Appendix D Section 106 of the National Historic Preservation Act (NHPA)

SECTION 1

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

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

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

Original Submission Date: April 1, 2023

Amended Submission Date*:

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

Submitted By (Provide Name and Firm/Organization):

Elizabet Biggio Architectural Historian II Butler, Fairman, & Seufert, Inc. ebiggio@bfsengr.com

Project Designation Number: 2003065

Route Number: County Road 1050 South

Feature crossed (if applicable): Grant Creek

City/Township: Liberty Township County: Wabash County

Project Description:

The Wabash County Board of Commissioners proposes a project involving Wabash Co. Bridge 143 carrying County Road (CR) 1050 South over Grant Creek in Wabash County, Indiana (NBI #8500465). The project is within Liberty Township on the USGS La Fontaine Quadrangle, in Section 28, Township 26 North, Range 7 East.

Wabash County Bridge 143 is a c. 1960 three-span concrete channel beam bridge. The bridge is approximately 67.5 feet long with a clear roadway width of 24.6 feet. It carries two 11.5-foot lanes of traffic with 1-foot shoulders and is on a 30-degree skew. Bridge 134 was determined non-historic in the Indiana Historic Bridge Inventory. CR 1050 South is a two-lane, east-west rural local road. The clear roadway width is 18 feet. The detour length is 3 miles. Land use in the area is forested, agricultural, and residential.

The need for the project derives from the condition of the bridge, particularly the substructure, which was given a condition rating of 4 (out of 9) or "poor" in the May 17, 2022 Bridge Inspection Report. The purpose of the project is to provide an improved crossing of Grant Creek.

The proposed project will replace Wabash Co. Bridge 143. The new bridge will be a single span, approximately 92.33 feet long. The out to out coping will be approximately 44.25 feet. The bridge will carry two 12-foot lanes of traffic with 8.63-foot shoulders. Riprap will be installed. In order to construct the bridge one side at a time, use of a causeway and temporary road widening is anticipated. CR 1050 dead-ends to the west of the project area, and Wabash Co. Bridge 143 provides the only access to the properties west of Grant Creek.

Minor Projects PA Project Submittal and Assessment Form

CR 1050 North will retain its straight horizontal alignment. The total project length will be approximately (0.25 mile) long. Approximately 2.1 acres of permanent and 0.6 acre of temporary right-of-way acquisition will be required. The maximum depth of excavation for the installation of the new bridge, channel clearing, and benching will be approximately 6 feet. Approximately 0.9 acre of tree clearing will be required. Construction is anticipated to begin in the Fall of 2025.

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

For bridge or small structure projects, please list feature crossed, structure number, NBI number, and structure type:

Grant Creek NBI No. 8500465 Structure No. 85-00143 Concrete Beam

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

🖾 Yes 🛛 🗆 No

If yes, did the inve	ntory determine	the bridge eligible for or listed in the National Register
of Historic Places?	Please provide	page # of entry in Historic Bridge Inventory.
□ Yes	🛛 No	
Inventory Page #	1044	

Will there be right-of-way acquisition as part of this project? ⊠ Yes □ No

If yes was checked above, please check all that apply:□⊠ Permanent⊠ Temporary□ Reacquisition

If applicable, identify right-of-way acquisition locations in text below and in attached mapping. Please specify how much (both temporary and permanent) and indicate what activities are included in the proposed right-of-way:

Approximately 1.16 acres of permanent and 0.10 acre of temporary right-of-way acquisition will be required. Acquisition is expected on all sides of the bridge in order to accommodate the new structure and for construction access, largely for the causeway.

Is there <u>any</u> potential for additional temporary right-of-way to be needed later for purposes such as access, staging, etc.? □ Yes □ No

Archaeology (check one):

□ All proposed activities are presumed to occur in previously disturbed soils* *INDOT-CRO will notify you if project area incudes undisturbed soils and requires an archaeological reconnaissance.

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

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

Please specify all applicable categories and condition(s) (highlight applicable conditions in yellow)*:

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

Condition A (Archaeological Resources)

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

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

Condition B (Above-Ground Resources)

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

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

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

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

Part II: Completed by INDOT-CRO

Amendments will be shown in red font.

Information reviewed (please check all that apply):

General project location map	USGS map	Aerial photograph	\boxtimes Soil survey data \boxtimes
General project area photos	Archaeology Re	ports 🛛 Historio	c Property Reports
Indiana Historic Buildings, Bridge	s, and Cemeteries N	/lap/Interim Report	
Bridge inspection information/BLA	.S 🛛 Historic Br	idge Inventory Datab	base 🛛
SHAARD 🛛 SHAARD GIS	Streetview Im	agery 🛛 County	GIS Data/Property Cards
Other (please specify):			
Connolly, Jocelyn			
2023 Phase Ia Archaeological Recom #143 Project, Wabash County, Indian	a (INDOT Des. No. 2	2003065). Report on fil	
Transportation, Cultural Resources O	mee, mulanapons, m	Ν.	

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

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

Additional Comments:

Above-ground Resources

With regard to above-ground resources, an INDOT Cultural Resources Office (CRO) architectural historian, who meets the Secretary of the Interior's Professional Qualification Standards per 36 CFR Part 61, performed a desktop review. An area of potential effects (APE) of 0.25 mile was examined. First, the historian checked the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for Wabash County. No listed properties are located within the APE.

The Wabash County data for the Indiana Historic Sites and Structures Inventory (IHSSI) was reviewed through the Indiana State Historic Architectural and Archaeological Research Database (SHAARD), and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM). No IHSSI properties are recorded within the APE.

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According to the IHSSI rating system, generally properties rated "contributing" do not possess the level of historical or architectural significance necessary to be considered individually National Register eligible, although they would contribute to a historic district. If they retain material integrity, properties rated "notable" might possess the necessary level of significance after further research. Properties rated "outstanding" usually possess the necessary level of significance to be considered National Register eligible, if they retain material integrity. Historic districts identified in the IHSSI are usually considered eligible for the National Register.

The eastern half of the APE, located on the north and south sides of CR 1050 S east of Grant Creek, is composed of wooded areas and agricultural fields. The western half of the APE, located on the north and south sides of CR 1050 S west of Grant Creek, contains six residential properties. Property record cards, which include photographs, found online for Wabash County were examined. The first property west of the bridge is 2407 E 1050 S, which contains a 1¹/₂-story house built in 1988 and outbuildings from the 2010s. The next house property is 2373 E 1050 S, which contains an early 20th century wood-frame house with modern outbuildings. The house has a hipped roof with a shed-roof front dormer. It also has a modern porch, vinyl siding and windows, and a large garage addition. The next house is located at 2326 E 1050 S. It is a 1970 ranch house with a pole barn. It appears to have some replacement doors and windows, and perhaps new siding. The next property is 2318 E 1050 S, which contains a 1988 ranch house and modern outbuildings. The next house is located at 2291 E 1050 S. It is a one-story structure built in 2009 with contemporary outbuildings. The final house within the APE is located at 2258 E 1050 S. It is an early 20th century T-plan structure that has been heavily altered. It has vinyl siding and windows and multiple additions that obscure its original massing. Based on their alterations and/or their lack of significance, none of the properties within the APE appear to rise to the level of significance to be considered National Register eligible individually; nor does the potential for a historic district appear to exist. None of the properties warrant an IHSSI rating higher than contributing.

With regard to the bridge itself, Wabash County No. 143 (NBI No. 8500465) is a 3-span reinforced concrete channel beam structure that was built in 1960. It was determined not to be National Register eligible in the Indiana Historic Bridge Inventory.

Based on the available information, as summarized above, no above-ground concerns exist.

Archaeological Resources

An INDOT-CRO archaeologist who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 reviewed the Phase Ia archaeological reconnaissance submitted by Gray & Pape, Inc. on behalf of Butler, Fairman & Seufert, Inc. (Connolly 2023).

A 3.7-acre survey area was examined through a combination of systematic shovel probing (n=55), soil coring (n=2), and visual inspection of disturbed areas. The area encompassing CR E 1050 S and Wabash County Bridge #143 has been previously disturbed from the construction of the country road, existing bridge, Grant Creek, embankment, a gravel driveway, and buried utilities. The north and south sides of CR E 1050 S within the survey area boundaries were subject to visual inspection and shovel probing in 15 m intervals within untilled agricultural fields with 30 percent visibility and wooded tract areas. Two bucket auger probes were excavated on the northside of CR E 1050 S on a narrow floodplain west of Grant Creek due to the presence of alluvial soils. One of the augers was excavated by extending the floor of one of the shovel probes. All shovel tests and bucket augers were negative. No archaeological sites were documented as a result of the survey and no further investigation is recommended (Connolly 2023).

Therefore, there are no archaeological concerns as long as the project scope and footprint do not change.

<u>Accidental Discovery</u>: If any archaeological artifacts or human remains are uncovered during construction, demolition, or earth moving activities, construction within 100 feet of the discovery will be stopped, and INDOT-CRO and the Division of Natural Resources-Division of Historic Preservation and Archaeology (DNR-DHPA) will be notified immediately.

INDOT-CRO staff reviewer(s): Mary Kennedy, Matt Coon, and KayLee Blum

INDOT Approval Date: 6/12/2023

Amendment Approval Date (if applicable):

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



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Where applicable, the use of this	form is recommended but not requi	red by the Division of Historic Pres	servation and Archaeology (DHPA).
Name(s) of author(s) Jocelyn Connolly			Date (month, day, year) 6/9/2023
Title of project	projection Survey for the Prop	and CD E 1050 S over Grant	Creak Pridge #1/2 Project
Wabash County, Indiana (IND	nnaissance Survey for the Prop OT Des. No. 2003065)		Creek Bridge #145 Project,
This document is being used to report on th	e results of:		
	cords check and Phase 1a archaeologica		
	eological report. For an addendum, prov	ide the following information.	
Name(s) of author(s) of previous report			
Title of previous report			
Date of previous report (month, day, year)		DHPA number	
Date of previous report (month, day, year)			
	PROJECT	OVERVIEW	
Description of project The proposed project will repla	ace Wabash Co. Bridge 143 (Fig	ure 1). The need for the project	ct derives from the condition of
	y the substructure, which was g		
	. The bridge is experiencing trar		
	g bridge is also below the flood e		
	eam, resulting in overtopping. T		
	l condition of "good", or at least a		
	The bridge will carry two 12-foo pproximately 0.21 miles long and		
	order to construct the bridge one		
	1050 S dead-ends to the west of		
only access to the properties w	vest of Grant Creek.		<u> </u>
INDOT designation number(s)	Project number	DHPA number	DHPA plan number
2003065 Prepared for: (Company / Institution / Agend	22-89006.001		
Butler, Fairman & Seufert, Inc.			
Elizabet Biggio			
	0, Indianapolis, IN 46240-8302		
Telephone number (317)713-4615	E-mail address ebiggio@bfsengr.co		
(317)713-4015 Name of principal investigator	ອນເຊິ່າເດເລັ້າເອີ້າ		
Jocelyn Connolly			
Name of company / institution Gray & Pape, Inc.			
Address (number and street, city, state, and 1318 Main St., Ste. 1	I ZIP code)		
Telephone number (513)287-7700	E-mail address jconnolly@graypape	e.com	
Signature of principal investigator (Required) Jocelyn Connole	Date (mont 6/9/202	h, day, year) 2
	policy connord	0/9/202	5
	PROJECT	LOCATION	
County	USGS 7.5' series topographic quadrangle		Civil township
Wabash	La Fontaine, IN		Liberty
	Legal L	ocation	
Grid alignment			

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Section

Range

Township

The pre- and industrial history of Wabash County through the statewide trends of shifts from subsistence agriculture to indus	
 Records check (Check all that apply) The project area does not have the potential to contain archaeological resurces within the project investigation. Provide explanation / justification. The project area contains previously recorded archaeological resources to contain archaeological resources. Provide explanation / justification. Based upon the records check results, a reconnaissance has been of A cemetery is located within or adjacent to the project area. 	t area, but those resources do not warrant additional archaeological hat warrant additional investigation and/or the project area has the potential
Explanation / justification A 1/2-mile radius of the survey area was examined for this Lite over the past century in this region as an agricultural/residentia the project area show it as just east of the Mo-Shin-go-ma-sha located above the confluence of Josina/Jocinah Creek and the 2022[1875]:50). The records check did not identify any previou but, based on previous cultural resource surveys conducted in undisturbed soils, the project area has the potential to contain	al area (USGS 1953a, 1953b). The earliest available maps of Reserve No. 22, and not far north of the "Old Indian Village," Mississinewa River (Figure 3) (Andreas 2022[1876]:64, Paul Isly recorded archaeological resources within the project area, the general vicinity (Figure 2), and the presence of possible
 Phase 1a archaeological reconnaissance (Check all that apply) No Phase 1a reconnaissance was conducted. Phase 1a reconnaissance located no archaeological resources. Previously recorded sites were in the project area. Artifacts and/or features at a previously recorded site(s) within the p Phase 1a reconnaissance has identified landforms conducive to buried and a statement of the project area. 	
List sites.	
Describe landforms. The project area consists of the Grant Creek floodplain on the	otherwise flat to rolling till plain.
Number of shovel probes excavated 55	Number of cores / auger probes 2 auger probes (1 of which was in the floor of a shovel test pit)
Describe disturbances. Attach photographs documenting disturbances. Much of the survey area was disturbed (Figure 4). The most si 143 over Grant Creek. Field 2 experienced landscaping when Installation of additional infrastructure including roadside ditche sources of disturbance in the survey areas. The disturbance w following section (Figures 4-7).	the adjacent house and driveways were constructed. es and above- and below-ground utility lines, have all been as revealed by visual inspection, and is documented in the
Actual area surveyed <i>(hectares)</i> 1.5	Actual area surveyed <i>(acres)</i> 3.7
Explain results of fieldwork. Field 1 is in corn stubble with 30% visibility and was shovel tes side of the creek. Soils were eroded and very shallow. A total of contained 5–25 cmbs of dark brown (10YR 3/3) silt loam over were identified.	of 41 shovel tests were excavated in this area, which
Field 2 is in a wooded tract with a drainage cut on the south sid (Figures 4 and 6). The area on the immediate north side of the remainder of the wooded area was covered in leaf litter and was shallow. Three shovel tests were excavated in this area, which yellowish brown (10YR 5/4) silty clay subsoil. No artifacts or side	road has 30% slope and was pedestrian surveyed. The as shovel tested at 15-m intervals. Soils were eroded and very contained 5–15 cmbs of dark brown (10YR 3/3) silt loam over
Field 3 is in a wooded tract located on both sides of the creek	and was shovel tested at 15-m intervals (Figures 4 and 7).

Field 3 is in a wooded tract located on both sides of the creek and was shovel tested at 15-m intervals (Figures 4 and 7). Two auger tests were excavated on the narrow floodplain west of the creek, one of which was placed in the floor of a shovel test pit (A14). Areas of excessive slope and the drainage were not shovel tested. Soils on the east side of the creek were eroded and very shallow. Eleven shovel tests were excavated in this area, two of which contained subsoil at the surface. The nine remaining shovel tests contained 5–20 cmbs of dark brown (10YR 3/3) silt loam over yellowish brown (10YR 5/6) clay subsoil. The auger found the aforementioned subsoil continued to a depth of 80 cmbs, followed by extremely compact sediments with redoximorphic features. The auger test was terminated at 80–90 cmbs. No artifacts or sites were identified.

RECOMMENDATIONS

 Records check (Check all that apply) No archaeological investigation is recommended before the project is allowed to proceed because the records check has determined that the project area does not have the potential to contain archaeological resources. A Phase 1a archaeological reconnaissance is recommended. Based upon the records check results, a Phase 1a archaeological reconnaissance was recommended and has been conducted. A cemetery development plan may be required under Indiana Code 14-21-1-26.5 because project ground disturbance will be within 100 feet of a cemetery.
 Phase 1a archaeological reconnaissance (<i>Check all that apply</i>) It is recommended that the project be allowed to proceed as planned because the Phase 1a archaeological reconnaissance has located no archaeological sites within the project area and/or previously recorded sites that were investigated warrant no additional investigation. It is recommended that Phase 1c archaeological subsurface reconnaissance be conducted before the project is allowed to proceed. The Phase 1a archaeological reconnaissance has determined that the project area includes landforms which have the potential to contain buried archaeological deposits.
Other recommendations / commitments
Pursuant to IC-14-21-1, if any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646.
REQUIRED ATTACHMENTS
 Figure showing project location within Indiana USGS topographic map showing the project area (1:24,000 scale) Aerial photograph showing the project area, land use and survey methods Photographs of the project area, including, if applicable, photographs documenting disturbances Project plans (<i>if available</i>)
Other attachments Project landowners, historical map.
References cited (See short report instructions for required references to be consulted) Andreas, Alfred Theodore 2022[1876] Map of Wabash County. Page 64 in Illustrated historical atlas of the State of Indiana. Baskin, Forster & Co., Chicago, Illinois. Reproduced by the David Rumsey Collection. https://www.davidrumsey.com/luna/servlet/s/627t6g. Accessed December 2022.
Crow, Warder 1934 Indians of Wabash County, Indiana, edited 1959 by Mary C. O'Hair. Wabash County Historical Society, Wabash, Indiana.
Cunningham, Wilbur M. 1948 A Study of the Glacial Kame Culture of Michigan, Ohio, and Indiana. Museum of Anthropology Occasional Contributions 12:31–32. University of Michigan Press, Ann Arbor.
Environmental Systems Research Institute (ESRI) 2018 Aerial Imagery flown May 2, 2018. ESRI, Redlands, California.
Faulkner, Charles H. 1972 The Late Prehistoric Occupation of Northwestern Indiana: A Study of the Upper Mississippian Cultures of the Kankakee Valley. Prehistory Research Series No. 5(1):13–122, Indiana Historical Society, Indianapolis.

Glenn, Elizabeth J.

1977 Ethnohistoric Report on the Battle of Mississinewa. In Ethnohistorical and archaeological descriptive accounts of the War of 1812 Mississinewa Campaign and aftermath: project report, edited by B. K. Swartz, Jr. Ball State University Archaeological Report 14.

Hixson, W. W. & Company 1920 Plat Books of Indiana Counties, Volume 6 (T–W). W. W. Hixson & Company, Rockford, Illinois.

Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology 2022a Guidebook for Indiana Historic Sites and Structures Inventory – Archaeological Sites. https://www.in.gov/dnr/historic/files/hp-archaeology_guidebook.pdf. Accessed December 2022. Appendix E Red Flag Investigation 8450 Westfield Blvd, Suite 300 Indianapolis, IN 46240 317.713.4615 bfsengr.com





INDIANAPOLIS | LAFAYETTE | MERRILLVILLE FORT WAYNE | PLAINFIELD | SOUTH BEND | LOUISVILLE

Date: December 30, 2022

- To: Site Assessment & Management Environmental Policy Office - Environmental Services Division (ESD) Indiana Department of Transportation 100 N Senate Avenue, Room 758-ES Indianapolis, IN 46204
- From: Elizabet Biggio Butler, Fairman, & Seufert, Inc. 8450 Westfield Boulevard, Suite 300 Indianapolis, IN 46240 ebiggio@bfsengr.com
- Re: RED FLAG INVESTIGATION DES 2003065, Local Project Wabash Co. Bridge 143 CR 1050 South over Grant Creek Wabash County, Indiana

PROJECT DESCRIPTION

Brief Description of Project:

The Wabash County Board of Commissioners proposes a project involving Wabash Co. Bridge 143 carrying County Road (CR) 1050 South over Grant Creek in Wabash County, Indiana (Structure #85-00465). The project is within Liberty Township on the USGS La Fontaine Quadrangle, in Section 28, Township 26 North, Range 7 East.

Wabash County Bridge 143 is a c. 1960 three-span concrete channel beam bridge. The bridge approximately is 67.5 feet long with a clear roadway width of 24.6 feet. The need for the project derives from the condition of the bridge, particularly the substructure, which was given a condition rating of 4 (out of 9) or "poor" in the May 17, 2022 Bridge Inspection Report. The purpose of the project is to provide an improved crossing of Grant Creek.

The proposed project will replace Wabash Co. Bridge 143. The new bridge will be a single span, approximately 92.33 feet long. The out to out coping will be approximately 44.25 feet. The bridge will carry two (2) 12-foot lanes of traffic with 8.63-foot shoulders. Riprap will be installed. The project area is approximately 0.25 mile long. In order to construct the bridge one side at a time, use of a causeway and temporary road widening is anticipated. CR 1050 dead-ends to the west of the project area, and Wabash Co. Bridge 143 provides the only access to the properties west of Grant Creek.

Bridge and/or Culvert Project: Yes ⊠ No □ Structure #85-00465

If this is a bridge project, is the bridge Historical? Yes \Box No \boxtimes , Select \Box Non-Select \Box (Note: If the project involves a <u>historical</u> bridge, please include the bridge information in the Recommendations Section of the report). Proposed right of way: Temporary \boxtimes # Acres <u>0.10</u> Permanent \boxtimes # Acres <u>1.16</u>, Not Applicable \square Type and proposed depth of excavation: To removal the existing and install a new bridge, channel clearing, and benching to a depth of approximately 6 feet Maintenance of traffic (MOT): Phased construction, keeping one lane of traffic open at all times. Work in waterway: Yes \boxtimes No \square Below ordinary high water mark: Yes \boxtimes No \square State Project: \square LPA: \boxtimes Any other factors influencing recommendations: The project description is subject to change

INFRASTRUCTURE TABLE AND SUMMARY

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

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

Explanation:

Managed Lands: One (1) managed land is located within the 0.5 mile search radius. Mississinewa Lake is located approximately 0.30 mile northwest of the project area. No impact is expected.

WATER RESOURCES TABLE AND SUMMARY

Water Resources Indicate the number of items of o please indicate N/A:	concern found wit	hin the 0.5 mile search radius. If t	here are no items,				
NWI - Points N/A Canal Routes - Historic N/A							
Karst Springs	N/A	NWI - Wetlands	8				
Canal Structures – Historic	N/A	Lakes	3				
NPS NRI Listed	N/A	Floodplain - DFIRM	3				
NWI-Lines	3	Cave Entrance Density	N/A				
IDEM 303d Listed Streams and Lakes (Impaired)	N/A	Sinkhole Areas	N/A				
Rivers and Streams	11	Sinking-Stream Basins	N/A				

Explanation:

NWI-Wetlands: Eight (8) wetlands are located within the 0.5 mile search radius. Two (2) wetlands are located within the project area. A Waters of the U.S. Report is recommended and coordination with the appropriate agency, if applicable, will occur.

Lakes: Three (3) lakes are mapped within the 0.5-mile search radius. The nearest lake is approximately 0.33 mile northwest of the project area. No impact is expected.

Floodplain-DFIRM: Three (3) floodplain polygons are located within the 0.5 mile search radius. The project is located within one (1) floodplain polygon. Coordination with the appropriate agency occur.

NWI-Lines: Three (3) NWI-Line segments are located within the 0.5-mile search radius. One (1) NWI-Line segment is located within the project area along Grant Creek. A Waters of the U.S. Report is recommended and coordination with the appropriate agency, if applicable, will occur.

Rivers and Streams: Eleven (11) stream segments are located within the 0.5 mile search radius. Grant Creek is located within the project area. A Waters of the U.S. Report is recommended and coordination with the appropriate agency, if applicable, will occur.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

Mining/Mineral Exploration

Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:

Petroleum Wells	4	Mineral Resources	N/A
Mines – Surface	N/A	Mines – Underground	N/A

Explanation:

Petroleum Wells: Four (4) petroleum wells are located within the 0.5 mile search radius. The nearest petroleum well is located approximately 0.04 mile south of the project area. Coordination with IDNR Oil and Gas Division will occur.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

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

Explanation: No hazardous materials were identified within the 0.5 mile search radius.

ECOLOGICAL INFORMATION SUMMARY

The Wabash County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is provided at https://www.in.gov/dnr/nature-preserves/files/np_wabash.pdf. A preliminary review of the Indiana Natural Heritage Database by INDOT Environmental Services did not indicate the presence of ETR species. Coordination with USFWS and IDNR will occur.

A review of the USFWS Database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project area is located in a rural area surrounded by agriculture and forested area. The May 17, 2022 inspection report for Bridge 85-00143 states that no evidence of bats was seen or heard under the bridge. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

RECOMMENDATIONS SECTION

INFRASTRUCTURE: N/A

WATER RESOURCES:

A Waters of the US Report is recommended based on mapped features and coordination with the appropriate agency, if applicable, will occur for the following features:

- Two (2) wetlands are located adjacent to the project area.
- The project area is located within a floodplain (coordination only).
- One (1) stream segment, Grant Creek, flows through the project area.
- One (1) NWI-Line segment is located within the project area.

MINING/MINERAL EXPLORATION: One petroleum well is located approximately 0.04 mile south of the project area. Coordination with IDNR Oil and Gas Division will occur.

HAZARDOUS MATERIAL CONCERNS: N/A

ECOLOGICAL INFORMATION:

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



Prepared by: Elizabet Biggio Butler, Fairman, & Seufert, Inc.

Graphics:

SITE LOCATION: YES

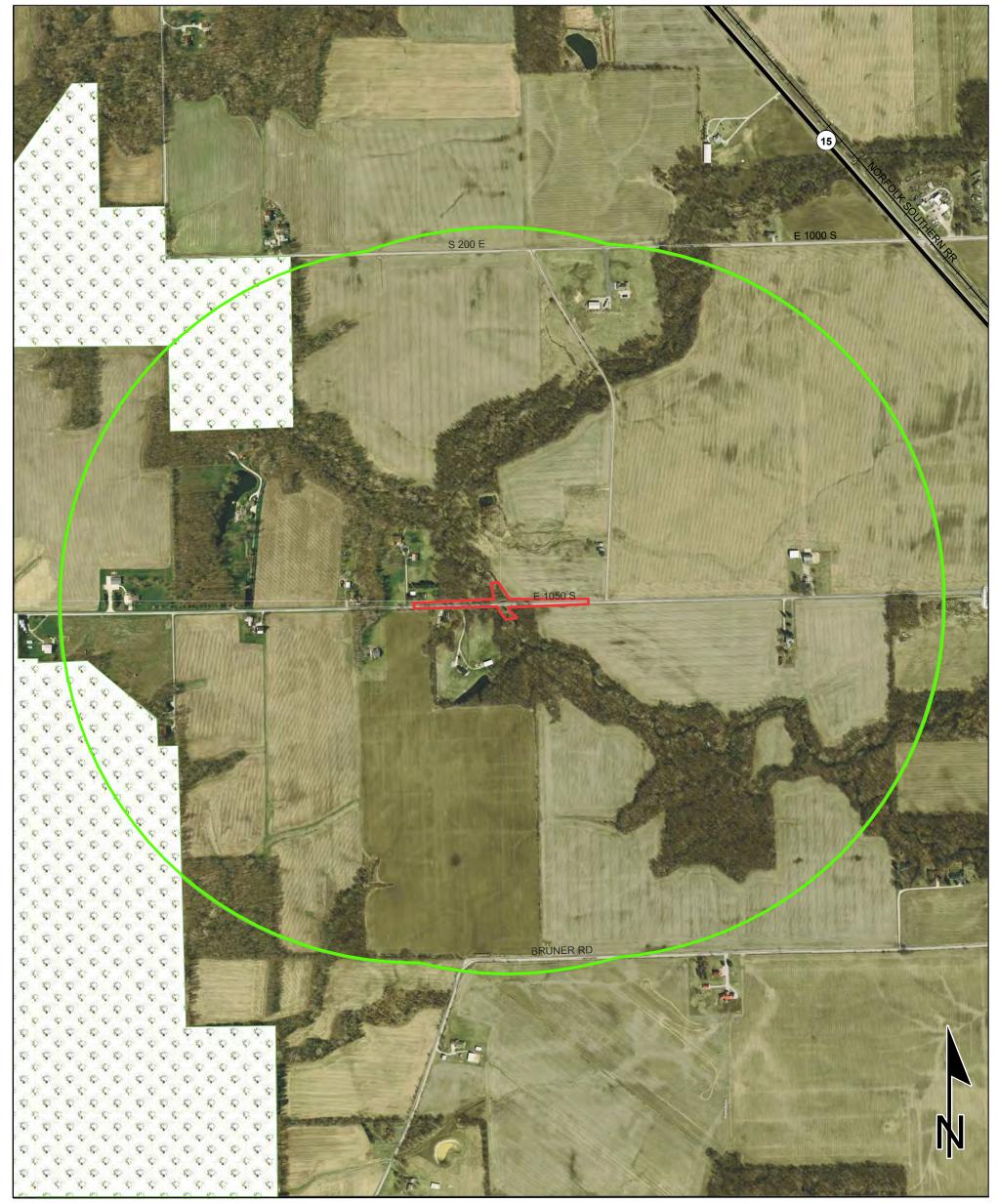
INFRASTRUCTURE: YES

WATER RESOURCES: YES

MINING/MINERAL EXPLORATION: YES

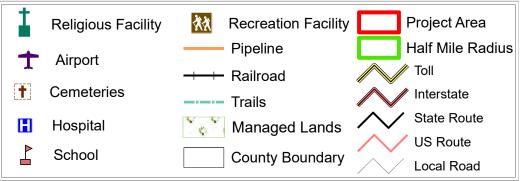
HAZARDOUS MATERIAL CONCERNS: N/A

Red Flag Investigation - Infrastructure County Road 1050 South over Grant Creek Des. No. 2003065, Wabash Co. Bridge 143 Replacement Wabash County, Indiana

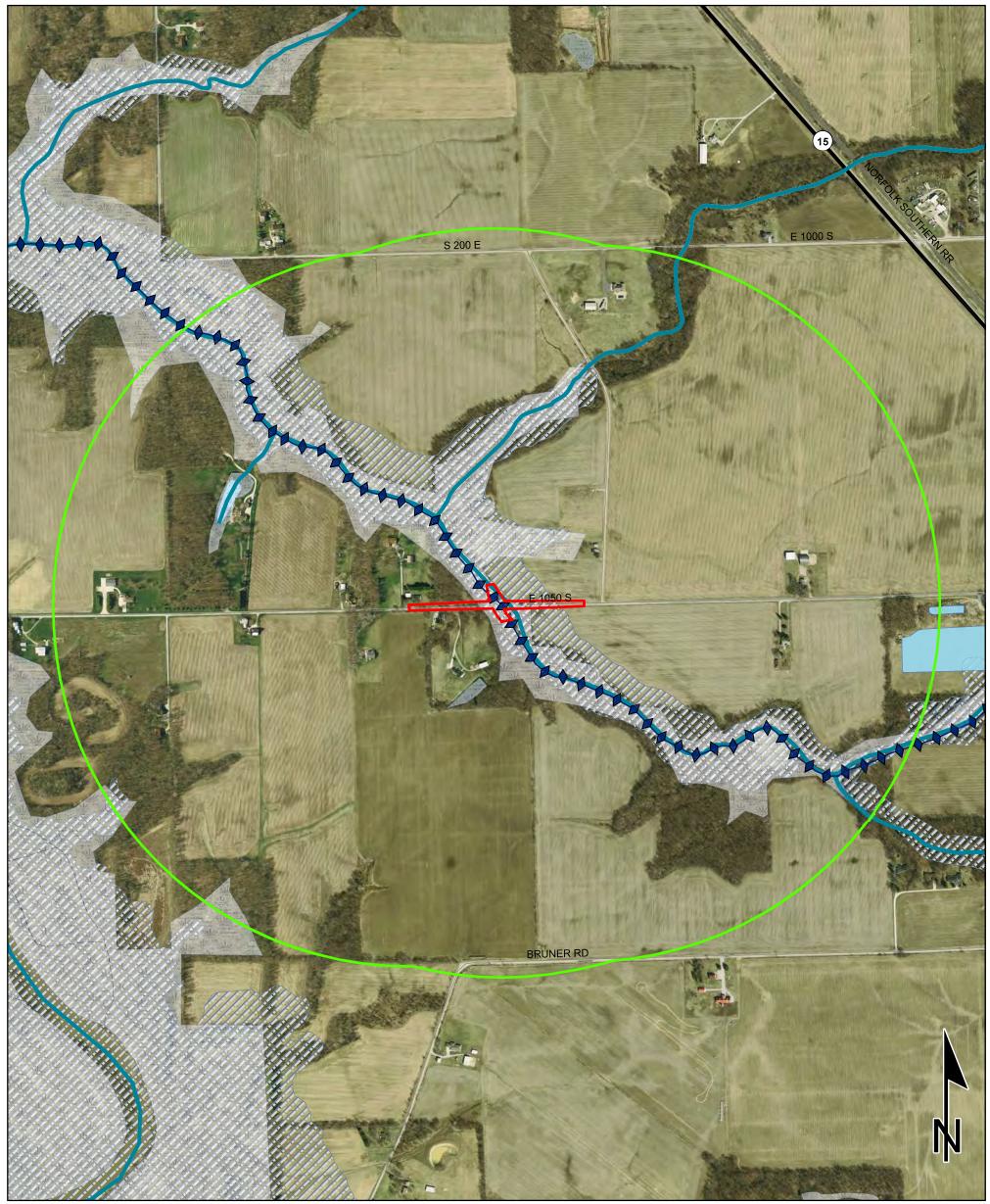


Sources: 0.15 0.07 0 0.15 Non Orthophotography Miles Data - Obtained from the State of Indiana Geographical Information Office Library Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org) Map Projection: UTM Zone 16 N Map Datum: NAD83

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



Red Flag Investigation - Water Resources County Road 1050 South over Grant Creek Des. No. 2003065, Wabash Co. Bridge 143 Replacement Wabash County, Indiana



Sources: 0.15 0.07 0 0.15 Miles Miles Miles Miles Miles

Non Orthophotography

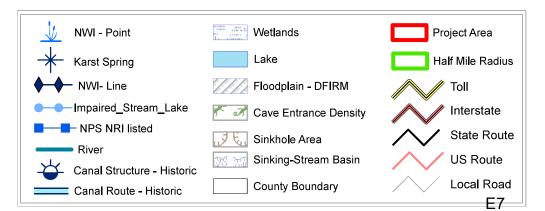
Data - Obtained from the State of Indiana Geographical Information Office Library

Orthophotography - Obtained from Indiana Map Framework Data

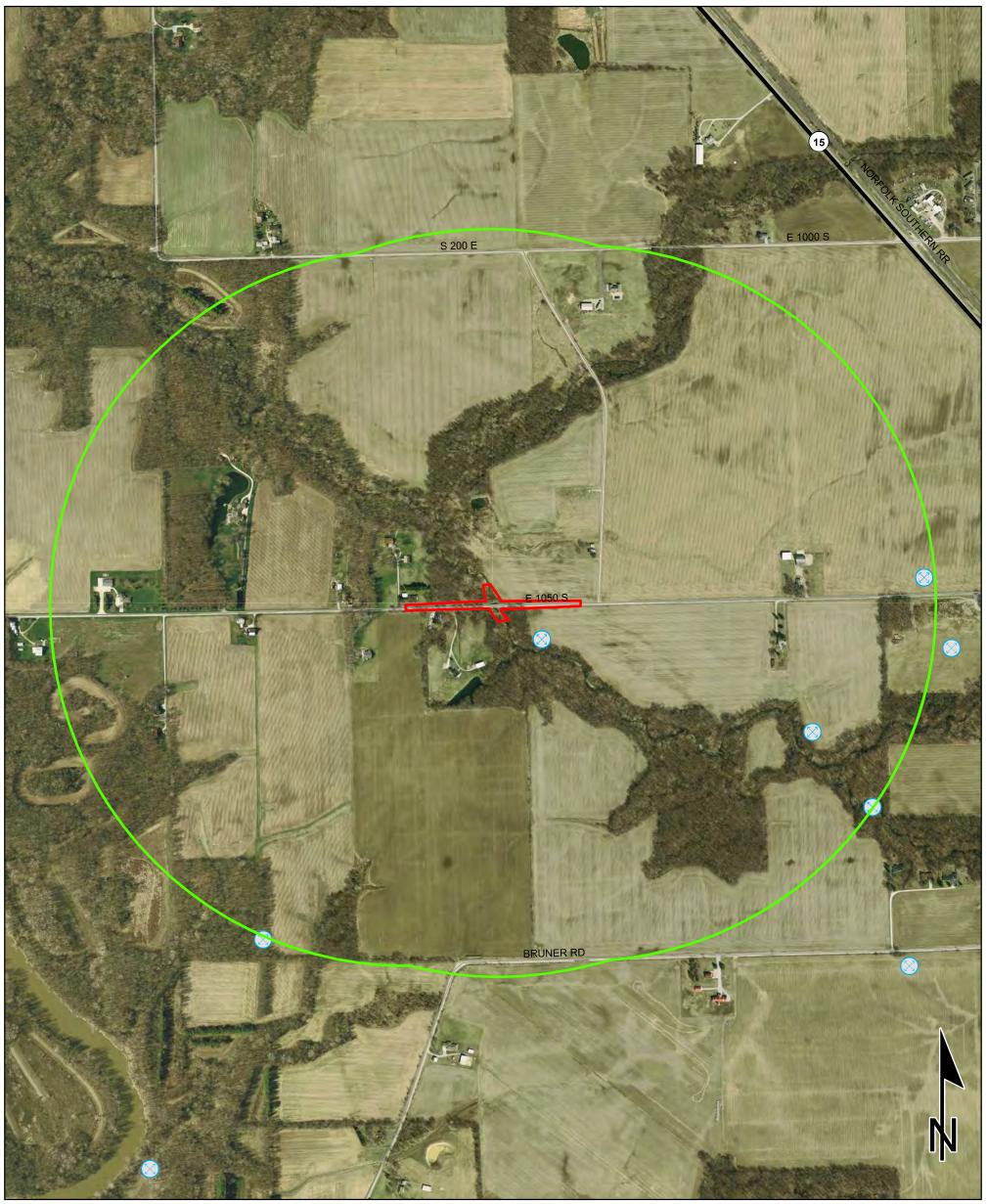
(www.indianamap.org)

Map Projection: UTM Zone 16 N Map Datum: NAD83

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



Red Flag Investigation - Mining and Mineral Resources County Road 1050 South over Grant Creek Des. No. 2003065, Wabash Co. Bridge 143 Replacement Wabash County, Indiana



0.07 0 0.15 0.15 Miles

Sources:

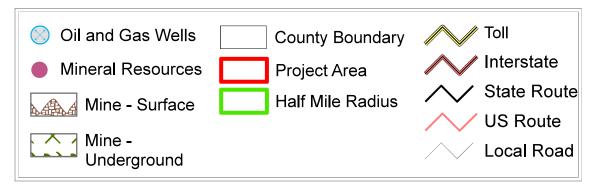
Non Orthophotography

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.



Appendix F

Ecological and Water Resources

"WATERS OF THE U.S." DETERMINATION REPORT Wabash County Bridge 143 over Grant Creek, Wabash County Bridge Replacement Project Des. No. 2003065

Prepared By: Neal Bennett, PWS #2425 Butler, Fairman & Seufert, Inc. <u>nbennett@bfsengr.com</u> May 1, 2023

Date(s) of Field Investigation

April 19, 2023

Project Location

Section 28, Township 26 North, Range 7 East on the United States Geological Survey (USGS) LaFontaine Indiana Quadrangle Map, within Wabash County, Indiana

LAT. 40.673994; LONG. -85.744228

Area of Investigation

The area investigated is located approximately 1.3 miles west of LaFontaine, Indiana. The study area consisted of agricultural ground, roadside slope, and forested areas along Grant Creek at CR 1050. Approximately 2.75 acres was investigated. The entire site was investigated by walking transects and making visual observations of the landscape looking for any visual evidence of wetland characteristics (Attachment 1). Sampling points, where necessary, were taken in all areas mapped as wetlands on the National Wetland Inventory (NWI), where wetland characteristics were observed, and in any potential problem areas. Any drainage feature that displayed a defined channel and ordinary high-water mark were considered potentially jurisdictional streams. Any features that did not meet these criteria were not considered as streams.

Desktop Reconnaissance

Site(s) Background

Prior to the field investigation, reference materials were consulted to gain information about the site. These include, the USGS LaFontaine, IN quadrangle map was used to determine contours of the site and locate any water bodies in the area, as well as to provide a legal description of the area. The Natural Resources Conservation Service's (NRCS) Web Soil Survey website¹ was consulted to determine if the project area contained any soils listed in either the *Hydric Soils of the United States* manual or the Indiana State list of hydric soils along with a description of characteristics displayed by the mapped soil types of the area (Attachments 3 – 5). The U.S. Fish and Wildlife Service (USFWS) NWI Map was used to find and classify any previously catalogued wetlands in the project area (Attachment 2). The Indiana Department of Natural Resources' (IDNR) floodplain map was consulted to gain an understanding of historic flood locations and frequency that may impact the study area (Attachment 7). The USGS National Hydrologic Dataset was used to find any mapped waterway features in or near the project area (Attachment 6). All this information provided a background for the hydrologic regime of the area.

¹ <u>https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx</u>

National Wetlands Inventory (NWI) Map

The following is a list of mapped wetlands located either within or near the proposed project limits (Attachment 2).

- Riverine, lower perennial, unconsolidated bottom, permanently flooded (R2UBH) waterway known as Grant Creek
- Lacustrine, littoral, unconsolidated bottom, artificially flooded (L2UBK) waterway overlapping Grant Creek which is the backwater effected area of the Mississinewa Reservoir.

Soil Map Data

According to the NRCS Web Soil Survey website² for Wabash County, Indiana (Attachments 3-5), the following table summarizes the soil types found in the investigation area, including characteristics such as Flooding Frequency, Drainage Class, Hydric Soil Category, and Hydric Rating.

Soil Unit Name	Symbol	NRCS Flooding Frequency	NRCS Drainage Class	NRCS Hydric Soil Category	SSURGO Hydric Rating
Genesee loam	Ge	Occasional	Well drained Partially		7%
Hennepin loam	HeG	None	Well drained	Non-Hydric	0
Miami silt loam	MhB2	None	Moderately well drained	Partially	6%

Table 1: Soil Survey Summary Table

USGS National Hydrography Dataset (NHD) Map

According to the USGS NHD map, there is one stream/river mapped in the study area (Attachment 6). The stream is Grant Creek, which flows northwest through the study area.

USGS 12-digit Hydrologic Unit Code (HUC-12)

051201030603, Grant Creek – Mississinewa River

Attached Documentation

- Maps of the study area (state, quad, aerial, NWI, floodplain, soil, StreamStats, NHD, photo/data point)
- Photographs of the study area
- Wetland Data Sheets
- Preliminary Jurisdictional Determination (PJD) Form

Field Reconnaissance

The study area limits extend from the end of Bridge 143 approximately 200 feet east and west along CR 1050. At the bridge, the study limits were extended north and south for approximately 150 feet, to investigate the entire forested riparian areas along Grant Creek and to evaluate for the presence of any wetlands or streams. The area was investigated by walking transects west to east and north to south within the study limits for the project and looking for any visual evidence of waterway or wetland characteristics. Any wetland boundaries and sampling point locations were recorded in the field using a handheld Global Positioning System (GPS) unit with

² <u>https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx</u>

submeter accuracy. Ordinary high-water mark (OHWM) and bankfull measurements were taken when present at a water feature and dominant substrate material was identified by conducting a pebble count. If present, roadside ditches were examined for possible jurisdictional status. Any areas that exhibited wetland characteristics (hydrophytic vegetation, hydrology, and hydric soils) were investigated to determine if the area should be classified as wetland. Field data collection was completed based on the methodologies presented in the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual ('87 Manual) and the Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Midwest Region Version 2.0 (Regional Supplement). Field methods did not deviate from the standard methods found in the '87 Manual or the Regional Supplement.

A field visit to the project area was conducted on April 19, 2023, to investigate for potential features that may classify as "Waters of the U.S." or "Waters of the State" within the study limits. Based on the daily rainfall data obtained from the Community Collaborative Rain, Hail, and Snow Network³, the project location received 0.12 inches of rainfall in the 48 hours preceding the site visit. Jurisdictional wetland and stream determinations were based on the Pre-2015 *"Waters of the U.S."* regulatory guidance as outlined in the Clean Water Act following the *Rapanos v. United States* Supreme Court decision (1986).

Waterway(s)

One (1) mapped waterway was observed within the study area. This waterway is known as Grant Creek and is identified as a perennial USGS blue line stream that flows northwest through the project area, and discharges into Mississinewa River approximately 2.5 miles downstream of the study location. Grant Creek is within the backwater affected area of the Mississinewa River, making it flooded occasionally when the reservoir is allowed to fill to capacity. Grant Creek has a drainage area upstream of the study limits of approximately 8.382 square miles (as calculated using the web-tools on the USGS Indiana StreamStats website⁴) (Attachment 8). This waterway falls within the larger Grant Creek – Mississinewa River Watershed identified by the USGS HUC-12 051201030603. Grant Creek is classified as a riverine, lower perennial, unconsolidated bottom, permanently flooded (R2UBH) waterway. It is of average poor due to the lack of an intact riparian corridor, moderate sinuosity, and extreme bank erosion. Additionally, the stream channel is entrenched. The substrate is primarily gravel and assorted sizes of cobble. The creek has an approximate average 36.5-foot bankfull width and approximate average 2.24-foot bankfull depth. The OHWM depth is approximately 1.5 feet and width is approximately 18.0 feet. All stream measurements were taken at LAT/LONG 40.673860; -85.744168. During the site visit conducted on April 19, 2023, Grant Creek contained flowing water. Grant Creek is determined to be a "Waters of the U.S." because it is a blue-line feature (jurisdictional stream) with an OHWM.

An unmapped stream feature was observed in the southwest quadrant of Bridge 143. It begins approximately 700 feet southwest of the bridge. It begins in an agriculture field, flows northeast for approximately 400 feet, passes beneath a driveway, then continues approximately 120 before meeting with CR 1050. It then flows east along the southside of CR 1050 for approximately 180 feet before discharging into Grant Creek. This unmapped stream feature is identified as Unnamed Tributary (UNT) to Grant Creek for the purposes of this report. UNT to Grant Creek as a 2.5-foot OHWM width and a 5-inch OHWM depth. The substrate was primarily mud with gravel overlain.

³ CoCoRaHS Maps

⁴ <u>https://streamstats.usgs.gov/ss/</u>

Stream Name	Photo Numbers	Latitude/ Longitude (UTM NAD 83)	OHWM width/depth	USGS ID	Presence of Riffles/Pools	Channel Substrate	Functional Quality	Likely Water of the U.S.	Linear Ft. in Study Area
Grant Creek	2 - 4	40.673860/ -85.744168	18.0 ft. / 1.5 ft.	Perennial (solid blue line)	Yes	Gravel/ Cobble	Poor	Yes	300 ft.
UNT to Grant Creek	9 - 10	40.673922/ -85.744384	2.5 ft. / 0.4 ft.	Not Mapped	No	Mud/Gravel	Poor	Yes	300 ft.

Table 2: Stream Survey Summary Table

Wildlife Evidence and Concerns

Raccoon and deer tracks were observed beneath Bridge 143 during the site investigation. Therefore, there is adequate opening for wildlife to pass beneath the bridge. Some stone revetment is present around the abutments. One abandoned bird nest was observed. No other evidence of birds or bats was observed using the bridge (Attachment 12, photo #5).

<u>Wetlands</u>

One area was identified as potential wetlands during the field investigation. A sampling point was taken in this area and was evaluated for all three criteria to be considered a wetland as described in the '87 Manual and as currently applied in the Midwest Regional Supplement manual.

Sampling Point 1 was taken in a low contour area that indicated the potential for frequent or prolonged hydrology within the floodplain of Grant Creek. The area is mapped as Genesee loam, which has a low hydric inclusion rating of 7%. The soil profile matched the description for Genesee loam and did not contain any hydric soil field indicators. The area did not contain an overstory or understory. The dominant species was *Phalaris arundinacea*. This community is hydrophytic dominant. The soil was loamy and appeared well-drained. No evidence of frequent or prolonged hydrology was observed as the floodplain surface is approximately 2.5 feet above the water surface elevation of Grant Creek under normal conditions. This indicates that groundwater is found at least 30 inches below the surface. As a result, Sampling Point 1 is a non-wetland data point (Attachments 17 - 18).

Data Point ID	Photo #	Latitude/ Longitude (UTM NAD 83)	Hydrophytic Vegetation Present	Hydric Soil Present	Wetland Hydrology Present	Is the Sampled Area within a Wetland?
1	11 - 13	40.673925 / -85.744134	Yes	No	No	No

Table 3: Wetland Data Summary Table

Floodplains

The project is located within the regulated floodplain (Zone A) along Grant Creek (<u>INdiana</u> Floodplain Information Portal).

Open Water

No open water areas were observed in the investigated area.

Roadside Ditches (RSDs)

No roadside ditches were observed within or adjacent to the project area.

Conclusion

A field investigation was conducted on April 19, 2023, by BF&S to evaluate the presence of Waters of the U.S. for the replacement of Bridge 143 carrying CR 1050 over Grant Creek in Wabash County, Indiana. Desktop reconnaissance and field observations identified two streams, Grant Creek and UNT to Grant Creek, within the study area. No wetlands were observed.

Based on its contribution of flow into the Mississinewa River, the blue-line perennial stream located approximately 2.5 miles downstream, Grant Creek should be considered "Waters of the U.S." Grant Creek and the UNT to Grant Creek are the only jurisdictional features identified during the investigation.

These waterways are likely *Waters of the U.S.* Every effort should be taken to avoid and minimize impacts to these features. If impacts are necessary, then mitigation may be required. INDOT Environmental Services Division should be contacted immediately if impacts occur. The final determination of jurisdictional waters is ultimately made by the USACE. This report is our best judgement based on the guidelines set forth by the USACE.

Acknowledgement:

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

May 1, 2023 Neal Bennett, PWS Ecologist/Director of Environmental Services <u>nbennett@bfsengr.com</u>

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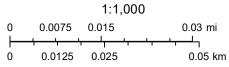
U.S. Geological Survey, 2016, The StreamStats program, online at <u>http://streamstats.usgs.gov</u>, accessed on April 19, 2023.

Wabash County Bridge 143



April 19, 2023





Sampling Point 1

Indiana Department of Transportation (INDOT), U.S. Census Bureau (USCB), Indiana Geographic Information Council (IGIC), UITS, Indiana Spatial Data Portal

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



U.S. Fish and Wildlife Service **National Wetlands Inventory**

Wabash Co Bridge 143



April 19, 2023

Wetlands

- Estuarine and Marine Wetland

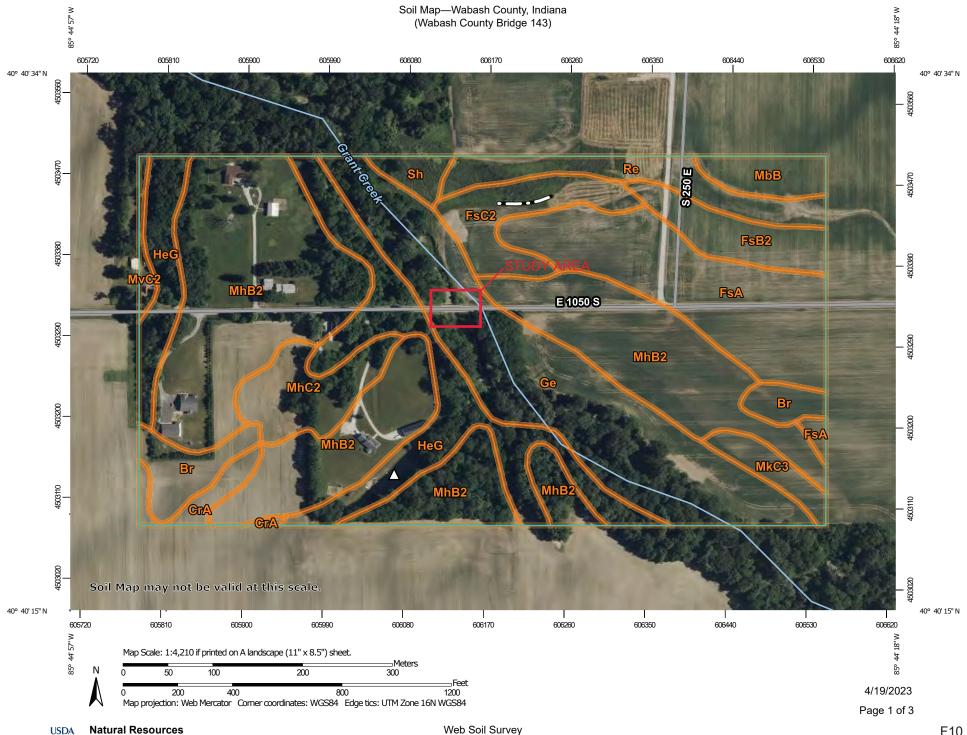
Estuarine and Marine Deepwater

- **Freshwater Pond**

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

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



Conservation Service

Web Soil Survey National Cooperative Soil Survey

MAP LEGEND	MAP INFORMATION	
Area of Interest (AOI) Area of Interest (AOI) Soil Soil Map Unit Polygons Soil Map Unit Lines Soil Map Unit Points Soil Map Unit Points Soil Map Unit Points Blowout Blowout Sorow Pit Clay Spot Clay Spot <th>MAP INFORMATION The soil surveys that comprise your AOI were mapped at 1:15,800. Warning: Soil Map may not be valid at this scale. Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale. Please rely on the bar scale on each map sheet for map measurements. Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Cordinate System: Web Mercator (EPSG:3857) Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. Soil Survey Area: Wabash County, Indiana Survey Area Data: Survey Area Data: Version 27, Sep 2, 2022 Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Date(s) aerial images were photographed: Jun 16, 2022—Jun 21, 2022 The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.</th>	MAP INFORMATION The soil surveys that comprise your AOI were mapped at 1:15,800. Warning: Soil Map may not be valid at this scale. Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale. Please rely on the bar scale on each map sheet for map measurements. Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Cordinate System: Web Mercator (EPSG:3857) Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. Soil Survey Area: Wabash County, Indiana Survey Area Data: Survey Area Data: Version 27, Sep 2, 2022 Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Date(s) aerial images were photographed: Jun 16, 2022—Jun 21, 2022 The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.	

4/19/2023 Page 2 of 3

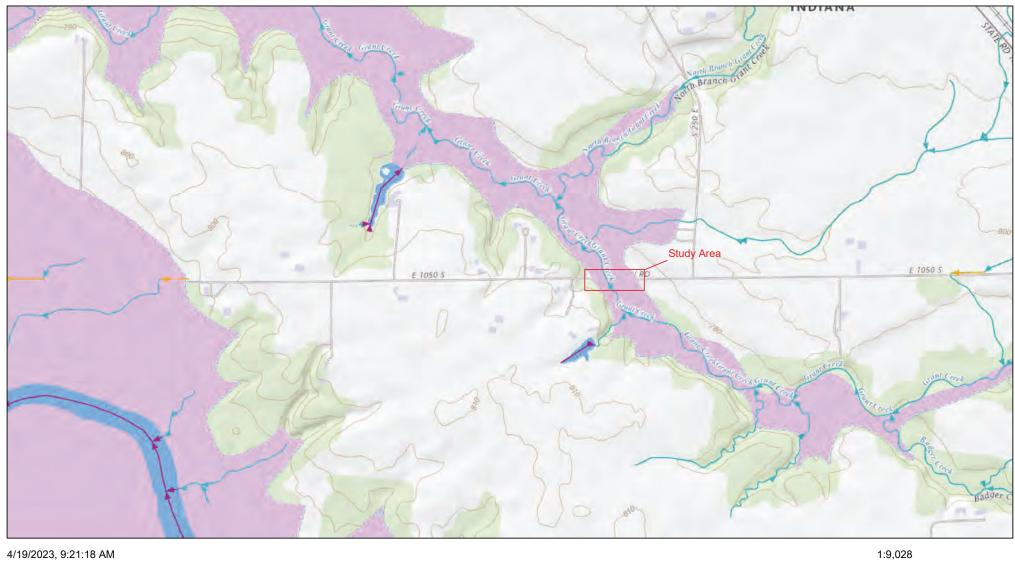
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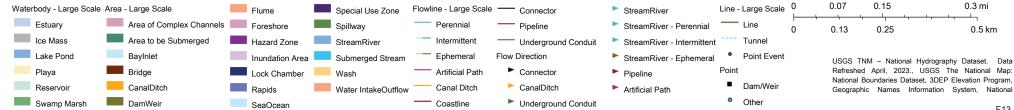
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Br	Brookston loam	2.6	3.3%
CrA	Crosby silt loam, 0 to 3 percent slopes	1.0	1.3%
FsA	Fox loam, till plain, 0 to 2 percent slopes	8.4	10.7%
FsB2	Fox loam, 2 to 6 percent slopes, eroded	2.5	3.2%
FsC2	Fox loam, till plain, 6 to 12 percent slopes, eroded	3.0	3.9%
Ge	Genesee loam, 0 to 2 percent slopes, occasionally flooded	13.1	16.7%
HeG	Hennepin loam, 25 to 50 percent slopes	9.8	12.6%
MbB	Martinsville loam, 2 to 6 percent slopes	1.4	1.8%
MhB2	Miami silt loam, 2 to 6 percent slopes, eroded	27.7	35.5%
MhC2	Miami silt loam, 6 to 12 percent slopes, eroded	3.0	3.8%
MkC3	Miami clay loam, 6 to 12 percent slopes, severely eroded	1.2	1.5%
MvC2	Morley silt loam, 6 to 12 percent slopes, eroded	0.4	0.6%
Re	Rensselaer loam, 0 to 1 percent slopes	3.2	4.0%
Sh	Shoals silt loam, 0 to 2 percent slopes, occasionally flooded	0.8	1.0%
Totals for Area of Interest		78.1	100.0%

4/19/2023 Page 3 of 3

USDA

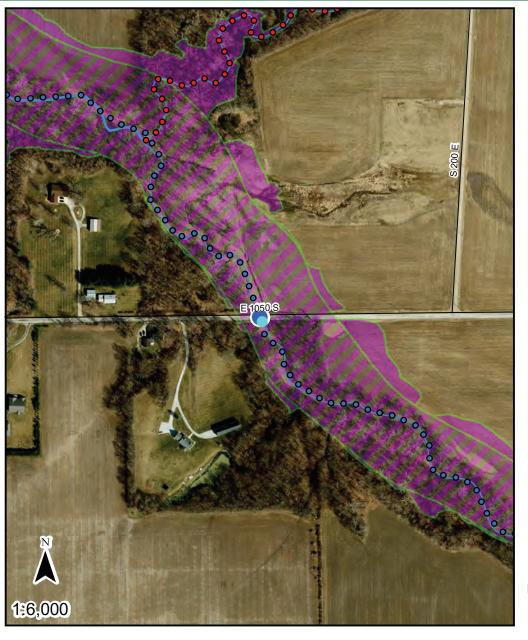
The National Map Advanced Viewer

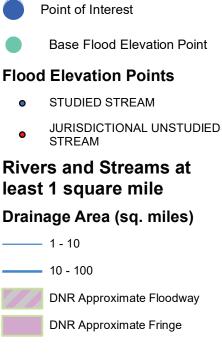






Floodplain Analysis & Regulatory Assessment (FARA)





Point of Interest Coordinates (WGS84) Long: **-85.7442706587** Lat: **40.6739818632**

The information provided below is based on the point of interest shown in the map above.County: WabashApproximate Ground Elevation: 768.1 feet (NAVD88)Stream Name:Base Flood Elevation: 777.7 feet (NAVD88)Grant CreekDrainage Area: Not available

Best Available Flood Hazard Zone: DNR Approximate Floodway National Flood Hazard Zone: FEMA Zone A Is a Flood Control Act permit from the DNR needed for this location? yes Is a local floodplain permit needed for this location? yes-Floodplain Administrator: Mike Howard, Plan Director Community Jurisdiction: Wabash County, County proper Phone: (260) 563-0661 Email: plandirector@wabashcounty.in.gov

US Army Corps of Engineers District: Louisville



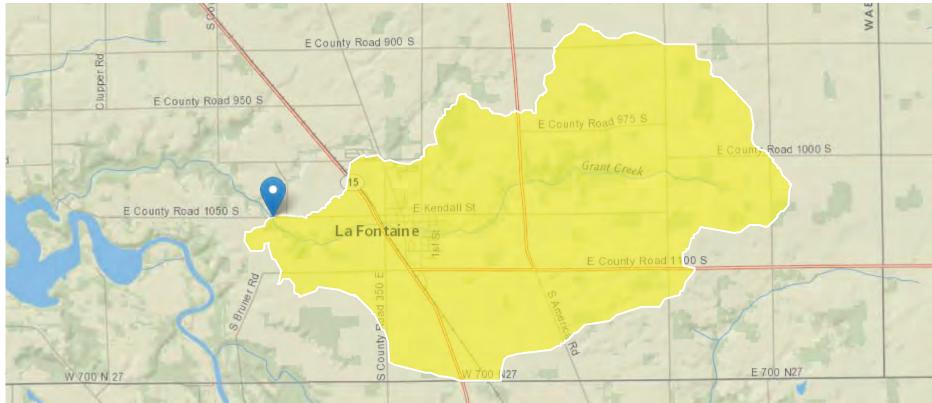
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 IN

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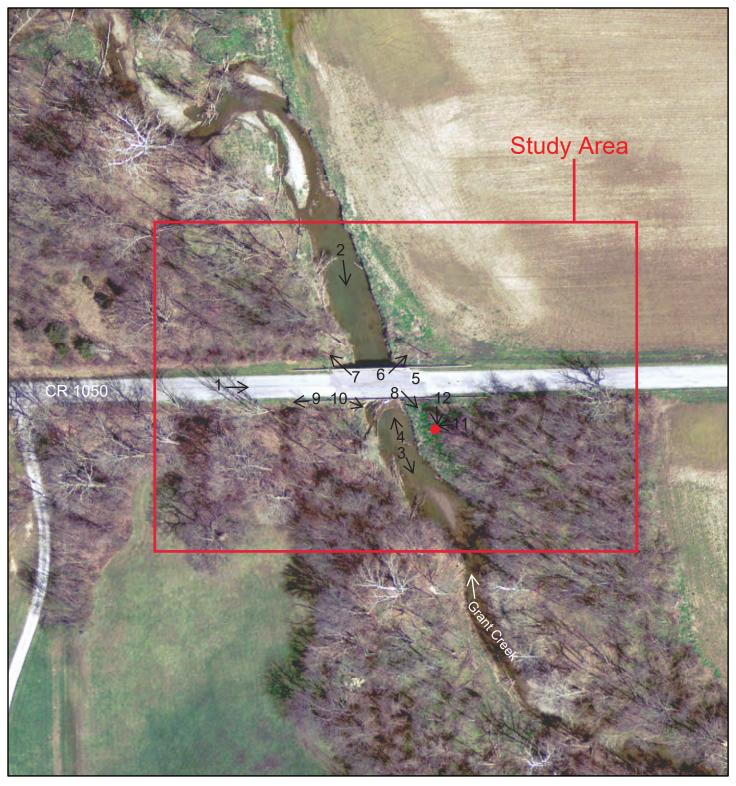
 Clicked Point (Latitude, Longitude):
 40.67397, -85.74383

 Time:
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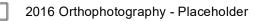


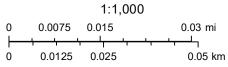
Collapse All

Wabash County Bridge 143



April 19, 2023





Sampling Point 1

Indiana Department of Transportation (INDOT), U.S. Census Bureau (USCB), Indiana Geographic Information Council (IGIC), UITS, Indiana Spatial Data Portal

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



1) Overview of project location, looking east along CR 1050



2) Looking south (upstream) at Grant Creek passing beneath Bridge 143



3) Looking southeast (upstream) at Grant Creek from the south side of Bridge 143



4) Looking north at the sandbar present along Grant Creek upstream of Bridge 143



5) Looking at animal tracks and revetment present beneath the east span of Bridge 143



6) Looking northeast from Bridge 143 at the northeast quadrant of the bridge.



7) Looking northwest from Bridge 143 at the northwest quadrant of the bridge.



8) Looking southeast from Bridge 143 at the southeast quadrant of the bridge



9) Looking west (upstream) at UNT to Grant Creek



10) Looking southeast (downstream) at UNT to Grant Creek



11) Looking west at Sampling Point 1 in the SE quadrant of Bridge 143



12) Looking south at Sampling Point 1 in the SE quadrant of Bridge 143



13) Looking at the soil sample taken at Sampling Point 1

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site Wabash County Bridge 143	City/C	County: LaFon	itaine/Waba	sh County Sampling Date: 4/19/2023
Applicant/Owner: Wabash County		State:	IN	Sampling Point: 1A
Investigator(s): Neal Bennett		Sectio	n, Township	o, Range: Sec. 28, Twp. 26N, Range 7E
Landform (hillslope, terrace, etc.): Floodplai	in	Local re	lief (concav	e, convex, none): Concave
Slope (%): 1% Lat: 40.673925		Long:	-85.74413	34 Datum: UTM 16N
Soil Map Unit Name Genesee loam			NWI (Classification: Non-wetland
Are climatic/hydrologic conditions of the site typical for th	is time of	f the year?	Y (I	f no, explain in remarks)
Are vegetation , soil , or hydrology	y	significantly	disturbed?	Are "normal circumstances"
Are vegetation, soil, or hydrology	y	naturally pro	blematic?	present? Yes
SUMMARY OF FINDINGS				(If needed, explain any answers in remarks.)
Hydrophytic vegetation present? Y				
Hydric soil present? N		Is the sa	mpled area	a within a wetland? N
Indicators of wetland hydrology present? N		f yes, opt	ional wetlan	d site ID:
Remarks: (Explain alternative procedures here or in a se	parate re	port.)		
Sampling Point 1A was advanced in the southw			ximately ?	30 feet from Bridge 143 in a low floodplain
		contour.		
VEGETATION Use scientific names of plants.				
	bsolute	Dominan	Indicator	Dominance Test Worksheet
		t Species	Staus	Number of Dominant Species
1 , , , , , , , , , , , , , , , , , , ,		·		that are OBL, FACW, or FAC: 1 (A)
2				Total Number of Dominant
3				Species Across all Strata: 1 (B)
4				Percent of Dominant Species
5		Tatal Carrent		that are OBL, FACW, or FAC: 100.00% (A/B)
Sapling/Shrub stratum (Plot size: 15' radius)	0 =	= Total Cover		Prevalence Index Worksheet
1				Total % Cover of:
2				OBL species $0 \times 1 = 0$
3				FACW species 92 x 2 = 184
4				FAC species 5 x 3 = 15
5				FACU species 0 x 4 = 0
	0 =	= Total Cover		UPL species $0 \times 5 = 0$
Herb stratum (Plot size: 5' radius)				Column totals <u>97</u> (A) <u>199</u> (B)
1 Phalaris arundinacea	80	<u> </u>	FACW	Prevalence Index = B/A = 2.05
2 Alliaria petiolata 3 Laportea canadensis	5	<u> </u>	FAC FACW	Hydrophytic Vegetation Indicators:
3 Laportea canadensis 4 Rudbeckia laciniata	5	<u> </u>	FACW	Rapid test for hydrophytic vegetation
5 Conium maculatum	2		FACW	X Dominance test is >50%
6				X Prevalence index is ≤3.0*
7				Morphogical adaptations* (provide
8				supporting data in Remarks or on a
9				separate sheet)
10	97 =	Total Cover		Problematic hydrophytic vegetation*
Woody vine stratum (Plot size: 30' radius)	97	= Total Cover		(explain)
1				*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
2				Hydrophytic
	0 =	Total Cover		vegetation
				present? Y
Remarks: (Include photo numbers here or on a separate	sheet)			

SOIL

1A

Profile Desc	cription: (Descr	ibe to th	e depth needed	to docu	ment the	e indicat	or or confirm the abser	nce of indicators.)
Depth	Matrix		Rec	dox Featu	ures_			
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/2	100					Loam	<1 inch ribbon test
*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils: Histisol (A1) Sandy Gleyed Matrix (S4) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR K, L) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy Gleyed Matrix (F3) Other (explain in remarks) 2 cm Muck (A10) Depleted Matrix (F3) Other (explain in remarks) Bepleted Below Dark Surface (A11) Redox Dark Surface (F6) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Stratifiet Layer (if observed): Type: n/a N Type: n/a Medax features. N Remarks: Well drained alluvial soils, lack of redox features. Hydric soil present? N								
	drology Indicato		required: check :	all that a			Secondary Ir	dicators (minimum of two required
Primary Indicators (minimum of one is required; check all that apply)Secondary Indicators (minimum of two required)Surface Water (A1)Aquatic Fauna (B13)Surface Soil Cracks (B6)High Water Table (A2)True Aquatic Plants (B14)Drainage Patterns (B10)Saturation (A3)Hydrogen Sulfide Odor (C1)Dry-Season Water Table (C2)Water Marks (B1)Oxidized Rhizospheres on Living RootsCrayfish Burrows (C8)Sediment Deposits (B2)(C3)Saturation Visible on Aerial Imagery (C9)Drift Deposits (B3)Presence of Reduced Iron (C4)Stunted or Stressed Plants (D1)Algal Mat or Crust (B4)(C6)K FAC-Neutral Test (D5)Inundation Visible on Aerial Imagery (B7)Thin Muck Surface (C7)X FAC-Neutral Test (D5)Water-Stained Leaves (B9)Other (Explain in Remarks)Cher (Explain in Remarks)								
	er present? present? resent? pillary fringe)	Yes Yes Yes	No No No	X X X	Depth (i Depth (i Depth (i	nches): nches):		ndicators of wetland nydrology present? <u>N</u>
Remarks: Floodplai		roximat	ely 2.5 feet abo					precipitation the previous day,

Appendix G Public Involvement

Sample Notice of Survey

April 13, 2022

NOTICE OF SURVEY

RE: Topographic Survey for the Replacement of Bridge 143 Carrying C.R. 1050 South over Grant Creek, 0.95 miles West of S.R. 15, Des. No. 2003065, Wabash County, Indiana

Dear Property Owner(s):

The Wabash County Board of Commissioners has selected Butler, Fairman and Seufert, Inc., to survey and design the referenced project. Courthouse records show that you are a property owner within the limits of the area where data will be collected for the project survey. It may be necessary for our employees to enter your property to complete this work. If you have sold this property, or it is occupied by someone else, please let us know the name and address of the new owner or current occupant so we can contact them about the survey.

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

The survey work will include mapping the location of features such as trees, buildings, fences and drives, and obtaining ground elevations. The survey is needed for the proper planning and design of this bridge project. Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey. If problems do occur, please contact our field crew or contact me at the telephone number or address shown above or the included e-mail address.

Sincerely,

Mark W. Neal, P.S. mneal@bfsengr.com

Appendix H

Air Quality

Indiana Department of Transportation (INDOT)

State Preservation and Local Initiated Projects FY 2024 - 2028

SPONSOR	CONTR ACT #/	STIP	ROUTE	WORK TYPE	DISTRICT	MILES	FEDERAL CATEGORY	Total Cost of	PROGRAM	PHASE	FEDERAL	МАТСН	2024	2025	2026	2027	2028
	LEAD	NAME					CATEGORY	Project*									
	DES																
Performance Measure																	
				SR 15 and US 24 From SR 115 to SR 13												1	
Comments:Include DE Indiana Department	-	, 2001847 A 01		HMA Overlay, Preventive Maintenance	Fort Wayne	4.455		¢2 254 162 00	Safety Consulting	PE	\$160,000.00	\$40,000.00					
	43285 / 2001847	701	03 24			4.400	INI IF F	φ2,234,102.00	Salety Consulting		\$100,000.00	\$40,000.00	\$200,000.00				
Performance Measure	Impacted:	Pavemen	t Condition							1		I					
Location: US 24 US 24 @ Wabash St, 1.15 Miles E of SR 15 (200025), US 24 From SR 115 to SR 13 (2001847-HMA)																	
Comments:Add PE \$200,000 FY2024. Des including 2000025 and 2001847.																	
Wabash County	43610 /	Init.	IR 1403	Bridge Replacement	Fort Wayne	.2	STBG	\$2,210,000.00		CN	<mark>\$1,515,000.00</mark>	<mark>\$0.00</mark>			<mark>\$1,515,000.00</mark>		
	<mark>2003065</mark>								Program								
	•	•	•	·					Local Funds	CN	(<mark>\$0.00</mark>)	<mark>\$379,000.00</mark>			\$379,000.00		
									Local Funds	RW	\$0.00	\$20,000.00	\$20,000.00				
													(+20,000.00)				
									Local Bridge Program	RW	<mark>(\$80,000.00</mark>	\$0.00	\$80,000.00				
Performance Measure	Impacted:	Bridge Co	ondition														
Location: Bridge #143	on CR E 1	050 S, ove	er Grant Cre	eek													
Comments:Include DE	<mark>S 2003065</mark>																
Wabash County	44289 / 2101741	Init.	IR 1403	Bridge Rehabilitation Or Repair	Fort Wayne	.125	STBG	\$3,306,000.00	Local Funds	CN	\$0.00	\$576,000.00			\$24,000.00	\$552,000.00	
									Local Bridge	CN	\$2,304,000.00	\$0.00			\$96,000.00	\$2,208,000.00	
									Program								
									Local Funds	RW	\$0.00	\$8,000.00			\$8,000.00		
									Local Bridge	RW	\$33,000.00	\$0.00			\$33,000.00		
									Program								
Performance Measure	Impacted:	Bridge Co	ondition														
Location: Bridge #96;	On East Ha	nging Roo	ck Road ove	er the Salamonie River													
Comments:Include DE	S 2101741																
	44290 / 2101775	Init.	IR 8827	HMA Overlay Minor Structural	Fort Wayne	7.81	STBG	\$3,725,000.00	Group IV Program	RW	\$8,000.00	\$0.00		\$8,000.00			
									Local Funds	RW	\$0.00	\$2,000.00		\$2,000.00			
									Group IV Program	CN	\$2,812,000.00	\$0.00				\$2,812,000.00	
									Local Funds	CN	\$0.00	\$703,000.00				\$703,000.00	

Appendix I Additional Studies

Section 6(f) Properties in Wabash County

Source: Land and Water Conservation Fund website (https://lwcf.tplgis.org/mappast/)

Project Number	Sponsor	Property
1800266	Roann Park Board	Roann Park
1800290	Wabash Park Board	Wabash City Park (Wabash City Park Log Cabin)
1800291	Wabash Park Board	Charley Creek Park
1800304	IDNR	Laketon Bog
1800363	IDNR	Mississinewa Reservoir
1800363	IDNR	Salamonie Reservoir
1800378	IDNR	Mississinewa Reservoir
1800449	IDNR	Red Bridge SRA

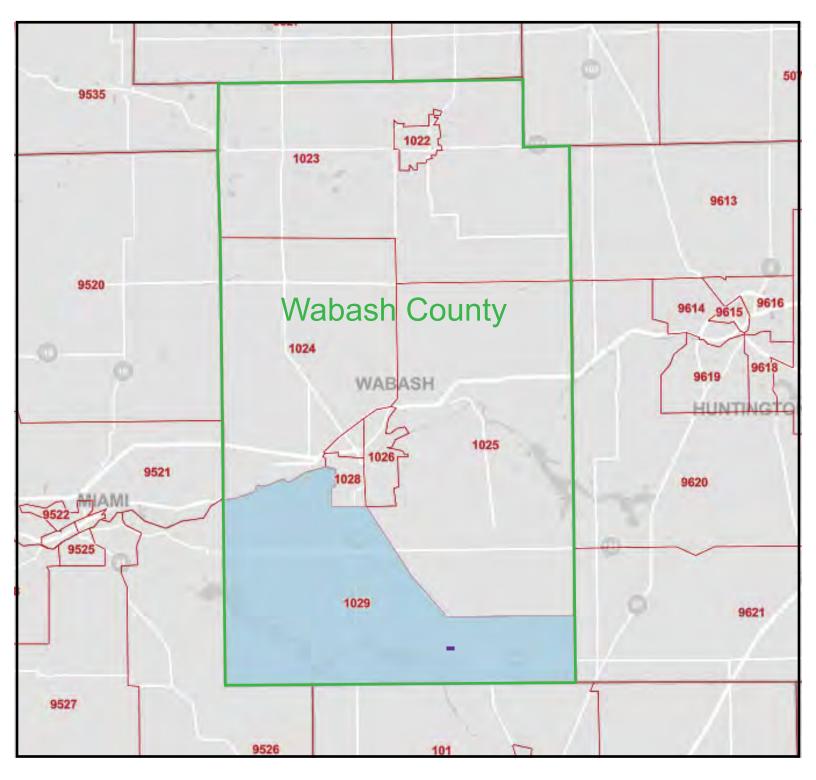
Environmental Justice Data Analysis

Des. No. 2003065: Wabash County Bridge No. 143

Source: U.S. Census Bureau 2021 ACS 5-year Estimates

		COC	AC
		Wabash County, Indiana	Census Tract 1029 Wabash County, Indiana
	LOW-INCOME		
	Population for whom poverty status is determined: Total	29,222	3,30
	Income in the past 12 months below poverty level	3,616	42
B17001	Percent Low-income	12.4%	12.8
	125 Percent of COC	15.5%	AC <125% COC
	Potential Population of EJ Concern?		No
	MINORITY		
	Total population: Total	31,120	3,4
	Total population: Not Hispanic or Latino	30,273	3,
	Total population: Not Hispanic or Latino; White alone	29,121	3,
	Total population: Not Hispanic or Latino; Black or African American alone	314	
	Total population: Not Hispanic or Latino; American Indian and Alaska Native alone	212	
	Total population: Not Hispanic or Latino; Asian alone	161	
	Total population: Not Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	13	
	Total population: Not Hispanic or Latino; Some other race alone	72	
	Total population: Not Hispanic or Latino; Two or more races	380	
	Total population: Hispanic or Latino	847	
B03002	Total population: Hispanic or Latino; White alone	412	
	Total population: Hispanic or Latino; Black or African American alone	21	
	Total population: Hispanic or Latino; American Indian and Alaska Native alone	15	
	Total population: Hispanic or Latino; Asian alone	0	
	Total population: Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	0	
	Total population: Hispanic or Latino; Some other race alone	341	
	Total population: Hispanic or Latino; Two or more races	58	
	Number Non-white/minority	1,999	1
	Percent Non-white/Minority	6.4%	4
	125 Percent of COC	8.0%	AC <125% COC
	Potential Population of EJ Concern?		No

Environmental Justice Community Map



Community of Comparison

- Affected Community
- Project Area

Wabash County Bridge 143 Wabash County, Indiana Des No. 2003065



HISPANIC OR LATINO ORIGIN BY RACE



Note: This is a modified view of the original table produced by the U.S. Census Bureau. This download or printed version may have missing information from the original table.

	Wabash County, Indiana	Ce	ensus Tract 1029, Wabas	sh County, Indiana
abel	Estimate	Margin of Error	Estimate	Margin of Error
✔ Total:	31,120	*****	3,421	±317
Vot Hispanic or Latino;	30,273	*****	3,389	±317
White alone	29,121	±144	3,274	=328
Black or African American alone	314	±51	12	#13
American Indian and Alaska Native alone	212	±71	0	±12
Asian alone	161	±48	26	±33
Native Hawaiian and Other Pacific Islander alone	13	±19	0	±12
Some other race alone	72	±77	53	±71
> Two or more races:	380	±148	24	±23
✔ Hispanic or Latino:	847	****	32	±26
White alone	412	±102	21	±23
Black or African American alone	21	±26	0	±12
American Indian and Alaska Native alone	15	±23	0	±12
Asian alone	0	±26	0	±12
Native Hawaiian and Other Pacific Islander alone	0	±26	0	±12
Some other race alone	341	±110	6	±14
> Two or more races:	58	±66	5	±7

Table Notes

HISPANIC OR LATINO ORIGIN BY RACE

Universe: Total population

Year: 2021

Estimates: 5-Year

Table ID: B03002

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.

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.

Source: U.S. Census Bureau, 2017-2021 American Community Survey 5-Year Estimates

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.

The Hispanic origin and race codes were updated in 2020. For more information on the Hispanic origin and race code changes, please visit the American Community Survey Technical Documentation website.

The 2017-2021 American Community Survey (ACS) data generally reflect the March 2020 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 delineation lists 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:

The estimate could not be computed because there were an insufficient number of sample observations. For a ratio of medians estimate, one or both of the median estimates falls in the lowest interval or highest interval of an open-ended distribution. For a 5-year median estimate, the margin of error associated with a median was larger than the median itself.

Ν

The estimate or margin of error cannot be displayed because there were an insufficient number of sample cases in the selected geographic area.

(X)

The estimate or margin of error is not applicable or not available.

median-

The median falls in the lowest interval of an open-ended distribution (for example "2,500-")

median+

The median falls in the highest interval of an open-ended distribution (for example "250,000+").

**

The margin of error could not be computed because there were an insufficient number of sample observations.

The margin of error could not be computed because the median falls in the lowest interval or highest interval of an open-ended distribution.

A margin of error is not appropriate because the corresponding estimate is controlled to an independent population or housing estimate. Effectively, the corresponding estimate has no sampling error and the margin of error may be treated as zero.

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE



Note: This is a modified view of the original table produced by the U.S. Census Bureau. This download or printed version may have missing information from the original table.

	Wabash County, Indiana		Census Tract 1029, Wabash County, Indiana	
Label	Estimate	Margin of Error	Estimate	
V Total:	29,222	±332	3,304	
 Income in the past 12 months below poverty level: 	3,616	±601	424	
> Male:	1,537	±357	177	
> Female:	2,079	±372	247	
\checkmark income in the past 12 months at or above poverty level:	25,606	±711	2,880	
> Male:	12,923	±402	1,415	
> Female:	12,683	±475	1,465	

Table Notes

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

Survey/Program: American Community Survey Universe: Population for whom poverty status is determined Year: 2021

Estimates: 5-Year

3/15/23, 8:43 AM

B17001: POVERTY STATUS IN THE PAST ... - Census Bureau Tables

Table ID: B17001

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.

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.

Source: U.S. Census Bureau, 2017-2021 American Community Survey 5-Year Estimates

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.

The 2017-2021 American Community Survey (ACS) data generally reflect the March 2020 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 delineation lists 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:

The estimate could not be computed because there were an insufficient number of sample observations. For a ratio of medians estimate, one or both of the median estimates falls in the lowest interval or highest interval of an open-ended distribution. For a 5-year median estimate, the margin of error associated with a median was larger than the median itself.

Ν

The estimate or margin of error cannot be displayed because there were an insufficient number of sample cases in the selected geographic area.

(X)

The estimate or margin of error is not applicable or not available.

median-

The median falls in the lowest interval of an open-ended distribution (for example "2,500-")

median-

The median falls in the highest interval of an open-ended distribution (for example "250,000+").

**

The margin of error could not be computed because there were an insufficient number of sample observations.

The margin of error could not be computed because the median falls in the lowest interval or highest interval of an open-ended distribution.

A margin of error is not appropriate because the corresponding estimate is controlled to an independent population or housing estimate. Effectively, the corresponding estimate has no sampling error and the margin of error may be treated as zero.

Bridge Inspection Report

85-00143 CR 1050 S over GRANT CREEK



Inspection Date: 05/17/2022 Inspected By: Jason Petersen Inspection Type(s): Routine Inspector: Jason Petersen Inspection Date: 05/17/2022 Asset Name: 85-00143 Facility Carried: CR 1050 S

Bridge Inspection Report

WEARING SURFACE PATCHED, SPALLED, AND UNEVEN, CRACKS OVER PIERS, NUMEROUS LONGITUDINAL AND TRANSVERSE CRACKS, EXPOSED TOP OF BEAM AT NORTHEAST CORNER SPALLED.TRANSVERSE CRACKS, MINOR SPALLS WITH EXPOSED STEEL IN BOTTOM OF DECK, NO MAIN REINFORCING BARS EXPOSED, SEEPAGE BETWEEN BEAMS WITH EFFLORESCENCE.TRANSVERSE CRACKS, MINOR SPALLS WITH EXPOSED STEEL IN BOTTOM OF DECK, NO MAIN REINFORCING BARS EXPOSED, SEEPAGE BETWEEN BEAMS WITH EFFLORESCENCE.BOTH END BENTS UNDERPINNED WITH CONCRETE AND SHEET PILES, PIER 2 WITH MINOR EXPOSED STEEL, COLUMNS 3 AND 4 AT PIER 3 WITH LARGE SPALLS AT WATERLINE.MINOR EROSION, SILT BUILDUP IN EAST SPAN.

RECOMMEND REPLACING STRUCTURE IN 2026 DUE TO ADVANCING DETERIORATION.

Bridge Inspection Report

Т

IDENTIFICATION

(1) STATE CODE:	185 - Indiana	(12) BASE HIGHWAY NETWORK:	0
(8) STRUCTURE:	8500465	(13A) INVENTORY ROUTE:	
(5 A-B-C-D-E) INV. ROUTE:	1 - 4 - 1 - 00012 - 0	(13B) SUBROUTE NUMBER:	
(2) HIGHWAY AGENCY DISTRICT:	02 - Fort Wayne	(16) LATITUDE:	40.674
(3) COUNTY CODE:	085 - WABASH	(17) LONGITUDE: (98) BORDER	-85.74429
(4) PLACE CODE:	00000 - N/A	A) STATE NAME:	
(6) FEATURES INTERSECTED:	GRANT CREEK	B) PERCENT	%
(7) FACILITY CARRIED:	CR 1050 S	(99) BORDER BRIDGE STRUCT. NO:	
(9) LOCATION:	00.10 W OF		
(11) MILEPOINT:	LAFONTAINE 0000.000		
STRUCTURE TYPE AND M	IATERIAL	I	
STRUCTURE TYPE AND M (43) STRUCTURE TYPE, MAIN:	IATERIAL	(45) NUMBER OF SPANS IN MAIN UNIT:	1 003
	IATERIAL 1 - Concrete		0000
(43) STRUCTURE TYPE, MAIN: A) KIND OF	1 - Concrete	UNIT: (46) NUMBER OF APPROACH	
 (43) STRUCTURE TYPE, MAIN: A) KIND OF MATERIAL/DESIGN: B) TYPE OF DESIGN/CONSTR: (44) STRUCTURE TYPE, 	1 - Concrete	UNIT: (46) NUMBER OF APPROACH SPANS:	0000 2 - Concrete Precast
(43) STRUCTURE TYPE, MAIN:A) KIND OFMATERIAL/DESIGN:B) TYPE OF DESIGN/CONSTR:	1 - Concrete	UNIT: (46) NUMBER OF APPROACH SPANS: (107) DECK STRUCTURE TYPE: (108) WEARING SURFACE/PROT	0000 2 - Concrete Precast
 (43) STRUCTURE TYPE, MAIN: A) KIND OF MATERIAL/DESIGN: B) TYPE OF DESIGN/CONSTR: (44) STRUCTURE TYPE, APPROACH SPANS: 	1 - Concrete 22 - Channel Beam	UNIT: (46) NUMBER OF APPROACH SPANS: (107) DECK STRUCTURE TYPE: (108) WEARING SURFACE/PROT SYS:	0000 2 - Concrete Precast Panels
 (43) STRUCTURE TYPE, MAIN: A) KIND OF MATERIAL/DESIGN: B) TYPE OF DESIGN/CONSTR: (44) STRUCTURE TYPE, APPROACH SPANS: A) KIND OF 	1 - Concrete 22 - Channel Beam	UNIT: (46) NUMBER OF APPROACH SPANS: (107) DECK STRUCTURE TYPE: (108) WEARING SURFACE/PROT SYS: A) WEARING SURFACE:	0000 2 - Concrete Precast Panels 6 - Bituminous

AGE OF SERVICE

(27) YEAR BUILT:	1960	(28) LANES:		
(106) YEAR RECONSTRUCTED:	0000	A) ON BRIDGE:	02	
		B) UNDER BRIDGE:	00	
(42) TYPE OF SERVICE:		(29) AVERAGE DAILY TRAFFIC:	000220)
A) ON BRIDGE:	1 - Highway	(30) YEAR OF AVERAGE DAILY	2022	
B) UNDER BRIDGE:	5 - Water way	TRAFFIC:		
		(109) AVERAGE DAILY TRUCK	05	%
		TRAFFIC: (19) BYPASS DETOUR LENGTH:	003	MI
		(19) D IT ASS DETOOK LENOTH.	005	1411

Bridge Inspection Report

GEOMETRIC DATA

(48) LENGTH OF MAX SPAN:	00026.0 ET	(25) STRUCTURE ELADED.	0 - No flare
	00036.0 FT	(35) STRUCTURE FLARED:	
(49) STRUCTURE LENGTH:(50) CURB/SIDEWALK WIDTHS:	00067.5 FT	(10) INV RTE, MIN VERT CLEARANCE:	99.99 FT
A) LEFT	01.0 FT	(47) TOT HORIZ CLEARANCE:	024.6 FT
B) RIGHT:	01.0 FT	(53) VERT CLEAR OVER BR RDWY	99.99 FT
(51) BRDG RDWY WIDTH CURB- TO-CURB:		(54) MIN VERTICAL UNDERCLEARANCE: A) REFERENCE FEATURE:	Ν
(52) DECK WIDTH, OUT-TO-OUT:	026.6 FT	B) MIN VERT UNDERCLEAR: (55) LATERAL UNDERCLEARANCE	00.00 FT
(32) APPROACH ROADWAY	018.0 FT	RIGHT:	
(33) BRIDGE MEDIAN:	0 - No median	A) REFERENCE FEATURE: B) MIN LATERAL UNDERCLEAR	N 1: 000.0 FT
(34) SKEW:	30 DEG	(56) MIN LATERAL UNDERCLEAR ON LEFT:	000.0 FT
INSPECTIONS			
(90) INSPECTION DATE: (92) CRITICAL FEATURE	05/17/2022	(91) DESIGNATED INSPECTION FREQUENCY:	12 MONTHS
INSPECTION: A) FRACTURE CRITICAL	Ν	(93) CRITICAL FEATURE INSPECTION DATE:	
REQUIRED/FREQUENCY:	N	A) FRACTURE CRITICAL DATE:	
B) UNDERWATER INSPECTION REQUIRED/FREQUENCY:	N	B) UNDERWATER INSP DATE:	
C) OTHER SPECIAL INSPECTION REQUIRED/FREQUENCY:	N N	C) OTHER SPECIAL INSP DATE:	
CONDITION		1	
(58) DECK:	5 - Fair Condition (minor section loss)	(60) SUBSTRUCTURE:	4 - Poor Condition (advanced
(58.01) WEARING SURFACE:	5 - Fair Condition		deterioration)
(59) SUPERSTRUCTURE:	5 - Fair Condition (minor section loss)	(61) CHANNEL/CHANNEL PROTECTION:	5 - Bank eroded major damage
	. ,	(62) CULVERTS:	N - Not Applicable
CONDITION COMMENTS			
(58) DECK:	5 - Fair Condition (minor	r section loss)	
Comments: FAIR-TRANSVERSE CRACKS, MI BARS EXPOSED, SEEPAGE BETW		OSED STEEL IN BOTTOM OF DECK, NO LORESCENCE) MAIN REINFORCI

Material: PRECAST CONCRETE CHANNEL BEAMS (58.01) WEARING SURFACE: 5 - Fair Condition

Comments:

FAIR-PATCHED, SPALLED, AND UNEVEN, CRACKS OVER PIERS, NUMEROUS LONGITUDINAL AND TRANSVERSE CRACKS, EXPOSED TOP OF BEAM AT NORTHEAST CORNER SPALLED Material: BITUMINOUS (2")

Inspector:	Jason	Petersen
Inspection	Date:	05/17/2022

Bridge Inspection Report

(59) SUPERSTRUCTURE:	5 - Fair Condition (minor	section loss)					
Comments: FAIR-TRANSVERSE CRACKS, MINOR SPALLS WITH EXPOSED STEEL IN BOTTOM OF DECK, NO MAIN REINFORCING BARS EXPOSED, SEEPAGE BETWEEN BEAMS WITH EFFLORESCENCE Material: PRECAST CONCRETE CHANNEL BMS							
(60) SUBSTRUCTURE:	4 - Poor Condition (advance)	ced deterioration)					
Comments: POOR-BOTH END BENTS UNDERPINNED WITH CONCRETE AND SHEET PILES, PIER 2 WITH MINOR EXPOSED STEEL, COLUMNS 1 AND 2 AT PIER 3 WITH LARGE SPALLS AT WATERLINE Material: CAP ON CONCRETE COLUMNS							
(61) CHANNEL/CHANNEL PROTECTION	5 - Bank eroded major da	amage					
Comments: FAIR-MINOR EROSION, SILT BUILDUP IN EAST SPAN, CHANNEL MEANDERING Material: NATURAL/RIPRAP							
(62) CULVERTS:	N - Not Applicable						
Comments: N/A Material: N/A							
LOAD RATING AND POST	ING						
(31) DESIGN LOAD:	0 - Unknown	(66) INVENTORY RATING:	36				
(70) BRIDGE POSTING	5 - Equal to or above legal loads	(65) INVENTORY RATING METHOD	: 0 - Field evaluation and documented engineering				
(41) STRUCTURE OPEN/POSTED/CLOSED:	A - Open	(CCD) INIVENTODY DATING (II).	judgment				
(64) OPERATING RATING:	36	(66B) INVENTORY RATING (H): (66C) TONS POSTED :					
(63) OPERATING RATING METHOD:	0 - Field evaluation and documented engineering judgment	(66D) DATE POSTED/CLOSED:					
APPRAISAL							
SUFFICIENCY RATING:	63.9	(36) TRAFFIC SAFETY FEATURE:					
STATUS:	1	36A) BRIDGE RAILINGS:	0				
(67) STRUCTURAL EVALUATION	N:4	36B) TRANSITIONS:	0				
(68) DECK GEOMETRY:	5	36C) APPROACH GUARDRAIL:	0				
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL:	Ν	36D) APPROACH GUARDRAIL ENDS:	0				
(71) WATERWAY ADEQUACY: Comments: APPEARS BARELY ADEQU		al Overtopping of Approaches - Significa	nt Delays				
 (72) APPROACH ROADWAY ALIGNMENT: 8 - Equal to present desirable criteria Comments: GOOD-WORN, TRANSVERSE CRACKS Material: BITUMINOUS (72): VERY GOOD-STRAIGHT, RISE TO WEST 							

Bridge Inspection Report

(113) SCOUR CRITICAL BRIDGES:

5 - Scour within limits of footing or piles

Comments: STABLE-WITHIN LIMITS

STREEL WITHIN	211011
CLASSIFICATION	

(94) BRIDGE IMPROVEMENT

COST:

\$ 000500

CLASSIFICATION				
(20) TOLL:	3 - On Free Road	(21) MAINT. RESPONSIBILITY:	02 - County Highway Agency	
(22) OWNER:	02 - County Highway Agency	(26) FUNCTIONAL CLASS OF INVENTORY RTE:	09 - Rural - Local	
(37) HISTORICAL SIGNIFICANCE: 5 - Not eligible				
(101) PARALLEL STRUCTURE:	N - No parallel structure	(100) STRAHNET HIGHWAY:	Not a STRAHNET route	
(103) TEMPORARY STRUCTURE		(102) DIRECTION OF TRAFFIC:	2-way traffic	
(105) FEDERAL LANDS	0-Not Applicable	(104) HIGHWAY SYSTEM OF INVENTORY ROUTE:	0 - Structure/Route is NOT on NHS	
HIGHWAYS: (112) NBIS BRIDGE LENGTH:	Yes	(110) DESIGNATED NATIONAL NETWORK:	Inventory route not on network	
NAVIGATION DATA				
(20) MANUCATION CONTROL		(39) NAVIGATION VERTICAL CLEAR: 000.0 FT		
(38) NAVIGATION CONTROL:	0 - No navigation	(39) NAVIGATION VERTICAL CI	LEAR: 000.0 FT	
(38) NAVIGATION CONTROL:	0 - No navigation control on waterway (bridge permit not required)	(39) NAVIGATION VERTICAL CI (116) MINIMUM NAVIGATION V CLEARANCE, VERT. LIFT BRIDO	ERT. FT	
(38) NAVIGATION CONTROL: (111) PIER OR ABUTMENT PROTECTION:	control on waterway (bridge permit not	(116) MINIMUM NAVIGATION V	YERT. FT GE:	
(111) PIER OR ABUTMENT	control on waterway (bridge permit not	(116) MINIMUM NAVIGATION V CLEARANCE, VERT. LIFT BRID	YERT. FT GE:	
(111) PIER OR ABUTMENT	control on waterway (bridge permit not required)	(116) MINIMUM NAVIGATION V CLEARANCE, VERT. LIFT BRID (40) NAV HORIZONTAL CLEAR	YERT. FT GE: ANCE: 0000.0 FT	
(111) PIER OR ABUTMENT PROTECTION:	control on waterway (bridge permit not required)	(116) MINIMUM NAVIGATION V CLEARANCE, VERT. LIFT BRID	YERT. FT GE: ANCE: 0000.0 FT	
(111) PIER OR ABUTMENT PROTECTION: PROPOSED IMPROVEME	control on waterway (bridge permit not required) <u>NTS</u> 31 - Replacement - Load/Geometry 1 - Work to be done by	 (116) MINIMUM NAVIGATION V CLEARANCE, VERT. LIFT BRIDO (40) NAV HORIZONTAL CLEARA (95) ROADWAY IMPROVEMENT (96) TOTAL PROJECT COST: 	YERT. FT GE: ANCE: 0000.0 FT COST: \$ 000225 \$ 000725	
 (111) PIER OR ABUTMENT PROTECTION: <u>PROPOSED IMPROVEME</u> (75A) TYPE OF WORK: (75B) WORK DONE BY: 	control on waterway (bridge permit not required) NTS 31 - Replacement - Load/Geometry 1 - Work to be done by contract	 (116) MINIMUM NAVIGATION V CLEARANCE, VERT. LIFT BRIDO (40) NAV HORIZONTAL CLEARA (95) ROADWAY IMPROVEMENT (96) TOTAL PROJECT COST: (97) YR OF IMPROVEMENT COST 	YERT. FT GE: ANCE: 0000.0 FT COST: \$ 000225 \$ 000725 T EST: 2022	
(111) PIER OR ABUTMENT PROTECTION: <u>PROPOSED IMPROVEME</u> (75A) TYPE OF WORK:	control on waterway (bridge permit not required) NTS 31 - Replacement - Load/Geometry 1 - Work to be done by contract	 (116) MINIMUM NAVIGATION V CLEARANCE, VERT. LIFT BRIDO (40) NAV HORIZONTAL CLEARA (95) ROADWAY IMPROVEMENT (96) TOTAL PROJECT COST: 	YERT. FT GE: ANCE: 0000.0 FT COST: \$ 000225 \$ 000725 T EST: 2022	