

FHWA-Indiana Environmental Document
CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM
GENERAL PROJECT INFORMATION

Road No./County:

United States (US) 231 and Iowa Street / Lake County

Designation Number(s):

2003097

Project

Description/Termini:

Intersection Improvement Project

Project limits will extend approximately 400 feet (ft.) north and 400 ft. south along Iowa Street and 800 ft. northwest and 900 ft. southeast along US 231.

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

Approval

INDOT DE Signature and Date

INDOT ESD Signature and Date

FHWA Signature and Date

Release for Public Involvement

N/A

INDOT DE Initials and Date

ADWP

April 30, 2025

INDOT ESD Initials and Date

Certification of Public Involvement

INDOT Consultant Services Signature and Date

INDOT DE/ESD Reviewer Signature and Date:

Name and Organization of CE/EA Preparer:

Susan Castle, Metric Environmental, LLC

Indiana Department of Transportation

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Part I – Public Involvement

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

Does the project have a historic bridge processed under the Historic Bridges PA*? ☐ Yes ☒ No

If No, then:

Opportunity for a Public Hearing Required? ☒ Yes ☐ No

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

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

Notice of Entry letters were mailed to potentially affected property owners near the project area on June 6, 2022, notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of Entry letter is provided in Appendix G, page G-1.

To meet the public involvement requirements of Section 106, a legal notice of Federal Highway Administration-Indiana Division's (FHWA's) finding of "No Adverse Effect" was published in the *Northwest Indiana Times* on June 5, 2024, offering the public an opportunity to submit comment pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4). The public comment period closed after 30 days on July 5, 2024. The legal notice and affidavit of publication are provided in Appendix D, page D-93.

The project meets the minimum requirements described in the current Indiana Department of Transportation (INDOT) *Project Development Public Involvement Procedures Manual* which requires the project sponsor to offer the public an opportunity to submit comments and/or request a public hearing. The legal notice announcing the public hearing will also include information regarding the Section 4(f) *de minimis* finding, allowing the public 30-days to make comment. The INDOT LaPorte District Office will hold a public hearing to provide transparency and obtain public input, opinions or concerns with the proposed project. Once this document is released for public involvement legal notices will be published twice in at least one or two of the most widely circulated local publications announcing the location, date and time of the public hearing. The legal notice will also be mailed to adjacent landowners and project stakeholders impacted by the project. All comments obtained as part of the public hearing will be evaluated and considered as part of the ongoing design process. This document will be updated and revised after the public involvement requirements are fulfilled.

Public Controversy on Environmental Grounds

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

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

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

Sponsor of the Project: INDOT INDOT District: LaPorte

Local Name of the Facility: US 231 and Iowa Street

Funding Source (mark all that apply): Federal ☒ State ☒ Local ☐ Other* ☐

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

PURPOSE AND NEED:

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

The need for this project is based on the higher-than-expected crash rate at the intersection of US 231 and Iowa Street. Per the Engineering Assessment Report, prepared by USI Consultants, Inc. (June 17, 2020) the primary type of incidents that occur at the intersection consist of right-angle crashes attributed to northbound and southbound traffic from Iowa Street failing to yield the right-of-way to US 231 traffic.

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Crash data obtained by INDOT over a three-year study period (2017 to 2019) recorded thirty-four accidents at the intersection. Twenty-five of the thirty-four accidents involved right-angle crashes (fourteen involved southbound thru traffic from Iowa Street crossing US 231 and nine involved northbound thru traffic from Iowa Street crossing US 231).

The data was analyzed using the Road Hazard Analysis Tool (RoadHAT) to evaluate crash frequency and crash severity. The RoadHAT analysis considers the Index of Crash Frequency (ICF) which measures the difference between expected and reported number of crashes and the Index of Crash Cost (ICC) which measures the difference between expected and reported crash costs. The ICC is used to consider the severity of crashes. The ICF and ICC values are calculated to achieve a standardized value to aid in the identification of locations with higher-than-expected crash rates/crash severity. The values are the same for both indexes. An ICF/ICC value of 0 indicates that a transportation facility (roadway/intersection) is performing as expected. An ICF/ICC value of 1 signifies a moderate crash frequency/severity and an ICF/ICC value of 2 or greater signifies a crash rate/crash severity exceeding the expected thresholds.

The RoadHAT analysis resulted in an Index of Crash Frequency (ICF) of 4.53. The Index of Crash Cost (ICC) is 3.06. Both index values indicate the crash costs and crash frequency at the project intersection is in the 99th percentile compared to similar intersections. The analysis indicates that the frequency and severity of crashes at the intersection are higher-than-expected. Excerpts from the Engineering Assessment Report are provided in Appendix I, pages I-2 to I-14.

Another need for the project is the less-than-desirable Level of Service (LOS) of the existing intersection. LOS is a term used to qualitatively describe the operating conditions of a transportation facility (vehicle mobility). It is based on factors such as speed, travel time, mobility and delays. There are six criteria to determine LOS and each level is assigned a letter designation from A to F, with LOS A representing the best operating conditions, and LOS F the worst operating conditions. The current design guidelines for LOS recommend that all legs of an intersection should operate at a LOS D or better. The traffic data analyzed for this project demonstrates that the LOS for US 231 as the intersection currently exists, operates at a LOS A for the 2025 build year and the 2045 design year. The Iowa Street approaches demonstrate a LOS of E and F for the 2025 build year and a LOS of F for the 2045 design year.

The purpose of this project is to address the higher-than-expected crash rate at the intersection to achieve a predicted ICF/ICC value of 1 or less and address the less-than-desirable LOS along Iowa Street for the build year and design year to achieve a predicted LOS value of C or better.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Lake Municipality: N/A

Limits of Proposed Work: Project limits will extend approximately 400 ft. north and 400 ft. south along Iowa Street and 800 ft. northwest and 900 ft. southeast along US 231.

Total Work Length: 0.47 Mile(s) Total Work Area: 3.72 Acre(s)

Yes¹

No

Is an Interstate Access Document (IAD)¹ required?

☐

☒

If yes, when did the FHWA provide a Determination of Engineering and Operational Acceptability?

Date:

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

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

INDOT and the FHWA intend to proceed with a proposed intersection improvement project on US 231 and Iowa Street in Lake County. Specifically, the project is located in Section 23, Township 34 North, Range 8 West as illustrated on the Crown Point, Indiana 7.5-minute United States Geological Survey (USGS) topographic quadrangle (Appendix B, page B-2).

US 231 is classified as a Minor Arterial, and the existing cross-section consists of one 12 ft. travel lane in each direction bordered by 2 ft. paved shoulders. The speed limit on US 231 is 55 miles per hour. There are no sidewalks or enclosed drainage provided along US 231. There are ten 15-inch maintenance pipes and roadside ditches that convey stormwater through the project area. Iowa Street is classified as a Local Agency Collector and the existing cross-section consists of one 10 ft. travel lane in each direction and no usable shoulders. The speed limit on Iowa Street is 40 miles per hour. There are no sidewalks or enclosed drainage provided along Iowa Street. Land use in the project area consists primarily of agricultural land and residential dwellings.

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Preferred Alternative

The preferred alternative will construct a single-lane roundabout at the project intersection. The roundabout will consist of a 120 ft. diameter roundabout with one 19 ft. circulatory travel lane bordered by concrete curb and gutter and a 15 ft. truck apron. The roadway cross-section will provide 12 ft. entry and exit lanes from the approaches of Iowa Street and 12 ft. entry and exit lanes from the approaches of US 231.

The US 231 approaches will be constructed as high-speed approaches, thus having longer splitter islands as well as multiple curves to the approach. The longer approaches along US 231 are designed to address the sudden change in speed from 55 mph to 25 mph at the roundabout approach. This will also require additional approach work along both legs of Iowa Street.

The existing ten 15-inch maintenance pipes will be replaced in kind. Existing roadside ditches will be relocated and reconstructed with flat-bottom channels with 4:1 sideslopes adjacent to the roadways and 3:1 sideslopes on the outside of the channels.

A concrete curb and gutter with enclosed drainage will be installed. The enclosed drainage will convey stormwater into a detention basin that will be constructed in the northwest quadrant of the intersection. Other features of the roundabout will include raised splitter islands on each leg of the roundabout between the entry and exit travel lanes. Specialized pavement markings will include directional and yield arrows to assist motorists with lane direction. Directional signage will also be installed to assist navigation of the roundabout.

The project will also provide new overhead lighting along each leg of the roundabout per required design standards. The north leg of the roundabout will facilitate future construction of the Veteran's Memorial Parkway Trail across Iowa Street by incorporating a raised splitter island to provide pedestrian refuge between the entry and exit travel lanes of the roundabout. The raised splitter island will provide ADA (Designated Americans with Disabilities Act) compliant crosswalk ramps.

Project limits will extend approximately 400 ft. north and 400 ft. south along Iowa Street and 800 ft. northwest and 900 ft. southeast along US 231. Project plan sheets are provided in Appendix B, pages B-7 to B-25. The project termini are logical because they encompass only the area necessary to construct the single-lane roundabout and tie the improvements into the existing roadways for a smooth transition. The project has independent utility as it does not depend on the construction of a secondary project. Construction is anticipated to begin in Summer 2026 and will be completed by Summer 2027.

The maintenance of traffic (MOT) plan will require a detour as the intersection will be closed during construction. The detour will utilize Interstate 65 (I-65) and SR 2 and US 231. Additional details are provided in the MOT Section of this document. The preferred alternative will meet the purpose and need of the project by addressing the higher-than-expected crash rate to achieve a predicted ICF/ICC value of 1 or less and address the less-than-desirable LOS for the build year and design year to achieve a predicted LOS value of C or better.

OTHER ALTERNATIVES CONSIDERED:

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

Excerpts from the Engineering Assessment Report are provided in Appendix I, pages I-2 to I-14.

Alternative No. 1 No Build Alternative

The "No Build" alternative would allow the existing intersection to remain in place with no improvements and would not require the expenditure of funds. This option would not result in any environmental impacts. Although this alternative is feasible it would not be prudent to allow the higher-than-expected crash conditions to persist at the project intersection. This alternative does not meet the purpose and need of the project and was therefore discarded from further consideration.

Alternative No. 2 Traffic Signal Installation with No Left-Turn Auxiliary Lanes

This alternative would consist of installing a traffic signal at the US 231 and Iowa Street intersection. No auxiliary turn lanes are proposed with this alternative. This alternative meets the primary purpose and need of reducing the number of right-angle crashes by controlling traffic movements and provides an LOS of C or better through the design year. This alternative can be constructed without new additional permanent right-of-way; however, there are operational concerns of installing a traffic signal without left-turn auxiliary lanes. The concern is that rear-end crashes may increase significantly if a signal is installed without left-turn auxiliary lanes on US 231. Furthermore, left-turn auxiliary turn lanes would reduce disruption of through-traffic on US 231. Due to the lack of left-turn auxiliary turn lanes and the associated safety concerns, this alternative was determined to not meet the purpose and need of the project and was therefore discarded from further consideration.

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Alternative No. 2A Traffic Signal Installation with Left-Turn Auxiliary Lanes

This alternative would consist of installing a traffic signal at the project intersection; the same as Alternative No. 2 but left-turn auxiliary lanes would be provided on US 231. Alternative No. 2A provides an acceptable LOS of C or better through the design year and addresses the safety concerns identified with Alternative No. 2. This alternative would meet the purpose and need of the project; however, it was discarded from further consideration as it was determined that the preferred alternative performed more proficiently to meet the purpose and need of the project.

Alternative No. 3 Median U-Turn (J-Turn)

This alternative would require extensive reconstruction of the US 231 corridor, well beyond the project intersection. This alternative would meet the purpose and need of the project; however, US 231 is a two-lane roadway without a median. This alternative would result in increased costs and a large project footprint. The larger footprint could have a greater impact on the historic and/or Section 4(f) properties. For these reasons, this alternative was discarded from further consideration.

Alternative No. 4 Displaced Left-Turn Intersection

Displaced left-turn intersections are typically considered in situations with heavy left-turn and through traffic movements. This type of intersection improvement option is primarily used in urban and suburban areas where the left-turn volume is greater than 250 vehicles. This alternative would require the installation of three traffic signals to safely remove left-turn movements from the project intersection. The current traffic volumes at the project intersection do not justify this alternative and therefore would not meet the purpose and need. Furthermore, this alternative would result in increased costs and a large project footprint. The larger footprint could have a greater impact on the historic and/or Section 4(f) properties. For these reasons, this alternative was determined to be a less desirable option to meet the purpose and need of the project and was not considered further.

Alternative No. 5 Jughandle Intersection

The Jughandle intersection would remove left-turn movements from US 231 (major road) by constructing ramps to Iowa Street (minor road). Jughandle intersections are typically considered when an urban signalized intersection has traffic volumes nearing capacity. By removing left-turn movements from the intersection nearing traffic volume capacity, the signal phasing can be simplified, thus improving the LOS of the intersection. The larger footprint could have a greater impact on the historic and/or Section 4(f) properties. This alternative would meet the purpose and need of the project; however, it was discarded from further consideration due to insufficient traffic volumes, a large project footprint to accommodate the ramps, and increased costs associated with construction and additional permanent right-of-way acquisition.

Alternative No. 6 Offset T Intersection

Offset T intersections are typically utilized when the major road and the minor road are oriented on a skewed horizontal alignment. This alternative would separate the intersection, and the cross-traffic movements would be replaced with a left-turn, right-lane merge, followed by a right-turn movement. Construction of an offset T at the project intersection would involve a substantial amount of roadway re-alignment along both approaches of Iowa Street. The LOS on US 231 would be a LOS of A as this alternative would remove all stop control from US 231. This alternative would eliminate cross-traffic movements and would reduce the frequency of right-angle crashes and improve the LOS of US 231; however, this alternative has the potential to increase left-turn sideswipes and rear end crashes. This alternative would meet the purpose and need of the project; however, it was discarded from further consideration due to the substantial roadway re-alignment along Iowa Street and the increased cost associated with construction and additional permanent right-of-way acquisition.

Alternative No. 7 Continuous Green T Intersection

This alternate only applies to a signalized T intersection option. A signalized intersection would not meet the overall purpose and need of the project so therefore, Alternative No. 7 was discarded from further consideration.

Alternative No. 8 Quadrant Roadway Intersection

Quadrant intersections are typically utilized at locations where high volumes of left-turn movements exist along the major road. The improvements associated with this alternative would construct a new roadway in one designated quadrant of the intersection to remove all left-turn movements. This alternative is similar to Alternative No. 5. The larger footprint could have a greater impact on the historic and/or Section 4(f) properties. This alternative would meet the purpose and need of the project; however, it was discarded from further consideration due to insufficient traffic volumes, a large project footprint and increased costs associated with construction and additional permanent right-of-way acquisition.

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Alternative No. 9 Grade Separation

A grade separation would involve the installation of a new bridge to carry Iowa Street over US 231. This alternative would only provide through movements for traffic on Iowa Street. Iowa Street traffic that currently turns east or west onto US 231 would have to utilize the existing road network. This alternative would meet the purpose and need of the project by reducing conflicting traffic movements; however, it was discarded from further consideration due to the high costs associated with constructing a new bridge and restricting east and west turn-movements from Iowa Street onto US 231.

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

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

X

ROADWAY CHARACTER:

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

Name of Roadway	<u>US 231</u>			
Functional Classification:	<u>Minor Arterial</u>			
Current ADT:	<u>8,702</u>	<u>VPD (2025)</u>	Design Year ADT:	<u>9,147</u> <u>VPD (2045)</u>
Design Hour Volume (DHV):	<u>1,034</u>	<u>Truck Percentage (%)</u>	<u>6.8</u>	
Designed Speed (mph):	<u>55</u>	<u>Legal Speed (mph):</u>	<u>55</u>	

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	12 ft. travel lanes		12 ft. entry/exit lanes 19 ft. circulatory travel lane	
Pavement Width:	24	ft.	Varies from 24-48	ft.
Shoulder Width:	2	ft.	Varies from 3 inside to 10 outside	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Name of Roadway	<u>Iowa Street</u>			
Functional Classification:	<u>Local Agency Collector</u>			
Current ADT:	<u>2,215</u>	<u>VPD (2025)</u>	Design Year ADT:	<u>2,697</u> <u>VPD (2045)</u>
Design Hour Volume (DHV):	<u>370</u>	<u>Truck Percentage (%)</u>	<u>5</u>	
Designed Speed (mph):	<u>40</u>	<u>Legal Speed (mph):</u>	<u>40</u>	

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	10 ft. travel lanes		12 ft. entry/exit lanes 19 ft. circulatory travel lane	
Pavement Width:	20	ft.	Varies from 24-32	ft.
Shoulder Width:	0	ft.	Varies from 3 inside to 10 outside	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:	<input type="checkbox"/> Urban	<input type="checkbox"/> Suburban	<input checked="" type="checkbox"/> Rural
Topography:	<input checked="" type="checkbox"/> Level	<input type="checkbox"/> Rolling	<input type="checkbox"/> Hilly

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BRIDGES AND/OR SMALL STRUCTURE(S):

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

Structure/NBI Number(s): N/A Sufficiency Rating: N/A

	Existing	Proposed
Bridge/Structure Type:	N/A	N/A
Number of Spans:	N/A	N/A
Weight Restrictions:	N/A	N/A
Height Restrictions:	N/A	N/A
Curb to Curb Width:	N/A	N/A
Outside to Outside Width:	N/A	N/A
Shoulder Width:	N/A	N/A

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

There are no bridges located within the project limits. There are ten existing 15-inch maintenance pipes that convey roadside drainage through the construction limits. The existing maintenance pipes will be removed and replaced in-kind. New buried storm sewer pipes and inlets will be installed to accommodate the redesign of the drainage.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

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

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

The maintenance of traffic (MOT) plan will require the closure of US 231 and Iowa Street during the reconstruction of the intersection and a detour will be necessary. The detour will utilize Interstate 65 (I-65) and SR 2 and US 231. The proposed detour duration will be approximately 160 days. The detour length is approximately 14 miles and results in approximately 6 additional travel miles. The MOT sheets are provided in Appendix B, pages B-13 to B-15.

The detour will pose a temporary inconvenience to traveling motorists (including school buses and emergency services); however, no significant delays are anticipated, and all inconveniences will cease upon project completion. Access to all parcels will be maintained for the duration of construction.

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ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$270,000.00 (2024) Right-of-Way: \$125,00.00 (2025) Construction: \$2,497,978.00 (2026)

Anticipated Start Date of Construction: Summer 2026

RIGHT OF WAY:

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	0.49	0.026
Commercial	0.00	0.00
Agricultural	0.05	0.00
Forest	0.00	0.00
Wetlands	0.00	0.00
Other: Maintained Roadside Grass and Trees	2.00	0.00
TOTAL	2.54	0.026

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

The existing right-of-way widths along US 231 vary from approximately 25 ft. to 61 ft. from the center line of the roadway. The existing right-of-way along the north and south approaches of Iowa Street is edge of pavement. The existing right-of-way consists of agricultural land, grass lawns adjacent to existing residential dwellings and maintained roadside grass and trees adjacent to US 231.

Approximately 2.54 acres of additional permanent right-of-way will be required to complete the project. Because there are no legally recorded existing right-of-way limits beyond the edge of pavement along the north and south approaches of Iowa Street, it will be necessary to re-acquire approximately 0.281 acre of land and legally record ownership with the Lake County Assessor's Office. The proposed permanent right-of-way consists of approximately 2.00 acre of maintained roadside grass and trees, 0.05 acre of agricultural land and 0.49 acre of residential land. Approximately 0.026 acre of temporary right-of-way will be required for driveway reconstruction on the south approach of Iowa Street.

The proposed permanent right-of-way widths along the north side of US 231 vary from approximately 91 ft. to 130 ft. from the center line of the realigned roadway. The proposed permanent right-of-way widths along Iowa Street vary from approximately 45 ft. to 130 ft. on the north approach and approximately 20ft. to 45 ft. along the south approach. Plan sheets are provided in Appendix B, pages B-7 to B-25.

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

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

SECTION A - EARLY COORDINATION:

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

Early coordination letters were sent on November 15, 2022, February 26, March 26 and August 15, 2024, to the agencies listed below. A copy of the early coordination letter is provided in Appendix C, pages C-1 to C-2.

Agency	Date Sent	Response Received	Appendix C
FHWA	November 15, 2022	No Response	N/A
Indiana Department of Natural Resources Division of Fish and Wildlife (IDNR-DFW)	November 15, 2022	December 15, 2022	Pages C-4 to C-6
Indiana Department of Environmental Management (IDEM) Wellhead Proximity Determinator	November 15, 2022	Automatic Response	N/A
U.S. Department of Housing and Urban Development	November 15, 2022	No Response	N/A
U.S. Fish and Wildlife Service (USFWS), Northern Indiana Field Office	November 15, 2022	November 15, 2022	Page C-33
U.S. Army Corps of Engineers (USACE)	November 15, 2022	No Response	N/A
National Parks Service, Midwest Regional Office	November 15, 2022	No Response	N/A
INDOT Office of Aviation	March 26, 2024	March 26, 2024	Page C-38
INDOT LaPorte District Office Project Manager	November 15, 2022	No Response	N/A
INDOT LaPorte District Office Environmental Section Manager	November 15, 2022	No Response	N/A
Indiana Geological and Water Survey (IGWS)	February 26, 2024	February 26, 2024	Pages C-34 to C-35
Lake County Highway Department	November 15, 2022	No Response	Page C-43
Lake County Surveyor	November 15, 2022	November 15, 2022	Pages C-39 to C-42
Lake County Commissioners	November 15, 2022	No Response	N/A
Lake County Emergency Management	November 15, 2022	No Response	N/A
Lake County Parks and Recreation Department	To be updated after PI	To be updated after PI	To be updated after PI
Mayor, City of Crown Point	November 15, 2022	No Response	N/A
Northwestern Indiana Regional Planning Commission (NIRPC)	November 15, 2022	No Response	N/A
Natural Resources Conservation Service (NRCS)	August 15, 2024	August 16, 2024	Pages C-36 to C-37

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

SECTION B – ECOLOGICAL RESOURCES:

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

Total stream(s) in project area: 0.0 Linear feet Total impacted stream(s): 0.0 Linear feet

Stream Name	Classification	Total Size in Project Area (linear feet)	Impacted linear feet	Comments (i.e. location, flow direction, likely Water of the US, appendix reference)
N/A	N/A	N/A	N/A	N/A

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

Based on the desktop review, the aerial photograph of the project area and the Red Flag Investigation (RFI) report (Appendix E, page E-2), there are three streams located within the 0.5 mile search radius. There are no streams or other jurisdictional waterway features within or adjacent to the project area, which was confirmed by the site visit conducted by Metric Environmental on August 18, 2022.

Five roadside ditches (RSD) were identified within the project area. These features consisted of vegetated drainage swales consisting of red fescue (*Festuca rubra*) and smooth brome (*Bromus inermis*). No ordinary high-water mark (OHWM) and/or bed and bank was observed in these features, so they are likely non-jurisdictional.

Ten culverts were identified within the construction limits. The culverts were made of either corrugated metal or high-density polyethylene (HDPE). One culvert, Culvert No. 2, connects Wetland B to Wetland A, two likely jurisdictional Waters of the U.S., under Iowa Street. The other culverts convey roadside drainage and stormwater and do not carry jurisdictional waters due to a lack of an OHWM, bed and bank, and lack of a significant nexus to any jurisdictional Waters of the U.S.

A *Waters of the U.S. Determination/Wetland Delineation Report* was completed for the project on June 1, 2023, by Metric Environmental and approved by INDOT Ecology and Waterway Permitting Office on June 12, 2023. Please refer to Appendix F for the *Waters of the U.S. Determination/Wetland Delineation Report*. It was determined that no likely jurisdictional streams or roadside ditches are located within the project area. The USACE makes all final determinations regarding jurisdiction.

The IDNR-DFW responded on December 15, 2022, with recommendations to avoid or minimize impacts to waterways, including bank stabilization measures, methods for riprap placement, and the minimization of in-channel disturbance (Appendix C, pages C-4 to C-6). All applicable recommendations are provided in the *Environmental Commitments* section of this document.

Open Water Feature(s)

Reservoirs
Lakes
Farm Ponds
Retention/Detention Basin
Storm Water Management Facilities
Other: _____

Presence

Impacts

Yes	No

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

Based on the desktop review, the aerial map of the project area, and the RFI report (Appendix E, page E-2) there are seven open water features within the 0.5-mile search radius. There are no open water feature(s) within or adjacent to the project area, which was confirmed by the site visit conducted by Metric Environmental on August 18, 2022. Therefore, no impacts are expected.

Wetlands

Presence

X

Impacts

Yes	No
X	

Total wetland area: 0.316 Acre(s)

Total wetland area impacted: 0.305 Acre(s)

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

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Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments (i.e. location, likely Water of the US, appendix reference)
Wetland A	PEM1A	0.228	0.217	Located within a ditch along US 231 at the northwest side of the intersection of US 231 and Iowa Street, likely jurisdictional water of the U.S. (Appendix F, page F-5)
Wetland B	PEM1A	0.088	0.088	Located within a ditch along US 231 at the northeast side of the intersection of US 231 and Iowa Street, likely jurisdictional water of the U.S. (Appendix F, pages F-5 and F-6)

Documentation

ESD Approval Dates

Wetlands (Mark all that apply)

Wetland Determination
Wetland Delineation
USACE Isolated Waters Determination

X
X

June 12, 2023
June 12, 2023

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

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

X
X
X
X

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

Based on a review of the National Wetlands Inventory (NWI) online mapper (<https://www.fws.gov/wetlands/data/Mapper.html>), the USGS topographic map (Appendix B page B-2), and the RFI report (Appendix E page E-2) there are twenty wetlands within the 0.5 mile search radius. There are two wetlands within or adjacent to the project area, which was confirmed by the site visit conducted by Metric Environmental on August 18, 2022.

A *Waters of the U.S. Determination/Wetland Delineation Report* was completed for the project on June 1, 2023, by Metric Environmental and approved by INDOT Ecology and Waterway Permitting Office on June 12, 2023. Please refer to Appendix F for the *Waters of the U.S. Determination/Wetland Delineation Report*. It was determined that two likely jurisdictional wetlands are located within the project area. The USACE makes all final determinations regarding jurisdiction.

Wetland A (0.228 acre)

Wetland A is classified as a Palustrine, Emergent, Persistent, Temporarily Flooded (PEM1A) wetland. This wetland is located in a concave position within a ditch along US 231, and it is on the northwest side of the intersection of US 231 and Iowa Street. The boundaries of Wetland A were delineated by lack of wetland vegetation and increased elevation. Due to its location within a ditch, Wetland A likely receives flood waters and drainage on a consistent basis during rain events. The wetland exhibited poor plant species diversity. These factors contribute to the conclusion that Wetland A can support a limited amount of wildlife or aquatic habitat and is considered poor quality. Based on topography, it can be deduced that water drains northwest from Wetland A into roadside ditch No. 1 into unnamed tributary (UNT) to Niles Ditch into Niles Ditch into Deep River into Lake George into Deep River into Burns Ditch into Portage Burns Waterway, a Section 10 Traditional Navigable Waterway (TNW). Because Wetland A contributes flow to a TNW, it should likely be considered a jurisdictional Water of the U.S.

Wetland B (0.088 acre)

Wetland B is classified as a PEM1A wetland. This wetland is located in a concave position within a ditch along US 231, and it is on the northeast side of the intersection of US 231 and Iowa Street. Due to its location within a ditch, Wetland B likely receives flood waters and drainage on a consistent basis during rain events. The wetland is located adjacent to US 231 and likely receives run-off from the adjacent paved roads. The wetland exhibited poor plant species diversity. These factors contribute to the conclusion that Wetland B can support a limited amount of wildlife or aquatic habitat and is considered poor quality. Based on topography, it can be deduced that water drains northwest into Culvert No. 2 which drains into Wetland A, a likely jurisdictional Water of the U.S. Because Wetland B contributes flow to a likely jurisdictional Water of the U.S., it should likely be considered a jurisdictional water of the U.S.

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Wetlands A and B will be permanently impacted by clean earthen fill to facilitate re-grading and relocation of roadside ditches and construction of a retention basin in the northwest quadrant of the roundabout. There will be approximately 0.217 acre of permanent impact to Wetland A (Wetland A is 0.228 acre in size but only 0.217 acre will be permanently impacted). In addition, there will be approximately 0.088 acre (entire wetland) of permanent impact to Wetland B. There will be no temporary impacts to Wetland A or Wetland B. Avoidance alternatives would not be practicable, as they would result in the project not meeting the purpose and need. Cumulative wetland impacts are approximately 0.305 acre.

Specialized fencing will be installed along the construction limits to prohibit encroachment upon Wetland A beyond the construction limits. Areas of Wetland A outside the construction limits will be labeled "Do Not Disturb" on the project plans. This is included as a firm commitment in the *Environmental Commitments* section of this document.

An IDEM Isolated Wetlands/Waters of the State Permit will be required for the permanent impacts to Wetlands A and B. The USACE will likely authorize the permanent wetland impacts with a Section 404 Regional General Permit. All efforts to avoid and minimize wetland impacts have been considered during the design process.

It is estimated this project will require purchase of 0.732 acres of emergent wetland mitigation credits from the IDNR Stream and Wetland mitigation Program (INSWMP) Kankakee Service Area. The IDEM and the USACE will determine the final credits to be purchased during the permitting process.

	<u>Presence</u>	<u>Yes</u>	<u>Impacts</u>	<u>No</u>
Terrestrial Habitat	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

Total terrestrial habitat in project area: 3.72 Acre(s) Total tree clearing: 1.23 Acre(s)

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

Based on the desktop review, a site visit on August 18, 2022, by Metric Environmental, a review of the aerial photograph (Appendix B, page B-3), the predominant land use in the project area consists of residential dwellings with maintained lawns and agricultural and pasture fields. The dominant vegetation along the project roadway consists of red fescue (*Festuca rubra*), red clover, (*Trifolium pratense Fabales*), tall false rye grass (*Schedonorus arundinaceus*) and Kentucky bluegrass (*Poa pratensis*).

Approximately 3.72 acres of terrestrial habitat will be impacted to construct the project. Approximately twenty-three trees (1.23 acres) and brush will be removed within the project area to build the roundabout and relocate existing overhead utility lines. The dominant tree species to be removed consist of mixed oaks (*Quercus* species), mixed maples (*Acer* species), and black walnut (*Junglans nigra*). All efforts to minimize terrestrial impacts were considered during the design phase of the project. The construction limits have been reduced to the extent practical to build the project while limiting terrestrial disturbance. All disturbed areas will be stabilized, graded and re-seeded per INDOT standard specifications. No terrestrial habitat restoration or mitigation will be necessary.

The IDNR-DFW responded on December 15, 2022, with recommendations to minimize terrestrial impacts including revegetating all bare and disturbed areas with a mixture of grasses (excluding all varieties of tall fescue) sedges, and wildflowers native to Northern Indiana as soon as possible upon project completion. The IDNR-DFW also recommended that appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from leaving the construction area and maintaining these measures until construction is complete and all disturbed areas are stabilized (Appendix C, pages C-4 to C-6). All applicable recommendations are provided in the *Environmental Commitments* section of this document.

Protected Species

Federally Listed Bats

Information for Planning and Consultation (IPaC) determination key completed
Section 7 informal consultation completed (IPaC cannot be completed)
Section 7 formal consultation Biological Assessment (BA) required

<u>Yes</u>	<u>No</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Determination Received for Listed Bats from USFWS: NE ☐ NLAA ☒ LAA ☐

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Other Species not included in IPaC

Additional federal species found in project area (based on IPaC species list)
State species (not bird) found in project area (based upon consultation with IDNR)

Yes	No
X	
	X

Migratory Birds

Known usage or presence of birds (i.e. nests)
State bird species based upon coordination with IDNR

Yes	No
	X
	X

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

Based on a desktop review and the RFI report (Appendix E) completed by Metric Environmental on March 7, 2023, the IDNR Lake County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR-DFW early coordination response letter dated December 15, 2022 (Appendix C, pages C-4 to C-6) the Natural Heritage Program's Database has been checked and no state species of special concern have been documented within 0.5 mile of the project area.

On November 21, 2022, the INDOT LaPorte District Office reviewed the USFWS database and no reports of the Indiana bat or the northern long-eared bat have been documented within 0.5 mile of the project site.

Project information was submitted through the USFWS Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, pages C-21 to C-32). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the endangered northern long-eared bat (NLEB) (*Myotis septentrionalis*). Other species were generated in the IPaC species list, dated April 17, 2025, along with the Indiana bat and the NLEB.

The official species list generated from IPaC indicated five other listed species present within the project area: the tricolored bat (*Perimyotis subflavus*), the whooping crane (*Grus americana*), the salamander mussel (*Simpsonias ambigua*), the monarch butterfly (*Danaus plexippus*) and Mead's Milkweed (*Asclepias meadii*). The project qualifies for the most current INDOT/USFWS agreement.

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB)*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. An effect determination key was completed on December 14, 2023, and based on the responses provided, the project was found to "May Affect/Not Likely to Adversely Affect" the Indiana bat and the NLEB (Appendix C, pages C-7 to C-20). INDOT reviewed and verified the effect finding on December 14, 2023, and requested USFWS's review of the finding. No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding.

Avoidance and Minimization Measures (AMMs) include directing temporary lighting away from suitable habitat, restricting tree clearing to what that specified in the plans, applying time-of-year restrictions for tree removal and ensuring all operators and contractors are aware of all environmental commitments and AMMs. The AMMs are included as firm commitments in the *Environmental Commitments* section of this document.

The whooping crane is listed as endangered wherever found, except where listed as an experimental population according to the Environmental Conservation Online System (<https://ecos.fws.gov/ecp/species/758>). The whooping crane is listed as an experimental population in this location. The monarch butterfly is identified as a candidate species and is not yet listed or proposed for listing. The tricolored bat is proposed for future listing. Mead's Milkweed is listed as a threatened species; however, no critical habitat has been designated for this species. The Mead's Milkweed will have a not likely to adversely affect determination. The salamander mussel is proposed for future listing and there is proposed critical habitat designated for this species; however, the project area does not overlap the designated critical habitat. The project qualifies for the most current INDOT/USFWS agreement. Therefore, no further coordination is needed with USFWS.

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

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Geological and Mineral Resources

- Project located within the Indiana Karst Region
Karst features identified within or adjacent to the project area
Oil/gas or exploration/abandoned wells identified in the project area

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

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

Based on a desktop review and the Indiana Karst Region map, the project is located outside the designated Indiana Karst Region as outlined in the most current *Protection of Karst Features during Project Development and Construction*. According to the topo map of the project area (Appendix B, page B-2), the RFI report (Appendix E, page E-2) there are no karst features identified within or adjacent to the project area. In the early coordination response February 26, 2024, the IGWS did not indicate that karst features exist in the project area (Appendix C, pages C-34 to C-35).

The IGWS did identify geological hazards including a moderate liquefaction potential, floodway presence, a moderate potential for bedrock resources and low potential for sand and gravel resources.

No documented active or abandoned mineral resource extraction sites are documented within the search radius. The aforementioned geological features will not be affected because the scope of work will not involve deep excavation (i.e., greater than 3 ft. below ground surface). Response from IGWS has been communicated with the designer on February 26, 2024. No impacts are expected.

SECTION C – OTHER RESOURCES

Drinking Water Resources

- Wellhead Protection Area(s)
Source Water Protection Area(s)
Water Well(s)
Urbanized Area Boundary
Public Water System(s)

Presence	Impacts	
	Yes	No
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Is the project located in the St. Joseph Sole Source Aquifer (SSA):

If Yes, is the FHWA/EPA SSA MOU Applicable?

If Yes, is a Groundwater Assessment Required?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

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

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

The Indiana Department of Environmental Management's Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead/>) was accessed on November 3, 2024, by Metric Environmental. This project is not located within a Wellhead Protection or Source Water Protection Area. No impacts are expected.

The Indiana Department of Natural Resources Water Well Record Database website (<https://www.in.gov/dnr/water/3595.htm>) was accessed on November 3, 2024, by Metric Environmental. Twenty-two drinking water wells are mapped within 0.5 mile of the project area. The nearest wells are associated with the residential dwellings located in the southwest quadrant of the project site. The wells will not be affected because of their distance from the project site and there being no excavation deeper than approximately 3 ft. Therefore, no impacts are expected. Should it be determined during the right-of-way phase that wells are affected, a cost to cure will likely be included in the appraisal to restore the wells.

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Based on a desktop review of the INDOT MS4 website (<https://entapps.indot.in.gov/MS4/>) by Metric Environmental on January November 3, 2024 and the RFI report, this project is not located within an Urban Area Boundary. No impact is expected.

Based on a desktop review, a site visit on August 18, 2022, by Metric Environmental, a review of the aerial photograph (Appendix B, page B-3) no public water systems were identified. Therefore, no impacts are expected.

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Floodplains			
Project located within a regulated floodplain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Longitudinal encroachment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transverse encroachment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Homes located in floodplain within 1000' up/downstream from project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If applicable, indicate the Floodplain Level?

Level 1 ☐ Level 2 ☐ Level 3 ☐ Level 4 ☐ Level 5 ☐

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

The Indiana Department of Natural Resources Indiana Floodway Information Portal website (<http://dnrmaps.dnr.in.gov/appsphp/fdms/>) was accessed on August 31, 2024, by Metric Environmental. This project is not located in a regulatory floodplain as determined from approved IDNR floodplain map (Appendix B, page B-6 and Appendix F, page F-13). Therefore, it does not fall within the guidelines for the implementation of 23 CFR 650, 23 CFR 771, and 44 CFR. No impacts are expected.

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Farmland			
Agricultural Lands	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Prime Farmland (per NRCS)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Total Points (from Section VII of CPA-106/AD-1006*) 137

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

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

Based on a desktop review, a site visit on August 18, 2022, by Metric Environmental, and the aerial photograph of the project area (Appendix B, page B-3) the project will convert less than 0.001 acre of farmland as defined by the Farmland Protection Policy Act. This estimate differs from the amount of acquired right-of-way categorized as farmland, due to the definition of prime farmland by the Farmland Protection Policy Act. Prime farmland is defined by soil type and not the current land use. An early coordination letter was sent on August 15, 2024, to the NRCS. Coordination with NRCS resulted in a score of 137 on the AD 1006 Form (Appendix C, page C-37). NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

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SECTION D – CULTURAL RESOURCES

	Category(ies) and Type(s)	INDOT Approval Date(s)	N/A
Minor Projects PA			X

Full 106 Effect Finding

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

Eligible and/or Listed Resources Present

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

Documentation Prepared (mark all that apply)

APE, Eligibility and Effect Determination	<input checked="" type="checkbox"/>
800.11 Documentation	<input checked="" type="checkbox"/>
Historic Properties Report or Short Report	<input checked="" type="checkbox"/>
Archaeological Records Check and Assessment	<input checked="" type="checkbox"/>
Archaeological Phase Ia Survey Report	<input checked="" type="checkbox"/>
Archaeological Phase Ic Survey Report	<input type="checkbox"/>
Other: Effects Analysis/Report	<input checked="" type="checkbox"/>

ESD Approval Date(s)

May 29, 2024
May 29, 2024
April 27, 2023
April 27, 2023
April 27, 2023
December 15, 2023

SHPO Approval Date(s)

June 28, 2024
June 28, 2024
May 30, 2023
May 30, 2023
May 30, 2023
January 10, 2024

Memorandum of Agreement (MOA) ☐

MOA Signature Dates (List all signatories)

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

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties.

Area of Potential Effects:

Qualified professionals working for Metric Environmental and meeting the Secretary of the Interior's Professional Qualifications Standards defined an Area of Potential Effect. The Area of Potential Effects (APE) is "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking" [36 CFR § 800.16(d)]. The APE for aboveground resources was drawn sufficiently large to encompass potential impacts including visual, physical, and traffic-related impacts that may result from the undertaking, whichever alternative is selected. The Area of Potential Effects (APE) extends at least 500ft. beyond the project terminus, and at least one property deep on each side of US 231 and Iowa Street. The APE for the archaeology investigation encompassed approximately 11.5 acres. A map of the APE can be found in Appendix D, page D-13.

Coordination with Consulting Parties:

In accordance with 36 CFR 800.2(c), individuals and groups with a demonstrated interest in the undertaking were invited to participate in efforts to identify historic properties potentially affected by the undertaking, assess its effects, and seek ways to avoid, minimize or mitigate any adverse effects on historic properties.

On January 5, 2023, an Early Coordination Letter (ECL) was sent to the State Historic Preservation Officer (SHPO) and to other stakeholders and interested parties (Appendix D, pages D-49 to D-51). The ECL provided project information, project location maps, and invited recipients to become consulting parties to the undertaking. The parties were requested to indicate whether they agreed or did not agree to participate as a consulting party within 30 days of receipt of the invitation. It was noted that if the invited party did not reply, they would not be considered a consulting party and would not receive further information about the undertaking unless the scope changed. Below is a list of invited consulting parties for this undertaking:

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Consulting Party	Accepted/Declined
Northwest Indiana Regional Planning Commission	No Response
Lake County Commissioners	No Response
Lake County Engineer	Accepted
Lake County Highway Superintendent	Accepted
Mayor, City of Crown Point	No Response
Lake County Historical Society and Museum	No Response
Lake County Historian	Accepted
Crown Point Historic Preservation Commission Planning and Building	No Response
Indiana Landmarks - Northwest Field Office	Accepted
South Lake County Agricultural Historical Society	No Response
Eastern Shawnee Tribe of Oklahoma	Accepted
Miami Tribe of Oklahoma	Accepted
Peoria Tribe of Indians of Oklahoma	No Response
Pokagon Band of Potawatomi Indians	Accepted
Shawnee Tribe	No Response
Forest County Potawatomi Community	No Response

The Indiana Landmarks responded on January 5, 2023 with an updated e-mail for the new director in the Northwest Field Office and indicated acceptance to be included as a consulting party (Appendix D, page D-57)

The Lake County Historian responded on January 5, 2023 indicating confidence that the necessary field work will reveal any historical and archaeological resources that would be adversely affected by this project. (Appendix D, page D-59).

The Miami Tribe of Oklahoma responded on January 10, 2023, and accepted consulting party status and offered no objections to the project but requested if any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of the project that they be immediately consulted (Appendix D, page D-60).

The Lake County Highway Department responded on January 17, 2023 asking if there will be an unofficial Local Detour Route provided to the local traffic (Appendix D, page D-61). On January 23, 2023 Metric responded internally that the designer provided information regarding a local detour includes: There can be a local detour if the county wants it. The county or city will need to ask INDOT for it and then to work with the INDOT Project Manager on the detour. The County will be invited to the Preliminary Field Check Meeting (Appendix D, page D-62).

The Eastern Shawnee Tribe of Oklahoma responded on January 26, 2023, and accepted the invitation to participate as a consulting party (Appendix D, page D-63).

The Pokagon Band of Potawatomi responded on February 3, 2023, and accepted consulting party status and offered no objections to the project (Appendix D, page D-64).

The SHPO responded on February 6, 2023, and indicated that they were not aware of any other parties who should be invited to participate in the Section 106 consultation process (Appendix D, page D-65).

No other consulting party responses to the early coordination letter were received.

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Archaeology:

Pursuant to 36 CFR § 800.4(b), a Qualified Professional Archaeologist with Metric Environmental prepared a Phase Ia Archaeology Report for the project (Snell and Stevenson 4/24/2023). A literature review of the SHAARD database indicated that there are no previously recorded archaeological sites within 1.0 miles of the project. Metric staff conducted field work that included a visual inspection, pedestrian survey, and the excavation of shovel test probes. No archaeological resources were identified as a result of the investigation and the Phase Ia Archaeology Report recommended the project be allowed to proceed with no additional work. Excerpts of the Phase Ia Archaeology Report are provided in Appendix D, pages D-39 to D-42. The INDOT CRO distributed the report to SHPO and the Tribes on April 27, 2023 (Appendix D, pages D-67 to D-69). In a letter dated May 30, 2023, SHPO concurred with the archaeological report's conclusions that there are no NRHP eligible archaeological sites within the APE (Appendix D, pages D-79 to D-80).

Historic Properties:

Pursuant to 36 CFR § 800.4(b), personnel with Metric Environmental, who meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61, included a check of data available online at the Indiana State Historic Architectural and Archaeological Research Database (SHAARD), the Lake County Interim Report: Indiana Historic Sites and Structures Inventory (1996, Historic Landmarks Foundation of Indiana), the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM), the INDOT-Cultural Resources Office (CRO) Public Web Map App, and the Indiana Register of Historic Sites and Structures and the National Register of Historic Places (NRHP databases). There are no previously documented above-ground or archaeological resources within the APE.

A Historic Property Report (HPR) (Miller 4/19/2023) was developed for the project. The HPR was reviewed and approved by INDOT CRO and distributed to consulting parties for review and comment. The HPR recommended one property as eligible for listing in the NRHP. The Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad culvert is a horseshoe shaped limestone structure with limestone headwalls and wingwalls. The culvert carried the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad over an unnamed tributary.

The culvert is significant under Criteria A and C for its association with the transportation history of the region and for its engineering significance. There are no other resources listed in or eligible for listing in the NRHP nor in the Indiana Register of Historic Sites and Structures within the proposed APE of this project.

The culvert is located outside of the construction limits; therefore, there will be no impact on the culvert during this project.

An Effects Report was prepared to further determine potential impacts to the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad culvert. In a letter dated May 30, 2023, SHPO agreed that the undertaking would not adversely affect the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert (Appendix D, pages D-89 to D-90). Excerpts from the Effects Report are provided in Appendix D, pages D-44 to D-46.

Public Involvement:

In accordance with 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4), the views of the public were sought regarding the effect of the proposed project. To meet the public involvement requirements of Section 106, a legal notice of Federal Highway Administration-Indiana Division's (FHWA's) finding of "No Adverse Effect" was published in the *Northwest Indiana Times* on June 5, 2024, offering the public an opportunity to submit comment pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4). The public comment period closed after 30 days on July 5, 2024. In a letter dated June 28, 2024, SHPO concurred with the finding of "No Adverse Effect" (Appendix D, pages D-94 to D-95). The legal notice and affidavit of publication are provided in Appendix D, page D-93.

No further consultation is required. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

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

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

Evaluations Prepared

Programmatic Section 4(f)	<input type="checkbox"/>
“De minimis” Impact	X
Individual Section 4(f)	<input type="checkbox"/>
Any exception included in 23 CFR 774.13	<input type="checkbox"/>

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

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

Based on a desktop review, the aerial photograph of the project area (Appendix B, page B-3), and the RFI report (Appendix E, page E-2) there are three public recreation resources potentially afforded protection under Section 4(f) located within the 0.5 mile search radius. According to additional research and the site visit conducted on August 18, 2022, by Metric Environmental there are two Section 4(f) resources within or adjacent to the project area: the planned Veteran’s Memorial Parkway Trail and the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert.

A determination of a *de minimis* impact on parks and recreation areas may be made when all three of the following criteria are satisfied:

1. The transportation use of the Section 4(f) resource, together with any impact avoidance, minimization, and mitigation or enhancement measures incorporated into the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f);
2. The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resource; and
3. The official(s) with jurisdiction (OWJ) over the property are informed of U.S. DOT's intent to make the de minimis impact determination based on their written concurrence that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f).

Veteran’s Memorial Parkway Trail

The planned Veteran’s Memorial Parkway Trail is a public recreation trail. The Lake County Parks and Recreation Department is the OWJ for the resource. The Lake County Parks and Recreation Department plans to construct a new segment of the Veteran’s Memorial Parkway Trail on the north side of US 231 at the Iowa Street intersection. The Lake County Parks and Recreation Department has purchased the land located in the northwest corner of US 231 and Iowa Street to construct the planned Veteran’s Memorial Parkway Trail along the abandoned rail line. It is anticipated that the trail will be constructed in 2028 or 2029.

The project (Des No. 2003097) will require approximately 0.871 acre of additional permanent right-of-way to be purchased from the Lake County Parks and Recreation Department to construct the roundabout and proposed retention basin in the northwest quadrant of the US 231 and Iowa Street intersection. No temporary right-of-way will be required.

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The project will not result in impacts on the planned Veteran's Memorial Parkway Trail as the trail is planned to be constructed north of the proposed retention basin in the northwest quadrant. The project has incorporated the necessary design elements to support the planned extension of the Veteran's Memorial Parkway Trail. The proposed improvements on the north leg of Iowa Street will provide a splitter island between travel lanes that will provide a pedestrian refuge for future connection of the trail across Iowa Street. The proposed design will include all required ADA design components to complement the future connection of the Veteran's Memorial Parkway Trail. The trail crossing of Iowa Street will be constructed as a part of the roundabout project. Therefore, once the Lake County Parks and Recreation Department decides to construct the trail coming from the west, all they will have to do is connect to the already constructed ADA compliant crossing. In addition, new overhead lighting will also be installed as part of the roundabout construction per required design standards and will enhance the safety of the planned Veteran's Memorial Parkway Trail.

Minor uses may qualify for a *de minimis* finding when the use does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f). The designed action for Des. No. 2003097 will not adversely impact the activities, features, and attributes that qualify the planned Veteran's Memorial Parkway Trail for protection under Section 4(f) of the Department of Transportation Act of 1966 and in accordance with SAFETEA-LU Section 6009 (a). As such, it is the intent of INDOT, along with the Federal Highway Administration, to issue a finding of *de minimis*.

As part of the public involvement process, INDOT will hold a public hearing for this project once this document is released for public involvement. The legal notice announcing the public hearing will also include information regarding the Section 4(f) *de minimis* finding. The legal notice will be published in the most widely circulated newspaper serving the project area. The 30-day comment period for the Section 4(f) *de minimis* finding will be offered in combination with the required public hearing comment period (15-day pre-hearing and 15-day post hearing comment period).

Upon expiration of the 30-day public comment period, if comments are received, they will be provided to the OWJ to take into consideration. It is anticipated that the OWJ will concur with these measures and the *de minimis* use of the Veteran's Memorial Parkway Trail in a signed letter. After which, this section will be updated.

FHWA's approval of this CE document will constitute the issuance of the *de minimis* finding.

Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert

The Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert is located on the north side of US 231 just north of Iowa Street, and it was originally constructed c.1870 to carry the Panhandle Railroad (later the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad) over an unnamed tributary (UNT). The cut stone, horseshoe-arched culvert is made of limestone. The Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert is significant under Criteria A and C for its association with the themes of transportation and economic development, and for its engineering significance. The culvert has been determined to be eligible for listing on the NRHP.

This undertaking will not convert property from the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert, a Section 4(f) historic property, to a transportation use. INDOT, acting on FHWA's behalf, has determined the appropriate Section 106 finding is "No Adverse Effect" therefore, no Section 4(f) evaluation is required for the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert.

Section 6(f) Involvement

Presence

Use

Section 6(f) Property

Yes

No

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

The U.S. Land and Water Conservation Fund Act of 1965 established the Land and Water Conservation Fund (LWCF), which was created to preserve, develop, and assure accessibility to outdoor recreation resources. Section 6(f) of this Act prohibits conversion of lands purchased with LWCF monies to a non-recreation use. A review of Section 6(f) properties on the INDOT ESD website revealed fifty-four properties in Lake County that have received LWCF funding (Appendix I, page I-1). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources.

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SECTION F – Air Quality

STIP/TIP and Conformity Status of the Project

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

Yes	No
X	
X	
X	
X	
X	

NOTE: Funds need to be moved from fiscal year 2025 to 2026. The INDOT PM indicated this project is in the NIRPC's 24-04.1 Amendment which is in INDOT's A24-MPO-36 currently at FHWA waiting for approval.

Location in STIP: N/A
 Name of MPO (if applicable): Northwestern Indiana Regional Planning Commission
 Location in TIP (if applicable): Page 44 of 80

Level of MSAT Analysis required?

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

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

The project is located within the Fiscal Year (FY) 2024-2028 NIRPC Transportation Improvement Plan (TIP) (Appendix H, page H-4). The 2024-2028 NIRPC TIP was incorporated by reference into the FY 2024-2028 Indiana Statewide Transportation Improvement Plan (STIP) (Appendix H, pages H-1 to H-3).

This project is located in Lake County, which is designated as a maintenance area for 1997 8-hour Ozone according to the EPA website <https://www.epa.gov/green-book/green-book-8-hour-ozone-1997-area-information-naaqs-revoked>. This project has been identified as being exempt from air quality analysis in accordance with 40 CFR Part 93.126 and this project is not a project of air quality concern (40 CFR Part 93.123). Therefore, the project will have no significant impact on air quality.

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

SECTION G - NOISE

Noise

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

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

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

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

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SECTION H – COMMUNITY IMPACTS

Regional, Community & Neighborhood Factors

Will the proposed action comply with the local/regional development patterns for the area?

Will the proposed action result in substantial impacts to community cohesion?

Will the proposed action result in substantial impacts to local tax base or property values?

Will construction activities impact community events (festivals, fairs, etc.)?

Does the community have an approved transition plan?

If No, are steps being made to advance the community's transition plan?

Does the project comply with the transition plan? (explain in the discussion below)

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

The U.S. Department of Housing and Urban Development (HUD) was consulted as part of the early coordination process regarding possible regional, community or neighborhood factors associated with this project. No response was received. On May 21, 2024, Metric conducted an on-line review of the Indiana Festivals website (<http://www.indianafestivals.org>). There are no events identified within or near the project area that would be potentially impacted during construction of the project. No impact is expected.

The Americans with Disabilities Act (ADA) requires a transition plan by local and state governments. Such a plan includes how the government will remove barriers to accessibility over time for persons with disabilities, such as installing curb ramps at intersections, making a web site accessible for persons with low vision, ensuring public meetings are fully accessible to persons with disabilities and other related issues. Lake County has an approved ADA transition plan which will comply with the goals of the project.

This project will not change the general development patterns, population density, or residential or commercial growth rate of the project area. Furthermore, there will be no permanent impacts to community cohesion, local mobility, access, pedestrian or motorist safety or emergency services as a result of the project. The project will not have any adverse impacts on the local tax base or property values.

Public Facilities and Services

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

Based on a desktop review, a review of the aerial map of the project area (Appendix B, page B-3), and the RFI report (Appendix E, page E-2), there are no public facilities/managed lands located within the 0.5 mile search radius. There are no public facilities located within or adjacent to the project area, which was confirmed by the site visit conducted on August 18, 2022, by Metric Environmental. Therefore, no impacts are expected. Access to all properties will be maintained during construction.

There are public utilities located throughout the project area. Utility relocation of overhead utility poles is anticipated, and coordination is currently on-going, although no significant disruption of service is anticipated.

The Office of the Lake County Surveyor responded on November 15, 2022, that there do not appear to be any bench marks and / or section corners within the project area. However, if during construction, undocumented perpetuated section corners or bench marks are encountered, please adhere to the recommendations provided in their letter (Appendix C, pages C-39 to C-42). All applicable recommendations are provided in the *Environmental Commitments* section of this document.

The INDOT Office of Aviation responded on March 26, 2024, that no tall structure permit is required for the project if all equipment being used is under 200 ft. in height (Appendix C, page C-38).

On April 27, 2023, the Lake County Highway Department indicated a drainage complaint regarding the ditch along the southerly side of US 231 west of Iowa, as well as a drainage complaint west of Iowa Street approximately 850 ft. north of US 231 (Appendix C, page C-43). A response was not sent to the Lake County Highway Department.

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

Relocation of People, Businesses or Farms

Will the proposed action result in the relocation of people, businesses or farms?

Is a BIS or CSRS required?

Yes

No

X
X

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

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

No relocations of people, businesses or farms will be necessary to complete the proposed project.

SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Documentation

Hazardous Materials & Regulated Substances (Mark all that apply)

Red Flag Investigation (RFI)

Phase I Environmental Site Assessment (Phase I ESA)

Phase II Environmental Site Assessment (Phase II ESA)

Design/Specifications for Remediation required?

X

Date RFI concurrence by INDOT SAM (if applicable): March 9, 2023

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

Based on a review of GIS and available public records, and a RFI completed by Metric Environmental on March 7, 2023, and INDOT-SAM Unit provided their concurrence on March 9, 2023 (Appendix E, page E-5). No sites with hazardous material concerns (hazmat sites) or sites involved with regulated substances were identified in or within 0.5 mile of the project area. Further investigation for hazardous material concerns or regulated substances is not required at this time.

Due to the RFI over two years old, Metric Environmental coordinated with INDOT SAM, on March 25, 2025, regarding one additional NPDES facility located 0.45 mile southwest of the project area since the RFI was approved on March 9, 2023. INDOT SAM indicated since the NPDES facility will not cause any additional coordination an addendum to the RFI or a new RFI is not necessary (Appendix C, page C-44).

The Veteran's Memorial Parkway Trail is a planned asphalt rail-trail located on abandoned railroad tracks that runs parallel to US 231, southeast-northwest through the project area. Coordination with the Lake County Parks and Recreation Department has been conducted as part of the Section 4(f) *de minimis* determination.

Part IV – Permits and Commitments

PERMITS CHECKLIST

Permits (mark all that apply)

Likely Required

Army Corps of Engineers (404/Section10 Permit)

Nationwide Permit (NWP)

Regional General Permit (RGP)

Individual Permit (IP)

Other

X

IN Department of Environmental Management (401/Rule 5)

Nationwide Permit (NWP)

Regional General Permit (RGP)

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Permits (mark all that apply)

Likely Required

Individual Permit (IP)

Isolated Wetlands

Rule 5

Other

X
X

IN Department of Natural Resources

Construction in a Floodway

Navigable Waterway Permit

Other

X

Mitigation Required

US Coast Guard Section 9 Bridge Permit

Others (Please discuss in the discussion below)

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

The project will require an IDEM Construction Stormwater General permit due to the disturbance of more than 1.0 acre of land.

An IDEM Isolated Wetlands/Waters of the State Permit will be required for the permanent impacts to Wetlands A and B. The USACE will likely authorize the permanent wetland impacts with a Section 404 Regional General Permit. It is estimated this project will require purchase of 0.732 acres of emergent wetland mitigation credits from the IDNR Stream and Wetland mitigation Program (INSWMP) Kankakee Service Area. The IDEM and the USACE will determine the final credits to be purchased during the permitting process.

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

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

ENVIRONMENTAL COMMITMENTS

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

Firm:

1. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT LaPorte District)
2. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
3. Any work in a wetland area within INDOT's right of way or in borrow/waste areas is prohibited unless specifically allowed in the US Army Corps of Engineers or IDEM permit. (INDOT EWPO)

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4. Specialized fencing will be installed along the construction limits to prohibit encroachment upon Wetland A beyond the construction limits. Areas of Wetland A outside the construction limits will be labeled "Do Not Disturb" on the project plans. (INDOT ESD)
5. General AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)
6. Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
7. Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to the extent practicable to avoid tree removal in excess of what is required to implement the project safely. (USFWS)
8. Tree Removal AMM 2: Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/ rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. (USFWS)
9. Tree Removal AMM 3: Ensure tree removal is limited to that specified in project plans. Install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits. Ensure that contractors understand clearing limits and how they are marked in the field. (USFWS)
10. Lighting AMM 2: When installing new or replacing lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illumination Engineering Society, be as close to 0 for all three ratings with a priority of uplight of 0 and backlight as low as practicable. (USFWS)
11. Tree Removal AMM 4: Do not remove documented Indiana bat or NLEB roosts (that are still suitable for roosting) or trees within 0.25 mile of roosts or documented foraging habitat at any time of year. (USFWS)
12. Be advised that any monumentation that is directly or indirectly impacted with the proposed project, must be replaced/restored to its original condition or better by INDOT or the contractor, and is subject to conditions set forth by the Lake County Surveyor's Office or its agents. Indiana Code 36-2-12-1 et. seq. and other applicable statutes and/or ordinances. (Lake County Surveyor)
13. Any Section Corner disturbed or removed must be re-established by an Indiana Registered Land Surveyor and/or Professional Engineer. All witness references must be tied to the newly established Section Corner, and ALL documentation immediately forwarded to the Lake County Surveyor's Office for its records. (Lake County Surveyor)
14. Any Benchmark in danger of disturbance must be replaced with a Brass Monument and must have an elevation established by an Indiana Registered Land Surveyor and/or Professional Engineer. The elevation must be tied to an existing USC&GS benchmark, and ALL documentation immediately forwarded to the Lake County Surveyor's Office for its records. (Lake County Surveyor)
15. All visible stamped or tagged survey monuments found in rights-of-way that may be destroyed by construction or maintenance activities must be perpetuated under the supervision of a licensed Indiana Professional Land Surveyor. (Lake County Surveyor)

For Further Consideration:

16. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting from April 1 through September 30. (IDNR-DFW)
17. The International Dark-Sky Association has developed recommendations for communities choosing LED lighting systems that will aid in the selection of lighting that is energy and cost efficient, yet ensures safety and security, protects wildlife, and promotes the goal of reducing light pollution. Please see <https://www.darksky.org/our-work/lighting/lighting-for-citizens/led-guide/>. (IDNR-DFW)

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18. Revegetate all bare and disturbed areas that are not currently mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Central Indiana as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only. A native herbaceous seed mixture must include at least 5 species of grasses and sedges and 5 species of wildflowers. (IDNR-DFW)
19. Any new/replacement/rehabilitated crossing structures, and any bank stabilization under or around the structures, must not create conditions that are less favorable for wildlife passage when compared to existing conditions. (IDNR-DFW)
20. Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. (IDNR-DFW)
21. Do not clear trees or understory vegetation outside the construction zone boundaries. (USFWS)
22. Implement temporary erosion and sediment control methods within areas of disturbed soil. All disturbed soil areas upon project completion will be vegetated following INDOT's standard specifications. (USFWS)
23. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels, and diversion fencing. (USFWS)

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Preliminary Jurisdictional Determination Form.....	F-17

APPENDIX G - Public Involvement

Sample Notice of Entry Letter.....	G-1
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APPENDIX H - Air Quality

2024-2028 FHWA/INDOT TIP Amendment Approval Letters.....	H-1
2024-2028 NIRPC TIP Project Listing.....	H-4

APPENDIX I - Additional Studies

Lake County LWCF List.....	I-1
Engineer's Report.....	I-2

APPENDIX A

INDOT Supporting Documentation

Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4 ¹
Section 106	Falls within guidelines of Minor Projects PA	“No Historic Properties Affected”	“No Adverse Effect”	-	“Adverse Effect” Or Historic Bridge involvement ²
Stream Impacts³	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	USACE Individual 404 Permit ⁴
Wetland Impacts³	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
Right-of-way⁵	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations⁶	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)*	“No Effect”, “Not likely to Adversely Affect” (With select AMMs ⁷)	“Not likely to Adversely Affect” (With any AMMs or commitments)	-	“Likely to Adversely Affect”	Project does not fall under Species Specific Programmatic ⁸
Threatened/Endangered Species (Any other species)*	Falls within guidelines of USFWS 2013 Interim Policy or “No Effect”	“Not likely to Adversely Affect”	-	-	“Likely to Adversely Affect”
		-	-	-	
Sole Source Aquifer	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Section 4(f) Impacts	None	-	-	-	Any ¹⁰
Section 6(f) Impacts	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes ¹¹
Approval Level					
<ul style="list-style-type: none"> District Env. (DE) Env. Serv. Div. (ESD) FHWA 	Concurrence by DE or ESD	DE or ESD	DE or ESD	DE and/or ESD	DE and/or ESD; and FHWA

¹ Coordinate with INDOT Environmental Services Division. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.

² Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.

³ Total permanent impacts to streams (linear feet) and wetlands (acres).

⁴ US Army Corps of Engineers Individual 404 Permit

⁵ Total permanent and temporary right-of-way. This does not include reacquisition of existing apparent right-of-way.

⁶ If [REDACTED] greater than 5 relocations, a conversation with FHWA, through INDOT ESD, is needed to confirm NEPA classification and outreach plan for the project.

⁷ Avoidance and Mitigation Measures (AMMs) determined by the IPAC determination key to be required that are not tree AMMs, bridge AMMs, or structure AMMs.

⁸ Projects that do not fall under a Species Specific Programmatic and results in a “Likely to Adversely Affect”. Other findings can be processed as a lower-level CE.

¹⁰ Section 4(f) use resulting in an Individual, Programmatic, or *de minimis* evaluation. The only exception is a *de minimis* evaluation for historic properties (Effective January 2, 2020). If a historic property *de minimis* and no other use, mark the *None* column.

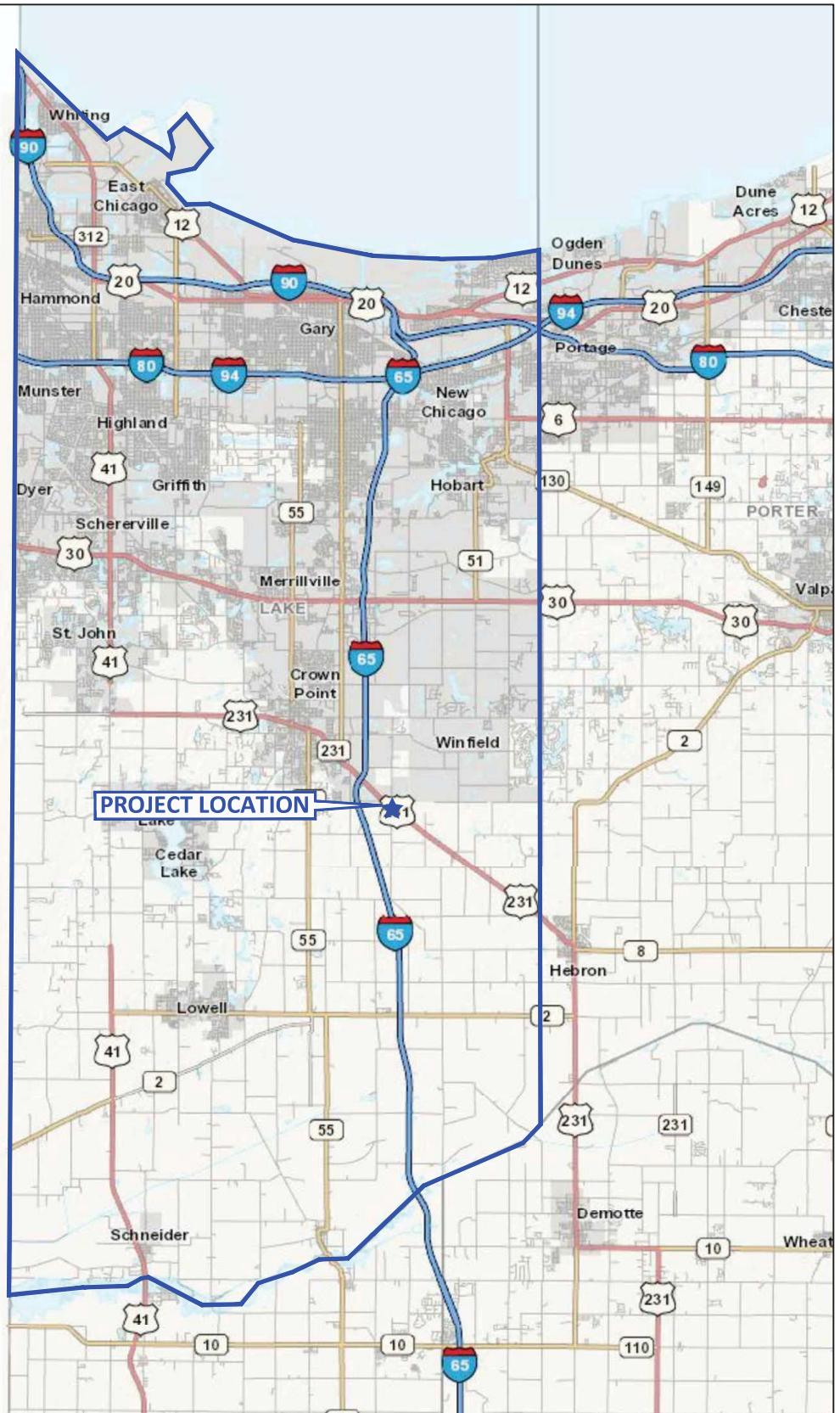
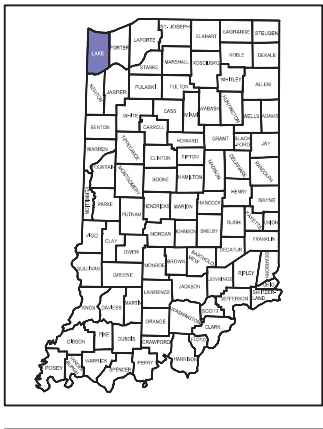
¹¹ Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

* Includes the threatened/endangered species critical habitat

Note: Substantial public or agency controversy may require a higher-level NEPA document.

APPENDIX B

Graphics



ILLINOIS

PROJECT LOCATION

P:\2023\22-0002 INDOT-LFA - RFP 220112 LaPorte District PDS\5 - Deliverables\Exhibits\Task 1\CAD Files\Location Map.dwg

Source: <http://maps.indiana.edu/>

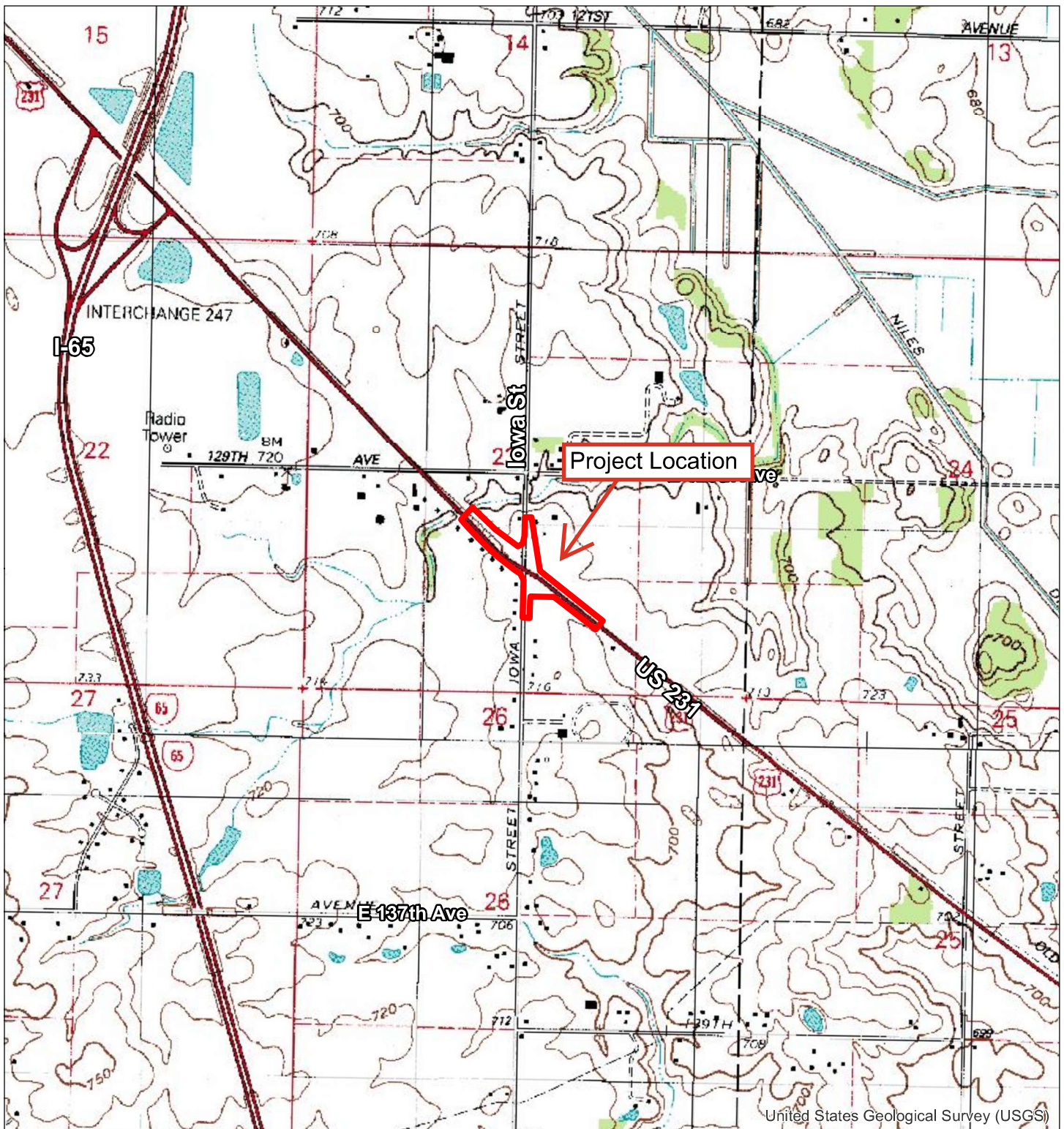
Project Location Map

Intersection Improvement Project
Des. No. 2003097
US 231 at Iowa Street
Center Township, Lake County, Indiana

All locations approximate



Drawn by: ILJ
Checked by: ES
Approved by: LBH
Date: August, 2022



USGS Topographic Map

Intersection Improvement Project
 Des. No. 2003097
 US 231 at Iowa Street
 Center Township, Lake County, Indiana

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



0 0.125 0.25 0.5
 Miles





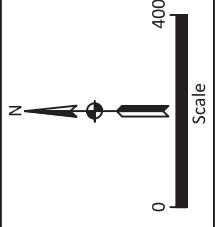
P:\2022\22-0002 INDOT-LFA - RFP 220112 LaPorte District PDS\5 - Deliverables\Exhibits\Task 1\CAD Files\Topo & Aerial.dwg

Source: <https://portico.mygisonline.com/html5/?viewer=lakeinsurveyor>

2021 Aerial Photograph

Intersection Improvement Project
Des. No. 2003097
US 231 at Iowa Street
Center Township, Lake County, Indiana

Note: All locations are approximate



Drawn by: ILJ
Checked by: ES
Approved by: LBH
Date: August, 2021



Photo 1. View Looking Southeast along US 231 toward the Iowa Street Intersection



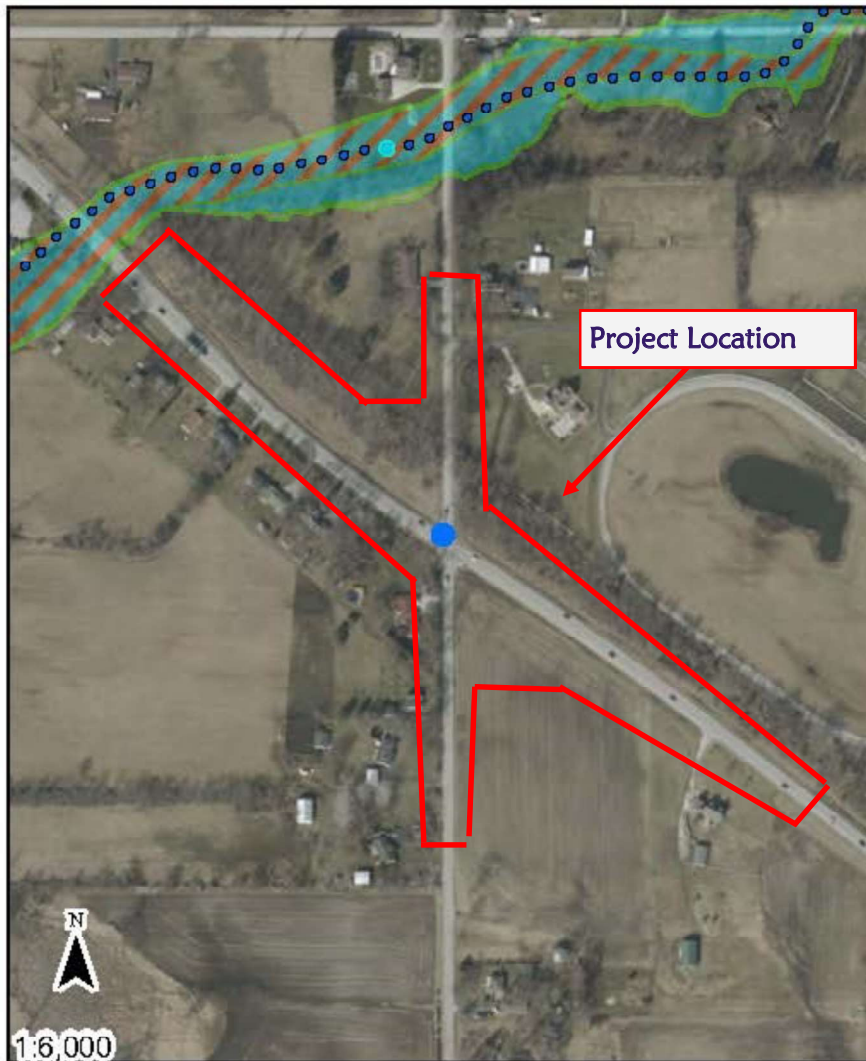
Photo 2. View Looking North along the South Approach of Iowa Street and US 231 Intersection



Photo 3. View Looking Northwest along US 231 toward the Iowa Street Intersection



Photo 4. View Looking South along the North Approach of Iowa Street and US 231 Intersection



- Point of Interest
- Base Flood Elevation Point
- POI
- 1.0
- ▨ FEMA Zone AE Floodway; FEMA Administrative Floodway
- ▨ FEMA Zone AE
- ▨ Additional Floodplain Area; DNR .2 Percent Flood Hazard
- ▨ Not Mapped

Long: -87.3065496178243

Lat: 41.38063759475714

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

County: **Lake**

Approximate Ground Elevation: **711.9 feet (NAVD88)**

Stream Name:

Base Flood Elevation: **695.7 Feet (NAVD88)**

Niles Ditch Tributary Ns

Drainage Area: **Not Available**

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

National Flood Hazard Zone: **Not Mapped**

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

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

Floodplain Administrator: **No Floodplain Administrator Name Available**

Community Jurisdiction: **Lake County, County proper**

Phone: **No Phone Number Available**

Email: **No Email Address Available**

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

Date Generated: 10/23/2024

IDNR Floodplain Map

Intersection Improvement Project
US 231 at Iowa Street
Des. No. 2003097
Center Township, Lake County, IN



PROJECT	DESIGNATION
2003097	2003097
CONTRACT	R-43925

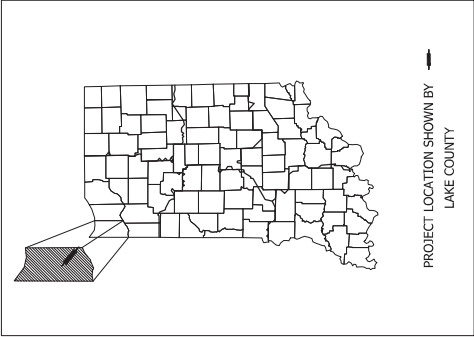
INDIANA DEPARTMENT OF TRANSPORTATION



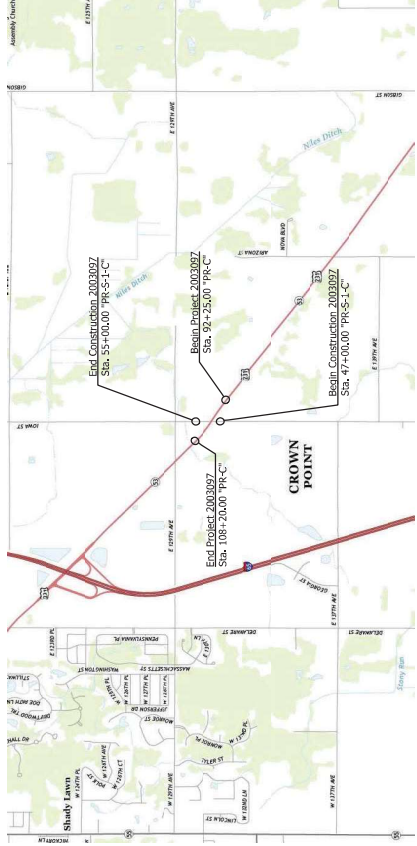
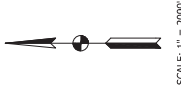
ROAD PLANS

ROUTE: U.S. 231 AT: RP 287+71
PROJECT NO. 2003097 P.E.
2003097 R/W
2003097 CONST.

TRAFFIC DATA	U.S. 231	IOWA STREET
AAADTT	8,702 V/DAY	2,375 V/DAY
ADADTT	2,175 V/DAY	593 V/DAY
DAADTT	1,034 V/DAY	379 V/DAY
DIRECTIONAL DISTRIBUTION	55.61 %	47.63 %
TRUCKS	6.80 % AAADTT	5.16 % AAADTT
	5.29 % DAADTT	1.28 % DAADTT
DESIGN DATA		
DESIGN SPEED	55 MPH	40 MPH
PROJECT DESIGN CRITERIA	RECONSTRUCTION (NON-FREEWAY)	RECONSTRUCTION (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	MINOR ARTERIAL	LOCAL AGENCY COLLECTOR
DESIGN LANE	2 LANE	2 LANE
DESIGN LANE	2 LANE	2 LANE
ACCESS CONTROL	NONE	NONE



LATITUDE: 41°22'50"N	LONGITUDE: 87°18'23"W
GROSS LENGTH: 0.33 MI.	
NET LENGTH: 0.33 MI.	
MAX. GRADE: 2.62 %	
HYDROLOGIC UNIT CODE (S): 04040001030040, 07120001130020	



PROGRESS PLANS
AUGUST 15, 2024

INDIANA DEPARTMENT OF TRANSPORTATION
CONTRACT SPECIFICATIONS ADDED 2024
TO BE USED WITH THESE PLANS

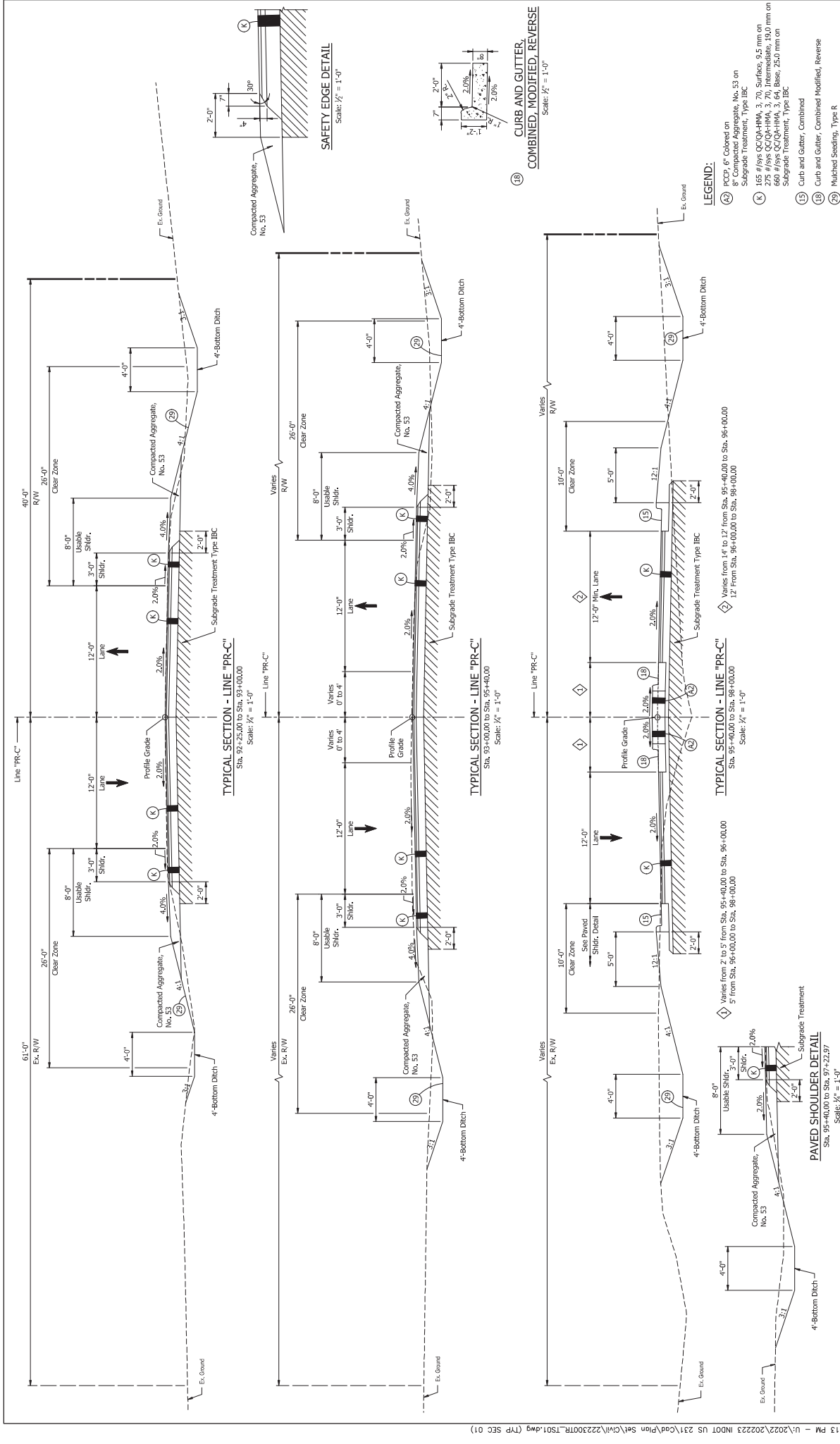


LAWSON-FISHER ASSOCIATES P.C.
525 W. WASHINGTON AVENUE
SOUTH BEND, INDIANA 46601
PH. (574) 234-3167

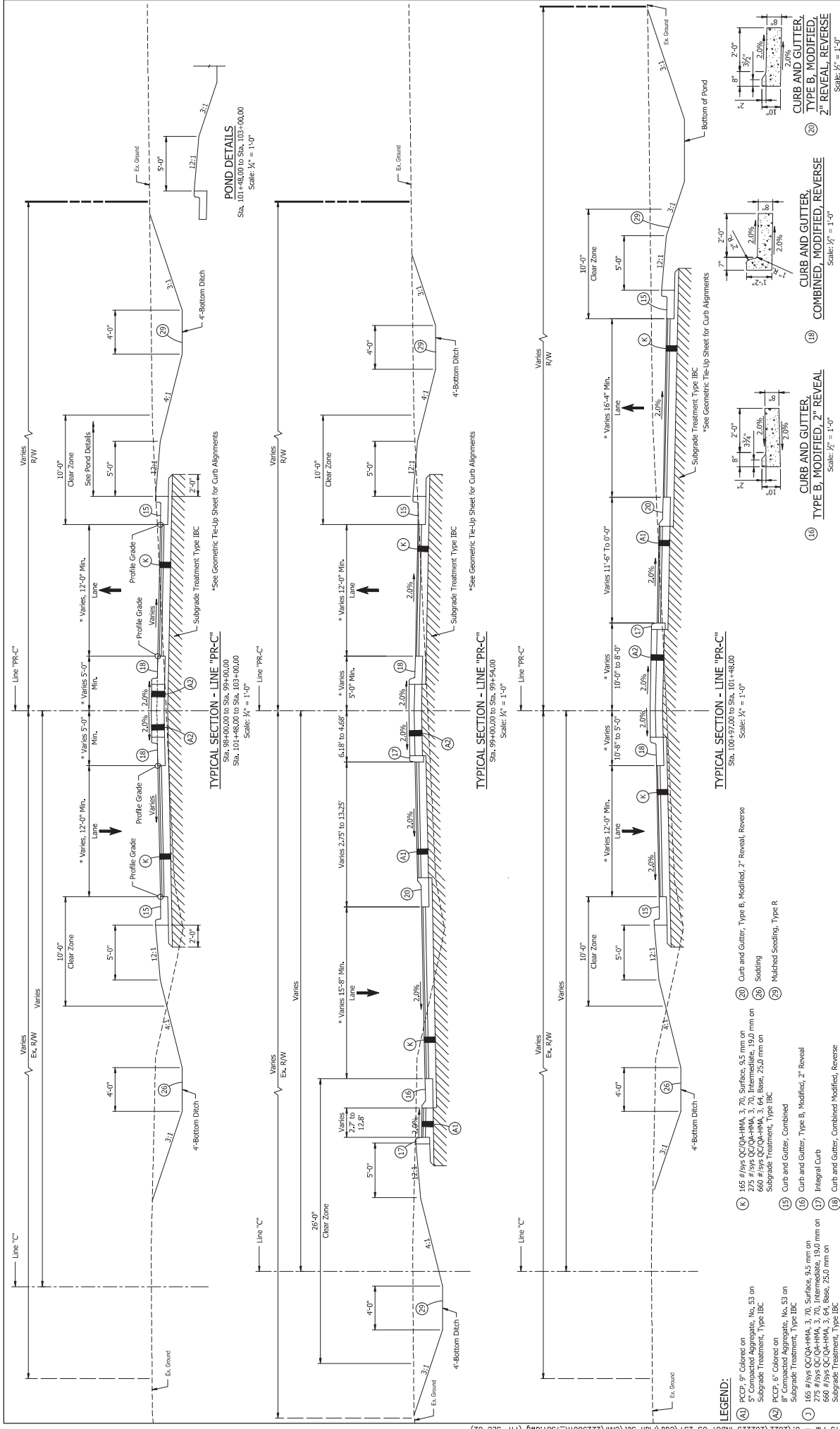
NOT FOR
CONSTRUCTION

PLANS PREPARED BY:	LAWSON-FISHER ASSOC. P.C.	574-234-3167	PHONE NUMBER
CERTIFIED BY:			DATE
APPROVED FOR LETTING:			DATE

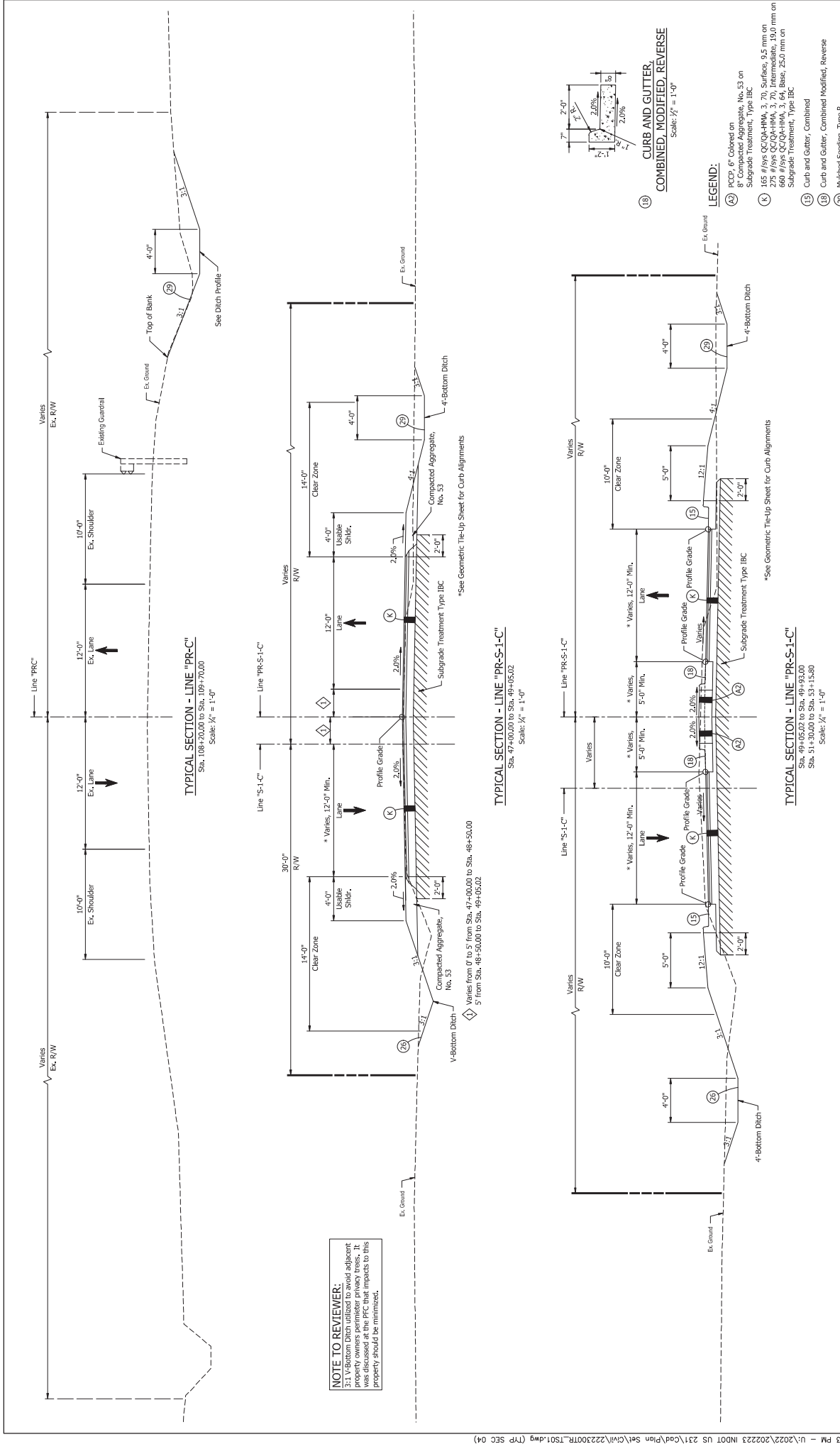
DESIGNATION	2003097
SURVEY BOOK	
SHEETS	1 of 68
PROJECT	R-43925
CONTRACT	2003097



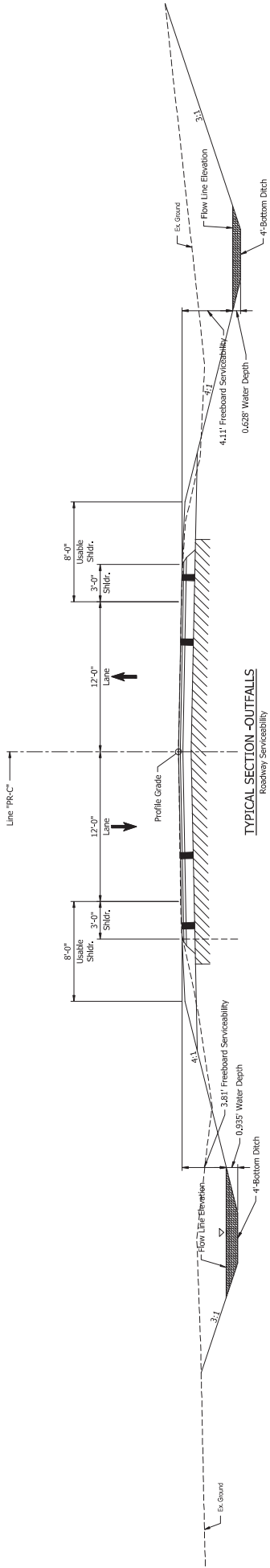
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		DEPARTMENT OF TRANSPORTATION	
		TYPICAL SECTIONS	
		LINE "PR-C"	
	DATE	DESIGN ENGINEER	SCALE
			AS NOTED
			DESIGNATION
			2003097
	DRAWN: GSH	CHECKED: JSD	SURVEY BOOK
			3
			SHEETS
			1 of 68
	PROJECT	CONTRACT	PROJECT
			8-43925
			2003097
			2003097



NOT FOR CONSTRUCTION	RECOMMENDED FOR APPROVAL		INDIANA	
	DESIGN ENGINEER		DEPARTMENT OF TRANSPORTATION	
	DATE			
	DESIGNED: DJT	DRAWN: GSH		
	CHECKED: JGD	CHECKED: JGD		
		TYPICAL SECTIONS		
		LINE "PR-C"		
		SURVEY BOOK		
		4 of 68		
		CONTRACT		
		PROJECT		
		R-43925		
		2003097		



NOT FOR CONSTRUCTION	RECOMMENDED FOR APPROVAL		INDIANA DEPARTMENT OF TRANSPORTATION	
	DESIGNED, DIT	DATE		
	CHECKED, DGO		TYPICAL SECTIONS	
	CHECKED, DGO		LINE "PR-C" & "PR-S-1-C"	
			SURVEY BOOK	SHEETS
			6	68
			CONTRACT	PROJECT
			8-43925	2003097
			SCALE	BRIDGE FILE
			1/4" = 1'-0"	DESIGNATION
				2003097

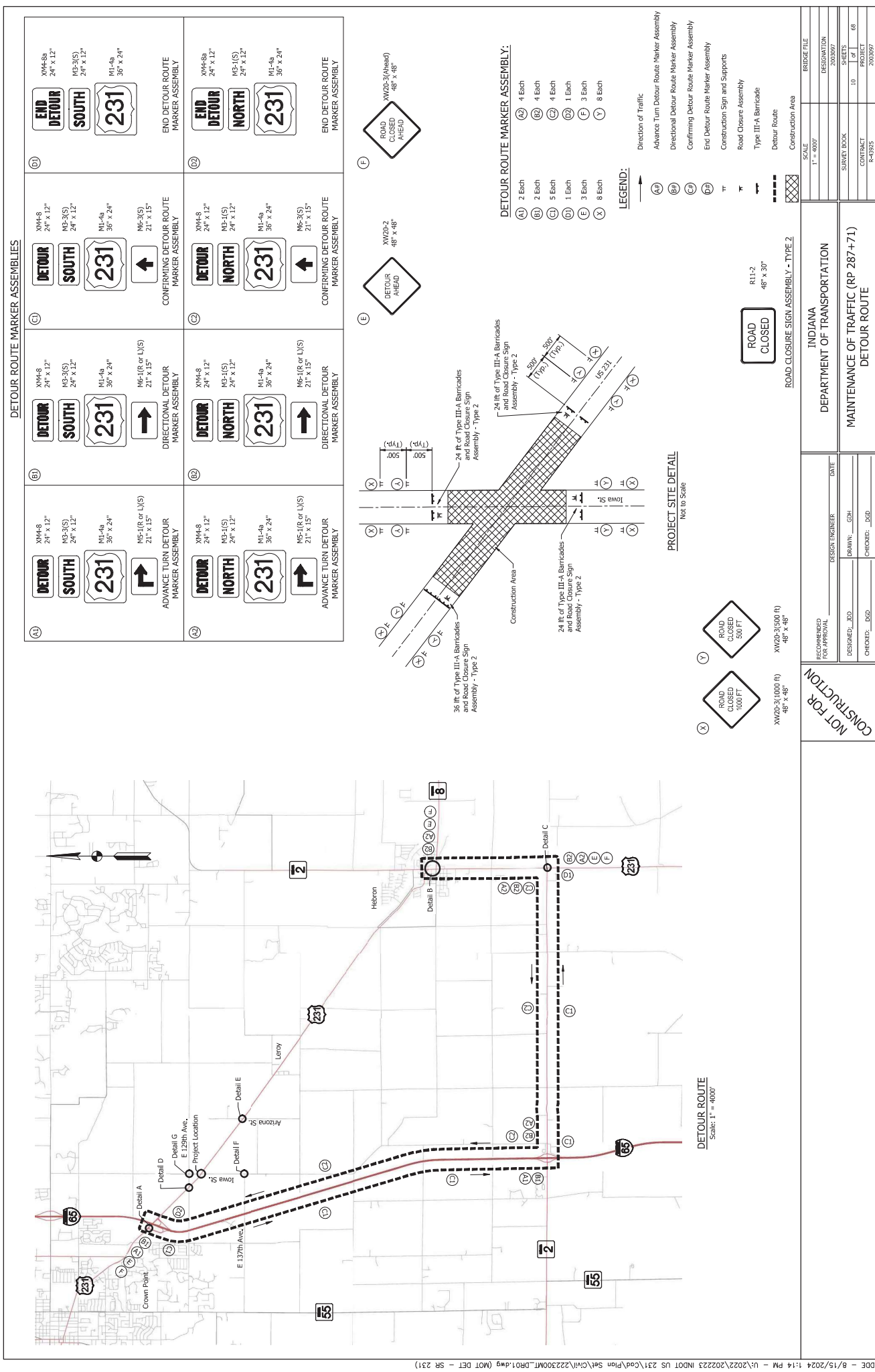


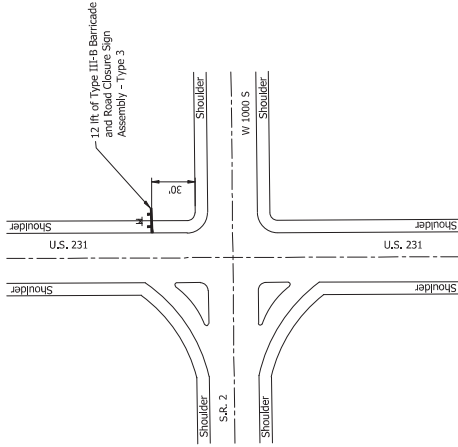
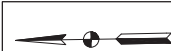
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BRIDGE FILE	
DESIGNATION	2003097
SURVEY BOOK	
CONTRACT	8-43925
PROJECT	
SHEETS	7 of 68
2003097	

INDIANA DEPARTMENT OF TRANSPORTATION
TYPICAL SECTIONS DITCH FREEBOARD

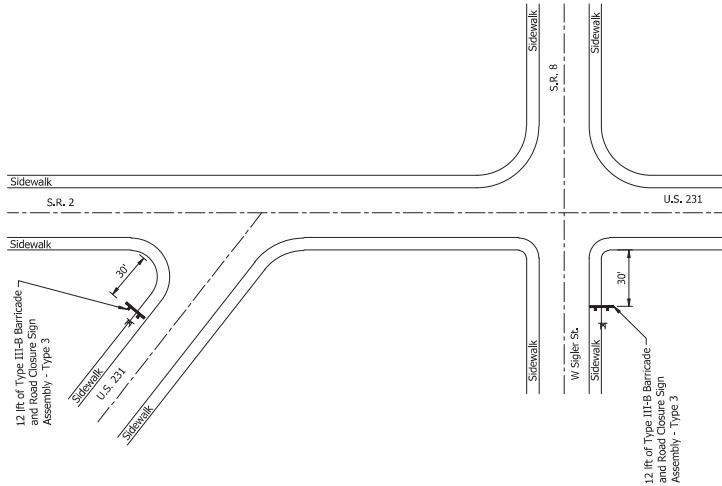
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NOT FOR
CONSTRUCTION

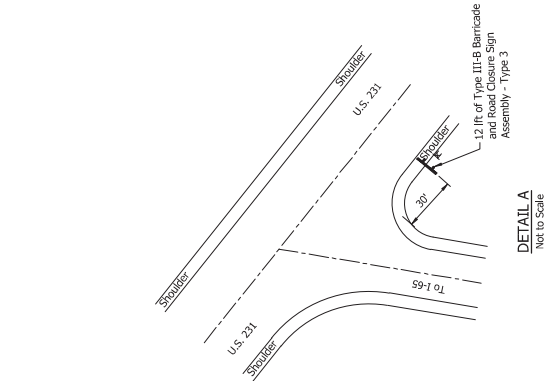




DETAIL C
Not to Scale



DETAIL B
Not to Scale



DETAIL A
Not to Scale

ESTIMATE OF QUANTITIES		
ITEM	QUANTITY	UNIT
Maintaining Traffic	1	Lump Sum
Construction Sign Type B	22	Each
Barricade Type III-A	108	Lf
Barricade Type III-B	168	Lf
Detour Route Sign Assemblies	23	Each
Road Closure Sign Assemblies Type 1	4	Each
Road Closure Sign Assemblies Type 2	4	Each
Road Closure Sign Assemblies Type 3	4	Each

GENERAL NOTES:

1. Install construction signs as shown on plans and as directed.
2. Traffic shall be detoured along S.R. 2 and I-65.
3. All type 'A' construction signs to have low intensity flashing yellow light, type 'A'.
4. All materials, procedures, signs, markings, and miscellaneous items shall conform to the Indiana Department of Transportation (INDOT) Manual of Specifications and the Indiana Manual on Uniform Traffic Control Devices, and revisions thereto.
5. Contractor shall notify local fire department, police, ambulance services, and schools of the work schedule and temporary traffic layouts.

ROAD CLOSED
AHEAD
LOCAL TRAFFIC ONLY

RL1-3
60" x 30"

DETOUR

XXM-10(R or L)
48" x 18"

ROAD CLOSURE SIGN ASSEMBLY - TYPE 3

ROAD CLOSED
MILES AHEAD
LOCAL TRAFFIC ONLY

RL1-3
60" x 30"

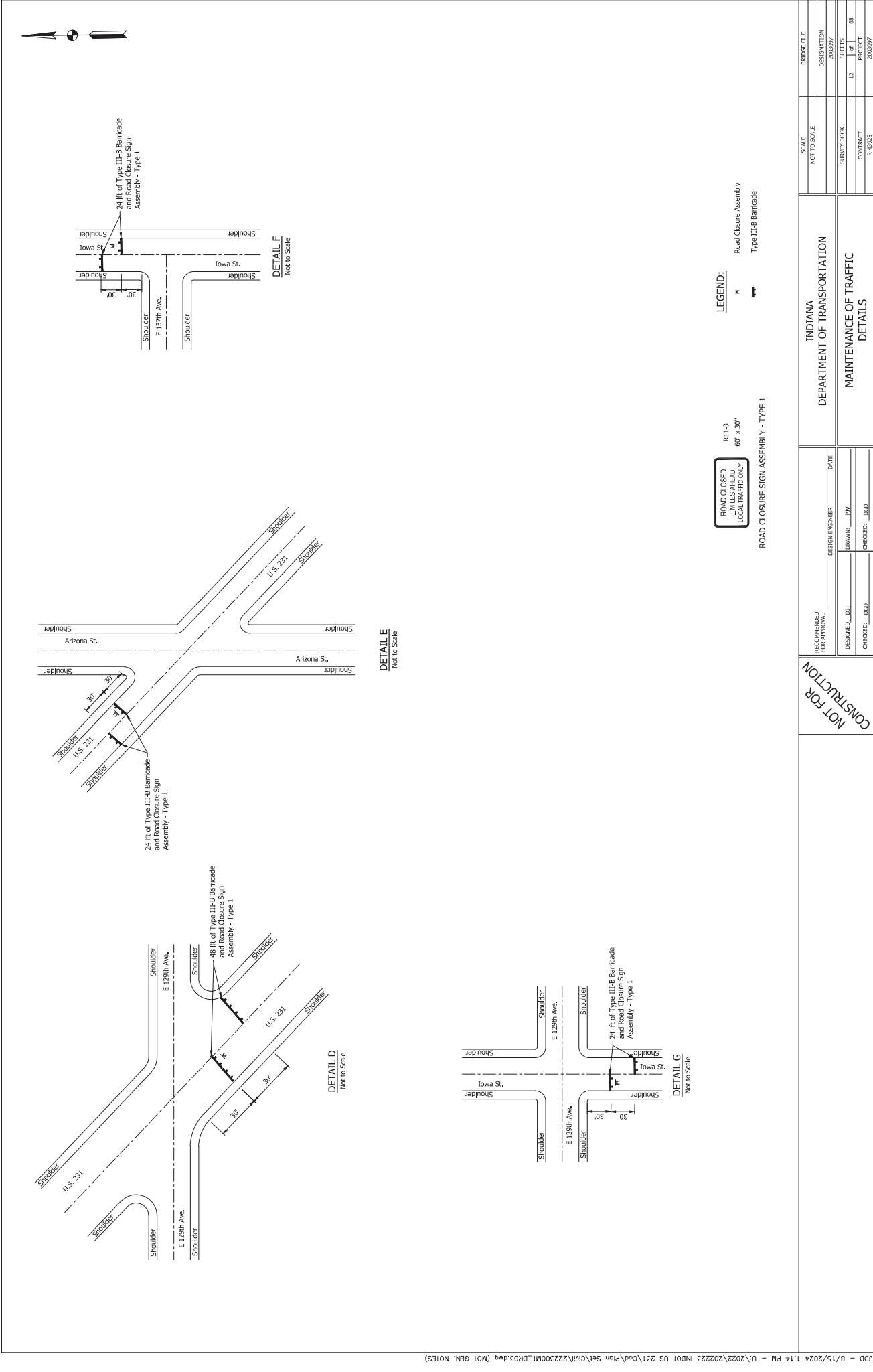
ROAD CLOSURE SIGN ASSEMBLY - TYPE 1

LEGEND:

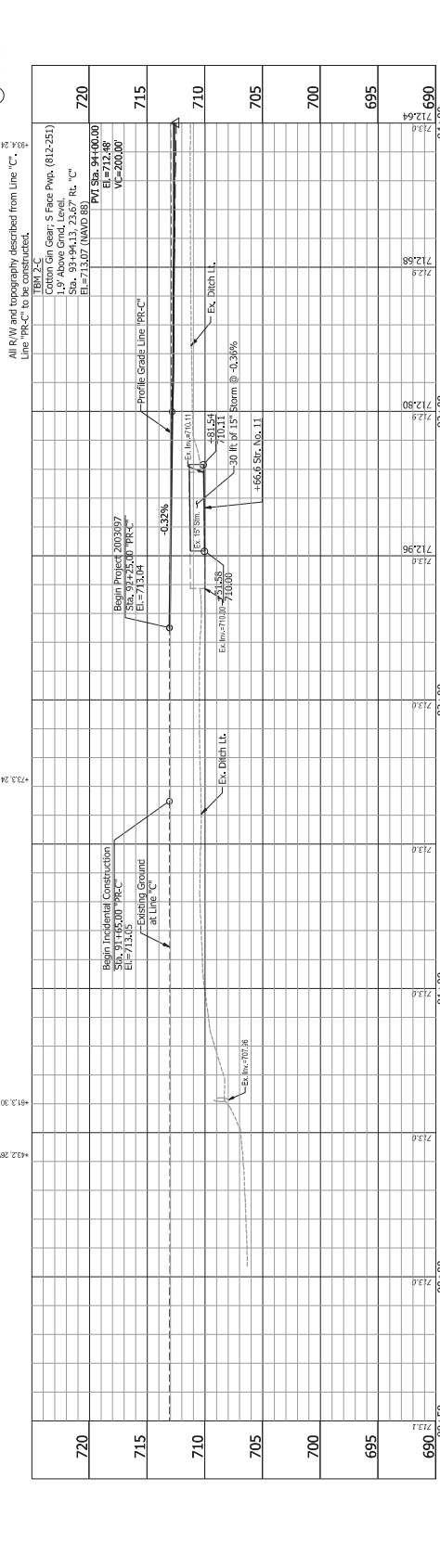
ROAD Closure Assembly

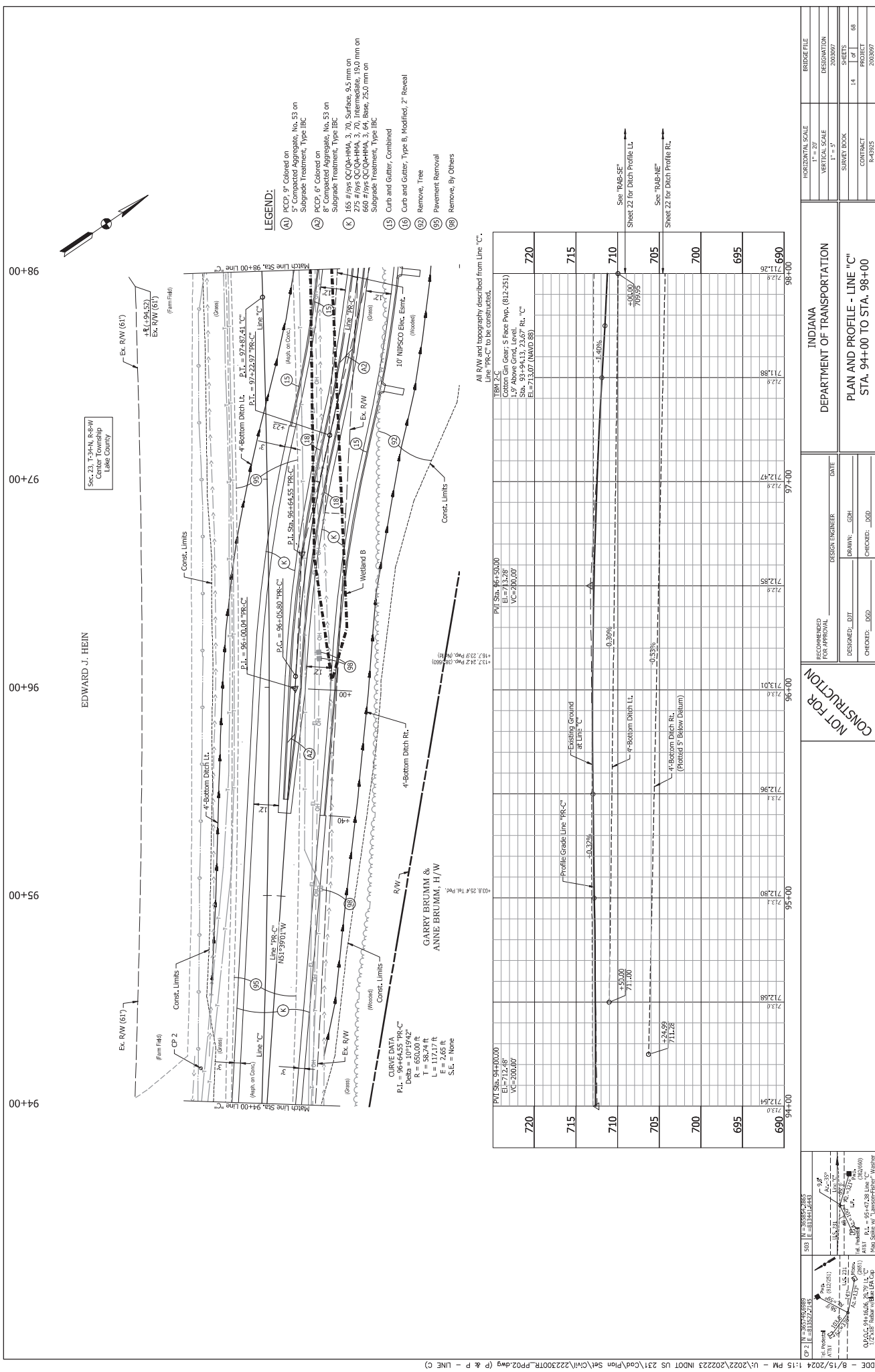
Type III-B Barricade

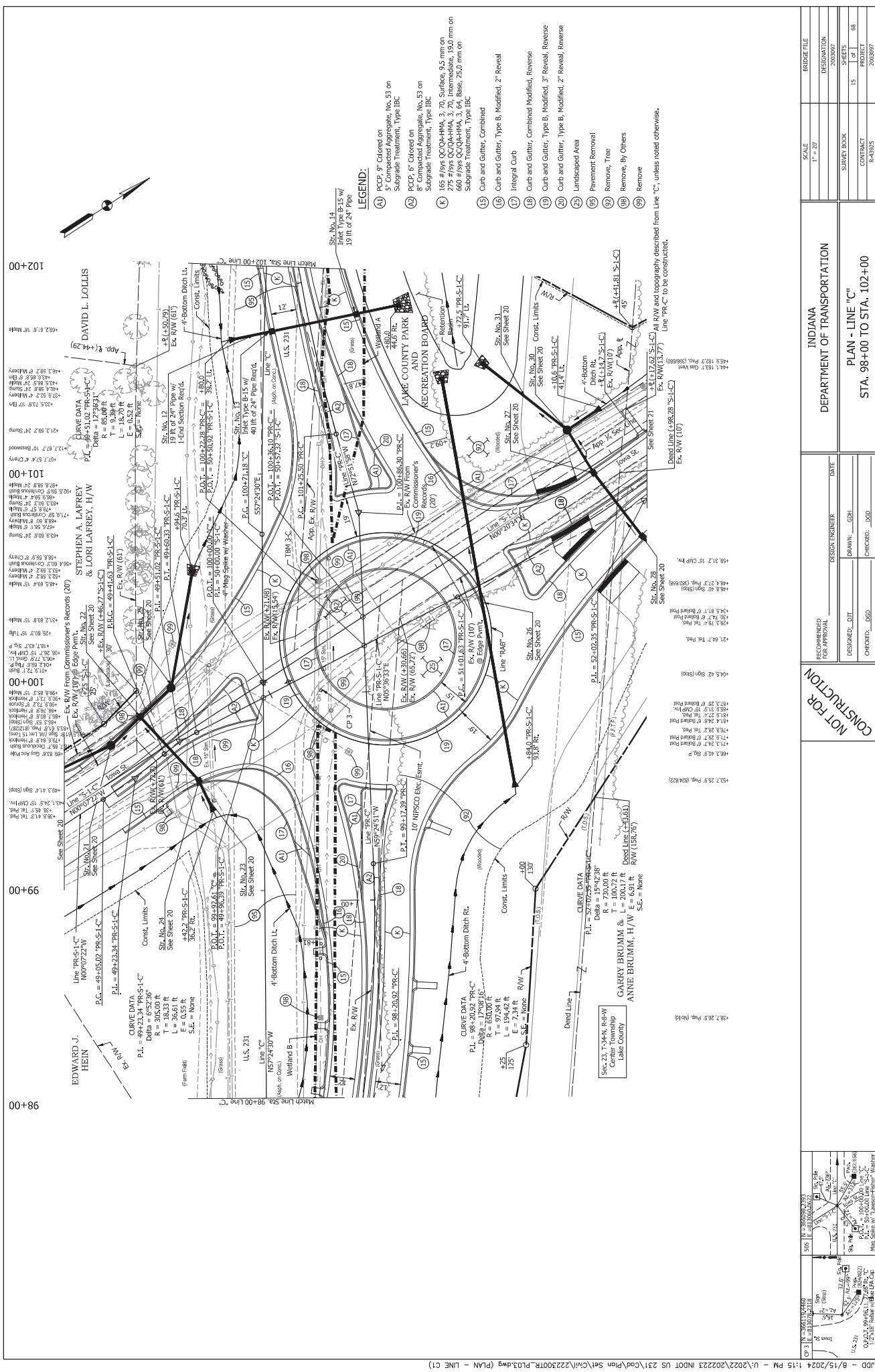
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					2003097
	DATE		SURVEY BOOK		
	DRAWN: PY		SHEETS		
	DESIGNED: DJT		11 of 68		
	CHECKED: DGD		PROJECT		
	CHECKED: DGD		CONTRACT		
			R-43925		
		2003097			



RECOMMENDED FOR APPROVAL	INDIANA		SCALE	BRIDGE FILE
	DEPARTMENT OF TRANSPORTATION		NOT TO SCALE	DESIGNATION
				200397
				200397
DESIGNED: DIT	MAINTENANCE OF TRAFFIC		SURVEY BOOK	SHEETS
	DETAILS		12	of 68
			CONTRACT	PROJECT
			8-43925	200397



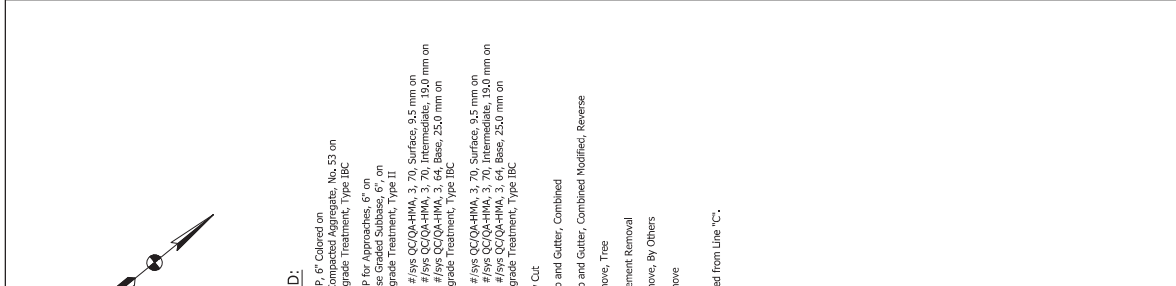


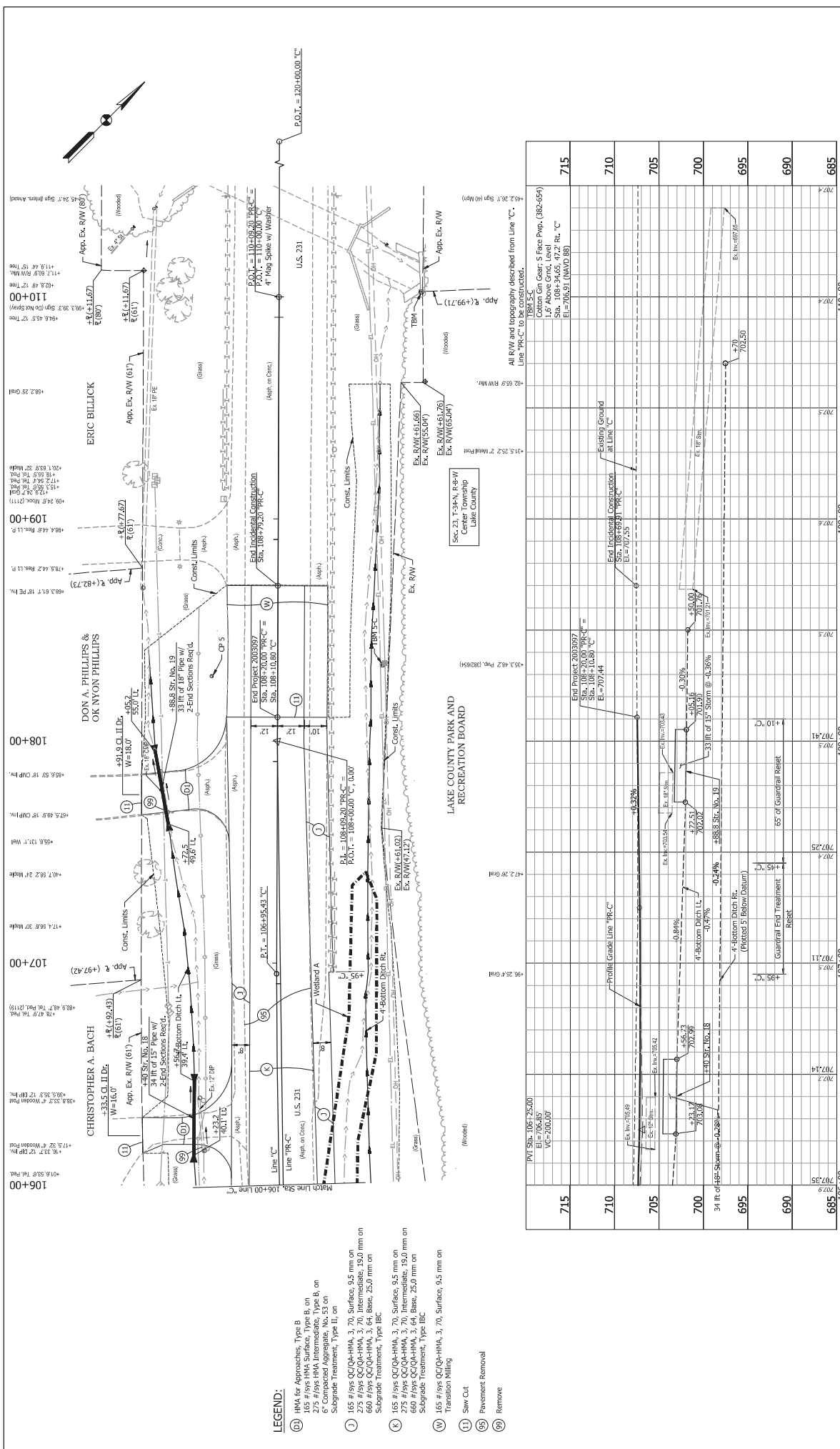


DAVID L. LOLLIS
STEPHEN A. LAFREY & LORI LAFREY, H/W
CURVE DATA
Date = 10/10/2023
P.C. = 98+51.00 TRS-5-C
P.T. = 100+00.00 S-C
L = 488.97 ft
E = 0.52 ft
S.C. = None

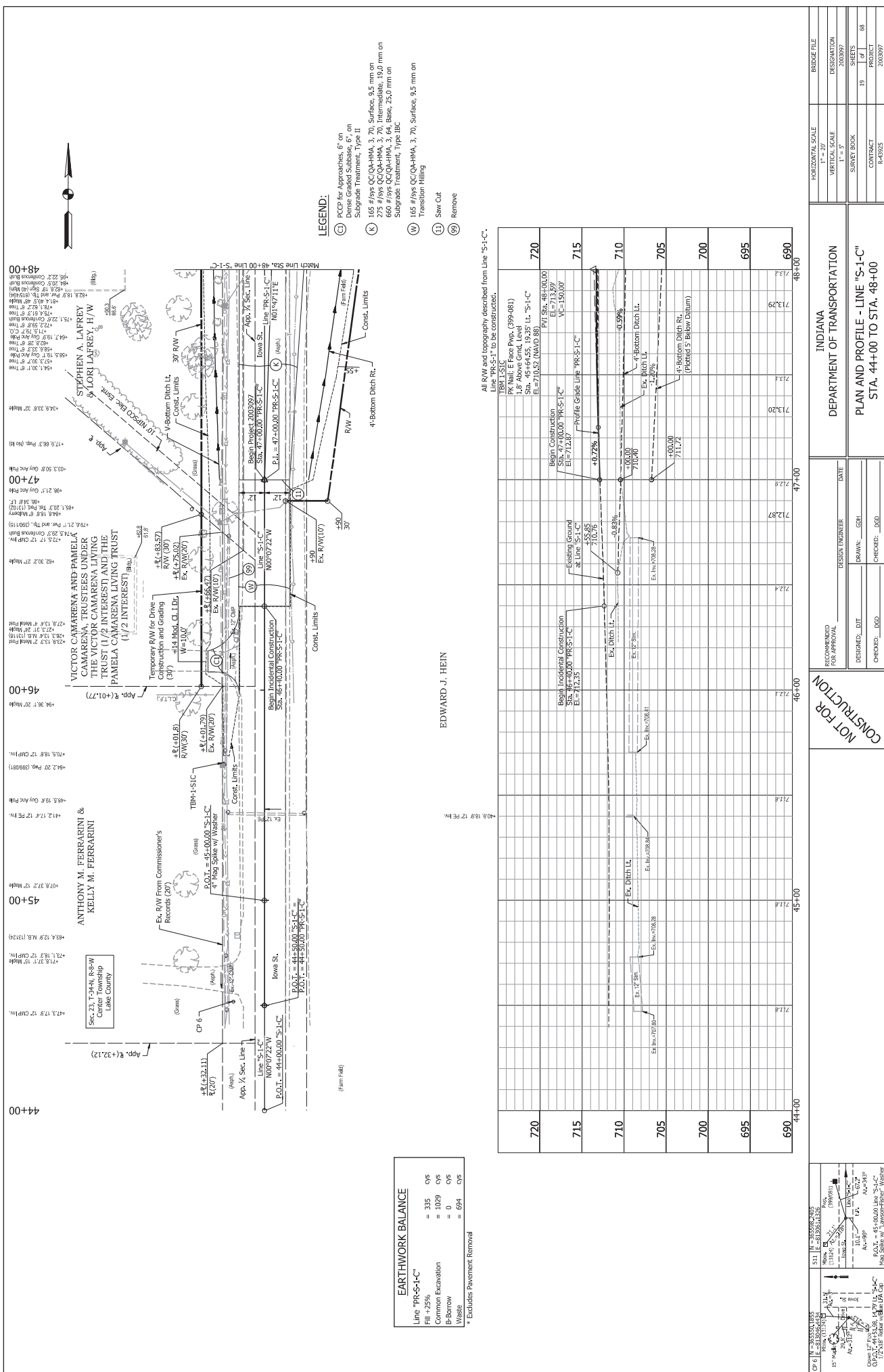
EDWARD J. HEIN
CURVE DATA
Date = 10/10/2023
P.C. = 99+23.34 TRS-5-C
P.T. = 100+00.00 S-C
L = 76.66 ft
E = 0.55 ft
S.C. = None

LEGEND:
(A) PCOP, 9" Colored on 5" Compacted Aggregate, No. 59 on Subgrade Treatment, Type IBC
(A2) PCOP, 6" Colored on 8" Compacted Aggregate, No. 59 on Subgrade Treatment, Type IBC
(K) 165 #/ys OCQA-HMA, 3/70 Surface, 5.5 mm on 475 #/ys OCQA-HMA, 3/70 Intermediate, 5.0 mm on 475 #/ys OCQA-HMA, 3/70 Base, 2.0 mm on Subgrade Treatment, Type IBC
(15) Curb and Gutter, Combined
(16) Curb and Gutter, Type B, Modified, 2" Reveal
(17) Integral Curb
(18) Curb and Gutter, Combined Modified, Reverse
(19) Curb and Gutter, Type B, Modified, 3" Reveal, Reverse
(20) Curb and Gutter, Type B, Modified, 2" Reveal, Reverse
(21) Landscaped Area
(22) Pavement Removal
(23) Remove, Tree
(24) Remove, By Others
(25) Remove





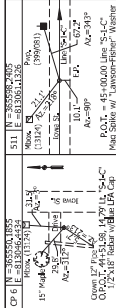
<p>CP 4 N = 36500.1132 E = 110000.0000 ELEVATION = 595.55</p>	<p>106+00 107+00 108+00 109+00 110+00</p>	<p>INDIANA DEPARTMENT OF TRANSPORTATION</p>	<p>RECOMMENDED FOR APPROVAL</p> <p>DESIGN ENGINEER DATE</p> <p>DESIGNED: DJT DRAWN: GSH</p> <p>CHECKED: DGD CHECKED: DGD</p>	<p>HORIZONTAL SCALE 1" = 20'</p> <p>VERTICAL SCALE 1" = 5'</p> <p>SURVEY BOOK</p> <p>SHEETS 18</p> <p>CONTRACT PROJECT</p> <p>2003697 2003697</p>	<p>BRIDGE FILE</p>
-----------------------------------------------------------------------	-------------------------------------------	-------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------



EARTHWORK BALANCE	
Line "PR-S-1-C"	
Fill +25%	335 CYS
Common Excavation	1029 CYS
B-Borrow	0 CYS
Waste	694 CYS
* Excludes Pavement Removal	

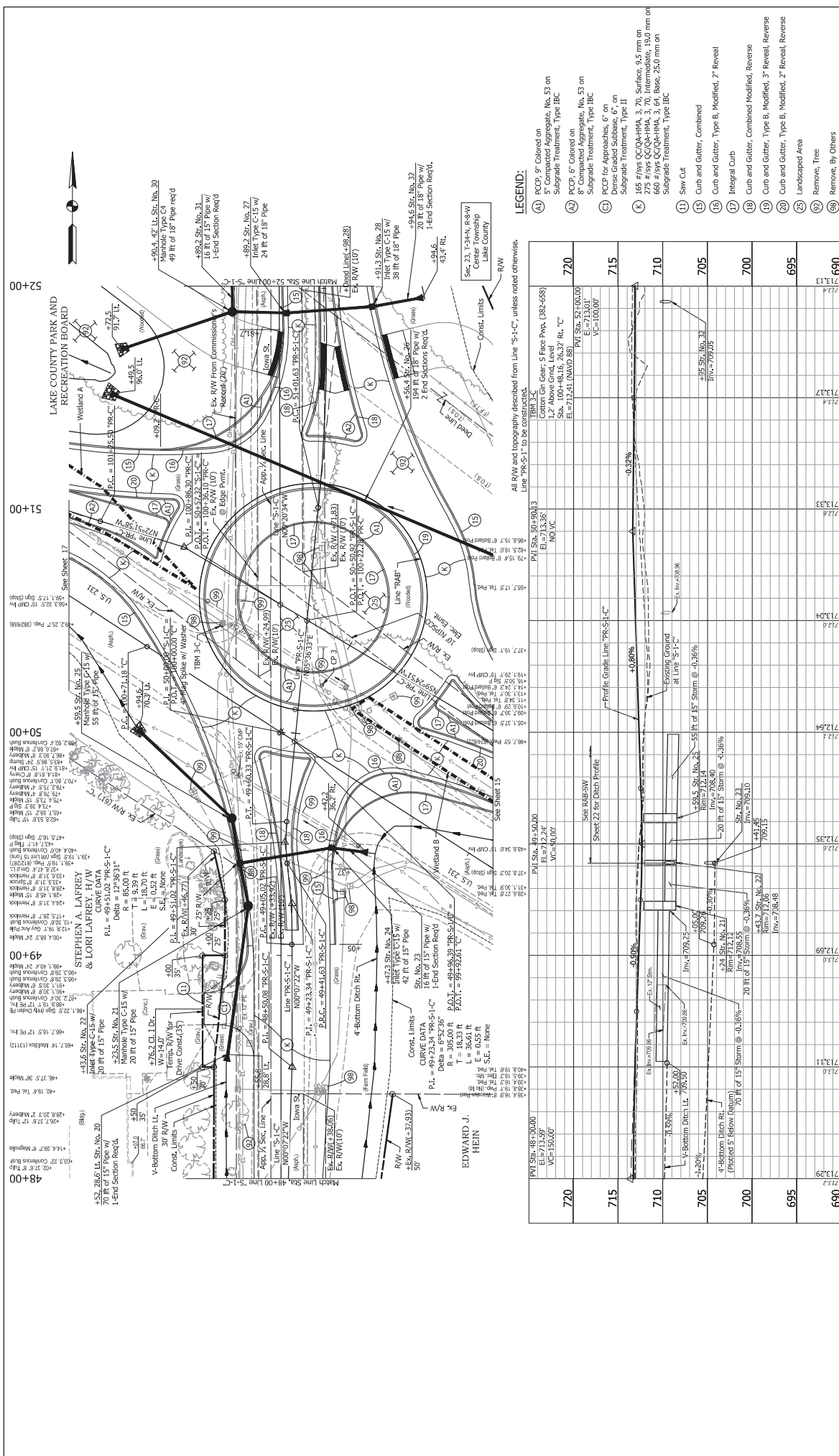
LEGEND:

- (C) PC/P for Approaches, 6' on Dense Graded Subbase, 6' on Subgrade Treatment, Type II
- (K) 165 #/ys CC/QA-HMA 3.70 Surface, 9.5 mm on 275 #/ys CC/QA-HMA 3.70 Intermediate, 19.0 mm on 675 #/ys CC/QA-HMA 3.70 Base, 23.0 mm on Subgrade Treatment, Type IBC
- (M) 165 #/ys CC/QA-HMA 3.70 Surface, 9.5 mm on Transition Filling
- (I) Saw Cut
- (R) Remove



NOT FOR CONSTRUCTION

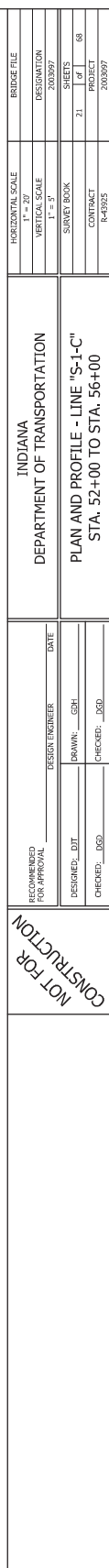
RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE	
DESIGNED: DIT		DRAWN: GSH		CHECKED: JSD	
CHECKED: JSD		DESIGNED: JSD		DATE	
INDIANA		DEPARTMENT OF TRANSPORTATION		PLAN AND PROFILE - LINE "S-1-C"	
BRIDGE FILE		HORIZONTAL SCALE		STA. 44+00 TO STA. 48+00	
DESIGNATION		VERTICAL SCALE		1" = 5'	
SHEETS		SURVEY BOOK		19	
PROJECT		CONTRACT		R-43925	
2003997		2003997		2003997	

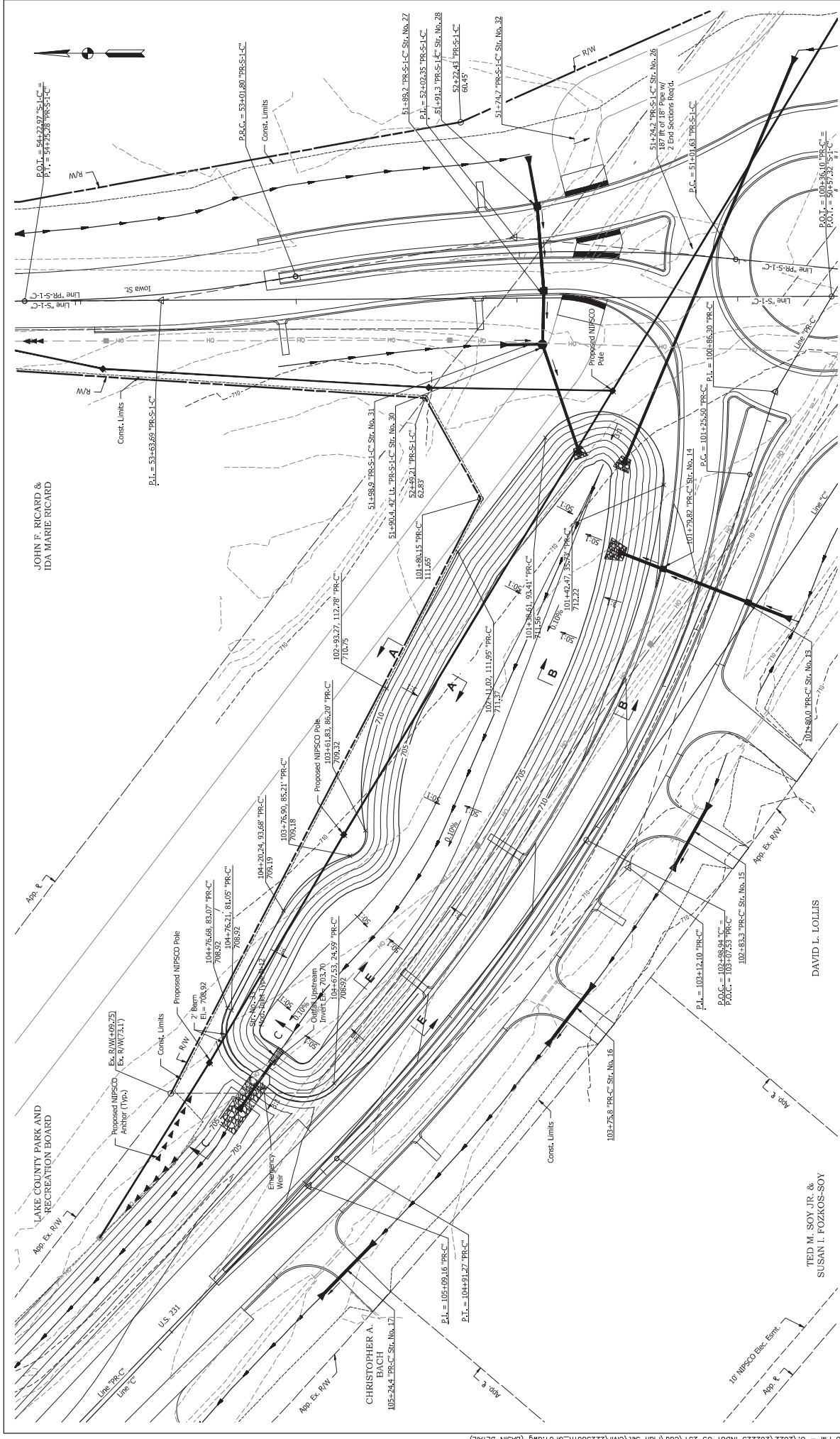


INDIANA		DEPARTMENT OF TRANSPORTATION		PLAN AND PROFILE - LINE "S-1-C"	
STA. 48+00 TO STA. 52+00		NOT FOR CONSTRUCTION			
RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE	
DESIGNED, DIT		DRAWN: CSH		CHECKED: JSD	
CHECKED: JSD		DESIGNED, DIT		CHECKED: JSD	
BRIDGE FILE		DISSEMINATION		SHEETS	
1" = 20'		1" = 5'		20	
2003597		2003597		PROJECT	
2003597		2003597		CONTRACT	
2003597		2003597		R-43925	

LEGEND:

- (A) PCOB 9" Colored on 5" Compacted Aggregate, No. 53 on Subgrade Treatment, Type IBC
- (B) PCOB 6" Colored on 8" Compacted Aggregate, No. 53 on Subgrade Treatment, Type IBC
- (C) PCOB for Approaches, 6" on Dense Graded Subbase, 6" on Subgrade Treatment, Type II
- (K) 165 #9ys OCQA-HMA, 3, 70, Surface, 9.5 mm on 275 #9ys OCQA-HMA, 3, 70, Intermediate, 13.0 mm on 660 #9ys OCQA-HMA, 3, 64, Base, 25.0 mm on Subgrade Treatment, Type IBC
- (1) Saw Cut
- (15) Curb and Gutter, Combined
- (16) Curb and Gutter, Type B, Modified, 2" Reveal
- (17) Integral Curb
- (18) Curb and Gutter, Combined Modified, Reverse
- (19) Curb and Gutter, Type B, Modified, 3" Reveal, Reverse
- (20) Curb and Gutter, Type B, Modified, 2" Reveal, Reverse
- (25) Landscaped Area
- (9) Remove Tree
- (96) Remove By Others



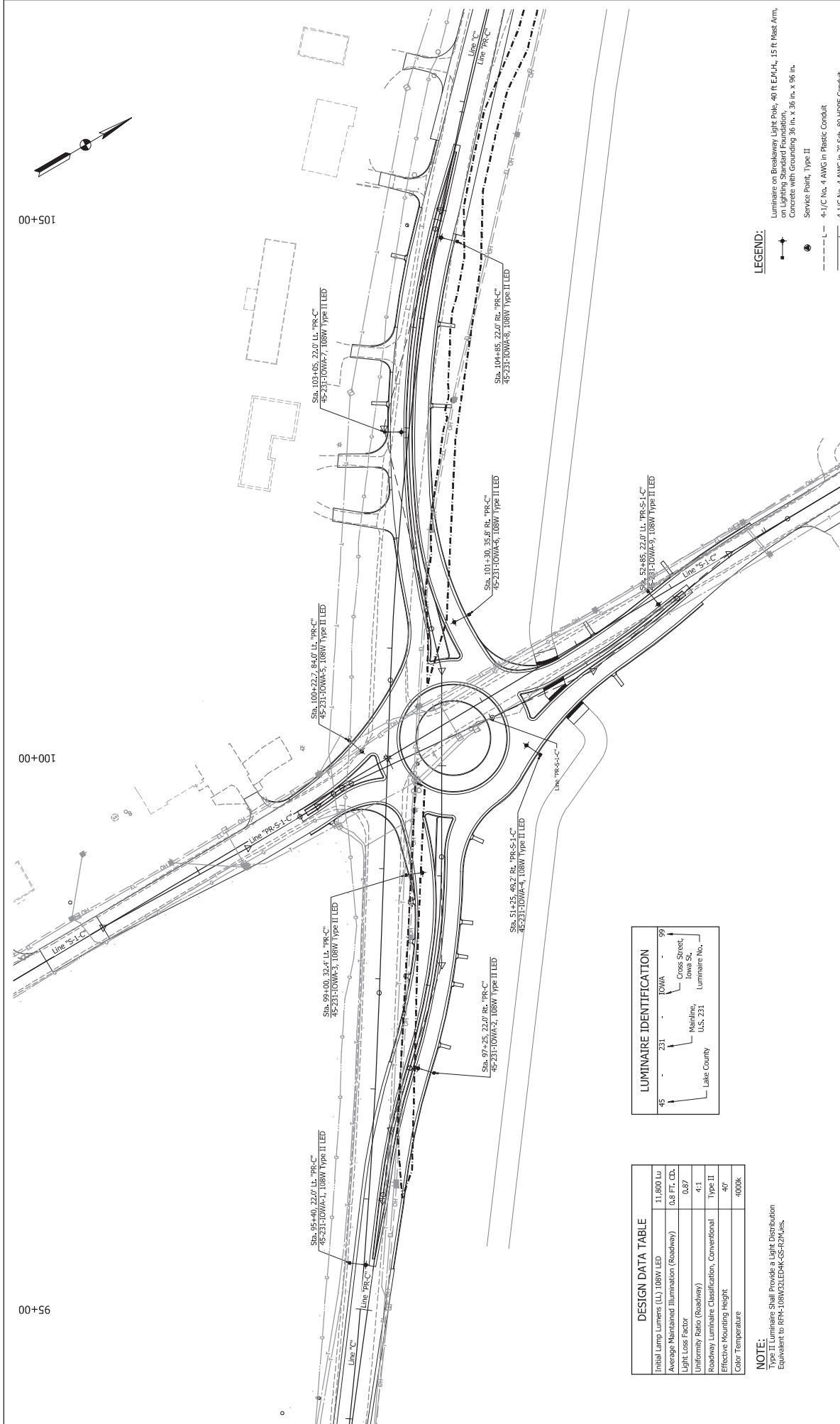


JOHN F. RICARD &
IDA MARIE RICARD

DAVID L. LOLLIS

TED M. SOY JR. &
SUSAN L. FOZKOS-SOY

NOT FOR CONSTRUCTION	RECOMMENDED FOR APPROVAL _____				DESIGN ENGINEER _____		DATE _____		INDIANA DEPARTMENT OF TRANSPORTATION				SCALE 1" = 20'		BRIDGE FILE	
	DESIGNED: DJT				DRAWN: GSH										DESIGNATION 200397	
	CHECKED: JED				CHECKED: DJT										200397	
											SURVEY BOOK		SHEETS		200397	
											CONTRACT		PROJECT		200397	
											R-43925					



Initial Lamp Lumens (LL) 108W LED	11,800 Lu
Average Maintained Illumination (Roadway)	0.8 FT. CD.
Light Loss Factor	0.87
Uniformity Ratio (Roadway)	4:1
Roadway Luminaire Classification, Conventional	Type II
Effective Mounting Height	40'
Color Temperature	4000K

NOTE:
Type II Luminaire Shall Provide a Light Distribution Equivalent to RFM-108W32LED4K-G5-R2M,ies.

LUMINAIRE IDENTIFICATION

Address	City	County	Notes
45 -	-	-	Mainline, U.S. 231 Lake County
231 -	TOWA	-	Cross Street, Iowa St. Luminaire No.
99	-	-	

LEGEND:

- Service Point, Type II

NOT FOR CONSTRUCTION	RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE
	INDIANA DEPARTMENT OF TRANSPORTATION				
	SCALE		1" = 40'		BRIDGE FILE
	DESIGNATION		2003097		
	SHEET		78		68
	PROJECT		CONTRACT		2003097
	R-43025				
	SURVEY BOOK				
	LIGHTING PLAN		LINE "PR-C"		
	DESIGNED: JED		DRAWN: GSH		
CHECKED: JED		CHECKED: JED			

APPENDIX C

Early Coordination



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758
Indianapolis, Indiana 46204

PHONE: (855) - INDOT 4U

Eric J. Holcomb, Governor
Michael Smith, Commissioner

November 15, 2022

Sample Early Coordination Letter

{See Attached List}

Re: Early Coordination
Designation Number (Des. No.) 2003097
Intersection Improvement Project
US 231 at Iowa Street
Center Township, Lake County, Indiana

Dear Agency:

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

The project is located at the intersection of US 231 and Iowa Street, southeast of the Town of Crown Point in Lake County, Indiana. Specifically, the project is located in Section 23, Township 34 North, Range 8 West, as illustrated on the Crown Point, Indiana 7.5 minute United States Geological Survey (USGS) topographic quadrangle.

US 231 is classified as a Rural Minor Arterial and provides one travel lane in each direction. The posted speed limit on US 231 is 55 miles per hour (mph). Iowa Street is classified as a Rural Minor Collector and provides one travel lane in each direction. The posted speed limit on Iowa Street is 55 mph. Land use in the project area is residential, commercial, and agricultural.

The purpose of this project is to address the operational safety characteristics of the intersection that contribute to a higher-than-normal number of crashes. The need for this project is due to the high frequency of crashes at this intersection. Crash data analysis determined a total of 34 recorded crashes took place within the project limits during the three-year crash study period (2017 through 2019). The analysis resulted in an Index of Crash Frequency (ICF) of 4.53, indicating that the crash frequency at this intersection is in the 99th percentile compared to similar intersections. Of the 25 right angle crashes, 14 involved southbound through-traffic crossing US 231, while the other nine involved northbound through-traffic crossing US 231.

The proposed project would construct a single-lane roundabout at the intersection. The anticipated length of roadway approach work is 800 feet along the west approach of US 231, 900 ft along the east approach, and 400 feet along the north and south approaches of Iowa Street. Enclosed drainage and a detention basin are proposed to drain the new intersection to existing ditches and swales within the project area. All private drive approaches located within the project limits will be designed in accordance with the applicable INDOT standards. New lighting will be installed along all four legs of the new roundabout per design standards.

Additional permanent right-of-way will be required to complete this project; however, the exact amount is not yet known. Temporary right-of-way may also be required for access. The right-of-way needs will be determined as the project design advances.

The maintenance of traffic plan is still under development; however, it is anticipated that a full closure of the US 231 and Iowa Street Intersection will be required. The proposed detour route would utilize I-65, SR 2, and US 231. The total travel length of the detour is approximately 14.7 miles, with an additional travel length of 6.5 miles.

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic and archaeological properties. The Section 106 process involves efforts to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. The Area of Potential Effects (APE) is the area in which the proposed project may cause alterations in the character or use of historic resources. At this time, no cultural resource investigations have occurred; however, the results of cultural resource identification and evaluation efforts, both above-ground and archaeological, will be forthcoming. Coordination with the INDOT Cultural Resources Office and the Indiana State Historic Preservation Officer (SHPO) will be ongoing as the Section 106 process advances.

This project qualifies for the application of the USFWS range-wide programmatic informal consultation for the Indiana bat and northern long-eared bat and project information will be submitted through USFW's Information for Planning and Consultation (IPaC) separately.

Should we not receive your response within thirty (30) calendar days from the date of this letter, it will be assumed that your agency believes that there will be no adverse effects incurred as a result of the proposed project. However, should you find that an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions regarding this matter, please feel free to contact Elayna Stoner, Project Manager at Metric Environmental elaynas@metricenv.com, or write to her at 6958 Hillsdale Court, Indianapolis, IN 46250. You can also contact Mr. Michael Grylewicz, INDOT PM at the INDOT LaPorte District Office mgrylewicz@indot.in.gov or write to him at 315 East Boyd Boulevard, LaPorte IN, 46350.

Thank you in advance for your input.
Sincerely,

Elayna Stoner
Elayna Stoner, Project Manager
Metric Environmental, LLC

cc: Metric File No. 22-0002
Mr. Dan Delgado, Lawson-Fisher Associates P.C.

Graphics provided with this Letter are Located in Appendix B of this Document

Early Coordination Recipients:

Federal Highway Administration
LaPorte District
k.carmanygeorge@dot.gov

Indiana Geological and Water Survey
<https://igws.indiana.edu/eAssessment>

Indiana Department of Natural Resources
Division of Fish and Wildlife
environmentalreview@dnr.in.gov

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

Wellhead Proximity Determinator
<https://www.in.gov/idem/cleanwater/pages/wellhead/>

Field Environmental Officer
Chicago Regional Office
US Department of Housing & Urban Development
Erik.r.sandstedt@hud.gov

Indiana Department of Transportation, LaPorte District
Project Manager
GHandzlik@indot.IN.gov

Indiana Department of Transportation, LaPorte District
Environmental Section Manager
SMichels@indot.in.gov

Indiana Department of Transportation
Office of Aviation
TLewandowski@indot.IN.gov

State Conservationist
Natural Resource Conservation Service
john.allen@usda.gov

U.S. Fish and Wildlife Service
Northern Indiana Suboffice
elizabeth_mccloskey@fws.gov

Northwestern Indiana Regional Planning Commission
twarner@nirpc.org

Lake County Highway Department
smoljjs@lakecountyin.org

Lake County Surveyor
lopezjx@lakecountyin.org

Lake County Commissioner
allenkw@lakecountyin.org

Lake County Emergency Management
ppetrice@lakecountyin.org

Lake County Parks-Rec Department
8411 East Lincoln Hwy
Crown Point, IN 46307

Mayor, City of Crown Point
messary@crownpoint.in.gov

Department of the Army
Chicago District, Corps of Engineers
ChicagoRequests@usace.army.mil

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

DNR #: ER-25146

Request Received: November 15, 2022

Requestor: Metric Environmental
Elayna Stoner
6971 Hillside Court
Indianapolis, IN 46250

Project: US 231 at Iowa Street intersection roundabout construction, southeast of the Town of Crown Point; Des #2003097

County/Site info: Lake

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

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

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

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

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

1) Culverts & Drainage Structures:

It is unclear if the intersection improvement project will impact any existing culverts or drainage structures. It is important to note that even small culverts and drainage structures can be used by wildlife species to pass under the roadway. Any new/replacement/rehabilitated crossing structures, and any bank stabilization under or around the structures, must not create conditions that are less favorable for wildlife passage when compared to existing conditions. Upgrading wildlife passage for replacement/rehabilitated structures is recommended whenever possible to improve wildlife/vehicle safety. Bank lines must be maintained or restored within structures to allow for wildlife passage above the ordinary high water mark whenever possible. All wildlife passage designs must include a smooth level pathway a minimum of 1-3 feet in width composed of natural substrate (soil, sand, gravel, etc.) or compacted aggregate fill over riprap (#2, #53, #73, etc.) tied into existing elevations both upstream and downstream. The width and location of the wildlife pathway is dependent on the wildlife species using the area.

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

<https://www.fs.usda.gov/wildlifecrossings/library/index.php>,

https://www.fhwa.dot.gov/clas/ctip/wildlife_crossing_structures/,

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<https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf>,
<https://www.fs.usda.gov/ccrc/tool/fishxing-fish-passage-learning-systems>.

2) Drainage & Stormwater Management:

The Division of Fish & Wildlife (DFW) recommends considering a more sustainable approach to stormwater management. The traditional model of stormwater management aims to drain runoff as quickly as possible with the help of channels and pipes, which increases peak flows and costs of stormwater management. This type of solution only transfers drainage problems from one section of a basin to another. A more sustainable approach should aim to rebuild the natural water cycle by using storage techniques (retention basins, constructed wetlands, raingardens, etc.) and recharging groundwater using infiltration techniques (infiltration basins or trenches, pervious pavement, etc.). The following links give a good overview of traditional and sustainable stormwater management systems and their pros and cons for consideration during the design of the proposed project:

<https://www.epa.gov/greeningepa/epa-facility-stormwater-management>;
<https://www.epa.gov/greeningepa/stormwater-management-practices-epa-facilities>.

3) Pavement Rehabilitation:

Pavement rehabilitation projects typically do not have a significant impact on fish, wildlife, and botanical resources as long as best management practices (BMPs) are in place to limit the migration of Polycyclic aromatic hydrocarbons (PAHs) into local waterways. PAHs are a byproduct of asphalt and coal tar based sealants. The use of sealants that are free of petroleum and coal tar based products is encouraged whenever possible. Contaminated road runoff can significantly impact the aquatic environment through increased turbidity and release of sediment into the stream, which can be harmful to fish and other aquatic organisms, their eggs, and their food supply. Where possible, road runoff should be directed to riprap turnouts and sediment filtration prior to entering a stream to reduce impacts to aquatic species. We recommend the use of pollutant trapping technology such as storm drain inserts, etc. to reduce the runoff of roadside pollutants.

4) Forest & Riparian Habitat:

We recommend a mitigation plan be developed (and submitted with the permit application, if required) for any unavoidable habitat impacts that will occur. The DNR's Habitat Mitigation Guidelines (and plant lists) can be found online at:
<http://iac.iga.in.gov/iac/20200527-IR-312200284NRA.xml.pdf>.

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

5) LED Lighting:

Most transportation corridor designers and municipalities are trending toward LED lighting. Certain types of LED lighting can have negative impacts on both human and wildlife health and safety. Scientific evidence suggests that artificial light at night has

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negative and deadly effects on many organisms including amphibians, birds, mammals, insects and plants (<https://www.darksky.org/light-pollution/wildlife/>). A June 2016 American Medical Association (AMA) report, "Human and Environmental Effects of Light Emitting Diode Community Lighting," concluded that "white LED street lighting patterns may contribute to the risk of chronic disease in the populations of cities in which they have been installed."

The International Dark-Sky Association has developed recommendations for communities choosing LED lighting systems that will aid in the selection of lighting that is energy and cost efficient, yet ensures safety and security, protects wildlife, and promotes the goal of reducing light pollution. The DFW recommends these guidelines be followed (see <https://www.darksky.org/our-work/lighting/lighting-for-citizens/led-guide/>).

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

1. Revegetate all bare and disturbed areas that are not currently mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Central Indiana as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only. A native herbaceous seed mixture must include at least 5 species of grasses and sedges and 5 species of wildflowers.
2. Minimize and contain within the project limits all tree and brush clearing.
3. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
4. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the waterbody or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
5. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

Contact Staff:

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

Christie L. Stanifer

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

Date: December 15, 2022



United States Department of the Interior

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



In Reply Refer To:

December 14, 2023

Project code: 2024-0026577

Project Name: Des. 2003097, Intersection Improvement Project, US 231 at Iowa Street, Lake County

Subject: Concurrence verification letter for the 'Des. 2003097, Intersection Improvement Project, US 231 at Iowa Street, Lake County' project under the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (NLEB).

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated December 14, 2023 to verify that the **Des. 2003097, Intersection Improvement Project, US 231 at Iowa Street, Lake County** (Proposed Action) may rely on the concurrence provided in the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures. **At least one of the qualification interview questions indicated an activity or portion of your project is consistent with a not likely to adversely affect determination therefore, the overall determination for your project is, may affect, and is not likely to adversely affect (NLAA) the endangered Indiana bat (*Myotis sodalis*) and/or the endangered northern long-eared bat (*Myotis septentrionalis*).** Consultation with the Service pursuant to section 7(a)(2) of ESA (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required.

The Service has 14 calendar days to notify the lead Federal action agency or designated non-federal representative if we determine that the Proposed Action does not meet the criteria for a NLAA determination under the PBO. If we do not notify the lead Federal action agency or designated non-federal representative within that timeframe, you may proceed with the Proposed

Action under the terms of the NLAA concurrence provided in the PBO. This verification period allows Service Field Offices to apply local knowledge to implementation of the PBO, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities: If your initial bridge/culvert or structure assessment documented signs of bat use or occupancy, or an assessment failed to detect Indiana bats and/or NLEBs, yet are later detected prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office within 2 working days of any potential take. In these instances, potential incidental take of Indiana bats and/or NLEBs is covered under the Incidental Take Statement in the 2018 FHWA, FRA, FTA PBO (provided that the take is reported to the Service).

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

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities:

If your initial bridge/culvert or structure assessments failed to detect Indiana bats and/or NLEB use or occupancy, yet bats are later detected prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office within 2 working days of the incident. In these instances, potential incidental take of Indiana bats and/or NLEBs may be exempted provided that the take is reported to the Service.

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

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

- Mead's Milkweed *Asclepias meadii* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Salamander Mussel *Simpsonaias ambigua* Proposed Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

PROJECT DESCRIPTION

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

NAME

Des. 2003097, Intersection Improvement Project, US 231 at Iowa Street, Lake County

DESCRIPTION

The Indiana Department of Transportation, with funding from Federal Highway Administration, intends to proceed with an intersection improvement project at US 231 at Iowa Street, Lake County, Indiana (Des. No. 2003097).

This proposed project is located at the US 231 intersection with Iowa Street, just southeast of the City of Crown Point, Lake County, Indiana. US 231 at this location is classified as a Rural Minor Arterial and provides one travel lane in each direction. The posted speed limit on US 231 is 55 miles per hour (mph). Iowa Street is classified as a Rural Minor Collector and provides one travel lane in each direction. The posted speed limit on Iowa Street is 55 mph.

The project scope includes the construction of a single-lane roundabout at the intersection. The anticipated length of roadway approach work is 800 feet along the west approach of US 231, 900 feet along the east approach, and 400 feet along the north and south approaches of Iowa Street. Enclosed drainage and a detention basin are proposed to drain the new intersection to existing ditches and swales within the project area. All private drive approaches located within the project limits will be designed in accordance with the applicable INDOT standards. New lighting will be installed along all four legs of the new roundabout per design standards. Temporary lighting may be required during construction.

Maintenance of traffic is planned to include road closure with a detour. The proposed detour route would consist of Interstate 65, State Route 2, and US 231. The total travel length of the detour is 14.7 miles, with an additional travel length of 6.5 miles. The project is expected to require 0.48 acre of new, permanent Right-of-Way (ROW). No temporary ROW needs are anticipated.

Based on consultation with INDOT LaPorte District, a November 21, 2022, review of the U.S. Fish and Wildlife Service database did not indicate the presence of endangered bat species within 0.5 mile of the project area. There is suitable summer habitat located within the project area. It is anticipated that approximately 23 trees totaling approximately 1.23 acres will be removed from the project area for roundabout construction and associated utility relocation. The dominant tree species to be removed are mixed oaks (*Quercus* species), mixed maples (*Acer* species), and black walnut (*Juglans nigra*). The trees will be removed within 100 feet from the edge of the roadway during the inactive season 2025/2026. No mitigation is anticipated. Temporary lighting may be required during construction.

The project is scheduled to begin in fall 2025 and be completed by fall 2026.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.3807094,-87.30663539573519,14z>



DETERMINATION KEY RESULT

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the endangered Indiana bat and/or the endangered northern long-eared bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

QUALIFICATION INTERVIEW

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

[1] See [Indiana bat species profile](#)

Automatically answered

Yes

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

[1] See [northern long-eared bat species profile](#)

Automatically answered

Yes

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

A) Federal Highway Administration (FHWA)

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

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

No

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

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

No

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

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

No

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

No

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

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

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

Yes

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

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

Yes

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

No

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

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

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

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

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

No

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

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

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

No

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

Yes

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

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

B) During the inactive season

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

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

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

No

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

Yes

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

B) During the inactive season

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

Yes

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

No

20. Are *all* trees that are being removed clearly demarcated?
Yes
21. Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing **permanent** lighting?
Yes
22. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?
No
23. Does the project include slash pile burning?
No
24. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?
No
25. Does the project include the removal, replacement, and/or maintenance of *any* structure other than a bridge? (e.g., rest areas, offices, sheds, outbuildings, barns, parking garages, etc.)
No
26. Will the project involve the use of **temporary** lighting *during* the active season?
Yes
27. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **temporary** lighting will be used?
Yes
28. Will the project install *any* new or replace any existing **permanent** lighting in addition to the lighting already indicated for habitat removal (including the removal or trimming of trees) or bridge/structure removal, replacement or maintenance activities?
Yes
29. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **permanent** lighting (other than the lighting already indicated for habitat removal (including the removal or trimming of trees) or bridge/structure removal, replacement or maintenance activities) will be installed or replaced?
Yes
30. Does the project include percussives or other activities (**not including tree removal/trimming or bridge/structure work**) that will increase noise levels above existing traffic/background levels?
No

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

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

Yes

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

No

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

Automatically answered

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

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

Automatically answered

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

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

Automatically answered

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

36. **General AMM 1**

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

Yes

37. Tree Removal AMM 1

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

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

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

Yes

38. Tree Removal AMM 3

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

Yes

39. Tree Removal AMM 4

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

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

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

Yes

40. Lighting AMM 2

Does the lead agency use the BUG (Backlight, Uplight, and Glare) system developed by the Illuminating Engineering Society^[1] to rate the amount of light emitted in unwanted directions?

[1] Refer to [The BUG System—A New Way To Control Stray Light](#)

Yes

41. Lighting AMM 2

Will the **permanent** lighting used during removal of suitable habitat and/or the removal/trimming of trees within suitable habitat be designed to be as close to 0 for all three BUG ratings as possible, with a priority of "uplight" of 0 and "backlight" as low as practicable?

Yes

42. Lighting AMM 1

Will *all* **temporary** lighting be directed away from suitable habitat during the active season?

Yes

43. Lighting AMM 2

Does the lead agency use the BUG (Backlight, Uplight, and Glare) system developed by the Illuminating Engineering Society^[1] to rate the amount of light emitted in unwanted directions?

[1] Refer to [The BUG System—A New Way To Control Stray Light](#)

Yes

44. Lighting AMM 2

Will the **permanent** lighting (other than any lighting already indicated for tree clearing or bridge/structure removal, replacement or maintenance activities) be designed to be as close to 0 for all three BUG ratings as possible, with a priority of "uplight" of 0 and "backlight" as low as practicable?

Yes

PROJECT QUESTIONNAIRE

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

Yes

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

No

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

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

1.23

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

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

TREE REMOVAL AMM 1

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

LIGHTING AMM 1

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

TREE REMOVAL AMM 2

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

LIGHTING AMM 2

When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable.

TREE REMOVAL AMM 3

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

TREE REMOVAL AMM 4

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

GENERAL AMM 1

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

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

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

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

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

IPAC USER CONTACT INFORMATION

Agency: Indiana Department of Transportation

Name: Cassie Wahl

Address: 315 East Boyd Blvd

City: LaPorte

State: IN

Zip: 46350

Email: cwahl@indot.in.gov

Phone: 2193257509

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration



United States Department of the Interior

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



In Reply Refer To:

04/17/2025 12:48:23 UTC

Project Code: 2024-0026577

Project Name: Des. 2003097, Intersection Improvement Project, US 231 at Iowa Street, Lake County

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

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

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

migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

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

Attachment(s):

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

OFFICIAL SPECIES LIST

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

This species list is provided by:

Indiana Ecological Services Field Office

620 South Walker Street
Bloomington, IN 47403-2121
(812) 334-4261

PROJECT SUMMARY

Project Code: 2024-0026577
Project Name: Des. 2003097, Intersection Improvement Project, US 231 at Iowa Street, Lake County
Project Type: Road/Hwy - Maintenance/Modification
Project Description: The Indiana Department of Transportation, with funding from Federal Highway Administration, intends to proceed with an intersection improvement project at US 231 at Iowa Street, Lake County, Indiana (Des. No. 2003097).

This proposed project is located at the US 231 intersection with Iowa Street, just southeast of the City of Crown Point, Lake County, Indiana. US 231 at this location is classified as a Rural Minor Arterial and provides one travel lane in each direction. The posted speed limit on US 231 is 55 miles per hour (mph). Iowa Street is classified as a Rural Minor Collector and provides one travel lane in each direction. The posted speed limit on Iowa Street is 55 mph.

The project scope includes the construction of a single-lane roundabout at the intersection. The anticipated length of roadway approach work is 800 feet along the west approach of US 231, 900 feet along the east approach, and 400 feet along the north and south approaches of Iowa Street. Enclosed drainage and a detention basin are proposed to drain the new intersection to existing ditches and swales within the project area. All private drive approaches located within the project limits will be designed in accordance with the applicable INDOT standards. New lighting will be installed along all four legs of the new roundabout per design standards. Temporary lighting may be required during construction.

Maintenance of traffic is planned to include road closure with a detour. The proposed detour route would consist of Interstate 65, State Route 2, and US 231. The total travel length of the detour is 14.7 miles, with an additional travel length of 6.5 miles. The project is expected to require 0.48 acre of new, permanent Right-of-Way (ROW). No temporary ROW needs are anticipated.

Based on consultation with INDOT LaPorte District, a November 21, 2022, review of the U.S. Fish and Wildlife Service database did not indicate the presence of endangered bat species within 0.5 mile of the project area. There is suitable summer habitat located within the project area. It is anticipated that approximately 23 trees totaling approximately 1.23 acres will be removed from the project area for roundabout construction and associated utility relocation. The dominant tree species to be removed are mixed oaks (*Quercus* species), mixed maples (*Acer*

species), and black walnut (*Juglans nigra*). The trees will be removed within 100 feet from the edge of the roadway during the inactive season 2025/2026. No mitigation is anticipated. Temporary lighting may be required during construction.

The project is scheduled to begin in fall 2025 and be completed by fall 2026.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.3807094,-87.30663539573519,14z>



Counties: Lake County, Indiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

MAMMALS

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered

BIRDS

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

CLAMS

NAME	STATUS
Salamander Mussel <i>Simpsonaias ambigua</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6208	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Western Regal Fritillary <i>Argynnis idalia occidentalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/12017	Proposed Threatened

FLOWERING PLANTS

NAME	STATUS
Mead's Milkweed <i>Asclepias meadii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8204	Threatened

CRITICAL HABITATS

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

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

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

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

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act (MBTA). Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their nests, should follow appropriate regulations and implement required avoidance and minimization measures, as described in the various links on this page.

The data in this location indicates that no eagles have been observed in this area. This does not mean eagles are not present in your project area, especially if the area is difficult to survey. Please review the 'Steps to Take When No Results Are Returned' section of the Supplemental Information on Migratory Birds and Eagles document to determine if your project is in a poorly surveyed area. If it is, you may need to rely on other resources to determine if eagles may be present (e.g. your local FWS field office, state surveys, your own surveys).

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

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.

3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Semipalmated Sandpiper <i>Calidris pusilla</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9603	Breeds elsewhere
Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere

PROBABILITY OF PRESENCE SUMMARY

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

Probability of Presence (■)

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

Breeding Season (■)

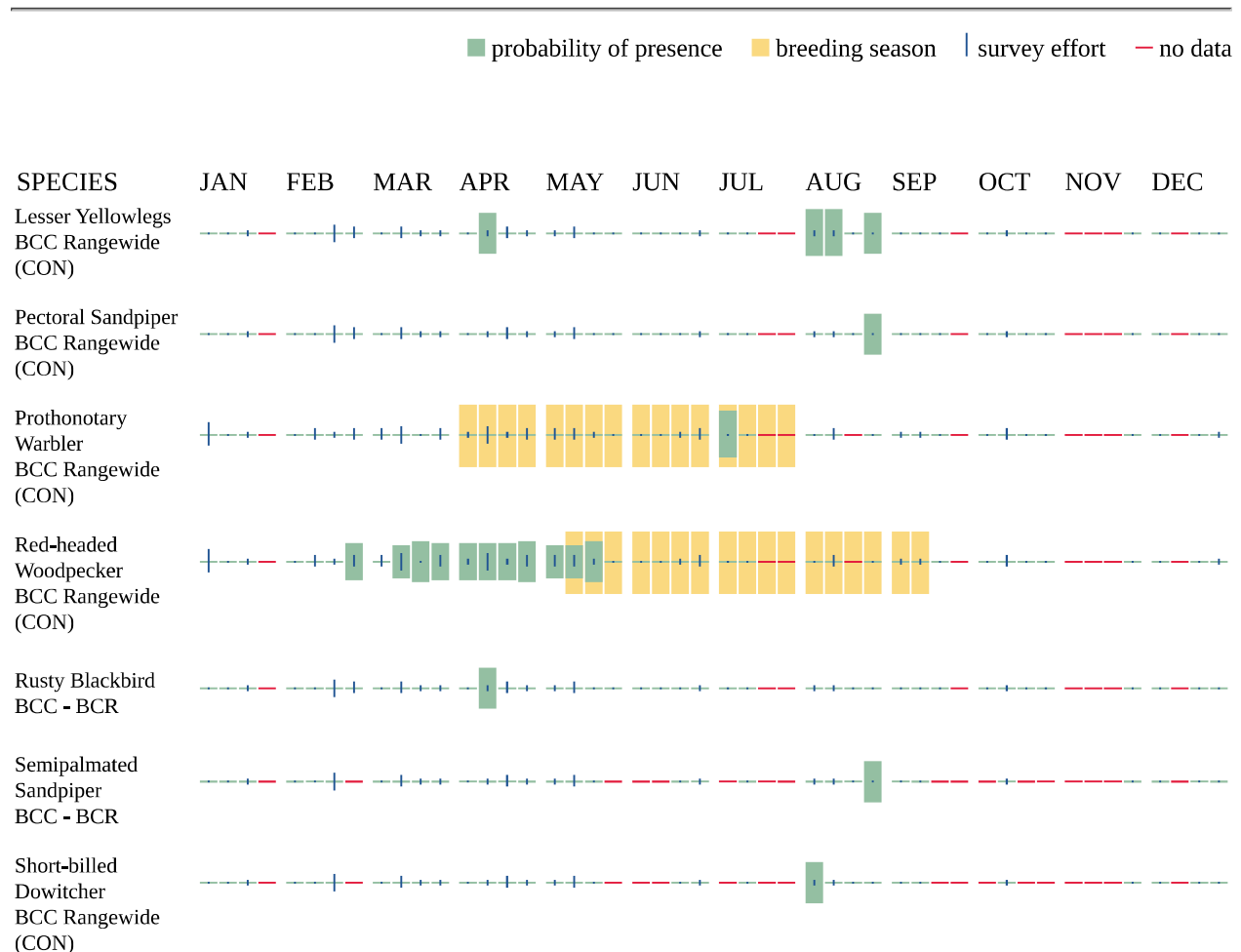
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

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

No Data (—)

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



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>

- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

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

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

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

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Metric Environmental, LLC

Name: Susan Castle

Address: 6958 Hillsdale Court

City: Indianapolis

State: IN

Zip: 46250

Email: susanc@metricenv.com

Phone: 3176082730

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

You have indicated that your project falls under or receives funding through the following special project authorities:

- BIPARTISAN INFRASTRUCTURE LAW (BIL) (OTHER)

From: [McCloskey, Elizabeth](#)
To: [Elayna Stoner](#)
Subject: Re: [EXTERNAL] Des No. 2003097 _ Early Coordination Letter _ US 231 at Iowa Street _Lake County, IN
Date: Tuesday, November 15, 2022 6:06:47 PM
Attachments: [image001.png](#)

Good afternoon, because the proposed project will have minor impacts on natural resources, and no Federally listed endangered species are known to be present, the U.S. Fish and Wildlife Service will not be providing a comment letter.

Elizabeth McCloskey
U.S. Fish and Wildlife Service
Northern Indiana Suboffice
Ecological Services
Chesterton, Indiana

From: Elayna Stoner <elaynas@metricenv.com>
Sent: Tuesday, November 15, 2022 10:46 AM
To: DNR Environmental Review <environmentalreview@dnr.IN.gov>; MWRO Compliance, NPS <MWRO_Compliance@nps.gov>; twarner@nirpc.org <twarner@nirpc.org>; smoljjs@lakecounty.in.org <smoljjs@lakecounty.in.org>; mcrepay@lakecounty.in.org <mcrepay@lakecounty.in.org>; Juan Lopez <lopezjx@lakecounty.in.org>; ppetrice@lakecounty.in.org <ppetrice@lakecounty.in.org>; Michels, Stewart <SMichels@indot.IN.gov>
Cc: k.carmanygeorge@dot.gov <k.carmanygeorge@dot.gov>; Erik.r.sandstedt@hud.gov <Erik.r.sandstedt@hud.gov>; Courtade, Julian <JCourtade@indot.IN.gov>; alverda@lakecounty.in.org <alverda@lakecounty.in.org>; gainnam@lakecounty.in.org <gainnam@lakecounty.in.org>; Dan Delgado <ddelgado@lawson-fisher.com>; mgrylewicz@indot.in.gov <mgrylewicz@indot.in.gov>; McCloskey, Elizabeth <elizabeth_mccloskey@fws.gov>; chicagorequests@usace.army.mil <chicagorequests@usace.army.mil>
Subject: [EXTERNAL] Des No. 2003097 _ Early Coordination Letter _ US 231 at Iowa Street _Lake County, IN

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Please see the attached early coordination letter for Des No. 2003097, a State Project located in Lake County, IN.

The project proposes to reconstruct the intersection of US 231 and Iowa Street to a single lane roundabout.

Please let me know if you have questions or require additional information.

Organization and Project Information

Project ID:
Des. ID: Des No. 2003097
Project Title: Intersection Improvement Project
Name of Organization: Metric Environmental
Requested by: Elayna Stoner

Environmental Assessment Report

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

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

DISCLAIMER:

This document was compiled by Indiana University, Indiana Geological Survey, using data believed to be accurate; however, a degree of error is inherent in all data. This product is distributed "AS-IS" without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use. No attempt has been made in either the design or production of these data and document to define the limits or jurisdiction of any federal, state, or local government. The data used to assemble this document are intended for use only at the published scale of the source data or smaller (see the metadata links below) and are for reference purposes only. They are not to be construed as a legal document or survey instrument. A detailed on-the-ground survey and historical analysis of a single site may differ from these data and this document.

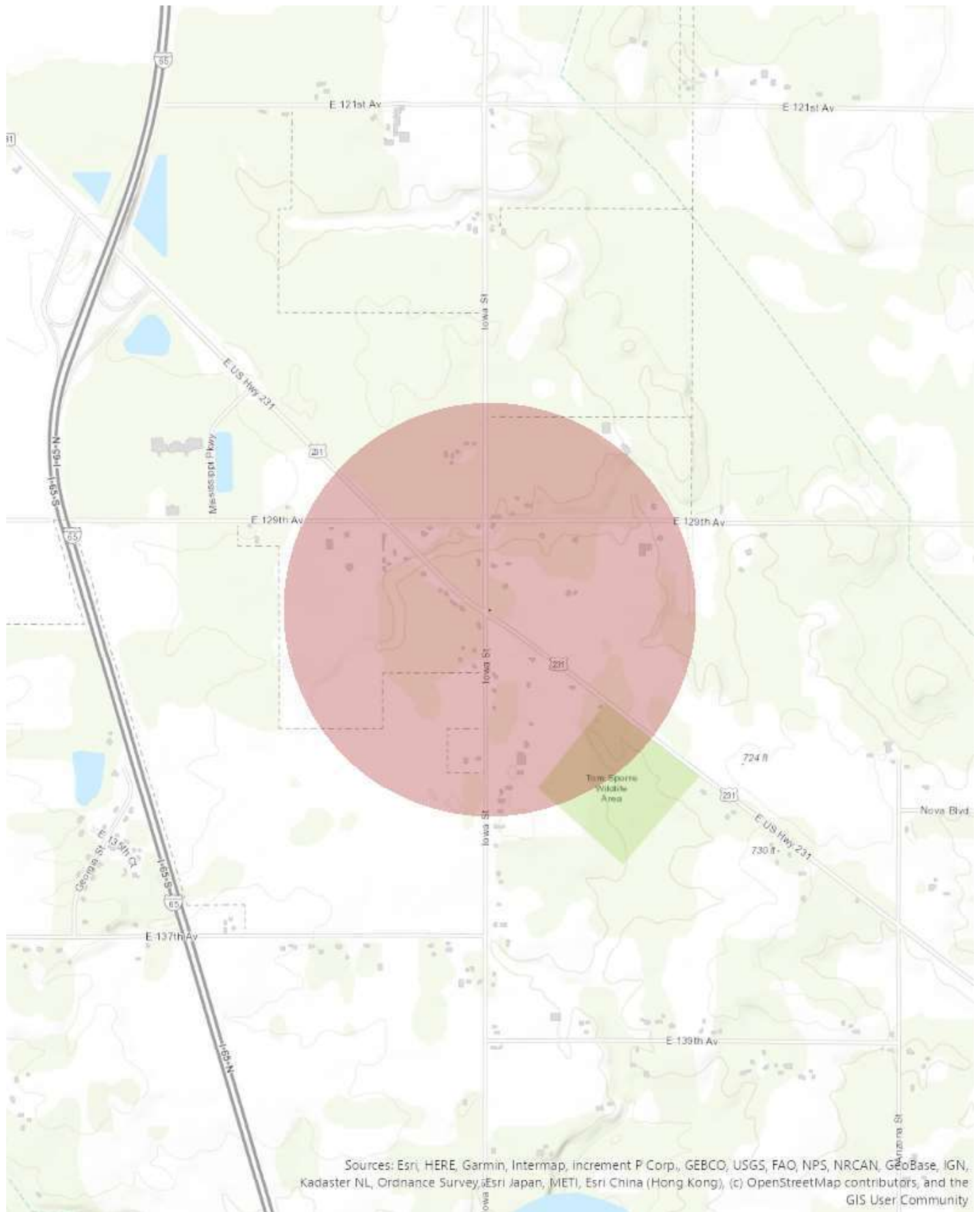
This information was furnished by Indiana Geological Survey

Address: 1001 E. 10th St., Bloomington, IN 47405

Email: IGSEnvir@indiana.edu

Phone: 812 855-7428

Date: March 26, 2024





United States
Department of
Agriculture

Farm
Production
and
Conservation

Natural
Resources
Conservation
Service

Indiana State Office
6013 Lakeside Boulevard
Indianapolis, Indiana 46278
317-295-5800

August 16, 2024

Elayna Stoner
Metric Environmental
6958 Hillsdale Court
Indianapolis, Indiana 46250

Dear Elayna Stoner:

The proposed US 231 at Iowa Street, Center Township, Intersection Improvement Project, in Lake County, Indiana, (Des. No. 2003097) as referred to in your letter received on August 15, 2024, will cause a conversion of prime farmland.

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

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

Sincerely,

JOHN ALLEN Digitally signed by JOHN ALLEN
Date: 2024.08.20 11:15:06 -04'00'

JOHN ALLEN
State Soil Scientist

Enclosers

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request August 15, 2024				
Name of Project DES2003097 Intersection Improv		Federal Agency Involved Federal Highway Administration				
Proposed Land Use		County and State Lake County, IN				
PART II (To be completed by NRCS)		Date Request Received By NRCS 8/20/2024		Person Completing Form: JRA		
Does the site contain Prime, Unique, Statewide or Local Important Farmland? (If no, the FPPA does not apply - do not complete additional parts of this form)		YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		Acres Irrigated		
				Average Farm Size 293 ac		
Major Crop(s) Corn	Farmable Land In Govt. Jurisdiction Acres: 266576 % 82		Amount of Farmland As Defined in FPPA Acres: 23103 % 71			
Name of Land Evaluation System Used LESA	Name of State or Local Site Assessment System		Date Land Evaluation Returned by NRCS			
PART III (To be completed by Federal Agency)		Alternative Site Rating				
		Site A	Site B	Site C	Site D	
A. Total Acres To Be Converted Directly		0.05				
B. Total Acres To Be Converted Indirectly		0.02				
C. Total Acres In Site		0.07				
PART IV (To be completed by NRCS) Land Evaluation Information						
A. Total Acres Prime And Unique Farmland		0.63				
B. Total Acres Statewide Important or Local Important Farmland		0.00				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		<0.001				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		41				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)		85				
PART VI (To be completed by Federal Agency) Site Assessment Criteria (Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)		Maximum Points	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	15				
2. Perimeter In Non-urban Use	(10)	7				
3. Percent Of Site Being Farmed	(20)	5				
4. Protection Provided By State and Local Government	(20)	0				
5. Distance From Urban Built-up Area	(15)	10				
6. Distance To Urban Support Services	(15)	10				
7. Size Of Present Farm Unit Compared To Average	(10)	0				
8. Creation Of Non-farmable Farmland	(10)	0				
9. Availability Of Farm Support Services	(5)	5				
10. On-Farm Investments	(20)	0				
11. Effects Of Conversion On Farm Support Services	(10)	0				
12. Compatibility With Existing Agricultural Use	(10)	0				
TOTAL SITE ASSESSMENT POINTS		160	52	0	0	0
PART VII (To be completed by Federal Agency)						
Relative Value Of Farmland (From Part V)		100	85	0	0	0
Total Site Assessment (From Part VI above or local site assessment)		160	52	0	0	0
TOTAL POINTS (Total of above 2 lines)		260	137	0	0	0
Site Selected: A		Date Of Selection		Was A Local Site Assessment Used?		
				YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
Reason For Selection: The proposed reconstruction of the intersection at US 231 and Iowa Street will have no significant impact on use of prime farmland. The NRCS will be notified if there is a change in the preferred alternative as currently proposed.						
Name of Federal agency representative completing this form: Susan Castle				Date: April 1, 2025		

(See Instructions on reverse side)

Form AD-1006 (03-02)

From: [Lewandowski, Tyler](#)
To: [Elayna Stoner](#)
Subject: RE: Des No. 2003097 _ Early Coordination Letter _ US 231 and Iowa Street_ Lake County, IN
Date: Tuesday, March 26, 2024 8:12:14 AM
Attachments: [image002.png](#)
[image003.png](#)

Good morning,

After review, no tall structure permit is required for the project if all equipment being used is under 200 feet in height. Please let our office know if you have any further questions.

Thank you,

Tyler Lewandowski
Project Manager
INDOT Office of Aviation
(317) 495-4875
tlewandowski@indot.in.gov
www.aviation.indot.in.gov



From: Elayna Stoner <elaynas@metricenv.com>
Sent: Tuesday, March 26, 2024 1:41 AM
To: Lewandowski, Tyler <TLewandowski@indot.IN.gov>
Subject: Des No. 2003097 _ Early Coordination Letter _ US 231 and Iowa Street_ Lake County, IN

**** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ****

Tyler

Please see the attached early coordination letter for a proposed intersection improvement project (Des No. 2003097) located in Lake County, IN.
The project proposes a single lane roundabout at the intersection of US 231 and Iowa Street.

Please let me know if you have questions or require additional information.

Cheers!



Elayna Stoner
Project Manager

November 15, 2022

Elayna Stoner, Project Manager, Metric Environmental, LLC

RE: US 231 at Iowa St.,
Lake County, Indiana
Des. No.: 2003097

Dear Ms. Stoner,

The Lake County Surveyor's Office has received and reviewed the letter sent to our office on the above referenced project.

It is the understanding of the Lake County Surveyor's Office that INDOT has plans for a roundabout at US 231 & Iowa Street. There do not appear to be any Bench Marks and/or Section Corners within your project. If you do happen to encounter anything else (undocumented perpetuated section corners or bench mark) please adheres to the following.

Be advised that any monumentation that is directly or indirectly impacted with the proposed project, must be replaced/ restored to its original condition or better by you or your contractor, and is subject to conditions set forth by the Lake County Surveyor's Office or its agents. Indiana Code 36-2-12-1 et. seq. and other applicable statutes and/or ordinances.

Any Section Corner disturbed or removed must be re-established by an Indiana Registered Land Surveyor and/or Professional Engineer. All witness references must be tied to the newly established Section Corner, and ALL documentation immediately forwarded to the Lake County Surveyor's Office for its records.

Any Benchmark in danger of disturbance must be replaced with a Brass Monument and must have an elevation established by an Indiana Registered Land Surveyor and/or Professional Engineer. The

elevation must be tied to an existing USC&GS benchmark, and ALL documentation immediately forwarded to the Lake County Surveyor's Office for its records.

PROCEDURE: All visible stamped or tagged survey monuments found in rights-of-way that may be destroyed by construction or maintenance activities must be perpetuated under the supervision of a licensed Indiana Professional Land Surveyor. This will be achieved for each found monument by the following:

A. Prior to the development of all construction or major maintenance contracts;

(1) The Design Engineer shall request the Lake County Surveyor to verify the presence of any Survey Corners within the construction zone.

(2) The Lake County Surveyor will conduct an in-house record search to determine if there are any Survey Corners within the right-of-way. If so, they will be verified in the field.

(3) All found Survey Corners will be listed in the contract by the Design Engineer for perpetuation;

(a) They must be perpetuated according to Indiana Code 36-2-12-1 Et. Seq. by an Indiana Licensed Professional Land Surveyor then tied to three (3) reference monuments. A copy of the recorded Corner Record for each monument with a written report identifying the character, location, description and ties of the new monument and Reference Monuments shall be sent by the land surveyor to the Lake County Surveyor's Office 2293 North Main Street, Crown Point, Indiana 46307.

(4) At the discretion of the Lake County Surveyor, any Survey Corner found in the roadway will be tied to three (3) Reference Monuments set by a licensed Indiana Professional Land Surveyor. A Corner Record will be sent to the Lake County Surveyor to be recorded.

(5) The Lake County Surveyor will maintain a record of all perpetuated Survey Corners.

B. Prior to staking a construction project;

(1) The Engineer, under the direction of the Lake County Surveyor, will follow the provisions in Indiana Code 36-2-12-1 Et. Seq. and field verify the presence of all visible monuments.

(2) Any Survey Corners found and which are not listed in the contract plans for perpetuation will be added to the contract for perpetuation as defined the Procedure (3)(a).

(3) The Engineer will tie all visible stamped or tagged Survey Corners or Benchmarks that may be disturbed. The ties will be to three (3) existing visible Reference Monuments or three (3) set visible Reference Monuments, which will not be disturbed during construction activities. Instruction on procedures used to tie a Survey Corner or Benchmark or to construct a Reference Monument will be available from the Lake County Surveyor.

(4) Found monuments will be noted in the as-built construction plans and written report identifying the character, location, description and ties of the monument and Reference Monuments will be sent to the Lake County Surveyor 2293 North Main Street, Crown Point, Indiana 46307.

(5) After review and acceptance of the written report, monuments used to reference a Survey Corner or Benchmark shall be approved to be stamped by an Indiana Licensed Professional Land Surveyor with the registration number by memo from the Surveyor to the Lake County Surveyor.

(6) INDOT will maintain a record of all tied Survey Corners or Benchmarks and a Record will be sent by INDOT to the Lake County Surveyor for its record.

C. Prior to maintenance activities that will cover or destroy monuments;

- (1) INDOT, under the direction of the Lake County Surveyor, will follow the provision in Indiana Code 36-2-12-1 Et. Seq., and field verify the presence of any monuments.
- (2) Any Survey Corners found will be reported to the Lake County Surveyor with a request that the monument be perpetuated prior to maintenance activities.
- (3) INDOT will tie all visible stamped or tagged Survey Corners or Benchmarks that may be disturbed. Instruction on procedures used to tie Survey Corner or Benchmark or to construct a Reference Monument will be available from the Lake County Surveyor.
- (4) Found and tied monuments will be noted in the latest as-built construction plans and a written report identifying the character, location, description and ties of the monument and reference monuments will be sent to the Lake County Surveyor, 2293 North Main Street, Crown Point, Indiana 46307.
- (5) After review and acceptance of the written report, monuments used to reference Survey Corners or Benchmarks shall be approved to be stamped with the registration number of the licensed Indiana Professional Land Surveyor by memo from the Lake County Surveyor.
- (6) The Lake County Surveyor will maintain a record of all tied Survey Corners or Benchmarks in the Office of the Lake County Surveyor.

Sincerely,



Juan J. Lopez
Surveying Administrator

cc: Bill Emerson, Jr, PE, Lake County Surveyor
Daniel V. Gossman, Drainage Administrator
Clifford Duggan, MS4 Coordinator

From: Duane Alverson <alverda@lakecountyin.org>
Sent: Thursday, April 27, 2023 10:35 AM
To: Dan Delgado <ddelgado@lawson-fisher.com>; Daniel Gossman <gossmdv@lakecountyin.org>
Cc: Handzlik, Glenn <GHandzlik@indot.IN.gov>; Joe Dunbar <jdunbar@lawson-fisher.com>; David Teggelaar <dteggelaar@lawson-fisher.com>; Juan Lopez <lopezjx@lakecountyin.org>; Peggy J. Sierzputowski <sierzpj@lakecountyin.org>
Subject: RE: Des. 2003097 - US 231 Roundabout - Lake County Surveyor drainage follow up

Dan,

I think I have had a drainage complaint about the ditch along the southerly side of US 231 west of Iowa.

We have also had a drainage complaint west of Iowa Street +/- 850 north of US 231.

Respectfully,

Duane A. Alverson, PE
Engineer

Lake County Highway Department
1100 East Monitor Street
Crown Point, IN 46307
Phone 219-663-0525
alverda@lakecountyin.org

Susan Castle

Subject: FW: Des. 2003097 RFI Original Approval March 2023 - Addendum Needed?

From: INDOT esd.sam <esd.sam@indot.IN.gov>
Sent: Tuesday, March 25, 2025 2:13 PM
To: Catherine Holland <catherineh@metricenv.com>
Subject: RE: Des. 2003097 RFI Original Approval March 2023 - Addendum Needed?

Hi Catherine,
Since it isn't going to cause any additional coordination, you can just go ahead and note that in the CE!
If you have any other questions, let me know and have a great day!

Darlane Davis

Site Assessment & Management (SAM) Environmental Manager
100 North Senate Avenue N758-ES
Indianapolis, Indiana 46204
Email: ddavis3@indot.in.gov
Office Hours: 8 to 4 PM



From: Catherine Holland <catherineh@metricenv.com>
Sent: Tuesday, March 25, 2025 1:49 PM
To: INDOT esd.sam <esd.sam@indot.IN.gov>
Cc: Susan Castle <susanc@metricenv.com>
Subject: Des. 2003097 RFI Original Approval March 2023 - Addendum Needed?

EXTERNAL EMAIL: This email was sent from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Good afternoon,
We received a comments from INDOT pertaining to the age of the signed RFI for the Des. 2003097 CE.
This RFI was signed on March 9, 2023.
It appears that one (1) additional NPDES facility is located 0.45 mile southwest of the project area.
Will we need to submit a new RFI, an addendum, or would noting the additional NPDES Facility in the CE be appropriate?

Thank you,


Catherine Holland
Assistant Project Manager

○ 317.400.1633 ext. 195
M 317.348.2537

APPENDIX D
**Section 106 of the National Historic
Preservation Act**

**FEDERAL HIGHWAY ADMINISTRATION'S
SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties) AND
SECTION 106 FINDINGS AND DETERMINATIONS
AREA OF POTENTIAL EFFECT
ELIGIBILITY DETERMINATIONS
EFFECT FINDING
US 231 AND IOWA STREET INTERSECTION IMPROVEMENT PROJECT
DES. NO.: 2003097; DHPA NO. 30199**

**AREA OF POTENTIAL EFFECTS
(Pursuant to 36 CFR Section 800.4(a)(1))**

The Area of Potential Effects (APE) extends at least 500 feet beyond the project end points, and at least one property deep on each side of US 231 and Iowa Street. The APE for archaeology was the project footprint, consisting of the 11.5-acre project area investigated for the presence of archaeological deposits (Appendix A, Figures 1 and 2).

**ELIGIBILITY DETERMINATIONS
(Pursuant to 36 CFR 800.4(c)(2))**

The APE contains no properties listed in the National Register of Historic Places (NRHP). One resource was determined to be eligible for NRHP listing as a result of this investigation.

Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert

The Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert is on the north side of US 231 just north of Iowa Street, and it was originally constructed c.1870 to carry the Panhandle Railroad (later the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad) over an unnamed tributary (UNT). The cut stone, horseshoe-arched culvert is made of limestone. The Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert is significant under Criteria A and C for its association with the themes of transportation and economic development, and for its engineering significance.

EFFECT FINDING

Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert: No Adverse Effect.

Indiana Department of Transportation (INDOT), acting on Federal Highway Administration's (FHWA's) behalf, has determined a "No Adverse Effect" finding is appropriate for this undertaking.

INDOT respectfully requests the Indiana State Historic Preservation Officer provide written concurrence with the Section 106 determination of effect.

SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties)

Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert – This undertaking will not convert property from the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert, a Section 4(f) historic property, to a transportation use; the INDOT, acting on FHWA's behalf, has determined the appropriate Section 106 finding is "No Adverse Effect"; therefore no Section 4(f) evaluation is required for the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert.



Matthew S. Coon, for FHWA
Manager
INDOT Cultural Resources

May 29, 2024
Approved Date

**FEDERAL HIGHWAY ADMINISTRATION
DOCUMENTATION OF SECTION 106 FINDING OF
NO ADVERSE EFFECT
SUBMITTED TO THE STATE HISTORIC PRESERVATION OFFICER
PURSUANT TO 36 CFR Section 800.5(c)
US 231 AND IOWA STREET INTERSECTION IMPROVEMENT PROJECT
DES. NO.: 2003097; DHPA NO. 30199**

1. DESCRIPTION OF THE UNDERTAKING

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA) proposes to proceed with the United States Highway (US) 231 and Iowa Street Intersection Improvement Project (Des. No. 2003097). The proposed undertaking is within Center Township, on the Crown Point, Indiana USGS Topographic Quadrangle, in Section 23, Township 34N, Range 8W. The proposed undertaking is at the intersection of US 231 and Iowa Street, southeast of the City of Crown Point, within Center Township in Lake County, Indiana. Refer to Appendix A for project location maps and Appendix G for project plans.

US 231 is functionally classified as a Rural Minor Arterial, and Iowa Street is classified as a Rural Minor Collector. The existing pavement width of US 231 is 30 feet wide, and the existing verifiable right-of-way (ROW) is 25 feet on each side. The existing pavement on Iowa Street is 21 feet wide and existing ROW is 20 feet on each side. Land use in the project area is residential, commercial, and agricultural.

The need for this project is due to the high frequency of crashes at this intersection. Crash data and a road hazard safety analysis called RoadHAT determined a total of 34 recorded crashes took place within the project limits during the three-year crash study period (2017 and 2019). The RoadHAT analysis resulted in an Index of Crash Frequency of 4.53, indicating that the crash frequency at this intersection is in the 99th percentile compared to similar intersections. The Index of Crash Cost is 3.06, indicating that the crash costs at this intersection are in the 99th percentile compared with similar intersections. Of the 25 right-angle crashes, 14 involved southbound through-traffic crossing US 231, while the other nine (9) involved northbound through-traffic crossing US 231. The purpose of the project is to improve safety at the intersection.

The proposed preferred alternative is to construct a single-lane roundabout. The anticipated length of roadway approach work is 800 feet along the west approach of US 231, 900 feet along the east approach, and 400 feet along the north and south approaches of Iowa Street. Storm sewer with a detention basin is proposed to drain the new intersection to existing ditches and swales within the project area. All residential driveway approaches located within the project limits will be designed in accordance with the applicable INDOT standards. Lighting at the roundabout is proposed to be installed per INDOT standards.

Maintenance of traffic (MOT) is anticipated to be full closure of the US 231 and Iowa Street Intersection with a detour. The proposed detour route would utilize I-65, SR 2, and US 231. The total travel length of the detour is approximately 14.7 miles, with an additional travel length of 6.5 miles.

The Area of Potential Effects (APE) is the “geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking” (36 CFR 800.16(d)). The APE includes all locations where the

project may result in disturbance of the ground; all locations from which elements of the project may be visible or audible; all locations where activity may result in changes in traffic patterns, land use, or public access; and all areas where there may be direct or indirect effects due to elements of the project. For above-ground structures, the APE was defined as extending at least 500 feet beyond the project end points, and at least one property deep on each side of CR 300 N and CR 700 W. The archaeological APE consists of the 11.5-acre project area investigated for the presence of archaeological deposits.

Please refer to Appendix A for maps of the APE and Appendix B for project site photographs.

2. EFFORTS TO IDENTIFY HISTORIC PROPERTIES

Per the National Historic Preservation Act of 1966, the State Historic Preservation Officer (SHPO) is entitled to participate in the Section 106 process as a consulting party. An early coordination letter was sent to the following other individuals and organizations by letter or email dated January 5, 2023 that invited them to participate as a consulting party to the project (Appendix F: 49-56).

Indiana Landmarks, NW Field Office
Crown Point Historic Preservation Commission
South Lake County Agricultural Historical Society
Lake County Historian, Scott Bocock
Lake County Historical Society and Museum
Northwest Indiana Regional Planning Commission, Ty Warner
Lake County Commissioners, Kyle Allen, Sr., Jerry Tippy, and Michael Repay
Lake County Engineer, Duane Alverson
Lake County Highway Superintendent, Jan Smoljan
Peter Land, Mayor, City of Crown Point
Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Peoria Tribe of Indians of Oklahoma
Pokagon Band of Potawatomi Indians
Shawnee Tribe
Forest County Potawatomi Community

Indiana Landmarks responded by email dated January 5, 2023 (Appendix F: 57). Their email stated that the early coordination letter was sent to the incorrect contact name and address and cc'd the new director for future communication. Metric Environmental responded via email stating the email address would be updated (Appendix F: 58).

The Lake County Historian, Scott Bocock, responded by email dated January 5, 2023 (Appendix F: 59), noting that he felt "confident the necessary fieldwork will reveal any historical and archaeological resources that would be adversely affected by this project."

The Miami Tribe of Oklahoma responded by letter dated January 10, 2023 (Appendix F: 60). The Miami Tribe of Oklahoma accepted consulting party status and offered no objections to the project, but requested if any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of the project that they be immediately consulted.

The Lake County Engineer responded by email dated January 17, 2023 (Appendix F: 61), asking about the full closure and whether there will be an unofficial Local Detour Route posted for locals to use during construction. In an email dated January 23, 2023, Elayna Stoner of Metric Environmental, LLC responded with information from Dan Delgado at Lawson-Fisher Associates (Appendix F: 62).

The Eastern Shawnee Tribe of Oklahoma responded by letter dated January 26, 2023 (Appendix F: 63). The Eastern Shawnee Tribe of Oklahoma accepted the invitation to participate as a consulting party and stated that the project proposes no adverse effect or endangerment to known sites of interest to them. If this project inadvertently discovers an archaeological site or object, they requested immediate notification; that the appropriate state agencies be contacted within 24 hours; and all ground disturbing activity stopped until the Tribe and State agencies are consulted.

The Pokagon Band of Potawatomi responded by letter dated February 3, 2023 (Appendix F: 64). The Pokagon Band of Potawatomi accepted consulting party status and offered no objections to the project, but requested the work to be stopped and to be consulted immediately if any cultural or archaeological resources are uncovered during construction.

SHPO responded by letter dated February 6, 2023 (Appendix F: 65-66). In its letter, SHPO indicated that they were not aware of any other parties who should be invited to participate in the Section 106 consultation of this project and that they were looking forward to reviewing the proposed Area of Potential Effects (APE) and the above-ground and archaeological survey reports.

No other consulting party responses to the early coordination letter were received.

Efforts to identify properties in the APE included a check of data available online at the Indiana State Historic Architectural and Archaeological Research Database (SHAARD), the *Lake County Interim Report: Indiana Historic Sites and Structures Inventory* (1996, Historic Landmarks Foundation of Indiana), the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM), the INDOT-Cultural Resources Office (CRO) Public Web Map App, and the Indiana Register of Historic Sites and Structures and NRHP databases.

There are no previously documented above-ground or archaeological resources within the APE.

The results of field surveys were reported in a Historic Property Report (HPR) (Miller 4/19/2023) and a Phase Ia Archaeology Report (Snell and Stevenson 4/24/2023). The principal investigators for these reports meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. The HPR recommended one property as eligible for listing in the NRHP:

- Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert

A map of the proposed NRHP boundary can be found in Appendix A, Figure 3, and photos of the culvert are located in Appendix B, photos 17-18.

The Phase Ia Archaeology Report found no sites and recommended the project be allowed to proceed as planned.

INDOT, on behalf of FHWA, has reviewed these reports. A copy of the abstracts and summaries for the HPR and Phase Ia Archaeology Report are included in Appendices C and D.

A letter originally distributed on April 27, 2023 and later redistributed on May 16, 2023, notified consulting parties that a HPR and an archaeology report (Tribes only) were available for review and comment via INDOT's Section 106 document posting website IN SCOPE at <http://erms12c.indot.in.gov/Section106Documents/> (Appendix F: 67-76). The full HPR document may also be downloaded from IN SCOPE (the Des. No. is the most efficient search term, once in IN SCOPE).

In an email dated April 27, 2023 Scott Bocock, the Lake County Historian, replied that he felt "comfortable with the progression of the project" (Appendix F: 77). He also concurred that the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert was eligible for inclusion in the NRHP. Please refer to the enclosed attachments for copies of this correspondence.

In an email dated April 27, 2023 Duane Alverson, the Lake County Engineer, replied that he had received drainage complaints about a ditch along the southern side of US 231, west of Iowa Street, and a ditch about 850 feet north of US 231, west of Iowa Street (Appendix F: 78-79).

In a letter dated May 30, 2023 the Indiana State Historic Preservation Office (SHPO) concurred that the APE is of adequate size and that the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert is recommended eligible for inclusion in the NRHP. The SHPO also concurred that no further archaeological investigations appeared necessary (Appendix F: 80-81).

No other consulting party responses to the HPR or Phase Ia Archaeology Report were received.

A letter and email distributed on December 15, 2023 notified consulting parties that an Effects Report concerning above-ground resources was available for review and comment via INDOT's Section 106 document posting website IN SCOPE at <http://erms12c.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE) (Appendix F: 83-87). The Effects Report provided additional information on project activities, updated design plans, and discussed potential effects on the NRHP-eligible Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert that is located in the project's APE. The report concluded that upon completion of this undertaking, the historic property will maintain its integrity of location, design, setting, materials, workmanship, feeling, and association. The Effects Report stated it is anticipated that INDOT, with authority delegated by FHWA, will issue a "No Adverse Effect" finding as per 36 CFR § 800.5(b) after compiling comments from consulting parties. Refer to Appendix E for the summary and conclusions pages from this report. The full Effects Report document may also be downloaded from IN SCOPE.

In an email dated December 15, 2023 Lake County historian Scott Bocock responded to the Effects Report and stated that he felt comfortable with the progression of the project to the next phase (Appendix F: 88).

In an email dated December 18, 2023 Duane Alverson, Lake County engineer, responded to the Effects Report, stating that he had no further comments at this time (Appendix F: 89).

In a letter dated January 10, 2024, SHPO agreed that, though "the project is taking place adjacent to the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert (AL-012)...this resource will not be adversely affected by this federal undertaking." SHPO also stated that they "have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the portions of the proposed project area that were subjected to archaeological field reconnaissance survey" and "that no further archaeological investigations appear necessary at these portions of the project area." Further, SHPO stated that they "have not identified any currently known archaeological resources...within the portions

of the proposed project area that were not subjected to archaeological field reconnaissance survey.” However, SHPO stated that that identification was “subject to the ground-disturbing project-related activities remaining within areas disturbed by previous construction of a recent and non-historical nature.” SHPO concluded by saying that, “unless another consulting party expresses a different opinion about this project’s effects, it might now be appropriate to ask INDOT for a finding” (Appendix F: 90-91).

In a letter dated February 13, 2024, the Eastern Shawnee Tribe of Oklahoma stated that, though “our people occupied these areas historically and/or prehistorically,” they determined that “the project proposes No Adverse Effect or endangerment to known sites of interest to the Eastern Shawnee Tribe” (Appendix F: 92).

No other consulting party responses to the Effects Report were received. Copies of consulting parties’ responses are located in Appendix F.

3. DESCRIBE AFFECTED HISTORIC PROPERTIES

Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert

Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad culvert was constructed c.1870. The limestone structure is horseshoe shaped, with limestone headwalls and wingwalls. The culvert carried the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad over an unnamed tributary. The culvert is significant under Criteria A and C for its association with the transportation history of the region and for its engineering significance (refer to Appendix A, Figure 1 for an aerial map depicting the proposed NRHP boundary).

4. DESCRIBE THE UNDERTAKING’S EFFECTS ON THE HISTORIC PROPERTIES

Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert

The culvert lies outside of the project limits on US 231. The project would not cause alterations to the culvert itself, nor would the undertaking take any permanent or temporary right-of-way from this resource. The proposed changes occurring adjacent to the property, such as the removal of trees and intersection reconfiguration from a four-way intersection to a roundabout, will introduce visual changes to its setting. The undertaking would cause temporary visual and auditory changes during construction that would be temporary, as the primary activities that will occur immediately adjacent to this resource would be construction traffic and possibly short-term construction staging.

5. EXPLAIN APPLICATION OF CRITERIA OF ADVERSE EFFECT – INCLUDE CONDITIONS OR FUTURE ACTIONS TO AVOID, MINIMIZE OR MITIGATE ADVERSE EFFECTS

According to 36 CFR 8005(a)(1), “an adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.” The criteria of adverse effect as defined in 36 CFR 800.5(a)(1) do not apply to this project. The citations included below are examples of Adverse Effects and not the criteria. Adverse Effects are not limited to these examples.

Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert

Per 36 CFR 800.5(a)(2)(i), the undertaking will not cause “physical destruction of or damage to all or part of the property.”

Per 36 CFR 800.5(a)(2)(ii), there will be no “restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary’s Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines.” The undertaking will not physically impact the culvert.

Per 36 CFR 800.5(a)(2)(iii), the undertaking will not result in the “removal of the property from its historic location.” The property will not be removed from its historic location.

Per 36 CFR 800.5(a)(2)(iv), the project would not change the “the character of the property’s use or of physical features within the property’s setting that contribute to its historic significance.” The project will not change the way the property is currently used, nor will it change any physical features within its setting that are contributing features to its historic significance.

Per 36 CFR 800.5(a)(2)(v), there will be an “introduction of visual, atmospheric or audible elements that diminish the integrity of the property’s significant historic features.” This historic resource will experience a change in visual and audible elements as a result of the undertaking; however, visual impacts will be limited to the transformation of the US 231 and Iowa Street intersection into a roundabout. Any auditory impacts will occur during construction, which will be temporary. Neither of these impacts would diminish the property’s integrity.

Per 36 CFR 800.5(a)(2)(vi), the undertaking will not cause the “neglect of a property which causes its deterioration.” There will be no neglect or deterioration of the property as a result of the undertaking.

Per 36 CFR 800.5(a)(2)(vii), there will be no “transfer, lease, or sale of the property out of Federal ownership or control.”

In consideration of the above analysis, it may be concluded that the undertaking will have “No Adverse Effect” on the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert.

6. SUMMARY OF CONSULTING PARTIES AND PUBLIC VIEWS

The SHPO is entitled to participate in the Section 106 process as a consulting party. The other individuals and organizations listed in Section 2 and Appendix F were invited by letter and email dated January 5, 2023, to be consulting parties (Appendix F: 49-56).

Indiana Landmarks responded by email dated January 5, 2023 (Appendix F: 57), that the email addressed to Brad Miller was no longer associated with the Northwest Field Office and cc’d the new director for future communication. Indiana Landmarks accepted the offer to serve as a consulting party. Metric Environmental responded via email stating the email address would be updated (Appendix F: 58).

The Lake County Historian, Scott Bocock, responded by email dated January 5, 2023 (Appendix F: 59), noting that he felt confident the necessary fieldwork will reveal any historical and archaeological resources that would be adversely affected by this project.

The Miami Tribe of Oklahoma responded by letter dated January 10, 2023 (Appendix F: 60). The Miami Tribe of Oklahoma accepted consulting party status and offered no objections to the project, but requested if any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of the project that they be immediately consulted.

The Lake County Engineer responded by email dated January 17, 2023 (Appendix F: 61), asking about the full closure and whether there will be an unofficial Local Detour Route posted for locals to use during construction. In an email dated January 23, 2023, Elayna Stoner of Metric Environmental, LLC responded with information from Dan Delgado at LFA (Appendix F: 62).

The Eastern Shawnee Tribe of Oklahoma responded by letter dated January 26, 2023 (Appendix F: 63). The Eastern Shawnee Tribe of Oklahoma accepted the invitation to participate as a consulting party and stated that the project proposes no adverse effect or endangerment to known sites of interest to them. If this project inadvertently discovers an archaeological site or object, they requested immediate notification; that the appropriate state agencies be contacted within 24 hours; and all ground disturbing activity stopped until the Tribe and State agencies are consulted.

The Pokagon Band of Potawatomi responded by letter dated February 3, 2023 (Appendix F: 64). The Pokagon Band of Potawatomi accepted consulting party status and offered no objections to the project, but requested the work to be stopped and to be consulted immediately if any cultural or archaeological resources are uncovered during construction.

SHPO responded by letter dated February 6, 2023 (Appendix F: 65-66). In its letter, SHPO indicated that they were not aware of any other parties who should be invited to participate in the Section 106 consultation of this project and that they were looking forward to reviewing the proposed Area of Potential Effects (APE) and the above-ground and archaeological survey reports.

No other consulting party responses to the early coordination letter were received.

A letter and email originally distributed on April 27, 2023 and later redistributed on May 16, 2023 notified consulting parties that an HPR and Phase Ia Archaeology Report (Tribes only) were available review and comment. (Appendix F: 67-76).

Scott Bocock, Lake County Historian, responded via email dated April 27, 2023 stating that he feels “comfortable with the progression of the project,” and that he agrees the Pittsburgh, Cincinnati, Chicago and St. Louis Railroad culvert meets both Criterion A and C for listing in the National Register of Historic Places (Appendix F: 77).

In an email dated April 27, 2023, Lake County Engineer Duane Alverson commented about the drainage work along the south side of US 231 west of Iowa Street and approximately 850 feet north of US 231. In a follow-up email dated May 4, 2023, Duane Alverson referenced his concerns in previous correspondences and had no comments for the archaeology report (Appendix F: 78-79).

By letter dated May 30, 2023, the SHPO agreed with the recommendations in the HPR and Archaeology Report (Appendix F: 80-81). SHPO concurred with the size of the APE, the recommendations of eligibility for the above-ground properties, and that no further archaeological work was necessary for the project.

No other consulting party responses to the HPR and Phase Ia Archaeology Report were received.

A letter and email distributed on December 15, 2023 notified consulting parties that an Effects Report concerning above-ground resources was available for review and comment via INDOT’s Section 106 document posting website IN SCOPE at <http://erms12c.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE) (refer to Appendix F, pages 83-87).

The Effects Report provided additional information on project activities, updated design plans, and discussed potential effects on the NRHP-eligible Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert located in the project's APE. The report concluded that upon completion of this undertaking the historic property will maintain its integrity of location, design, setting, materials, workmanship, feeling, and association. The Effects Report stated it is anticipated that INDOT, with authority delegated by FHWA, will issue a "No Adverse Effect" finding as per 36 CFR § 800.5(b) after compiling comments from consulting parties. Please refer to Appendix E for the summary and conclusions pages from this report. The full Effects Report document may also be downloaded from IN SCOPE at <http://erms12c.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE).

In an email dated December 15, 2023 Lake County Historian Scott Bocock responded to the Effects Report and stated that he felt comfortable with the progression of the project to the next phase (Appendix F: 88).

In an email dated December 18, 2023 Duane Alverson, Lake County Engineer, responded to the Effects Report that he had no further comments at this time (Appendix F: 89).

By letter dated January 10, 2024, SHPO agreed that the eligible above-ground property, the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert will not be adversely affected by this project (Appendix F: 90-91). SHPO also concurred with the recommendation that no further archaeological work is necessary for the proposed project.

No other consulting party responses to the Effects Report were received. Please refer to Appendix F for a list of consulting parties and copies of all consulting parties' correspondence.

INDOT's finding of "No Adverse Effect," made on behalf of the FHWA, and supporting 36 CFR § 800.11(e) documentation, is hereby provided to the SHPO and other consulting parties for a final 30-day comment period. Views of the public are being concurrently sought through publication of the findings in the Lake County *Times of Northwest Indiana* newspaper. This document will be revised if necessary if public comment warrants it.

APPENDICES

Appendix A. Project Location Maps and APE

Appendix B. Project Site Photographs and Key Map

Appendix C. Historic Property Report Management Summary and Conclusions

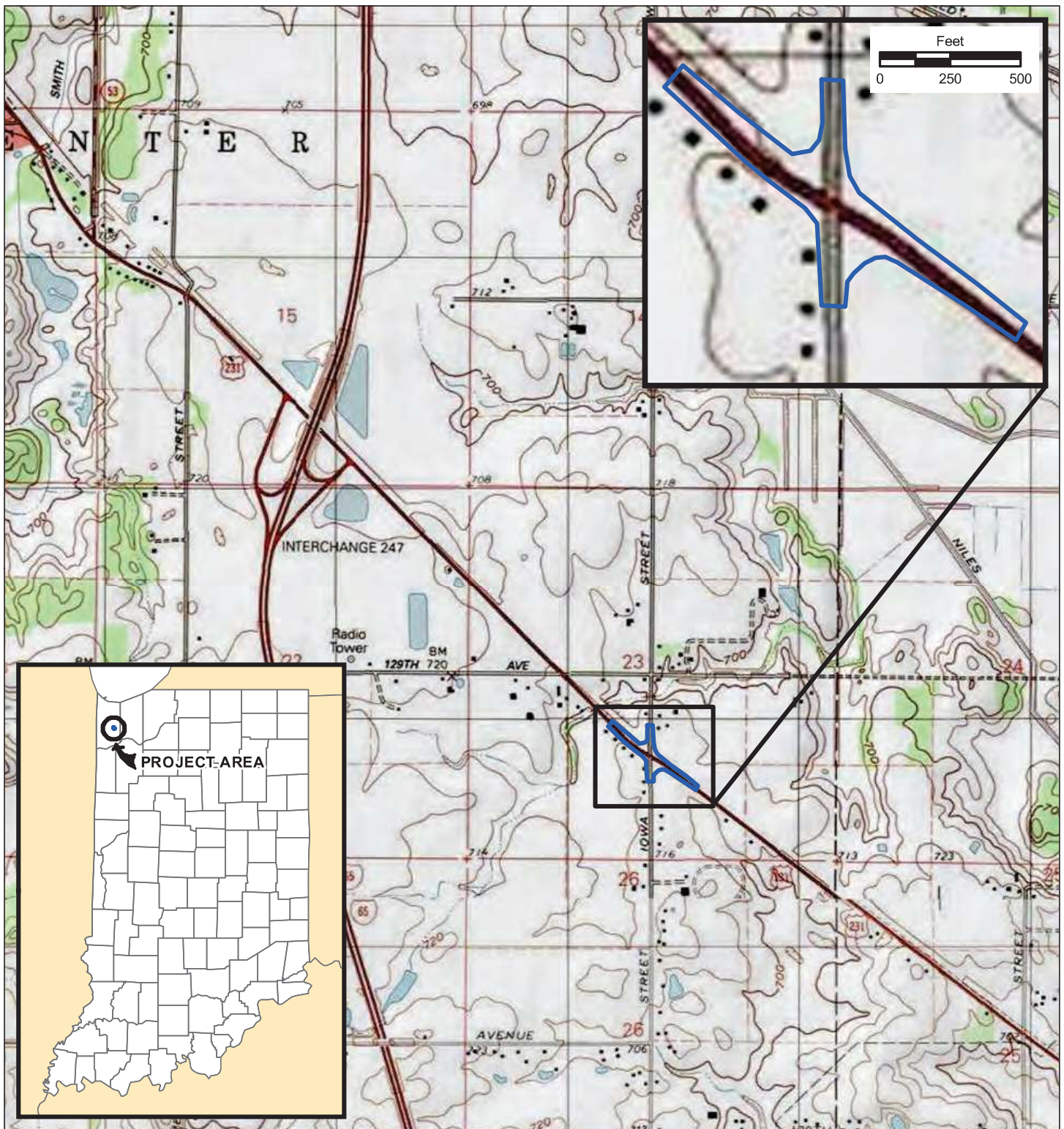
Appendix D. Phase Ia Archaeology Report Results and Recommendations

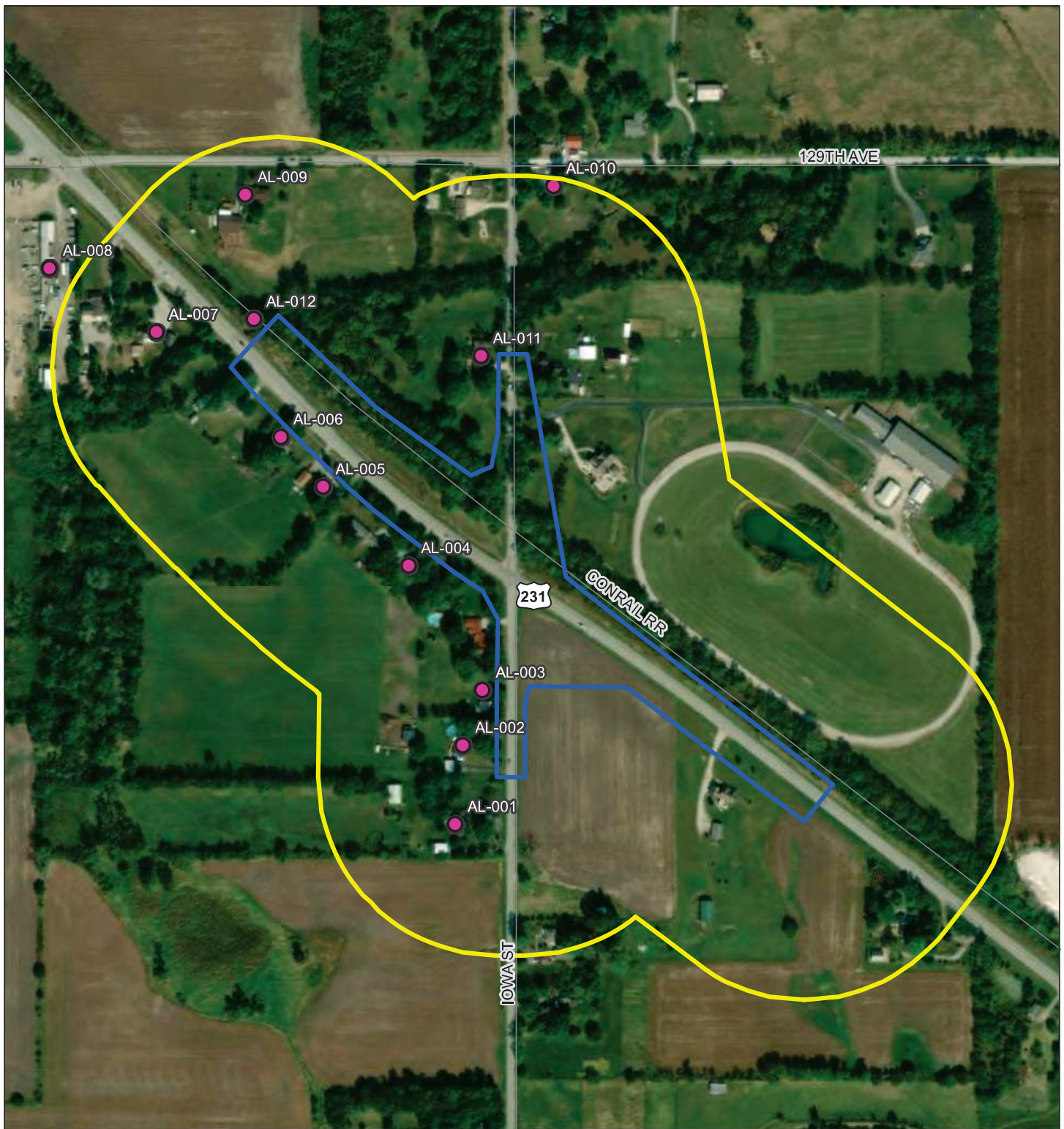
Appendix E. Effects Report Management Summary and Conclusions

Appendix F. Consulting Parties' List and Correspondence

Appendix G. Project Plans

Appendix A. Project Location Maps and APE

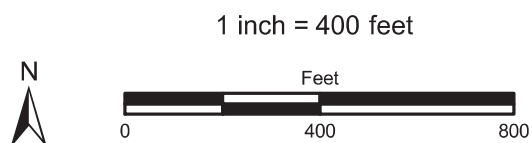




- Project Area ● Architectural Location
□ APE

Figure 2. Aerial Photograph with the Project Location, APE, and Surveyed Sites Identified
 US 231 and Iowa Street Intersection Improvement
 Des. No. 2003097
 Metric Project No. 22-0002-1
 Map Date: 10/17/2022

All Locations Approximate
 2021 Base Aerial

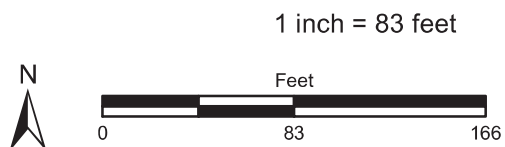




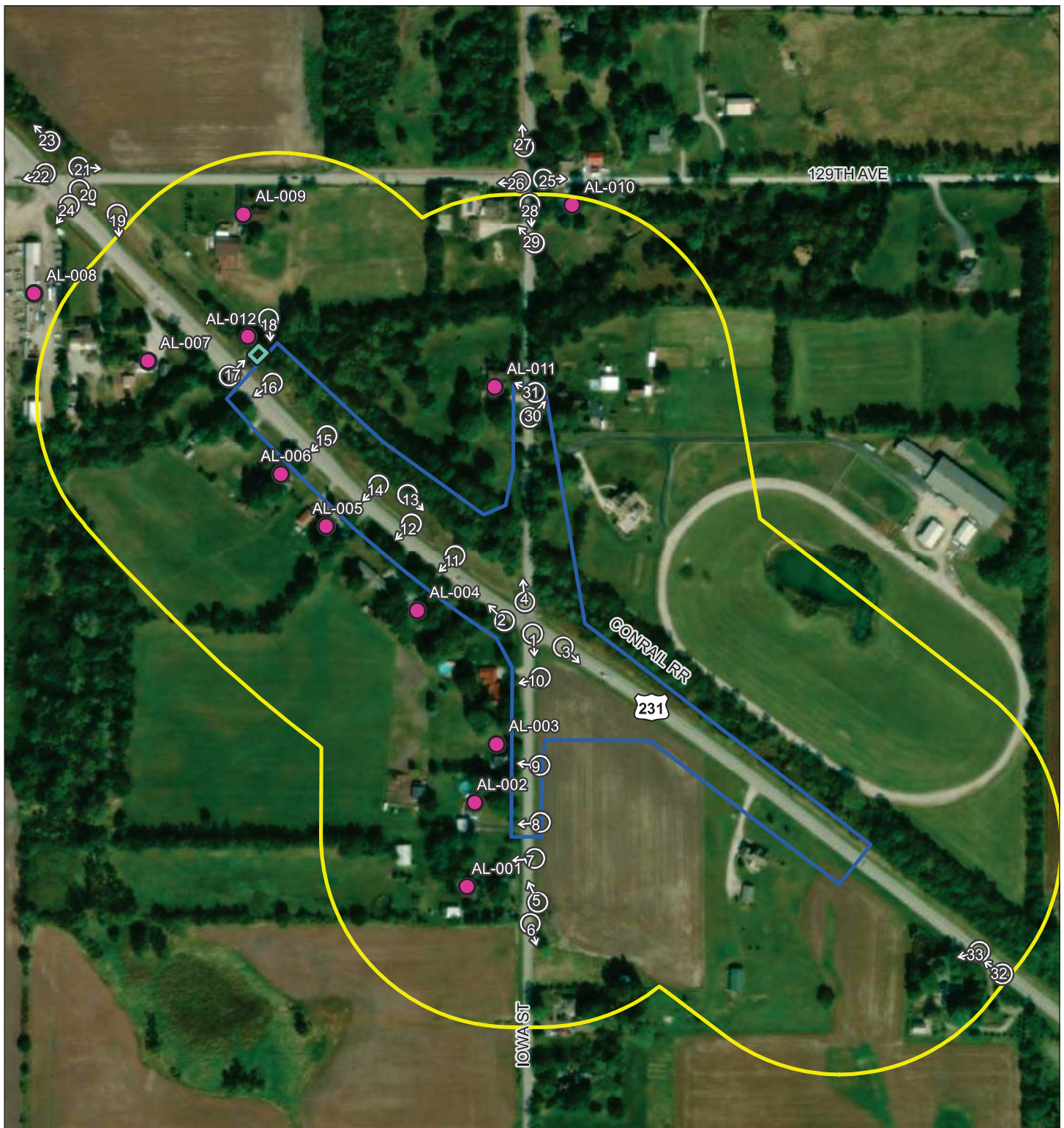
Project Area
 Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert NRHP Boundary

Figure 3. Pittsburgh, Cincinnati, Chicago, and
 St. Louis Railroad Culvert NRHP Boundary
 US 231 and Iowa Street
 Intersection Improvement
 Des. No. 2003097
 Metric Project No.22-0002-1
 Map Date: 04/19/2023

All Locations Approximate
 2021 Base Aerial



Appendix B. Project Site Photographs and Key Maps



Project Area
 ● Architectural Location
 Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert Proposed NRHP Boundary

APE
 ↻ Photo Direction

Figure 4. Photo Locations Map
 US 231 and Iowa Street
 Intersection Improvement
 Des. No. 2003097
 Metric Project No.22-0002-1
 Map Date: 04/19/2023

All Locations Approximate
 2021 Base Aerial

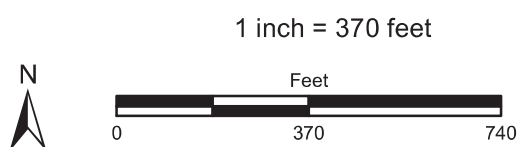




Photo 1. Streetscape view from the project area at the intersection of US 231 and Iowa Street facing south toward Iowa Street



Photo 2. Streetscape view of the south side of US 231 showing (from left to right) 2227-2111 US 231 (AL-004-AL-006) from the intersection of US 231 and Iowa Street facing northwest



Photo 3. View along US 231 facing southeast from Iowa Street



Photo 4. View along Iowa Street facing north from US 231



Photo 5. Streetscape view of the west side of Iowa Street showing (from left to right) 13128-13112 S Iowa Street (AL 001-003) facing north from the south end of the APE

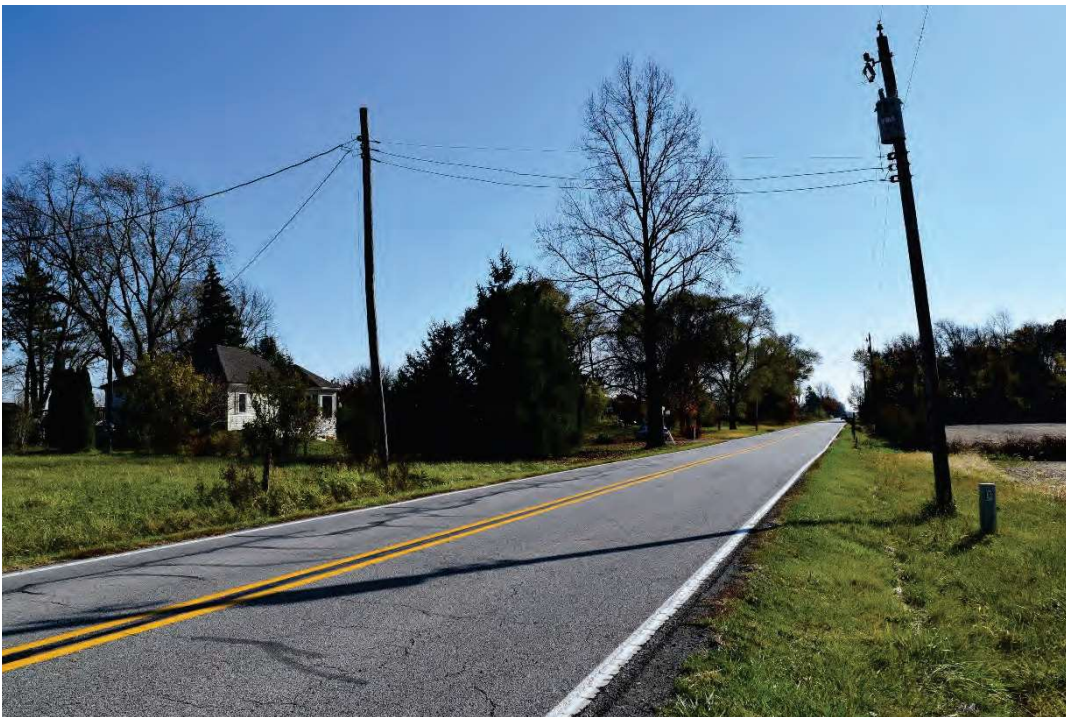


Photo 6. Streetscape view of the east side of Iowa Street showing 13221 Iowa Street (rated Non-Contributing, or NC), facing south



Photo 7. View of 13228 Iowa Street (AL-001, rated Contributing, or C) facing west



Photo 8. View of 13224 Iowa Street (AL-002, rated C) facing west



Photo 9. View of 13218 Iowa Street (AL-003, rated C) facing west



Photo 10. View of 13212 Iowa Street (rated NC) facing west



Photo 11. View of 2227 US 231 (AL-004, rated C) facing southwest



Photo 12. View of 2221 US 231 (rated NC) facing southwest



Photo 13. Streetscape view of the project area from US 231 facing southeast



Photo 14. View of 2209 US 231 (AL-005, rated C) facing southwest



Photo 15. View of 2115 US 231 (AL-006, rated C) facing southwest



Photo 16. View of 2111 US 231 (rated NC) facing southwest



Photo 17. View of the south face of the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert (AL-012, rated Outstanding, or O) facing northeast from US 231



Photo 18. View of the north face of the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert (AL-012, rated O) facing south



Photo 19. Streetscape view of the south side of US 231, with AL-007 visible on left, facing south



Photo 20. Streetscape view of the south side of US 231 facing southeast from 129th Avenue
from the west end of the APE



Photo 21. Streetscape view of the south side of 129th Avenue from US 231 facing east, with AL-009, rated C, visible



Photo 22. View along 129th Avenue facing west from US 231



Photo 23. View along US 231 facing northwest from 129th Avenue



Photo 24. View of 2005 US 231 (AL-008, rated C) facing southwest



Photo 25. View along 129th Avenue facing east from Iowa Street showing 12907 Iowa Street on right (AL-010, rated C)



Photo 26. View along 129th Avenue facing west from Iowa Street



Photo 27. View along Iowa Street facing north from 129th Avenue



Photo 28. View along Iowa Street facing south from 129th Avenue from the north end of the
APE



Photo 29. View of 12910 Iowa Street (rated NC) facing northwest



Photo 30. View of 12921 Iowa Street (rated NC) facing northeast



Photo 31. View of 12920 Iowa Street (AL 011, rated C) facing northwest



Photo 32. View along US 231 from the east end of the APE facing northwest



Photo 33. View of 2713 US 231 (rated NC) facing west

Appendix C. Historic Property Short Report Management Summary and Conclusions

HISTORIC PROPERTY LONG REPORT

US 231 AND IOWA STREET
INTERSECTION IMPROVEMENT PROJECT
CENTER TOWNSHIP, LAKE COUNTY, INDIANA
DES NO. 2003097/ DHPA NO. 30199.

PREPARED FOR:

**LAWSON-FISHER ASSOCIATES, PC
DAN DELGADO
525 WEST WASHINGTON AVENUE
SOUTH BEND, IN 46601
574-234-3167**

LEAD AGENCY:

FEDERAL HIGHWAY ADMINISTRATION

Prepared by:



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A handwritten signature in black ink that reads "Timothy Miller".

Timothy Miller
TimothyM@Metricenv.com

April 19, 2023

MANAGEMENT SUMMARY

This report documents the identification and evaluation efforts for properties included in the Area of Potential Effects (APE) for the proposed US Route 231 (US 231) and Iowa Street Intersection Improvement Project in Center Township, Lake County, Indiana. Aboveground resources located within the project APE were identified and evaluated in accordance with Section 106, National Historic Preservation Act (NHPA) of 1966, as amended, and the regulations implementing Section 106 (36 CFR Part 800).

As a result of the NHPA, as amended, and CFR Part 800, federal agencies are required to take into account the impact of federal undertakings upon historic properties in the area of the undertaking. Historic properties include buildings, structures, sites, objects, and/or districts that are eligible for or listed in the National Register of Historic Places (NRHP). As this project is receiving funding from the Federal Highway Administration (FHWA), it is subject to a Section 106 review.

The APE contains no properties listed in the NRHP.

The proposed APE contains one property that is recommended eligible for listing in the NRHP, the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert (AL-012).

7.0 CONCLUSIONS

The APE contains no properties listed in the NRHP.

As a result of identification and evaluation efforts for this project, 20 properties over 50 years of age were identified.

The proposed APE contains one property that is recommended eligible for listing in the National Register, the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert (AL-012).

Appendix D. Phase Ia Archaeology Report Results and Recommendations

ARCHAEOLOGICAL SHORT REPORT

PHASE IA ARCHAEOLOGICAL RECONNAISSANCE SURVEY FOR THE PROPOSED US 231 AND IOWA STREET INTERSECTION IMPROVEMENTS PROJECT, CENTER TOWNSHIP, LAKE COUNTY, INDIANA (INDOT DES. NO. 2003097; DHPA # 30199)

PREPARED FOR:

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525 WEST WASHINGTON STREET
SOUTH BEND, IN 46601
TELEPHONE: (574) 234-3167

LEAD AGENCY:

FEDERAL HIGHWAY ADMINISTRATION

Prepared by

Samuel P. Snell, MS, RPA
and Christopher M. Stevenson, MS, RPA



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A handwritten signature in black ink that reads "Samuel P. Snell".

Samuel P. Snell, MS, RPA
Archaeological Principal Investigator
sams@metricenv.com

April 24, 2023

Describe methods.

Shovel Test Probes (STP): In relatively level areas where the ground surface had less than 30 percent visibility and there was no apparent sign of previous disturbance, shovel probing was utilized. This method consisted of systematically excavating STPs every 15 m (49.2 ft) and extending at least 5 centimeters (cm) (2.0 inches [in]) into the subsoil and screening the excavated soil through 0.63-cm (0.25-in) hardware cloth screen. A standard record was kept that includes soil profile, soil texture, soil color (Munsell), and presence/absence of cultural materials.

Cores / auger probes (Check all that apply)

☐ Cores / auger probes Interval: ☐ Five (5) meters ☐ Ten (10) meters ☐ Fifteen (15) meters ☐ Other (Describe below)

The standard is screened cores / auger probes using ¼" size mesh. If cores / auger probes were not screened, or a different size mesh was utilized, an explanation must be provided in the methods below.

Describe methods.

NA

Additional field investigation comments

The survey area was investigated in accordance with Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology Guidebook (IDNR, DHPA 2022) and the Indiana Department of Transportation (INDOT) Cultural Resources Manual (INDOT, CRO 2022). The survey area was subject to visual walkover, pedestrian survey, and shovel testing. Any specific changes to methodology were based upon conditions encountered in the field and are further described within the following section.

RESULTS

Summary of relevant regional culture background

Cultural manifestations near the project reflect the general sequence from Paleoindian through historic American. Within Lake County, based on the SHAARD database, there are 28 Paleoindian, 33 Early Archaic, 14 Middle Archaic, 22 Archaic, 38 Late Archaic, 14 Early Woodland, 14 Middle Woodland, 37 Woodland, 40 Late Woodland, 10 Late Woodland/Mississippian, 33 Mississippian, 14 Upper Mississippian, 438 unidentified Prehistoric, and 133 Historic Sites. No Late Paleoindian/Early Archaic archaeological sites have been recorded within Lake County (IDNR, DHPA 2021).

The following resources were investigated: the 1953, 1962, 1980, 1986, 1992, and 2019 Crown Point, IN, USGS topographic maps (United States Geological Survey 2020a); the Map of Lake County with Lowell, Hobart, and Crown Point (Baskin, Forster & Co. 1876), the Plat Book of Lake County, Indiana (W.W. Hixson & Co. 1925), Map of Lake County, Cultural (Indiana Highway Survey Commission 1936), and Map of Lake County, Indiana (Brownsten 1958); aerial photographs from 1939, 1950, 1955, 1962, and 1972 (Indiana Geological and Water Survey 2021); from 1952, 1962 and 1981 (United States Geological Survey 2020b); and Google Earth imagery 1985-2021 (Google Earth 2022).

The intersection of US 231 and Iowa street is shown in its current configuration in all maps and images. The railroad parallel to US 231 is labeled as Pennsylvania Railroad in the 1953 and 1962 topographic maps and labeled as Conrail in the 1980 map. The railroad fell out of use by 1986, when it was labeled as abandoned on maps, and was likely dismantled shortly after.

Records check (Check all that apply)

- ☐ The project area does not have the potential to contain archaeological resources. *Provide explanation / justification.*
- ☐ There are previously recorded archaeological resources within the project area, but those resources do not warrant additional archaeological investigation. *Provide explanation / justification.*
- ☒ The project area contains previously recorded archaeological resources that warrant additional investigation and/or the project area has the potential to contain archaeological resources. *Provide explanation / justification.*
- ☒ Based upon the records check results, a reconnaissance has been conducted.
- ☐ A cemetery is located within or adjacent to the project area.

Explanation / justification

The survey area has the potential to contain intact soils and thus has the potential to contain previously unidentified archaeological resources.

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 project area were not discovered. *List the site(s) below.*
- ☐ Phase 1a reconnaissance has identified landforms conducive to buried archaeological deposits. *Describe below.*

List sites.

NA

Describe landforms. NA	
Number of shovel probes excavated 77	Number of cores / auger probes 0
Describe disturbances. Attach photographs documenting disturbances. Road grade slope, roadside ditch, buried utilities, landscaping, dismantled railroad berm, push piles, graded terrain.	
Actual area surveyed (hectares) 4.7	Actual area surveyed (acres) 11.5
<p>Explain results of fieldwork.</p> <p>The survey area was initially visually inspected and divided into four sections designated as Area 1 through Area 4 (Figures 2 through 18).</p> <p>Area 1 was located north of US 231 and west of Iowa Street and was comprised of road grade slope, roadside ditch with intermittent standing water, buried utilities, wooded areas, a segment of dismantled railroad berm, and private driveways and yards (Figures 3 through 6). It was noted during visual inspection that a significant portion of Area 1 parallel to the north side of US 231 was found to be previously disturbed by the railroad berm construction/dismantling and adjacent ditch. A total of 17 STPs were advanced along two transects in Area 1. Transect 1 was parallel to US 231 and consisted of nine STPs. STPs 1, 2, 3, 4, 7, and 9 displayed disturbed soil profiles of heavily mixed brown (10YR 4/3), dark grayish brown (10YR 4/2), and yellowish brown (10YR 5/4 and 5/6) silty clay loam and/or substantial gravel/rock fill. These disturbances are likely associated with the adjacent railroad berm construction/dismantling or the adjacent ditch. STPs 5, 6, and 8 displayed soil profiles of brown (10YR 4/3) or dark grayish brown (10YR 4/2) silty clay loam extending to 24-30 cm (9.4-11.8 in) underlain by yellowish brown (10YR 5/4 or 5/6) or grayish brown (10YR 5/2) silty clay loam. Transect 2 was parallel to Iowa Street and consisted of eight STPs. STPs 2, 3, 4, 6, 7, and 8 displayed similar soil profiles of brown (10YR 4/3) or dark grayish brown (10YR 4/2) clay loam extending to 18-28 cm (7.1-11.0 in) underlain by yellowish brown (10YR 5/4 or 5/6) clay loam. STPs 1 and 5 displayed disturbed soil profiles containing substantial gravel/rock fill, likely due to the nearby railroad berm and past driveway construction, respectively.</p> <p>Area 2 was located north of US 231 and east of Iowa Street and was comprised of road grade slope, roadside ditch with intermittent standing water, buried utilities, a segment of dismantled railroad berm, push pile and miscellaneous debris, wooded area, private driveways and yards, and landscaping (Figures 7 through 11). Similar to Area 1, a significant portion of Area 2 parallel to the north side of US 231 was found to be previously disturbed by the railroad berm construction/dismantling and adjacent ditch. The railroad berm was visually inspected; a concrete block and two push piles consisting of soil, gravel, rocks, and metal wire in the wooded area near the intersection were noted (Figure 9). The origin of this debris is unclear; it may have resulted from the dismantling of the railroad line and/or was deposited from another location. Due to its dubious origins, this debris is considered not culturally significant. A total of 23 STPs were advanced along two transects in Area 2. Transect 1 was parallel to Iowa Street and consisted of nine STPs displaying similar soil profiles of brown (10YR 4/3) or dark grayish brown (10YR 4/2) silty clay loam extending to 15-35 cm (5.9-13.8 in) underlain by yellowish brown (10YR 5/4 or 5/6) or grayish brown (10YR 5/2) clay loam. STP 8 encountered a root impasse at 15 cm (5.9 in). Transect 2 was parallel to US 231 and consisted of 14 STPs displaying dark brown (10YR 3/3) or very dark brown (10YR 2/2) silty clay loam extending to 18-28 cm (7.1-11.0 in) underlain by grayish brown (10YR 5/2) or pale brown (10YR 6/3) silty clay loam. STPs 1, 6, 7, 9, 11, and 14 displayed varying levels of disturbance including heavily mixed soils and/or containing gravel/rock fill. These disturbances are likely due to the adjacent railroad line or the adjacent ditch.</p> <p>Area 3 was located south of US 231 and east of Iowa Street and was comprised of road grade slope, roadside ditch and drainage, sloping and level private yard and driveway, and an agricultural field of corn stubble/chaff (Figures 12 through 15). A total of five STPs were advanced along one transect in Area 3 and displayed similar soil profiles of dark grayish brown (10YR 4/2) silty clay loam extending to 10-16 cm (3.9-6.3 in) underlain by yellowish brown (10YR 5/6) or grayish brown (10YR 5/2) silty clay loam. The agricultural field had a surface visibility of 30-40 percent and was pedestrian-surveyed in four 5-m (16.4-ft) transects.</p> <p>Area 4 was located south of US 231 and west of Iowa Street and was comprised of road grade slope, roadside ditch with intermittent standing water, buried utilities, and private driveways and yards (Figures 16 through 18). A total of 32 STPs were advanced along two transects in Area 4. Transect 1 was parallel to Iowa Street and consisted of 12 STPs displaying similar soil profiles of dark brown (10YR 3/3) or dark grayish brown (10YR 4/2) silty clay loam extending to 10-48 cm (3.9-18.9 in) underlain by yellowish brown (10YR 5/6) silty clay loam. STPs 6, 7, 8, and 11 encountered root impasses between 10-20 cm (3.9-7.9 in). Transect 2 was parallel to US 231 and consisted of 20 STPs displaying similar soil profiles of dark brown (10YR 3/3) or dark grayish brown (10YR 4/2) silty clay loam extending to 17-47 cm (6.7-18.5 in) underlain by yellowish brown (10YR 5/4 or 5/6) silty clay loam. STPs 4 and 14 encountered root impasses between 17-20 cm (6.7-7.9 in). STPs 9, 12, and 18 displayed disturbed soil profiles containing gravel/rock fill, likely due to the nearby road grade slope.</p>	

No archaeological sites were encountered during this survey.

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 (*Check all that apply*)

- ☒ 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

In the unlikely event that archaeological deposits or human remains are encountered during the construction phase of the project, all work must cease within 30 m (100 ft) of the find and archaeologists from the Indiana Division of Historic Preservation and Archaeology and the INDOT-Cultural Resources Office will be notified

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 (*if available*)

Other attachments

References cited (*See short report instructions for required references to be consulted*)

Balek, Cynthia L.

2005 Phase 1a Archaeological Reconnaissance of the 341-Acre Iowa Street Property, Center Township, Lake County, Indiana (DHPA Permit No. 200533). Archaeological report (AR-45-00407) prepared by Archaeology and Geomorphology Services, Westchester, IL.

Baskin, Forster & Co.

1876 Map of Lake County with Lowell, Hobart, and Crown Point. Baskin, Forster & Co, Chicago, IL.

Brownsten, Samuel E.

1958 Map of Lake County, Indiana. County Surveyor's Office, Gary, IN.

Google Earth

2022 Google Earth Pro. Desktop software, <<https://www.google.com/earth/versions/#earth-pro>>, accessed August 15, 2022.

Holycross, David N.

1997 Archaeological Records Review and Recommendations Project ST-5345(A), Des. 8657790, Replacement Of Bridge On US 231 Over Branch Nile Ditch, Lake County, Indiana. Archaeological report (AR-45-00096) prepared by the Anthropology Laboratory, Indiana State University, Terre Haute, IN.

Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology (INDR, DHPA)

2022 Guidebook for Indiana Historic Sites and Structures Inventory – Archaeological Sites. Manuscript on file, Division of Historic Preservation and Archaeology, Indiana Department of Natural Resources, Indianapolis, IN.

2021 Indiana State Historic Architectural and Archaeological Research Database (SHAARD). Electronic document, <<https://secure.in.gov/apps/dnr/shaard/welcome.html>>, accessed August 15, 2022.

Appendix E. Effects Report Management Summary and Conclusion

EFFECTS REPORT

US 231 AND IOWA STREET
INTERSECTION IMPROVEMENT PROJECT
CENTER TOWNSHIP, LAKE COUNTY, INDIANA
DES. NO. 2003097/DHPA NO. 30199

PREPARED FOR:

**LAWSON-FISHER ASSOCIATES P.C.
525 W WASHINGTON STREET
SOUTH BEND, IN 46601**

LEAD AGENCY:

FEDERAL HIGHWAY ADMINISTRATION

Prepared by:



Complex Environment. Creative Solutions.

6958 Hillsdale Court
Indianapolis, IN 46256
Telephone: 317.400.1633
www.metricenv.com

A handwritten signature in dark ink that reads "Haley Receveur".

Haley Receveur, QP
Principal Investigator
haleyr@metricenv.com

December 15, 2023

MANAGEMENT SUMMARY

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with the US 231 and Iowa Street Intersection Improvement Project (Des. No. 2003097).

This Effects Report is part of the Section 106 review process for this project. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic and archaeological properties. We are requesting comments from you regarding the possible effects of this project. Please use the above Des. Numbers and project description in your reply and your comments will be incorporated into the formal environmental study.

A Section 106 early coordination letter was distributed on January 5, 2023. In addition, a letter distributed on April 27, 2023 and on May 16, 2023 notified non-Tribal consulting parties and Tribal consulting parties, respectively, that a Historic Property Report (HPR) and Archaeological Report (Tribes only) were available for review and comment.

The intent of this Effects Report is to provide additional information on project activities and updated design plans, as well as to discuss potential effects on the one resource that is recommended eligible for National Register of Historic Places (NRHP) listing, that are reasonably foreseeable. The one NRHP eligible resource is the following:

- Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert, AL-012

The above-listed resource is located within the project's Area of Potential Effects (APE). The APE is the area in which the proposed project may cause alterations in the character or use of historic resources.

Per 36 CFR 800.5(a)(2)(vii), there will be no “transfer, lease, or sale of the property out of Federal ownership or control.”

CONCLUSION

The APE of this project contains the following historic resource:

- Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert, AL-012

Based upon the description of activities to be undertaken, consideration of all qualifying historic characteristics of the above-listed historic property, and analysis of the criteria of adverse effect, it is concluded that upon completion of this undertaking the historic property will maintain its integrity of location, design, setting, materials, workmanship, feeling, and association. Therefore, it is anticipated that INDOT, with authority delegated by FHWA, will issue a No Adverse Effect finding as per 36 CFR § 800.5(b) after compiling comments from consulting parties regarding the information presented in this report.

Please review the information and comment within thirty (30) calendar days of receipt. Tribal consulting parties may enter the process at any time and are encouraged to respond to this notification with any comments or concerns at their earliest convenience.

Appendix F. Consulting Parties' List and Correspondence

Consulting Parties List		
Consulting Party	Contact Name	Accepted Invitation: Y/N
IN State Historic Preservation Office	Beth McCord	Yes
Northwest Indiana Regional Planning Commission	Ty Warner	No
Lake County Commissioner	Kyle Allen, Sr.	No
Lake County Commissioner	Jerry Tippy	No
Lake County Commissioner	Michael Repay	No
Lake County Engineer	Duane Alverson	Yes
Mayor/Town Council President	Peter Land	No
Lake County Historical Society and Museum		No
Lake County Historian	Scott Bocock	Yes
Crown Point Historic Preservation Commission Planning and Building		No
Indiana Landmarks - Northwest Field Office	Blake Swihart	Yes
South Lake County Agricultural Historical Society	Dave Fritz	No
Eastern Shawnee Tribe of Oklahoma		Yes
Miami Tribe of Oklahoma		Yes
Peoria Tribe of Indians of Oklahoma		No
Pokagon Band of Potawatomi Indians		Yes
Shawnee Tribe		No
Forest County Potawatomi Community		



INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (855) 463-6848

Eric Holcomb, Governor
Joe McGuinness, Commissioner

January 5, 2023

This letter was sent to the listed parties.

RE: US 231 and Iowa Street Intersection Improvement Project
Des. No. 2003097
Center Township, Lake County, Indiana.

Dear Consulting Party (see attached list),

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with the US 231 and Iowa Street Intersection Improvement Project (Des. No. 2003097). Metric Environmental, LLC, is under contract with Lawson-Fisher Associates, PC, on the behalf of INDOT, to advance the environmental documentation for the referenced project.

This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

The proposed undertaking is at the intersection of US 231 and Iowa Street, southeast of the City of Crown Point in Lake County, Indiana. It is within Center Township, on the Crown Point, Indiana, USGS Topographic Quadrangle, in Section 23, Township 34N, Range 8W. The project area can be viewed online at <https://arcg.is/jqueP> (the Des. No. is the most efficient search term once in the CRO - Public Web Map App).

Within the project area US 231 is functionally classified as a Rural Minor Arterial, and Iowa Street is classified as a Rural Minor Collector. The existing pavement width of US 231 is 30 feet wide, and the existing verifiable right-of-way (ROW) is 25 feet on each side. The existing pavement on Iowa Street is 21 feet wide and existing ROW is 20 feet on each side. Land use in the project area is residential, commercial, and agricultural.

The need for this project is due to the high frequency of crashes at this intersection. Crash data and a road hazard safety analysis called RoadHAT determined a total of 34 recorded crashes took place within the project limits during the three-year crash study period (2017 through 2019). The RoadHAT analysis resulted in an Index of Crash Frequency (ICF) of 4.53, indicating that the crash frequency at this intersection is in the 99th percentile compared to similar intersections. The Index of Crash Cost (ICC) is 3.06, indicating that the crash costs at this intersection are in the 99th percentile compared with similar intersections. Of the 25 right-angle crashes, 14 involved southbound through-traffic crossing US

231, while the other nine (9) involved northbound through-traffic crossing US 231. The purpose of the project is to improve safety at the intersection.

The proposed preferred alternative is a single-lane roundabout. The anticipated length of roadway approach work is 800 feet along the west approach of US 231, 900 feet along the east approach, and 400 feet along the north and south approaches of Iowa Street. Storm sewer with a detention basin is proposed to drain the new intersection to existing ditches and swales within the project area. All residential driveway approaches located within the project limits will be designed in accordance with the applicable INDOT standards. Lighting at the roundabout is proposed to be installed per INDOT standards.

Maintenance of traffic (MOT) is anticipated to be full closure of the US 231 and Iowa Street intersection with a detour. The proposed detour route would utilize I-65, SR 2, and US 231. The total travel length of the detour is approximately 14.7 miles, with an additional travel length of 6.5 miles.

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic and archaeological properties. In accordance with 36 CFR 800.2 (c), you are hereby requested to be a consulting party to participate in the Section 106 process. Entities that have been invited to participate in the Section 106 consultation process for this project are identified in the attached list. Per 36 CFR 800.3(f), we hereby request that the Indiana State Historic Preservation Officer (SHPO) notify this office if the SHPO staff is aware of any other parties that may be entitled to be consulting parties or should be contacted as potential consulting parties for the project.

The Section 106 process involves efforts to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. For more information regarding the protection of historic resources, please see the Advisory Council on Historic Preservation's guide: *Protecting Historic Properties: A Citizen's Guide to Section 106 Review* available online at <https://www.achp.gov/sites/default/files/documents/2017-01/CitizenGuide.pdf>.

The Area of Potential Effects (APE) is the area in which the proposed project may cause alterations in the character or use of historic resources. At this time, no cultural resource investigations have occurred; however, the results of cultural resource identification and evaluation efforts, both above-ground and archaeological, will be forthcoming. Consulting parties will receive notification when these reports are completed.

Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party, or if you do not respond, you will not be included on the list of consulting parties for this project. If we do not receive your response in the time allotted, the project will proceed consistent with the proposed design, and you will not receive further information about the project unless the design changes.

For questions concerning specific project details, you may contact Candace Hudziak of Metric Environmental, LLC, at 317-443-4123 or candaceh@metricenv.com. All future responses regarding the proposed project should be forwarded to Metric Environmental, LLC, at the following address:

Candace Hudziak
Architectural Historian

Metric Environmental, LLC
6958 Hillside Court
Indianapolis, Indiana, 46250

Tribal Contacts please respond to INDOT's Acting Tribal Liaison, Matt Coon, mcoon@indot.in.gov (317-697-9752), with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Sincerely,



Matthew S. Coon, Acting Manager
Cultural Resources Office
Environmental Services

Enclosures:

Distribution List

Project Location Maps

*Note: To avoid repetition, these maps are not included here but are located in Appendix A of this document

Distribution List:

Department of Natural Resources
Division of Historic Preservation and Archaeology
402 West Washington Street, Room W274
Indianapolis, IN 46204-2739
Beth McCord
BMCCord@dnr.IN.gov

Chad Slider
CSlider@dnr.IN.gov

Indiana Landmarks – Northwest Field Office
Brad Miller, Director
541 South Lake Street
Gary, IN 46403
bmiller@indianalandmarks.org
northwest@indianalandmarks.org

Crown Point Historic Preservation Commission
Planning and Building
101 North East Street
Crown Point, IN 46307

South Lake County Agricultural Historical Society
Dave Fritz, President
PO Box 847
Crown Point, IN 46308-0847
Southlaketractor84@gmail.com

Lake County Historical Society and Museum
1 Courthouse Square, Suite 205
Crown Point, IN 46207

Lake County Historian
Scott Bocock
13206 Parrish Avenue
Cedar Lake, IN 46303
Scott.Bocock@yahoo.com

Northwest Indiana Regional Planning Commission
Ty Warner, Director
6100 Southport Road
Portage, IN 46368
twarner@nirpc.org

Lake County Commissioner 1st District
Kyle Allen, Sr.
2293 North Main Street
Crown Point, IN 46307
allenw@lakecounty.in.org

Lake County Commissioner 2nd District
Jerry Tippy
904 171st Street
Hammond, IN 46324
gainnam@lakecounty.in.org

Lake County Commissioner 3rd District
Michael Repay
2293 North Main Street
Crown Point, IN 46307
mcrepay@lakecounty.in.org

Lake County Engineer
Duane Alverson, P.E.
1100 East Monitor Street
Crown Point, IN 46307
alverda@lakecounty.in.org

Lake County Highway Superintendent
Jan Smoljan
11 East Monitor Street
Crown Point, IN 46307
smoljjs@lakecounty.in.org

Peter Land, Mayor
City of Crown Point
101 North East Street
Crown Point, IN 46307
messary@crownpoint.in.gov

Eastern Shawnee Tribe of Oklahoma

Miami Tribe of Oklahoma

Peoria Tribe of Indians of Oklahoma

Pokagon Band of Potawatomi Indians

Shawnee Tribe

Forest County Potawatomi Community

From: [Branigin, Susan](#)
To: [thpo@estoo.net](#); [THPO](#); [cechohawk@peoriatribes.com](#); [Matthew.Bussler@pokagonband-nsn.gov](#); [Section106](#); [benjamin.rhodd@fcp-nsn.gov](#)
Cc: [Carmany-George, Karstin \(FHWA\)](#); [Coon, Matthew](#); [Branigin, Susan](#); [Candace Hudziak](#); [Shannon Zuercher](#)
Subject: FHWA Project: Des. No. 2003097; Early Coordination Letter, US 231 and Iowa Street Intersection Improvement Project, Lake County, Indiana
Date: Thursday, January 5, 2023 11:47:56 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image006.png](#)
[US231andIowaStreet_Des2003097_Early Coordination_2023-01-05.pdf](#)

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Dear Consulting Parties:

Des. No.: 2003097

Project Description: US 231 and Iowa Street Intersection Improvement Project

Location: Center Township, Lake County, Indiana

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with the US 231 and Iowa Street Intersection Improvement Project (Des. No. 2003097).

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. The following agencies/individuals are being invited to become consulting parties:

Indiana State Historic Preservation Officer
Indiana Landmarks, NW Field Office
Crown Point Historic Preservation Commission
South Lake County Agricultural Historical Society
Lake County Historian, Scott Bocock
Lake County Historical Society and Museum
Northwest Indiana Regional Planning Commission, Ty Warner
Lake County Commissioners, Kyle Allen, Sr., Jerry Tippy, and Michael Repay
Lake County Engineer, Duane Alverson
Lake County Highway Superintendent, Jan Smoljan
Peter Land, Mayor, City of Crown Point
Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Peoria Tribe of Indians of Oklahoma
Pokagon Band of Potawatomi Indians
Shawnee Tribe
Forest County Potawatomi Community

This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

Please review the attached early coordination letter, which is also located in IN SCOPE at <https://erms12c.indot.in.gov/Section106Documents> (the Des. No. is the most efficient search term, once in IN SCOPE),

and respond with your comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comments. If we do not receive a response from an invited consulting party within the time allotted, the project will proceed consistent with the proposed design. Therefore, if we do not receive a response within thirty (30) days, your agency or organization will not receive any further information on the project unless the scope of work changes.

Tribal Contacts please respond to INDOT's Acting Tribal Liaison, Matt Coon, mcoon@indot.in.gov (317-697-9752), with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Thank you in advance for your input,

Susan R. Branigin

History Unit Team Lead

Cultural Resources Office

Environmental Services

100 N. Senate Ave., Rm. N758-ES

Indianapolis IN 46204

Office: 317.417.1622

Email: sbranigin@indot.in.gov

Work Hours: M-F 7:30 a.m.-3:30 p.m.



****For the latest updates from INDOT's Cultural Resources Office, subscribe to the Environmental Services listserv: <https://www.in.gov/indot/3217.htm>**

****Link to the CRO-Public Web Map App can be found [here](#)**

From: [Shannon Zuercher](#)
To: ["BMCCord@dnr.IN.gov"](#); ["CSlider@dnr.IN.gov"](#); ["bmiller@indianalandmarks.org"](#); ["northwest@indianalandmarks.org"](#); ["Southlaketractor84@gmail.com"](#); ["Scott.Bocock@yahoo.com"](#); ["twarner@nirpc.org"](#); ["allenw@lakecounty.in.org"](#); ["gainnam@lakecounty.in.org"](#); ["mcrepay@lakecounty.in.org"](#); ["alverda@lakecounty.in.org"](#); ["smoljis@lakecounty.in.org"](#); ["messary@crownpoint.in.gov"](#)
Cc: [Branigin, Susan](#); [Coon, Matthew](#); ["ddelgado@lawson-fisher.com"](#); [Elayna Stoner](#); [Sam Snell](#); [Candace Hudziak](#)
Bcc: [Shannon Hill Zuercher](#)
Subject: FHWA Project: Des. No. 2003097; Early Coordination Letter, US 231 and Iowa Street Intersection Improvement Project, Lake County, Indiana
Date: Thursday, January 5, 2023 11:08:00 AM
Attachments: [US231andIowaStreet_Des2003097_Early_Coordination_2023-01-05.pdf](#)
[image001.png](#)

Des. No.: 2003097

Project Description: US 231 and Iowa Street Intersection Improvement Project

Location: Center Township, Lake County, Indiana

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with the US 231 and Iowa Street Intersection Improvement Project (Des. No. 2003097).

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. The following agencies/individuals are being invited to become consulting parties:

Indiana State Historic Preservation Officer
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Lake County Historian, Scott Bocock
Lake County Historical Society and Museum
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Lake County Commissioners, Kyle Allen, Sr., Jerry Tippy, and Michael Repay
Lake County Engineer, Duane Alverson
Lake County Highway Superintendent, Jan Smoljan
Peter Land, Mayor, City of Crown Point
Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Peoria Tribe of Indians of Oklahoma
Pokagon Band of Potawatomi Indians
Shawnee Tribe
Forest County Potawatomi Community

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Please review the attached early coordination letter, which is also located in IN SCOPE at <https://erms12c.indot.in.gov/Section106Documents> (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with your comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comments. If we do not receive a response from an invited consulting party within the time allotted, the project will proceed consistent with the proposed design. Therefore, if we do not receive a response within thirty (30) days, your agency or organization will not receive any further information on the project unless the scope of work changes.

Tribal Contacts please respond to INDOT's Acting Tribal Liaison, Matt Coon, mcoon@indot.in.gov (317-697-9752), with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Thank you in advance for your input,



Shannon Hill Zuercher, MS, QP

*Architectural Historian
Cultural Resources*

○ 317.826.7198

6958 Hillsdale Court
Indianapolis, IN 46250
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Indiana | Kentucky | Ohio | West Virginia

From: [Brittany Miller](#)
To: [Shannon Zuercher](#)
Cc: [Blake Swihart](#)
Subject: FW: FHWA Project: Des. No. 2003097; Early Coordination Letter, US 231 and Iowa Street Intersection Improvement Project, Lake County, Indiana
Date: Thursday, January 5, 2023 11:27:35 AM
Attachments: [image001.png](#)
[US231andIowaStreet_Des2003097_Early Coordination_2023-01-05.pdf](#)

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Hi Shannon,

Thank you for including Indiana Landmarks in this project. However, this email address is no longer associated with Brad Miller and the Northwest Field Office. I've cc'd Blake Swihart, the new director of that office. Please include him in all future communications regarding this matter. Again, we appreciate you including us.

Best,

.....
Brittany Miller (she/her)
Director, Eastern Regional Office
.....

Indiana Landmarks
Ph. 765-231-6429, 800-450-4534
Cell 765-593-1218
indianalandmarks.org

From: [Shannon Zuercher](#)
To: [Brittany Miller](#)
Cc: [Blake Swihart](#); [Candace Hudziak](#)
Subject: RE: FHWA Project: Des. No. 2003097; Early Coordination Letter, US 231 and Iowa Street Intersection Improvement Project, Lake County, Indiana
Date: Thursday, January 5, 2023 11:57:00 AM
Attachments: [image001.png](#)

Thank you, Brittany, we'll be sure to note that update.



Shannon Hill Zuercher, MS, QP

Architectural Historian

Cultural Resources

○ 317.826.7198

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Indianapolis, IN 46250

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From: [Scott Bocock](#)
To: [Shannon Zuercher](#)
Subject: RE: FHWA Project: Des. No. 2003097; Early Coordination Letter, US 231 and Iowa Street Intersection Improvement Project, Lake County, Indiana
Date: Thursday, January 5, 2023 4:54:17 PM
Attachments: [66214DB196574560BFC17948343BAEB5.png](#)

Dear Ms. Zuercher,

I feel confident that the necessary fieldwork will reveal any historical and archaeological resources that would be adversely affected by this project. Thank you.

Sincerely,

Scott Bocock,
Lake County Historian

Sent from [Mail](#) for Windows



Miami Tribe of Oklahoma

3410 P St. NW, Miami, OK 74354 • P.O. Box 1326, Miami, OK 74355
Ph: (918) 541-1300 • Fax: (918) 542-7260
www.miamination.com



Via email: mcoon@indot.in.gov

January 10, 2023

Matt Coon, Tribal Liaison
INDOT, Cultural Resources Office
100 North Senate Avenue, N758-ES
Indianapolis, Indiana 46204

Re: Des. No. 2003097, US 231 & Iowa Street Intersection Improvement, Lake County, Indiana –
Comments of the Miami Tribe of Oklahoma

Dear Mr. Coon:

Aya, kweehsitoolaani– I show you respect. The Miami Tribe of Oklahoma, a federally recognized Indian tribe with a Constitution ratified in 1939 under the Oklahoma Indian Welfare Act of 1936, respectfully submits the following comments regarding Des. No. 2003097, US 231 & Iowa Street Intersection Improvement in Lake County, Indiana.

The Miami Tribe offers no objection to the above-referenced project at this time, as we are not currently aware of existing documentation directly linking a specific Miami cultural or historic site to the project site. However, given the Miami Tribe's deep and enduring relationship to its historic lands and cultural property within present-day Indiana, if any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of this project, the Miami Tribe requests immediate consultation with the entity of jurisdiction for the location of discovery. In such a case, please contact me at 918-541-8966 or by email at THPO@miamination.com to initiate consultation.

The Miami Tribe accepts the invitation to serve as a consulting party to the proposed project. In my capacity as Tribal Historic Preservation Officer I am the point of contact for consultation.

Respectfully,

Diane Hunter
Tribal Historic Preservation Officer

From: Duane Alverson <alverda@lakecountyin.org>

Sent: Tuesday, January 17, 2023 8:46 AM

To: Shannon Zuercher <Shannonz@metricenv.com>; Smoljan, Jan S <smoljjs@lakecountyin.org>; mcrepay@lakecountyin.org; gainnam@lakecountyin.org; allenw@lakecountyin.org

Cc: Candace Hudziak <candaceh@metricenv.com>; Branigin, Susan <SBRanigin@indot.IN.gov>; Coon, Matthew <mcoon@indot.IN.gov>

Subject: RE: FHWA Project: Des. No. 2003097; Early Coordination Letter, US 231 and Iowa Street Intersection Improvement Project, Lake County, Indiana

Shannon,

I see the MOT for the intersection improvements is anticipated to be a Full Closure.

Will there be an unofficial Local Detour Route provided to the locals?

Respectfully,

Duane A. Alverson, PE

Engineer



Lake County Highway Department

1100 East Monitor Street

Crown Point, IN 46307

Phone 219-663-0525

Fax 219-662-0497

alverda@lakecountyin.org

From: [Elayna Stoner](#)
To: [Candace Hudziak](#)
Cc: [Shannon Zuercher](#)
Subject: Des. No. 2003097; US 231 and Iowa Street Local Detour
Date: Monday, January 23, 2023 9:06:54 AM
Attachments: [image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)

Dan at LFA provided this information regarding a local detour:

There can a local detour if the county wants it. It's really for the county or city to ask INDOT for it and then to work with the INDOT PM on the detour. We don't really have much to do with it. The county will be invited to the PFC. They can state it for the record. It will INDOT's responsibility to see that it gets included. It never goes in our plans.



EASTERN SHAWNEE
CULTURAL PRESERVATION DEPARTMENT

70500 East 128 Road, Wyandotte, OK 74370

January 26, 2023

INDOT - Indiana Department of Transportation
100 N. Senate Ave. IGCN642
Indianapolis, IN 46201

RE: Des NO. 2003097, Lake County, Indiana

Dear Mr. Coon,

The Eastern Shawnee Tribe has received your letter regarding the above referenced project(s) within Lake County, Indiana. The Eastern Shawnee Tribe is committed to protecting sites important to Tribal Heritage, Culture and Religion. Furthermore, the Tribe is particularly concerned with historical sites that may contain but not limited to the burial(s) of human remains and associated funerary objects.

As described in your correspondence, and upon research of our database(s) and files, we find our people occupied these areas historically and/or prehistorically. However, the project proposes **NO Adverse Effect** or endangerment to known sites of interest to the Eastern Shawnee Tribe. Please continue project as planned. However, should this project inadvertently discover an archeological site or object(s) we request that you immediately contact the Eastern Shawnee Tribe, as well as the appropriate state agencies (within 24 hours). We also ask that all ground disturbing activity stop until the Tribe and State agencies are consulted. Please note that any future changes to this project will require additional consultation.

In accordance with the NHPA of 1966 (16 U.S.C. § 470-470w-6), federally funded, licensed, or permitted undertakings that are subject to the Section 106 review process must determine effects to significant historic properties. As clarified in Section 101(d)(6)(A-B), historic properties may have religious and/or cultural significance to Indian Tribes. Section 106 of NHPA requires Federal agencies to consider the effects of their actions on all significant historic properties (36 CFR Part 800) as does the National Environmental Policy Act of 1969 (43 U.S.C. § 4321-4347 and 40 CFR § 1501.7(a)). This letter evidences NHPA and NEPA historic properties compliance pertaining to consultation with this Tribe regarding the referenced proposed projects.

Thank you, for contacting the Eastern Shawnee Tribe, we appreciate your cooperation. Should you have any further questions or comments please contact our Office.

Sincerely,

Paul Barton, Tribal Historic Preservation Officer (THPO)
Eastern Shawnee Tribe of Oklahoma
(918) 666-5151 Ext:1833
THPO@estoo.net



Pokégnek Bodéwadmik

POKAGON BAND OF POTAWATOMI
HISTORY & CULTURE CENTER

2/03/2023

Matt Coon
INDOT Acting Tribal Liaison
mcoon@indot.in.gov

FHWA Project Des. No. 2003097

Dear Responsible Party:

Migwêth for contacting me regarding this project. As THPO, I am responsible for handling Section 106 Consultations on behalf of the tribe. I am writing to inform you that I have reviewed the details for the project referenced above. The proposed work is occurring within a mile of known archaeological sites, historic sites or features that are considered sensitive or recorded in the Pokagon Band Historic Inventory Database. I have made the determination that the project will have **No Adverse Effect** on any historic, religious, or culturally significant resources to the Pokagon Band of Potawatomi Indians.

If any cultural or archaeological resources are uncovered during construction, please stop work, and contact me immediately. Should you have any other questions, please don't hesitate to contact me at your earliest convenience.

Sincerely,

Matthew J.N. Bussler
Tribal Historic Preservation Officer
Pokagon Band of Potawatomi Indians
Office: (269) 462-4316
Cell: (269) 519-0838
Matthew.Bussler@Pokagonband-nsn.gov

Division of Historic Preservation & Archaeology · 402 W. Washington Street, W274 · Indianapolis, IN 46204-2739
Phone 317-232-1646 · Fax 317-232-0693 · dhpa@dnr.IN.gov ·



February 6, 2023

Candace Hudziak
Architectural Historian
Metric Environmental, LLC
6958 Hillside Court
Indianapolis, Indiana 46250

Federal Agency: Indiana Department of Transportation ("INDOT"),
on behalf of Federal Highway Administration, Indiana Division ("FHWA")

Re: Early coordination letter for the US 231 and Iowa Street improvement project (Des. No. 2003097; DHPA
No. 30199)

Dear Ms. Hudziak:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the "Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana," the staff of the Indiana State Historic Preservation Officer ("Indiana SHPO") has reviewed your January 5, 2023 submission which enclosed INDOT's early coordination letter, received by our office the same day for this project in Center Township, Lake County, Indiana.

We are not aware of any parties who should be invited to participate in the Section 106 consultation on this federal undertaking, beyond those whom INDOT already has invited. *However, if right-of-way is likely to be taken from a potentially historic property, it might be advisable to invite the owner of that property as soon as possible.* In your next regular correspondence on this project, please advise us as to which of the invited consulting parties has accepted the invitation.

We look forward to reviewing the proposed area of potential effects and the reports on investigations of above-ground cultural resources and archaeological resources that the early coordination letter indicated will be forthcoming.

The Indiana SHPO staff's archaeological reviewer for this project is Wade T. Tharp, and the structures reviewer is Toni Lynn Giffin. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

In all future correspondence about the US 231 and Iowa Street improvement project in Center Township, Lake County, Indiana (Des. No. 2003097), please refer to DHPA No. 30199.

Very truly yours,

A handwritten signature in black ink, appearing to read "Beth K. McCord".
Beth K. McCord
Deputy State Historic Preservation Officer

BKM:TLG:MKP:mkp

emc: Matt Coon, INDOT
Susan Branigin, INDOT
Clint Kelly, INDOT
Wade T. Tharp, DNR-DHPA
Toni Lynn Giffin, DNR-DHPA
Candy Hudziak, Metric Environmental
Zoe Vorndran, Metric Environmental
Samuel Snell, Metric Environmental



INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (855) 463-6848

Eric Holcomb, Governor
Michael Smith, Commissioner

April 27, 2023

This letter was sent to the listed parties.

RE: US 231 and Iowa Street Intersection Improvement Project
Center Township, Lake County, Indiana
Des. No. 2003097/DHPA No. 30199.

Dear Consulting Party,

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with the US 231 and Iowa Street Intersection Project (Des. No. 2003097).

This letter is part of the Section 106 review process for this project. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. We are requesting comments from you regarding the possible effects of this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

A Section 106 early coordination letter was distributed on January 5, 2023.

The proposed undertaking is at the intersection of US 231 and Iowa Street, southeast of the City of Crown Point in Lake County, Indiana. It is within Center Township, on the Crown Point, Indiana, USGS Topographic Quadrangle, in Section 23, Township 34N, Range 8W. The project area can be viewed online at <https://arcg.is/jqueP> (the Des. No. is the most efficient search term once in the CRO - Public Web Map App).

Within the project area US 231 is functionally classified as a Rural Minor Arterial, and Iowa Street is classified as a Rural Minor Collector. The existing pavement width of US 231 is 30 feet wide, and the existing verifiable right-of-way (ROW) is 25 feet on each side. The existing pavement on Iowa Street is 21 feet wide and existing ROW is 20 feet on each side. Land use in the project area is residential, commercial, and agricultural.

The need for this project is due to the high frequency of crashes at this intersection. Crash data and a road hazard safety analysis called RoadHAT determined a total of 34 recorded crashes took place within the project limits during the three-year crash study period (2017 through 2019). The RoadHAT analysis resulted in an Index of Crash Frequency (ICF) of 4.53, indicating that the crash frequency at this intersection is in the 99th percentile compared to similar intersections. The Index of Crash Cost (ICC) is 3.06, indicating that the crash costs at this intersection are in the 99th percentile compared with similar intersections. Of the 25 right-angle crashes, 14 involved southbound through-traffic crossing US 231, while the other nine (9) involved northbound through-traffic crossing US 231. The purpose of the project is to improve safety at the intersection.

The preferred alternative is a single lane roundabout. The anticipated length of roadway approach work is 800 feet along the west approach of US 231, 900 ft along the east approach, and 400 feet along the north and south approaches of Iowa Street. Storm sewer with a detention basin is proposed to drain the new intersection to existing ditches and swales within the project area. All residential driveway approaches located within the project limits will be designed in accordance with the applicable INDOT standards. Lighting at the roundabout is proposed to be installed per INDOT standards.

Maintenance of traffic is anticipated to be full closure of the US 231 and Iowa Street Intersection with a detour. The proposed detour route would utilize I-65, SR 2, and US 231. The total travel length of the detour is approximately 14.7 miles, with an additional travel length of 6.5 miles.

Metric Environment is under contract with Lawson-Fisher Associates P.C. to advance the environmental documentation for the referenced project.

In accordance with 36 CFR 800.2 (c), you were invited to become a consulting party as part of the Section 106 process, or you are hereby invited to become a consulting party as part of the Section 106 process. Entities that have previously accepted consulting party status--as well as additional entities that are currently being invited to become consulting parties--are identified in the attached list.

The Section 106 process involves efforts to identify historic properties potentially affected by the undertaking, to assess the undertaking's effects and to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. For more information regarding the protection of historic resources, please see the Advisory Council on Historic Preservation's guide: *Protecting Historic Properties: A Citizen's Guide to Section 106 Review* available online at <https://www.achp.gov/sites/default/files/documents/2017-01/CitizenGuide.pdf>.

The Area of Potential Effects (APE) is the area in which the proposed project may cause alterations in the character or use of historic resources. The APE contains no resources listed in the National Register of Historic Places (NRHP).

A historian who meets the Secretary of the Interior's Professional Qualification Standards identified and evaluated above-ground resources within the APE for potential eligibility for the NRHP. As a result of the historic property identification and evaluation efforts, the Panhandle Railroad Culvert is recommended as eligible for listing in the NRHP.

With regard to archaeological resources, an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards identified no sites within the project area. As a result of these efforts, no archaeological sites were recommended as eligible for listing in the NRHP and no further work is recommended.

In an email correspondence on January 5, 2023, Brittany Miller, Director of Indiana Landmarks' Eastern Regional Office, informed Metric that Brad Miller is no longer working with Indiana Landmarks' Northwest Field Office. The new contact for that office is Blake Swihart, whom Ms. Miller cc'd on her email to Metric. Mr. Swihart is hereby invited to become a consulting party to this project. Please refer to the enclosed attachments for copies of this correspondence.

In an email correspondence from Scott Bocock, Lake County Historian, on January 5, 2023, he states, "I feel confident that the necessary fieldwork will reveal any historical and archaeological resources that would be adversely affected by this project." Please refer to the enclosed attachments for copies of this correspondence.

In an email correspondence on January 17, 2023, Lake County Engineer Duane Alverson asked if a local detour route will be provided since the intersection is anticipated to have a full closure during construction. In response to Mr. Alverson's questions, the project designers at Lawson-Fisher Associates, P.C., have advised that a local detour may be provided if the county requests one from the INDOT project manager for this undertaking. Please refer to the enclosed attachments for copies of this correspondence.

The Historic Property Report and Archaeology Report (Tribes only) are available for review in IN SCOPE at <https://erms12c.indot.in.gov/Section106Documents> (the Des. No. is the most efficient search term, once in IN SCOPE). You are invited to review these documents and to respond with comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party or if you have not previously accepted consulting party status and you do not respond to this letter, you will not be included on the list of consulting parties for this project and will not receive further information about the project unless the design changes.

For questions concerning specific project details, you may contact Candace Hudziak of Metric Environmental, LLC at 317-443-4123 or candaceh@metricenv.com. All future responses regarding the proposed project should be forwarded to Metric Environmental, LL at the following address:

Candace Hudziak
Architectural Historian
Metric Environmental, LLC
6958 Hillside Court
Indianapolis, Indiana, 46250
candaceh@metricenv.com

Tribal Contacts please respond to INDOT's Acting Tribal Liaison, Matt Coon, at mcoon@indot.in.gov (317-697-9752) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Sincerely,



Matthew S. Coon, Manager
Cultural Resources Office
Environmental Services

Enclosures:

Project Area Maps
Proposed NRHP Boundary Map for Culvert
Consulting Parties' Correspondence

*Note: To avoid repetition, these maps are not included here but are located in Appendix A of this document

Distribution List:

Department of Natural Resources
Division of Historic Preservation and Archaeology
402 West Washington Street, Room W274
Indianapolis, IN 46204-2739
Wade T. Tharp
WTharp1@dnr.IN.gov
Toni Lynn Giffin
tgiffin@dnr.in.gov

Duane Alverson, P.E.
Lake County Engineer
1100 East Monitor Street
Crown Point, IN 46307
alverda@lakecountyin.org

Scott Bocock
Lake County Historian
13206 Parrish Avenue
Cedar Lake, IN 46303
Scott.Bocock@yahoo.com

Eastern Shawnee Tribe of Oklahoma

Miami Tribe of Oklahoma

Pokagon Band of Potawatomi Indians

New Invitees:

Blake Swihart, Director
Indiana Landmarks – Northwest Field Office
541 South Lake Street
Gary, IN 46403
bswihart@indianalandmarks.org
northwest@indianalandmarks.org



INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (855) 463-6848

Eric Holcomb, Governor
Michael Smith, Commissioner

May 16, 2023

This letter was sent to the listed parties.

RE: US 231 and Iowa Street Intersection Improvement Project
Center Township, Lake County, Indiana
Des. No. 2003097/DHPA No. 30199.

Dear Consulting Party,

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with the US 231 and Iowa Street Intersection Project (Des. No. 2003097).

This letter is part of the Section 106 review process for this project. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. We are requesting comments from you regarding the possible effects of this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

A Section 106 early coordination letter was distributed on January 5, 2023.

The proposed undertaking is at the intersection of US 231 and Iowa Street, southeast of the City of Crown Point in Lake County, Indiana. It is within Center Township, on the Crown Point, Indiana, USGS Topographic Quadrangle, in Section 23, Township 34N, Range 8W. The project area can be viewed online at <https://arcg.is/jqueP> (the Des. No. is the most efficient search term once in the CRO - Public Web Map App).

Within the project area US 231 is functionally classified as a Rural Minor Arterial, and Iowa Street is classified as a Rural Minor Collector. The existing pavement width of US 231 is 30 feet wide, and the existing verifiable right-of-way (ROW) is 25 feet on each side. The existing pavement on Iowa Street is 21 feet wide and existing ROW is 20 feet on each side. Land use in the project area is residential, commercial, and agricultural.

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Candace Hudziak
Architectural Historian
Metric Environmental, LLC
6958 Hillside Court
Indianapolis, Indiana, 46250
candaceh@metricenv.com

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Sincerely,



Matthew S. Coon, Manager
Cultural Resources Office
Environmental Services

Enclosures:

Project Area Maps
Proposed NRHP Boundary Map for Culvert
Consulting Parties' Correspondence

*Note: To avoid repetition, these maps are not included here but are located in Appendix A of this document

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Indianapolis, IN 46204-2739
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WTharp1@dnr.IN.gov
Toni Lynn Giffin
tgiffin@dnr.in.gov

Duane Alverson, P.E.
Lake County Engineer
1100 East Monitor Street
Crown Point, IN 46307
alverda@lakecounty.in.org

Scott Bocock
Lake County Historian
13206 Parrish Avenue
Cedar Lake, IN 46303
Scott.Bocock@yahoo.com

Eastern Shawnee Tribe of Oklahoma

Forest County Potawatomi Community

Miami Tribe of Oklahoma

Peoria Tribe of Indians of Oklahoma

Pokagon Band of Potawatomi Indians

Shawnee Tribe

New Invitees:

Blake Swihart, Director
Indiana Landmarks – Northwest Field Office
541 South Lake Street
Gary, IN 46403
bswihart@indianalandmarks.org
northwest@indianalandmarks.org

From: [Branigin, Susan](#)
To: [THPO; THPO; bfletcher@peoriatribe.com; Matthew.Bussler@pokagonband-nsn.gov; Section106; benjamin.rhodd@fcp-nsn.gov](#)
Cc: [Carmany-George, Karstin \(FHWA\); Coon, Matthew; Branigin, Susan; Candace Hudziak; Timothy Miller](#)
Subject: FHWA Project: Des. No. 2003097; HPR and Archaeology Report, US 231 and Iowa Street Intersection Improvement Project, Lake County, Indiana
Date: Tuesday, May 16, 2023 3:24:06 PM
Attachments: [image004.png](#)
[image008.png](#)

External Message: *This message originated outside of Metric Environmental.
Do not click links or open attachments unless you recognize the sender and know the content is safe.*

Des. No.: 2003097
Project Description: US 231 and Iowa Street Intersection Improvement Project
Location: Center Township, Lake County, Indiana

Dear Consulting Parties:

The Indiana Department of Transportation, with funding from the Federal Highway Administration, proposes to proceed with US 231 and Iowa Street Intersection Improvement Project (Des. No. 2003097). The Section 106 Early Coordination Letter for this project was originally distributed on January 5, 2023.

As part of Section 106 of the National Historic Preservation Act, a Historic Property Report and an Archaeology Report (Tribes only), have been prepared and are ready for review and comment by consulting parties.

Please review this documentation located in IN SCOPE at <https://erms12c.indot.in.gov/Section106Documents> (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with any comments that you may have. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

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Thank you in advance for your input,

Susan R. Branigin, MS

History Unit Team Lead/Supervisor

Cultural Resources Office (CRO)

Indiana Department of Transportation

100 North Senate Ave., N758 — Environmental Services

Indianapolis, IN 46204

Cell: 317.417.1622

Email: sbranigin@indot.in.gov



From: [Timothy Miller](#)
To: [WTharp1@dnr.IN.gov](#); [tgiffin@dnr.in.gov](#); [alverda@lakecounty.in.org](#); [Scott.Bocock@yahoo.com](#); [bswihart@indianalandmarks.org](#); [northwest@indianalandmarks.org](#)
Cc: [Candace Hudziak](#); [Sam Snell](#); [Branigin, Susan](#); [Coon, Matthew](#)
Subject: FHWA Project: Des. No. 2003097; HPR and Archaeology Report, US 231 and Iowa Street Intersection Improvement Project, Lake County, Indiana
Date: Thursday, April 27, 2023 1:25:47 PM
Attachments: [image001.png](#)

Des. No.: 2003097

Project Description: US 231 and Iowa Street Intersection Improvement Project

Location: Center Township, Lake County, Indiana

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Please review this documentation located in IN SCOPE at <https://erms12c.indot.in.gov/Section106Documents> (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with any comments that you may have. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. Therefore, if we do not receive a response within thirty (30) days, your agency or organization will not receive any further information on the project unless the scope of work changes.

Tribal Contacts please respond to INDOT's Acting Tribal Liaison, Matt Coon, at mcoon@indot.in.gov (317-697-9752) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Thank you in advance for your input,



Timothy Miller

Project Scientist/Architectural Historian

W 513 991.6267

6958 Hillside Court
Indianapolis, IN 46250
www.metricenv.com

Certified DBE/MBE/SBE Company
Indiana | Kentucky | Ohio | West Virginia

From: [Scott Bocock](#)
To: [Timothy Miller](#)
Subject: RE: FHWA Project: Des. No. 2003097; HPR and Archaeology Report, US 231 and Iowa Street Intersection Improvement Project, Lake County, Indiana
Date: Thursday, April 27, 2023 6:43:20 PM
Attachments: [3225A434411845AC9A8E323BBD9C0903.png](#)

Hi Mr. Miller,

I have reviewed the Historic Property Report and feel comfortable with the progression of the project to the next phase. In addition, because the Pittsburgh, Cincinnati, Chicago and St. Louis Railroad culvert meets both Criterion A and C of the National Register of Historic Places, I agree that it is eligible for being listed on the register that this action should be pursued.

Thank you.

Scott Bocock,
Lake County Historian

Sent from [Mail](#) for Windows

From: [Duane Alverson](#)
To: [Timothy Miller](#)
Subject: RE: FHWA Project: Des. No. 2003097; HPR and Archaeology Report, US 231 and Iowa Street Intersection Improvement Project, Lake County, Indiana
Date: Thursday, May 4, 2023 8:31:26 AM
Attachments: [image002.png](#)
[image003.png](#)
[image004.png](#)
[RE Des. 2003097 - US 231 Roundabout - Lake County Surveyor drainage follow up.msg](#)

Thank you Mr. Miller,

I thought I already responded with my concerns, please see attached.

From an archaeology standpoint I have no comments.

Respectfully,

Duane A. Alverson, PE
Engineer



Lake County Highway Department
1100 East Monitor Street
Crown Point, IN 46307
Phone 219-663-0525
alverda@lakecountyin.org



May 30, 2023

Candace Hudziak
Architectural Historian
Metric Environmental, LLC
6958 Hillsdale Court
Indianapolis, Indiana 46250

Federal Agency: Indiana Department of Transportation (“INDOT”),
on behalf of Federal Highway Administration, Indiana Division (“FHWA”)

Re: Indiana archaeological short report (Snell and Stevenson, 04/24/2023), and historic property long
report (Miller, 4/19/2023), for the US 231 and Iowa Street Improvement Project (Des. No.
2003097; DHPA No. 30199)

Dear Ms. Hudziak:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the “Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana,” the staff of the Indiana State Historic Preservation Officer (“Indiana SHPO”) has reviewed your April 27, 2023, submission, which enclosed the Indiana archaeological short report (Snell and Stevenson, 04/24/2023) and the historic property report (“HPR”; Miller, 4/19/2023), and which was received by our office April 27, 2023, for the above-referenced project proposed for a location at Center Township, Lake County, Indiana.

The area of potential effects (“APE”) proposed in the HPR appears to be of adequate size to encompass the geographic area in which direct and indirect effects of a project of this nature could occur.

For the purposes of the Section 106 review of this federal undertaking, the SHPO agrees with the HPR that the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert (AL-012) is eligible for inclusion in the National Register of Historic Places (“NRHP”) under Criterion A for its important role in the area’s transportation history and under Criterion C for its engineering significance. Additionally, the SHPO agrees with the HPR that the boundary of the structure, consisting of the footprint of the structure and its wingwalls.

Additionally, in regard to archaeological resources, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the portions of the proposed project area that were subjected to archaeological field reconnaissance survey. We concur with the opinion of the archaeologist, as expressed in the Indiana archaeological short report (Snell and Stevenson, 04/24/2023), that no further archaeological investigations appear necessary at these portions of the proposed project area.

Furthermore, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the portions of the proposed project area that were not subjected to archaeological field reconnaissance survey. However, this identification is subject to the ground-disturbing project-related activities remaining within areas disturbed by previous construction of a recent and non-historical nature. If archaeological deposits are encountered from the post-contact period, they will be evaluated regarding their eligibility for the NRHP in consultation with the staff of the Indiana SHPO. Please contact our office if such deposits are encountered. The archaeological

recording must be done in accordance with the Secretary of the Interior's "Standards and Guidelines for Archaeology and Historic Preservation" (48 F.R. 44716) and a report of the archaeological documentation must be submitted to our office for review and comment.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29) requires that the discovery be reported to the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology, within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. Part 800.

The Indiana SHPO staff's archaeological reviewer for this project is Wade T. Tharp, and the structures reviewer is Toni Lynn Giffin. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

In all future correspondence about the US 231 and Iowa Street improvement project in Center Township, Lake County, Indiana (Des. No. 2003097), please refer to DHPA No. 30199.

Very truly yours,



Beth K. McCord
Deputy State Historic Preservation Officer

BKM:TLG:WTT:wt

emc: Candy Hudziak, Metric Environmental, LLC
Samuel P. Snell, Metric Environmental, LLC
Matt Coon, Ph.D., Indiana Department of Transportation
Susan Branigin, Indiana Department of Transportation
Clint Kelly, Indiana Department of Transportation
Toni Lynn Giffin, Indiana DNR-DHPA
Wade T. Tharp, Indiana DNR-DHPA



INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (855) 463-6848

Eric Holcomb, Governor
Michael Smith, Commissioner

December 15, 2023

This letter was sent to the listed parties.

RE: US 231 and Iowa Street Intersection Improvement Project
Center Township, Lake County, Indiana
Des. No. 2003097/DHPA No. 30199

Dear Consulting Party,

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with the US 231 and Iowa Street Intersection Improvement Project (Des. No. 2003097).

This letter is part of the Section 106 review process for this project. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. We are requesting comments from you regarding the possible effects of this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

A Section 106 early coordination letter was distributed on January 5, 2023. In addition, a letter distributed on April 27, 2023 and on May 16, 2023 notified non-Tribal consulting parties and Tribal consulting parties, respectively, that a Historic Property Report (HPR) and an Archaeology Report (Tribes only) were available for review and comment.

The proposed undertaking is at the intersection of US 231 and Iowa Street, southeast of the City of Crown Point in Lake County, Indiana. It is within Center Township, on the Crown Point, Indiana, USGS Topographic Quadrangle, in Section 23, Township 34N, Range 8W. The project area can be viewed online at <https://arcg.is/jqueP> (the Des. No. is the most efficient search term once in the CRO - Public Web Map App).

Within the project area US 231 is functionally classified as a Rural Minor Arterial, and Iowa Street is classified as a Rural Minor Collector. The existing pavement width of US 231 is 30 feet wide, and the existing verifiable right-of-way (ROW) is 25 feet on each side. The existing pavement on Iowa Street is 21 feet wide and existing ROW is 20 feet on each side. Land use in the project area is residential, commercial, and agricultural.

The need for this project is due to the high frequency of crashes at this intersection. Crash data and a road hazard safety analysis called RoadHAT determined a total of 34 recorded crashes took place within the project limits during the three-year crash study period (2017 through 2019). The RoadHAT analysis resulted in an Index of Crash Frequency (ICF) of 4.53, indicating that the crash frequency at this intersection is in the 99th percentile compared to similar intersections. The Index of Crash Cost (ICC) is 3.06, indicating that the crash costs at this intersection are in the 99th percentile compared to similar intersections. Of the 25 right-angle crashes, 14 involved southbound through-traffic crossing US 231, while the other nine (9) involved northbound through-traffic crossing US 231. The purpose of the project is to improve safety at the intersection.

The proposed preferred alternative is a single lane roundabout. The anticipated length of roadway approach work is 800 feet along the west approach of US 231, 900 ft along the east approach, and 400 feet along the north and south approaches

of Iowa Street. Storm sewer with a detention basin is proposed to drain the new intersection to existing ditches and swales within the project area. All residential driveway approaches located within the project limits will be designed in accordance with the applicable INDOT standards. Lighting at the roundabout is proposed to be installed per INDOT standards.

Maintenance of traffic is anticipated to be full closure of the US 231 and Iowa Street Intersection with a detour. The proposed detour route would utilize I-65, SR 2, and US 231. The total travel length of the detour is approximately 14.7 miles, with an additional travel length of 6.5 miles.

Metric Environmental, LLC is under contract with Lawson-Fisher Associates P.C. to advance the environmental documentation for the referenced project.

In accordance with 36 CFR 800.2 (c), you were invited to become a consulting party as part of the Section 106 process, or you are hereby invited to become a consulting party as part of the Section 106 process. Entities that have previously accepted consulting party status--as well as additional entities that are currently being invited to become consulting parties--are identified in the attached list.

The Section 106 process involves efforts to identify historic properties potentially affected by the undertaking, to assess the undertaking's effects and to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. For more information regarding the protection of historic resources, please see the Advisory Council on Historic Preservation's guide: Protecting Historic Properties: A Citizen's Guide to Section 106 Review available online at <https://www.achp.gov/sites/default/files/documents/2017-01/CitizenGuide.pdf>.

The Area of Potential Effects (APE) is the area in which the proposed project may cause alterations in the character or use of historic resources. The APE contains no resources listed in the National Register of Historic Places (NRHP).

A historian who meets the Secretary of the Interior's Professional Qualification Standards identified and evaluated above-ground resources within the APE for potential eligibility for the NRHP. As a result of the historic property identification and evaluation efforts, the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert (AL-012) is recommended as eligible for listing in the NRHP.

With regards to archaeological resources, an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards identified no sites within the project area. As a result of these efforts, no sites were recommended as eligible for listing in the NRHP and no further work or further work is recommended. No correspondence was received from Tribal consulting parties.

In an email dated April 27, 2023 in response to the Historic Property Report, Scott Bocock, the Lake County historian, replied that he felt comfortable with the progression of the project. He also concurred that the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert (AL-012) was eligible for inclusion in the NRHP. Please refer to the enclosed attachments for copies of this correspondence.

In an email dated April 27, 2023 Duane Alverson, the Lake County Highway engineer, replied that he had received drainage complaints about a ditch along the southern side of US 231, west of Iowa Street, and a ditch about 850 feet north of US 231, west of Iowa Street. Please refer to the enclosed attachments for copies of this correspondence.

In a letter dated May 30, 2023 the Indiana State Historic Preservation Office (SHPO) concurred that the APE is of adequate size and that the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert (AL-012) is recommended eligible for inclusion in the NRHP. The SHPO also concurred that no further archaeological investigations appeared necessary.

No other consulting party correspondence was received. Participating consulting parties are indicated in the Distribution List at the end of this letter. Please refer to the enclosed attachments for copies of this correspondence.

An Effects Report is available for review in IN SCOPE at <https://erms12c.indot.in.gov/Section106Documents> (the Des. No. is the most efficient search term, once in IN SCOPE). You are invited to review these documents and to respond with comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party or if you have not previously accepted consulting party status and you do not respond to this letter, you will not be included on the list of consulting parties for this project and will not receive further information about the project unless the design changes.

For questions concerning specific project details, you may contact Candace Hudziak of Metric Environmental, LLC at 317-443-4123 or candaceh@metricenv.com. All future responses regarding the proposed project should be forwarded to Metric Environmental, LLC at the following address:

Candace Hudziak
Architectural Historian
Metric Environmental, LLC
6958 Hillsdale Court
Indianapolis, Indiana, 46250
candaceh@metricenv.com

Tribal Contacts please respond to INDOT's Tribal Liaison, Matt Coon, at mcoon@indot.in.gov (317-697-9752) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Sincerely,



Matthew S. Coon, Manager
Cultural Resources Office
Environmental Services

Enclosure:
Distribution List
Consulting Parties Correspondence

Distribution List (bold text indicates entities which have accepted the invitation to become consulting parties):

Beth McCord, Deputy SHPO
Department of Natural Resources
Division of Historic Preservation and Archaeology
402 West Washington Street, Room W274
Indianapolis, IN 46204-2739
BMCCord@dnr.in.gov

Duane Alverson, P.E.
Lake County Engineer
1100 East Monitor Street
Crown Point, IN 46307
alverda@lakecountyin.org

Scott Bocock
Lake County Historian
13206 Parrish Avenue
Cedar Lake, IN 46303
Scott.Bocock@yahoo.com

Tribal Consulting Parties:

Eastern Shawnee Tribe of Oklahoma

Miami Tribe of Oklahoma

Pokagon Band of Potawatomi Indians

From: [Branigin, Susan](#)
To: [thpo@estoo.net](#); [THPO](#); [Matthew.Bussler@pokagonband-nsn.gov](#)
Cc: [Carmany-George, Karstin \(FHWA\)](#); [Coon, Matthew](#); [Branigin, Susan](#); [Candace Hudziak](#); [Haley Receveur](#)
Subject: FHWA Project: Des. No. 2003097; Effects Report, US 231 and Iowa Street Intersection Improvement Project, Center Township, Lake County, Indiana
Date: Friday, December 15, 2023 12:41:26 PM
Attachments: [image004.png](#)
[image008.png](#)
[US231Roundabout_Des2003097_EffectsReport_2023-12-15.pdf](#)

External Message: *This message originated outside of Metric Environmental.
Do not click links or open attachments unless you recognize the sender and know the content is safe.*

Des. No.: 2003097

Project Description: US 231 and Iowa Street Intersection Improvement Project

Location: Center Township, Lake County, Indiana

Dear Consulting Parties:

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with the US 231 and Iowa Street Intersection Improvement Project (Des. No. 2003097). The Section 106 Early Coordination Letter for this project was originally distributed on January 5, 2023.

As part of the Section 106 of the National Historic Preservation Act, an Effects Report has been prepared and is ready for review and comment by consulting parties.

Please review the attached Effects Report, which is also located in IN SCOPE at <https://erms12c.indot.in.gov/Section106Documents> (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with any comments that you may have. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. Therefore, if we do not receive a response within thirty (30) days, your agency or organization will not receive any further information on the project unless the scope of work changes.

Tribal Contacts please respond to INDOT's Acting Tribal Liaison, Matt Coon, at mcoon@indot.in.gov (317-697-9752) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Thank you in advance for your input,

Susan R. Branigin, MS

History Unit Team Lead/Supervisor

Cultural Resources Office (CRO)

Indiana Department of Transportation

100 North Senate Ave., N758 — Environmental Services

Indianapolis, IN 46204

From: [Haley Receveur](#)
To: [bmccord@dnr.in.gov](#); [alverda@lakecountyin.org](#); [Scott.Bocock@yahoo.com](#); [wtharp1@dnr.in.gov](#); [Giffin, Toni L](#)
Cc: [Candace Hudziak](#); [Shannon Zuercher](#); [Branigin, Susan](#); [Coon, Matthew](#); [elaynas@metricenv.com](#); [Timothy Miller](#); [Sam Snell](#); [ddegdo@lawson-fisher.com](#)
Subject: FHWA Project: Des. No. 2003097; Effects Report, US 231 and Iowa Street Intersection Improvement Project, Center Township, Lake County, Indiana
Date: Friday, December 15, 2023 11:53:00 AM
Attachments: [image001.png](#)
[US231Roundabout_Des2003097_EffectsReport_2023-12-15.pdf](#)

Des. Nos.: 2003097

Project Description: US 231 and Iowa Street Intersection Improvement Project

Location: US 231 and Iowa Street, Center Township, Lake County, Indiana

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with the US 231 and Iowa Street Intersection Improvement Project (Des. No. 2003097). The Section 106 Early Coordination Letter for this project was originally distributed on January 5, 2023.

As part of the Section 106 of the National Historic Preservation Act, an Effects Report has been prepared and is ready for review and comment by consulting parties.

Please review the attached Effects Report, which is also located in IN SCOPE at <https://erms12c.indot.in.gov/Section106Documents> (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with any comments that you may have. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. Therefore, if we do not receive a response within thirty (30) days, your agency or organization will not receive any further information on the project unless the scope of work changes.

Tribal Contacts please respond to INDOT's Acting Tribal Liaison, Matt Coon, at mcoon@indot.in.gov (317-697-9752) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Thank you in advance for your input,



Haley Receveur

Staff Scientist – Architectural Historian

O (317) 214-8258

M 812.786.1597

6958 Hillsdale Court
Indianapolis, IN 46250
www.metricenv.com

From: [Scott Bocock](#)
To: [Haley Receveur](#)
Subject: RE: FHWA Project: Des. No. 2003097; Effects Report, US 231 and Iowa Street Intersection Improvement Project, Center Township, Lake County, Indiana
Date: Friday, December 15, 2023 4:09:01 PM
Attachments: [3D799EB0D5314B9AB8C74D2EACD9D20F.png](#)

Hi Ms. Receveur,

I have reviewed the documentation and feel comfortable with the progression of this project to the next phase.
Thank you!

Scott Bocock,
Lake County Historian

Sent from [Mail](#) for Windows

From: [Duane Alverson](#)
To: [Haley Receveur](#); bmccord@dnr.in.gov; Scott.Bocock@yahoo.com; wtharp1@dnr.in.gov; [Giffin, Toni L](#)
Cc: [Candace Hudziak](#); [Shannon Zuercher](#); [Branigin, Susan](#); [Coon, Matthew](#); [Elayna Stoner](#); [Timothy Miller](#); [Sam Snell](#); ddelgdo@lawson-fisher.com
Subject: RE: FHWA Project: Des. No. 2003097; Effects Report, US 231 and Iowa Street Intersection Improvement Project, Center Township, Lake County, Indiana
Date: Monday, December 18, 2023 7:57:45 AM
Attachments: [image002.png](#)
[image003.png](#)
[US231Roundabout_Des2003097_EffectsReport_2023-12-15.pdf](#)

Mrs. **Haley Receveur**

I have reviewed the attached and I have no further comments at this time as it pertains to the Section 106 review process.

Respectfully,

Duane A. Alverson, PE
Engineer



Lake County Highway Department
1100 East Monitor Street
Crown Point, IN 46307
Phone 219-663-0525
alverda@lakecountyin.org

Division of Historic Preservation & Archaeology · 402 W. Washington Street, W274 · Indianapolis, IN 46204-2739
Phone 317-232-1646 · Fax 317-232-0693 · dhpa@dnr.IN.gov



January 10, 2024

Candace Hudziak
Architectural Historian
Metric Environmental, LLC
6958 Hillsdale Court
Indianapolis, Indiana 46250

Federal Agency: Indiana Department of Transportation (“INDOT”),
on behalf of Federal Highway Administration, Indiana Division (“FHWA”)

Re: Effects report for the US 231 and Iowa Street Improvement Project (Des. No. 2003097; DHPA
No. 30199)

Dear Ms. Hudziak:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the “Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana,” the staff of the Indiana State Historic Preservation Officer (“Indiana SHPO”) has reviewed your December 15, 2023, submission, received by our office December 15, 2023, for this project in Center Township, Lake County, Indiana.

As previously stated, for the purposes of the Section 106 review of this federal undertaking, the SHPO agrees with the HPR that the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert (AL-012) is eligible for inclusion in the National Register of Historic Places (“NRHP”) under Criterion A for its important role in the area’s transportation history and under Criterion C for its engineering significance. Additionally, the SHPO agrees with the HPR that the boundary of the structure, consisting of the footprint of the structure and its wingwalls.

While the project is taking place adjacent to the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert (AL-012), we agree that this resource will not be adversely affected by this federal undertaking.

Additionally, as previously indicated, in regard to archaeological resources, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the portions of the proposed project area that were subjected to archaeological field reconnaissance survey. We concur with the opinion of the archaeologist, as expressed in the Indiana archaeological short report (Snell and Stevenson, 04/24/2023), that no further archaeological investigations appear necessary at these portions of the proposed project area.

Furthermore, as previously indicated, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the portions of the proposed project area that were not subjected to archaeological field reconnaissance survey. However, this identification is subject to the ground-disturbing project-related activities remaining within areas disturbed by previous construction of a recent and non-historical nature. If archaeological deposits are encountered from the post-contact period, they will be evaluated regarding their eligibility for the NRHP in consultation with the staff of the Indiana SHPO. Please contact our office if such deposits are encountered. The archaeological recording must be done in accordance with the

Secretary of the Interior's "Standards and Guidelines for Archaeology and Historic Preservation" (48 F.R. 44716) and a report of the archaeological documentation must be submitted to our office for review and comment.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29) requires that the discovery be reported to the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology, within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. Part 800.

Unless another consulting party expresses a different opinion about this project's effects, it might now be appropriate to ask INDOT for a finding.

The Indiana SHPO staff's archaeological reviewer for this project is Wade T. Tharp, and the structures reviewer is Toni Lynn Giffin. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

In all future correspondence about the US 231 and Iowa Street improvement project in Center Township, Lake County, Indiana (Des. No. 2003097), please refer to DHPA No. 30199.

Very truly yours,



Beth K. McCord
Deputy State Historic Preservation Officer

BKM:TLG:WTT:wt

emc: Matt Coon, Ph.D., Indiana Department of Transportation
Susan Branigin, Indiana Department of Transportation
Clint Kelly, Indiana Department of Transportation
Candice Hudziak, Metric Environmental, LLC
Toni Lynn Giffin, Indiana DNR-DHPA
Wade T. Tharp, Indiana DNR-DHPA



EASTERN SHAWNEE CULTURAL PRESERVATION DEPARTMENT

70500 East 128 Road, Wyandotte, OK 74370

February 13, 2024

INDOT - Indiana Department of Transportation

100 N. Senate Ave. IGCN642

Indianapolis, IN 46201

RE: Des No. 2003097, Lake County, IN

Dear Mr. Coon,

The Eastern Shawnee Tribe has received your letter regarding the above referenced project(s) within Lake County, IN. The Eastern Shawnee Tribe is committed to protecting sites important to Tribal Heritage, Culture and Religion. Furthermore, the Tribe is particularly concerned with historical sites that may contain but not limited to the burial(s) of human remains and associated funerary objects.

As described in your correspondence, and upon research of our database(s) and files, we find our people occupied these areas historically and/or prehistorically. However, the project proposes **NO Adverse Effect** or endangerment to known sites of interest to the Eastern Shawnee Tribe. Please continue project as planned. However, should this project inadvertently discover an archeological site or object(s) we request that you immediately contact the Eastern Shawnee Tribe, as well as the appropriate state agencies (within 24 hours). We also ask that all ground disturbing activity stop until the Tribe and State agencies are consulted. Please note that any future changes to this project will require additional consultation.

In accordance with the NHPA of 1966 (16 U.S.C. § 470-470w-6), federally funded, licensed, or permitted undertakings that are subject to the Section 106 review process must determine effects to significant historic properties. As clarified in Section 101(d)(6)(A-B), historic properties may have religious and/or cultural significance to Indian Tribes. Section 106 of NHPA requires Federal agencies to consider the effects of their actions on all significant historic properties (36 CFR Part 800) as does the National Environmental Policy Act of 1969 (43 U.S.C. § 4321-4347 and 40 CFR § 1501.7(a)). This letter evidences NHPA and NEPA historic properties compliance pertaining to consultation with this Tribe regarding the referenced proposed projects.

Thank you, for contacting the Eastern Shawnee Tribe, we appreciate your cooperation. Should you have any further questions or comments please contact our Office.

Sincerely,

Lora Nuckolls, Tribal Historic Preservation Officer (THPO)

Eastern Shawnee Tribe of Oklahoma

(918) 238-5151 Ext:1840

THPO@estoo.net

Appendix G. Project Plans

Plans were intentionally removed. Please refer to Appendix B, pages B-7 to B-25 in the CE document.

AFFIDAVIT OF PUBLICATION

Northwest Indiana Times
601 W. 45th Ave.
(219) 933-3333

State of Texas, County of Bexar, ss:

I, Yuade Moore, of lawful age, being duly sworn upon oath depose and say that I am an agent of Column Software, PBC, duly appointed and authorized agent of the Publisher of Northwest Indiana Times, a publication that is a "legal newspaper" as that phrase is defined for the city of Munster, for the County of Lake, in the state of Indiana, that this affidavit is Page 1 of 1 with the full text of the sworn-to notice set forth on the pages that follow, and that the attachment hereto contains the correct copy of what was published in said legal newspaper in consecutive issues on the following dates:

Publication Dates:

- Jun 5, 2024

Notice ID: 9bf4llcVjDMA6oLu4zGz

Publisher ID: 103930

Notice Name: Public Notice Des No 2003097

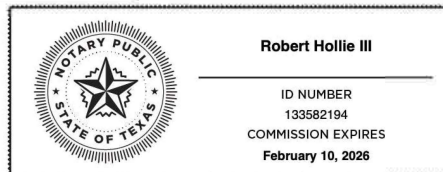
Publication Fee: \$43.53

Yuade Moore

Agent

VERIFICATION

State of Texas
County of Bexar



Signed or attested before me on this: 06/10/2024

[Signature]

Notary Public

Electronically signed and notarized online using the Proof platform.

Public Notice
Des. No. 2003097

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA) proposes to proceed with the US 231 and Iowa Street Intersection Improvement Project (Des. No. 2003097) in Center Township, Lake County, Indiana.

Under the preferred alternative, the proposed project would involve constructing a single lane roundabout. The anticipated length of roadway approach work is 800 ft along the west approach of US 231, 900 ft along the east approach, and 400 ft along the north and south approaches of Iowa Street. Storm sewer with a detention basin is proposed to drain the new intersection to existing ditches and swales within the project area. All residential driveway approaches located within the project limits will be designed in accordance with the applicable INDOT standards. Lighting at the roundabout is proposed to be installed per INDOT standards.

Properties listed in or eligible for the National Register of Historic Places (NRHP) located within the Area of Potential Effects (APE) include the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert. The proposed action impacts properties listed in or eligible for the NRHP. The Indiana Department of Transportation (INDOT), on behalf of the FHWA, has issued a "No Adverse Effect" finding for the project because the project will not diminish the integrity of the characteristics that qualify the historic property within the APE for inclusion in the NRHP. In accordance with the National Historic Preservation Act, the views of the public are being sought regarding the effect of the proposed project on the historic elements as per 36 CFR 800.2(d), 800.3(e) and 800.6(a)(4). Pursuant to 36 CFR 800.4(d)(2), the documentation specified in 36 CFR 800.11(e) is available for inspection at Metric Environmental, LLC. Additionally, this documentation can be viewed electronically by accessing INDOT's Section 106 document posting website IN SCOPE at <http://erms12c.indot.in.gov/Section106Documents>. This documentation serves as the basis for the "No Adverse Effect" finding. The views of the public on this effect finding are being sought. Please reply with any comments to Candace Hudziak of Metric Environmental, LLC (317-443-4123, candaceh@metricenv.com) no later than July 5, 2024.

In accordance with the "Americans with Disabilities Act", if you have a disability for which INDOT needs to provide accessibility to the document(s) such as interpreters or readers, please contact Mike Grylewicz at the INDOT LaPorte District Office at 855-464-6368 or mgrylewicz@indot.in.gov.
6/5 - 103930

HSPAXLP

Division of Historic Preservation & Archaeology · 402 W. Washington Street, W274 · Indianapolis, IN 46204-2739
Phone 317-232-1646 · Fax 317-232-0693 · dhpa@dnr.IN.gov ·

June 28, 2024

Candace Hudziak
Architectural Historian
Metric Environmental, LLC
6958 Hillsdale Court
Indianapolis, Indiana 46250

Federal Agency: Indiana Department of Transportation (“INDOT”),
on behalf of Federal Highway Administration, Indiana Division (“FHWA”)

Re: Indiana Department of Transportation’s finding of “no adverse effect,” on behalf of the Federal
Highway Administration, for the US 231 and Iowa Street Improvement Project (Des. No.
2003097; DHPA No. 30199)

Dear Ms. Hudziak:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the “Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana,” the staff of the Indiana State Historic Preservation Officer (“Indiana SHPO”) has reviewed your May 31, 2024, submission, which enclosed INDOT’s finding and supporting documentation, received by our office May 31, 2024, for this project, which is proposed for areas located at Center Township, in Lake County, Indiana.

As previously stated, for the purposes of the Section 106 review of this federal undertaking, the SHPO agrees with the HPR that the Pittsburgh, Cincinnati, Chicago, and St. Louis Railroad Culvert (AL-012) is eligible for inclusion in the National Register of Historic Places (“NRHP”) under Criterion A.

Additionally, as previously indicated, in regard to archaeological resources, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the portions of the proposed project area that were subjected to archaeological field reconnaissance survey. We concur with the opinion of the archaeologist, as expressed in the Indiana archaeological short report (Snell and Stevenson, 04/24/2023), that no further archaeological investigations appear necessary at these portions of the proposed project area.

Furthermore, as previously indicated, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the portions of the proposed project area that were not subjected to archaeological field reconnaissance survey. However, this identification is subject to the ground-disturbing project-related activities remaining within areas disturbed by previous construction of a recent and non-historical nature. If archaeological deposits are encountered from the post-contact period, they will be evaluated regarding their eligibility for the NRHP in consultation with the staff of the Indiana SHPO. Please contact our office if such deposits are encountered. The archaeological recording must be done in accordance with the Secretary of the Interior’s “Standards and Guidelines for Archaeology and Historic Preservation” (48 F.R. 44716) and a report of the archaeological documentation must be submitted to our office for review and comment.

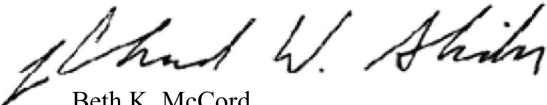
If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29) requires that the discovery be reported to the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology, within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. Part 800.

Accordingly, we concur with INDOT's May 29, 2024, Section 106 finding of "No Adverse Effect," on behalf of FHWA for this federal undertaking.

The Indiana SHPO staff's archaeological reviewer for this project is Wade T. Tharp, and the structures reviewer is Toni Lynn Giffin. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

In all future correspondence about the US 231 and Iowa Street Improvement Project, which is proposed for areas located at Center Township, in Lake County, Indiana (Des. No. 2003097), please refer to DHPA No. 30199.

Very truly yours,



Beth K. McCord
Deputy State Historic Preservation Officer

BKM:TLG:WTT:wtt

emc: Matt Coon, Ph.D., Indiana Department of Transportation
Susan Branigin, INDOT
Clint Kelly, Indiana Department of Transportation
Candice Hudziak, Metric Environmental, LLC
Toni Lynn Giffin, Indiana DNR-DHPA
Wade T. Tharp, Indiana DNR-DHPA

APPENDIX E

Red Flag and Hazardous Materials



INDIANA DEPARTMENT OF TRANSPORTATION

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

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

Eric Holcomb, Governor
Michael Smith, Commissioner

Date: March 7, 2023

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

From: Colin Keith
Metric Environmental, LLC
6958 Hillsdale Court
Indianapolis, IN 46250
colink@metricenv.com

Re: RED FLAG INVESTIGATION
DES #2003097, State Project
Intersection Improvement Project
US 231 at Iowa Street
Lake County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The project will consist of a constructing a single lane roundabout at the US 231 and Iowa Street junction to improve safety at the intersection by reducing crash frequency and severity. The US 231 lanes will be reconstructed as high-speed approaches, with longer splitter islands and multiple curves. The longer approaches along US 231 will help reduce the suddenness of the speed reduction forced onto vehicles due to the geometric constraints of a roundabout. Approximately 800' of additional approach along US 231 would need to be reconstructed on each side of Iowa Street.

Bridge Work Included in Project: Yes ☐ No ☒ Structure #(s) _____

Is the bridge Historical? Yes ☐ No ☐; Select ☐ Non-Select ☐

(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

Culvert Work Included in Project: Yes ☐ No ☒ Structure #(s) _____

Proposed right of way: Temporary ☐ #Acres _____, Permanent ☒ #Acres TBD, Not Applicable (N/A) ☐

Type and proposed depth of excavation: Excavation up to five (5) feet below grade would be needed for roadway grading and construction of splitter and center islands.

Maintenance of traffic (MOT): Road closure with detour. The detour route would consist of I-65, SR 2, and US 231.

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

State Project: ☒ LPA: ☐

Any other factors influencing recommendations: N/A

INFRASTRUCTURE TABLE AND SUMMARY

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

Recreational Facilities: One (1) recreational facility is located within the 0.5 mile search radius. Thomas Sporre Wildlife Area is approximately 0.19 mile southeast of the project area. No impact is expected.

Railroads: One (1) railroad segment is located within the 0.5 mile search radius. Conrail RR runs parallel to US 231, southeast-northwest through the project area. The railroad status is abandoned. No impact is expected.

Trails: One (1) trail segment is located within the 0.5 mile search radius. Veteran's Memorial Bikeway is a planned asphalt rail-trail located on the abandoned Conrail tracks noted above. Coordination with the Lake County Parks and Recreation Department will occur.

Managed Lands: One (1) managed land polygon is located within the 0.5 mile search radius. Thomas Sporre Wildlife Area is approximately 0.19 mile southeast of the project area. No impact is expected.

WATER RESOURCES TABLE AND SUMMARY

Water Resources Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI – Points	N/A	Canal Routes – Historic	N/A
Karst Springs	N/A	NWI – Wetlands	20
Canal Structures – Historic	N/A	Lakes	7
NPS NRI Listed	N/A	Floodplain – DFIRM	4
NWI – Lines	1	Cave Entrance Density	N/A
IDEM 303d Listed Streams and Lakes (Impaired)	N/A	Sinkhole Areas	N/A
Rivers and Streams	3	Sinking-Stream Basins	N/A

If unmapped water features are identified that might impact the project area, direct coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Explanation:

NWI Lines: One (1) NWI line segment is located within the 0.5 mile search radius. The NWI line is approximately 0.48 mile south of the project area. No impact is expected.

Rivers and Streams: Three (3) stream segments are located within the 0.5 mile search radius. An unnamed tributary (UNT) to Niles Ditch is adjacent to the northwest of the project area. A Waters of the US Report is recommended based on mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

NWI Wetlands: Twenty (20) wetland polygons are located within the 0.5 mile search radius. Two (2) of the wetlands are adjacent to the northwest of the project area. A Waters of the US Report is recommended based on mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Lakes: Seven (7) lakes are located within the 0.5 mile search radius. The nearest lake is approximately 0.29 mile south/southwest of the project area. No impact is expected.

Floodplain – DFIRM: Four (4) floodplain polygons are located within the 0.5 mile search radius. Two (2) of the polygons are within or adjacent to the northwest of the project area. Coordination with INDOT ESD Ecology and Waterway Permitting will occur.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

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

Explanation:

No mining or mineral exploration features were identified within the 0.5 mile search radius.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

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

Infectious/Medical Waste Sites	N/A	NPDES Pipe Locations	N/A
Leaking Underground Storage (LUST) Sites	1	Notice of Contamination Sites	N/A

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

Explanation:

Leaking Underground Storage (LUST) Sites: One (1) LUST site is located within the 0.5 mile search radius. INDOT Crown Point Unit, 1717 E. 129th St., Agency Interest #21266, is mapped 0.42 mile west/northwest of the project area but is actually located 0.13 mile west of the project area. IDEM issued a No Further Action (NFA) letter on November 10, 1999. Confirmatory soil samples were all less than 20 parts per million (ppm) Total Petroleum Hydrocarbons (TPH), which was the closure level in effect at the time of closure. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Lake 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_lake.pdf. A preliminary review of the Indiana Natural Heritage Database by INDOT ESD did indicate the presence of ETR species within the 0.5 mile search radius. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

RECOMMENDATIONS SECTION

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

INFRASTRUCTURE:

Trails: Veteran's Memorial Bikeway is a planned asphalt rail-trail located on abandoned railroad tracks that runs parallel to US 231, southeast-northwest through the project area. Coordination with the Lake County Parks and Recreation Department will occur.

WATER RESOURCES:

A Waters of the US Report is recommended based on the presence of mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur for the following features:

- One (1) stream segment, a UNT to Niles Ditch, is adjacent to the project area.
- Two (2) wetlands are located adjacent to the project area.
- The project area is located within or adjacent to two (2) floodplain polygons (coordination only).

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: N/A

ECOLOGICAL INFORMATION:

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

Nicole Fohey-
Breting

Digitally signed by
Nicole Fohey-Breting
Date: 2023.03.09
03:53:36 -05'00'

INDOT ESD concurrence: _____ (Signature)

Prepared by:

Colin Keith

Project Scientist

Metric Environmental, LLC

Graphics:

A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES

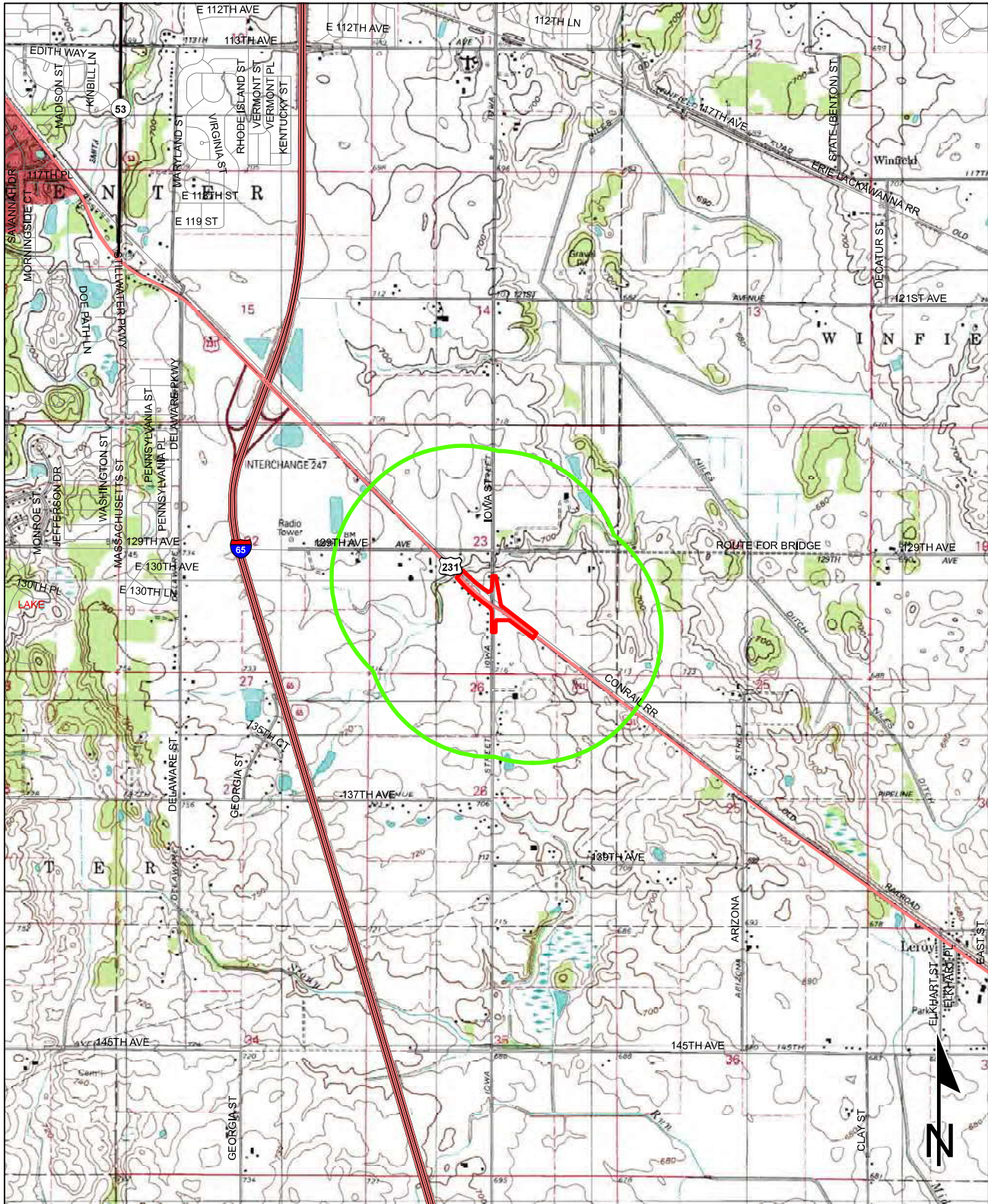
INFRASTRUCTURE: YES

WATER RESOURCES: YES

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: YES

Red Flag Investigation - Site Location
US 231 at Iowa Street
Des. No. 2003097, Intersection Improvement Project
Lake County, Indiana



Sources: 0.5 0.25 0 0.5 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.

CROWN POINT AND LEROY
QUADRANGLES
INDIANA
7.5 MINUTE SERIES (TOPOGRAPHIC)

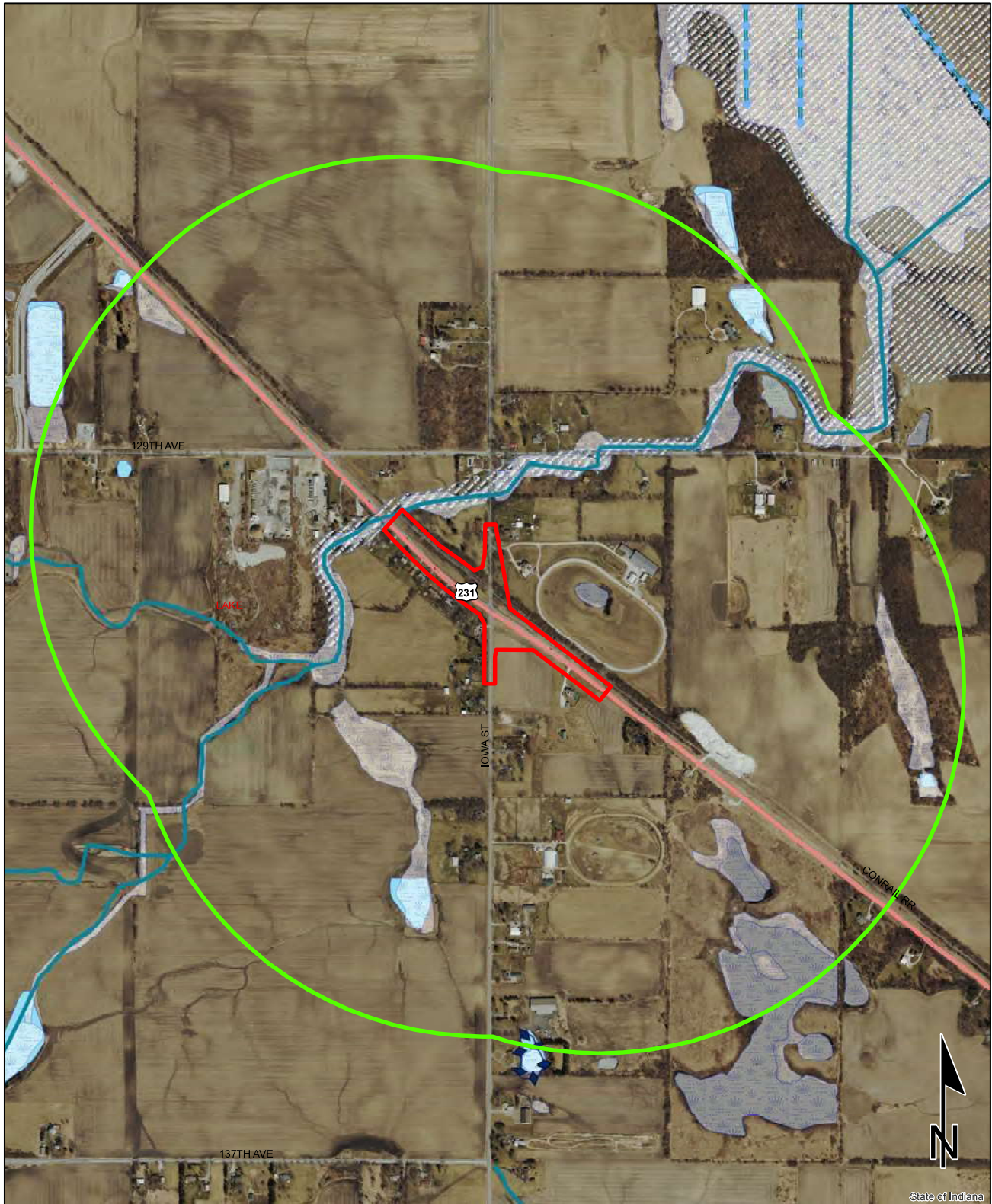
Red Flag Investigation - Infrastructure
US 231 at Iowa Street
Des. No. 2003097, Intersection Improvement Project
Lake County, Indiana



Sources: 0.15 0.075 0 0.15 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.

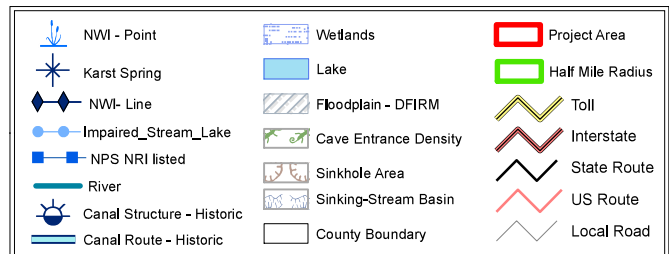
	Religious Facility		Recreation Facility		Project Area
	Airport		Pipeline		Half Mile Radius
	Cemeteries		Railroad		Toll
	Hospital		Trails		Interstate
	School		Managed Lands		State Route
			County Boundary		US Route
					Local Road

Red Flag Investigation - Water Resources
US 231 at Iowa Street
Des. No. 2003097, Intersection Improvement Project
Lake County, Indiana



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

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 - Hazardous Material Concerns
US 231 at Iowa Street
Des. No. 2003097, Intersection Improvement Project
Lake County, Indiana



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

0.15 0.075 0 0.15
Miles

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

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

APPENDIX F

Water Resources

WATERS OF THE U.S. DETERMINATION REPORT
US 231 at Iowa Street
Intersection Improvement, Roundabout Project
Lake County, Indiana
Des. No. 2003097
Prepared By: April Pape, Metric Environmental, LLC
June 1, 2023

Date of Waters Field Investigation: August 18th, 2022

Location:

12-Digit HUC Watershed: 040400010502 (Main Beaver Dam Ditch-Deep River) & 071200011302 (Fisher Pond-Stony Run) (**Exhibit 1**)

Section 23; Township 34 North; Range 8 West

Crown Point, IN 7.5 minute USGS Topographic Quadrangles (**Exhibit 2**)

Center Township, Lake County, Indiana

Latitude: 41.38075 Longitude: -87.30658

Project Description:

The proposed project (Des. 2003097) includes the improvement of the intersection of US 231 and Iowa Street with a single lane roundabout. Approximately 800 ft. of additional approach along US 231 would need to be reconstructed on each side of Iowa St. The project is located in Center Township, Lake County, Indiana, and land use in the project area are residential, agricultural, and forest. The Investigated Area (IA) was developed based on the proposed improvements.

Indiana Department of Natural Resources (IDNR) Floodway:

No mapped IDNR Floodway are located within the IA. The nearest mapped IDNR floodway was located approximately 20 feet (ft.) northwest of the IA's western quadrant and was also associated with Unnamed Tributary (UNT) to Niles Ditch. The IDNR floodway map for this area is provided as **Exhibit 3**.

National Wetlands Inventory (NWI) Information:

No mapped NWI polygons are located within the IA. The nearest mapped NWI polygon is located approximately 22 feet (ft.) northeast of the IA's western quadrant and was associated with a freshwater forested/shrub wetland (**Table 1**). No sampling points were taken near this NWI polygon due to the dominance of upland vegetation. The NWI map is provided as **Exhibit 3**.

Des. No. 2003097
US 231 at Iowa Street
Intersection Improvement, Roundabout Project
Lake County, Indiana
Metric Project No. 22-0002-1



Table 1: NWI Summary Table

Symbol	Wetland Type	Location	Distance from IA
PFO1/EM1Ad	Palustrine, Forested, Broad-Leaved Deciduous/Emergent, Persistent, Temporarily Flooded, Partially Drained/Ditched	Northwest of IA, north of U.S. 231	22 ft.
PFO1/EM1Ad	Palustrine, Forested, Broad-Leaved Deciduous/Emergent, Persistent, Temporarily Flooded, Partially Drained/Ditched	Northwest of IA, south of U.S. 231	38 ft.

Karst Feature Information:

No mapped karst features were found within 0.5 mi. of the IA during the desktop review.

USGS National Hydrography Dataset (NHD) Information:

Two mapped NHD flowlines are located within the IA, listed by occurrence from east to west within the IA in **Table 2** below. The NHD map is provided in **Exhibit 3**.

Table 2: NHD Summary Table

Corresponding Feature (Field Verified)	NHD Flowline Classification	Photo Nos.	USGS Blue-line
Wetland A, RSD 1	Canal/Ditch (Code #33600)	20-22	No
CV 3, RSD 2	Canal/Ditch (Code #33600)	24-25	No

Soils:

According to the Natural Resources Conservation Service (NRCS) Soil Survey Geographic (SSURGO) Database for Lake County, Indiana, the IA contained four mapped soil units, listed in **Table 3** below. The NRCS soil survey map is provided as **Exhibit 3**.

Table 3: NRCS Soil Summary Table

Soil Unit Symbol	Soil Unit Name	Hydric Soil Category	SSURGO Hydric Rating
El	Elliott silt loam, 0 to 2 percent slope	Predominantly Nonhydric	4% Hydric
MaB2	Markham silt loam, 2 to 6 percent slopes, eroded	Predominantly Nonhydric	10% Hydric
OzIC3	Ozaukee silty clay loam, 6 to 12 percent slopes, severely eroded	Nonhydric	0% Hydric
Pc	Pewamo silty clay loam	Hydric	100% Hydric

Attached Documents:

Location Map (**Exhibit 1**)

USGS Topographic Map (**Exhibit 2**)

USGS StreamStats Map

IDNR Floodway, NWI, NHD, NRCS Soil Survey Map (**Exhibit 3**)

Waters Delineation ap (**Exhibit 4**)

Photo Location Map (**Exhibit 5**)

Site Photographs

Wetland Determination Data Form(s)

Preliminary Jurisdictional Determination Form

Field Reconnaissance:

The wetland determination field visit was conducted on August 18, 2022, by April Pape and Kristina Zuniga of Metric Environmental, LLC. Additional photos were taken on January 11, 2023. The IA consists of the area that has the potential to be impacted, based on the provided design scenario. This area was evaluated for the presence of wetlands and Waters of the United States. This investigation was conducted in accordance with the *1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual* and the *August 2010 Midwest Regional Supplement (Version 2.0) Manual*.

A Location Map showing the investigated area location is provided as **Exhibit 1**. The proposed project is located in the southeast portion of Lake County, Indiana, at the intersection of US 231 and Iowa Street approximately 1.1 mi. southeast of I-65. The IA extended along US 231 for approximately 1.47 mi. and approximately 0.12 mi. north and 0.15 mi. south at the intersection on Iowa Street. An aerial map of sampling points and water features is provided as **Exhibit 4**. A photo location map is provided as **Exhibit 5** and site photographs are attached.

Streams:

No streams were identified within the IA during the field reconnaissance.

Des. No. 2003097

US 231 at Iowa Street

Intersection Improvement, Roundabout Project

Lake County, Indiana

Metric Project No. 22-0002-1



Wetlands:

The site was investigated for evidence of hydrophytic vegetation, hydric soil, and wetland hydrology to determine if the project impacts wetlands and other Waters of U.S. The sampling point locations were chosen in possible wetland areas within the IA. The upland areas located within the AI consisted of residential lawn, deciduous forest, and agricultural fields. Upland areas where sampling points were not taken, were investigated and determined to be upland due to the presence of dominant upland vegetation. Dominant upland species observed within these upland areas included smooth brome (*Bromus inermis*, FACU), red fescue (*Festuca rubra*, FACU), and Canadian goldenrod (*Solidago canadensis*, FACU). Four sampling points were taken and are identified as A1, A2, B1, and B2. The sampling points, recorded on the USACE Wetland Determination Data Forms and shown on **Exhibits 4 and 5**, provided the following information (**Table 4**):

Table 4: Sampling Plot Data Summary Table

Plot #	Photo #s	Lat/Long	Hydrophytic Vegetation	Hydric Soils	Wetland Hydrology	Within Wetland
A1	14-16	41.380898 -87.306885	Yes	Yes	Yes	Yes, Wetland A
A2	17-19	41.380934 -87.306828	No	No	No	No
B1	60-62	41.380114 -87.305336	Yes	Yes	Yes	Yes, Wetland B
B2	63-65	41.380159 -87.305373	Yes	No	No	No

Two wetlands were observed within the IA. Descriptions of the wetlands and corresponding sampling points are provided in **Table 5** below.

Table 5: Wetland Summary Table

Wetland Name	Photo #s	Lat/Long	Cowardin Class	Total Area	Quality	Likely Water of the U.S.?
				ac.		
Wetland A	13-16, 20	41.381304 -87.307626	PEM1A	0.228	Poor	Yes
Wetland B	60-62, 66-67, 69	41.380312 -87.30577	PEM1A	0.088	Poor	Yes

Des. No. 2003097
US 231 at Iowa Street
Intersection Improvement, Roundabout Project
Lake County, Indiana
Metric Project No. 22-0002-1



Wetland A (0.228 ac.) – PEM1A

Wetland A was classified as a Palustrine, Emergent, Persistent, Temporarily Flooded (PEM1A) wetland. This wetland is located in a concave position within a ditch along US 231, and it is on the northwest side of the intersection of US 231 and Iowa Street. The boundaries of Wetland A were delineated by lack of wetland vegetation and increased elevation. Due to its location within a ditch, Wetland A likely receives flood waters and drainage on a consistent basis during rain events. The wetland was not associated with an NWI polygon and was formed within the EI mapped soil unit, which is listed as 4 percent (predominantly) nonhydric. The wetland is located adjacent to US 231 and likely receives run-off from the adjacent paved roads. The wetland exhibited poor plant species diversity. These factors contribute to the conclusion that Wetland A can support a limited amount of wildlife or aquatic habitat and therefore should be considered to be of poor quality. Based on topography, it can be deduced that water drains northwest from Wetland A into RSD 1 into UNT to Niles Ditch into Niles Ditch into Deep River into Lake George into Deep River into Burns Ditch into Portage Burns Waterway, a Section 10 TNW. Because Wetland A contributes flow to a TNW, it should likely be considered a jurisdictional Water of the U.S.

Sampling Point A1 (A1) – Wetland A

A1 was located in a ditch, northeast of US 231 and Iowa Street intersection. The dominant vegetation at this sampling point was common panic grass (*Panicum capillare*, FAC), large barnyard grass (*Echinochloa crus-galli*, FACW) and Torrey's rush (*Juncus torreyi*, FACW) in the herb stratum. This passed the hydrophytic vegetation indicators of dominance test and prevalence index. The soil in the test pit met the hydric soil indicator of depleted below dark surface (A11) and depleted matrix (F3). Two secondary indicators of wetland hydrology observed included geomorphic position (D2) and FAC-neutral test (D5). This was enough to satisfy the criteria for hydrology. Since all three required wetland criteria were met, this area qualified as a wetland.

Sampling Point A2 (A2) – Wetland A Upland

A2 was located on a terrace north of Wetland A. The dominant vegetation at this sampling point was smooth brome (*Bromus inermis*, FACU) and Canadian goldenrod (*Solidago canadensis*, FACU) in the herb stratum. This did not meet any of the hydrophytic vegetation indicators. The soil in the test pit did not meet any hydric soil indicators. No indicators of wetland hydrology were observed. Since none of the three required wetland criteria were met, this area did not qualify as a wetland.

Wetland B (0.088 ac.) – PEM1A

Wetland B was classified as a PEM1A wetland. This wetland is located in a concave position within a ditch along US 231, and it is on the northeast side of the intersection of US 231 and Iowa Street.

Des. No. 2003097
US 231 at Iowa Street
Intersection Improvement, Roundabout Project
Lake County, Indiana
Metric Project No. 22-0002-1



The boundaries of Wetland B were delineated by lack of wetland vegetation and increased elevation. Due to its location within a ditch, Wetland B likely receives flood waters and drainage on a consistent basis during rain events. The wetland was not associated with an NWI polygon and was formed within the El mapped soil unit, which is listed as 4 percent (predominantly) nonhydric. The wetland is located adjacent to US 231 and likely receives run-off from the adjacent paved roads. The wetland exhibited poor plant species diversity. These factors contribute to the conclusion that Wetland B can support a limited amount of wildlife or aquatic habitat and therefore should be considered to be of poor quality. Based on topography, it can be deduced that water drains northwest into Culvert 2 which drains into Wetland A, a likely jurisdictional Water of the U.S. Because Wetland B contributes flow to a likely jurisdictional Water of the U.S., Wetland B should also likely be considered a jurisdictional water of the U.S.

Sampling Point B1 (B1) – Wetland B

B1 was located in a ditch, northwest of US 231 and Iowa Street intersection. The dominant vegetation at this sampling point was freshwater cord grass (*Spartina pectinata*, FACW) in the herb stratum. This passed the hydrophytic vegetation indicators of rapid test for hydrophytic vegetation, dominance test and prevalence index. The soils in the test pit met the hydric soil indicator of redox dark surface (F6). Two secondary indicators of wetland hydrology observed included geomorphic position (D2) and FAC-neutral test (D5). This was enough to satisfy the criteria for hydrology. Since all three required wetland criteria were met, this area qualified as a wetland.

Sampling Point B2 (B2) – Wetland B upland

B2 was located on a terrace north of Wetland B. The dominant vegetation at this sampling point was freshwater cord grass (*Spartina pectinata*, FACW) and reed canary grass (*Phalaris arundinacea*, FACW) in the herb stratum. This passed the hydrophytic vegetation indicators of dominance test and prevalence index. The soil in the test pit did not meet any indicators of hydric soil. One secondary indicator of wetland hydrology observed included FAC-neutral test (D5). This was not enough to satisfy the criteria for hydrology. Since only one of the three required wetland criteria were met, this area did not qualify as a wetland.

Roadside Ditches:

Five roadside ditches (RSD) were identified within the IA as shown in **Table 6**. These features consisted of vegetated drainage swales consisting of red fescue (*Festuca rubra*, FACU) and smooth brome (*Bromus inermis*, FACU). No OHWM and/or bed and bank was observed in these features, so they are likely non-jurisdictional.

Table 6: Roadside Ditch Summary Table

Name	Photo #s	Location	Description
RSD 1	21-22	Northwest Quadrant	Vegetated Drainage Swale
RSD 2	24-25	Southwest Quadrant	Vegetated Drainage Swale
RSD 3	27-28	Southwest Quadrant	Vegetated Drainage Swale
RSD 4	30	Southwest Quadrant	Vegetated Drainage Swale
RSD 5	49-50, 52	Southeast Quadrant	Vegetated Drainage Swale

Culverts and Drains:

Fifteen culverts were identified within the IA as shown in **Table 7**. The culverts were made of either corrugated metal or high-density polyethylene (HDPE). One culvert, Culvert 2, connects Wetland B to Wetland A, two likely jurisdictional Water of the U.S., under Iowa Street. The other culverts served to aid in roadside drainage waters and stormwater conveyance alongside Iowa Street and US 231. These other culverts did not carry jurisdictional waters due to a lack of an OHWM, bed and bank, and lack of a significant nexus to any jurisdictional Waters of the U.S. Locations of these culverts are shown on **Exhibits 4, Exhibit 5**, and attached photosheet.

Table 7: Culverts and Drains Summary Table

Culvert and Drain Number	Type	Purpose
CV1	Corrugated Metal Culvert	Roadside Drainage under Driveway
CV2	Corrugated Metal Culvert	Roadside/ Stormwater Drainage
CV3	HDPE Culvert	Roadside Drainage under Driveway
CV4	Corrugated Metal Culvert	Roadside Drainage under Driveway
CV5	Corrugated Metal Culvert	Roadside Drainage under Driveway
CV6	HDPE Culvert	Roadside Drainage under Driveway
CV7	Corrugated Metal Culvert	Roadside Drainage under Driveway
CV8	Corrugated Metal Culvert	Roadside Drainage under Driveway
CV9	Corrugated Metal Culvert	Roadside Drainage under Driveway
CV10	Corrugated Metal Culvert	Roadside/ Stormwater Drainage
CV11	HDPE Culvert	Roadside Drainage under Driveway
CV12	Corrugated Metal Culvert	Roadside Drainage under Driveway
CV13	HDPE Culvert	Roadside Drainage
CV14	Corrugated Metal Culvert	Roadside Drainage under Driveway

Des. No. 2003097
 US 231 at Iowa Street
 Intersection Improvement, Roundabout Project
 Lake County, Indiana
 Metric Project No. 22-0002-1



Culvert and Drain Number	Type	Purpose
CV15	Corrugated Metal Culvert	Roadside Drainage

Conclusion:

Two PEM1A wetlands, totaling 0.316 ac., were identified within the IA during the field reconnaissance. These waterways are likely Waters of the U.S. Every effort should be taken to avoid and minimize impacts to the waterway and wetlands. If impacts are necessary, then mitigation may be required. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by the U.S. Army Corps of Engineers. This report is our best judgment based on the guidelines set forth by the Corps.

Acknowledgements:

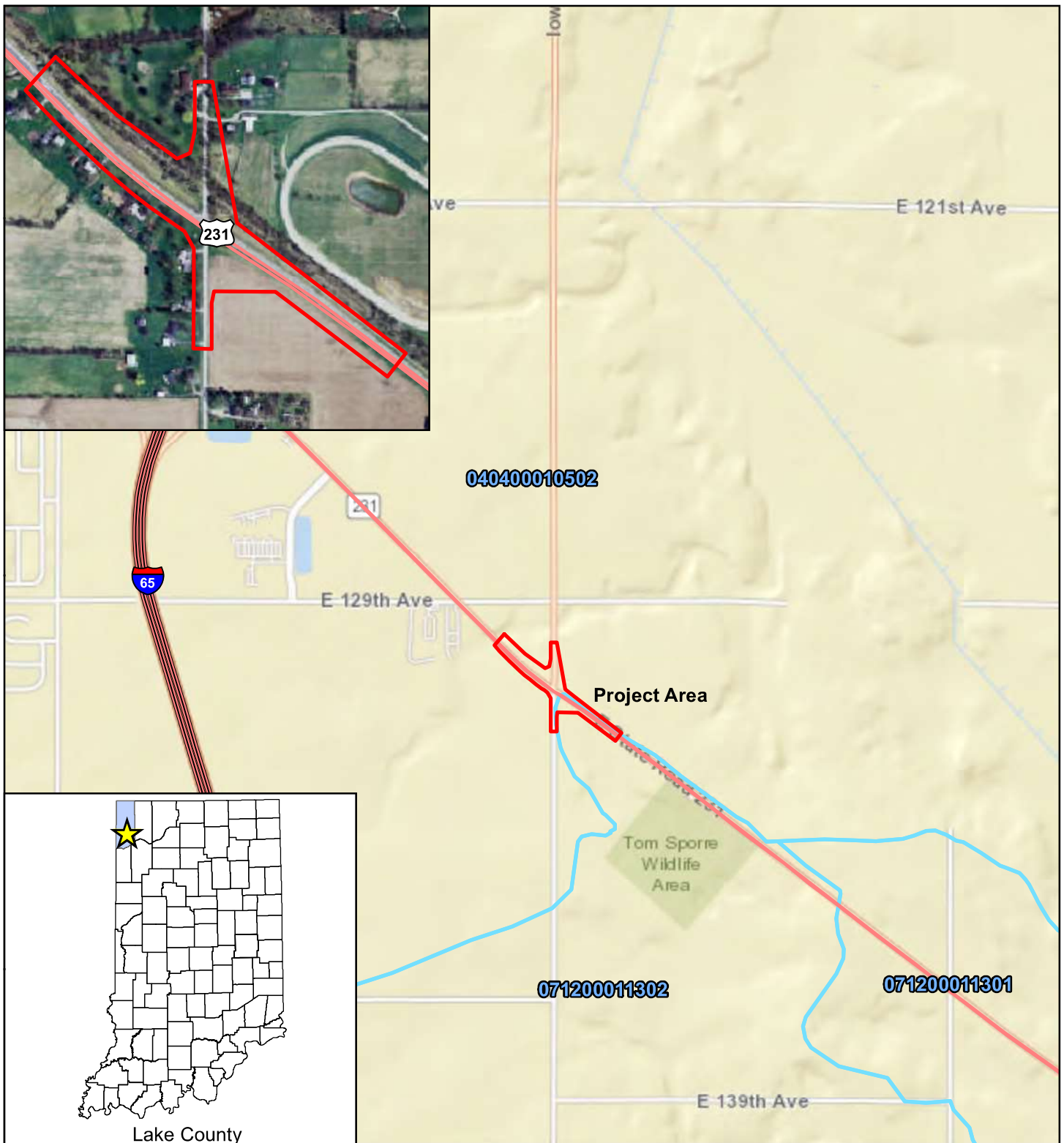
This waters determination has been prepared based on the best available information, interpreted in light of the investigator's training, experience and professional judgement in conformance with the 1987 *Corps of Engineers Wetlands Delineation Manual*, the appropriate regional supplement, the USACE *Jurisdictional Determination Form Instructional Guidebook*, and other appropriate agency guidelines. See **Table 8** for a list of the associated Metric investigators.

Table 8: Acknowledgement Summary Table

Metric Environmental Staff	Position	Contributing Effort	Signature/Date
Alex M Gray	Project Scientist 2	QAQC	<i>Alex M. Gray</i> 6/1/23
Juliana Clayton	Project Scientist 1	QAQC	<i>Juliana Clayton</i> 6/1/23
April Pape	Staff Scientist 2	Field Data Collection, Report Preparation	<i>April Pape</i> 6/1/23
Kristina Zuniga	Staff Scientist 1	Field Data Collection, Report Preparation	<i>Kristina Zuniga</i> 6/1/23

Des. No. 2003097
US 231 at Iowa Street
Intersection Improvement, Roundabout Project
Lake County, Indiana
Metric Project No. 22-0002-1

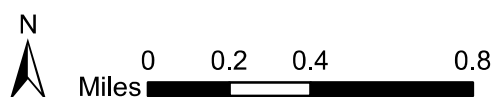




Investigated Area 12-Digit HUC

Exhibit 1 - Location Map
 US 231 at Iowa Street
 Intersection Improvement, Roundabout Project
 Center Township, Lake County, IN
 Des. No. 2003097
 Metric Project No. 22-0002-1
 Map Date: 9/14/2022
 Map Author: Kristina Zuniga

All locations approximate
 2018 Basemap
 Latitude: 41.38075 Longitude: -87.30658



Exh. 1

StreamStats Report

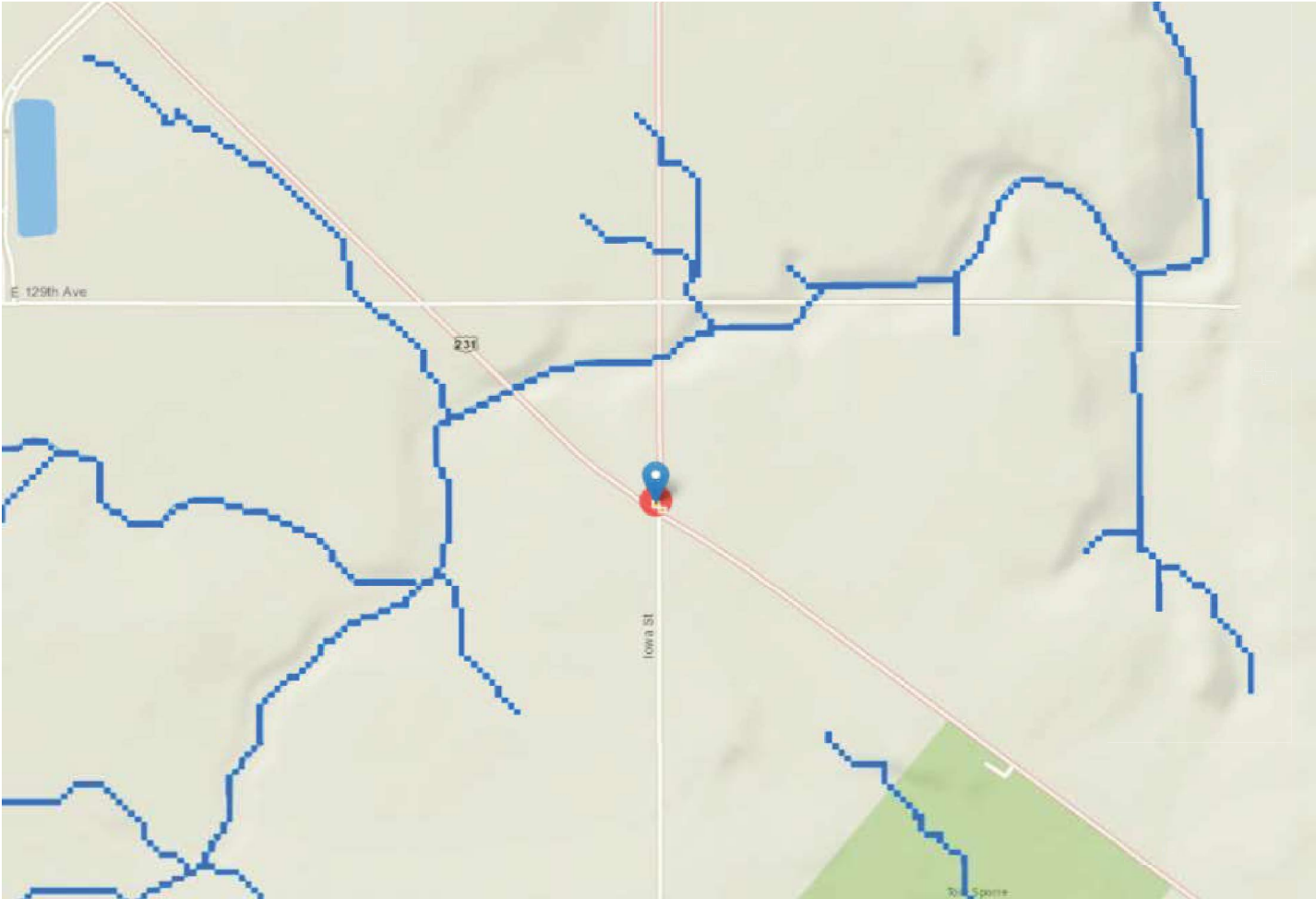
Des. No. 2003097
US 231 at Iowa Street

Region ID: IN

Workspace ID: IN20220914175446881000

Clicked Point (Latitude, Longitude): 41.38072, -87.30663

Time: 2022-09-14 13:59:34 -0400



➤ Basin Characteristics

No streams found within project area.

Parameter Code	Parameter Description	Value	Unit
CSL10_85	Change in elevation divided by length between points 10 and 85 percent of distance along main channel to basin divide - main channel method not known		feet per mi
DRNAREA	Area that drains to a point on a stream	0	square miles
K2INDNR	Average hydraulic conductivity (ft/d) for the full depth of unconsolidated deposits from InDNR well database.	0	ft per day

Parameter Code	Parameter Description	Value	Unit
LC01FOREST	Percentage of forest from NLCD 2001 classes 41-43	0	percent
LOWREG	Low Flow Region Number	1728	dimensionless
QSSPERMTHK	Index of the permeability of surficial Quaternary sediments computed as in SIR 2014-5177	150	dimensionless
T2INDNR	Average transmissivity (ft ² /d) for the full depth of unconsolidated deposits from InDNR well database.	16	square feet per day

➤ General Flow Statistics

General Flow Statistics Parameters [Harmonic Mean Northern Region 2016 5102]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0	square miles	6.33	856
T2INDNR	Avg_Transmissivity	16	square feet per day	1700	7590
LOWREG	Low Flow Region Number	1728	dimensionless		

General Flow Statistics Disclaimers [Harmonic Mean Northern Region 2016 5102]

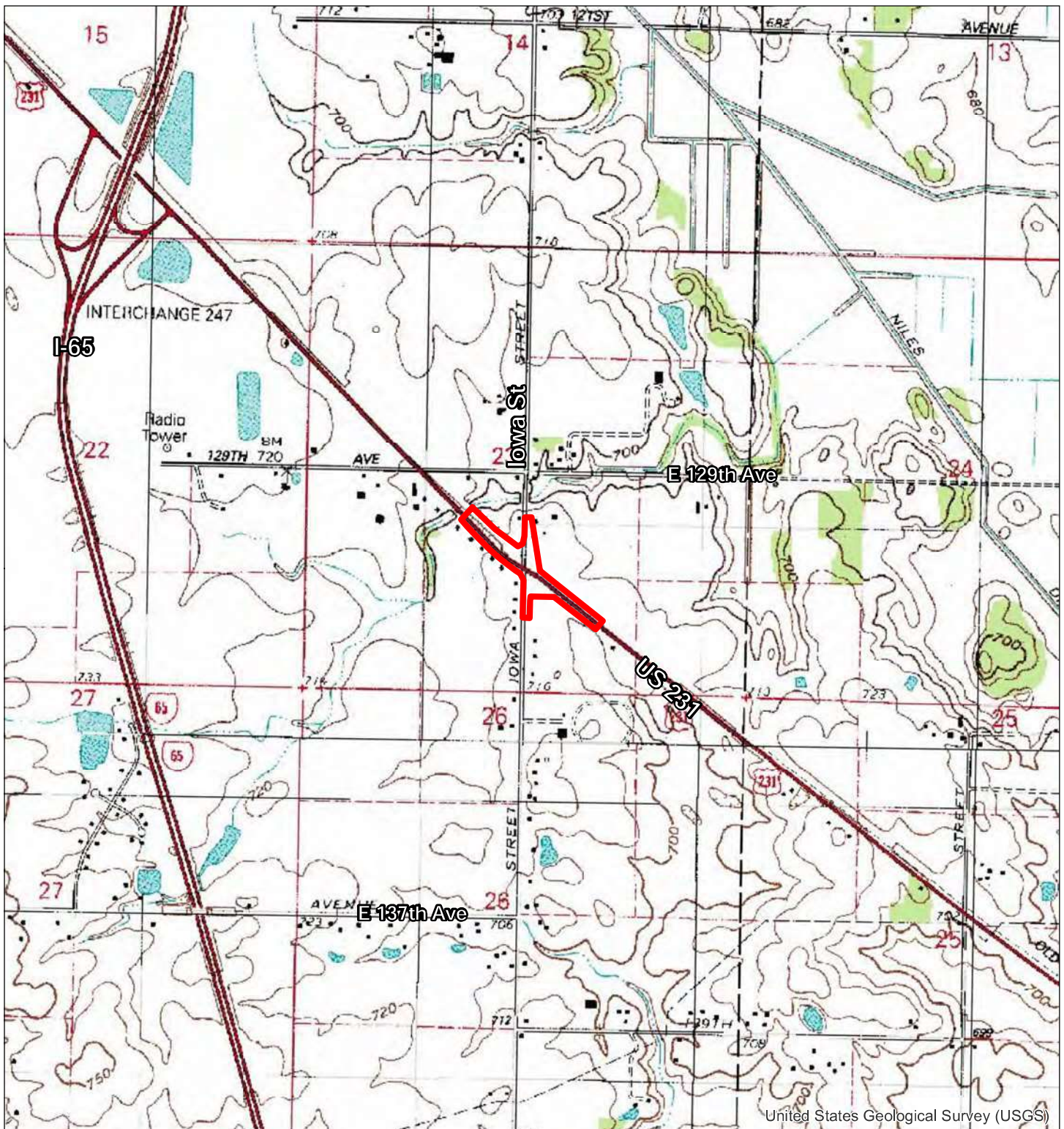
One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

General Flow Statistics Flow Report [Harmonic Mean Northern Region 2016 5102]

Statistic	Value	Unit
Harmonic Mean Streamflow	0	ft ³ /s

General Flow Statistics Citations

Martin, G.R., Fowler, K.K., and Arihood, L.D., 2016, Estimating selected low-flow frequency statistics and harmonic-mean flows for ungaged, unregulated streams in




 Investigated Area

Exhibit 2 - USGS Topographic Map - Small Scale
Crown Point, IN 7.5 minute Quadrangle
US 231 at Iowa Street
Intersection Improvement, Roundabout Project
Center Township, Lake County, IN
Des. No. 2003097
Metric Project No. 22-0002-1
Map Date: 9/14/2022
Map Author: Kristina Zuniga

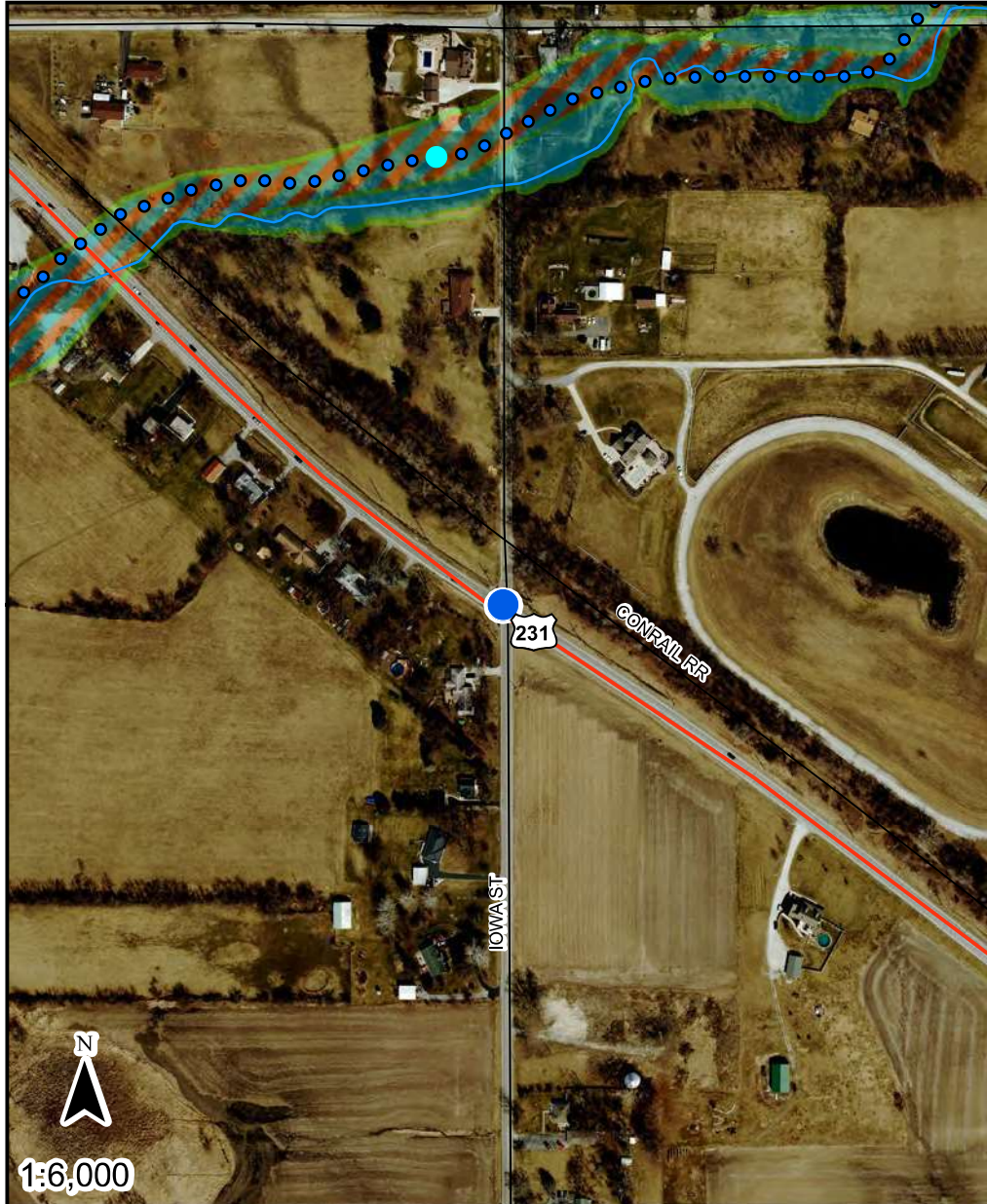
All locations approximate
Source: Indiana Spatial Data Portal (1996)



0 0.125 0.25 0.5
Miles 



Exh. 2A



- Point of Interest
- Base Flood Elevation Point
- Flood Elevation Points**
 - STUDIED STREAM
- Rivers and Streams at least 1 square mile**
- Drainage Area (sq. miles)**
 - 1 - 10
- ▨ FEMA Zone AE Floodway; FEMA Administrative Floodway
- ▨ FEMA Zone AE
- ▨ Additional Floodplain Area; DNR .2 Percent Flood Hazard

Point of Interest Coordinates
(WGS84)
Long: -87.3065287294
Lat: 41.3806078487

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

County: **Lake**

Approximate Ground Elevation: **712.0 feet (NAVD88)**

Stream Name:

Base Flood Elevation: **695.7 feet (NAVD88)**

Niles Ditch Tributary Ns

Drainage Area: **Not available**

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

National Flood Hazard Zone: **Not Mapped**

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

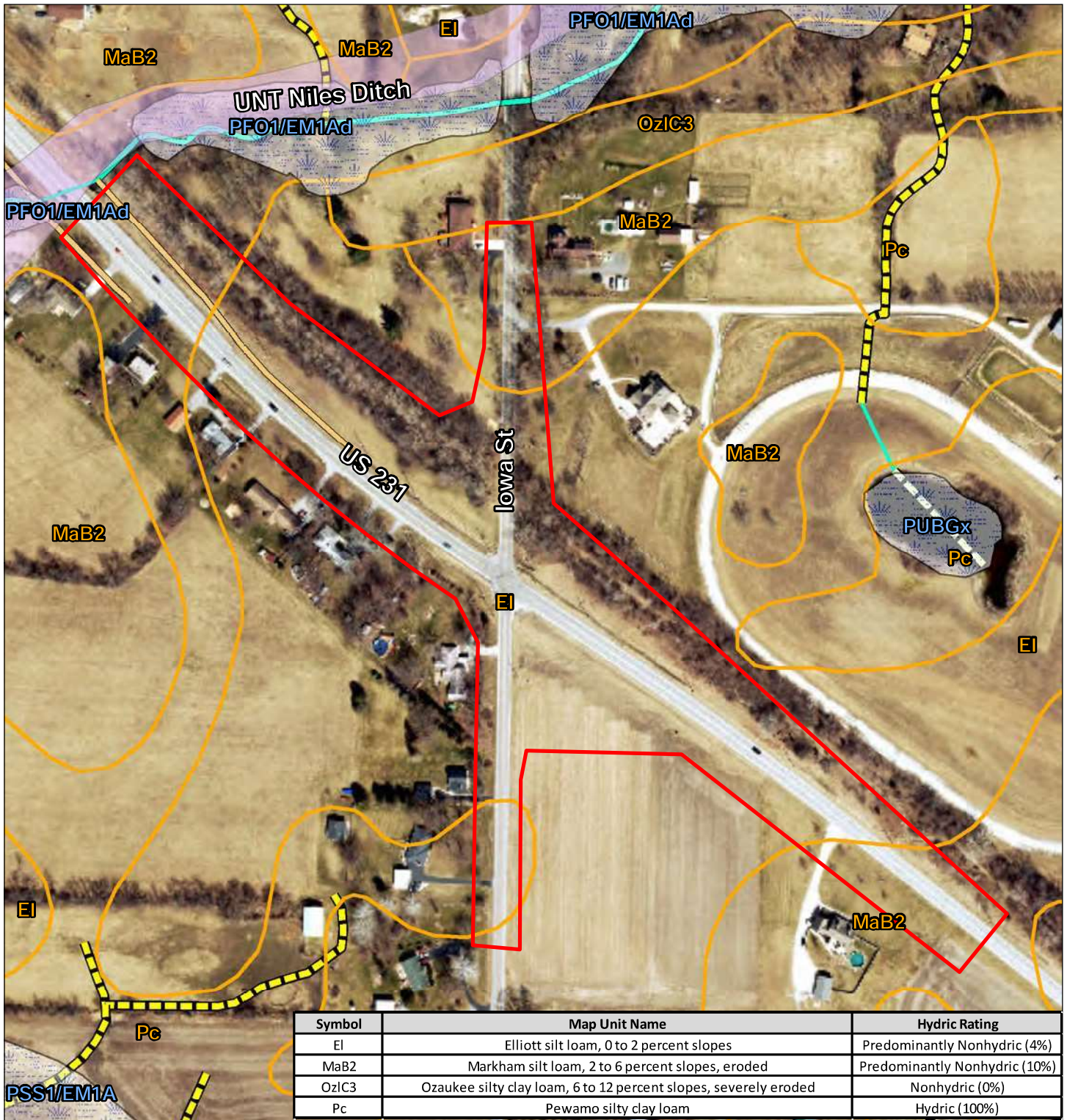
Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **Ned Kovachevich, Executive Director, Lake County Plan Commission**

Community Jurisdiction: **Lake County, County proper**

Phone: **(219) 755-3700**

Email: **kovacnx@lakecountyin.org**



- Investigated Area

IDNR Floodway

NWI Wetland

NRCS Soil Survey

Other

FCODE

33603 Canal/Ditch

33600 Canal/Ditch

33601 Canal/Ditch

46006 Stream/River

46000 Stream/River

46003 Stream/River

46007 Stream/River

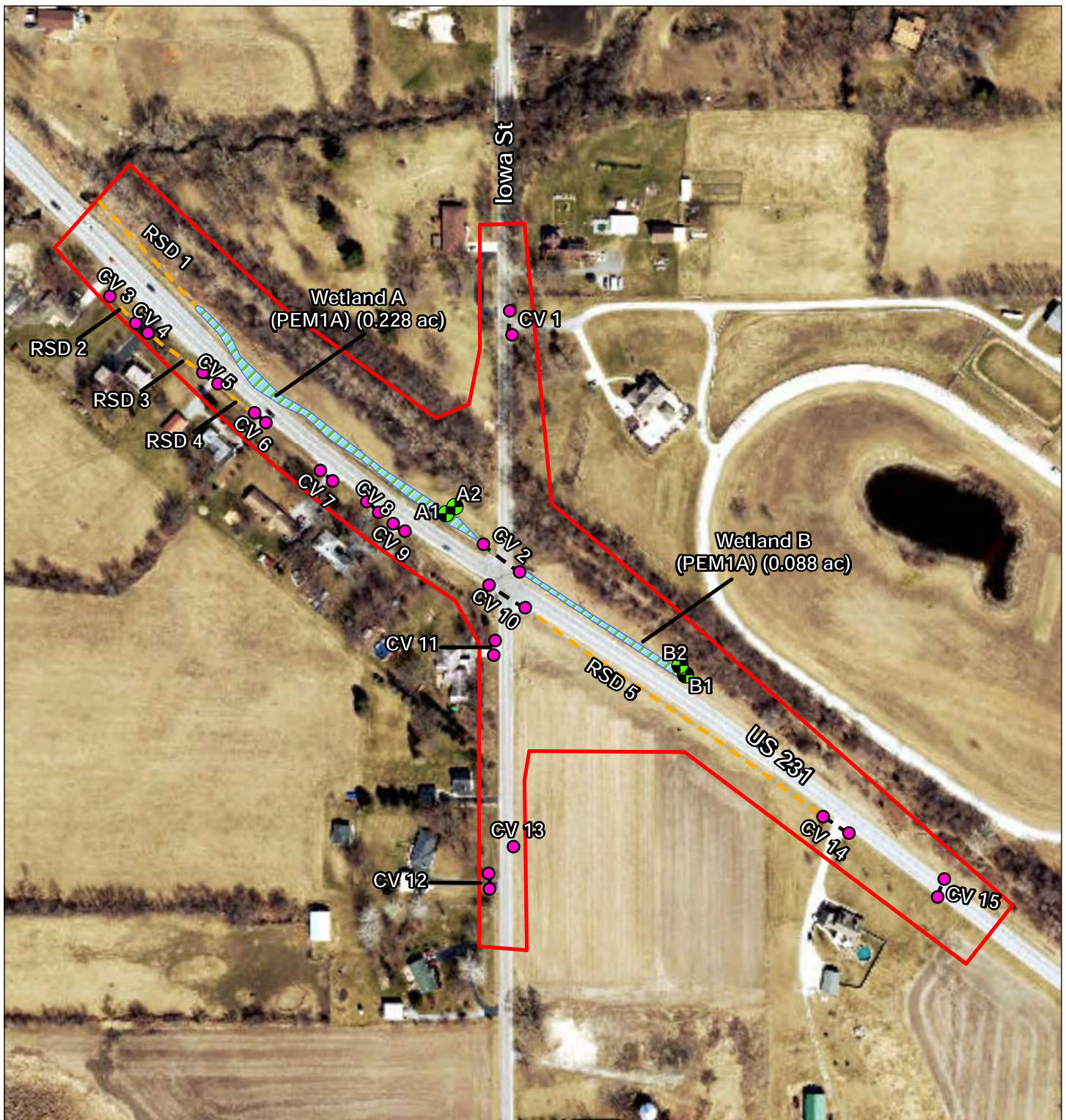
55800 Artificial Path

Exhibit 3 - Floodway, NWI, NHD, Soil Survey Map
 US 231 at Iowa Street
 Intersection Improvement, Roundabout Project
 Center Township, Lake County, IN
 Des. No. 2003097
 Metric Project No. 22-0002-1
 Map Date: 9/14/2022
 Map Author: Kristina Zuniga

All locations approximate
 Source: Indiana Spatial Data Portal (2018)



Exh. 3



- Culvert Opening
 — Culvert (CV)
 Wetland
- Sampling Point
 — Roadside Ditch (RSD)
 Investigated Area

Exhibit 4 - Waters Delineation Map
 US 231 at Iowa Street
 Intersection Improvement, Roundabout Project
 Center Township, Lake County, IN
 Des. No. 2003097
 Metric Project No. 22-0002-1
 Map Date: 9/14/2022
 Map Author: Kristina Zunigs

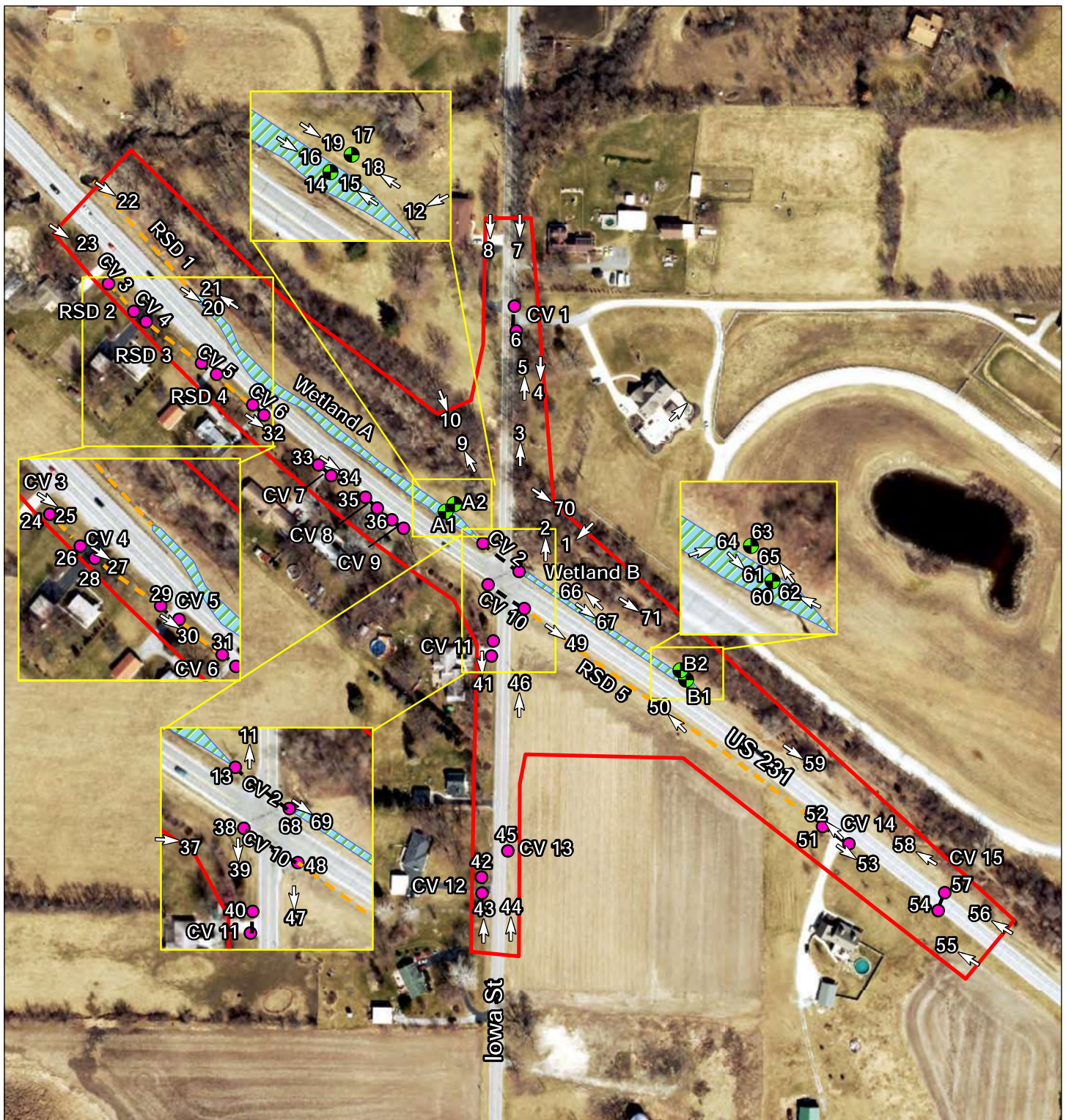
All locations approximate
 Source: Indiana Spatial Data Portal (2018)



0 105 210 420
 Feet



Exh. 4



- Culvert Opening
 --- Culvert (CV)
 Wetland
- Sampling Point
 --- Roadside Ditch (RSD)
 Investigated Area

Exhibit 5 - Photograph Location Map
 US 231 at Iowa Street
 Intersection Improvement, Roundabout Project
 Center Township, Lake County, IN
 Des. No. 2003097
 Metric Project No. 22-0002-1
 Map Date: 9/14/2022
 Map Author: Kristina Zuniga

All locations approximate
 Source: Indiana Spatial Data Portal (2018)



Exh. 5

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: June 1, 2023

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

April Pape
Metric Environmental, LLC
6958 Hillsdale Court
Indianapolis, IN 46250
aprilp@metricenv.com

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The proposed project (Des. 2003097) includes the improvement of the intersection of US 231 and Iowa Street with a single lane roundabout. Approximately 800 ft. of additional approach along US 231 would need to be reconstructed on each side of Iowa St. The project is located in Center Township, Lake County, Indiana, and land use in the project area are residential, agricultural, and forest. The IA was developed based on the proposed improvements.

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

State: IN County/parish/borough: Lake County City: Crown Point
Center coordinates of site (lat/long in degree decimal format):
Lat.: 41.38075
Long.: -87.30658
Universal Transverse Mercator: 16 T 474365.08 E 4581070.66 N
Name of nearest waterbody: UNT to Niles Ditch

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

☐ Office (Desk) Determination. Date:

☐ Field Determination. Date(s):

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

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource “may be” subject (i.e., Section 404 or Section 10/404)
Wetland A	41.381304	-87.307626	0.228 acres	Wetland	Section 404
Wetland B	41.380312	-87.30577	0.088 acres	Wetland	Section 404

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

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

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

- ☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map: _____ Dated 9/14/2022
- ☒ Data sheets prepared/submitted by or on behalf of the PJD requestor.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report. Rationale: _____
- ☐ Data sheets prepared by the Corps: _____
- ☐ Corps navigable waters' study: _____
- ☐ U.S. Geological Survey Hydrologic Atlas: _____
☐ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: Crown Point, IN 7.5 min, 1996
- ☒ Natural Resources Conservation Service Soil Survey. Citation: SSURGO Lake County
- ☒ National wetlands inventory map(s). Cite name: http://www.fws.gov/wetlands/
- ☐ State/local wetland inventory map(s): _____
- ☐ FEMA/FIRM maps: ; Effective _____
- ☐ 100-year Floodplain Elevation is: _____.(National Geodetic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): Indiana Aerial Photograph, 2016
or ☒ Other (Name & Date): Site Photographs, 8/18/2022
- ☐ Previous determination(s). File no. and date of response letter: _____
- ☐ Other information (please specify): _____

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

Signature and date of
Regulatory staff member
completing PJD

April Pope 6/1/2023

Signature and date of
person requesting PJD
(REQUIRED, unless obtaining
the signature is impracticable)¹

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

APPENDIX G

Public Involvement

June 6, 2022

Resident
2209 East State Road 231
Crown Point, Indiana 46307

RE: INDOT Des. No. 2003097
U.S. 231 at Iowa Street Intersection Improvement
Notice of Survey
State Parcel ID No.: 45-16-23-326-008.000-041
Property Address: 2209 East State Road 231
Crown Point, Indiana 46307

JON E. RIEMKE, PE
CHRISTOPHER J. JETER, PE
DAN G. DELGADO, PE
JARED M. HUSS, PE
AARON W. BLANK, PS, PE
KEVIN J. SIEDLECKI, PE
CHRISTOPHER M. VANHULLE, PE
MICHELLE M.G. SLACK, PS
DMITRI G. ADAMS, PE
AMANDA R. BUDREAU, PE
JOSEPH D. DUNBAR, PE
ETHAN L. ZARTMAN, PE
PAULIN HAKIZIMANA, PE, PTOE
MARK H. FOSTER, PE
EASA KHAN, PhD, PE, PMP, PTOE
BLAKE R. WARNER, PE
REBECCA L. HINKLE, PS, EI

Dear Property Owner:

Lawson-Fisher Associates P.C. has been retained by the Indiana Department of Transportation to perform a survey for an intersection improvement project located at U.S. 231 and Iowa Street in Lake County, Indiana.

Our information indicates you own or occupy property near the subject project. Our employees will be conducting a survey of the project area in the near future. It may be necessary for them to come onto your property to complete this work. This is allowed by law by Indiana Code IC 8-23-7-26. They will show you their identification, if you are available, before coming onto your property. If you have sold this property or it is occupied by someone else, please 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 affect, if any, our project can eventually have on your property. If we determine your property is involved, we will contact you with additional information.

The survey work will include mapping the location of features such as trees, fences, drainage features, pavement, driveways, utilities, and obtaining ground elevations. We will also be required to locate evidence of property and right-of-way limits, which may involve digging for property irons along the front of your property. The survey is needed for the proper planning and design of this intersection improvement 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 phone number or address shown below.

Very truly yours,
LAWSON-FISHER ASSOCIATES P.C.



Aaron W. Blank, PS, PE
Survey Director

AWB/cas
c: Ethan L. Zartman, PE

APPENDIX H

Air Quality



U.S. Department
of Transportation
**Federal Highway
Administration**

Indiana Division

575 N. Pennsylvania St, Room 254
Indianapolis, IN 46204
317-226-7475
317-226-7341

November 7, 2024

In Reply Refer To:
HDA-IN

Ms. Lyndsay Quist
Deputy Commissioner Capital Program Management
Indiana Department of Transportation (INDOT)
100 North Senate Avenue
Indianapolis, IN 46204

Dear Ms. Quist:

We have completed our review of the INDOT's MPO Amendment 31 to the FY 2024-2028 Indiana Statewide Transportation Improvement Program (STIP) dated November 06, 2024. This amendment is for the inclusion of the following documents by reference:

- Northwestern Indiana Regional Planning Council (NIRPC)
[NIRPC 24-02.1 exempt](#)
[NIRPC 24-02.2 non-exempt](#)
[NIRPC 24-03](#)
[NIRPC Modification 24-15](#)

INDOT and NIRPC have re-demonstrated fiscal constraint, air quality conformity, and provided opportunity for public comment and involvement, where applicable, regarding the documents identified above. The Federal Highway Administration (FHWA) considers this amendment to be in substantial compliance with the applicable requirements as sufficient to support a consistency finding for the STIP.

FHWA and the Federal Transit Administration (FTA) take formal action, through the development of the Federal Planning Finding (FPF), to evaluate and ensure that the STIP and MPO TIPs are developed according to statewide and metropolitan planning processes consistent with 23 U.S.C. 134 and 135, and 49 U.S.C. 5303 and 5304, as well as 23 CFR part 450, 500, and 49 CFR part 613. FHWA and FTA are required under 23 CFR 450.220 (b) to document and issue an FPF in conjunction with the approval of the STIP, or amended STIP. Based on the recently conducted FPF (dated August 31, 2023), FHWA and FTA find that the amended Indiana FY2024-2028 STIP substantially meets the transportation planning requirements and is approving the amended STIP (as recorded in MPO Amendment 31) subject to the corrective actions outlined in the FPF. FHWA and FTA will continue to partner with the INDOT to ensure the previously developed action plan is implemented to address the corrective actions. If progress is not made in addressing the corrective actions, future amendments to the FY2024-2028 STIP, or adoption of the FY2026-2030 STIP, may not be approved by USDOT.

FHWA only recognizes years 2024-2027 in the STIP. Any projects and/or phases of projects added in years outside of 2024-2027 are considered illustrative, and thus ineligible for federal funding at this time.

Should you have any questions regarding this approval please contact Erica Tait at 317-226-7481 or e-mail at erica.tait@dot.gov.

Sincerely,

For: Jermaine R. Hannon
Division Administrator

Enclosure

cc: Michael McNeil, INDOT
April Leckie, INDOT
La'Kesha Stewart, FHWA
Paige Story, FHWA



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758
Indianapolis, Indiana 46204

PHONE: (855) 463-6848

Eric Holcomb, Governor
Michael Smith, Commissioner

November 6, 2024

Mr. Jermaine R. Hannon, Division Administrator
FHWA Indiana Division
575 North Pennsylvania St., Room 254
Indianapolis, IN 46204

Dear Mr. Hannon:

The Indiana Department of Transportation requests the projects listed in STIP Amendment 24-MPO-31 to be incorporated into the 2024-2028 Statewide Transportation Improvement Program (STIP). Any projects and/or phases of projects added in years outside of 2024-2027 are considered illustrative, and thus ineligible for federal funding at this time.

The required Metropolitan Planning Organization (MPO) Transportation Improvement Program (TIP) documents have been included in this request and duly noted in the Amendment. We have determined that the proposed amendments are: 1) consistent with the transportation plan; 2) the TIP remains fiscally constrained in that federal funding resources are sufficient to support the new or modified projects; and 3) conform to state and national air quality standards.

- Northwestern Indiana Regional Planning Commission (NIRPC)

NIRPC [24-02.1](#) exempt

NIRPC [24-02.2](#) non-exempt

NIRPC [24-03](#)

NIRPC Modification [24-18](#)

The total dollar amount of this amendment is \$154,453,316 for fiscal years 2024-2027, has been verified with FHWA.

The grand total dollar amount of this amendment is \$154,453,316 for fiscal years 2024-2027, has been verified with FHWA.

We request your review and approval of the subject amendment. Should you have any questions pertaining to this amendment, please contact Michael McNeil, STIP Specialist at (317) 232-0223 or at mmcneil@indot.in.gov.

Sincerely,

April Leckie, Planning Manager
Intermediate Range Planning Division

2003097		(Ver 5) 24-02.1		STATUS		Programmed		FEDERAL	
Title:		District Intersection Improvement Project							
Description:		Intersection Improvement, Roundabout on US 231 at Iowa Street							
Project Type:		Intersection Improvement, Roundabout		AQ Exempt:		Exempt			
County:		Lake		Limits:					
Narrative:		New project in 2024-2028 TIP; R-43925 DES 2003097							
FED FY	REVENUE SOURCE	PE	RW	CN	CE	TOTAL			
2024	NHPP Non Interstate	\$0	\$0	\$10,000	\$0	\$10,000			
2025	NHPP Non Interstate	\$0	\$25,000	\$0	\$0	\$25,000			
2026	NHPP Non Interstate	\$0	\$0	\$2,032,978	\$160,000	\$2,192,978			
<2024	Prior	\$270,000	\$0	\$0	\$0	\$270,000			
2024-2028 TOTAL		\$0	\$25,000	\$2,042,978	\$160,000	\$2,227,978			
ALL YEARS TOTAL		\$270,000	\$25,000	\$2,042,978	\$160,000	\$2,497,978			
Region: Northwestern MPO		Lead Agency: INDOT							

APPENDIX I

Additional Studies

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

ProjectNumber	SubProjectCode	County	Property
1800005	1800005	Lake	Dowling Park
1800011	1800011	Lake	Tolleston Park
1800012	1800012	Lake	Washington Park
1800040	1800040	Lake	Homestead Park
1800055	1800055	Lake	Sheppard Memorial Park
1800059	1800059	Lake	Cheever Park
1800062	1800062	Lake	Leroy Township Park
1800063	1800063	Lake	Markley Memorial ParkEllendale Park
1800071	1800071	Lake	Cheever Park
1800087	1800087	Lake	Sheppard Memorial Park
1800102	1800102	Lake	Grand Boulevard Lake Recreation Area
1800108	1800108	Lake	Riverview Park
1800137	1800137	Lake	Northgate Park
1800150	1800150	Lake	Meadows Park
1800168	1800168	Lake	Sunnyside Park
1800170	1800170	Lake	Howe Park
1800189	1800189	Lake	Dowling Park
1800193	1800193	Lake	Harrison Park
1800194	1800194	Lake	Martin Luther King Jr. Park (Formerly Maywood Park
1800199	1800199	Lake	Ridgeway Park
1800202	1800202	Lake	Hatcher Park
1800206	1800206	Lake	Meadows Park
1800226	1800226	Lake	Hoosier Prairie Nature Preserve
1800227	1800227	Lake	Liberty Park
1800231	1800231	Lake	Pheasant Hills Community Park & Cherry Hill Tot-Lot
1800237	1800237	Lake	Wolf Lake Park (N & S)
1800239	1800239	Lake	Bluebird Park
1800253	1800253	Lake	Centennial Park
1800272	1800272	Lake	Wolf Lake Park (N & S)
1800273	1800273	Lake	Grand Kankakee Marsh County Park
1800302	1800302	Lake	Munster Community Park
1800329	1800329	Lake	Jackson Park
1800369	1800369H	Lake	Harrison Park
1800369	1800369D	Lake	Lemon Lake County Park
1800377	1800377	Lake	Main Square Park
1800386	1800386	Lake	Gibson Woods Nature Preserve & Tolleston Ridges Nature Preserve
1800405	1800405G	Lake	Clark and Pine Dune Swale Nature Preserve
1800414	1800414	Lake	Wolf Lake Park (N & S)
1800417	1800417	Lake	Centennial (Dan Rabin) Plaza & Trail
1800424	1800424	Lake	Lake Etta County Park
1800455	1800455	Lake	Deep River - Woods Mill County Park
1800464	1800464	Lake	Festival Park & Lakefront Park
1800473	1800473	Lake	Oak Ridge Prairie Co. Park
1800488	1800488	Lake	Marquette Park
1800489	1800489	Lake	Festival Park & Lakefront Park
1800522	1800522	Lake	Pavese Park
1800523	1800523	Lake	Lakewood Park
1800523.5	1800523.5	Lake	River Drive Park
1800528	1800528	Lake	Lowell Sports Park
1800533	1800533	Lake	Hobart City Ball Park
1800555	1800555	Lake	Scherwood Golf Course
1800580	1800580	Lake	Oak Ridge Park
1800586	1800586	Lake	Teibel Nature Park
1800586.1	1800586.1	Lake	Teibel Nature Park
1800590	1800590	Lake	Deep River County Park
1800622	1800622	Lake	Fireman's Park
1800636	1800636	Lake	Parrish Avenue Park

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

ENGINEER'S REPORT
Intersection Improvement
US 231 at Iowa Street
Lake County

Des. No. 2003097



June 17, 2020

Prepared By:



Prepared For:

Indiana Department of Transportation
LaPorte District

ENGINEER'S REPORT

Intersection Improvement
US 231 at Iowa Street
Lake County

Des. No. tbd

By Greg R. Wendling, P.E.
USI Consultants, Inc.
June 17, 2020

1. PURPOSE OF REPORT:

This Engineer's Report documents the engineering assessment phase, including an outline of the proposal for improvements to US 231 at Iowa Street. This report includes the relevant background data and provides conclusions and recommendations that will guide the ongoing environmental and ensuing design phase.

2. PROJECT LOCATION:

This US 231 Intersection Improvement is located at its intersection with Iowa Street. Reference post along US 231 is 287+71. GPS Coordinates are 41.38051 North and -87.30635 West.

The project is located in just southeast of the city of Crown Point, in Lake County, in the LaPorte District.

The adjacent map shows the project location.



3. NEED AND PURPOSE:

This intersection has a very high frequency of Crashes (Index of Crash Frequency, ICF is 3.10). Right Angle crashes involving vehicles crossing US 231 on Iowa Street have been the vast majority of these crashes.

The purpose of this project would be to improve intersection safety and provide a long-term solution to ensure safe and efficient operation of the US 231 and Iowa Street intersection.

4. EXISTING FACILITY:

See the ground level photographs, pages B-1 to B-2 of the Appendix, and the aerial plan sheets on page A-1 of the Appendix for existing conditions in the project area.

Basic Design Elements:

	US 231	Iowa Street
Functional Class	Rural Minor Arterial	Rural Minor Collector
Posted Speed	55 mph	40 mph
Member Road Systems	3R Network	
	Off National Highway System	
	Off National Truck Network	
	SubRegional Corridor (Statewide Mobility Corridor Map)	

Pavement History/Condition:

US 231 was originally constructed as a 2-lane concrete pavement (18' wide) highway in 1927. INDOT records provided show the roadway being widened to 24 feet prior to 1968. HMA resurfacings took place in 1968, 1980, 1992 & 2008.

Existing Right-of-way:

An INDOT Records request was made and plans for the FA-103 project were provided. No other projects were found in the project area. Right-of-way for this project was shown as 50' total width, 25' each side. At the time of this report, the right of way grants for this project were unable to be located and will likely be shown as the edge of pavement unless further evidence is found. Further title research and analysis will be required during the design of this project to fully verify the existing right-of-way.

Drainage:

Drainage within the project area is generally with sheet flow to existing median/side ditches. The drainage along US 231 in this area is generally from the southeast to the northwest toward the large drainage ditch that exists 0.2 miles northwest of the US 231/Iowa Street intersection.

5. FIELD CHECK:

USI personnel visited the project site on May 21, 2020.

Data collected included field measurements, photographs, and identification of utilities.

6. TRAFFIC DATA:

Turning movement counts were performed by the LaPorte District on 09/25/18. AADT along US 231 was obtained from the INDOT TCDS website. This information is included in the appendix on pages B-4 to B-7. A request for design year forecast traffic has been made and will be included added to the design upon receipt.

Capacity analysis is being performed for the existing condition and for some of the alternates. This information will be included in the section titled "Alternates and Recommendations".

7. CRASH DATA:

Crash data was reviewed as part of this assessment and a RoadHAT analysis was prepared. A total of 34 recorded crashes took place within the project limits during the three-year

crash study period (2017 through 2019). The following tables summarizes the number and types of crashes, as well as the RoadHAT results.

Crash History

ICC	3.06	Number of Crashes	34
ICF	4.53	Number of Fatal and Incapacitating Crashes	8
First Year of Crash Data	2017	Number of Non-Incapacitating Crashes	4
Last Year of Crash Data	2019	Number of Property Damage Only Crashes	22

Crash Patterns: Manner of Collision

Manner of Collision	Number	Percent
Backing Crash	0 (0)	0%
Collision With Object in Road	1 (0)	3%
Head On (Between Motor Vehicles)	0 (0)	0%
Left Turn, Right Turn or Angle	2 (0)	6%
Opposite Direction Sideswipe	1 (0)	3%
Ran Off Road	3 (2)	9%
Rear End	1 (1)	3%
Right Angle	25 (11)	73%
Same Direction Sideswipe	1 (0)	3%
Other	0 (0)	0%
Total	34 (14)	100%

X (Y): X indicates the number of crash type
Y indicates those resulting in injury

The RoadHAT analysis resulted in an Index of Crash Frequency (ICF) of 4.53, indicating that the crash frequency at this intersection is in the 99th percentile compared to similar intersections. The Index of Crash Cost (ICC) is 3.06, indicating that the crash costs at this intersection are in the 99th percentile compared to similar intersections. Of the 25 Right Angle Crashes, 14 involved southbound thru traffic crossing US 231, while the other 9 involved northbound thru traffic crossing US 231.

Proposed improvement alternates shall address ways to improve or eliminate the existing crossing movement of Iowa Street.

Crash Pattern Analysis

Pavement Condition Percentages

Type	Number	Percent	Standard Value* Comparison:
On Snowy or Icy Pavement	2	6%	11.18%
On Wet Pavement	4	12%	15.49%
On Dry Pavement	28	82%	73.17%
On Other Condition Pavement	0	0%	0.16%

*Standard values are based on 2014-2018 data for all state-owned facilities. Standard values are included for comparison purposes only.

Lighting Condition Percentages

Type	Number	Percent	Standard Value* Comparison:
Dark (Lighted or Unlighted)	12	35%	32.76%
Dawn/Dusk	0	0%	5.49%
Daylight	22	65%	61.66%
Other	0	0%	0.10%

*Standard values are based on 2014-2018 data for all state-owned facilities. Standard values are included for comparison purposes only.

Weather Condition Percentages

Type	Number	Percent	Standard Value* Comparison:
Clear	27	79%	62.39%

Cloudy	2	6%	18.33%
Fog (Or Smoke or Smog)	0	0%	0.68%
Rain	3	9%	9.79%
Snow or Sleet	2	6%	6.41%
Blowing Material	0	0%	2.13%
Severe Cross Winds	0	0%	0.26%

*Standard values are based on 2014-2018 data for all state-owned facilities. Standard values are included for comparison purposes only.

8. ALTERNATIVES AND RECOMMENDATION:

This report will look at possible intersection improvement alternates. All build alternates discussed in the Indiana Intersection Design Guide will be evaluated.

Alternate 1: Do Nothing

The Do Nothing Alternate does not address the high amount of right-angle crashes occurring as vehicles cross US 231 through traffic, nor the growing delay that occurs for the unsignalized approaches.

A Level of Service (LOS) analysis for the unsignalized intersection was performed for the intersection using Synchro 10. The following table summarizes LOS for the build year and

Intersection			2025						2045					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			LOS	Delay (s)	Queue (ft)	LOS	Delay (s)	Queue (ft)	LOS	Delay (s)	Queue (ft)	LOS	Delay (s)	Queue (ft)
US 231 at Iowa Street Alternate 1														
	SEB	LT TH RT	A	0.4	0	A	0.1	0	A	0.5	0	A	0.2	0
	NWB	LT TH RT	A	0.1	0	A	0.5	0	A	0.2	0	A	0.6	0
	NB	LT TH RT	E	37.0	43	F	66.1	84	F	75.0	88	F	162.2	101
	SB	LT TH RT	C	23.4	8	E	49.2	40	D	31.2	12	F	230.9	184

design year.

As user delay on the approaches fails (LOS F) by the build year and this alternate does not address the purpose of improving intersection safety, this alternate is being dismissed as a viable long-term solution.

Alternate 2: Signalized Intersection

Alternate 2 would consist of installing a traffic signal at the US 231 and Iowa Street intersection. No auxiliary lanes are proposed with this alternate.

A Synchro (10.0) traffic signal analysis provided the following Level of Service (LOS) results for the signalized intersection. The summary tables provides LOS, Delay and queuing length for each movement.

Intersection			2025						2045					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			LOS	Delay (s)	Queue (ft)	LOS	Delay (s)	Queue (ft)	LOS	Delay (s)	Queue (ft)	LOS	Delay (s)	Queue (ft)
US 231 at Iowa Street Alternate 2	Overall		B	14.4		B	14.9		B	18.4		B	19.3	
	EB	LT TH RT	A	5.7	61	B	18.2	351	A	5.5	74	C	24.6	602
	WB	LT TH RT	B	16.9	291	A	6.3	93	C	22.4	544	A	6.0	114
	NB	LT TH RT	B	18.5	51	B	17.1	36	C	21.6	58	C	20.4	45
	SB	LT TH RT	B	15.7	19	B	19.3	58	B	16.6	20	C	24.9	76

All movements perform operationally at a LOS of C or better through the design year.

This alternate meets the primary purpose and need of reducing the number of right angle crashes at the intersection, by controlling the movements via a traffic signal. This alternate can be constructed without any new right-of-way being required, at a cost of approximately \$200,000. However, operational concerns of installing a signal along US 231 without having left turn auxiliary lanes exist. The major concern is that rear end crashes will increase significantly if a signal is installed without left turn auxiliary lanes for the US 231 traffic. The auxiliary lanes will allow vehicles stopped or slowed waiting for gaps in traffic to not disrupt the through lane vehicles.

Due to the safety concerns associated with Alternate 2, it is being dismissed as a viable option.

Alternate 2A (see plan display, A-2 of the appendix) would construct left turn auxiliary lanes on US 231 as well as providing a traffic signal. Turn lanes along US 231 are estimated at 200' of full width along with a 330' lane transition taper. A Synchro (10.0) traffic signal analysis provided the following Level of Service (LOS) results for the signalized intersection. The summary tables provides LOS, Delay and queuing length for each movement.

Intersection			2025						2045					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			LOS	Delay (s)	Queue (ft)	LOS	Delay (s)	Queue (ft)	LOS	Delay (s)	Queue (ft)	LOS	Delay (s)	Queue (ft)
US 231 at Iowa Street Alternate 2A	Overall		B	14.0		B	14.6		B	17.8		B	18.7	
	EB	LT	A	4.8	5	A	3.6	3	A	5.2	6	A	3.3	4
		TH RT	A	5.6	58	B	17.9	346	A	5.4	71	C	23.9	632
	WB	LT	A	3.8	4	A	5.2	6	A	3.6	4	A	5.8	7
		TH RT	B	16.5	287	A	6.1	89	C	21.8	536	A	5.8	109
	NB	LT	B	18.5	51	B	17.0	36	C	21.6	58	C	20.3	45
		TH RT												
	SB	LT	B	15.7	19	B	19.2	58	B	16.6	20	C	24.8	76
		TH RT												

Alternate 2A provides an acceptable LOS through the design year, and addresses the safety concerns identified with Alternate 2. Alternate 2A will be moved forward for further discussion and analysis.

Alternate 3: Median U-turn (J-turn)

As US 231 is a two-lane roadway without a median, this project would require extensive reconstruction of the US 231 corridor to construct. It is being dismissed as a viable option.

Alternate 4: Roundabout Intersection

Alternate 4 (see plan display A-3 of the appendix) would consist of a constructing a single lane roundabout at the US 231 and Iowa Street intersection. The US 231 approaches would need to be constructed as high speed approaches, thus having longer splitter islands as well as multiple curves to the approach. The longer approaches along US 231 are designed to help reduce the sudden change of speed forced onto vehicles due to the geometric constraints of the roundabout (55 mph to 25 mph). Approximately 800' of additional approach along US 231 would need to be reconstructed each side of Iowa Street.

Intersection			2025						2045					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			LOS	Delay (s)	Queue (ft)	LOS	Delay (s)	Queue (ft)	LOS	Delay (s)	Queue (ft)	LOS	Delay (s)	Queue (ft)
US 231 at Iowa Street Alternate 4	Overall		A	4.6		A	4.9		A	5.1		A	7.4	
	EB	LT TH RT	A	3.8	30	A	4.7	253	A	3.8	38	D*	8.6	624
	WB	LT TH RT	A	4.4	196	A	3.9	50	A	5.0	344	A	4.0	65
	NB	LT TH RT	A	7.9	8	B	11.5	9	A	8.9	10	B	12.7	13
	SB	LT TH RT	B	10.0	4	A	7.8	11	B	11.4	4	A	8.3	14

* LOS of D is due to the 93.4% Degree of Saturation.

This alternate meets the primary purpose and need of reducing the number of right angle crashes at the intersection, by geometrically reducing speeds and controlling the direction via construction of a roundabout.. This alternate will be moved forward for further discussion and analysis.

Alternate 5: Displaced Left-turn intersection

Displaced Left-turn intersections should be considered in situations with heavy left turn and heavy through movements. This intersection improvement would require 3 signals in order to safely remove left turns from the main intersection at US 231 and SR Iowa Street. This type of intersection is primarily used in urban and suburban areas where the left turn volume is greater than 250 vehicles. As the volumes at the US 231 and Iowa Street intersection do not approach the warrants associated with this alternate, and the footprint of this alternate is much greater in terms of costs and environmental impact, this alternate is being dismissed from further consideration.

Alternate 6: Jughandle Intersection

The Jughandle intersection removes the left turns from the major road (US 231) by constructing ramps to the minor road (Iowa Street). Jughandle intersections are typically considered when an Urban signalized intersection is nearing saturation. By removing the left-turns from the intersection nearing full saturation, the signal phasing can be simplified, thus improving the LOS of the main intersection.

This alternate is being dismissed as a viable alternate for the US 231 and Iowa Street intersection for the following reasons:

- Intersection volumes do not resemble that of a typical Jughandle application
- Large footprint required to construct ramps
- High costs in terms of construction cost and right-of-way impact

Alternate 7: Offset T Intersection

The offset T intersection is typically utilized when the major road and the minor road have a skew. This alternate would separate the two intersections by approximately 700'. The crossing movement would be eliminated, replaced by a left turn, merge into the right lane, then right turn.

Construction of an offset T at the US 231 and Iowa Street intersection would involve substantial amount of S-line work along both sides of Iowa Street. A display of the proposed alternate is included on page A-4 of the appendix.

The S-line work along the north side of US 231 is being minimized in order to reduce the impact to the residence in the NW quadrant. Additional S-line work is then needed in the SE quadrant in order to provide adequate separation between the two intersections.

The following table shows the expected LOS for the Southbound and Northbound movements at each of the intersections. LOS along US 231 is excellent as it does not have stop control.

Intersection			2025						2045					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			LOS	Delay (s)	Queue (ft)	LOS	Delay (s)	Queue (ft)	LOS	Delay (s)	Queue (ft)	LOS	Delay (s)	Queue (ft)
US 231 at Iowa Street Alternate 7														
	NB	LT TH RT	D	27.6	30	D	33.8	26	E	45.1	48	F	60.0	45
	SB	LT TH RT	C	21.8	7	E	44.8	50	D	28.3	10	F	119.7	110

This alternate removes the Iowa Street crossing movement and is expected to reduce the number of right-angle crashes. This alternate will be moved forward for further discussion and analysis.

Alternate 8: Continuous Green T Intersection

This alternate only applies to a signalized T intersection. As signalization of Alternate 7 is not being considered at this time, Alternate 8 is being dismissed.

Alternate 9: Quadrant Roadway Intersection

A quadrant intersection is utilized at locations where high volumes of left turn movements exist along the major road. The improvements associated with this alternate would construct a new roadway in one designated quadrant in order to remove all of the left turns from the main intersection. This alternate is similar in application and impact to Alternate 6 (Jughandle Intersection), and is being dismissed for similar reasons.

Alternate 10: Grade Separation

A grade separation would take Iowa Street over US 231. Vertical clearance over US 231 would be 16'-6" minimum. Additionally, this alternate would only serve the Iowa Street through

movements. Iowa Street traffic that currently turns east or west onto US 231 would have to utilize the existing road network.

This alternate is being dismissed due to the high costs associated with constructing a new bridge (estimated length 100') over US 231.

Preliminary Recommendation: Alternates 2A, 4 & 7 are being moved forward as viable alternates. Additional analysis and discussion will take place in this report prior to the final recommendation. The following table is a direct relative comparison matrix of Alternates 2A, 4 & 7.

Comparison Matrix			
	Alternate 2A (Signal)	Alternate 4 Roundabout	Alternate 7 Offset T Intersections
Safety	2	1	3
Operational Performance	2	1	3
Cost	2	3	1
Environmental Impacts	1	2	3
Total	7	7	10

Safety: Alternate 4 is viewed as the best alternate to reduce right angle crashes. Roundabouts by their physical nature have an extreme reduction in physical injury accidents due to the physical slowing of speeds and entry angles to potential conflict points. Alternate 2A with full signal control is expected to eliminate or greatly reduce right angle crashes. Alternate 2A, with construction of left turn auxiliary lanes along US 231 will have mitigated the expected increase in rear end crashes associated with installation of a traffic signal. Alternate 7 eliminates the crossing movement of US 231, however, all of the movements will now be left turns from the minor street followed by right turns from US 231 onto Iowa Street. This alternate is expected to reduce the right angle crashes but could lead to an increase in left turn, sideswipe and rear end crashes.

Operational Performance: As shown in the LOS Summary table for each alternate, it is clear that Alternate 4 provides the highest level of operational performance. Alternate 7 provides the lowest level of operational performance as some movements perform at LOS F in the design year.

Costs: Costs for all 3 alternates have been developed, and are summarized in the following table.

Alternate Cost Summary Table	
Alternate	Construction Cost
Alternate 2A	\$740,000
Alternate 4	\$1,320,000
Alternate 7	\$640,000

Detailed Construction cost estimates are included on pages C-1 to C-5 of the appendix.

Environmental Impacts: Alternate 2A has the least environmental impact as it has the least amount of new roadway construction and no new right-of-way is required. Alternate 4 ranks second as most of the work can be done within the existing right-of-way. Alternate 7 has the highest environmental impact because most of the construction is on new alignment and it requires the most right-of-way.

Final Recommendation:

Alternate 4 is the preferred alternate as it ranks best in Operational Performance and Safety. Alternate 2A ranks 2nd in both of these categories and costs less money. Therefore, both of these alternates will continue through this report, so that either alternate could be moved forward depending on funding constraints or other outside influences.

Drainage:

The existing drainage patterns at the intersection should be maintained. Small diameter culverts will be necessary at several locations in order to perpetuate the existing drainage patterns and prevent right-of-way acquisition.

9. MAINTENANCE OF TRAFFIC DURING CONSTRUCTION:

Construction of either Alternate 4 would likely include a road closure with detour. The proposed detour route would consist of I-65, SR 2 and US 231. The total travel length of the detour is 14.7 miles, with an additional travel length of 6.5 miles.

10. COST ESTIMATE (2018):

Estimated Costs for Alternate 4 and 2A are summarized in the following table:

	<i>Alternate 2A</i>	<i>Alternate 4</i>
Phase		
Right of Way Purchase:	\$0	\$20,000
Right of Way Services:	\$0	\$20,000
Preliminary Engineering 1:	\$240,000	\$270,000
Railroad PE 1:	\$0	\$0
Utilities PE (UT1):	\$10,000	\$10,000
Utilities CN (UT2):	\$0	\$0
Construction Total:	\$740,000	\$1,320,000
Construction (CN):	\$740,000	\$1,320,000
Railroad Construction:	\$0	\$0
Maintenance of Traffic:	Included in CN	Included in CN
Environmental Mitigation:	\$0	\$0
ADA	\$0	\$0
Construction Engineering (CE):	\$90,000	\$160,000
Other Considerations:	\$0	\$0
TOTAL:	\$1,080,000	\$1,800,000

11. ENVIRONMENTAL CONSIDERATIONS:

Preliminary Red Flag Investigation utilizing ArcGIS and INDOT SAM layers indicate no major environmental considerations within the proposed project area (see appendix D for ArcGIS Displays). It is anticipated that a Level 1 Categorical Exclusion (CE) will be the required NEPA document. If proposed right of way increases above 0.5 acre, the CE document will escalate to a

Recommend additional 20% contingency on CN costs (CN+CE) to bring CN to \$1,780,000 for total of \$2,100,000 due to recent comparable bid lettings. -Alan Holderread

Level 2 and will require opportunity for public hearing. The estimated completion time for this NEPA document is 9 months from receipt of notice proceed if there are no requests for public hearing.

Soil disturbances will likely exceed 1 acre. Environmental permitting with IDEM Rule 5 may be required in accordance with 327 IAC 15-5. The stormwater pollution prevention plan shall be submitted to INDOT EWPO and forwarded to the Lake County MS-4 for approval prior to application for the IDEM Notice of Intent.

There are no Waters of the United States identified in the immediate project area, therefore no 401/404 permitting is anticipated. Additionally, there are no floodplains identified within the immediate project area, therefore an IDNR CIF is not anticipated.

12. SURVEY REQUIREMENTS:

Survey for either Alternate 4 or 2A should extend 100' beyond the proposed project limits and cover an area 50' beyond the existing or proposed right-of-way.

13. RIGHT-OF-WAY IMPACT:

Alternate 4 will require permanent right-of-way from 4 parcels. Estimated right-of-way is shown on the plan display (A-3 of the appendix). The total estimated amount of right-of-way needed for Alternate 4 is 0.48 acre.

Alternate 2A is anticipated to not require any new permanent or temporary right-of-way.

14. UTILITY IMPACT:

A utility locate request identified the following utilities within the project area.

Utility Name	Type of Facility	Contact Person	Initial Notice Response
AT&T	Phone	Angelo LaMantia A11242@att.com 219-647-6260	Buried facilities throughout project along US 231. Cabinet in NE quadrant. ATT indicated that their facilities are not in private easement.
NIPSCO Gas	Gas	Dean Garrett dagarrett@nisource.com 219-647-6260	3" plastic line along the south side of US 231. 2" plastic line along the west side of Iowa Street, north of US 231. 2" plastic line along the east side of Iowa Street, south of US 231. NIPSCO indicated that their facilities are not in private easement.
NIPSCO Electric	Electric	Dean Garrett dagarrett@nisource.com 219-647-6260	69 kV transmission facilities with 12.5 kV distribution facilities underbuild along the north side of US 231. 12.5kV Transmission runs along the west side of Iowa Street. NIPSCO indicated that their facilities are not in private easement.

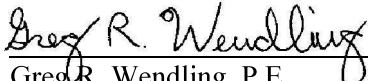
Overhead electric facilities along US 231 will likely be impacted with either Alternate 4 or 2A. Determining if buried gas and phone will be impacted is dependent upon the depth of their facilities. During the design, exact depth of the gas and phone in critical areas will need to be determined.

15. RELATED PROJECTS:

USI reviewed the INDOT website <https://entapps.indot.in.gov/dotmaps/nlri/>. This site shows programmed projects throughout the state through Fiscal Year 2024. At this time, there are no programmed projects shown that would be a direct conflict or require special coordination with the subject project. As this project develops, the designer, along with the INDOT Project Manager shall continue to monitor other projects along the corridor and detour.


16. CONCURRENCE:

This document was prepared by:


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USI Consultants, Project Manager

DATE: June 17, 2020

Reviewed by:

Alan
Holderread

Alan Holderread, PE
District Traffic Engineer, LaPorte District

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Reviewed by:


Paul South, PE
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DATE: 1/28/2021

Approved by:

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Benczik

Steve Benczik, PE
System Asset Manager, LaPorte District

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DATE: _____