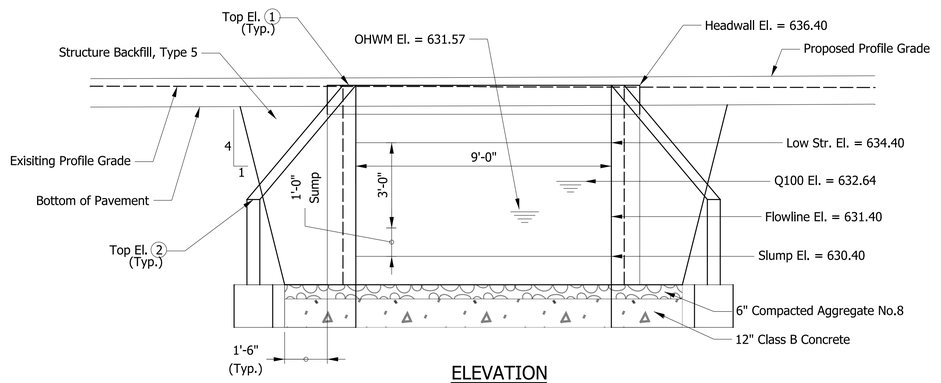
Scale: ¼" = 1'-0"

WINGWALL TABLE				
WING	TOP ELEV ①	TOP ELEV ②	LENGTH "L"	AREA
"A"	636.40	633.39	6'-0"	27.0 Sft.
"B"	636.40	633.24	7'-0"	31.0 Sft.
"C"	636.40	633.19	7'-0"	30.8 Sft.
"D"	636.40	633.40	8'-0"	36.0 Sft.



WINGWALL BACKFILL

Not to Scale



ELEVATION

Scale: ⅜" = 1'-0"

GENERAL NOTES

An alternate three-sided flat-top structure with an 12-ft skewed span and a 4-ft high opening may be substituted for the structure shown. An alternate three-sided arch-topped structure with a 12-ft skewed span and a 4-ft high opening may be substituted.

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

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

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

Up to 12" of Class B concrete may be used at the discretion of the Project Engineer for the structure foundation due to presence of highly fractured limestone.

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

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

DESIGN DATA

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

Live Load: Designed for HL-93 loading, in accordance with the AASHTO LRFD Bridge Design Specifications, Sixth Edition, and all subsequent interim specifications.

REINFORCED CONCRETE BOX CULVERT
SPAN: 9'-0"
SKEW: 16° 41' 49.86" RT., RISE: 4'-0",
SUMP: 1'-0", CLEAR HEIGHT: 3'-0", LENGTH: 50'-6"
SR 58 OVER UNT TO EAST FORK WHITE RIVER
BARTHOLOMEW COUNTY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: DHS DRAWN: DHS

CHECKED: JMH CHECKED: JMH

INDIANA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN - STRUCTURE DETAILS
SR 58 OVER UNT E. FORK WHITE CREEK

HORIZONTAL SCALE	BRIDGE FILE NO.
3/16" = 1'-0"	NA
VERTICAL SCALE	DESIGNATION NO.
NA	1700012
SURVEY BOOK NO.	SHEETS
	10 of 16
CONTRACT NO.	PROJECT NO.
B-40407	1700012

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APPENDIX C
EARLY COORDINATION

Strand Associates, Inc.®
629 Washington Street
Columbus, IN 47201
(P) 812-372-9911
(F) 812-372-7190

December 30, 2019

Indiana Department of Transportation–Central Office
Environmental Policy Manager
100 North Senate Avenue, Room N642-RE
Indianapolis, IN 46024

Re: Small Structure Project (Culvert No. 058-003-120.30)
State Road 58 over Unnamed Tributary (UNT) to East Fork White Creek
Des. No. 1700012
Bartholomew County, Indiana

Dear Sir or Madam:

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

The project is located on State Road (SR) 58 over an UNT to East Fork White Creek, approximately 1.95 miles west of I-65 in Bartholomew County. This section of SR 58 is a two-lane Major Collector. The existing approach cross section consists of two 10-foot lanes with no shoulders. The existing small structure consists of an 8-foot span by 3-foot rise concrete box culvert with steel beams, under shallow fill (<2 feet), with a total length of 32 feet. The steel beams have considerable deterioration and the guardrail on the north side of the structure is compromised. The approximate existing right-of-way is the edge of the existing pavement throughout the project area.

The current proposed project would replace the small structure over an UNT to East Fork White Creek with a 9-foot span by 4-foot rise concrete box culvert, measuring 50 feet 6 inches from out-to-out coping. The project will also include removal and replacement of guardrail and full-depth pavement replacement 50 feet on either side of the proposed structure. The proposed approach section will consist of two 10-foot lanes with a 2-foot shoulder on the south side of the roadway and a 4-foot shoulder on the north side of the roadway. The project would require the reacquisition of approximately 0.25 acre of apparent right-of-way under pavement and the acquisition of approximately 0.77 acre of permanent right-of-way. Proposed right-of-way widths along SR 58 would be 45 feet from centerline. The project limits will extend about 225 feet in both directions of the proposed structure. The preferred method of traffic maintenance would be a complete road closure with an official state detour. A temporary runaround will not be used. Temporary disruption of emergency services and school bus routes will occur during construction but will cease upon project completion. Construction is anticipated to begin in spring 2022.

Land use in the vicinity of the project is primarily agricultural, with some wooded areas and residences. A waters and wetlands determination and a biological assessment to identify ecological resources that may be present will be performed for the project. This project qualifies for the application of the United States Fish and Wildlife (USFW) range-wide programmatic informal consultation for the Indiana bat and

northern long-eared bat, and project information will be submitted through USFWS's Information for Planning and consultation (IPaC) separately.
Any area of additional right-of-way will be investigated for archaeological and historic resources in compliance with Section 106. The results of this investigation will be forwarded to the State Historic Preservation Officer for review and concurrence.

Should we not receive your response within thirty 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 me at (812) 372-9911 or at bryce.froderman@strand.com or the INDOT project manager, Zachary Hicks, at (812) 592-2186 or at zhicks@indot.in.gov.

Sincerely,

STRAND ASSOCIATES, INC.®

Bryce C. Froderman, E.I.T.

Enclosures
Maps (Location, Aerial, Topographic)

c/enc.: File

FHWA, Environmental Specialist (electronic coordination)
Indiana Geological Survey (electronic coordination)
IDNR, Division of Fish and Wildlife, Environmental Coordinator (electronic coordination)
Indiana Department of Environmental Management (IDEM) (electronic coordination)
IDEM, Groundwater Section (Wellhead Proximity Determinator electronic coordination)
INDOT, Public Hearings, Manager
U.S. Department of Housing and Urban Development, Chicago Regional Office, Field Environmental Officer (electronic coordination)
National Park Service (NPS), Midwest Regional Office, Regional Environmental Coordinator
USFWS (IPaC electronic coordination)
Natural Resource Conservation Service, State Conservationist (electronic coordination)
U.S. Army Corps of Engineers, Louisville District (electronic coordination)
INDOT, Central Office, Environmental Policy Manager (electronic coordination)
INDOT, Seymour District, Environmental Section Manager (electronic coordination)
INDOT, Seymour District, Project Manager (electronic coordination)
INDOT Ecology and Waterway Permitting, Manager (electronic coordination)
Bartholomew County School Corporation (electronic coordination)
Southwest Bartholomew Volunteer Fire Department
Columbus Fire Station 6

THIS IS NOT A PERMIT

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

DNR #: ER-22090 **Request Received:** December 30, 2019

Requestor: Strand Associates Inc
Bryce Froderman
629 Washington Street
Columbus, IN 47201-6231

Project: SR 58 crossing structure replacements:
1) Des #1600503: bridge over East Fork White Creek
2) Des #1700012: small structure over UNT East Fork White Creek

County/Site info: Bartholomew

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: The bridge replacement over East Fork White Creek (Des #1600503) 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.

However, formal approval by the Department of Natural Resources under the regulatory programs administered by the Division of Water is not required for Des #1700012 (small structure over UNT East Fork White Creek).

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 vicinity of these projects.

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 Structures:
For purposes of maintaining fish 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 bankful 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 and water velocities during low-flow conditions that are approximate to those in the natural stream channel.

Sump depth for a pipe or box culvert should be increased/adjusted to match the structure's design life according to the background rate of bed degradation/downcutting

Attachments: A - Bridge Exemption Criteria

so that the culvert does not become perched long before the culvert requires replacement. Culvert width and gradient should be appropriate for the site conditions so that flows do not scour out material from the culvert. Stream simulation design should be applied with any crossing structure. Additional information is available in Publication No. FHWA-HIF-11-008, Federal Highway Administration, Culvert Design for Aquatic Organism Passage, October 2010 (http://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf).

Any riprap placed at the culvert's outlet should match the outlet/invert elevation at the upstream edge of the riprap apron. Smaller stone and fines should be mixed in to match the existing stream substrate particle distribution and provide impermeability of the riprap apron/substrate so the flow does not percolate through the voids below the riprap apron's surface. The slope of the riprap should be no steeper than 20:1 from the lip of the culvert pipe to the streambed. Riprap on the inlet side should have a slope no steeper than 5:1. Natural streambed material should be backfilled within the structure where possible as it can provide refuge for species using the culvert. Natural bed materials such as large cobble and boulders should be placed within the structure (anchored if necessary) to provide flow diversity and roughness/energy dissipation.

Any riprap placed within a 3-sided culvert, single span bridge, or other structure type having no floor, to protect the footings should not extend from the edge of the structure more than 3 feet on each side. Where a crossing structure does not have any dry land suitable for wildlife passage at the edges, (for example water extending to both side-walls edges of a box or 3-sided culvert), the structure's edges should have a wedge of smooth-surfaced material suitable for wildlife use.

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

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

While hard armoring alone (e.g. riprap or glacial stone) may be needed in certain instances, soft armoring and bioengineering techniques should be considered first. In many instances, one or more methods are necessary to increase the likelihood of vegetation establishment. Combining vegetation with most bank stabilization methods can provide additional bank protection and help reduce impacts upon fish and wildlife. If hard armoring is needed, wildlife passage can be facilitated by using a smooth-surfaced armoring material instead of riprap, such as articulated concrete block mats, fabric-formed concrete mats, or other similar smooth-surfaced material.

Attachments: A - Bridge Exemption Criteria

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.

3) Riparian Habitat:
We recommend a mitigation plan be developed (and submitted with the permit application, if required) for any unavoidable habitat impacts that will occur. The DNR's Floodway Habitat Mitigation guidelines (and plant lists) can be found online at: http://www.in.gov/legislative/iac/20190130-IR-312190041NRA.xml.pdf.

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

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

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:
1. Revegetate all bare and disturbed areas with a mixture of native grasses, sedges, wildflowers, and also native hardwood trees and shrubs if any woody plants are disturbed during construction as soon as possible upon completion. Do not use any varieties of Tall Fescue or other non-native plants, including prohibited invasive species (see 312 IAC 18-3-25).
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. Plant native hardwood trees along the top of the bank and right-of-way to replace the vegetation destroyed during construction.
9. Post "Do Not Mow or Spray" signs along the right-of-way.
10. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
11. 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.

Attachments: A - Bridge Exemption Criteria

THIS IS NOT A PERMIT

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

Early Coordination/Environmental Assessment

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

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

Christie L. Stanifer **Date:** January 29, 2020

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

Attachments: A - Bridge Exemption Criteria

The Flood Control Act (IC 14-28-1) contains a provision (Section 22), which exempts certain bridge projects from its permitting requirement. Specifically, the Act states:

A permit is not required for "a construction or reconstruction project on a state or county highway bridge in a rural area that crosses a stream having an upstream drainage area of not more than fifty (50) square miles..."

Therefore, in order for a bridge project to be exempt, it must:

- be a state or county highway department project;
- be a bridge;
- be located in a rural area; and
- cross a stream having an upstream drainage area of less than 50 square miles.

The initial criterion is very specific - the structure must be a state or county highway department project.

The second requirement mandates that the project be a bridge (for this provision, the Department of Natural Resources considers a culvert to be a bridge). Projects such as bank protection, spoil disposal, borrow pits, etc. are not automatically exempt. Anyone proposing to undertake a non-bridge related activity should consult with the Division of Water's Technical Services Section staff at 317-232-4160 (or toll free at 1-877-928-3755) regarding the applicability of the exemption prior to initiating work.

The third criterion states that the project must be located in a rural area. The phrase "rural area" is defined as an area:

- where the lowest floor elevation, including a basement, of any residential, commercial, or industrial building impacted by the project is at least 2 feet above the 100 year flood elevation with the project in place;
- located outside the corporate boundaries of a consolidated or an incorporated city or town; and
- located outside of the territorial authority for comprehensive planning (generally, a 2 mile planning buffer around a city or town).

The final criterion limits the exemption to a project crossing a stream having an upstream drainage area of less than 50 square miles. The drainage area includes all land area contributing to runoff above the project site and is determined from the United States Geological Survey 7½ minute series quadrangle maps. The Department of Natural Resources will determine the drainage area upon written request.

This exemption has been grossly misunderstood and liberally applied in the past. As a result, the Department of Natural Resources is taking a firm stance on future violations. If challenged, it will be the responsibility of the person claiming the exemption to prove to the Department that all 4 criteria have been satisfied. Failure to do so will result in the Department initiating litigation with the potential for the imposition of fines in amounts up to $10,000 per day.

Note: This exemption only applies to the Flood Control Act. If a bridge is to be constructed over a navigable waterway, or over or near a public freshwater lake, a permit will be required.

Organization and Project Information

Project ID:
Des. ID:
Project Title: SR 58 over UNT to East Fork White Creek - Des. 1600503
Name of Organization: Strand Associates Inc.
Requested by: Bryce Froderman

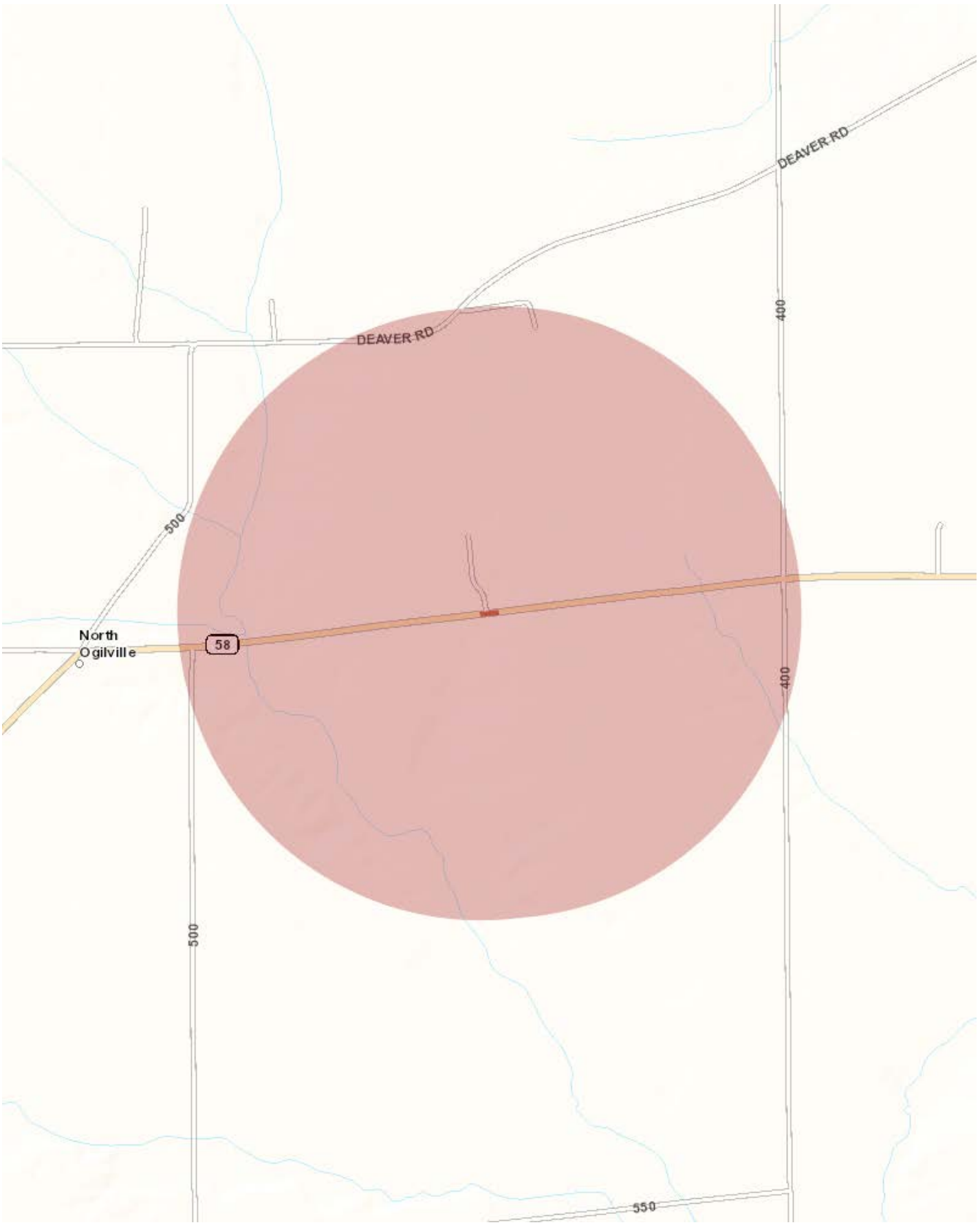
Environmental Assessment Report

1. Geological Hazards:
    - High liquefaction potential
    - Floodway
2. Mineral Resources:
    - Bedrock Resource: Moderate Potential
    - Sand and Gravel Resource: None documented in the area
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: 420 N. Walnut St., Bloomington, IN 47404
Email: IGSEnvir@indiana.edu
Phone: 812 855-7428

Date: December 30, 2019



Metadata:

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

Froderman, Bryce

From: Hinkle, Meghan <MHinkle@indot.IN.gov>
Sent: Monday, January 6, 2020 3:11 PM
To: Froderman, Bryce
Cc: Miller, Brandon
Subject: RE: Early Coordination Letter - Des. 1700012 - SR 58 over UNT to East Fork White Creek

Categories: Early Coordination - 314

Good Afternoon,

Based on the information provided, INDOT has no comments at this time.

Thank you for providing INDOT the opportunity to respond to this early coordination letter.

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

From: Froderman, Bryce [mailto:Bryce.Froderman@strand.com]
Sent: Monday, December 30, 2019 11:16 AM
To: Bales, Ronald <rbales@indot.IN.gov>
Subject: Early Coordination Letter - Des. 1700012 - SR 58 over UNT to East Fork White Creek

Good Morning Ron,

Please see the attached early coordination letter for your review and comment regarding Des. 1700012 for the small structure project along State Road 58 over Unnamed Tributary to East Fork White Creek in Bartholomew County, Indiana. If you have any questions please don't hesitate to contact me.

Thanks,

Bryce Froderman
Strand Associates, Inc.®
812.372.9911 ext. 4380
bryce.froderman@strand.com | www.strand.com

Excellence in Engineering Since 1946.

USDA
United States Department of Agriculture

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

January 10, 2020

Bryce C. Froderman, E.I.T.
Strand Associates, Inc.
629 Washington Street
Columbus, Indiana 47201

Dear Mr. Froderman:

The proposed project to replace the small structure (058-003-120.30) along State Road 58 over an Unnamed Tributary to East Fork White Creek in Bartholomew County, Indiana (Des No 1700012) as referred to in your letter received December 30, 2019, will cause a conversion of prime farmland.

The attached packet of information is for your use completing Parts VI and VII of the AD-1106. 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,

JERRY RAYNOR Digitally signed by JERRY RAYNOR
Date: 2020.01.13 21:57:44 -05'00'

JERRY RAYNOR
State Conservationist

Enclosures

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request 12/30/19	
Name of Project Des. 1700012, State Road 58		Federal Agency Involved INDOT	
Proposed Land Use Small Structure Replacement		County and State Bartholomew County, Indiana	
PART II *(To be completed by NRCS)*		Date Request Received By NRCS 12/30/2019	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 284 ac
Major Crop(s) Corn	Farmable Land In Govt. Jurisdiction Acres: 224376 % 86	Amount of Farmland As Defined in FPPA Acres: 186938 % 71	
Name of Land Evaluation System Used LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS 1/10/2020	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	0.37			
B. Total Acres To Be Converted Indirectly	0.40			
C. Total Acres In Site	0.77			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	0.28			
B. Total Acres Statewide Important or Local Important Farmland	0.00			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	<0.001			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	55			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	72			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	15			
2. Perimeter In Non-urban Use	(10)	10			
3. Percent Of Site Being Farmed	(20)	0			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	10			
6. Distance To Urban Support Services	(15)	10			
7. Size Of Present Farm Unit Compared To Average	(10)	10			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	5			
10. On-Farm Investments	(20)	10			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	70	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	72	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	70	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	142	0	0	0

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

Reason For Selection:

Name of Federal agency representative completing this form:	Date:

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

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.

Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s)of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map**,** or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)

Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

(For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \text{ X } 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.

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
Zachary Hicks
185 Agrico Lane
Seymour , IN 47274
Date

Strand Associates Inc.
Jason Hoy
629 Washington Street
Columbus , IN 47201

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: The project, Des. 1700012, is located on State Road (SR) 58 over an UNT to East Fork White Creek, approximately 1.95 miles west of I-65 in Bartholomew County. The proposed project would replace the small structure over an UNT to East Fork White Creek with a 9-foot span by 4-foot rise concrete box culvert, measuring 50 feet 6 inches from out-to-out coping. The project will also include removal and replacement of guardrail and full-depth pavement replacement 50 feet on either side of the proposed structure. The proposed approach section will consist of two 10-foot lanes with a 2-foot shoulder on the south side of the roadway and a 4-foot shoulder on the north side of the roadway. The project would require the reacquisition of approximately 0.25 acre of apparent right-of-way under pavement and the acquisition of approximately 0.77 acre of permanent right-of-way. The project limits will extend about 225 feet in both directions of the proposed structure. The preferred method of traffic maintenance would be a complete road closure with an official state detour. Construction is anticipated to begin in spring 2022.

This letter from the Indiana Department of Environmental Management (IDEM) serves as a standardized response to enquiries inviting IDEM comments on roadway construction, reconstruction, or other improvement projects within existing roadway corridors when the proposed scope of the project is beneath the threshold requiring a formal National Environmental Policy Act-mandated Environmental Assessment or Environmental Impact Statement. As the letter attempts to address all roadway-related environmental topics of potential concern, it is possible that not every topic addressed in the letter will be applicable to your particular roadway project.

For additional information on specific roadway-related topics of interest, please visit the appropriate Web pages cited below, many of which provide contact information for persons within the various program areas who can answer questions not fully addressed in this letter. Also please be mindful that some environmental requirements may be subject to change and so each person intending to include a copy of this letter in their project documentation packet is advised to download the most recently revised version of the letter; found at: http://www.in.gov/idem/5283.htm (http://www.in.gov/idem/5283.htm).

To ensure that all environmentally-related issues are adequately addressed, IDEM recommends that you read this letter in its entirety, and consider each of the following issues as you move forward with the planning of your proposed roadway construction, reconstruction, or improvement project:

WATER AND BIOTIC QUALITY

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

   USACE recommends that you have a consultant check to determine whether your project will abut, or lie within, a wetland area. To view a list of consultants that have requested to be included on a list posted by the USACE on their Web site, see USACE Permits and Public Notices (http://www.lrl.usace.army.mil/orf/default.asp) (http://www.lrl.usace.army.mil/orf /default.asp (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 Wetlands Program. To learn more about the Wetlands Program, visit: http://www.in.gov/idem/4384.htm (http://www.in.gov/idem/4384.htm).

3. If the USACE determines that a wetland or other water body is isolated and not subject to Clean Water Act regulation, it is still regulated by the state of Indiana . A State Isolated Wetland permit from IDEM's Office of Water Quality (OWQ) is required for any activity that results in the discharge of dredged or fill materials into isolated wetlands. To learn more about isolated wetlands, contact the OWQ Wetlands Program at 317-233-8488.

4. If your project will involve over a 0.5 acre of wetland impact, stream relocation, or other large-scale alterations to water bodies such as the creation of a dam or a water diversion, you should seek additional input from the OWQ Wetlands Program staff. Consult the Web at: http://www.in.gov/idem/4384.htm (http://www.in.gov/idem/4384.htm) for the appropriate staff contact to further discuss your project.

5. Work within the one-hundred year floodway of a given water body is regulated by the Department of Natural Resources, Division of Water. The Division issues permits for activities regulated under the follow statutes:

- IC 14-26-2 Lakes Preservation Act 312 IAC 11
- IC 14-26-5 Lowering of Ten Acre Lakes Act No related code
- IC 14-28-1 Flood Control Act 310 IAC 6-1
- IC 14-29-1 Navigable Waterways Act 312 IAC 6
- IC 14-29-3 Sand and Gravel Permits Act 312 IAC 6
- IC 14-29-4 Construction of Channels Act No related code

For information on these Indiana (statutory) Code and Indiana Administrative Code citations, see the DNR Web site at: http://www.in.gov/dnr/water/9451.htm (http://www.in.gov/dnr/water/9451.htm) . Contact the DNR Division of Water at 317-232-4160 for further information.

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

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

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

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

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

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

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

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

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

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

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

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

AIR QUALITY

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

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

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

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

   Additionally, if construction or demolition is conducted in a wooded area where blackbirds have roosted or abandoned buildings or building sections in which pigeons or bats have roosted for 3-5 years precautionary measures should be taken to avoid an outbreak of histoplasmosis. This disease is caused by the fungus Histoplasma capsulatum, which stems from bird or bat droppings that have accumulated in one area for 3-5 years. The spores from this fungus become airborne when the area is disturbed and can cause infections over an entire community downwind of the site. The area should be wetted down prior to cleanup or demolition of the project site. For more detailed information on histoplasmosis prevention and control, please contact the Acute Disease Control Division of the Indiana State Department of Health at (317) 233-7272.

2. The U.S. EPA and the Surgeon General recommend that people not have long-term exposure to radon at levels above 4 pCi/L. (For a county-by-county map of predicted radon levels in Indiana, visit: http://www.in.gov/idem/4145.htm (http://www.in.gov/idem/4145.htm).)

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

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

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

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

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

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

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

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

4. With respect to lead-based paint removal: IDEM encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDEM is particularly concerned that young children exposed to lead can suffer from learning disabilities. Although lead-based paint abatement efforts are not mandatory, any abatement that is conducted within housing built before January 1, 1978 , or a child-occupied facility is required to

comply with all lead-based paint work practice standards, licensing and notification requirements. For more information about lead-based paint removal visit: http://www.in.gov/isdh/19131.htm (http://www.in.gov/isdh/19131.htm).

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

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

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

LAND QUALITY

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

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

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

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

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

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

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

FINAL REMARKS

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

notification requirement with a single notice if all required permit applications are submitted with the same ten day period.

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

Meanwhile, please note that this letter does not constitute a permit, license, endorsement or any other form of approval on the part of the Indiana Department of Environmental Management regarding any project for which a copy of this letter is used. Also note that is it the responsibility of the project engineer or consultant using this letter to ensure that the most current draft of this document, which is located at http://www.in.gov/idem/5284.htm (http://www.in.gov/idem/5284.htm), is used.

Signature(s) of the Applicant

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

Project Description

The project, Des. 1700012, is located on State Road (SR) 58 over an UNT to East Fork White Creek, approximately 1.95 miles west of I-65 in Bartholomew County. The proposed project would replace the small structure over an UNT to East Fork White Creek with a 9-foot span by 4-foot rise concrete box culvert, measuring 50 feet 6 inches from out-to-out coping. The project will also include removal and replacement of guardrail and full-depth pavement replacement 50 feet on either side of the proposed structure. The proposed approach section will consist of two 10-foot lanes with a 2-foot shoulder on the south side of the roadway and a 4-foot shoulder on the north side of the roadway. The project would require the reacquisition of approximately 0.25 acre of apparent right-of-way under pavement and the acquisition of approximately 0.77 acre of permanent right-of-way. The project limits will extend about 225 feet in both directions of the proposed structure. The preferred method of traffic maintenance would be a complete road closure with an official state detour. Construction is anticipated to begin in spring 2022.

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

Date: 1-13-20

Signature of the INDOT
Project Engineer or Other Responsible Agent _____

Zachary Hicks

Date: 1/13/20

Signature of the
For Hire Consultant _____

Jason Hoy

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: February 10, 2020
Consultation Code: 03E12000-2020-I-0724
Event Code: 03E12000-2020-E-03525
Project Name: Des. 1700012 - SR 58 over UNT to East Fork White Creek

Subject: Concurrence verification letter for the 'Des. 1700012 - SR 58 over UNT to East Fork White Creek' project under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **Des. 1700012 - SR 58 over UNT to East Fork White Creek** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 *et seq.*).

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

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

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

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

Project Description

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

Name

Des. 1700012 - SR 58 over UNT to East Fork White Creek

Description

The project is located along SR 58 in Bartholomew County approximately 1.95 miles west of Interstate-65. The current proposed project will consist of a replacement of the existing Culvert #058-003-120.30. The project will also include the replacement of the existing guardrail along the culvert and full-depth pavement replacement 50 feet on both sides of the structure. The project area includes areas of suitable summer habitat. No trees will be removed as part of the project. The review of the USFWS database on October 3, 2018 did not indicate the presence of ETR species in the project location. The project is scheduled to be let in December 2021 and constructed from March 2022 through November 2022. Temporary lighting may be used during the project, but will be limited to the active season (mid-April through October) and be directed away from any suitable summer habitat. No permanent lighting is anticipated to be installed.

Determination Key Result

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

Qualification Interview

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

   [1] See Indiana bat species profile

   Automatically answered
   Yes

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

   [1] See Northern long-eared bat species profile

   Automatically answered
   Yes

3. Which Federal Agency is the lead for the action?
   A) Federal Highway Administration (FHWA)

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

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

   No

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

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

   No

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

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

   No

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

   No

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

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

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

   Yes

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

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

   No

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

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

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

    No

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

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

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

    No

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

    No

13. Does the project include slash pile burning?

    No

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

    Yes

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

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

    Yes

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

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

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

    Yes

    SUBMITTED DOCUMENTS

    - *Des 1700012 Bat Survey.pdf https://ecos.fws.gov/ipac/project/W2OCSNOFRBFD7IWGHZU4STMS5Q/projectDocuments/20121192*

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

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

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

    No

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

    No

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

    No

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

    Yes

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

    Yes

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

    No

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

    No

24. 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

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

    No

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

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

27. 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

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

    Yes

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

    Yes

Project Questionnaire

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

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

3. Please describe the proposed bridge work:
   The current proposed project will consist of a replacement of the existing Culvert #058-003-120.30. The project will also include the replacement of the existing guardrail along the culvert and full-depth pavement replacement 50 feet on both sides of the structure.

4. Please state the timing of all proposed bridge work:
   The proposed work will likely take place in March 2022 through November 2022.

5. Please enter the date of the bridge assessment:
   8/29/19

Avoidance And Minimization Measures (AMMs)

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

GENERAL AMM 1

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

LIGHTING AMM 1

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

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

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

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

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

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: February 10, 2020
Consultation Code: 03E12000-2020-SLI-0724
Event Code: 03E12000-2020-E-03498
Project Name: Des. 1700012 - SR 58 over UNT to East Fork White Creek

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

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

Project Summary

Consultation Code: 03E12000-2020-SLI-0724

Event Code: 03E12000-2020-E-03498

Project Name: Des. 1700012 - SR 58 over UNT to East Fork White Creek

Project Type: BRIDGE CONSTRUCTION / MAINTENANCE

Project Description: The project is located along SR 58 in Bartholomew County approximately 1.95 miles west of Interstate-65. The current proposed project will consist of a replacement of the existing Culvert #058-003-120.30. The project will also include the replacement of the existing guardrail along the culvert and full-depth pavement replacement 50 feet on both sides of the structure. The project area includes areas of suitable summer habitat. No trees will be removed as part of the project. The review of the USFWS database on October 3, 2018 did not indicate the presence of ETR species in the project location. The project is scheduled to be let in December 2021 and constructed from March 2022 through November 2022. Temporary lighting may be used during the project, but will be limited to the active season (mid-April through October) and be directed away from any suitable summer habitat. No permanent lighting is anticipated to be installed.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/39.13313638766674N85.99514982811633W

Counties: Bartholomew, IN

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA 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. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/1/office/31440.pdf	Endangered
Northern Long-eared Bat *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

Critical habitats

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

APPENDIX D: Bridge/Structure Assessment Form

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

DOT Project #	**Water Body**	**Date/Time of Inspection**	**Within 1,000ft of suitable bat habitat (circle one)**
Des. No. 1700012	Unnamed Tributary to East Fork White River	August 29, 2019 / 9:00 AM	**Yes** (circled) **No**

Route	**County**	**Federal Structure ID**
S.R. 58	Bartholomew County	N/A

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

Areas Inspected (Check all that apply)

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

Last Revised May 31, 2017

Vertical surfaces on concrete I-beams	X						

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

None

Visual (e.g. survey, thermal, emergent etc.)
- Live 0 number seen
- Dead 0 number seen

Photo documentation Y/N

Guano

Odor Y/N

Photo documentation Y/N

Staining definitively from bats

Photo documentation Y/N

Audible

Assessment Conducted By: Cory Shumate **Signature(s):** CShumate

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

DOT Bat Assessment Form Instructions

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

Last Revised June 2017

APPENDIX D
SECTION 106 OF THE NHPA

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

Date: 5/27/2020

Project Designation Number: 1700012

Route Number: SR 58

Project Description: Small Structure Replacement over Unnamed Tributary (UNT) to East Fork White Creek

The proposed project is located along State Road (SR) 58 in Bartholomew County, Indiana. The project area is approximately 1.95 miles west of I-65. This section of SR 58 is classified as a Major Collector. The existing structure (CV 058-003-120.30) is an 8-foot culvert with a 3-foot opening with an unknown construction date. The structure has a total length of 32 feet and carries an unnamed tributary (UNT) to East Fork White Creek from south to north under SR 58. The purpose of this project is to address deficiencies present in the small structure. The need for this project was determined by a culvert inspection that was completed by INDOT on November 14, 2018. This inspection indicated that the structure is in poor condition with low structure and roadway ratings. The proposed project involves replacing the existing structure with a precast concrete structure consisting of one of the following designs: 9' x 4' Concrete Box Culvert, 12' x 4' Concrete 3-Sided Flat Top Culvert, and 12' x 4' Concrete 3-Sided Arch Top Culvert. The final configuration will be determined during the design phase. Right-of-way acquisition is anticipated: approximately 0.769 acres of permanent ROW.

Feature crossed (if applicable): UNT of East Fork White Creek

Township: Ohio Township

City/County: Bartholomew County

Information reviewed (please check all that apply):

☑ General project location map ☑ USGS map ☑ Aerial photograph ☑ Interim Report

☑ Written description of project area ☑ General project area photos ☑ Soil survey data

☐ Previously completed historic property reports ☑ Previously completed archaeology reports

☑ Bridge Inspection Information

Other (please specify): State Historic Architectural and Archaeological Research Database (SHAARD), Indiana Historic Buildings, Bridges, and Cemeteries (IHBBC) map

Jackson, Christopher
2020 A Phase Ia Archaeological Records Check and Reconnaissance Survey for the Proposed Replacement of a Small Structure Where SR 58 Crosses an Unnamed Tributary of the East Fork of White Creek (Des 1700012), Approximately 1.95 miles West of Interstate 65 Ohio Township, Bartholomew County, Indiana. Report on file, Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology Indianapolis, Indiana.

Results of the Records Review for Above-Ground Resources:

With regard to above-ground resources, an INDOT-Cultural Resources Office (CRO) historian, who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61, 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 primarily agricultural fields on the south side of SR 58 and mid-20th century residential properties on the north side of SR 58. It does not appear that any unusual features are present that may be impacted by the project.

The existing structure consists of an 8-foot concrete culvert with steel beam headers with a 3-foot opening. The only railing present is W-beam guardrail. The date of construction is unknown. Based on an examination of BIAS reports and photos provided from Green 3, 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.

Archaeology Report Author/Date:

Christopher Jackson/May 27, 2020

Summary of Archaeology Investigation Results:

An archaeological records check and Phase Ia reconnaissance survey of the project area were conducted by Green 3 (Jackson 2020). The records check found that the project area had not been previously examined for archaeological resources and that no previously recorded sites have been identified within or adjacent to it. A 3.0 acre survey area was examined through the excavation of 19 shovel probes, pedestrian survey of an agricultural fields with at least 50% surface visibility, and visual inspection of disturbed right-of-way. No evidence for archaeological deposits was identified. The report was reviewed by INDOT Cultural Resources personnel who meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. It is our opinion that the report is acceptable, and we concur with the evaluations and recommendations made by Green 3 (Jackson 2019). Therefore, there are no archaeological concerns.

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

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

B-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.

If no, please explain:

Additional comments:

INDOT Cultural Resources staff reviewer(s): David Moffatt and Mary Kennedy

****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.*

APPENDIX E
RED FLAG AND HAZARDOUS MATERIALS

INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204-2216 (317) 232-5348 FAX: (317) 233-4929

Eric Holcomb, Governor
Joe McGuinness, Commissioner

Date: January 18, 2019

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

From: Brandi Rodriguez, P.E.
Strand Associates, Inc.
629 Washington St.
Columbus, IN 47201
Brandi.Rodriguez@strand.com

Re: RED FLAG INVESTIGATION
DES 1700012, State Project
Small Structure Replacement
State Road 58
Bartholomew County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: This project involves a small structure replacement on SR 58, approximately 1.95 miles west of I-65. This project includes replacing the existing 8 ft. wide by 3 ft. tall culvert with a 9 ft. wide by 4 ft. tall precast concrete culvert and installing new guardrail.
Bridge and/or Culvert Project: Yes ☒ No ☐ Structure # CV 058-003-120.30
Proposed right of way: Temporary ☒ # Acres 0.1 (anticipated) Permanent ☒ # Acres 1 (anticipated)
Type of excavation: 5 feet for structure replacement (anticipated), 1 to 2 feet for road reconstruction (anticipated)
Maintenance of traffic: Maintenance of traffic will include a complete road closure with detour route.
Work in waterway: Yes ☒ No ☐ Above ordinary high water mark: Yes ☐ No ☒
State Project: ☒ LPA: ☐
Any other factors influencing recommendations: Project description subject to additional changes.

INFRASTRUCTURE TABLE AND SUMMARY

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

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

Pipelines: One (1) pipeline is located within the 0.5 mile search radius. It is associated with Indiana Gas Co. Inc. and approximately 0.05 mile northeast of the project area. Coordination with INDOT Utilities and Railroads will occur.

WATER RESOURCES TABLE AND SUMMARY

Water Resources Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	**N/A**	Canal Routes - Historic	**N/A**
Karst Springs	**N/A**	NWI - Wetlands	**12**
Canal Structures – Historic	**N/A**	Lakes	**5**
NPS NRI Listed	**N/A**	Floodplain - DFIRM	**2**
NWI-Lines	**3**	Cave Entrance Density	**N/A**
IDEM 303d Listed Streams and Lakes (Impaired)	**5**	Sinkhole Areas	**N/A**
Rivers and Streams	**7**	Sinking-Stream Basins	**N/A**

NWI-Lines: Three (3) NWI lines are located within the 0.5 mile search radius. The nearest NWI line is located approximately 0.37 mile southwest of the project area. No impact is expected.

IDEM 303d Listed Streams and Lakes (Impaired): Five (5) IDEM 303d listed streams and lakes are located within the 0.5 mile search radius. The nearest 303d listed stream, East Fork White Creek, is located approximately 0.37 mile southwest of the project area. No impact is expected.

Rivers and Streams: Seven (7) rivers and streams are located within the 0.5 mile search radius. The nearest stream, East Fork White Creek, is located approximately 0.32 mile southwest of the project area. Due to the nature of the structure to be replaced, it is likely that additional water resources, such as unnamed tributaries, regulated drains, wetlands, and roadside ditches are located in the project area. A Waters of the US Report will be prepared and coordination with INDOT Ecology and Waterway Permitting will occur.

NWI-Wetlands: Twelve (12) wetlands are located within the 0.5 mile search radius. The nearest wetland is located approximately 0.07 mile north of the project area. No impact is expected.

Lakes: Five (5) lakes are located within the 0.5 mile search radius. The nearest lake is located approximately 0.07 mile north of the project area. No impact is expected.

Floodplain-DFIRM: Two (2) floodplain polygons are located within the 0.5 mile search radius. The nearest floodplain polygon is located approximately 0.29 mile southwest of the project area. No impact is expected.

URBANIZED AREA BOUNDARY SUMMARY

N/A

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**

No mining and mineral exploration facilities 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	**1**	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**

Underground Storage Tank (UST): One (1) UST is located within the 0.5 mile search radius. Veras Ogilville Market (7850 W 450 S, Columbus, IN 47201, Agency ID# 5214) is located approximately 0.41 mile west of the project area. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Bartholomew County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is attached with ETR species highlighted. A preliminary review of the Indiana Natural Heritage Database by INDOT Environmental Services did indicate the presence of endangered species. Due to the nature of project activities, this project will fall under the guidelines set forth under USFWS Interim

Policy for the Review of Highway Transportation Projects in Indiana dated May 29, 2013. Coordination with 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 is located in a rural area surrounded by farm fields and residences. The November 14, 2018, inspection report for Culvert # 058-003-120.30 states that no evidence of bats was seen or heard under the culvert. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects."

An inquiry using the USFWS Information for Planning and Consultation (IPaC) website did not indicate the presence of the federally endangered species, the Rusty Patched Bumble Bee, in or within 0.5 mile of the project area. No impact is expected.

RECOMMENDATIONS SECTION

INFRASTRUCTURE: One (1) pipeline (Indiana Gas Co. Inc.) is located approximately 0.05 mile northeast of the project area. Coordination with INDOT Utilities and Railroads will occur.

WATER RESOURCES: No water resources appear to be located within the project area; however, due to the nature of the structure to be replaced, it is likely that additional water resources, such as unnamed tributaries, regulated drains, wetlands, and roadside ditches are located in the project area. A Waters of the US Report will be prepared and coordination with INDOT Ecology and Waterway Permitting will occur.

URBANIZED AREA BOUNDARY: N/A

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: N/A

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

INDOT Environmental Services concurrence: Marlene Mathas Digitally signed by Marlene Mathas Date: 2019.01.31 07:33:57 -05'00' (Signature)

Prepared by:
Brandi Rodriguez, P.E.
Project Engineer
Strand Associates, Inc.

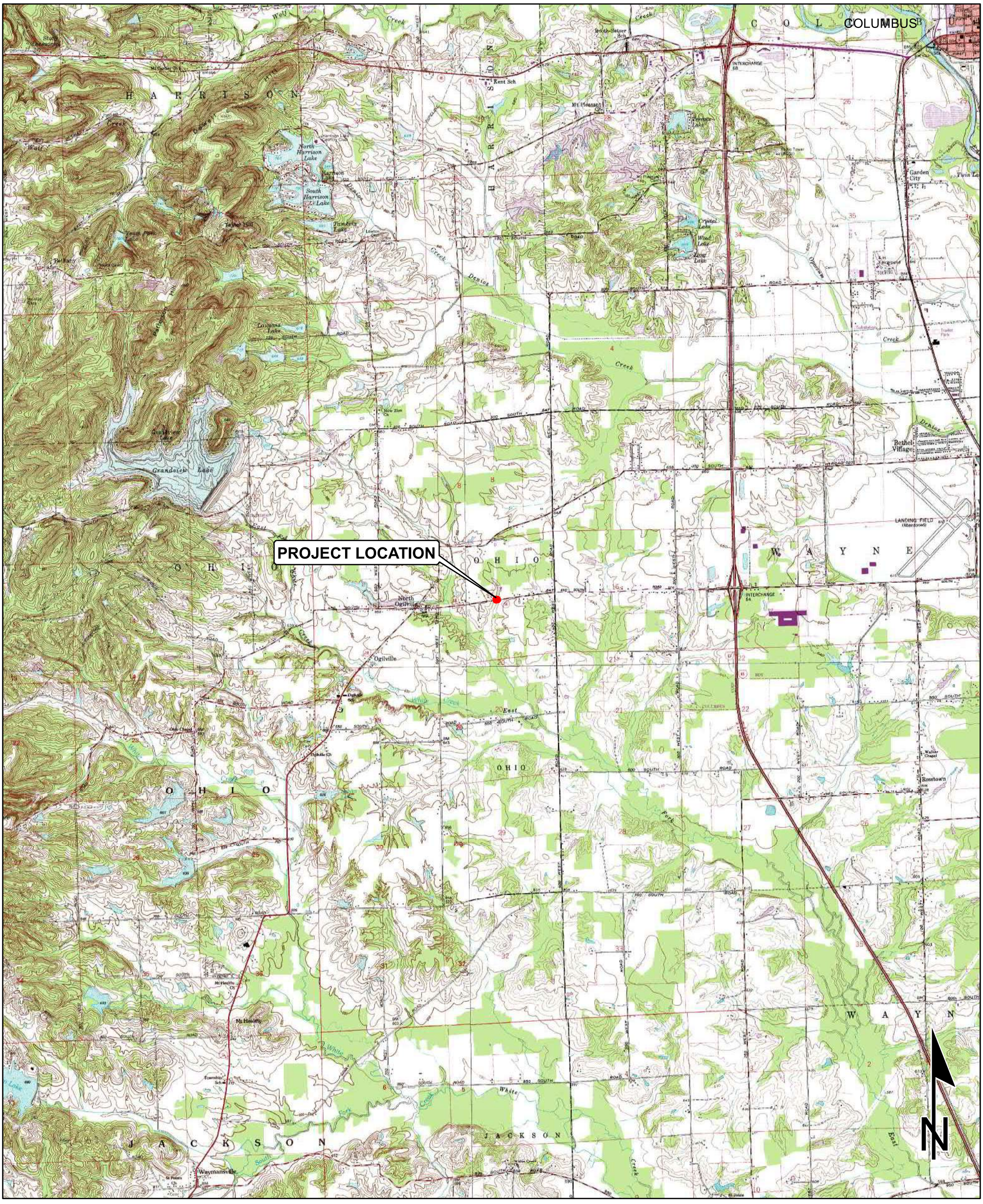
Graphics:

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

SITE LOCATION: YES
INFRASTRUCTURE: YES

WATER RESOURCES: YES
URBANIZED AREA BOUNDARY: N/A
MINING/MINERAL EXPLORATION: N/A
HAZMAT CONCERNS: YES

Red Flag Investigation - Site Location
State Road 58, Small Structure Replacement
Des. No. 1700012
Bartholomew County, Indiana



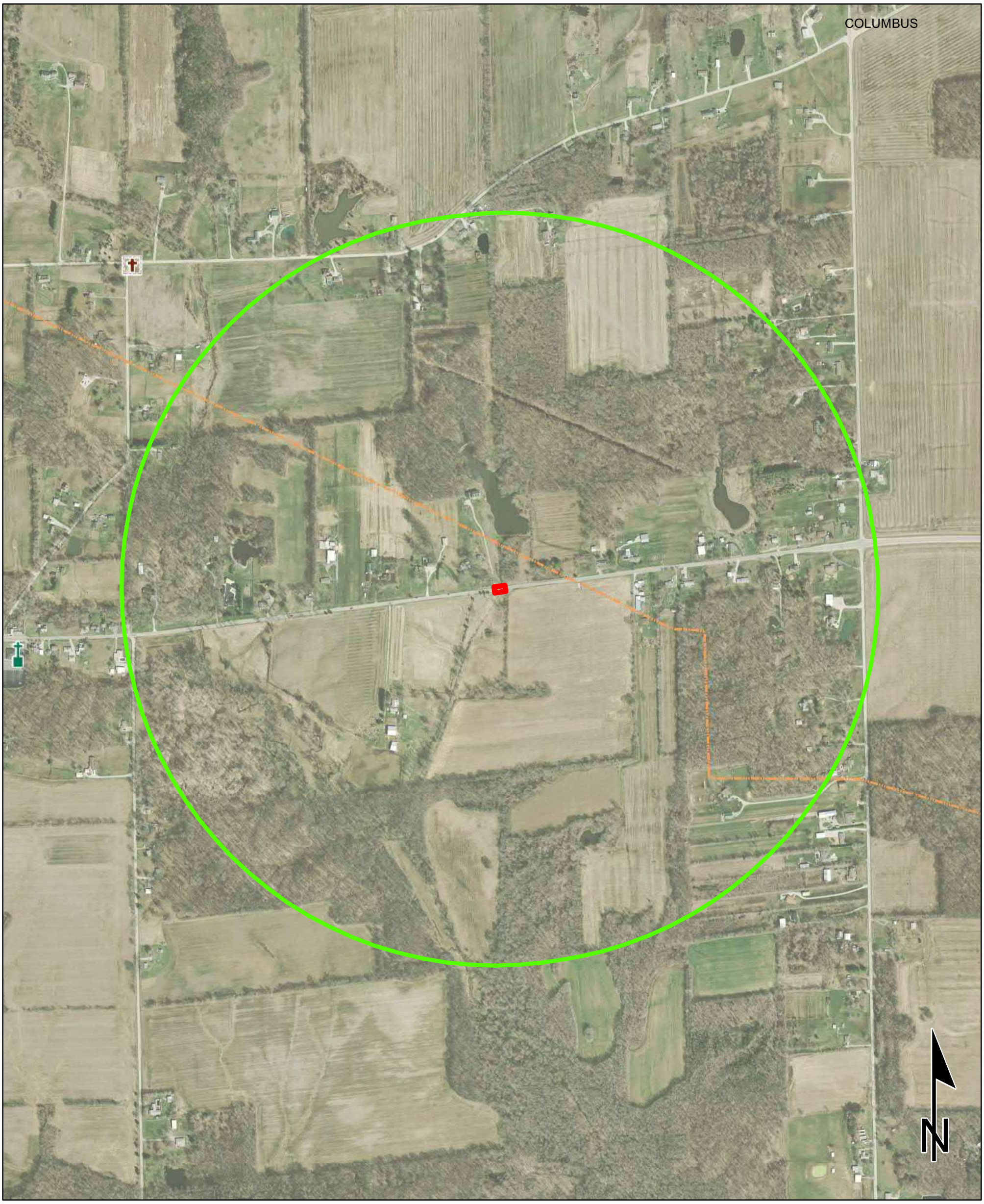
Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

1 0.5 0 1 Miles

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

COLUMBUS QUADRANGLE
INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)

Red Flag Investigation - Infrastructure
State Road 58, Small Structure Replacement
Des. No. 1700012
Bartholomew County, Indiana



0.15 0.075 0 0.15 Miles

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

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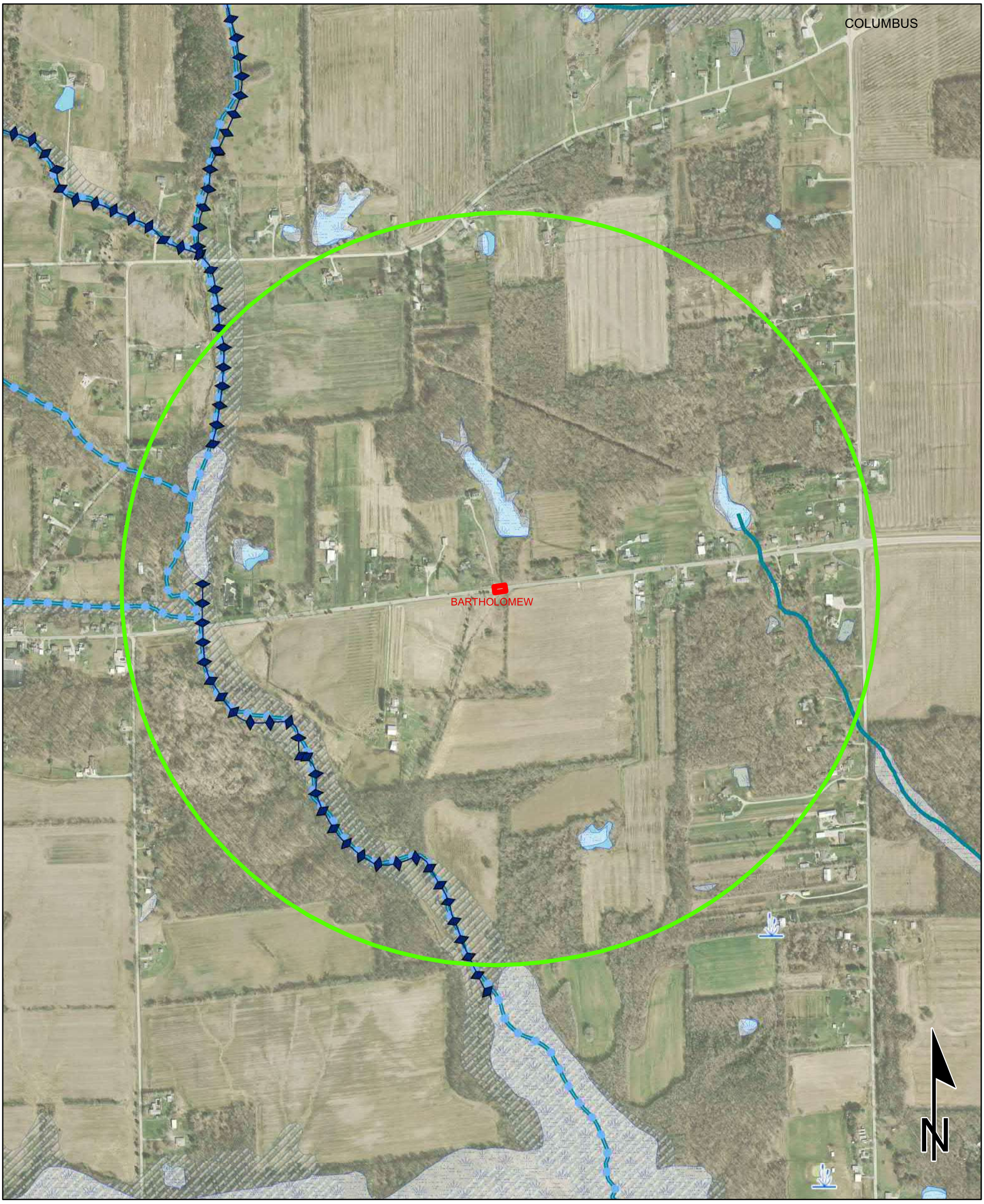
- Religious Facility
- Airport
- Cemeteries
- Hospital
- School
- Recreation Facility
- Pipeline
- Railroad
- Trails
- Managed Lands
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Water Resources
State Road 58, Small Structure Replacement
Des. No. 1700012
Bartholomew County, Indiana



0.15 0.075 0 0.15 Miles

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

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

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

Red Flag Investigation - Hazardous Material Concerns
State Road 58, Small Structure Replacement
Des. No. 1700012
Bartholomew County, Indiana

- Brownfield
- RCRA Corrective Action Sites
- Confined Feeding Operation
- Notice_Of_Contamination
- Construction/Demolition Site
- Infectious/Medical Waste Site
- Leaking Underground Storage Tank
- Manufactured Gas Plant
- NPDES Facilites
- NPDES Pipe Locations
- Open Dump Waste Site
- RCRA Generator/TSD
- Restricted Waste Site
- Septage Waste Site
- Solid Waste Landfill
- State Cleanup Site
- Superfund
- Tire Waste Site
- Underground Storage Tank
- Voluntary Remediation Program
- Waste Transfer Station
- Institutional Controls
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

0.15 0.075 0 0.15 Miles

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

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

Indiana County Endangered, Threatened and Rare Species List

County: Bartholomew

Species Name	Common Name	FED	STATE	GRANK	SRANK
Mollusk: Bivalvia (Mussels)					
Cyprogenia stegaria	Eastern Fanshell Pearlymussel	LE	SE	G1Q	S1
Epioblasma rangiana	Northern Riffleshell	LE	SE	G1	S1
Epioblasma triquetra	Snuffbox	LE	SE	G3	S1
Lampsilis fasciola	Wavyrayed Lampmussel		SSC	G5	S3
Obovaria subrotunda	Round Hickorynut	C	SE	G4	S1
Pleurobema clava	Clubshell	LE	SE	G1G2	S1
Pleurobema rubrum	Pyramid Pigtoe		SX	G2G3	SX
Ptychobranchus fasciolaris	Kidneyshell		SSC	G4G5	S2
Theliderma cylindrica	Rabbitsfoot	LT	SE	G3G4	S1
Toxolasma lividus	Purple Lilliput	C	SSC	G3Q	S2
Villosa fabalis	Rayed Bean	LE	SE	G2	S1
Villosa iris	Rainbow		SSC	G5	S3
Villosa lienosa	Little Spectaclecase		SSC	G5	S3
Reptile					
Clonophis kirtlandii	Kirtland's Snake		SE	G2	S2
Bird					
Aimophila aestivalis	Bachman's Sparrow			G3	SXB
Ammodramus henslowii	Henslow's Sparrow		SE	G4	S3B
Cistothorus platensis	Sedge Wren		SE	G5	S3B
Falco peregrinus	Peregrine Falcon		SSC	G4	S2B
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Helmitheros vermivorus	Worm-eating Warbler		SSC	G5	S3B
Ixobrychus exilis	Least Bittern		SE	G4G5	S3B
Mniotilta varia	Black-and-white Warbler		SSC	G5	S1S2B
Nycticorax nycticorax	Black-crowned Night-heron		SE	G5	S1B
Setophaga citrina	Hooded Warbler		SSC	G5	S3B
Tyto alba	Barn Owl		SE	G5	S2
Mammal					
Lasiurus borealis	Eastern Red Bat		SSC	G3G4	S4
Lasiurus cinereus	Hoary Bat		SSC	G3G4	S4
Mustela nivalis	Least Weasel		SSC	G5	S2?
Myotis lucifugus	Little Brown Bat	C	SE	G3	S2
Myotis septentrionalis	Northern Long Eared Bat	LT	SE	G1G2	S2S3
Myotis sodalis	Indiana Bat	LE	SE	G2	S1
Nycticeius humeralis	Evening Bat		SE	G5	S1
Perimyotis subflavus	Tricolored Bat		SE	G2G3	S2S3
Sorex fumeus	Smoky Shrew		SSC	G5	S2
Sorex hoyi	Pygmy Shrew		SSC	G5	S2
Taxidea taxus	American Badger		SSC	G5	S2

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

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting

State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list

GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long-term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank

SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long-term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

Indiana County Endangered, Threatened and Rare Species List

County: Bartholomew

Species Name	Common Name	FED	STATE	GRANK	SRANK
Vascular Plant					
Arabis patens	spreading rockcress		SE	G3	S1
Carex straminea	straw sedge		ST	G5	S2
Crataegus iracunda	Illinois hawthorn		SE	GNR	S1
Dichanthelium bicknellii	panic-grass		SE	G4?Q	S1
Juglans cinerea	butternut		ST	G3	S2
Liatris pycnostachya	cattail gay-feather		SE	G5	S1
Oenothera perennis	small sundrops		ST	G5	S3
Panax quinquefolius	American ginseng		WL	G3G4	S3
Penstemon canescens	gray beardtongue		SE	G4	S1
Schoenoplectiella smithii	Smith's Bulrush		ST	G5?	S2
Sparganium androcladum	branching bur-reed		ST	G4G5	S2
Spiranthes ochroleuca	yellow nodding ladies'-tresses		ST	G4	S2
High Quality Natural Community					
Forest - flatwoods bluegrass till plain	Bluegrass Till Plain Flatwoods		SG	G3	S2
Forest - upland dry Highland Rim	Highland Rim Dry Upland Forest		SG	GNR	S3
Forest - upland dry-mesic Bluegrass	Bluegrass Dry-mesic Upland Forest		SG	GNR	S1
Forest - upland dry-mesic Highland Rim	Highland Rim Dry-mesic Upland Forest		SG	GNR	S3
Forest - upland mesic Bluegrass	Bluegrass Mesic Upland Forest		SG	GNR	S3
Forest - upland mesic Highland Rim	Highland Rim Mesic Upland Forest		SG	GNR	S3
Primary - cliff limestone	Limestone Cliff		SG	GU	S1
Primary - wash gravel	Gravel Wash		SG	GU	S1
Wetland - seep circumneutral	Circumneutral Seep		SG	GU	S1
Other Significant Feature					
Geomorphic - Nonglacial Erosional Feature - Water Fall and Cascade	Water Fall and Cascade			GNR	SNR

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

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State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list

GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long-term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank

SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long-term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

APPENDIX F
WATER RESOURCES

Froderman, Bryce

From: Hoy, Jason
Sent: Thursday, February 27, 2020 4:02 PM
To: Froderman, Bryce
Subject: FW: Final waters report approval for SR58 Des 1700012
Attachments: Final waters report approval 2-20-2020.pdf; Permit Determination Questionnaire.docx; Des No 1700012 Shapefiles.zip

Hi Bryce,

FYI.

From: Alex Gray <alexg@metricenv.com>
Sent: Thursday, February 27, 2020 1:02 PM
To: Hoy, Jason <Jason.Hoy@strand.com>
Cc: Amy Smith <amys@metricenv.com>; Susan Castle <susanc@metricenv.com>
Subject: FW: Final waters report approval for SR58 Des 1700012

Good afternoon Jason,

The referenced waters report has been approved by INDOT. The approval email is in the thread below with the signed version attached. The waters shapefiles were sent a few months back, but I've attached them here as well, along with a word document listing the permit determination questions that will need to be answered for INDOT's review. Along with responses to these questions, they will need the hydraulic memo (if applicable), and the most recent set of plans with shapefiles overlaid and permanent and temporary impacts called out. Please let me know if you have any questions.

Thanks and have a nice day,

Alex Gray
Metric Environmental, LLC
Natural Resources Project Manager
Phone: 317.912.3494
Mobile: 769.203.9314
Email: alexg@metricenv.com

From: Kang, Li <LKANG@indot.IN.gov>
Sent: Thursday, February 20, 2020 8:36 AM
To: Amy Smith <amys@metricenv.com>
Cc: Hicks, Zachary <ZHicks@indot.IN.gov>
Subject: Final waters report approval for SR58 Des 1700012

Amy,
The above referenced waters report has been reviewed and approved. Please forward the report to the designer for the future permit application. If you have any questions please let me know.
Thanks,

LK

2-20-2020

WATERS DETERMINATION REPORT

S.R. 58 OVER UNT E.F. WHITE CREEK
SMALL STRUCTURE REPLACEMENT
DES. NO. 1700012
WAYNE TOWNSHIP, BARTHOLOMEW COUNTY, INDIANA

Prepared for:
Strand Associates, Inc.

January 31, 2020

Prepared by:

Metric Environmental, LLC

Complex Environment. Creative Solutions.
6971 Hillsdale Court
Indianapolis, IN 46256
Telephone: 317.207.4286
www.metricenv.com

WATERS OF THE U.S. DETERMINATION REPORT
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholomew County, Indiana
Des. No. 1700012
Prepared By: Cory Shumate, Metric Environmental, LLC
January 31, 2020

Date of Waters Field Investigation: August 29, 2019

Location:
Section 17; Township 8 North; Range 5 East
Columbus, IN 7.5-minute USGS Topographic Quadrangles (**Exhibit 2**)
Wayne Township, Bartholomew County, Indiana
12-Digit HUC Watershed: 051202060401
Latitude: 39.13314 Longitude: -85.99514

FEMA Flood Insurance Rate Map (FIRM):
No mapped floodplains are located within the project study limits (PSL). The nearest floodplain was located approximately 1,250 ft. southwest of the PSL and was associated with an unnamed tributary to East Fork White Creek. The FIRM map for this area is provided as **Exhibit 3**.

National Wetlands Inventory (NWI) Information:
No mapped NWI polygons are located within the PSL. The nearest mapped NWI polygon is located approximately 310 ft. northeast of the PSL and was identified as a Palustrine, Unconsolidated Bottom, Intermittently Exposed, Diked/Impounded (PUBGh). The NWI map is provided as **Exhibit 4**.

Karst Feature Information:
No mapped karst features were found within 0.5 mi. of the PSL during the desktop review.

USGS National Hydrography Dataset (NHD) Information:
Two mapped NHD flowlines are located within the PSL, listed by occurrence from east to west in the table below. The NHD flowline map is provided in **Exhibit 4**.

Corresponding Feature	NDH Flowline Classification	Photo Nos.	USGS Blue line
Wetland A, Wetland B, UNT to East Fork White Creek, Culvert 1	Stream/River	2, 3, 8, 9, 16-21, 23-28, 30, 31, 47	No
None	Stream/River	32-36	No

Soils:
According to the Natural Resources Conservation Service (NRCS) Soil Survey Geographic (SSURGO) Database for Bartholowmew County, Indiana, the PSL contained four mapped soil units, listed in the table below. The NRCS soil survey map is provided as **Exhibit 4**.

Map Unit Symbol	Map Unit Name	Hydric Rating (%)
BlgC2	Blocher-Cincinnati silt loam, 6 to 12 percent slopes, eroded	Not Hydric (0)
WaaAw	Wakeland silt loam, 0 to 2 percent slopes, occasionally flooded, very brief duration	Hydric (10)
AddA	Avonburg silt loam, 0 to 2 percent slopes	Hydric (10)
NaaB2	Nabb silt loam, 2 to 6 percent slopes, eroded	Not Hydric (0)

Attached Documents:
Maps of the project area (**Exhibits 1-5**)
Photo Location Map (**Exhibit 6**)
Site Photographs
Wetland Determination Data Form(s)
Preliminary Jurisdictional Determination Form

Project Description:
The proposed project (Des. No. 1700012) includes replacement of the existing small structure (CV 058-003-120.30) which carries S.R. 58 over unnamed tributary (UNT) to East Fork White Creek. The existing structure is an 8-ft. culvert with a 3-ft. opening with an unknown construction date. The structure has a length of 32.0 ft. The purpose of this project is to address the deficiencies present in the small structure. The need for this project was determined by the INDOT culvert inspection on November 14, 2018.

Field Reconnaissance:
The wetland determination field visit was conducted on August 29, 2019 by Cory Shumate of Metric Environmental, LLC. The PSL consist of the area that has the potential to be impacted, based on the provided design scenario. This area was evaluated for the presence of wetlands and Waters of the United States. This investigation was conducted in accordance with the *1987*

U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual and the *August 2010 Midwest Regional Supplement (version 2.0).*

A Location Map showing the project location is provided as **Exhibit 1**. The proposed project is located in the southwestern quadrant of Bartholomew County, Indiana, on S.R. 58 approximately 1.95 mi. west of I-65. The PSL extended approximately 800 ft. along S.R. 58 and approximately 65 ft. northwest and southeast from S.R. 58 centerline. An aerial map of sampling points and water features is provided as **Exhibit 5**. A photo location map is provided as **Exhibit 6** and site photographs are attached.

The site was investigated for evidence of hydrophytic vegetation, hydric soil, and wetland hydrology to determine if the project impacts wetlands and other Waters of U.S. The sampling point (SP) locations were chosen in possible wetland areas within the PSL. The upland areas consisted of agricultural crop fields, old field, deciduous forest, and a residential lawn. Upland areas where sampling points were not taken, were investigated and determined to be upland due to upward sloping topography and/or presence of dominant upland vegetation. Five sampling points were taken and identified as SP-A1, SP-A2, SP-B1, SP-B2, and SP-1. The sampling points, recorded on the USACE Wetland Determination Data Forms and shown on **Exhibit 5,** provided the following information:

Sampling Plot Data Summary Table

Plot #	Photo #s	Lat/Long	Hydrophytic Vegetation	Hydric Soils	Wetland Hydrology	Within Wetland
SP-A1	1-3	39.13306 -85.99517	Yes	Yes	Yes	Yes, Wetland A
SP-A2	4-6	39.13308 -85.99493	No	No	No	No, Wetland A Upland
SP-B1	7-9	39.13318 -85.99513	Yes	Yes	Yes	Yes, Wetland B
SP-B2	10-12	39.13328 -85.99491	No	No	No	No, Wetland B Upland
SP-1	13-15	39.133 -85.99587	No	No	No	No

Wetlands:
Two wetlands were observed within the PSL. Descriptions of the wetlands and corresponding sampling points are provided below.

Wetland Summary Table

Wetland Name	Photo #s	Lat/Long	Cowardin Class	Total Area acres	Quality	Likely Water of the U.S.
Wetland A	2, 3, 25-28,	39.13304 -85.99523	PEM1A	0.042	Poor	Yes
Wetland B	8, 9, 16-21, 47	39.13324 -85.99495	PEM1A	0.065	Poor	Yes

Wetland A (1.0 ac.) – PEM1A

Wetland A was classified as Palustrine, Emergent, Persistent, Temporarily Flooded (PEM1A) wetland. This wetland was located in a concave depression south of S.R. 58 at the southern outlet of the existing structure. The boundaries of Wetland A were delineated by the lack of wetland vegetation and increased elevation. Unnamed Tributary (UNT) to East Fork White Creek flowed southwest through Wetland A. Based on topography, it can be deduced that water drains through Wetland A and into UNT to East Fork White Creek. UNT to East Fork White Creek then flows southwest into East Fork White Creek, which flows southwest into White Creek, which flows southwest into East Fork White River, a Section 10 Traditional Navigable Waterway (TNW). Therefore, Wetland A should be considered a jurisdictional Water of the U.S. The wetland was not associated with an NWI polygon and was formed within the WaaAw and BlgC2 mapped soil units, which are listed as 10 percent hydric and not hydric, respectively. Wetland A is adjacent to paved roads and agricultural crop fields and likely receives run-off from these sources. The wetland also exhibited poor plant species diversity. These factors contribute to the conclusion that Wetland A can support only a poor amount of wildlife or aquatic habitat and therefore should be considered to be of poor quality.

Sampling Point A1 (SP-A1) – Wetland A

SP-A1 was located in a concave depression south of S.R. 58 and west of UNT to East Fork White Creek. The dominant vegetation at this sampling point was reed canary grass (*Phalaris arundinacea*, FACW) in the herb stratum. This met the hydrophytic vegetation indicators of rapid test for hydrophytic vegetation, dominance test (100 percent), and prevalence index (1.91). To a depth of 16 in., the soil in the test pit was a silty clay loam. A restrictive layer of gravel at a 16-in. depth prevented further excavation despite multiple attempts. From 0 to 16 in., the soil exhibited a matrix color of 10YR 4/1 (80 percent) and 5YR 3/4 (20 percent) prominent redox concentrations along pore linings and in the matrix. This met the hydric soil indicator of depleted matrix (F3). Indicators of wetland hydrology observed included oxidized rhizospheres on living roots (C3), geomorphic position (D2) due to the sampling point's location within a concave depression, and FAC-neutral test (D5). Since all three required wetland criteria were met, this area qualifies as a wetland.

Sampling Point A2 (SP-A2) – Wetland A Upland

SP-A2 was located on a hillslope south of S.R. 58, east of UNT to East Fork White Creek, and east of Wetland A. The dominant vegetation at this sampling point was tall false rye grass (*Schedonorus arundinaceus*, FACU) in the herb stratum. This did not meet any of the hydrophytic vegetation indicators. To a depth of 20 in., the soils in the test pit were a silty clay loam. From 0 to 6 in., the soil exhibited a matrix color of 10YR 4/2 (100 percent). From 6 to 12 in., the soil exhibited mixed matrix colors of 10YR 4/2 (50 percent) and 10YR 5/2 (50 percent). From 12 to 20 in., the soil exhibited mixed matrix colors of 10YR 5/2 (40 percent) and 10YR 4/1 (40 percent) with 2.5Y 5/6 (10 percent) and 5YR 3/4 (10 percent) prominent redox concentrations in the matrix. This did not meet any of the indicators of hydric soils. No primary or secondary indicators of wetland hydrology were observed. Since none of the three required wetland criteria were met, this area did not qualify as a wetland.

Wetland B (0.065 ac.) – PEM1A

Wetland B was classified as PEM1A wetland. This wetland was located in a concave depression north of S.R. 58 at the northern outlet of the existing structure and extended northeast within the roadside ditch before reaching Culvert 5. The boundaries of Wetland B were delineated by the lack of wetland vegetation and increased elevation. Wetland B continued north beyond the PSL. Based on topography, it can be deduced that water drains through Wetland B, through Culvert 1, and then into UNT to East Fork White Creek. Therefore, Wetland B should be considered a jurisdictional Water of the U.S. The wetland was not associated with an NWI polygon and was formed within the NaaB2 and BlgC2 mapped soil units, which are both listed as not hydric. Wetland B is adjacent to paved roads, a residential lawn, and deciduous forests, and likely receives run-off from these sources. The wetland also exhibited poor plant species diversity. These factors contribute to the conclusion that Wetland B can support only a poor amount of wildlife or aquatic habitat and therefore should be considered to be of poor quality.

Sampling Point B1 (SP-B1) – Wetland B

SP-B1 was located in a concave depression north of S.R. 58. The dominant vegetation at this sampling point was rice-cut grass (*Leersia oryzoides*, OBL) in the herb stratum. This met the hydrophytic vegetation indicators of rapid test for hydrophytic vegetation, dominance test (100 percent), and prevalence index (1.17). To a depth of 20 in., the soil in the test pit was a silty clay loam. From 0 to 20 in., the soil exhibited a matrix color of 10YR 4/2 (90 percent) with 5YR 3/4 (10 percent) prominent redox concentrations in the matrix. This met the hydric soil indicator of depleted matrix (F3). Indicators of wetland hydrology observed included surface water (A1), high water table (A2), saturation (A3), geomorphic position (D2) due to the sampling point's location within a concave depression, and FAC-neutral test (D5). Since all three required wetland criteria were met, this area qualified as a wetland.

Sampling Point B2 (SP-B2) – Wetland B Upland

SP-B2 was located on a hillslope north of S.R. 58 and Wetland B. The dominant vegetation at this sampling point included northern red oak (*Quercus rubra*, FACU), red maple (*Acer rubrum*, FAC), and white ash (*Fraxinus americana*, FACU) in the tree stratum; white ash (*Fraxinus americana*, FACU), American elm (*Ulmus americana*, FAC), and northern red oak (*Quercus rubra*, FACU) in the sapling/shrub stratum; greater straw sedge (*Carex normalis*, FACW), Canadian goldenrod (*Solidago canadensis*, FACU), and late flowering thoroughwort (*Eupatorium serotinum*, FAC) in the herb stratum; and Japanese honeysuckle (*Lonicera japonica*, FACU) and rambler rose (*Rosa multiflora*, FACU) in the woody vine stratum. This did not meet any of the hydrophytic vegetation indicators. To a depth of 20 in., the soils in the test pit were a silty clay loam. From 0 to 5 in., the soil exhibited mixed matrix colors of 10YR 4/2 (50 percent) and 10YR 4/3 (50 percent). From 5 to 16 in., the soil exhibited mixed matrix colors of 10YR 4/2 (40 percent) and 10YR 5/3 (40 percent) with 7.5YR 5/6 (10 percent) and 5YR 5/6 (10 percent) prominent redox concentrations in the matrix. From 16 to 20 in., the soil exhibited mixed matrix colors of 10YR 5/2 (35 percent) and 10YR 5/1 (35 percent) with 10YR 5/4 (15 percent) distinct redox concentrations in the matrix and 7.5YR 5/6 (10 percent) and 5YR 5/6 (5 percent) prominent redox concentrations in the matrix. This did not meet any of the hydric soil indicators. No primary or secondary indicators of wetland hydrology were observed. Since none of the three required wetland criteria were met, this area did not qualify as a wetland.

Additional Sampling Points:

An additional sampling point was taken in an area where a wetland was suspected but did not meet all three of the required wetland criteria. A description of this sampling point is included below.

Sampling Point 1 (SP-1)

SP-1 was located on a hillslope south of S.R. 58 in the western half of the PSL. The dominant vegetation at this sampling point was pin oak (*Quercus palustris*, FACW), eastern red cedar (*Juniperus virginiana*, FACU), and white ash (*Fraxinus americana*, FACU) in the tree stratum; white mulberry (*Morus alba*, FAC) and white ash (*Fraxinus americana*, FACU) in the sapling/shrub stratum; and reed canary grass (*Phalaris arundinacea*, FACW) and tall false rye grass (*Schedonorous arundinaceus*, FACU) in the herb stratum. This did not meet any of the indicators for hydrophytic vegetation. To a depth of 20 in., the soils in the test pit were a silty clay loam. From 0 to 16 in., the soil exhibited a matrix color of 10YR 4/3 (90 percent) with 10YR 4/1 (10 percent) distinct redox depletions. From 16 to 20 in., the soil exhibited a matrix color of 10YR 4/3 (75 percent) with 7.5YR 4/6 (25 percent) prominent redox concentrations in the matrix. No primary or secondary indicators of wetland hydrology were observed. Since none of the three required wetland criteria were met, this area did not qualify as a wetland.

Streams:
One stream, UNT to East Fork White Creek, was observed during the field reconnaissance. A description of the stream is provided below.

Stream Summary Table

Stream Name	Photos	Lat/Long	OHWM Width	OHWM Depth	USGS Blue-line	Functional Riffles/ Pools?	Quality	Likely Water of the U.S.	Dominant Substrate	Potential Stream Impact
			ft.	in.						ft.
UNT to East Fork White Creek	3, 27, 30, 31	39.13301 -85.99516	1.0	2.0	No (Ephemeral)	Yes, Pools	Poor	Yes	Muck	59

UNT to East Fork White Creek (59 LFT)
UNT to East Fork White Creek flows from northeast to southwest and is approximately 59 linear feet long (0.001 ac.) within the PSL. UNT to East Fork White Creek is a tributary to East Fork White River. Therefore, the stream should be considered a jurisdictional Water of the U.S. UNT to East Fork White Creek is not associated with a solid blue line on the USGS topographic map, indicating it is likely ephemeral. The stream was not classified by the NWI, but it can be classified as a Riverine, Ephemeral stream, Corps designation R6. UNT to East Fork White Creek did not extend north of the existing structure, despite being associated with an NHD flowline. A potential cause for this could be sediment build-up which would have filled in portions of the stream north of Culvert 1 and potentially caused the formation of Wetland B (See **Photos 19-23**). The OHWM was an average of 1.0 ft. wide and 2.0 in. deep within the PSL. Measurements of OHWM were collected outside the influence of Culvert 1. The dominant stream substrate consisted of muck. Moderate amounts of overhanging vegetation were the in-stream cover present. The stream exhibited low sinuosity and the channel was moist with isolated pools. No aquatic organisms were found in the stream. According to USGS *Indiana StreamStats*, the drainage area upstream of UNT to East Fork White Creek at the PSL is 0.074 square miles. Qualities of the stream listed above contribute to this stream being classified as poor quality.

Roadside Ditches:
Five roadside ditches (RSD) were identified within the PSL. All five RSD ran parallel to S.R. 58 These features were vegetation drainage swales consisting of upland vegetation. No OHWM was observed in these features, so they are likely non-jurisdictional.

Culverts and Drains:
Six culverts were identified within the PSL. Culvert 1 was a concrete box culvert which carried stormwater and roadside ditch drainage into UNT to East Fork White Creek. Culverts 2-6 were

corrugated metal pipes (CMPs). The culverts served to aid in roadside drainage and stormwater conveyance. These culverts did not carry jurisdictional waters due to a lack of an OHWM, bed and bank, and lack of a significant nexus to any jurisdictional Waters of the U.S. Locations of these culverts are shown on **Exhibits 5** and **6** and attached photosheet.

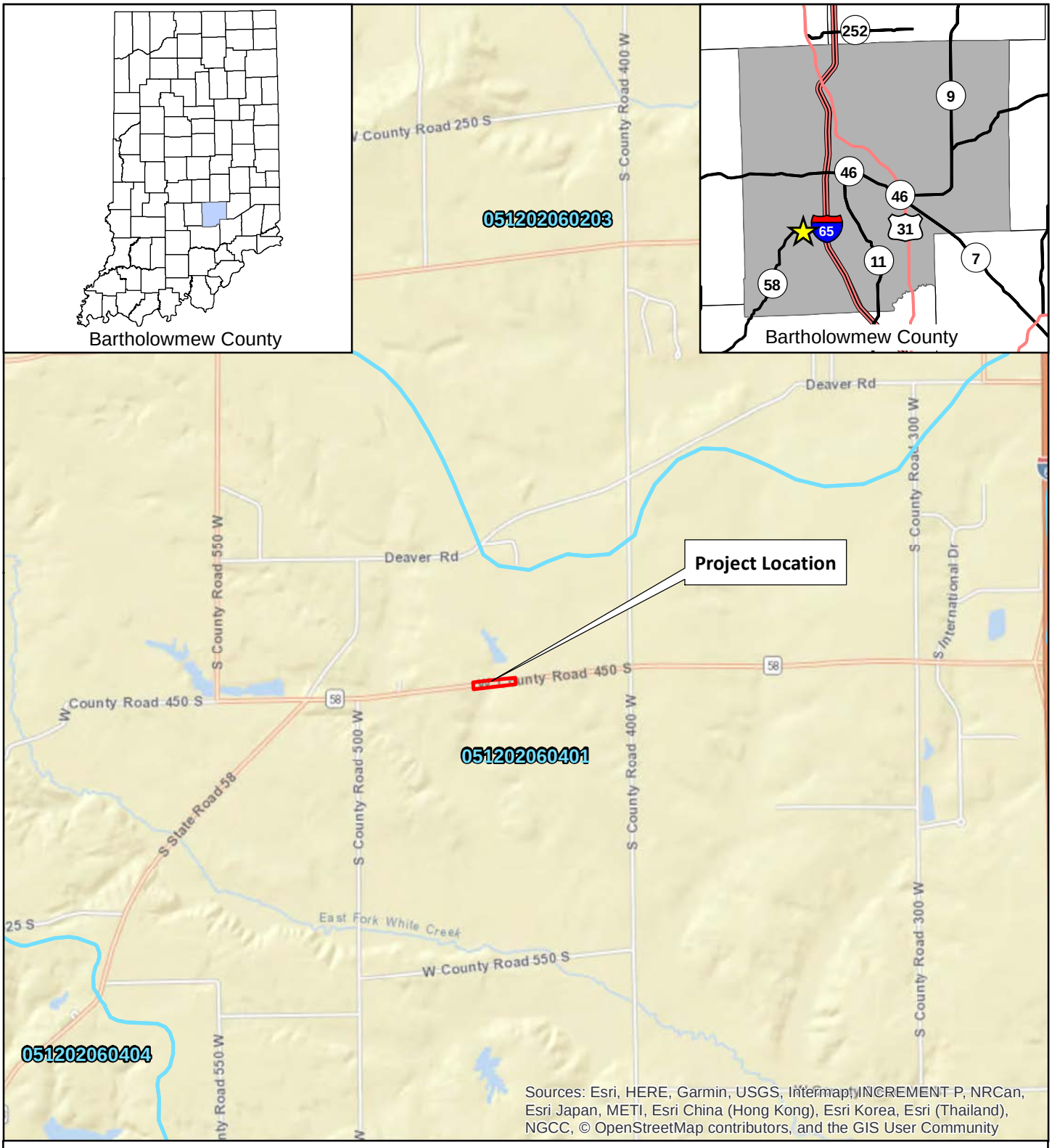
Conclusion:

Two PEM1A wetlands, totaling 0.107 ac., were identified within the PSL. One stream, UNT to East Fork White Creek, totaling 59 linear feet, was identified within the PSL. 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.

Acknowledgements:

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

Metric Environmental Staff	Position	Contributing Effort	Signature/Date
Amy Noel Smith	Natural Resources Project Manager II	Project Manager, Field Data Collection	Amy Noel Smith 1/31/2020
Alex Gray	Natural Resources Project Manager I	QAQC	Alex M. Gray 1/31/2020
Cory Shumate	Environmental Scientist 2	Field Data Collection, Report Preparation	C Shumate 1/31/2020



Project Study Limits (PSL) 12-Digit HUC Watershed

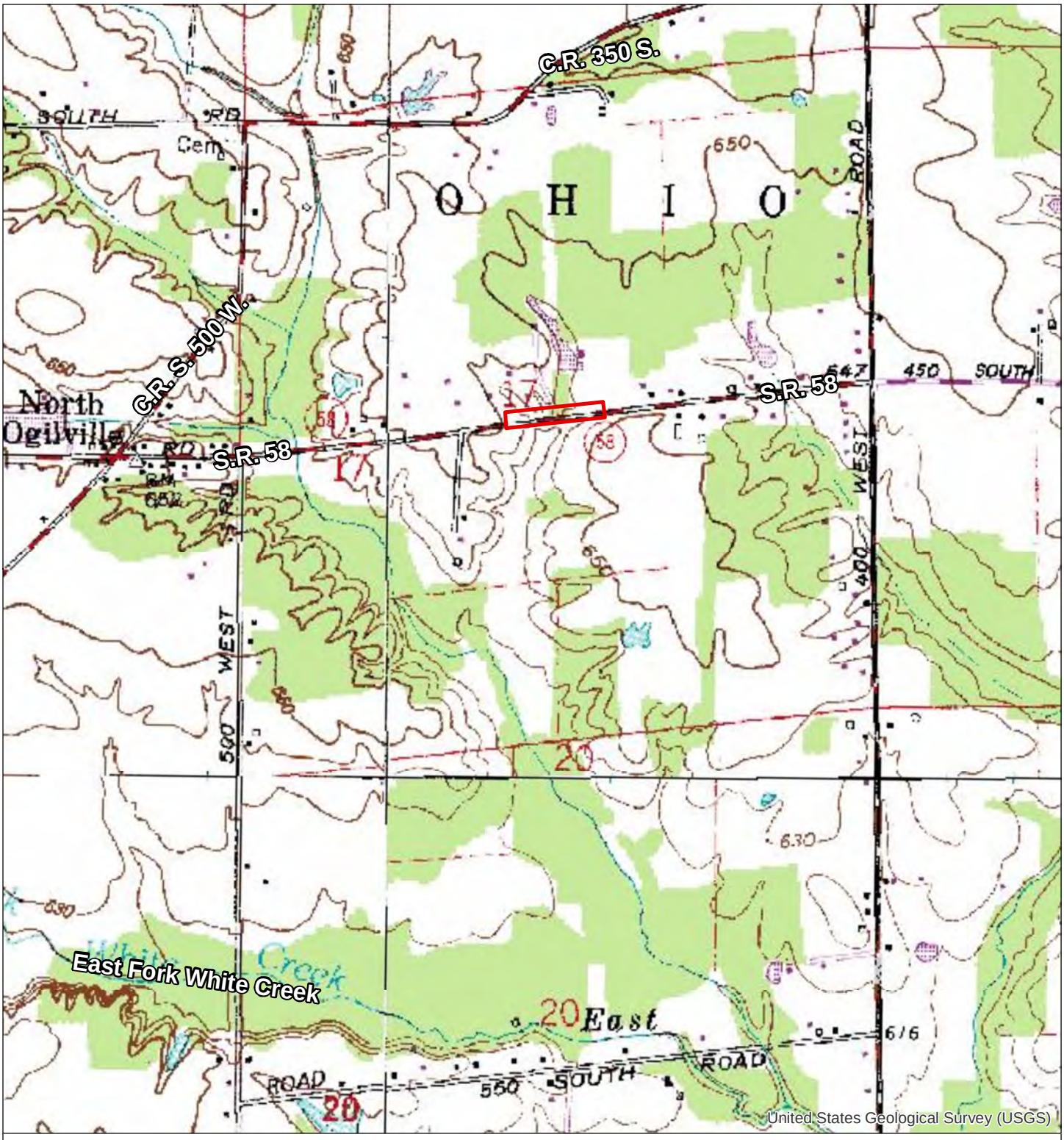
Exhibit 1 - Location Map
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholowmew County, Indiana
Des. No. 1700012
Metric Project No. 18-0008-9
Map Date: 12/30/2019
Map Author: Cory Shumate

All locations approximate
2018 Basemap
Latitude: 39.13314 Longitude: -85.99514

N
Miles 0 0.25 0.5 1

METRIC ENVIRONMENTAL

Exh. 1



Project Study Limits (PSL)

Exhibit 2A - USGS Topographic Map - Small Scale
Columbus, IN 7.5 minute Quadrangle
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholowmew County, Indiana
Des. No. 1700012
Metric Project No. 18-0008-9
Map Date: 12/30/2019
Map Author: Cory Shumate

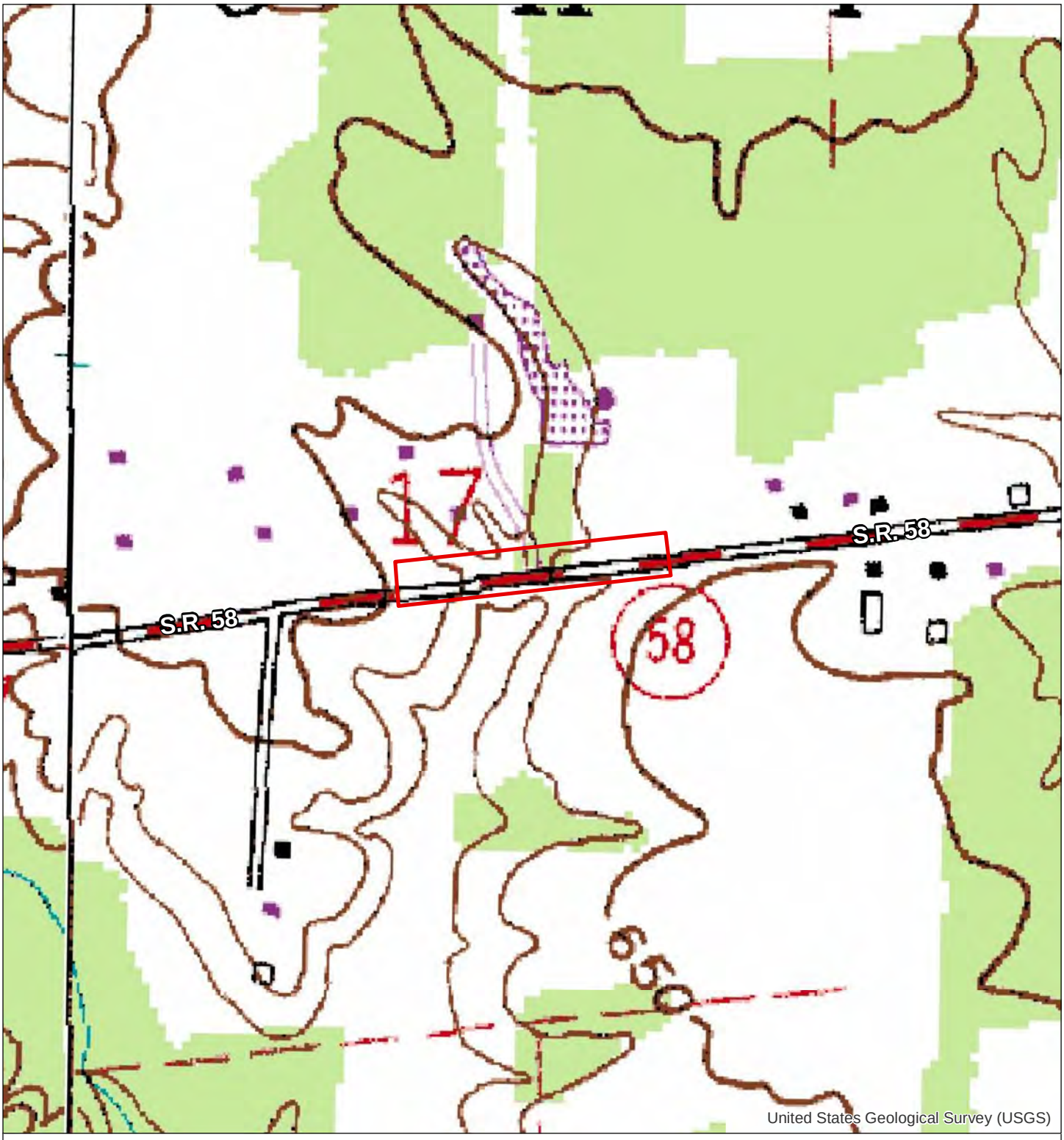
All locations approximate
Source: Indiana Spatial Data Portal (1996)

N

0 500 1,000 2,000
Feet

METRIC ENVIRONMENTAL

Exh. 2A



Project Study Limits (PSL)

Exhibit 2B - USGS Topographic Map - Large Scale
Columbus, IN 7.5 minute Quadrangle
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholowmew County, Indiana
Des. No. 1700012
Metric Project No. 18-0008-9
Map Date: 12/30/2019
Map Author: Cory Shumate

All locations approximate
Source: Indiana Spatial Data Portal (1996)

N

0 125 250 500
Feet

METRIC ENVIRONMENTAL

Exh. 2B

Project Study Limits (PSL) Floodplains- Zone AE - 1% Annual Chance

Exhibit 3 - FEMA Flood Insurace Rate Map (FIRM)
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholowmew County, Indiana
Des. No. 1700012
Metric Project No. 18-0008-9
Map Date: 12/30/2019
Map Author: Cory Shumate

All locations approximate

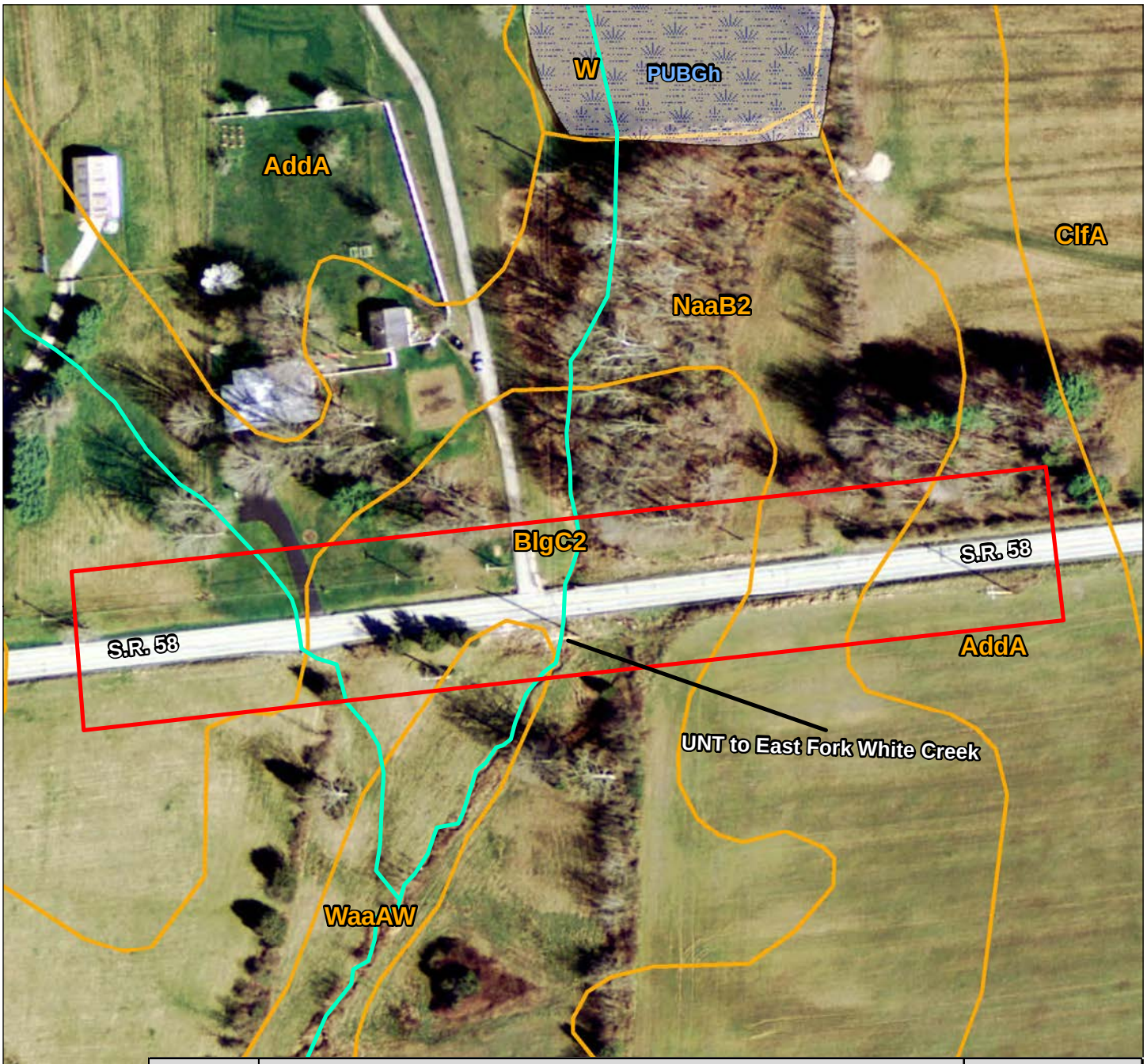
Source: Indiana Spatial Data Portal (2016)

N

0 250 500 1,000
Feet

METRIC ENVIRONMENTAL

Exh. 3



Symbol	Map Unit Name	Hydric Rating
BlgC2	Blocher-Cincinnati silt loams, 6 to 12 percent slopes, eroded	Not Hydric (0%)
WaaAW	Wakeland silt loam, 0 to 2 percent slopes, occasionally flooded, very brief duration	Hydric (10%)
AddA	Avonburg silt loam, 0 to 2 percent slopes	Hydric (10%)
NaaB2	Nabb silt loam, 2 to 6 percent slopes, eroded	Not Hydric (0%)

Project Study Limits (PSL) | NWI Wetland | NHD Flowline | NRCS Soil Survey

Exhibit 4 - NWI Wetland, NHD Flowline, and NRCS Soil Survey Map
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholowmew County, Indiana
Des. No. 1700012
Metric Project No. 18-0008-9
Map Date: 12/30/2019
Map Author: Cory Shumate

All locations approximate

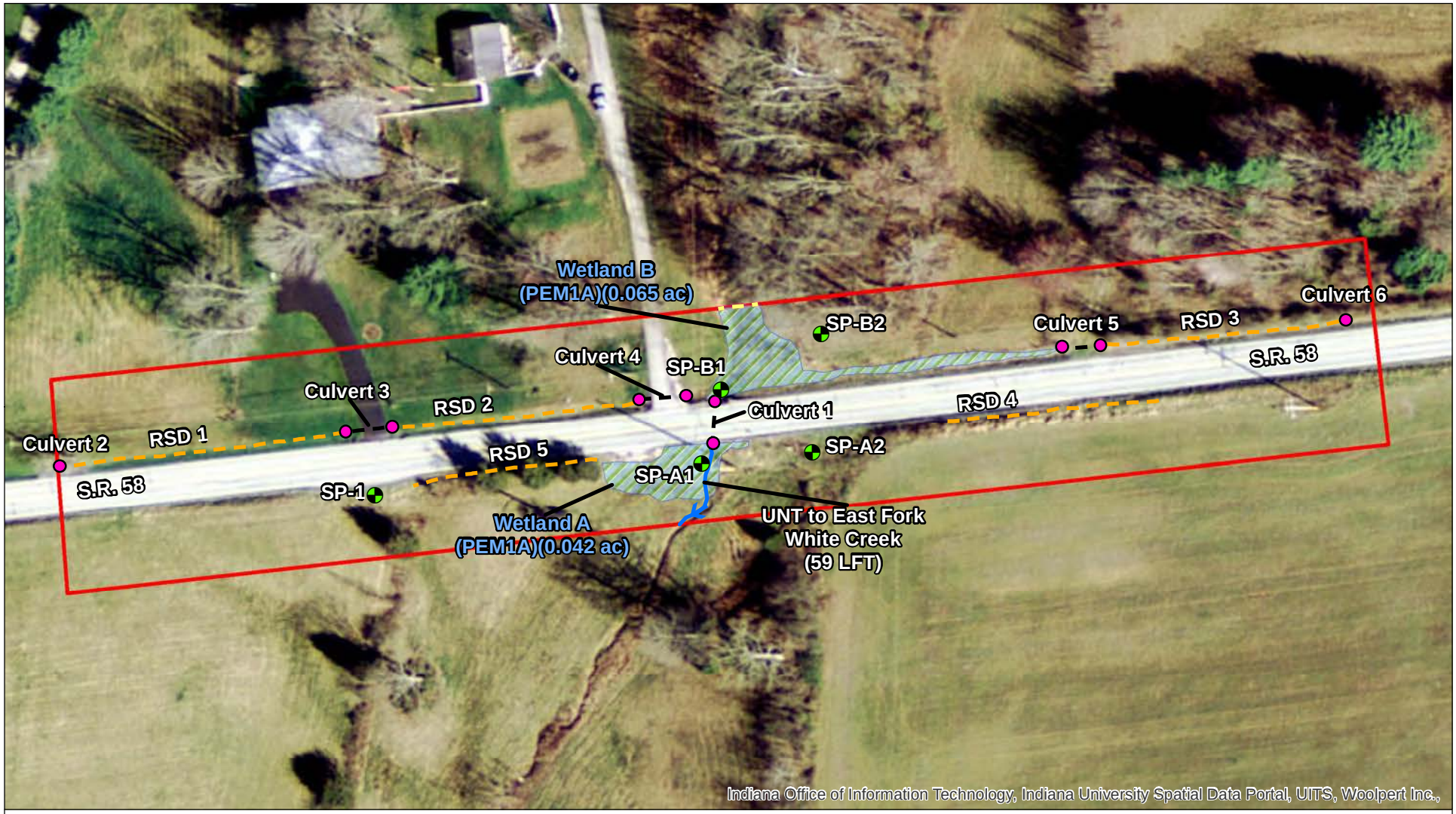
Source: Indiana Spatial Data Portal (2016)

N

0 50 100 200
Feet

METRIC ENVIRONMENTAL

Exh. 4



Project Study Limits (PSL) | Wetland | Stream | Culverts

Sampling Point (SP) | Wetland Beyond PSL | Culvert Opening | Roadside Ditch (RSD)

Exhibit 5 - Waters Delineation Map
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholowmew County, Indiana
Des. No. 1700012
Metric Project No. 18-0008-9
Map Date: 12/30/2019
Map Author: Cory Shumate

All locations approximate

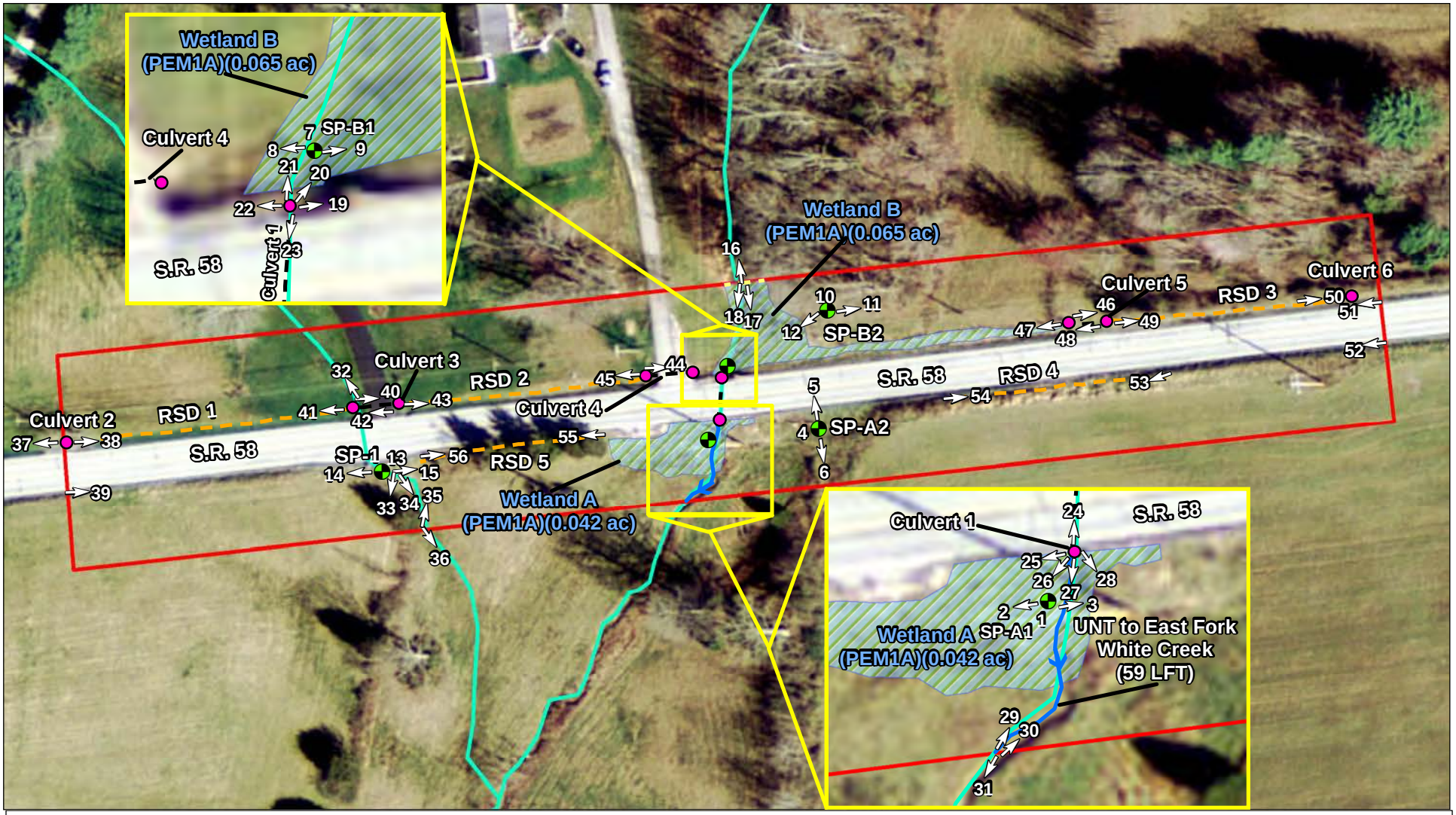
Source: Indiana Spatial Data Portal (2016)

N

0 50 100 200
Feet

METRIC ENVIRONMENTAL

Exh. 5



Project Study Limits (PSL) | Wetland | Stream | Culvert Opening | NHD Flowline

Sampling Point (SP) | Wetland Beyond PSL | Culverts | Roadside Ditch (RSD)

Exhibit 6 - Photo Location Map
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholowmew County, Indiana
Des. No. 1700012
Metric Project No. 18-0008-9
Map Date: 12/30/2019
Map Author: Cory Shumate

All locations approximate

Source: Indiana Spatial Data Portal (2016)

N

0 50 100 200
Feet

METRIC ENVIRONMENTAL

Exh. 6

1. View of SP-A1, Wetland A, soil profile.

2. View of SP-A1, Wetland A, looking southwest.

3. View of SP-A1, Wetland A, and Unnamed Tributary (UNT) to East Fork White Creek, looking northeast.

4. View of SP-A2, Wetland A upland, soil profile.

SITE PHOTOGRAPHS—8/29/2019
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholomew County, Indiana
Des. No. 1700012

METRIC ENVIRONMENTAL

5. View of SP-A2, Wetland A upland, looking northwest.

6. View of SP-A2, Wetland A upland, looking southeast.

7. View of SP-B1, Wetland B, soil profile.

8. View of SP-B1, Wetland B, and Culvert 1, looking southwest.

SITE PHOTOGRAPHS—8/29/2019
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholomew County, Indiana
Des. No. 1700012

METRIC ENVIRONMENTAL

9. View of SP-B1, Wetland B, looking northeast.

10. View of SP-B2, Wetland B upland, soil profile.

11. View of SP-B2, Wetland B upland, looking northeast.

12. View of SP-B2, Wetland B upland, looking southwest.

SITE PHOTOGRAPHS—8/29/2019
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholomew County, Indiana
Des. No. 1700012

METRIC ENVIRONMENTAL

13. View of SP-1, Upland Sampling Point 1, soil profile.

14. View of SP-1, Upland Sampling Point 1, looking west.

15. View of SP-1, Upland Sampling Point 1, looking northeast.

16. View of Wetland B and NHD flowline (unobserved) from northern project study limits (PSL), looking northwest.

SITE PHOTOGRAPHS—8/29/2019
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholomew County, Indiana
Des. No. 1700012

METRIC ENVIRONMENTAL

17. View of Wetland B and NHD Flowline (unobserved) from northern PSL, looking southeast.

18. View of Wetland B and NHD Flowline (unobserved) from northern PSL, looking southwest.

19. View of Wetland B and S.R. 58 right-of-way (ROW), looking northeast.

20. View of Wetland B, looking northeast.

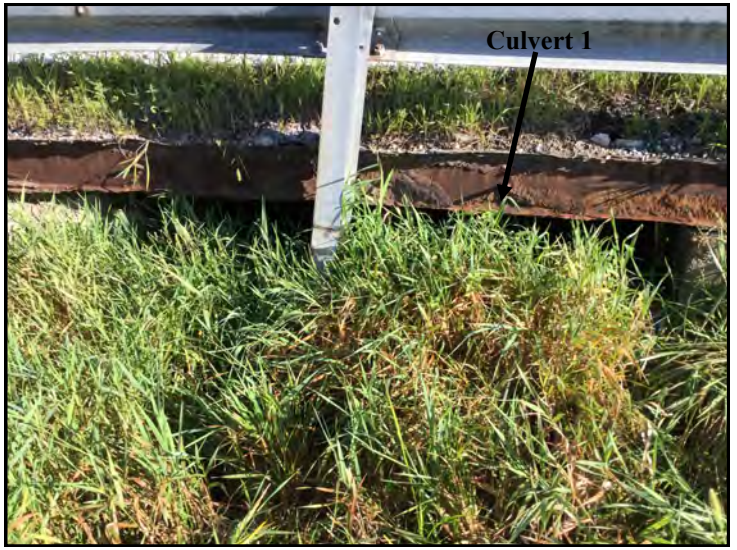
SITE PHOTOGRAPHS—8/29/2019
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholomew County, Indiana
Des. No. 1700012

METRIC ENVIRONMENTAL

21. View of Wetland B, looking northeast.

22. View of Culvert 4, looking west.

23. View of Culvert 1, looking southwest.



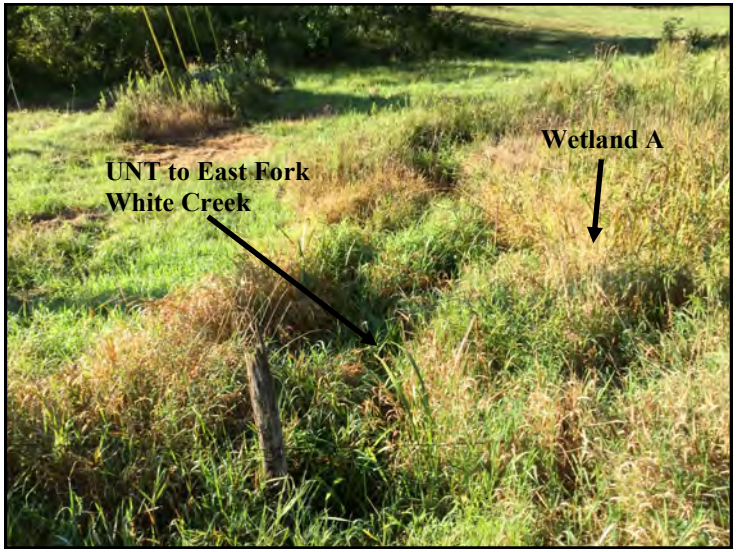
24. View of Culvert 1, looking northeast.

SITE PHOTOGRAPHS—8/29/2019
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholomew County, Indiana
Des. No. 1700012

METRIC ENVIRONMENTAL

25. View of Wetland A and S.R. 58 ROW, looking southwest.

26. View of Wetland A, looking southwest.



27. View of Wetland A and UNT to East Fork White Creek, looking southwest (downstream).

28. View of Wetland A and S.R. 58 ROW, looking southeast.

SITE PHOTOGRAPHS—8/29/2019
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholomew County, Indiana
Des. No. 1700012

METRIC ENVIRONMENTAL

29. View from southern PSL, looking northeast.

30. View of UNT to East Fork White Creek from southern PSL, looking northeast (upstream).

31. View of UNT to East Fork White Creek from southern PSL, looking southwest (downstream).

32. View of NHD flowline (unobserved), looking northwest.

SITE PHOTOGRAPHS—8/29/2019
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholomew County, Indiana
Des. No. 1700012

METRIC ENVIRONMENTAL

33. View of NHD flowline (unobserved), looking southwest.

34. View of NHD flowline (unobserved), looking southeast.

35. View of NHD flowline (unobserved), looking northeast.

36. View of NHD flowline (unobserved), looking southeast.

SITE PHOTOGRAPHS—8/29/2019
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholomew County, Indiana
Des. No. 1700012

METRIC ENVIRONMENTAL

37. View of Culvert 2, looking southwest.

38. View of Roadside Ditch (RSD) 1 and S.R. 58 ROW from western PSL, looking northeast.

39. View of S.R. 58 ROW from western PSL, looking northeast.

40. View of Culvert 3, looking northeast.

SITE PHOTOGRAPHS—8/29/2019
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholomew County, Indiana
Des. No. 1700012

METRIC ENVIRONMENTAL

41. View of RSD 1 from Culvert 3, looking southwest.

42. View of Culvert 3, looking southwest.

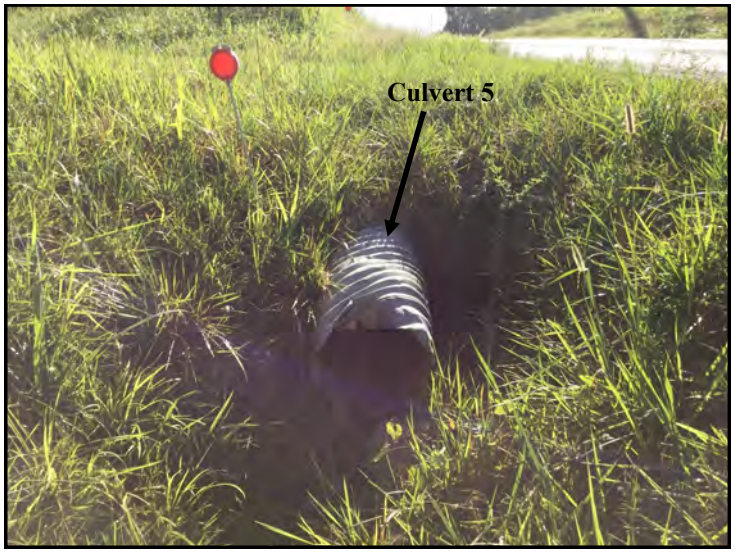
43. View of RSD 2 from Culvert 3, looking northeast.

44. View of Culvert 4, looking northeast.

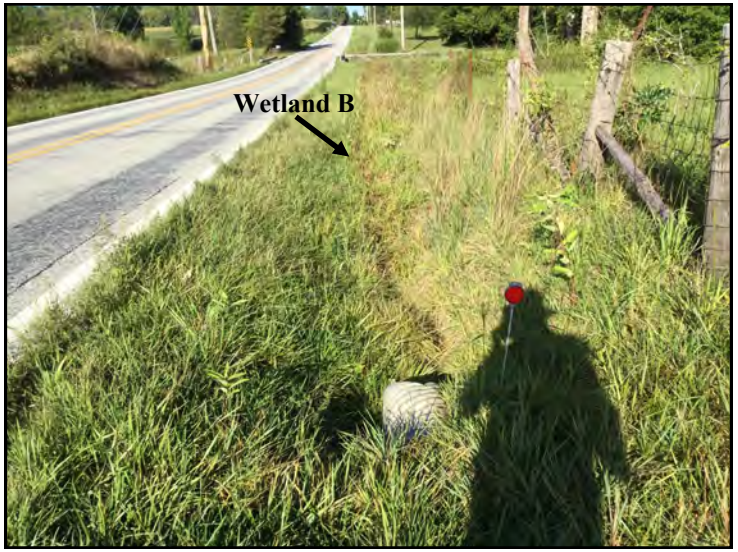
SITE PHOTOGRAPHS—8/29/2019
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholomew County, Indiana
Des. No. 1700012

METRIC ENVIRONMENTAL

45. View of RSD 2 from Culvert 4, looking southwest.



46. View of Culvert 5, looking northeast.

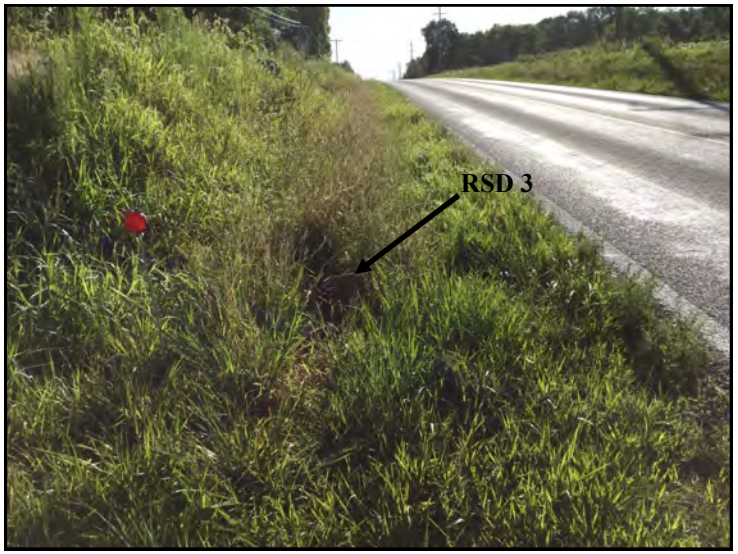


47. View of Wetland B from Culvert 5, looking southwest.

48. View of Culvert 5, looking southwest.

SITE PHOTOGRAPHS—8/29/2019
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholomew County, Indiana
Des. No. 1700012

METRIC ENVIRONMENTAL



49. View of RSD 3, looking northeast.

50. View of Culvert 6, looking northeast.

51. View of RSD 3 from eastern PSL, looking southwest.

52. View of S.R. 58 ROW from eastern PSL, looking southwest.

SITE PHOTOGRAPHS—8/29/2019
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholomew County, Indiana
Des. No. 1700012

METRIC ENVIRONMENTAL

53. View of RSD 4 and S.R. 58 ROW, looking southwest.

54. View of RSD 4 and S.R. 58 ROW, looking northeast.

55. View of RSD 5 and S.R. 58 ROW, looking southwest.

56. View of RSD 5 and S.R. 58 ROW, looking northeast.

SITE PHOTOGRAPHS—8/29/2019
S.R. 58 over UNT E.F. White Creek
Small Structure Replacement
Wayne Township, Bartholomew County, Indiana
Des. No. 1700012

METRIC ENVIRONMENTAL

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des. No. 1700012 - S.R. 58 over UNT E.F. White Creek City/County: Columbus / Bartholowmew County Sampling Date: 8/29/2019

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

Investigator(s): Cory Shumate Section, Township, Range: Section 17, Township 8 N, Range 5 E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave

Slope (%): 1% Lat: 39.13306 Long: -85.99517 Datum: NAD83

Soil Map Unit Name: Blocher-Cincinnati silt loams, 6 to 12 percent slopes, eroded (BlgC2) - Not Hydric (0%) 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 No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No 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 ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes x No ____

Remarks:
Wetland A (PEM1A) Sampling Point

VEGETATION -- Use scientific names of plants.

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

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

Herb Stratum (Plot size: 5' radius)			
1. *Phalaris arundinacea*	90%	Yes	FACW
2. *Asclepias incarnata*	10%	No	OBL
3. *Carex normalis*	5%	No	FACW
4. *Impatiens capensis*	5%	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	110%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10%	x1 =	0.1
FACW species	100%	x2 =	2
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	1.10 (A)		2.1 (B)

Prevalence Index = B/A = 1.91

Hydrophytic Vegetation Indicators:

- X 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.)

SOIL

Sampling Point: SP-A1

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
0-16	10YR 4/1	80	5YR 3/4	20	C	PL, M	SiCL	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Gravel

Depth (inches): 16

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

Remarks:

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)
- X 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 ___ 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:

Sampling point was located within a concave depression. Therefore, it meets the criteria for geomorphic position (D2).

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des. No. 1700012 - S.R. 58 over UNT E.F. White Creek City/County: Columbus / Bartholowmew County Sampling Date: 8/29/2019

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

Investigator(s): Cory Shumate Section, Township, Range: Section 17, Township 8 N, Range 5 E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex

Slope (%): 2% Lat: 39.13308 Long: -85.99493 Datum: NAD83

Soil Map Unit Name: Blocher-Cincinnati silt loams, 6 to 12 percent slopes, eroded (BlgC2) - Not Hydric (0%) 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 No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No 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**	
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	Yes ____ No x
Wetland Hydrology Present?	Yes ____	No X		

Remarks:
Wetland A Upland Sampling Point

VEGETATION -- Use scientific names of plants.

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

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

Herb Stratum (Plot size: 5' radius)			
1. *Schedonorus arundinaceus*	65%	Yes	FACU
2. *Poa pratensis*	15%	No	FAC
3. *Dipsacus fullonum*	10%	No	FACU
4. *Phalaris arundinacea*	5%	No	FACW
5. *Solidago canadensis*	5%	No	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30' radius)			
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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species	5%	x2 =	0.1
FAC species	15%	x3 =	0.45
FACU species	80%	x4 =	3.2
UPL species		x5 =	
Column Totals:	1.00 (A)		3.75 (B)

Prevalence Index = B/A = 3.75

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.)

SOIL

Sampling Point: SP-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
0-6	10YR 4/2	100					SiCL	
6-12	10YR 4/2	50					SiCL	Mixed Matrix
	10YR 5/2	50						
12-20	10YR 5/2	40	2.5Y 5/6	10	C	M	SiCL	Mixed Matrix; Prominent redox concentrations
	10YR 4/1	40	5YR 3/4	10	C	M		Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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** ___ **No** X

Remarks:

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 DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des. No. 1700012 - S.R. 58 over UNT E.F. White Creek City/County: Columbus / Bartholowmew County Sampling Date: 8/29/2019

Applicant/Owner: INDOT State: IN Sampling Point: SP-B1

Investigator(s): Cory Shumate Section, Township, Range: Section 17, Township 8 N, Range 5 E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave

Slope (%): 1% Lat: 39.13318 Long: -85.99513 Datum: NAD83

Soil Map Unit Name: Blocher-Cincinnati silt loams, 6 to 12 percent slopes, eroded (BlgC2) - Not Hydric (0%) 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 No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No 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 ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes x No ____

Remarks:
Wetland B (PEM1A) Sampling Point

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. *Leersia oryzoides*	75%	Yes	OBL
2. *Carex normalis*	20%	No	FACW
3. *Juncus effusus*	15%	No	OBL
4. *Asclepias incarnata*	5%	No	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	115% = Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	95%	x1 =	0.95
FACW species	20%	x2 =	0.4
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	1.15 (A)		1.35 (B)

Prevalence Index = B/A = 1.17

Hydrophytic Vegetation Indicators:

- X 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.)

SOIL

Sampling Point: SP-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
0-20	10YR 4/2	90	5YR 3/4	10	C	M	SiCL	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

HYDROLOGY

Wetland Hydrology Indicators:

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

- X 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 X No ___	Depth (inches):	1
Water Table Present?	Yes X No ___	Depth (inches):	3
Saturation Present? (includes capillary fringe)	Yes X No ___	Depth (inches):	0

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

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

Remarks:

Sampling point was located within a concave depression. Therefore, it meets the criteria of geomorphic position (D2).

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des. No. 1700012 - S.R. 58 over UNT E.F. White Creek City/County: Columbus / Bartholowmew County Sampling Date: 8/29/2019

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

Investigator(s): Cory Shumate Section, Township, Range: Section 17, Township 8 N, Range 5 E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex

Slope (%): 1% Lat: 39.13328 Long: -85.99491 Datum: NAD83

Soil Map Unit Name: Blocher-Cincinnati silt loams, 6 to 12 percent slopes, eroded (BlgC2) - Not Hydric (0%) 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 No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No 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

Hydric Soil Present? Yes ____ No X

Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? Yes ____ No x

Remarks:
Wetland B Upland Sampling Point

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' radius)			
1. *Quercus rubra*	20%	Yes	FACU
2. *Acer rubrum*	10%	Yes	FAC
3. *Fraxinus americana*	10%	Yes	FACU
4.			
5.			
	40%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Fraxinus americana*	15%	Yes	FACU
2. *Ulmus americana*	15%	Yes	FACW
3. *Quercus rubra*	15%	Yes	FACU
4.			
5.			
	45%	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. *Carex normalis*	25%	Yes	FACW
2. *Solidago canadensis*	15%	Yes	FACU
3. *Eupatorium serotinum*	15%	Yes	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	55%	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1. *Lonicera japonica*	30%	Yes	FACU
2. *Rosa multiflora*	10%	Yes	FACU
	40%	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 11 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 36% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species	40%	x2 =	0.8
FAC species	25%	x3 =	0.75
FACU species	115%	x4 =	4.6
UPL species		x5 =	
Column Totals:	1.80 (A)		6.15 (B)

Prevalence Index = B/A = 3.42

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.)

SOIL

Sampling Point: SP-B2

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
0-5	10YR 4/2	50					SiCL	Mixed Matrix
	10YR 4/3	50						
5-16	10YR 4/2	40	7.5YR 5/6	10	C	M	SiCL	Mixed Matrix; Prominent redox concentrations
	10YR 5/3	40	5YR 5/6	10	C	M		Prominent redox concentrations
16-20	10YR 5/2	35	10YR 5/4	15	C	M	SiCL	Distinct redox concentrations
	10YR 5/1	35	7.5YR 5/6	10	C	M		Prominent redox concentrations
			5YR 5/6	5	C	M		Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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** ___ **No** x

Remarks:

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 DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des. No. 1700012 - S.R. 58 over UNT E.F. White Creek City/County: Columbus / Bartholowmew County Sampling Date: 8/29/2019

Applicant/Owner: INDOT State: IN Sampling Point: SP-1

Investigator(s): Cory Shumate Section, Township, Range: Section 17, Township 8 N, Range 5 E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex

Slope (%): 2% Lat: 39.133 Long: -85.99587 Datum: NAD83

Soil Map Unit Name: Blocher-Cincinnati silt loams, 6 to 12 percent slopes, eroded (BlgC2) - Not Hydric (0%) 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 No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No 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

Hydric Soil Present? Yes ____ No X

Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? Yes ____ No x

Remarks:
Upland Sampling Point 1

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' radius)			
1. *Quercus palustris*	5%	Yes	FACW
2. *Juniperus virginiana*	5%	Yes	FACU
3. *Fraxinus americana*	5%	Yes	FACU
4.			
5.			
	15% = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Morus alba*	15%	Yes	FAC
2. *Fraxinus americana*	5%	Yes	FACU
3.			
4.			
5.			
	20% = Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. *Phalaris arundinacea*	45%	Yes	FACW
2. *Schedonorus arundinaceus*	45%	Yes	FACU
3. *Fraxinus americana*	5%	No	FACU
4. *Apocynum cannabinum*	5%	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100% = Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
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: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 43% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species	50%	x2 =	1
FAC species	20%	x3 =	0.6
FACU species	65%	x4 =	2.6
UPL species		x5 =	
Column Totals:	1.35 (A)		4.2 (B)

Prevalence Index = B/A = 3.11

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.)

SOIL

Sampling Point: SP-1

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
0-16	10YR 4/3	90	10YR 4/1	10	D	M	SiCL	Distinct redox depletions
16-20	10YR 4/3	75	7.5YR 4/6	25	C	M	SiCL	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
___ 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)
___ 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)
___ Dark Surface (S7)
___ Very Shallow Dark Surface (TF12)
___ 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** ___ **No** x

Remarks:

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:

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: January 31, 2020

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

Cory Shumate
Metric Environmental, LLC
6971 Hillsdale Court
Indianapolis, IN 46250
317-350-4896
corys@metricenv.com

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The proposed project (Des. No. 1700012) includes the small structure replacement of the existing structure (CV 058-003-120.30) which carries S.R. 58 over unnamed tributary (UNT) to East Fork White Creek. The existing structure is an 8-ft. culvert with a 3-ft. opening with an unknown construction date. The structure has a length of 32.0 ft. The purpose of this project is to address the deficiencies present in the small structure. The need for this project was determined by the INDOT culvert inspection on November 14, 2018.

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

State: IN County/parish/borough: Bartholomew County City: Columbus
Center coordinates of site (lat/long in degree decimal format):
Lat.: 39.13314°
Long.: -85.99514°
Universal Transverse Mercator: 16 S 586850.20 E 4332032.13 N
Name of nearest waterbody: East Fork White Creek

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)
Wetland A	39.13304	-85.99523	0.042 acre	Wetland	Section 404
Wetland B	39.13324	-85.99495	0.065 acre	Wetland	Section 404
UNT to East Fork White Creek	39.13301	-85.99516	59 LFT	Non-wetland waters	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:
- [x] Map: Dated 12/30/2019

  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: _____.
  - [x] USGS NHD data.
  - [x] USGS 8 and 12 digit HUC maps.
- [x] U.S. Geological Survey map(s). Cite scale & quad name: Columbus, IN 7.5 min, 1996
- [x] Natural Resources Conservation Service Soil Survey. Citation: SSURGO Bartholomew County
- [x] National wetlands inventory map(s). Cite name: http://www.fws.gov/wetlands/ .
- [ ] State/local wetland inventory map(s): _____.
- [x] FEMA/FIRM maps: ; Effective _____
- [ ] 100-year Floodplain Elevation is: _____.(National Geodetic Vertical Datum of 1929)
- [x] Photographs: [x] Aerial (Name & Date): Indiana Aerial Photograph, 2016 .

  or [x] Other (Name & Date): Site Photographs, 8/29/19.
- [ ] 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.

_____	CShumate 1/31/2020
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

STRAND ASSOCIATES®

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

NOTICE OF SURVEY

October 15, 2018

Mr. Judith Strahl
6951 W 450 S
Columbus, IN 47201

Re: Location Control Route Survey for Indiana Department of Transportation
S.R. 58 over Unnamed Tributary East Fork of White River
Bartholomew County, Indiana
Des. No. 1700012

Dear Property Owner:

Our information indicates that property is occupied and/or owned by you near this proposed bridge replacement project. Our employees will conduct 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 as stated in Indiana Code IC 8-23-7-26. 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 provide any known name and/or address changes of the new owner or current occupant so that we may contact them about the survey.

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

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

Sincerely,

STRAND ASSOCIATES, INC.®

Jacob E. Fitzsimmons, P.L.S.

JEF:vls\\\strand.com\projects\COL\4000--4099\4060\314\Survey\Letters\SR 58 UNT EF White Creek NOTICE OF SURVEY.docx

Notice of Survey Letter List				
Name	**Address**	**City**	**State**	**ZIP Code**
Judith Strahl	6951 W 450 S	Columbus	IN	47201
Gary B. & Cheryl L. Murphy	6880 W 450 S	Columbus	IN	47201
Robert D. & Julie A. Simpson	6780 W 450 S	Columbus	IN	47201
Robert O. & Mary E. Simpson	6780 W 450 S	Columbus	IN	47201
Steven R. Foley	6315 S 650 W	Columbus	IN	47201

APPENDIX H
AIR QUALITY

SPONSOR	CONTRACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024
Columbus	40375 / 1701323	Init.	ST 1026	Road Reconstruction (3R/4R Standards)	Talley Road between 25th Street and Rocky Ford Road	Seymour	1	STPBG		Columbus MPO	CN	$777,600.00	$0.00				$777,600.00	
Indiana Department of Transportation	40389 / 1700139	Init.	SR 46	New Interchange Construction	At the intersection of SR 46 and SR 11 in Columbus	Seymour	0	NHPP		Bridge Construction	CN	$5,614,760.80	$1,403,690.20	$7,018,451.00				
												$12,000,000.00	$3,000,000.00	$15,000,000.00				
										Road Construction	CN	$1,979,418.40	$494,854.60	$2,474,273.00				
Indiana Department of Transportation	40407 / 1600503	Init.	SR 58	Bridge Replacement, Concrete	3.35 miles W of I-65 over E Fork White Creek	Seymour	0	STPBG		Bridge Construction	CN	$2,932,307.20	$733,076.80			$3,665,384.00		
										Bridge ROW	RW	$68,000.00	$17,000.00		$85,000.00			
Indiana Department of Transportation	40450 / 1701168	Init.	I 65	Replace Superstructure	00.72 mile S of US 31 at CR 650N/Tannehill Rd	Seymour	0	NHPP		Bridge Construction	CN	$1,026,285.30	$114,031.70	$1,140,317.00				
Columbus	40463 / 1701061	Init.	ST 1011	Enhancement	People Trail Phase 1- Along 17th Street between Noblitt Park and Donner Park	Seymour	0	STPBG		Local Funds	CN	$0.00	$22,500.00	$22,500.00				
										Columbus MPO	CN	$202,500.00	$0.00	$202,500.00				
Columbus	40464 / 1701062	Init.	ST 1025	Enhancement	People Trail Phase 2- Along 19th St. between Donner Park & Lincoln Park	Seymour	0	STPBG		Local Funds	CN	$0.00	$22,500.00		$22,500.00			
										Columbus MPO	CN	$202,500.00	$0.00		$202,500.00			
Columbus	40487 / 1702107	Init.	ST 1015	Pavement, Other	Taylor Road Phase 2- from 31st Street to Rocky Ford Road	Seymour	0	STPBG		Local Funds	CN	$0.00	$430,000.00		$430,000.00			
										Columbus MPO	CN	$1,720,000.00	$0.00		$1,720,000.00			
Indiana Department of Transportation	40992 / 1800340	Init.	I 65	Bridge Deck Overlay	01.01 mile N of SR 58, CR 350 S @ I-65	Seymour	0	NHPP		Bridge Construction	CN	$620,787.60	$68,976.40		$689,764.00			
Indiana Department of Transportation	41164 / 1801374	Init.	VA VARI	Environmental Mitigation	Environmental Mitigation site for SR 46 Interchange Project	Seymour	0	STPBG		Road Construction	CN	$1,422,624.80	$355,656.20		$1,778,281.00			
Indiana Department of Transportation	41638 / 1801784	Init.	US 31	New Signal Installation	Intersection of Lowell Rd	Seymour	.23	STPBG		District Other Construction	CN	$313,500.00	$78,375.00		$391,875.00			
Indiana Department of Transportation	41849 / 1802958	Init.	I 65	Added Travel Lanes	From SR 58 to SR 46 in Bartholomew County	Seymour	4.05	NHPP		Major New - Construction	CN	$7,425,000.00	$825,000.00		$8,250,000.00			
										Major New - Consulting	PE	$450,000.00	$50,000.00		$500,000.00			
										Demonstration Fund Program	CN	$18,000,000.00	$2,000,000.00		$20,000,000.00			

Des. 1700012 falls under lead Des. 1600503. Project costs associated with Des. 1700171 can be found on Page 6 of this document.

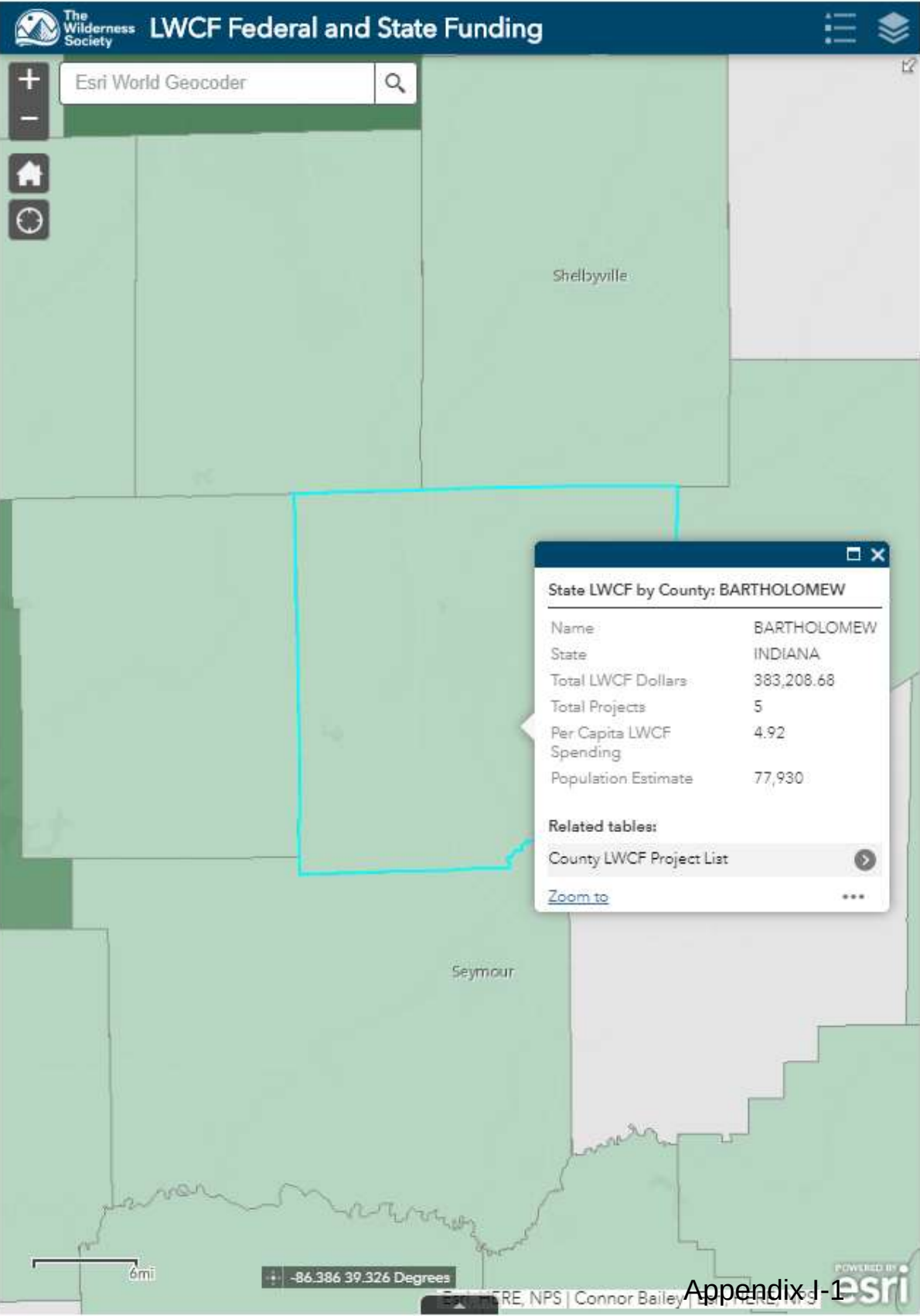
*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

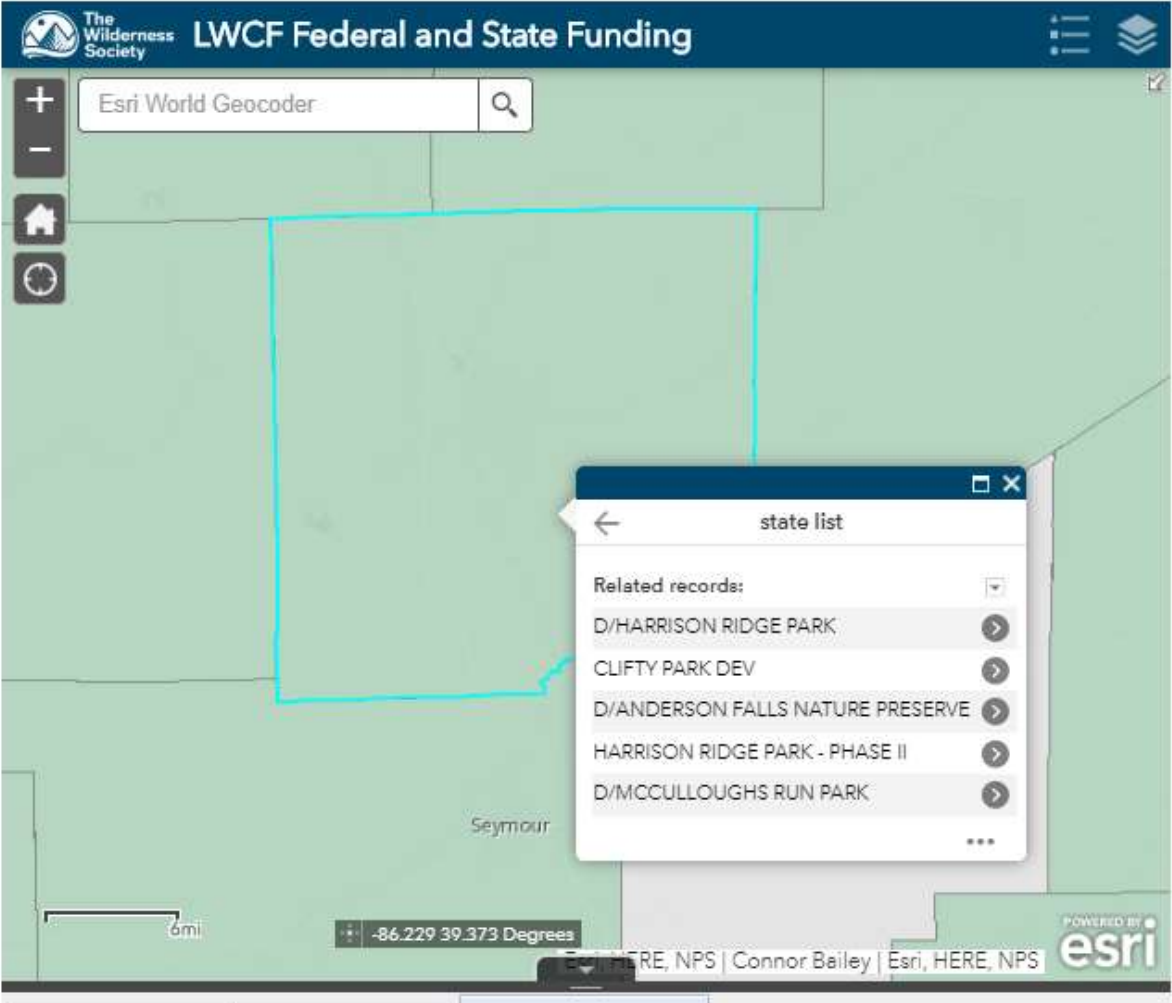
SPONSOR	CONTRACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2018	2019	2020	2021
Comments:Amend CN phase in FY 2020 to the current STIP. Amended to CAMPO's TIP per Resolution 2018-01 dated February 12, 2018.																	
Indiana Department of Transportation	40407 / 1600503	A 04	SR 58	Bridge Replacement, Concrete	3.35 miles W of I-65 over E Fork White Creek	Seymour	0	STP	$1,383,079.00	Bridge Consulting	PE	$120,000.00	$30,000.00	$150,000.00			
										Bridge ROW	RW	$20,000.00	$5,000.00				$25,000.00
Comments:Amend PE in FY 2018 and RW in FY 2021. Amended to CAMPO's TIP per Resolution 2017-13 dated 7/10/17.																	
Indiana Department of Transportation	40407 / 1700012	A 04	SR 58	Small Structure Replacement	At 1.95 miles W of I-65	Seymour	0	STP	$493,530.00	Bridge ROW	RW	$8,000.00	$2,000.00				$10,000.00
										Bridge Consulting	PE	$108,000.00	$27,000.00	$135,000.00			
Comments:Amend PE phase in FY 2018 and RW phase in FY 2021 to current STIP. Amended to CAMPO's TIP per Resolution 2017-13 dated 7/10/17.																	
Indiana Department of Transportation	40450 / 1701168	A 04	I 65	Replace Superstructure	00.72 mile S of US 31 at CR 650N/Tannehill Rd	Seymour	0	NHPP	$1,263,576.00	Bridge Consulting	PE	$135,000.00	$15,000.00	$150,000.00			
												$18,000.00	$2,000.00		$20,000.00		
										Construction		$984,218.40	$109,357.60			$1,093,576.00	
Comments:Amend PE Phase in FY 2018, RW in FY 2019 and CN in 2020 to current STIP. Amended to CAMPO's TIP per Resolution 2017-13 dated 7/10/17.																	
Columbus	40463 / 1701061	M 12	ST 1011	Enhancement	People Trail Phase 1- Along 17th Street between Noblitt Park and Donner Park	Seymour	0	STP	$227,500.00	Columbus MPO	PE	$0.00	$0.00	($22,500.00)	$22,500.00		
										Local Funds	PE	$0.00	$0.00	($2,500.00)	$2,500.00		
Comments:Move PE funding from FY18 to FY19. CAMPO FY18-21 TIP Modification dated 5/4/2018.																	
Columbus	40463 / 1701061	M 21	ST 1011	Enhancement	People Trail Phase 1- Along 17th Street between Noblitt Park and Donner Park	Seymour	0	STPBG	$250,000.00	Columbus MPO	PE	-$2,500.00	$0.00		($2,500.00)		
										Local Funds	PE	$0.00	$2,500.00		$2,500.00		
Comments:Adding local PE funds and subtracting Federal PE funds for FY 2019. CAMPO Administrative Modification Dated 3/29/2019																	
Columbus	40463 / 1701061	A 02	ST 1011	Enhancement	People Trail Phase 1- Along 17th Street between Noblitt Park and Donner Park	Seymour	0	Safety	$250,000.00	Local Funds	PE	$0.00	$2,500.00	$2,500.00			
										Columbus MPO	CN	$202,500.00	$0.00			$202,500.00	
										Columbus MPO	PE	$22,500.00	$0.00	$22,500.00			
										Local Funds	CN	$0.00	$22,500.00			$22,500.00	
Comments:Amend FY18-21 STIP. Add FY18 PE funding for Columbus MPO & 100% Local Funds. Add FY20 CN funding for Columbus MPO & 100% Local Funds. This project is in the new CAMPO FY18-21 TIP.																	
Columbus	40464 / 1701062	M 12	ST 1025	Enhancement	People Trail Phase 2- Along 19th St. between Donner Park & Lincoln Park	Seymour	0	STP	$227,500.00	Local Funds	PE	$0.00	$0.00	($2,500.00)	$2,500.00		

Des. 1701431 falls under lead Des. 1600503. Project costs associated with Des. 1701431 can be found on Page 6 of this document.

*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 STUDIES


The Wilderness Society
LWCF Federal and State Funding
Esri World Geocoder
Shelbyville
State LWCF by County: BARTHOLOMEW
Name BARTHOLOMEW
State INDIANA
Total LWCF Dollars 383,208.68
Total Projects 5
Per Capita LWCF Spending 4.92
Population Estimate 77,930
Related tables:
County LWCF Project List
Zoom to
Seymour
6mi
-86.386 39.326 Degrees
esri



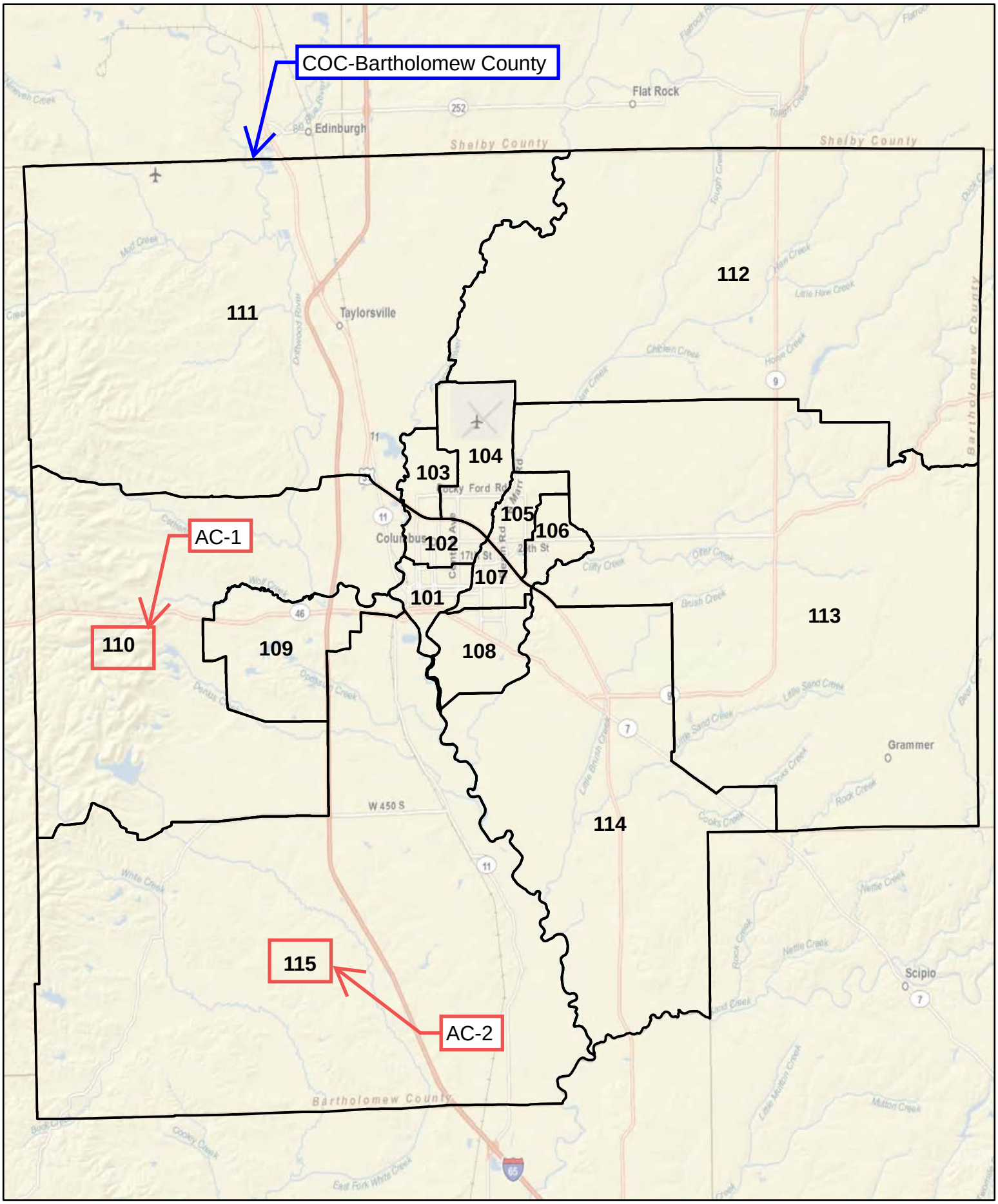
LWCF Federal Projects | State LWCF by County | County LWCF Project List

Options | Filter by map extent | Zoom to | Clear selection | Refresh

State	County	Grant ID Element	Type	Grant Element Title	Grant Sponsor	Fiscal Year
Indiana	BARTHOLOMEW	398	C	D/HARRISON RIDGE PARK	COLUMBUS PARK BOARD	1981
Indiana	BARTHOLOMEW	269	D	CLIFTY PARK DEV	COLUMBUS PARK BOARD	1977
Indiana	Bartholomew	399	C	D/ANDERSON FALLS NATURE PRESERVE	BARTHOLOMEW COUNTY PARK BOARD	1981
Indiana	BARTHOLOMEW	412	D	HARRISON RIDGE PARK - PHASE II	COLUMBUS PARK BOARD	1983
Indiana	BARTHOLOMEW	518	C	D/MCCULLOUGH RUN PARK	COLUMBUS PARK BOARD	2000

5 records 0 selected

Bartholomew County, Indiana Census Tracts 2010



Source: IBRC at Indiana University's Kelley School of Business, using tract boundaries from TIGER 2010 and ArcGIS Online StreetMap. March 2011

Minority & Low Income Data			
	COC - Bartholomew County, Indiana	AC-1: Census Tract 110	AC-1: Census Tract 115
Total Population	79835	5231	8511
Total White	68348	4821	7395
Total Minority	11487	410	1116
Total Low-Income	9870	332	1061
Percent Minority	14.4%	7.8%	13.1%
125% of COC	18.0%	18.0%	18.0%
EJ Population of Concern		NO	NO
Percent Low-Income	12.4%	6.3%	12.5%
125% of COC	15.5%	15.5%	15.5%
EJ Population of Concern		NO	NO

County and Tract https://data.census.gov/cedsci/

Note: This is a modified view of the original table produced by the U.S. Census Bureau.

Note: This download or printed version may have missing information from the original table.

POVERTY STATUS IN THE PAST 12 MONTHS

Survey/Program:
American Community Survey
Year:
2017
Estimates:
5-Year
Table ID:
S1701

Source: U.S. Census Bureau, 2018 American Community Survey 1-Year Estimates

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

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

Dollar amounts are adjusted to respective calendar years. For more information, see: Change to Income Deficit.

While the 2018 American Community Survey (ACS) data generally reflect the July 2015 Office of Management and Budget (OMB) delineations of metropolitan and micropolitan statistical areas, in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB delineations due to differences in the effective dates of the geographic entities.

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

Explanation of Symbols:
- An "**" entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
- An "-" entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution, or the margin of error associated with a median was larger than the median itself.
- An "-" following a median estimate means the median falls in the lowest interval of an open-ended distribution.
- An "+" following a median estimate means the median falls in the upper interval of an open-ended distribution.
- An "***" entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
- An "*****" entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
- An "N" entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
- An "(X)" means that the estimate is not applicable or not available.

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

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

	Bartholomew County, Indiana			Census Tract 110, Bartholomew County, Indiana			Census Tract 115, Bartholomew County, Indiana		
	Total	Below poverty level	Percent below poverty level	Total	Below poverty level	Percent below poverty level	Total	Below poverty level	Percent below poverty level
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Population for whom poverty st	79,835	9,870	12.4%	5,231	332	6.3%	8,511	1,061	12.5%
AGE									
SEX									
RACE AND HISPANIC OR LATI									
White alone	68,348	7,739	11.3%	4,821	228	4.7%	7,395	766	10.4%
Black or African American a	1,442	121	8.4%	15	9	60.0%	50	22	44.0%
American Indian and Alaska	188	131	69.7%	126	95	75.4%	0	0	-
Asian alone	5,037	175	3.5%	201	0	0.0%	560	0	0.0%
Native Hawaiian and Other F	64	9	14.1%	0	0	-	0	0	-
Some other race alone	3,302	1,336	40.5%	43	0	0.0%	207	183	88.4%
Two or more races	1,454	359	24.7%	25	0	0.0%	299	90	30.1%
Hispanic or Latino origin (of	5,128	1,593	31.1%	0	0	-	705	311	44.1%
White alone, not Hispanic or	66,545	7,379	11.1%	4,821	228	4.7%	6,949	638	9.2%
EDUCATIONAL ATTAINMENT									
EMPLOYMENT STATUS									
WORK EXPERIENCE									
ALL INDIVIDUALS WITH INCO									
UNRELATED INDIVIDUALS FOR	14,779	3,410	23.1%	353	36	10.2%	1,196	250	20.9%