

## Appendix C

### Early Coordination

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May 27, 2020

GAI Project No. D190007.00

## Early Coordination Example Letter sent to the Attached Distribution List

### **Early Coordination Designation No. 1702989 US-6 & US-421 Intersection Improvement Project LaPorte County, Indiana**

Dear Interested Agency:

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intends to proceed with an intersection improvement project located in LaPorte 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.

This project is located at the intersection of US-6, US-421, and County Road (CR) West 600 South in Sections 32 & 33 of Township 36 North, Range 4 West and Sections 4 & 5 of Township 35 North, Range 4 West, as shown on the Westville USGS 7.5 Minute Topographic Map. US-6 and US-421 are classified as Rural-Other Principle Arterial roadways and CR W. 600 S. is classified as a Local Minor Collector. US-421 is a two-way, three-lane roadway that travels north to south through the project area. US-6 is a two-way, three-lane road that travels east from the project area, and CR W. 600 S. is a two-lane, two-way roadway that travels west from the project area. The need for this project stems from the high number of crashes resulting from westbound traffic running the stop sign or failing to yield once stopped. This intersection has gone through several iterations over the last two decades, but most recently in 2017. In 2017, a small triangular island was constructed on the westbound approach of US-6 for traffic utilizing the right turn lane and an additional stop sign was added on the island. Since then, various combinations of both yellow and red flashers have been used on the stop signs at this intersection. In addition, transverse rumble strips were also installed on the westbound lanes of US-6 in the Fall of 2017. Despite these previous efforts to improve operational safety, it is currently proposed that a single lane roundabout be constructed to replace the existing facility in order to reduce the number of crashes associated with westbound vehicles running the stop sign or failing to yield once stopped. No tree clearing is anticipated to complete this project. Apparent existing right-of-way varies throughout the project area from approximately 20 ft. to 120 ft. from the roadway centerline. It is anticipated that approximately 0.20 acre of permanent right-of-way will be acquired from the northwest quadrant of the project area; although, the exact amount is not known at this time. The project limits will extend approximately 550 ft. north, 400 ft. south, 450 ft. east, and 385 ft. west from the center of the US-6 and US-421 intersection. No relocations will be required to complete this project

as it is proposed. The Maintenance of Traffic (MOT) is unknown at this time; however, it is anticipated that a road closure utilizing a detour route will be necessary.

A Red Flag Investigation is currently being performed to determine items of concern within the project area. Land use in the vicinity is primarily commercial and agricultural fields. A Wetland Delineation/Determination and Waters of the United States investigation will be conducted in accordance with the 1987 United States Army Corps of Engineers (USACE) *Corps of Engineers Wetlands Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (Version 2.0, USACE, 2010) and coordinated with the INDOT Ecology & Permits Office. The Range-Wide Programmatic Informal Consultation process "Using USFWS's IPaC System for Listed Bat Consultation for INDOT Projects" will be completed. This will be used to evaluate potential impacts to the Indiana Bat and the Northern Long-Eared Bat.

As the Section 106 process advances, the project area will be surveyed by individuals satisfying the Secretary of the Interior Professional Qualification Standards to determine an area of potential effect (APE), make recommendations on eligibility determinations and assess effects on potential historic resources. Additionally, the project area will be subjected to an archaeological reconnaissance by a qualified archaeologist. Coordination with the SHPO and the identified consulting parties will be ongoing for the duration of the Section 106 process.

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

Project location maps and photo documentation are attached. If you have any questions regarding this matter, please contact me at [h.ford@gaiconsultants.com](mailto:h.ford@gaiconsultants.com) or (317) 436-9142 or the INDOT Project Manager, Michael Grylewicz, at [mgrylewicz@indot.in.gov](mailto:mgrylewicz@indot.in.gov) or (219) 325-7539.

Sincerely,

**GAI Consultants, Inc.**



Harlan Ford

Project Environmental Specialist

Enc.: Distribution List, Project Location Maps, Photo Documentation

US-6 & US-421  
Intersection Improvement  
Des. No. 1702989

**Agencies Receiving Early Coordination Packet:**

Distributed on May 27, 2020

U.S. Fish and Wildlife Service  
Indiana Field Office  
620 S. Walker Street  
Bloomington, Indiana 47403  
liz\_mccloskey@fws.gov

Mr. Rick Neilson, State Conservationist  
Natural Resources Conservation Service  
6013 Lakeside Boulevard  
Indianapolis, IN 46278  
Rick.neilson@in.usda.gov

Ms. Nancy Hasenmueller, Section Head  
Indiana Geological Survey, Environmental Geology  
611 North Walnut Grove  
Bloomington, IN 47405  
IGSenvir@indiana.edu  
<https://igs.indiana.edu/eAssessment/>  
(Website Submittal)

Mr. Julian Courtade, Chief Airport Inspector  
Aviation Division  
100 North Senate Avenue, Rm N955-LP  
Indianapolis, IN 46204  
jcourtade@indot.in.gov

Regional Environmental Coordinator  
National Park Service, Midwest Regional Office  
601 Riverfront Drive  
Omaha, NE 68102  
hector\_santiago@nps.gov

Mrs. Kari Carmany-George  
Federal Highway Administration, Indiana Division  
Federal Office Building, Room 254  
575 North Pennsylvania Street,  
Indianapolis, IN 46204  
k.carmanygeorge@dot.gov

Ms. Christie Stanifer, Environmental Coordinator  
IN Dept. of Natural Resources  
Division of Water, Fish & Wildlife Unit  
402 West Washington Street, Rm W273, IGCS  
Indianapolis, IN 46204  
environmentalreview@dnr.in.gov

Field Environmental Officer  
U.S. Dept. of Housing & Urban Development  
Chicago Regional Office, Metcalf Fed. Bldg.  
77 West Jackson Boulevard, Room 2401  
Chicago, IL 60604  
Paul.j.lehmann@hud.gov

Mr. Rickie Clark, Public Involvement Manager  
IN Dept. of Transportation  
Office of Public Involvement  
100 N. Senate Ave., Room N642  
Indianapolis, IN 46204  
rclark@indot.in.gov

Environmental Analysis Branch  
CELRE-PLE  
Department of the Army  
Detroit District, Corps of Engineers  
477 Michigan Ave.  
Detroit, MI 48226  
Paul.H.Allerding@usace.army.mil

IN Dept. of Environmental Management  
Office of Planning and Assessment  
<http://www.in.gov/idem/5284.htm>  
(Website Submittal)

Wellhead Proximity Determinator  
<http://www.in.gov/idem/cleanwater/pages/wellhead/>  
(Website Investigation)

Mr. Michael Grylewicz, Project Manager  
IN Dept. of Transportation, LaPorte District  
315 E. Boyd Blvd.  
LaPorte, IN 46350  
mgrylewicz@indot.in.gov

Mr. Stewart Michels, Environmental Section Manager  
IN Dept. of Transportation, LaPorte District  
315 E. Boyd Blvd.  
LaPorte, IN 46350  
SMichels@indot.in.gov

Mr. Robert Young, Superintendent  
LaPorte County Highway Department  
1805 W 5<sup>th</sup> St.  
LaPorte, IN 46350  
ryoung@laportecounty.org

Mr. Anthony Hendricks, Surveyor  
LaPorte County Government  
555 Michigan Avenue, Suite 104  
LaPorte, IN 46350  
ahendricks@laportecounty.org

Mr. Ty Warner  
Northwestern Indiana Regional Planning Commission  
3100 Southport Rd.  
Portage, IN 46368  
twarner@nirpc.org

US-6 & US-421  
Intersection Improvement  
Des. No. 1702989

**Agencies Receiving Early Coordination Packet:**

Distributed on May 27, 2020

Mr. Rick Brown, MS4 Coordinator  
LaPorte County Government  
2857 W SR 2  
LaPorte, IN 46350  
rbrown@laportecounty.org

Ms. Annemarie Polan, Floodplain Administrator  
LaPorte County Government  
809 State Street, Suite 503A  
LaPorte, IN 46350  
apolan@laportecounty.org

## Raquel Walker

---

**From:** McCloskey, Elizabeth <elizabeth\_mccloskey@fws.gov>  
**Sent:** Friday, May 29, 2020 11:31 AM  
**To:** Raquel Walker  
**Cc:** Harlan Ford  
**Subject:** Re: [EXTERNAL] Early Coordination Letter for Des No. 1702989

### EXTERNAL E-MAIL MESSAGE

Good morning, because the proposed project will have minor impacts on natural resources, and no Federally 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  
Chesterton, Indiana

---

**From:** Raquel Walker <R.Walker@gaiconsultants.com>  
**Sent:** Wednesday, May 27, 2020 11:38 AM  
**To:** McCloskey, Elizabeth <elizabeth\_mccloskey@fws.gov>  
**Cc:** Harlan Ford <H.Ford@gaiconsultants.com>  
**Subject:** [EXTERNAL] Early Coordination Letter for Des No. 1702989

Good Afternoon,

I am contacting you on behalf of the Indiana Department of Transportation (INDOT) to inform you of an intersection improvement project that INDOT and the Federal Highway Administration (FHWA) are proposing in LaPorte County, Indiana. Attached you will find an early coordination packet with details concerning the project. If you have any questions or concerns, please don't hesitate to contact me.

Thanks for your time,

**Raquel Walker**  
Environmental Specialist

**GAI Consultants**, 9921 DuPont Circle Drive West, Suite 100, Fort Wayne, Indiana 46825  
**P** 260-969-8800 **D** 260-240-4661 **M** 260-444-1307  
[Facebook](#) | [LinkedIn](#) | [Twitter](#) | [YouTube](#) | [News & Insights](#)



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June 17, 2020

Harlan Ford  
GAI Consultants  
201 North Illinois Street, Suite 1700  
Indianapolis, Indiana 46204

Dear Mr. Ford:

The proposed project to make intersection improvements at US 6 and US 421 in LaPorte County, Indiana, (Des No. 1702989) as referred in your letter received on May 27, 2020 will cause a conversion of prime farmland.

The attached packet of information is for your use completing Parts VI and VII of the AD-1106. After Completion, the federal funding agency needs to forward one copy to NRCS for our records.

If you need additional information, please contact John Allen at 317-295-5859.

Sincerely,

**RICHARD** Digitally signed by  
RICHARD NEILSON  
**NEILSON** Date: 2020.06.17  
15:12:52 -04'00'

RICK NEILSON  
State Soil Scientist

Enclosures



**FARMLAND CONVERSION IMPACT RATING**

<b>PART I</b> (To be completed by Federal Agency)		Date Of Land Evaluation Request			
Name of Project <b>DES1702989 US6 US421</b>		Federal Agency Involved <b>FHWA</b>			
Proposed Land Use <b>Intersection Improvement</b>		County and State <b>LaPorte County, Indiana</b>			
<b>PART II</b> (To be completed by NRCS)		Date Request Received By NRCS <b>5/27/2020</b>		Person Completing Form: <b>JRA</b>	
Does the site contain Prime, Unique, Statewide or Local Important Farmland? <i>(If no, the FPPA does not apply - do not complete additional parts of this form)</i>		YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		Acres Irrigated	
				Average Farm Size <b>336 ac</b>	
Major Crop(s) <b>Corn</b>		Farmable Land In Govt. Jurisdiction Acres: <b>348283 % 90</b>		Amount of Farmland As Defined in FPPA Acres: <b>283295 % 73</b>	
Name of Land Evaluation System Used <b>LESA</b>		Name of State or Local Site Assessment System		Date Land Evaluation Returned by NRCS <b>6/17/2020</b>	
<b>PART III</b> (To be completed by Federal Agency)		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly		<b>0.014</b>			
B. Total Acres To Be Converted Indirectly		<b>0.31</b>			
C. Total Acres In Site		<b>0.324</b>			
<b>PART IV</b> (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		<b>0.20</b>			
B. Total Acres Statewide Important or Local Important Farmland		<b>0.00</b>			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		<b>&lt;0.001</b>			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		<b>49</b>			
<b>PART V</b> (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)		<b>76</b>			
<b>PART VI</b> (To be completed by Federal Agency) Site Assessment Criteria <i>(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)</i>		<b>Maximum Points</b>	Site A	Site B	Site C
1. Area In Non-urban Use		(15)	<b>9</b>		
2. Perimeter In Non-urban Use		(10)	<b>9</b>		
3. Percent Of Site Being Farmed		(20)	<b>0</b>		
4. Protection Provided By State and Local Government		(20)	<b>0</b>		
5. Distance From Urban Built-up Area		(15)	<b>5</b>		
6. Distance To Urban Support Services		(15)	<b>0</b>		
7. Size Of Present Farm Unit Compared To Average		(10)	<b>0</b>		
8. Creation Of Non-farmable Farmland		(10)	<b>0</b>		
9. Availability Of Farm Support Services		(5)	<b>0</b>		
10. On-Farm Investments		(20)	<b>0</b>		
11. Effects Of Conversion On Farm Support Services		(10)	<b>0</b>		
12. Compatibility With Existing Agricultural Use		(10)	<b>0</b>		
TOTAL SITE ASSESSMENT POINTS		<b>160</b>	<b>23</b>	<b>0</b>	<b>0</b>
<b>PART VII</b> (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100	<b>76</b>	<b>0</b>	<b>0</b>
Total Site Assessment (From Part VI above or local site assessment)		160	<b>23</b>	<b>0</b>	<b>0</b>
<b>TOTAL POINTS (Total of above 2 lines)</b>		<b>260</b>	<b>99</b>	<b>0</b>	<b>0</b>
Site Selected: <b>Site A</b>		Date Of Selection		Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
Reason For Selection: <b>Site A will consist of replacing the existing facility with a single lane roundabout in order to reduce the number of crashes, as right-angle type crashes would be eliminated. The project will utilize the existing highway right-of-way, but will also require approximately 0.15 acre of permanent ROW.</b>					
Name of Federal agency representative completing this form: <b>Raquel Walker</b>					Date: <b>5/17/2021</b>

(See Instructions on reverse side)



## Organization and Project Information

**Project ID:** D190007.00  
**Des. ID:** 1702989  
**Project Title:** US 6 & US 421 Intersection Improvement Project  
**Name of Organization:** GAI Consultants  
**Requested by:** Raquel Walker

## Environmental Assessment Report

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

\*All map layers from Indiana Map ([maps.indiana.edu](http://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: 420 N. Walnut St., Bloomington, IN 47404

Email: [IGSEnvir@indiana.edu](mailto:IGSEnvir@indiana.edu)

Phone: 812 855-7428

Date: May 27, 2020



## Metadata:

- [https://maps.indiana.edu/metadata/Geology/Seismic\\_Earthquake\\_Liquefaction\\_Potential.html](https://maps.indiana.edu/metadata/Geology/Seismic_Earthquake_Liquefaction_Potential.html)
- [https://maps.indiana.edu/metadata/Geology/Industrial\\_Minerals\\_Sand\\_Gravel\\_Resources.html](https://maps.indiana.edu/metadata/Geology/Industrial_Minerals_Sand_Gravel_Resources.html)
- [https://maps.indiana.edu/metadata/Geology/Bedrock\\_Geology.html](https://maps.indiana.edu/metadata/Geology/Bedrock_Geology.html)

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

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**DNR #:** ER-22620

**Request Received:** May 27, 2020

**Requestor:** GAI Consultants, Inc.  
Harlan Ford  
201 North Illinois Street  
Suite 1700  
Indianapolis, IN 46204

**Project:** US 6 and US 421 intersection roundabout construction; Des #1702989

**County/Site info:** LaPorte

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

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

1. Revegetate all bare and disturbed areas within the project area using a mixture of grasses (excluding all varieties of tall fescue), sedges, and wildflowers native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion.
2. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
3. 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.
4. Do not excavate or place fill in any riparian wetland.

**THIS IS NOT A PERMIT**

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

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**Contact Staff:**

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

*Christie L. Stanifer*

---

**Date:** June 25, 2020

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

## Raquel Walker

---

**From:** Courtade, Julian <JCourtade@indot.IN.gov>  
**Sent:** Wednesday, May 27, 2020 1:21 PM  
**To:** Raquel Walker  
**Subject:** RE: Early Coordination Letter for Des No. 1702989

### EXTERNAL E-MAIL MESSAGE

Raquel –

I reviewed the Early Coordination Letter and found no issues with surrounding airspace or airports. This is due to the project meeting the required glideslope requirements to the nearest public-use facility. Please let me know if you have any questions!

Thanks,

**Julian L. Courtade**  
*Chief Airport Inspector*  
100 North Senate Ave, N955  
Indianapolis, IN 46204  
**Office:** (317) 232-1477  
**Cell:** (317) 954-7385  
**Email:** [jcourtade@indot.in.gov](mailto:jcourtade@indot.in.gov)



---

**From:** Raquel Walker <R.Walker@gaiconsultants.com>  
**Sent:** Wednesday, May 27, 2020 12:38 PM  
**To:** Courtade, Julian <JCourtade@indot.IN.gov>  
**Cc:** Harlan Ford <H.Ford@gaiconsultants.com>  
**Subject:** Early Coordination Letter for Des No. 1702989

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

Good Afternoon,

I am contacting you on behalf of the Indiana Department of Transportation (INDOT) to inform you of an intersection improvement project that INDOT and the Federal Highway Administration (FHWA) are proposing in LaPorte County, Indiana. Attached you will find an early coordination packet with details concerning the project. If you have any questions or concerns, please don't hesitate to contact me.

Thanks for your time,

**Raquel Walker**

Environmental Specialist

**GAI Consultants**, 9921 DuPont Circle Drive West, Suite 100, Fort Wayne, Indiana 46825

**P** 260-969-8800 **D** 260-240-4661 **M** 260-444-1307

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**GAI Consultants**

**ENGINEERING, PLANNING, AND ENVIRONMENTAL CONSULTING SINCE 1958**

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## United States Department of the Interior



### FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

Phone: (812) 334-4261 Fax: (812) 334-4273

<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>

In Reply Refer To:

July 22, 2021

Consultation Code: 03E12000-2021-SLI-0859

Event Code: 03E12000-2021-E-07925

Project Name: Des No. 1702989: US 6 & US 421 - Intersection Improvement Project

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

To Whom It May Concern:

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

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

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

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



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

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

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

Attachment(s):

- Official Species List

## Official Species List

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

This species list is provided by:

**Indiana Ecological Services Field Office**

620 South Walker Street

Bloomington, IN 47403-2121

(812) 334-4261

## Project Summary

Consultation Code: 03E12000-2021-SLI-0859

Event Code: 03E12000-2021-E-07925

Project Name: Des No. 1702989: US 6 & US 421 - Intersection Improvement Project

Project Type: TRANSPORTATION

Project Description: The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intend to proceed with an intersection improvement project located in LaPorte County, Indiana. This project is located at the intersection of US-6, US-421, and County Road (CR) West 600 South in Sections 32 & 33 of Township 36 North, Range 4 West and Sections 4 & 5 of Township 35 North, Range 4 West, as shown on the Westville USGS 7.5 Minute Topographic Map. It is currently proposed that a single lane roundabout be constructed with dedicated left turn lanes and increased lane widths to replace the existing facility. In addition, the project will involve construction of medians, curbs and gutters, the replacement and installation of drainage pipes beneath the roadway pavement, and the replacement, installation of lighting within the project area, and relocation of utilities, if necessary. A review of the USFWS database for bat hibernacula within 0.5 miles of the project area was completed by INDOT, LaPorte District on March 23, 2020. Their review did not indicate documented captures, roosts, or hibernacula within 0.5 mile of the project area. On May 20, 2020 qualified personnel from GAI Consultants inspected an existing drainage pipe that exists on the north leg of US 421. The inspection did not detect any bats or signs of bats at this structure. Suitable summer habitat exists within the project area. However, no tree trimming, or clearing is anticipated to be needed to complete this project. Permanent lighting exists within the project limits. New permanent lighting will be installed, and existing lighting may need to be relocated and/or replaced. In addition, the use of temporary lighting may be needed. The project limits will extend approximately 975 ft. north, 595 ft. south, 715 ft. east, and 390 ft. west from the center of the US-6 and US-421 intersection. Construction for this project is expected to begin in Spring of 2023.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.518932,-86.8942629220669,14z>



Counties: LaPorte County, Indiana

## Endangered Species Act Species

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

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, 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 <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/5949">https://ecos.fws.gov/ecp/species/5949</a>	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> <li>▪ Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See <a href="http://www.fws.gov/midwest/endangered/mammals/nleb/index.html">www.fws.gov/midwest/endangered/mammals/nleb/index.html</a></li> </ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

## Critical habitats

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



## United States Department of the Interior



### FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

Phone: (812) 334-4261 Fax: (812) 334-4273

<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>

In Reply Refer To:

August 11, 2021

Consultation code: 03E12000-2021-I-0859

Event Code: 03E12000-2021-E-08568

Project Name: Des No. 1702989: US 6 & US 421 - Intersection Improvement Project

Subject: Concurrence verification letter for the 'Des No. 1702989: US 6 & US 421 - Intersection Improvement Project' project under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **Des No. 1702989: US 6 & US 421 - Intersection Improvement Project** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 *et seq.*).

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

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

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

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

## Project Description

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

### **Name**

Des No. 1702989: US 6 & US 421 - Intersection Improvement Project

### **Description**

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intend to proceed with an intersection improvement project located in LaPorte County, Indiana. This project is located at the intersection of US-6, US-421, and County Road (CR) West 600 South in Sections 32 & 33 of Township 36 North, Range 4 West and Sections 4 & 5 of Township 35 North, Range 4 West, as shown on the Westville USGS 7.5 Minute Topographic Map. It is currently proposed that a single lane roundabout be constructed with dedicated left turn lanes and increased lane widths to replace the existing facility. In addition, the project will involve construction of medians, curbs and gutters, the replacement and installation of drainage pipes beneath the roadway pavement, and the replacement, installation of lighting within the project area, and relocation of utilities, if necessary. A review of the USFWS database for bat hibernacula within 0.5 miles of the project area was completed by INDOT, LaPorte District on March 23, 2020. Their review did not indicate documented captures, roosts, or hibernacula within 0.5 mile of the project area. On May 20, 2020 qualified personnel from GAI Consultants inspected an existing drainage pipe that exists on the north leg of US 421. The inspection did not detect any bats or signs of bats at this structure. Suitable summer habitat exists within the project area. However, no tree trimming, or clearing is anticipated to be needed to complete this project. Permanent lighting exists within the project limits. New permanent lighting will be installed, and existing lighting may need to be relocated and/or replaced. In addition, the use of temporary lighting may be needed. The project limits will extend approximately 975 ft. north, 595 ft. south, 715 ft. east, and 390 ft. west from the center of the US-6 and US-421 intersection. Construction for this project is expected to begin in Spring of 2023.



## Determination Key Result

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

## Qualification Interview

1. Is the project within the range of the Indiana bat<sup>[1]</sup>?

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

**Automatically answered**

Yes

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

[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<sup>[1]</sup> 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<sup>[1]</sup>?

[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<sup>[1]</sup>?

[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<sup>[1]</sup> summer habitat for Indiana Bat or NLEB **within** the project action area<sup>[2]</sup>? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

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

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

*Yes*

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

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

*No*

10. Have presence/probable absence (P/A) summer surveys<sup>[1][2]</sup> been conducted<sup>[3][4]</sup> **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*

11. Does the project include activities **within documented Indiana bat habitat**<sup>[1][2]</sup>?

[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 triangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

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

*No*

12. Does the project include activities **within documented NLEB habitat**<sup>[1][2]</sup>?

[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 triangulation/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. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?

*No*

14. Does the project include slash pile burning?

*No*

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

*Yes*

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

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

*Yes*

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

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

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

*Yes*

**SUBMITTED DOCUMENTS**

- *INDOT Bridge Bat Inspection Form\_1702989.pdf* <https://ecos.fws.gov/ipac/project/GZY7YLAVGRFEHCOVTDFAI5IDNA/projectDocuments/104086652>

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

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

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

No

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

Yes

20. 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

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

Yes

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

Yes

23. 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

24. 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

25. 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

26. 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

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

No

28. 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*

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

**Automatically answered**

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

30. **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

31. **Lighting AMM 1**

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

Yes

32. **Lighting AMM 2**

Does the lead agency use the BUG (Backlight, Uplight, and Glare) system developed by the Illuminating Engineering Society<sup>[1][2]</sup> to rate the amount of light emitted in unwanted directions?

[1] Refer to [Fundamentals of Lighting - BUG Ratings](#)

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

Yes

33. **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?

N/A

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

N/A

3. Please describe the proposed bridge work:

*The scope of work includes the construction of a single lane round-a-bout with dedicated turn lanes and increased lane widths, construction of medians, curbs and gutters, the replacement and installation of drainage pipes beneath the roadway pavement, and the replacement and installation of lighting within the project area.*

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

*Spring of 2023*

5. Please enter the date of the bridge assessment:

*May 20, 2020*

## Avoidance And Minimization Measures (AMMs)

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

### LIGHTING AMM 1

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

### 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.

### 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.

# Bridge/Structure Bat Assessment Form

Date & Time of Assessment: 7/6/2022 AM	DOT Project Number: 1702989	Route/Facility Carried: US 6	County: LaPorte County
Federal Structure ID: N/A	Structure Coordinates (latitude and longitude): 41 31 06 N 86 53 39 W	Structure Height (approximate): 18 INCH	Structure Length: 104
<b>Structure Type (check one)</b>		<b>Structure Material (check all that apply)</b>	
<i>Bridge Construction Style</i>		<i>Deck Material</i>	<i>Beam Material</i> <i>End/Back Wall Material</i>
<input type="radio"/> Cast-in-place	<input type="radio"/> Pre-stressed Girder	<input type="checkbox"/> Metal	<input type="checkbox"/> None <input type="checkbox"/> Concrete
<input type="radio"/> Flat Slab/Box	<input type="radio"/> Steel I-beam	<input type="checkbox"/> Concrete	<input type="checkbox"/> Concrete
<input type="radio"/> Truss	<input type="radio"/> Covered	<input type="checkbox"/> Timber	<input type="checkbox"/> Steel
<input type="radio"/> Parallel Box Beam	<input type="radio"/> Other: _____	<input type="checkbox"/> Open grid	<input type="checkbox"/> Timber
		<input type="checkbox"/> Other: _____	<input type="checkbox"/> Other: _____
<i>Culvert Type</i>	<i>Other Structure</i>	<i>Culvert Material</i>	
<input type="radio"/> Box	<input type="radio"/> _____	<input type="checkbox"/> Metal	<i>Creosote Evidence</i> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown
<input checked="" type="radio"/> Pipe/Round	<input type="radio"/> _____	<input type="checkbox"/> Concrete	
<input type="radio"/> Other: _____	<input type="radio"/> _____	<input type="checkbox"/> Plastic	
		<input type="checkbox"/> Stone/Masonry	
		<input type="checkbox"/> Other: _____	
<b>Crossings Traversed (check all that apply)</b>		<b>Surrounding Habitat (check all that apply)</b>	
<input type="checkbox"/> Bare ground	<input type="checkbox"/> Open vegetation	<input checked="" type="checkbox"/> Agricultural	<input type="checkbox"/> Grassland
<input type="checkbox"/> Rip-rap	<input type="checkbox"/> Closed vegetation	<input checked="" type="checkbox"/> Commercial	<input type="checkbox"/> Ranching
<input type="checkbox"/> Flowing water	<input type="checkbox"/> Railroad	<input type="checkbox"/> Residential-urban	<input checked="" type="checkbox"/> Riparian/wetland
<input type="checkbox"/> Standing water	<input checked="" type="checkbox"/> Road/trail - Type: _____	<input type="checkbox"/> Residential-rural	<input type="checkbox"/> Mixed use
<input type="checkbox"/> Seasonal water	<input type="checkbox"/> Other: _____	<input type="checkbox"/> Woodland/forested	<input type="checkbox"/> Other: _____
<b>Areas Assessed (check all that apply)</b>			
Check all areas that apply. If an area is not present in the structure, check the "not present" box. Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.			
<b>Area (check if assessed)</b>	<b>Assessment Notes</b>	<b>Evidence of Bats (include photos if present)</b>	
<input type="checkbox"/> All crevices and cracks: <b>Bridges/culverts:</b> rough surfaces or imperfections in concrete <b>Other structures:</b> soffits, rafters, attic areas	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #    dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Staining
<input type="checkbox"/> Concrete surfaces (open roosting on concrete)	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #    dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Staining
<input type="checkbox"/> Spaces between concrete end walls and the bridge deck	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #    dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Staining
<input type="checkbox"/> Crack between concrete railings on top of the bridge deck	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #    dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Staining
<input type="checkbox"/> Vertical surfaces on concrete I-beams	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #    dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Staining
<input type="checkbox"/> Spaces between walls, ceiling joists	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #    dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Staining
<input checked="" type="checkbox"/> Weep holes, scupper drains, and inlets/pipes	<input type="checkbox"/> Not present <b>NO EVIDENCE OF BATS</b>	<input type="checkbox"/> Visual - live #    dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Staining
<input type="checkbox"/> All guiderails	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #    dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Staining
<input type="checkbox"/> All expansion joints	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #    dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Staining
Name: KENNETH MCMULLEN		Signature: _____	

# Appendix D

## Section 106 Consultation

Item	Appendix Page
SHPO concurrence	D1 to D2
800.11 document	D3 to D6
Signed Finding	D7 to D 48
Executive summaries of all reports and studies	D49 to D53
Affidavit of publication of legal notice	D54



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 ·



August 29, 2022

Linda Weintraut, Ph.D.  
Weintraut & Associates, Inc.  
P.O. Box 5034  
Zionsville, IN 46077

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 historic properties affected” on behalf  
of the Federal Highway Administration for the US 6 and US 421 intersection improvement  
project (Des. No. 1702989; DHPA No. 27790)

Dear Dr. Weintraut:

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 August 24, 2022, submission, which enclosed INDOT’s finding and supporting documentation, received by our office the same day for this project in Clinton and New Durham Townships, LaPorte County, Indiana.

As previously stated, for the purposes of the Section 106 review of this federal undertaking, we agree with the conclusions of the HPR that there are no historic properties listed or eligible for inclusion in the National Register of Historic Places (“NRHP”).

Also as previously stated, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we concur with the opinion of the archaeologist, as expressed in the archaeological records check and Phase Ia field reconnaissance survey report (Arnold, 04/2022), that archaeological sites 12-Le-0460 and 12-Le-0461 (both of which were identified during the archaeological investigations) do not appear to contain significant archaeological deposits; and that no further archaeological investigations appear necessary at the proposed project area.

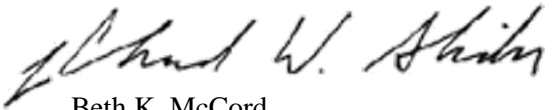
Accordingly, we concur with INDOT’s August 22, 2022, Section 106 finding of “No Historic Properties Affected” on behalf of FHWA for this federal undertaking.

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 -29) requires that the discovery be reported to the Indiana SHPO 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 -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 Caitlin Lehman. 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 6 and US 421 intersection improvement project in LaPorte County (Des. No. 1702989), please refer to DHPA No. 27790.

Very truly yours,



Beth K. McCord  
Deputy State Historic Preservation Officer

BKM:CML:cml

emc: Kari Carmany-George, FHWA  
Matt Coon, INDOT  
Susan Branigin, INDOT  
Linda Weintraut, Ph. D.  
Wade T. Tharp, DNR-DHPA  
Caitlin Lehman, 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**

August 24, 2022

This letter was sent to the listed parties.

RE: US 421 & US 6 Intersection Improvement Project, Des. No.: 1702989 and DHPA No.: 27790

Dear Consulting Party,

Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration, proposes to proceed with the US 6 and US 421 Intersection Improvement Project (Des. No.: 1702989).

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 July 13, 2021 and a Historic Property Short Report (HPSR) was sent to consulting parties and to Tribal consultants on April 5, 2022. As part of that notification, appropriate consulting parties were also notified that an Archaeology Report (AR) was available for review and comment.

The proposed undertaking is on US 6 and US 421 in LaPorte County, Indiana. It is within Clinton and New Durham Townships, and located on the Westville, Indiana USGS Topographic Quadrangle, in Sections 4 and 5 of Township 35 North, Range 4 West and Sections 32 and 33 of Township 36 North, Range 4 West. 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).

The need for this project stems from the high number of crashes at the intersection of US 6 and US 421 resulting from westbound traffic running the stop sign or failing to yield once stopped. Crash data provided by the LaPorte District for the three-year analysis period from January 2014 to September 2016 documents a total of 16 crashes involving 32 vehicles that occurred within the project limits. Seven of these crashes resulted in injury and one resulted in a fatality. Ten of the 16 crashes were due to right-angle type crashes involving traffic traveling westbound on US 6, and six of these crashes were rear-end type crashes from traffic traveling westbound on US 6. This data indicates that the Intersection Crash Rate is 1.715 crashes per million vehicles per year. This crash rate is at INDOT's safety threshold. The purpose of this project is to provide safer travel conditions for motorists at the US 6 and US 421 intersection by reducing the number of crashes associated with westbound vehicles running the stop sign or failing to yield once stopped.

[www.in.gov/dot/](http://www.in.gov/dot/)  
**An Equal Opportunity Employer**



This project is located at the intersection of US 6, US 421, and County Road (CR) West 600 South in Sections 32 and 33 of Township 36 North, Range 4 West and Sections 4 and 5 of Township 35 North, Range 4 West, as shown on the Westville USGS 7.5 Minute Topographic Map. US 6 and US 421 are classified as Rural-Other Principle Arterial roadways and CR W. 600 S. is classified as a Local Minor Collector. US 421 is a two-way, three-lane roadway that travels north to south through the project area. US 6 is a two-way, three-lane road that travels east from the project area, and CR W. 600 S. is a two-lane, two-way roadway that travels west from the project area.

The scope of work includes the construction of a single lane round-a-bout with increased lane widths, construction of medians, curbs and gutters, the replacement and installation of drainage pipes beneath the roadway pavement, the replacement and installation of lighting within the project area, and relocation of underground utilities, if necessary.

The project limits will extend approximately 975 feet north, 595 feet south, 715 feet east, and 390 feet west from the center of the US 6 and US 421 intersection. No tree clearing is anticipated to complete this project. Apparent existing right-of-way varies throughout the project area from approximately 20 feet to 120 feet from the roadway centerline. It is anticipated that approximately 0.45 acre of permanent right-of-way will need to be acquired, but the exact amounts are unknown at this time. The Maintenance of Traffic (MOT) is unknown at this time; however, it is anticipated that a road closure utilizing a detour route will be necessary.

GAI Consultants is under contract with the City of Fishers to advance the environmental documentation for the referenced project. Weintraut & Associates, Inc. has been subcontracted to complete the Section 106 documentation for the 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, no above-ground resources are 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 two sites within the project area. As a result of these efforts, sites 12LE0460 and 12LE0461 were not recommended eligible for listing in the NRHP, and no further work is recommended.

The Tribal Historic Preservation Officer (THPO) for the Pokagon Band of Potawatomi responded to the early coordination materials and made the “determination that there will be No Historic Properties in the APE...” that are “significant to the Pokagon Band...” The letter asked that if “any archaeological resources are uncovered during this undertaking, please stop work and contact me at your earliest convenience.”

The THPO for the Eastern Shawnee Tribe responded to the early coordination materials on September 9, 2021 and the HPSR and AR on April 26, 2022. The THPO found that the “project proposes No Adverse Effect or endangerment to known sites of interest to the Eastern Shawnee Tribe. Please continue as planned.” The letter asked that should the project inadvertently discover an archaeological site or object(s) that the Eastern Shawnee Tribe and appropriate state agencies be notified immediately, and that all ground disturbing activity stop until the Tribal and State agencies are consulted.

The THPO for the Peoria Tribe of Indians of Oklahoma responded to the HPSR and AR on April 6, 2022, stating that the tribe was “unaware of a direct link to the newly proposed project location...and was unaware of items covered under Native American Graves Protection and Repatriation Act (NAGPRA) to be associated with the proposed project site...” The letter noted that the “Peoria Tribe has no objection at this time to the proposed project,” but requested to be notified immediately if “items are discovered which fall under the protection of NAGPRA...” Finally, the Peoria Tribe asked that if such items are found that “state, local and tribal authorities should be advised...and construction halted until consultation with all concerned parties has occurred.”

The THPO for the Miami Tribe of Oklahoma agreed to be a consulting party on this project and responded to the HPSR and AR on April 7, 2022. The THPO letter stated that the “Miami Tribe offers no objection to the above-mentioned project at this time...” The Miami Tribe requested “immediate consultation with the entity of jurisdiction,” “if any human remains or Native American cultural items falling under [NAGPRA] or archaeological evidence is discovered during any phase of this project.”

The staff of the Indiana State Historic Preservation Officer (SHPO) responded to the early coordination materials on July 21, 2021 and the HPSR and AR on May 5, 2022. The staff of the SHPO stated that they were “not aware of any parties who should be invited to participate in the Section 106 consultation...beyond those whom INDOT already has invited.” The staff of the SHPO also agreed with the APE used in the HPSR and with the report’s recommendation that “there are no historic properties listed or eligible for inclusion” in the National Register. In terms of archaeological resources, the SHPO staff concurred with “the opinion of the archaeologist, as expressed in the archaeological records check and Phase Ia field reconnaissance survey report that archaeological sites 12-Le-0460 and 12-Le-0461...do not appear to contain significant archaeological deposits; and that no further archaeological investigations appear necessary at the proposed project area.” Finally, the SHPO cautioned that “[i]f 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.”

The 800.11(e) / Finding documentation is available for review in IN SCOPE at <http://erms.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 you prefer a hard-copy of this material, please respond to this email with your request as soon as you can.

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. 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.

For questions concerning specific project details, you may contact Dr. Linda Weintraut of Weintraut & Associates, Inc. at (317) 733-9770 or [Linda@weintrautinc.com](mailto:Linda@weintrautinc.com). All future responses regarding the proposed project should be forwarded to Weintraut & Associates, Inc. at the following address:

Linda Weintraut, Ph.D.  
Weintraut & Associates, Inc.  
P.O. Box 5034  
Zionsville, IN 46077  
[Linda@weintrautinc.com](mailto:Linda@weintrautinc.com)

***Tribal Contacts please respond to INDOT's Tribal Liaison, Matthew S. Coon at [mcoon@indot.in.gov](mailto: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](mailto:K.CarmanyGeorge@dot.gov) (317-226-5629).***

Sincerely,

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

Distribution List:

*State Historic Preservation Officer  
Eastern Shawnee Tribe of Oklahoma  
Miami Tribe of Oklahoma  
Peoria Tribe of Indians of Oklahoma  
Pokagon Band of Indians of Oklahoma  
Shawnee Tribe*

**FEDERAL HIGHWAY ADMINISTRATION'S  
SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties) AND  
SECTION 106 FINDINGS AND DETERMINATIONS  
AREA OF POTENTIAL EFFECTS  
ELIGIBILITY DETERMINATIONS  
EFFECT FINDING  
UNITED STATES (US) HIGHWAY 6 & US 421 INTERSECTION IMPROVEMENT PROJECT  
IN LAPORTE COUNTY, INDIANA.  
DES. NO.: 1702989; DHPA NO.: 27790**

**AREA OF POTENTIAL EFFECTS**

**(Pursuant to 36 CFR Section 800.4(a)(1))**

The Area of Potential Effects (APE) was generally drawn to include properties adjacent to and/or within view of the project. The APE for archaeology includes all existing and proposed right-of way; it is encompassed by the survey area which includes the archaeology APE and any areas investigated beyond it (See Appendix A: Maps).

**ELIGIBILITY DETERMINATIONS**

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

No properties are listed in, or eligible for listing in, the National Register of Historic Places (National Register) within the APE.

**EFFECT FINDING**

The Indiana Department of Transportation (INDOT), acting on behalf of the Federal Highway Administration (FHWA), has determined a "No Historic Properties Affected" 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)**

The undertaking will not convert property from any 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 Historic Properties Affected"; therefore, no Section 4(f) evaluation is required.



---

Matthew S. Coon, for FHWA  
Acting Manager, INDOT Cultural Resources

August 22, 2022

Approved Date

**FEDERAL HIGHWAY ADMINISTRATION'S  
DOCUMENTATION OF SECTION 106 FINDING OF  
NO HISTORIC PROPERTIES AFFECTED  
SUBMITTED TO THE STATE HISTORIC PRESERVATION OFFICER  
PURSUANT TO 36 CFR Section 800.4(d)(1)  
UNITED STATES (US) HIGHWAY 6 & US 421 INTERSECTION IMPROVEMENT PROJECT  
IN LAPORTE COUNTY, INDIANA.  
DES. NO.: 1702989; DHPA NO.: 27790**

**1. DESCRIPTION OF THE UNDERTAKING**

The Indiana Department of Transportation (INDOT) with funding from the Federal Highway Administration (FHWA) proposes an intersection improvement project along US 6 and US 421 in LaPorte County, Indiana (Des. No.: 1702989; DHPA No.: 27790) (Appendix A: Maps and Appendix F: Plans).

The proposed undertaking is centered on the intersection of US 6 (becomes West County Road (CR) 600 South west of the US 421 intersection) and US 421 in LaPorte County, Indiana. The project area extends approximately 975 feet north, 595 feet south, 715 feet east, and 390 feet west from the center of the US 6 and US 421 intersection. Right-of-way acquisition is anticipated as part of the proposed project. It is anticipated that the undertaking will require approximately 0.45 acre of permanent right-of-way; exact amounts will be determined as the design develops (Appendix F: Plans).

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 was generally drawn to include properties adjacent to and/or within view of the project (Appendix A: Maps).

The APE for archaeology includes all existing and proposed right-of way; it is encompassed by the survey area which includes the archaeology APE and any areas investigated beyond it (Appendix A: Maps).

**2. EFFORTS TO IDENTIFY HISTORIC PROPERTIES**

On July 13, 2021, an invitation to join in consultation on this project was sent to the following:

- Indiana State Historic Preservation Officer (SHPO)
- Northwestern Indiana Regional Planning Commission (NIRPC)
- LaPorte County Historian
- Indiana Landmarks-North Regional Office
- LaPorte County Historical Society
- LaPorte County Genealogical Society
- Westville Community Historical Society
- LaPorte County Commissioners
- LaPorte County Highway Department
- LaPorte County Planning



The invitation directed recipients to access the Early Coordination Letter (ECL) on INDOT's online document portal INSCOPE (at <http://erms.indot.in.gov/Section106Documents>). INDOT was copied on the correspondence. A paper copy of the ECL was mailed to the Indiana SHPO as a designated consulting party for review and comment on the same day (Appendix B: Consulting Parties and Appendix C: Correspondence).

On July 13, 2021, INDOT distributed the invitation to join in consultation to the following Tribes (Appendix C: Correspondence):

- Eastern Shawnee Tribe of Oklahoma
- Forest County Potawatomi Community
- Peoria Tribe of Indians of Oklahoma
- Pokagon Band of Indians of Oklahoma
- Shawnee Tribe

On July 21, 2021, the staff of the SHPO responded to the ECL, stating that they were “not aware of any parties who should be invited to participate in the Section 106 consultation... beyond those whom INDOT already has invited.” The letter stated that “if right-of-way is likely to be taken from a potentially historic property, it might be advisable to invite the owner of the property as soon as possible.” The SHPO staff also asked to be advised in the next regular correspondence on this project “as to which of the invited consulting parties has accepted the invitation...” Finally, the SHPO staff stated they looked forward to reviewing forthcoming reports on investigations of above-ground and archaeological resources” (Appendix C: Correspondence).

On August 13, 2021, the Tribal Historic Preservation Office (THPO) for the Pokagon Band of Potawatomi responded to the ECL and made the “determination that there will be No Historic Properties in the APE...” that are “significant to the Pokagon Band...” The letter asked that if “any archaeological resources are uncovered during this undertaking, please stop work and contact me at your earliest convenience” (Appendix C: Correspondence).

Pursuant to 36 CFR § 800.4(b), historians for Weintraut & Associates (W&A) reviewed the National Register of Historic Places (National Register), Indiana Register of Historic Sites and Structures (State Register), Indiana Historic Sites and Structures Inventory (IHSSI), the State Historical Architectural and Archaeological Research Database (SHAARD), the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBM), the *Indiana Historic Bridge Inventory*, and *LaPorte County Interim Report* (1989) for previously identified properties. They also reviewed prior Section 106 studies completed by W&A and conducted research using county histories, aerial photographs, and online resources.

Following the literature review, W&A conducted a field reconnaissance of the above-ground APE on August 16, 2021 (see details below). W&A historians recorded survey notes and took photographs of properties more than fifty years of age by the latest letting date, which is 2023, and photographed representative landscapes/views of the APE. Historians evaluated resources for architectural and contextual integrity and historical significance, using the information gleaned from their research (Appendix A: Maps and Appendix D: Photographs).

On September 9, 2021, the THPO for the Eastern Shawnee Tribe responded to the ECL and found that the “project proposes No Adverse Effect or endangerment to known sites of interest to the Eastern Shawnee Tribe. Please continue as planned.” The letter asked that should the

project inadvertently discover an archaeological site or object(s) that the Eastern Shawnee Tribe and appropriate state agencies be notified immediately and that all ground disturbing activity stop until the Tribal and State agencies are consulted (Appendix C: Correspondence).

Pursuant to 36 CFR § 800.4(b), W&A staff archaeologists conducted a Phase Ia records check on June 23, 2021, and a field reconnaissance on August 18 and 19, 2021. An Archaeology Report (AR) (Arnold et al., January 2022) was prepared. The records check identified no previously recorded sites in the survey area. During the field survey, W&A had encountered two unrecorded archaeological sites (12LE0460 and 12LE0461). The report recommended that both sites failed to meet the criteria necessary for listing in the National Register and that no further archaeological investigations were necessary for this project (Appendix E: Report Summaries).

Qualified professional (QP) historians for W&A prepared a Historic Property Short Report (HPSR). Historians identified one Contributing resource within the APE but recommended no properties as eligible for listing in the National Register. Consulting parties were notified of the availability of the HPSR and AR (Tribes Only) on April 5, 2022, and provided directions to access it and the transmittal letter (dated April 4, 2022) on INDOT's online document portal INSCOPE (at <http://erms.indot.in.gov/Section106Documents>). In addition, paper copies of the documents were sent to the Indiana SHPO as a designated consulting party for review and comment on the same day. INDOT was copied on the correspondence (Appendix C: Correspondence and Appendix E: Report Summaries).

On April 5, 2022, INDOT notified tribal organizations of the availability of the HPSR and AR and directed to access the transmittal letter and reports on INSCOPE (Appendix C: Correspondence).

On April 6, 2022, the THPO for the Peoria Tribe of Indians of Oklahoma responded to the HPSR and AR, stating that the tribe was "unaware of a direct link to the newly proposed project location...and was unaware of items covered under Native American Graves Protection and Repatriation Act (NAGPRA) to be associated with the proposed project site..." The letter noted that the "Peoria Tribe has no objection at this time to the proposed project," but requested to be notified immediately if "items are discovered which fall under the protection of NAGPRA..." Finally, the Peoria Tribe asked that if such items are found that "state, local and tribal authorities should be advised...and construction halted until consultation with all concerned parties has occurred" (Appendix C: Correspondence).

On April 7, 2022, the THPO for the Miami Tribe of Oklahoma agreed to be a consulting party on this project and responded to the HPSR and AR. The THPO letter stated that the "Miami Tribe offers no objection to the above-mentioned project at this time..." The Miami Tribe requested "immediate consultation with the entity of jurisdiction," "if any human remains or Native American cultural items falling under [NAGPRA] or archaeological evidence is discovered during any phase of this project" (Appendix C: Correspondence).

On April 26, 2022, the THPO for the Eastern Shawnee Tribe responded to the HPSR and AR and found that the "project proposes No Adverse Effect or endangerment to known sites of interest to the Eastern Shawnee Tribe. Please continue as planned." The letter asked that should the project inadvertently discover an archaeological site or object(s) that the Eastern Shawnee Tribe and appropriate state agencies be notified immediately and that all ground disturbing activity stop until the Tribal and State agencies are consulted (Appendix C: Correspondence).

On May 5, 2022, the staff of the SHPO responded to the HPSR and AR. The staff of the SHPO agreed with the APE used in the HPSR and with the report's recommendation that "there are no historic properties listed or eligible for inclusion" in the National Register. In terms of archaeological resources, the SHPO staff concurred with "the opinion of the archaeologist, as expressed in the archaeological records check and Phase Ia field reconnaissance survey report that archaeological sites 12-Le-0460 and 12-Le-0461...do not appear to contain significant archaeological deposits; and that no further archaeological investigations appear necessary at the proposed project area." Finally, the SHPO cautioned that "[i]f 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" (Appendix C: Correspondence).

No other efforts were undertaken to identify and evaluate historic properties, and no other comments were received.

### **3. BASIS FOR FINDING**

A finding of "No Historic Properties Affected" is appropriate for this undertaking because there are no resources listed in, or eligible for listing in, the National Register within the APE.

A public notice of "No Historic Properties Affected" will be posted in the *La Porte County Herald-Dispatch*, and the public will be afforded thirty (30) days to respond. If appropriate, this document will be revised after the expiration of the public comment period.

#### **Appendices**

**Appendix A: Maps**

**Appendix B: Consulting Parties**

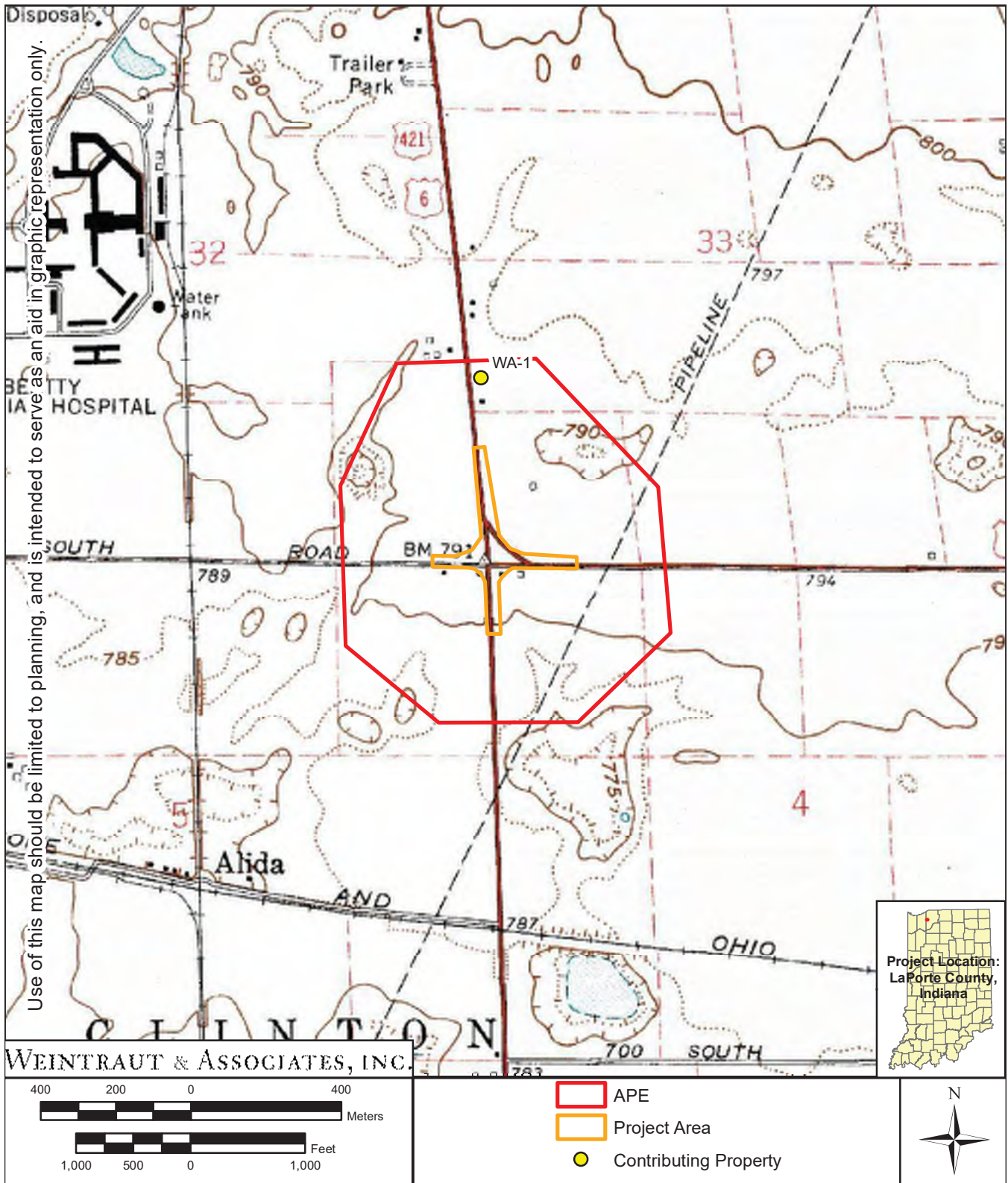
**Appendix C: Correspondence**

**Appendix D: Photographs**

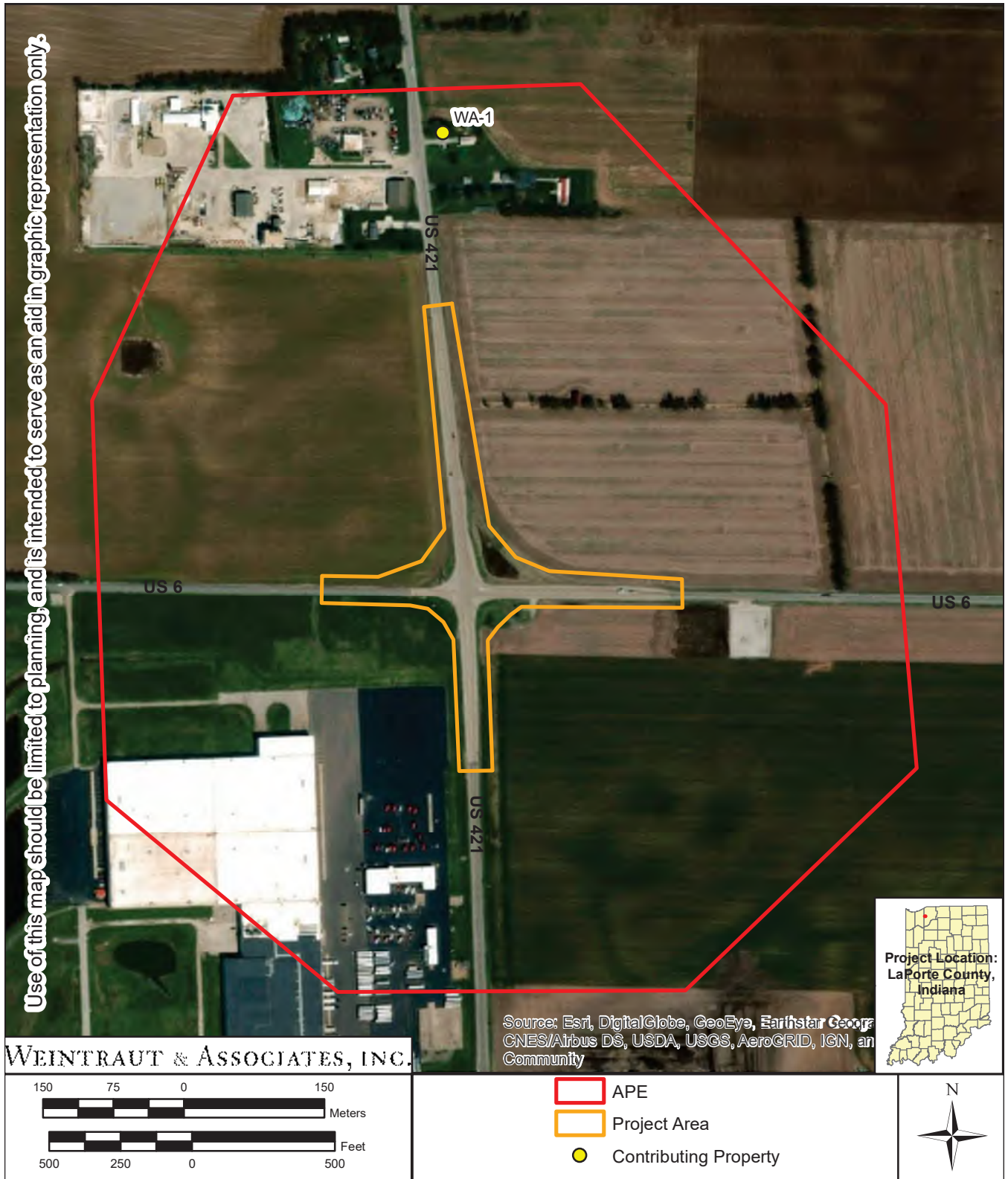
**Appendix E: Report Summaries**

**Appendix F: Plans**

## Appendix A: Maps



**FIGURE I.** PROJECT LOCATION, AREA OF POTENTIAL EFFECTS, AND CONTRIBUTING PROPERTY SHOWN ON PORTIONS OF THE WEST-VILLE AND LAPORTE WEST, INDIANA USGS TOPOGRAPHIC QUADRANGLES (1:24,000).



**FIGURE 2.** PROJECT LOCATION, AREA OF POTENTIAL EFFECTS, AND CONTRIBUTING RESOURCE SHOWN ON AN AERIAL PHOTOGRAPH (2020).

## Appendix B: Consulting Parties

**US 6 & US 421 Intersection Improvement (1702989)**

Name	Company/Organization	Address	Phone	Email	Accepted Invitation	Notes
Chad Slider	State Historic Preservation Officer	Preservation & Archaeology 402 W. Washington St., W274 Indianapolis, IN 46204		<a href="mailto:cslider@dnr.IN.gov">cslider@dnr.IN.gov</a> ; <a href="mailto:Dkauffmann@dnr.in.gov">Dkauffmann@dnr.in.gov</a> ; <a href="mailto:rsharkey@dnr.in.gov">rsharkey@dnr.in.gov</a>	YES	Designated consulting party
Ty Warner	Northwestern Indiana Regional Planning Commission (NIRPC)			<a href="mailto:twarner@nirpc.org">twarner@nirpc.org</a>		
Bruce Johnson	LaPorte County Historian			<a href="mailto:mrisc@csinet.net">mrisc@csinet.net</a>		
	Indiana Landmarks-North Regional Office			<a href="mailto:north@indianalandmarks.com">north@indianalandmarks.com</a>		1
	LaPorte County Historical Society			<a href="mailto:info@laportecountyhistory.org">info@laportecountyhistory.org</a>		
Carol Lloyd	LaPorte County Genealogical Society			<a href="mailto:carolfloyd@yahoo.com">carolfloyd@yahoo.com</a>		
Cheryl Albert	Westville Community Historical Society			<a href="mailto:cjfarf36@yahoo.com">cjfarf36@yahoo.com</a>		
Richard Mrozinski	LaPorte County Commissioner			<a href="mailto:rmrozinski@laportecounty.org">rmrozinski@laportecounty.org</a>		
Joe Haney	LaPorte County Commissioner			<a href="mailto:jhaney@laporteco.in.gov">jhaney@laporteco.in.gov</a>		
Sheila Matias	LaPorte County Commissioner			<a href="mailto:smatias@laportecounty.org">smatias@laportecounty.org</a>		
Duane Werner, Superintendent	LaPorte County Highway Department			<a href="mailto:jhaney@laporteco.in.gov">jhaney@laporteco.in.gov</a>		
Mitch Bishop	LaPorte County Planning			<a href="mailto:mbishop@laportecounty.org">mbishop@laportecounty.org</a>		
<b>Tribal Contacts - INDOT will coordinate with Tribal Representatives</b>						
Eastern Shawnee Tribe of Oklahoma					YES	Letter dated September 9, 2021
Forest County Potawatomi Community						
Miami Tribe of Oklahoma					YES	Letter dated April 7, 2022
Peoria Tribe of Indians of Oklahoma					YES	Letter dated April 6, 2022
Pokagon Band of Indians of Oklahoma					YES	Letter dated August 13, 2021
Shawnee Tribe						



## Appendix C: Correspondence



# INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (317) 296-0799

**Eric Holcomb, Governor**  
**Joe McGuinness, Commissioner**

July 13, 2021

This letter was sent to the listed parties.

RE: US 6 and US 421 Intersection Improvement Project (Des. No.: 1702989), LaPorte County, Indiana

Dear Consulting Party (see attached list),

Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration, proposes to proceed with the US 6 and US 421 Intersection Improvement Project (Des. No.: 1702989). GAI Consulting is under contract with 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 on US 6 and US 421 in LaPorte County, Indiana. It is within Clinton and New Durham Townships, and located on the Westville, Indiana USGS Topographic Quadrangle, in Sections 4 and 5 of Township 35 North, Range 4 West and Sections 32 and 33 of Township 36 North, Range 4 West.

The need for this project stems from the high number of crashes at the intersection of US 6 and US 421 resulting from westbound traffic running the stop sign or failing to yield once stopped. Crash data provided by the LaPorte District for the three-year analysis period from January 2014 to September 2016 documents a total of 16 crashes involving 32 vehicles that occurred within the project limits. Seven of these crashes resulted in injury and one resulted in a fatality. Ten of the 16 crashes were due to right-angle type crashes involving traffic traveling westbound on US 6, and six of these crashes were rear-end type crashes from traffic traveling westbound on US 6. This data indicates that the Intersection Crash Rate is 1.715 crashes per million vehicles per year. This crash rate is at INDOT's safety threshold. The purpose of this project is to provide safer travel conditions for motorists at the US 6 and US 421 intersection by reducing the number of crashes associated with westbound vehicles running the stop sign or failing to yield once stopped.

This project is located at the intersection of US 6, US 421, and County Road (CR) West 600 South in Sections 32 and 33 of Township 36 North, Range 4 West and Sections 4 and 5 of Township 35 North, Range 4 West, as shown on the Westville USGS 7.5 Minute Topographic Map. US 6 and US 421 are classified as Rural-Other Principle Arterial roadways and CR W. 600 S. is classified as a Local Minor Collector. US 421 is a two-way, three-lane roadway that travels north to south through the project area. US 6 is a two-way, three-lane road that

travels east from the project area, and CR W. 600 S. is a two-lane, two-way roadway that travels west from the project area.

The scope of work includes the construction of a single lane round-a-bout with increased lane widths, construction of medians, curbs and gutters, the replacement and installation of drainage pipes beneath the roadway pavement, the replacement and installation of lighting within the project area, and relocation of underground utilities, if necessary. The project limits will extend approximately 975 feet north, 595 feet south, 715 feet east, and 390 feet west from the center of the US 6 and US 421 intersection. No tree clearing is anticipated to complete this project. Apparent existing right-of-way varies throughout the project area from approximately 20 feet to 120 feet from the roadway centerline. It is anticipated that approximately 0.45 acre of permanent right-of-way will need to be acquired, but the exact amounts are unknown at this time. The Maintenance of Traffic (MOT) is unknown at this time; however, it is anticipated that a road closure utilizing a detour route will be necessary.

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.

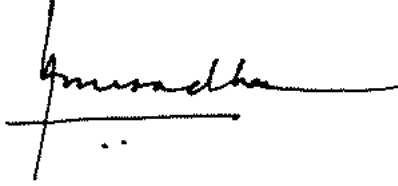
Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party, or if you do not respond, you will not be included on the list of consulting parties for this project. If we do not receive your response in the time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

For questions concerning specific project details, you may contact Dr. Linda Weintraut of Weintraut & Associates, Inc. at (317) 733-9770 or [Linda@weintrautinc.com](mailto:Linda@weintrautinc.com). All future responses regarding the proposed project should be forwarded to Weintraut & Associates, Inc. at the following address:

Linda Weintraut, Ph.D.  
Weintraut & Associates, Inc.  
P.O. Box 5034  
Zionsville, IN 46077  
[Linda@weintrautinc.com](mailto:Linda@weintrautinc.com)

Tribal contacts may contact Shaun Miller at [smiller@indot.in.gov](mailto:smiller@indot.in.gov) or 317-416-0876 or Kari Carmany-George at FHWA at [K.CarmanyGeorge@dot.gov](mailto:K.CarmanyGeorge@dot.gov) or 317-226-5629.

Sincerely,



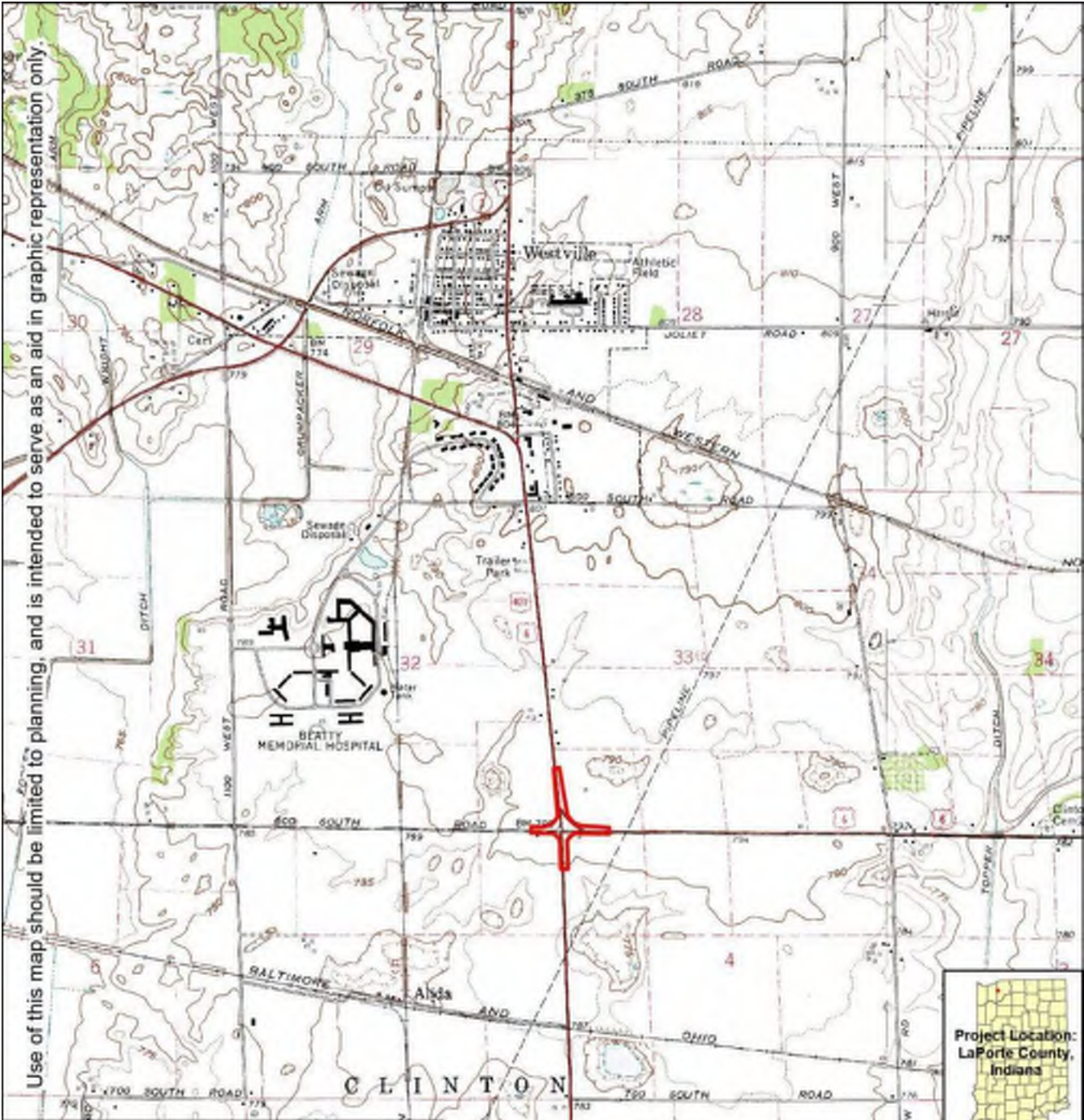
Anuradha V. Kumar, Manager  
Cultural Resources Office  
Environmental Services

***Enclosures:***

Topographic map showing project area

***Distribution List:***

State Historic Preservation Officer  
Northwestern Indiana Regional Planning Commission (NIRPC)  
LaPorte County Historian  
Indiana Landmarks-North Regional Office  
LaPorte County Historical Society  
LaPorte County Genealogical Society  
Westville Community Historical Society  
LaPorte County Commissioners  
LaPorte County Highway Department  
LaPorte County Planning  
Eastern Shawnee Tribe of Oklahoma  
Forest County Potawatomi Community  
Miami Tribe of Oklahoma  
Peoria Tribe of Indians of Oklahoma  
Pokagon Band of Indians of Oklahoma  
Shawnee Tribe

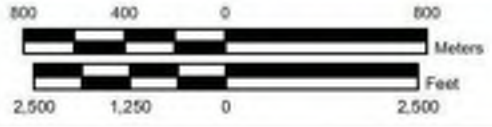


Use of this map should be limited to planning, and is intended to serve as an aid in graphic representation only.



Project Location:  
LaPorte County,  
Indiana

WEINTRAUT & ASSOCIATES, INC.



 Project Location



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## FHWA Project: Des. No. 1702989; ECL US 6 and US 421 Intersection Improvement Project, LaPorte County, Indiana

1 message

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Linda Weintraut <linda@weintrautinc.com>

Tue, Jul 13, 2021 at 3:24 PM

To: "Slider, Chad" <CSlider@dnr.in.gov>, twarner@nirpc.org, mrjsc@csinet.net, north@indianalandmarks.org, info@laportecountyhistory.org, carolfloyd@yahoo.com, cjarf36@yahoo.com, rmrozinski@laportecounty.org, jhaney@laporteco.in.gov, mbishop@laportecounty.org, smatias@laportecounty.org, rsharkey@dnr.in.gov, "Kauffmann, Danielle M" <DKauffmann@dnr.in.gov>, "McCord, Beth K" <bmcord@dnr.in.gov>  
Cc: Raquel Walker <R.Walker@gaiconsultants.com>, Ronald Webb <R.Webb@gaiconsultants.com>, Doug Fivecoat <dfivecoat@weintrautinc.com>, "Carpenter, Patrick A" <PACarpenter@indot.in.gov>, "Branigin, Susan" <sbranigin@indot.in.gov>, "Miller, Shaun (INDOT)" <smiller@indot.in.gov>, "Kumar, Anuradha" <akumar@indot.in.gov>

### Des. No.: 1702989

**Project Description: US 6 and US 421 Intersection Improvement Project**

**Location: LaPorte County, Indiana**

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration, proposes to proceed with the US 6 and US 421 Intersection Improvement Project (Des. No.: 1702989).

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:

- State Historic Preservation Officer
- Northwestern Indiana Regional Planning Commission (NIRPC)
- LaPorte County Historian
- Indiana Landmarks-North Regional Office
- LaPorte County Historical Society
- LaPorte County Genealogical Society
- Westville Community Historical Society
- LaPorte County Commissioners
- LaPorte County Highway Department
- LaPorte County Planning
- Eastern Shawnee Tribe of Oklahoma
- Forest County Potawatomi Community
- Miami Tribe of Oklahoma
- Peoria Tribe of Indians of Oklahoma
- Pokagon Band of Indians of Oklahoma
- Shawnee Tribe

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 letter, which is also located in IN SCOPE at <http://erms.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 as soon as you can.

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. 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.

Tribal contacts may contact Shaun Miller at [smiller@indot.in.gov](mailto:smiller@indot.in.gov) or 317-416-0876 or Kari Carmany-George at FHWA at [K.CarmanyGeorge@dot.gov](mailto:K.CarmanyGeorge@dot.gov) or 317-226-5629.

Thank you in advance for your input,

--

Linda Weintraut, Ph.D.  
Weintraut & Associates, Inc.  
PO Box 5034  
4649 Northwestern Drive  
Zionsville, Indiana 46077

317.733.9770 ext. 310

[www.weintrautinc.com](http://www.weintrautinc.com)



**US6&US421IntersectionImprovement\_Des1702989\_Section 106 ECL\_2021-07-13.pdf**  
655K

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**Fwd: FHWA Project: Des. No. 1702989; ECL US 6 and US 421 Intersection Improvement Project, LaPorte County, Indiana**

1 message

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Linda Weintraut <linda@weintrautinc.com>  
To: Doug Fivecoat <dfivecoat@weintrautinc.com>

Wed, Jul 14, 2021 at 10:04 AM

Sent from my iPhone

Begin forwarded message:

**From:** "Miller, Shaun (INDOT)" <[smiller@indot.in.gov](mailto:smiller@indot.in.gov)>  
**Date:** July 14, 2021 at 7:34:31 AM EDT  
**To:** [thpo@estoo.net](mailto:thpo@estoo.net), Michael LaRonge <[Michael.LaRonge@fcpotawatomi-nsn.gov](mailto:Michael.LaRonge@fcpotawatomi-nsn.gov)>, Diane Hunter <[dhunter@miamination.com](mailto:dhunter@miamination.com)>, [lpappenfort@peoriatribe.com](mailto:lpappenfort@peoriatribe.com), [matthew.bussler@pokagonband-nsn.gov](mailto:matthew.bussler@pokagonband-nsn.gov), [tonya@shawnee-tribe.com](mailto:tonya@shawnee-tribe.com)  
**Cc:** linda <linda@weintrautinc.com>, "Carpenter, Patrick A" <[PACarpenter@indot.in.gov](mailto:PACarpenter@indot.in.gov)>, "Carmany-George, Karstin (FHWA)" <[k.carmanygeorge@dot.gov](mailto:k.carmanygeorge@dot.gov)>  
**Subject:** FHWA Project: Des. No. 1702989; ECL US 6 and US 421 Intersection Improvement Project, LaPorte County, Indiana

**Des. No.: 1702989**

**Project Description: US 6 and US 421 Intersection Improvement Project**

**Location: LaPorte County, Indiana**

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration, proposes to proceed with the US 6 and US 421 Intersection Improvement Project (Des. No.: 1702989).

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:

- State Historic Preservation Officer
- Northwestern Indiana Regional Planning Commission (NIRPC)
- LaPorte County Historian
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- Pokagon Band of Indians of Oklahoma
- Shawnee Tribe



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Tribal contacts may contact Shaun Miller at [smiller@indot.in.gov](mailto:smiller@indot.in.gov) or 317-416-0876 or Kari Carmany-George at FHWA at [K.CarmanyGeorge@dot.gov](mailto:K.CarmanyGeorge@dot.gov) or 317-226-5629.

Thank you in advance for your input,

Shaun Miller

INDOT, Cultural Resources Office

Archaeology Team Lead

(317)416-0876

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 **US6&US421IntersectionImprovement\_Des1702989\_Section 106 ECL\_2021-07-13.pdf**  
655K

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 ·



July 21, 2021

Linda Weintraut, Ph.D.  
Weintraut & Associates, Inc.  
P.O. Box 5034  
Zionsville, IN 46077

Federal Agency: Indiana Department of Transportation (“INDOT”),  
on behalf of Federal Highway Administration, Indiana Division (“FHWA”)

Re: Early coordination letter for the US 6 and US 421 intersection improvement project, Clinton  
and New Durham townships, LaPorte County (Des. No. 1702989; DHPA No. 27790)

Dear Dr. Weintraut:

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 July 13, 2021 submission which enclosed INDOT’s early coordination letter, received by our office July 14, 2021 for this project in LaPorte County.

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 Tharp, and the structures reviewers are Caitlin Lehman and Danielle Kauffmann. 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 6 and US 421 intersection improvement project (Des. No. 1702989), please refer to DHPA No. 27790.

Very truly yours,

Beth K. McCord  
Deputy State Historic Preservation Officer

BKM:CML:DMK:dmk

emc: Anuradha Kumar, INDOT  
Shaun Miller, INDOT  
Susan Branigin, INDOT  
Linda Weintraut, Ph.D., Weintraut & Associates, Inc.  
Danielle Kauffmann, DNR-DHPA  
Caitlin Lehman, DNR-DHPA  
Wade Tharp, DNR-DHPA



**Pokégnek Bodéwadmik**  
POKAGON BAND OF POTAWATOMI  
LANGUAGE & CULTURE

08/13/2021

Shaun Miller  
INDOT, Cultural Resources Office  
Archaeology Team Lead  
317-416-0876  
[Smiller@indot.in.gov](mailto:Smiller@indot.in.gov)

FHWA Project: Des. No. 1702989

Dear Responsible Party:

Migweth for contacting me regarding these projects. As THPO, I am responsible for handling Section 106 Consultations on behalf of the tribe. I am writing to inform you that after reviewing the details for the project referenced above, I have made the determination that there will be **No Historic Properties in Area of Potential Effects (APE)** significant to the Pokagon Band of Potawatomi Indians. However, if any archaeological resources are uncovered during this undertaking, 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](mailto:Matthew.Bussler@Pokagonband-nsn.gov)



**EASTERN SHAWNEE  
CULTURAL PRESERVATION DEPARTMENT**

70500 East 128 Road, Wyandotte, OK 74370

September 9, 2021

INDOT - Indiana Department of Transportation  
100 N. Senate Ave. IGCN642  
Indianapolis, IN 46201

**RE: Des. No. 1702989, LaPorte County, Indiana**

Dear Mr. Miller,

The Eastern Shawnee Tribe has received your letter regarding the above referenced project(s) within LaPorte 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



# INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (317) 296-0799

**Eric Holcomb, Governor**  
**Joe McGuinness, Commissioner**

April 4, 2022

This letter was sent to the listed parties.

RE: US 421 & US 6 Intersection Improvement Project, Des. No.: 1702989 and DHPA No.: 27790

Dear Consulting Party,

Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration, proposes to proceed with the US 6 and US 421 Intersection Improvement Project (Des. No.: 1702989).

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 and archaeological 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 July 13, 2021.

The proposed undertaking is on US 6 and US 421 in LaPorte County, Indiana. It is within Clinton and New Durham Townships, and located on the Westville, Indiana USGS Topographic Quadrangle, in Sections 4 and 5 of Township 35 North, Range 4 West and Sections 32 and 33 of Township 36 North, Range 4 West.

The need for this project stems from the high number of crashes at the intersection of US 6 and US 421 resulting from westbound traffic running the stop sign or failing to yield once stopped. Crash data provided by the LaPorte District for the three-year analysis period from January 2014 to September 2016 documents a total of 16 crashes involving 32 vehicles that occurred within the project limits. Seven of these crashes resulted in injury and one resulted in a fatality. Ten of the 16 crashes were due to right-angle type crashes involving traffic traveling westbound on US 6, and six of these crashes were rear-end type crashes from traffic traveling westbound on US 6. This data indicates that the Intersection Crash Rate is 1.715 crashes per million vehicles per year. This crash rate is at INDOT's safety threshold. The purpose of this project is to provide safer travel conditions for motorists at the US 6 and US 421 intersection by reducing the number of crashes associated with westbound vehicles running the stop sign or failing to yield once stopped.

This project is located at the intersection of US 6, US 421, and County Road (CR) West 600 South in Sections 32 and 33 of Township 36 North, Range 4 West and Sections 4 and 5 of Township 35 North, Range 4 West, as shown on the Westville USGS 7.5 Minute Topographic Map. US 6 and US 421 are classified as Rural-Other Principle Arterial roadways and CR W. 600 S. is classified as a Local Minor Collector. US 421 is a two-way, three-lane roadway that travels north to south through the project area. US 6 is a two-way, three-lane road that travels east from the project area, and CR W. 600 S. is a two-lane, two-way roadway that travels west from the project area.

[www.in.gov/dot/](http://www.in.gov/dot/)  
**An Equal Opportunity Employer**



The scope of work includes the construction of a single lane round-a-bout with increased lane widths, construction of medians, curbs and gutters, the replacement and installation of drainage pipes beneath the roadway pavement, the replacement and installation of lighting within the project area, and relocation of underground utilities, if necessary.

The project limits will extend approximately 975 feet north, 595 feet south, 715 feet east, and 390 feet west from the center of the US 6 and US 421 intersection. No tree clearing is anticipated to complete this project. Apparent existing right-of-way varies throughout the project area from approximately 20 feet to 120 feet from the roadway centerline. It is anticipated that approximately 0.45 acre of permanent right-of-way will need to be acquired, but the exact amounts are unknown at this time. The Maintenance of Traffic (MOT) is unknown at this time; however, it is anticipated that a road closure utilizing a detour route will be necessary.

GAI Consultants, Inc. is under contract with INDOT to advance the environmental documentation for the referenced project. Weintraut & Associates has been subcontracted to complete the Section 106 documentation for the 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, no above-ground resources are 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 two sites within the project area. As a result of these efforts, sites 12LE0460 and 12LE0461 were not recommended eligible for listing in the National Register, and no further work is recommended.

The Historic Property Short Report and Archaeology Report (Tribes only) are available for review in IN SCOPE at <http://erms.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 you prefer a hard-copy of this material, please respond to this email with your request as soon as you can.

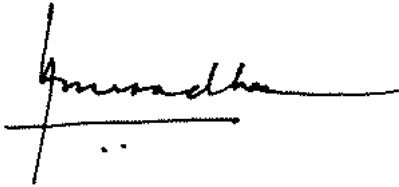
Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party or if you have not previously accepted consulting party status and you do not respond to this letter, you will not be included on the list of consulting parties for this project and will not receive further information about the project unless the design changes. 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.

For questions concerning specific project details, you may contact Dr. Linda Weintraut of Weintraut & Associates, Inc. at (317) 733-9770 or [Linda@weintrautinc.com](mailto:Linda@weintrautinc.com). All future responses regarding the proposed project should be forwarded to Weintraut & Associates, Inc. at the following address:

Linda Weintraut, Ph.D.  
Weintraut & Associates, Inc.  
P.O. Box 5034  
Zionsville, IN 46077  
[Linda@weintrautinc.com](mailto:Linda@weintrautinc.com)

Tribal contacts may contact Patricia Korzeniewski at [PKorzeniewski@indot.in.gov](mailto:PKorzeniewski@indot.in.gov) or 317-416-4377 or Kari Carmany-George at FHWA at [K.CarmanyGeorge@dot.gov](mailto:K.CarmanyGeorge@dot.gov) or 317-226-5629.

Sincerely,



Anuradha V. Kumar, Manager  
Cultural Resources Office  
Environmental Services

Distribution List:

*State Historic Preservation Officer  
Eastern Shawnee Tribe of Oklahoma  
Miami Tribe of Oklahoma  
Peoria Tribe of Indians of Oklahoma  
Pokagon Band of Indians of Oklahoma  
Shawnee Tribe*

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## **FHWA Project: Des. No.: 1702989 and DHPA No.: 27790; HPSR, US 421 & US 6 Intersection Improvement Project in LaPorte County, Indiana**

1 message

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**Linda Weintraut** <linda@weintrautinc.com>

Tue, Apr 5, 2022 at 12:54 PM

To: dhpview@dnr.in.gov, "Tharp, Wade" <wtharp1@dnr.in.gov>, "Kauffmann, Danielle M" <DKauffmann@dnr.in.gov>, "Slider, Chad" <CSlider@dnr.in.gov>, clehman@dhp.in.gov

Cc: Doug Fivecoat <dfivecoat@weintrautinc.com>, "Korzeniewski, Patricia J" <PKorzeniewski@indot.in.gov>, "Carpenter, Patrick A" <PACarpenter@indot.in.gov>, "Branigin, Susan" <sbranigin@indot.in.gov>, "Coon, Matthew" <mcoon@indot.in.gov>, Ronald Webb <R.Webb@gaiconsultants.com>, Kenneth McMullen <k.mcmullen@gaiconsultants.com>, Craig Arnold <carnold@weintrautinc.com>

**Des. No.:** 1702989

**Project Description:** US 421 & US 6 Intersection Improvement Project

**Location:** LaPorte County, Indiana

Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration, proposes to proceed with the US 6 and US 421 Intersection Improvement Project (Des. No.: 1702989). The Section 106 Early Coordination Letter for this project was originally distributed on July 13, 2021.

As part of Section 106 of the National Historic Preservation Act, a Historic Property Short Report and an Archaeology Report have been prepared and are ready for review and comment by consulting parties.

Please review the Historic Property Short Report and Archaeology Report (Tribes only) are located in IN SCOPE at <http://erms.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 as soon as you can.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. 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.

Tribal contacts may contact Patricia Korzeniewski at [PKorzeniewski@indot.in.gov](mailto:PKorzeniewski@indot.in.gov) or 317-416-4377 or Kari Carmany-George at FHWA at [K.CarmanyGeorge@dot.gov](mailto:K.CarmanyGeorge@dot.gov) or 317-226-5629.

Thank you in advance for your input,

--

Linda Weintraut, Ph.D.  
Weintraut & Associates, Inc.  
PO Box 5034  
[4649 Northwestern Drive](mailto:linda@weintrautinc.com)  
[Zionsville, Indiana 46077](mailto:linda@weintrautinc.com)  
317.733.9770 ext. 310

[www.weintrautinc.com](http://www.weintrautinc.com)



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## **Fwd: FHWA Project: Des. No.: 1702989 and DHPA No.: 27790; HPSR, US 421 & US 6 Intersection Improvement Project in LaPorte County, Indiana**

1 message

---

**From:** "Korzeniewski, Patricia J" <[PKorzeniewski@indot.in.gov](mailto:PKorzeniewski@indot.in.gov)>

**Date:** April 5, 2022 at 2:14:50 PM EDT

**To:** [thpo@estoo.net](mailto:thpo@estoo.net), Diane Hunter <[dhunter@miamination.com](mailto:dhunter@miamination.com)>, [cechohawk@peoriatribe.com](mailto:cechohawk@peoriatribe.com), [Matthew.Bussler@pokagonband-nsn.gov](mailto:Matthew.Bussler@pokagonband-nsn.gov), [tonya@shawnee-tribe.com](mailto:tonya@shawnee-tribe.com), [Benjamin.Rhodd@fcp-nsn.gov](mailto:Benjamin.Rhodd@fcp-nsn.gov)

**Cc:** linda <[linda@weintrautinc.com](mailto:linda@weintrautinc.com)>, "Korzeniewski, Patricia J" <[PKorzeniewski@indot.in.gov](mailto:PKorzeniewski@indot.in.gov)>, "Carmany-George, Karstin (FHWA)" <[k.carmanygeorge@dot.gov](mailto:k.carmanygeorge@dot.gov)>, "Carpenter, Patrick A" <[PACarpenter@indot.in.gov](mailto:PACarpenter@indot.in.gov)>

**Subject:** FHWA Project: Des. No.: 1702989 and DHPA No.: 27790; HPSR, US 421 & US 6 Intersection Improvement Project in LaPorte County, Indiana

**Des. No.:** 1702989

**Project Description:** US 421 & US 6 Intersection Improvement Project

**Location:** LaPorte County, Indiana

Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration, proposes to proceed with the US 6 and US 421 Intersection Improvement Project (Des. No.: 1702989). The Section 106 Early Coordination Letter for this project was originally distributed on July 13, 2021.

As part of Section 106 of the National Historic Preservation Act, a Historic Property Short Report and an Archaeology Report have been prepared and are ready for review and comment by consulting parties.

Please review the Historic Property Short Report and Archaeology Report (Tribes only) are located in IN SCOPE at <http://erms.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 as soon as you can.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. 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.

Tribal contacts may contact Patricia Korzeniewski at [PKorzeniewski@indot.in.gov](mailto:PKorzeniewski@indot.in.gov) or 317-416-4377 or Kari

Carmany-George at FHWA at [K.CarmanyGeorge@dot.gov](mailto:K.CarmanyGeorge@dot.gov) or 317-226-5629.

Thank you in advance for your input,

--

Patricia Jo Korzeniewski

Archaeologist and Environmental Manager

INDOT, Cultural Resources Office

[100 North Senate Avenue](#), N758-ES

Indianapolis, Indiana 46204

[PKorzeniewski@indot.in.gov](mailto:PKorzeniewski@indot.in.gov)

[1-317-416-4377](tel:1-317-416-4377)

[M-F 8:00 - 4:00](#)



## PEORIA TRIBE OF INDIANS OF OKLAHOMA

118 S. Eight Tribes Trail (918) 540-2535 FAX (918) 540-2538

P.O. Box 1527

MIAMI, OKLAHOMA 74355

CHIEF  
Craig Harper

SECOND CHIEF  
Rosanna Dobbs

April 6, 2022

Patricia Korzeniewski, Archaeologist  
Tribal Contact  
INDOT  
100 N Senate Ave., Rm 758-ES  
Indianapolis, IN 46204

Re: Des. #1702989; US 421& US6; Intersection improvements, LaPorte Co., IN

Thank you for providing notice of the referenced project. The Peoria Tribe of Indians of Oklahoma is unaware of a direct link to the newly proposed project location.

The Peoria Tribe of Indians of Oklahoma is also unaware of items covered under Native American Graves Protection and Repatriation Act (NAGPRA) to be associated with the proposed project site, including funerary or sacred objects; objects of cultural patrimony; or ancestral human remains.

The Peoria Tribe has no objection at this time to the proposed project. If, however, at any time items are discovered which fall under the protection of NAGPRA, the Peoria Tribe requests immediate notification and consultation. In addition, state, local and tribal authorities should be advised as to the findings and construction halted until consultation with all concerned parties has occurred.

Please feel free to contact me directly at the number above if additional consultation is necessary. Thank you again for your consideration with this matter.

Sincerely,

Charla K. EchoHawk  
Director of Cultural Preservation

TREASURER  
Hank Downum

SECRETARY  
Tonya Mathews

FIRST COUNCILMAN  
Carolyn Ritchey

SECOND COUNCILMAN  
Kara North

THIRD COUNCILMAN  
Isabella Burrell



## 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: PKorzeniewski@indot.in.gov

April 7, 2022

Patricia Jo Korzeniewski  
Archaeologist and Environmental Manager  
INDOT, Cultural Resources Office  
100 North Senate Avenue, N758-ES  
Indianapolis, Indiana 46204

Re: Des. No. 1702989, US 6 & US 421 Intersection Improvements, LaPorte County, Indiana –  
Comments of the Miami Tribe of Oklahoma

Dear Ms. Korzeniewski:

Aya, kikwehsitoole – 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. 1702989, US 6 & US 421 Intersection Improvements in LaPorte 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 [dhunter@miamination.com](mailto:dhunter@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



**EASTERN SHAWNEE  
CULTURAL PRESERVATION DEPARTMENT**

70500 East 128 Road, Wyandotte, OK 74370

April 26, 2022

INDOT - Indiana Department of Transportation  
100 N. Senate Ave. IGCN642  
Indianapolis, IN 46201

**RE: Des No. 1702989 and DHPA No. 27790, LaPorte County, Indiana**

Dear Ms. Korzeniewski,

The Eastern Shawnee Tribe has received your letter regarding the above referenced project(s) within LaPorte 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,

A handwritten signature in blue ink that reads "Paul Barton".

Paul Barton, Tribal Historic Preservation Officer (THPO)  
Eastern Shawnee Tribe of Oklahoma  
(918) 666-5151 Ext:1833  
THPO@estoo.net

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 ·



May 5, 2022

Linda Weintraut, Ph.D.  
Weintraut and Associates, Inc.  
Post Office Box 5034  
Zionsville, Indiana 46077

Federal Agency: Indiana Department of Transportation (“INDOT”),  
on behalf of Federal Highway Administration, Indiana Division (“FHWA”)

Re: Historic property short report (Fivecoat, 1/2022), and archaeological records check and Phase Ia field reconnaissance survey report (Arnold, 04/2022), for the US 6 and US 421 intersection improvement project (Des. No. 1702989; DHPA 27790)

Dear Dr. Weintraut:

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 4, 2022, review request submittal form which enclosed the historic property short report (“HPSR”; Fivecoat, 1/2022), and the archaeological records check and Phase Ia field reconnaissance survey report (Arnold, 04/2022), received by our office April 5, 2022, for this project in Clinton Township and in New Durham Township, LaPorte County, Indiana.

The area of potential effects (“APE”) proposed in the HPSR 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, we agree with the conclusions of the HPR that there are no historic properties listed or eligible for inclusion in the National Register of Historic Places (“NRHP”).

Additionally, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we concur with the opinion of the archaeologist, as expressed in the archaeological records check and Phase Ia field reconnaissance survey report (Arnold, 04/2022), that archaeological sites 12-Le-0460 and 12-Le-0461 (both of which were identified during the archaeological investigations) do not appear to contain significant archaeological deposits; and that no further archaeological investigations appear necessary at the proposed project area.

We note that the archaeological site survey forms associated with these archaeological investigations have been submitted to the Indiana DHPA SHAARD system database. They have been reviewed and approved.

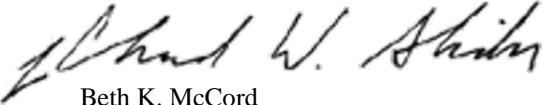
If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29) requires that the discovery be reported to the Indiana Department of Natural Resources, Division 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 reviewers are Danielle Kauffmann and Caitlin Lehman. 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 6 and US 421 intersection improvement project in LaPorte County (Des. No. 1702989), please refer to DHPA No. 27790.

Very truly yours,



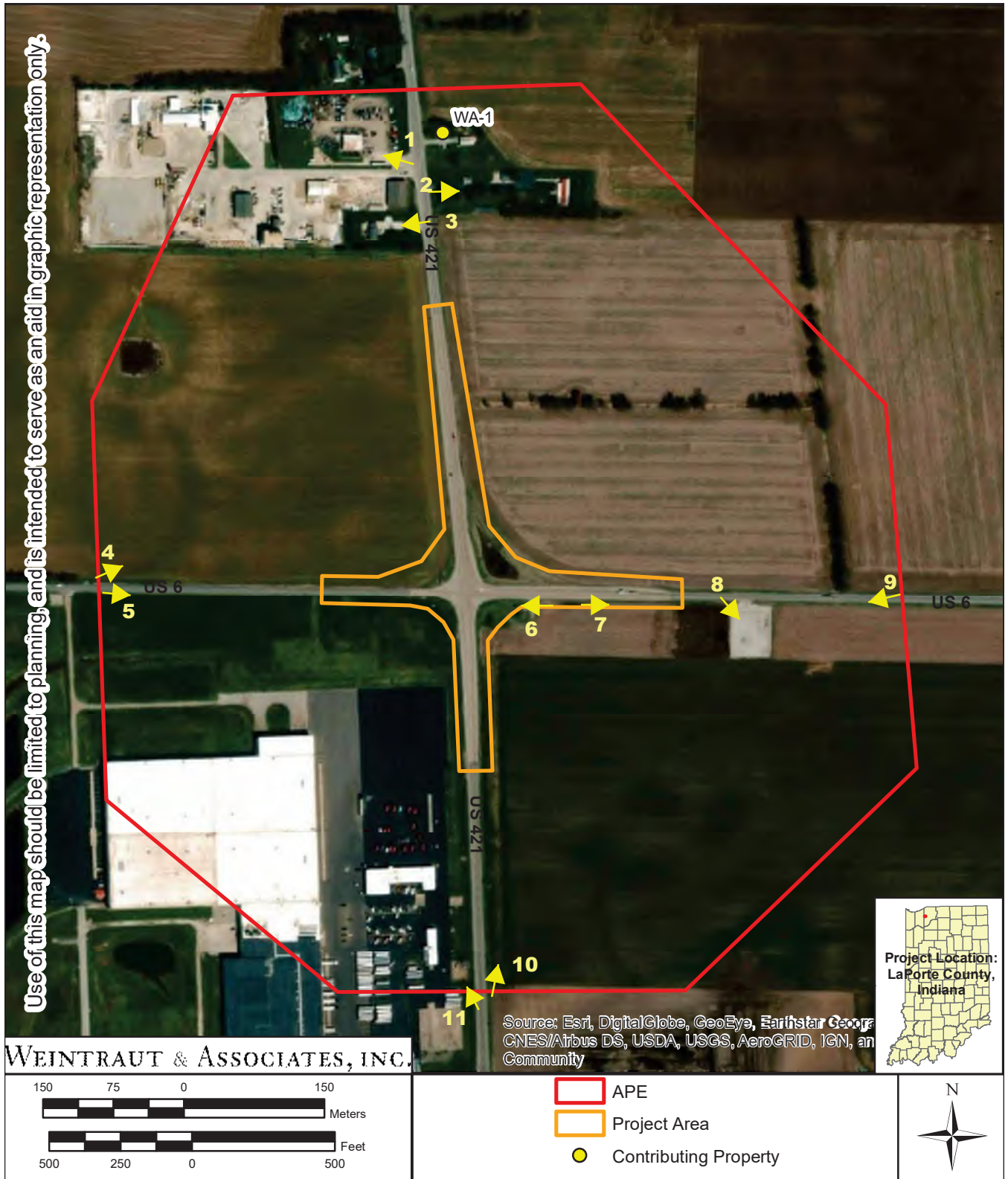
Beth K. McCord  
Deputy State Historic Preservation Officer

BKM:DMK:WTT:wtt

emc: Kari Carmany-George, FHWA  
Anuradha Kumar, INDOT  
Matt Coon, Ph.D., INDOT  
Susan Branigin, INDOT  
Linda Weintraut, Ph.D., Weintraut and Associates, Inc.  
Danielle Kauffmann, Indiana DNR-DHPA  
Caitlin Lehman, Indiana DNR-DHPA  
Wade T. Tharp, Indiana DNR-DHPA

## Appendix D: Photographs







1. The commercial garage at 5606 US 421 (c. 1973) is a Non-Contributing resource in the northern APE, looking north.



2. The Bed & Biscuit pet resort at 5701 US 421 has a collection of buildings that mostly date to the 2000s, looking east.



3. The split level two-story house (c. 1974) at 5648 US 421 sits adjacent to the Tazco Redi-Mix facility, looking west.



4. A large agricultural field is located northwest of the undertaking along West CR 600 North, looking northeast from the west end of the APE.



**5. The Dollar General Store complex is located on the southwest corner of the undertaking, looking southeast from the south end of the APE.**



**6. This view looks west along US 6 toward the US 421 intersection.**



7. This view looks east along US 6 toward the east end of the APE.



8. The NIPSCO utility station has no above-ground structures, looking southeast.



9. The sprawling Dollar General Stores distribution center (c. 1975) can be seen across agricultural fields from the east end of the APE, looking southwest.



10. Irrigation equipment and utility facilities line US 421 at the south end of the APE, looking north-northeast.



11. The Dollar General Store complex is surrounded by parking lots and trucks, looking northwest from the south end of the APE.

## Appendix E: Report Summaries





**Archaeological Records Check and Phase Ia Reconnaissance:  
US 6 and US 421 Intersection Improvement Project, Round-  
about, on US 6 from 0.3 Mile East and West of US 421  
In Clinton and New Durham Townships, LaPorte County, Indiana  
Des. No.: 1702989**

*Prepared for*  
**GAI Consultants, Inc. and  
Indiana Department of Transportation/Federal Highway Administration**

*Prepared by*  
**WEINTRAUT & ASSOCIATES, INC.**

Principal Investigator: Craig R. Arnold

P.O. Box 5034 | Zionsville, Indiana | (317)733-9770 | (carnold@weintrautinc.com)

January 2022

# Management Summary

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Weintraut & Associates, Inc. (W&A) archaeologists conducted an archaeological records check and Phase Ia reconnaissance for a United States (US) 6 and US 421 intersection improvement project in LaPorte County, Indiana. The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA) and with administrative oversight by INDOT, proposes the construction of a single-lane roundabout at the intersection of US 6 and US 421. The archaeological “survey area” totaled approximately 3.42 hectares (ha), or (8.46 acres [ac]).

This investigation was conducted in accordance with Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology (IDNR/DHPA) guidelines (2019) and the *Indiana Department of Transportation (INDOT) - Cultural Resources Manual* (INDOT 2019). The goals of the W&A archaeological records check and Phase Ia reconnaissance were to: 1) identify and verify the presence or absence of cultural deposits within the survey area; 2) assess the potential of any sites identified for inclusion in the Indiana Register of Historic Sites and Structures (IRHSS) or the National Register of Historic Places (NRHP); 3) collect sufficient information to determine the cultural affiliation of any sites located and their possible function(s); and 4) provide assessment and any additional work recommendations.

Two previously unidentified archaeological sites (12LE0460 and 12LE0461) were encountered during the Phase Ia archaeological field reconnaissance. Both are historic era sites represented by scatters of historical items. Neither site meets the necessary eligibility criteria for listing in the IRHSS and/or NRHP, and no further archaeological work is recommended.

Based on the results of the background research and the Phase Ia archaeological fieldwork, W&A offers the following recommendations:

- Project clearance and no further archaeological investigations appear necessary for either site 12LE0460 or 12LE0461.

However, these recommendations are made with the understanding that if any previously unidentified intact archaeological deposits or human remains are uncovered during construction, demolition, or earthmoving activities, work within a 100-foot area will stop and the IDNR/DHPA will be notified of the discovery within two (2) business days as required by Indiana Code 14-21-1-27 and 29.



## **Historic Property Short Report**

**United States (US) Highway 6 and US 421 Intersection Improvement Project**

**LaPorte County, Indiana**

**(Des. No.: 1702989, DHPA No.: 27790)**

*Prepared for*

**GAI Consultants, Inc./**

**Indiana Department of Transportation**

*Prepared by*

**WEINTRAUT & ASSOCIATES, INC.**

*Principal Investigator:* Linda Weintraut, Ph.D. | *Author:* Douglas K. Fivecoat, M.A.

PO Box 5034 | Zionsville, Indiana | (317) 733-9770 | (Linda@weintrautinc.com)

*Contact for GAI Consultants, Inc.:*

Ronald Webb

201 N. Illinois Street, Suite 1700, Indianapolis, IN 46204 | (317) 570-6800

(R.Webb@gaiconsultants.com)

**January 2022**

# **Executive Summary: United States (US) Highway 6 and US 421 Intersection Improvement Project | LaPorte County, Indiana (DES. Nos.: 1702989)**

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This report documents the identification and evaluation efforts for properties included in the Area of Potential Effects (APE) for the US 6 and US 421 Intersection Improvement Project in LaPorte County, Indiana. Above-ground resources located within the project APE were identified and evaluated in accordance with Section 106 of the 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 (National Register). 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 National Register.

The APE contains no properties that are recommended eligible for listing in the National Register.

## Appendix F: Plans

REMOVED TO AVOID REDUNDENCY  
(APPENDIX B)

AFFP

Public Notice Des. No. 1702989

# Affidavit of Publication

STATE OF IN )  
COUNTY OF LA PORTE ) SS

Isis Cains, being duly sworn, says:

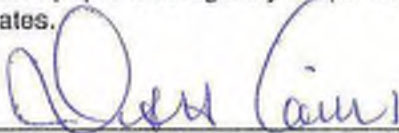
That she is Legal Clerk of the La Porte County Herald Dispatch, a daily newspaper of general circulation, printed and published in Michigan City, La Porte County, IN; that the publication, a copy of which is attached hereto, was published in the said newspaper on the following dates:

August 27, 2022

Publication Fees: \$ 38.70

That said newspaper was regularly issued and circulated on those dates.

SIGNED:



Subscribed to and sworn to me this 27th day of August 2022:



Hope R Stevens, Notary Public 06/07/2024



70072836 70449991

Public Notice  
Des. No. 1702989

Indiana Department of Transportation (INDOT) is planning to undertake an intersection improvement project funded in part by the Federal Highway Administration. The project is located at the intersection of US 6 and US 421 in LaPorte County, Indiana.

Under the preferred alternative, the project will construct a single lane round-a-bout with increased lane widths, new medians, curbs and gutters, install drainage pipes beneath the roadway pavement, install lighting within the project area, and relocate underground utilities, if necessary. No relocations will be required to complete this project as it is proposed. It is anticipated that approximately 0.45 acre of permanent right-of-way will need to be acquired, but the exact amounts are unknown at this time.

The proposed action does not impact properties listed in or eligible for the National Register of Historic Places. The Indiana Department of Transportation (INDOT), on behalf of the FHWA, has issued a "No Historic Properties Affected" finding for the project due to the fact that no historic properties are present within the Area of Potential Effects (APE). 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)(1), the documentation specified in 36 CFR 800. 11(d) is available for inspection in the offices of GAI Consultants at 9998 Crosspoint Blvd. Suite 110, Indianapolis, Indiana 46256. Additionally, this documentation can be viewed electronically by accessing INDOT's Section 106 document posting website IN SCOPE at <http://www.indot.in.gov/Section106Documents>. This documentation serves as the basis for the "No Historic Properties Affected" finding. The views of the public on this effect finding are being sought. Please reply with any comments to Dr. Linda Weintraut of Weintraut & Associates, Inc. at P.O. Box 5034, Zionsville, IN 46077 or (317) 733-9770 or [Linda@weintrautinc.com](mailto:Linda@weintrautinc.com) no later than September 27, 2022.

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 Michael Grylewicz at [MGrylewicz@indot.IN.gov](mailto:MGrylewicz@indot.IN.gov).

hspxlp

Linda Weintraut  
Weintraut & Associates, Inc.  
P.O. Box 5034  
Zionsville, IN 46077

# Appendix E

## Red Flag and Hazardous Materials

Item	Appendix Page
Red Flag Investigation	E1 to E10



# INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (317) 694-8283

**Eric Holcomb, Governor**  
**Joe McGuinness,**  
**Commissioner**

Date: April 15, 2021

To: Site Assessment & Management  
Environmental Policy Office - Environmental Services Division  
Indiana Department of Transportation  
100 N Senate Avenue, Room N642  
Indianapolis, IN 46204

From: Raquel Walker  
GAI Consultants, Inc.  
9921 DuPont Circle Drive West, Suite 100  
Fort Wayne, IN 46825  
r.walker@gaiconsultants.com

Re: RED FLAG INVESTIGATION  
Des No. 1702989, State Project  
Intersection Improvement  
US 6 & US 42, 0.34 Mile West of US 421 to 0.34 Mile East of US 421  
LaPorte County, Indiana

## PROJECT DESCRIPTION

Brief Description of Project: The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intends to proceed with an intersection improvement project located in LaPorte County, Indiana. This project is located at the intersection of US 6, US 421, and County Road (CR) West 600 South. Specifically, this project is located in Sections 32 & 33 of Township 36 North, Range 4 West and Sections 4 & 5 of Township 35 North, Range 4 West, as shown on the Westville USGS 7.5 Minute Topographic Map. The proposed project would consist of constructing a single lane roundabout to replace the existing facility. This project will likely require the replacement and/or relocation of permanent lighting within the project area and would also likely require the use of temporary lighting. In addition, underground utilities may need to be relocated and a pipe just north of the intersection that runs beneath US 6 may need to be replaced. The project limits will extend approximately 975 ft. north, 595 ft. south, 715 ft. east, and 390 ft. west from the center of the US 6 and US 421 intersection.

Bridge and/or Culvert Project: Yes  No  Structure # \_\_\_\_\_

If this is a bridge project, is the bridge Historical? Yes  No  , Select  Non-Select

(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

Proposed right of way: Temporary  # Acres \_\_\_\_\_ Permanent  # Acres 0.45, Not Applicable

Type of excavation: Excavation will be necessary for the construction of the roundabout. The depth of excavation will extend approximately 4 feet in depth.

Maintenance of traffic: The Maintenance of Traffic will consist of a road closure with a detour route. However, an official detour route has not been decided at this time.

*www.in.gov/dot/  
An Equal Opportunity Employer*



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**

<b>Infrastructure</b>			
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	<b>N/A</b>	Recreational Facilities	<b>N/A</b>
Airports <sup>1</sup>	<b>N/A</b>	Pipelines	<b>2</b>
Cemeteries	<b>N/A</b>	Railroads	<b>3</b>
Hospitals	<b>N/A</b>	Trails	<b>1</b>
Schools	<b>N/A</b>	Managed Lands	<b>N/A</b>

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

Explanation:

**Pipelines:** Two (2) pipeline segments are located within the 0.5-mile search radius. One pipeline segment, operated by the Northern Indiana Public Service Co., is adjacent to the project area. Coordination with INDOT Utilities and Railroads should occur.

**Railroads:** Three (3) railroad segments are located within the 0.5-mile search radius. The nearest railroad is approximately 0.39 mile west of the project area. No impact is expected.

**Trails:** One (1) trail segment is located within the 0.5-mile search radius. This potential trail is located approximately 0.39 mile west of the project area. No impact is expected.

### **WATER RESOURCES TABLE AND SUMMARY**

<b>Water Resources</b>			
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	<b>1</b>	Canal Routes - Historic	<b>N/A</b>
Karst Springs	<b>N/A</b>	NWI - Wetlands	<b>7</b>
Canal Structures – Historic	<b>N/A</b>	Lakes	<b>1</b>
NPS NRI Listed	<b>N/A</b>	Floodplain - DFIRM	<b>N/A</b>
NWI-Lines	<b>N/A</b>	Cave Entrance Density	<b>N/A</b>
IDEM 303d Listed Streams and Lakes (Impaired)	<b>N/A</b>	Sinkhole Areas	<b>N/A</b>
Rivers and Streams	<b>N/A</b>	Sinking-Stream Basins	<b>N/A</b>

Explanation:

**NWI-Point:** One (1) NWI-point is located within the 0.5-mile search radius. This NWI-point is located approximately 0.38 mile southwest of the project area. No impact is expected.

NWI-Wetlands: Seven (7) wetlands are located within the 0.5-mile search radius. The nearest wetland is located 0.18 mile northwest of the project area. No impact is expected.

Lakes: One (1) lake is located within the 0.5-mile search radius. The nearest lake is located approximately 0.37 mile southeast of the project area. No impact is expected.

**MINING AND MINERAL EXPLORATION TABLE AND SUMMARY**

<b>Mining/Mineral Exploration</b>			
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	<b>1</b>	Mineral Resources	<b>N/A</b>
Mines – Surface	<b>N/A</b>	Mines – Underground	<b>N/A</b>

Explanation:

Petroleum Wells: One (1) petroleum well is located within the 0.5-mile search radius. This well is located approximately 0.44 mile southwest of the project area. No impact is expected.

**HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY**

<b>Hazardous Material Concerns</b>			
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	<b>N/A</b>	Manufactured Gas Plant Sites	<b>N/A</b>
RCRA Generator/ TSD	<b>1</b>	Open Dump Waste Sites	<b>N/A</b>
RCRA Corrective Action Sites	<b>N/A</b>	Restricted Waste Sites	<b>N/A</b>
State Cleanup Sites	<b>N/A</b>	Waste Transfer Stations	<b>N/A</b>
Septage Waste Sites	<b>N/A</b>	Tire Waste Sites	<b>N/A</b>
Underground Storage Tank (UST) Sites	<b>N/A</b>	Confined Feeding Operations (CFO)	<b>N/A</b>
Voluntary Remediation Program	<b>N/A</b>	Brownfields	<b>N/A</b>
Construction Demolition Waste	<b>N/A</b>	Institutional Controls	<b>N/A</b>
Solid Waste Landfill	<b>N/A</b>	NPDES Facilities	<b>N/A</b>
Infectious/Medical Waste Sites	<b>N/A</b>	NPDES Pipe Locations	<b>N/A</b>
Leaking Underground Storage (LUST) Sites	<b>1</b>	Notice of Contamination Sites	<b>N/A</b>

Explanation:

RCRA Generator/TSD: One (1) RCRA Generator/TSD site is located within the 0.5-mile search radius.

- Universal Forest Products Eastern Division of Indiana, 6504 HWY 421 S., LaPorte County, Westville, Indiana, 46391, AI #: 29588 is located approximately 0.41 mile south of the project area. IDEM issued a Drip Pad Closure approval determination on January 20, 2020 stating that the facility had met the performance standards to achieve a clean closure. No impact is expected.

Leaking Underground Storage Tank (LUST) Sites: One (1) LUST site is located within the 0.5-mile search radius.

- Midland Grocery Co., 6500 S US HWY 421, LaPorte County, Westville, Indiana, 46391, AI #: 12648, is located adjacent to the project area. IDEM issued a No Further Action determination on March 8, 2005, stating that the total petroleum hydrocarbons (TPH) were below the detection limit of 20 parts per million, and groundwater screenings indicated that the gasoline contaminants were below the appropriate laboratory method detection limit. No impact is expected.

### **ECOLOGICAL INFORMATION SUMMARY**

The LaPorte County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities are provided at [https://www.in.gov/dnr/naturepreserve/files/np\\_laporte.pdf](https://www.in.gov/dnr/naturepreserve/files/np_laporte.pdf). A preliminary review of the Indiana Natural Heritage Database by INDOT Environmental Services did not indicate the presence of ETR species within the 0.5 mile search radius. Coordination with the USFWS and IDNR will occur.

Bats: 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:

- Pipelines: One pipeline segment, operated by the Northern Indiana Public Service Co., is adjacent to the project area. Coordination with INDOT Utilities and Railroads should occur.

WATER RESOURCES: N/A

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: N/A

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

INDOT Environmental Services concurrence:

**Nicole Fohey-  
Breting** Digitally signed by  
Nicole Fohey-Breting  
Date: 2021.04.19  
09:57:49 -04'00' (Signature)

Prepared by:  
Raquel Walker  
Senior Environmental Specialist  
GAI Consultants, Inc.

**Graphics:**

A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES

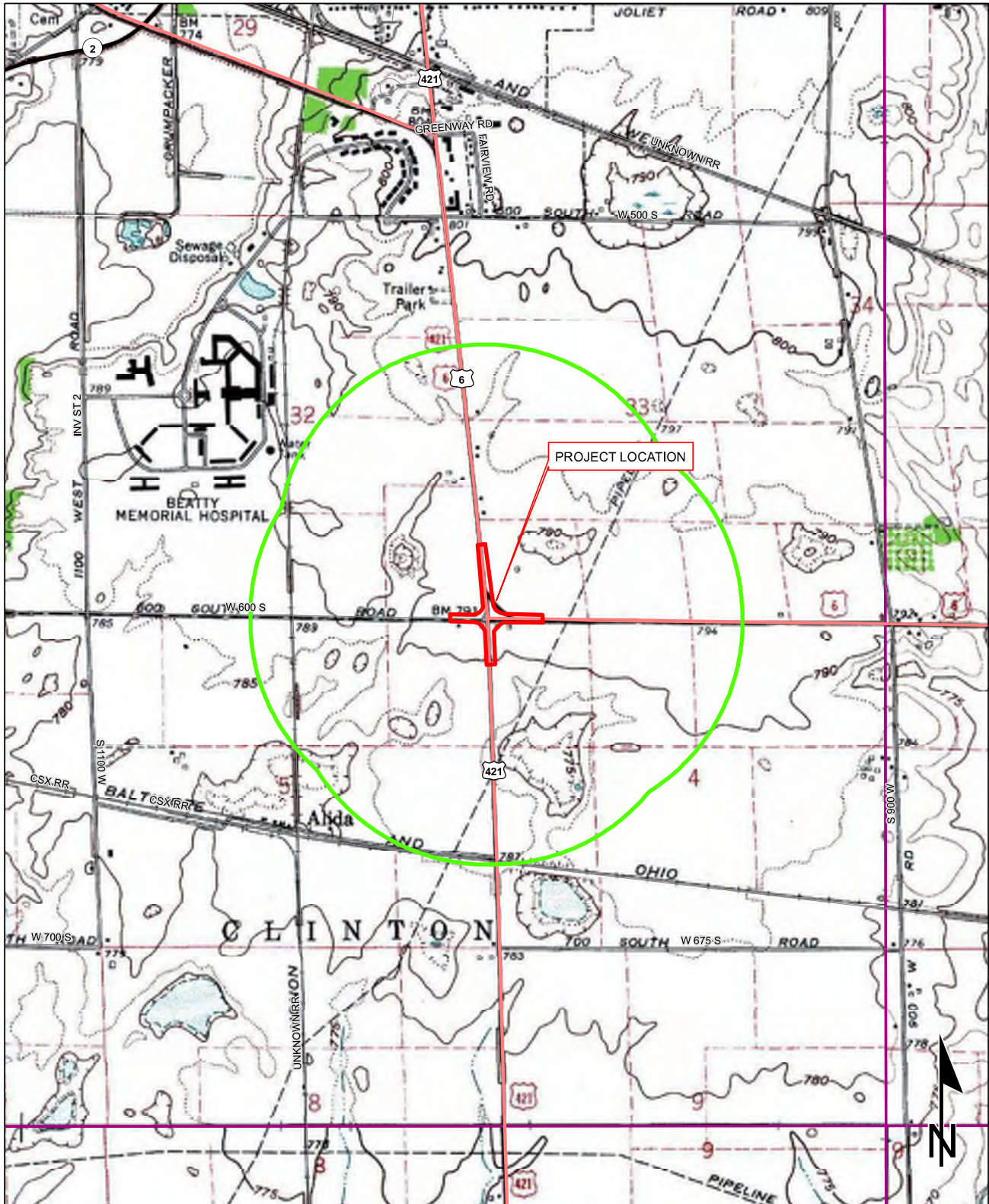
INFRASTRUCTURE: YES

WATER RESOURCES: YES

MINING/MINERAL EXPLORATION: YES

HAZARDOUS MATERIAL CONCERNS: YES

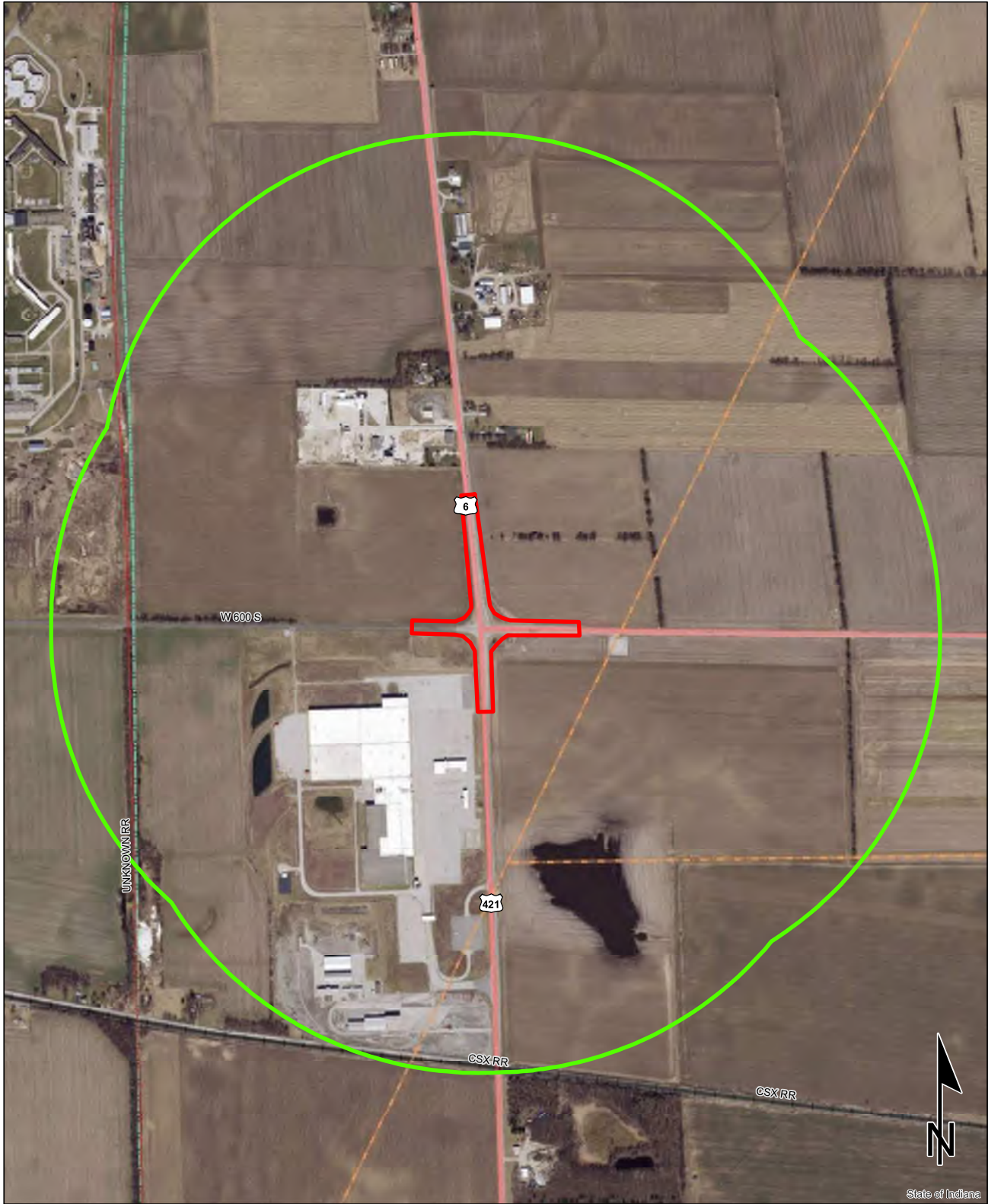
Red Flag Investigation - Site Location Map  
 US 6 & US 421, 0.34 Mile W. of US 421 & 0.34 Mile E. of US 421  
 Des. No. 1702989, Intersection Improvement  
 LaPorte County, Indiana



Sources: 0.3 0.15 0 0.3 Miles  
**Non Orthophotography**  
**Data** - Obtained from the State of Indiana Geographical Information Office Library  
**Orthophotography** - Obtained from Indiana Map Framework Data ([www.indianamap.org](http://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.

**WESTVILLE QUADRANGLE  
 INDIANA  
 7.5 MINUTE SERIES  
 (TOPOGRAPHIC)**

Red Flag Investigation - Infrastructure  
 US 6 & US 421, 0.34 Mile W. of US 421 & 0.34 Mile E. of US 421  
 Des. No. 1702989, Intersection Improvement  
 LaPorte 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](http://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.

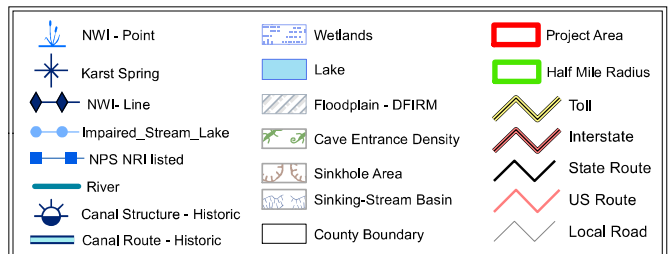
	Religious Facility		Recreation Facility		Project Area
	Airport		Pipeline		Half Mile Radius
	Cemeteries		Railroad		Toll
	Hospital		Trails		Interstate
	School		Managed Lands		State Route
			County Boundary		US Route
					Local Road

Red Flag Investigation - Water Resources  
 US 6 & US 421, 0.34 Mile W. of US 421 & 0.34 Mile E. of US 421  
 Des. No. 1702989, Intersection Improvement  
 LaPorte County, Indiana

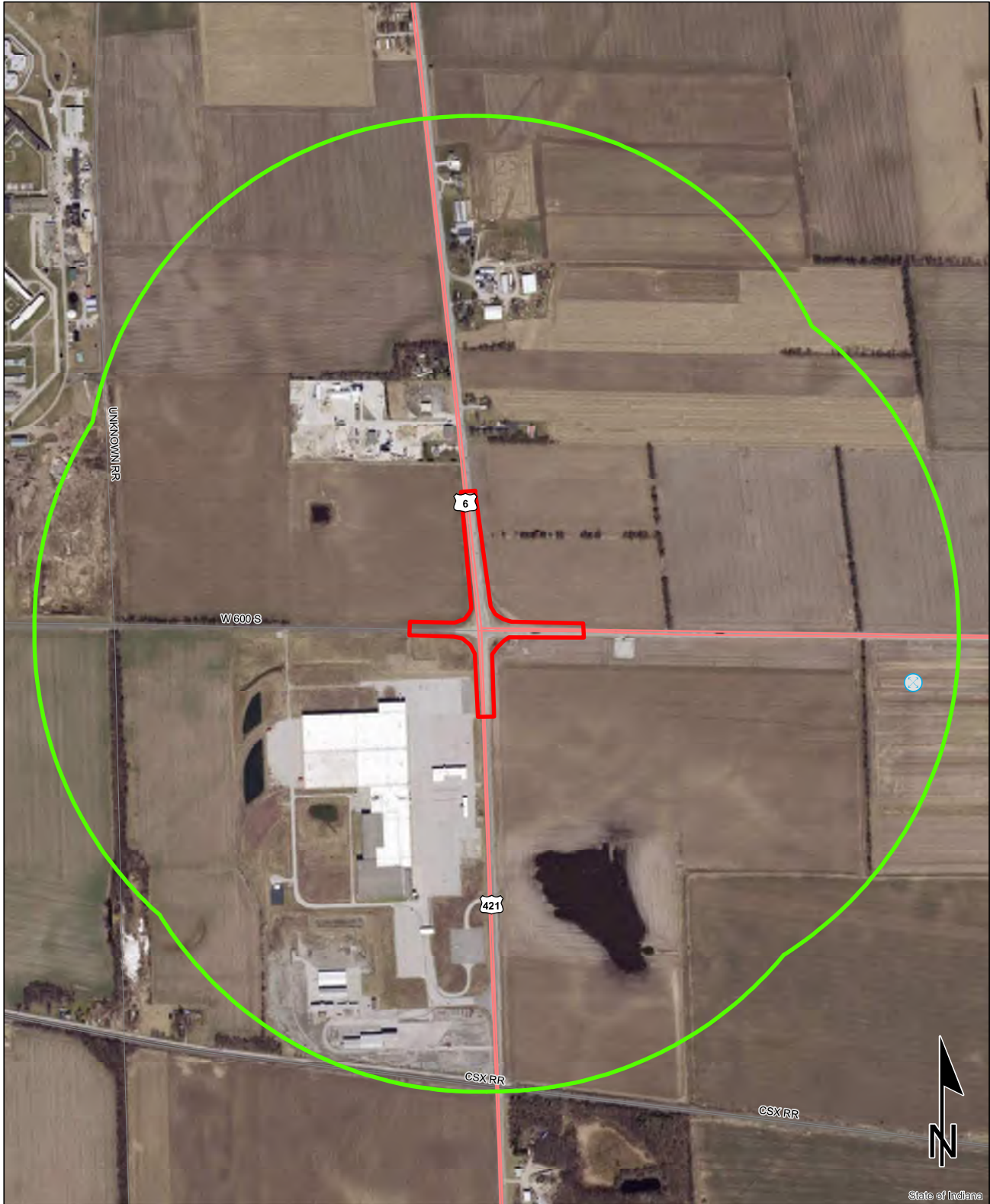


State of Indiana

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](http://www.indianamap.org))  
**Map Projection:** UTM Zone 16 N **Map Datum:** NAD83  
 This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.



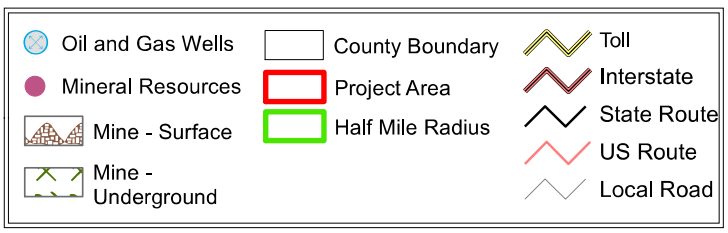
Red Flag Investigation - Mining and Mineral Exploration  
 US 6 & US 421, 0.34 Mile W. of US 421 & 0.34 Mile E. of US 421  
 Des. No. 1702989, Intersection Improvement  
 LaPorte County, Indiana



0.15 0.075 0 0.15 Miles

**Sources:**  
**Non Orthophotography**  
**Data** - Obtained from the State of Indiana Geographical Information Office Library  
**Orthophotography** - Obtained from Indiana Map Framework Data ([www.indianamap.org](http://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.**

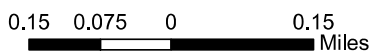




Red Flag Investigation - Hazardous Material Concerns  
 US 6 & US 421, 0.34 Mile W. of US 421 & 0.34 Mile E. of US 421  
 Des. No. 1702989, Intersection Improvement  
 LaPorte County, Indiana



	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				



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](http://www.indianamap.org))  
 Map Projection: UTM Zone 16 N Map Datum: NAD83

# Appendix F

## Water Resources

Item	Appendix Page
WOTUS Report Floodplain Map	F1 to F37 F38

# Waters of the U.S. Determination

US 6 & US 421  
Intersection Improvement Project  
Des. No.: 1702989  
LaPorte County, Indiana

Prepared for:  
Indiana Department of Transportation (INDOT)  
Laporte District  
315 E. Boyd Blvd.  
LaPorte, IN 46350

Prepared by:  
GAI Consultants, Inc.  
Fort Wayne Office  
9921 DuPont Circle Drive West, Suite 100  
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Author:



Raquel Walker  
Senior Environmental Specialist

Report Completed:  
December 2, 2020

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Table 3	Data Point Table

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- Figure 3 Aerial Location Map
- Figure 4 NWI Wetlands Map
- Figure 5 NRCS Soils Map
- Figure 6 FEMA Floodzone Map
- Figure 7 LiDAR Map
- Figure 8 Wetland Delineation Map
- Figure 9 Photo Location Map

#### Photographs

Wetland Data Form

Upland Data Forms

Preliminary Jurisdictional Determination Form

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## 1.0 Introduction

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intend to proceed with an intersection improvement project located in LaPorte County, Indiana. (Figure 1). Specifically, this project is located at:

- The intersection of US 6, US 421, and County Road (CR) West 600 South
- Sections 32 & 33 of Township 36 North, Range 4 West and Sections 4 & 5 of Township 35 North, Range 4 West, as shown on the Westville USGS 7.5 Minute Topographic Map
- Coordinates: 41.518425°, -86.894137°

The purpose of this project is to improve intersection safety for traveling motorists. The scope of work includes the construction of a single lane round-a-bout with dedicated turn lanes and increased lane widths, construction of medians, curbs and gutters, the replacement and installation of drainage pipes beneath the roadway pavement, and the replacement and installation of lighting within the project area.

GAI Consultants, Inc. (GAI), on behalf of INDOT, conducted wetland delineations and waterbody investigations of the project study area on May 20, 2020. GAI identified approximate boundaries of waterbodies and wetlands located within the project study area. This study area was determined in the field by GAI based upon likely work areas and impacts to regulated Waters of the U.S. as a result of construction activities. This report describes the methods and results of the environmental field survey.

## 2.0 Methods

Wetland delineations were conducted in accordance with the 1987 United States Army Corps of Engineers (USACE) *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral; and Northeast Region (Version 2.0)* (USACE, 2012). Wetlands were classified using the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., 1979). Classification of the indicator status of vegetation is based on *The National Wetland Plant List: 2016 wetland ratings* (Lichvar et al. 2016).

## 3.0 Background Information

Prior to the fieldwork, background information and existing mapping was reviewed to establish the probability and potential location of wetlands on the site. Available information from government agency documents and private sources were collected and reviewed in order to characterize the project area, as well as identify potential wetlands and other regulated features located within the project study area.

The growing season in the project area is generally between April and October in LaPorte County, Indiana [United States Department of Agriculture, Natural Resource Conservation Service (USDA-NRCS)] (USDA-NRCS, 2016). Field observations were supplemented with an intensive review of United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping, USDA soils mapping, historical aerial photography (ArcGIS and Google Earth), and local landscape topography/morphology.

The project study area topography is mostly flat, with elevations ranging from 780 to 800 ft. Drainage patterns were identified via topographic elevation contours to drain away from the US 6 and US 421. The project study area is within the Valparaiso Morainal Complex physiographic region of the Northern Moraine and Lake Region (Indiana Geological Survey, 2000). Land use in the vicinity of the project is primarily agriculture and commercial.

### 3.1 National Wetland Inventory

The USFWS' NWI Wetlands Mapper was reviewed for potential wetland locations. The NWI data of the area (Figure 4) identified one wetland within the study area. The nearest mapped wetland is within the study area and is classified as a PEM1C wetland. This wetland is located in the northeast corner of the US 6 and US 421 intersection.

### 3.2 Watersheds

The project study area is in the Upper Illinois Basin, and Upper Illinois sub-region, of the Upper Mississippi region, 12 digit hydrologic unit codes (HUC12) 071200011003 Headwater Crooked Creek & 071200011001 Bloom Ditch.

### 3.3 NRCS Soil Survey

The NRCS Soil Survey of LaPorte County identified one soil series within the project study area (Figure 5, Table 1). This soil was not identified as being hydric.

Table 1. NRCS Soil Survey Area of Interest Results

Map Unit Name (Map Symbol)	Drainage Properties	Hydrology	Hydric Status
Elston Loam (EsA)	Well Drained	No Ponding, No Flooding	No (0%)

### 3.4 Floodway

This project is located within the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel 18091C0245D as shown on the FEMA Floodzone map (Figure 6). This project is not located within a flood hazard area.

## 4.0 Results

One likely jurisdictional wetland was identified within the study area (Figure 8).

### 4.1 Waterbodies

No streams and other waterbodies were identified within the project study area.

### 4.2 Wetlands

One wetland feature that met all three of the USACE wetland criteria was observed within the project boundary. A detailed description of the delineated feature is discussed below. Completed wetland and upland determination forms from the site investigation are located in the Attachments and represent data points taken to characterize the boundary interfaces of the wetland feature. The wetland acreage includes the entire boundary as delineated in the project study area (Figure 8). Wetlands identified within the project study area are represented in Table 3.

#### Upland Data Point (DP-1)

DP-1 was collected as an upland data point in the northwest corner of the project area. This data point was taken due to the presence of standing water and sparse vegetation. Vegetation surrounding DP-1 consisted of green foxtail (*Setaria viridis*, UPL), dandelion (*Taraxacum officinale*, FACU), Canada thistle (*Cirsium arvense*, FACU), and ragweed (*Ambrosia artemisiifolia*, FACU). None of these FACU species present during the early growing season are species that are known to commonly dominate wetlands. No problematic hydrophytic vegetation is believed to exist at this location. Therefore, DP-1 failed to meet the hydrophytic vegetation criterion. Soils were a loamy clay with a color of 10YR 3/1 (100%)

from 0 to 18 inches. No redoximorphic features or other hydric soil indicators were observed in the soil profile. In not meeting any of the hydric soil indicators, DP-1 failed to meet the hydric soil criterion. DP-1 met the hydrology indicators Surface Water (A1) and Sparsely Vegetated Concave Surface (B8) and met the secondary hydrology indicator Drainage Patterns (B10). In failing to meet all three USACE criteria for wetlands, DP-1 was determined not to be within a wetland.

#### **Wetland A (0.26 acres, PEM)**

Wetland A is a 0.26 acre wetland located in the northeastern portion of the project area between the corner of the US 6 and US 421 intersection and a farm field. Wetland A is an emergent wetland that likely formed due to the concave depression, high water table, and roadway and agricultural runoff. Wetland A would be considered poor quality due to the dominance of invasive species and lack of species diversity. Wetland A would not likely be considered a jurisdictional Waters of the U.S. as it has no surface water connection to any likely jurisdictional stream features. Since this wetland does not qualify for an exemption under 327 IAC 17-1-7, it would be considered an Isolated Class 1 State Regulated Wetland. INDOT acknowledges that the wetland would likely not meet the definition of a Waters of the U.S. However, INDOT is requesting that the USACE take jurisdiction of the wetland.

#### **Wetland Data Point (DP-2):**

DP-2 was collected in the northeast quadrant of the project area. Dominant vegetation consisted of cattails (*Typha latifolia*, OBL) and common reed (*Phragmites australis*, FACW). DP-2 met the hydrophytic vegetation criterion by passing the dominance test. Soils were a mucky clay with a color of 10YR 3/1 (100%) from 0 to 3 inches. From 3 to 18 inches the soil color was 10YR 3/2 (95%) with 10YR 5/6 (5%) redoximorphic concentration features present in the pore linings. DP-2 met the Depleted Matrix (F3) hydric soils indicator, thus meeting the hydric soils criterion. DP-2 met the hydrology primary indicators of Surface Water (A1), Saturation (A3), and the secondary indicators of Geomorphic Position (D2) and passing the FAC Neutral Test (D5). In meeting all three USACE criteria for wetlands, DP-2 was determined to be within a wetland.

#### **Upland Data Point (DP-3):**

DP-3 was collected as an upland data point in the northeastern quadrant of the project area. Dominant vegetation at this location consisted of tall fescue (*Schedonorus arundinaceus*, FACU) and Kentucky bluegrass (*Poa annua*, FACU). DP-3 failed to meet the hydrophytic vegetation criterion. Soils were a loamy clay with a color profile of 10YR 3/1 (100%) from 0-18 inches. No redoximorphic features or other hydric soil indicators were observed in the soil profile. DP-3 failed to meet the hydric soil criterion. DP-3 also failed to meet the wetland hydrology criterion. In not meeting any of the three USACE criteria for wetlands, DP-3 was determined not to be within a wetland.

### **4.3 Roadside Ditches and Other Drainages**

All roadside ditches and other surface drainages within the study area were also evaluated for consideration as jurisdictional Waters of the U.S. with respect to the Clean Water Act Rule [40 CFR 230.3(3)(iii)]. Jurisdictional ditches must meet the definition of tributary, have an OHWM, and flow directly or indirectly through another water to a TNW. Likely jurisdictional ditches include ditches with perennial flow; ditches with intermittent flow that drain wetlands; or ditches, regardless of flow, that are excavated in or relocate a tributary. Jurisdictional wetlands may be present within or connected to another jurisdictional Waters of the U.S. in regard to significant nexus analysis through, non-jurisdictional ditches or surface drainages.

One drainage pipe was identified within the study area. This pipe conveys drainage beneath US 421 just north of the US 6 and US 421 intersection. This feature did not exhibit a defined bed, bank or OHWM,

and is not connected to any other stream or drainage features; therefore, would not be considered jurisdictional. No roadside ditches or other drainage features were observed within the study area.

## 5.0 Conclusions

Wetland delineations and stream investigations for the US 6 and US 421 intersection improvement project were conducted on May 20, 2020. One wetland was identified within the study area. This wetland would likely be considered an Isolated Class 1 State Regulated Wetland.

Every effort should be taken to avoid and minimize impacts to the wetland. 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. INDOT acknowledges that the wetland would likely not meet the definition of a Waters of the U.S. However, INDOT is requesting that the USACE take jurisdiction of the wetland.

## 6.0 Acknowledgement

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



Raquel Walker  
Senior Environmental Specialist



## 7.0 References

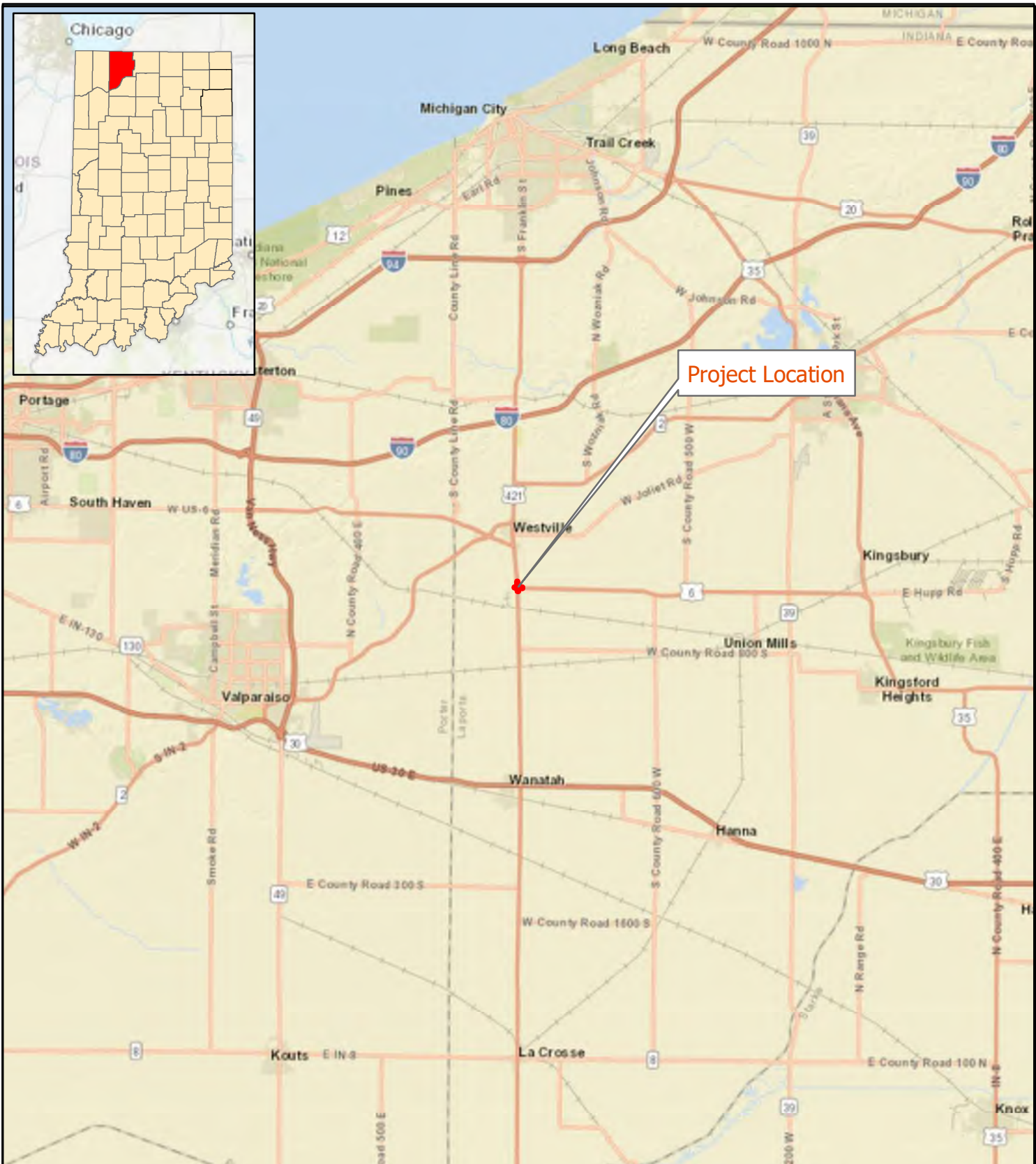
- Cowardin, D.M., Carter, V., Golet, F.C., and La Roe, E.T. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. Publication No. FWS/OBS-79/31. United States Department of the Interior, Fish and Wildlife Service, Washington, D.C.
- Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. United States Department of the Army, United States Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.
- Indiana Department of Transportation (INDOT). 2018. *Waters of the United States Documentation*. Available at <https://www.in.gov/indot/2522.htm>. Accessed December 2018.
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List: 2016 wetland ratings*. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X.
- Taylor University Environmental Research Group. 2005. *Indiana Wetland Rapid Assessment Protocol, InWRAP. Version 2.5*. Taylor University, Upland, Indiana.
- United States Army Corps of Engineers (USACE). 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region, Version 2.0*. August of 2010.
- United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS). 2006. *Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific*. U.S. Department of Agriculture Handbook, 296.

**Table 2**  
**Wetlands Identified Within the Project Study Area**

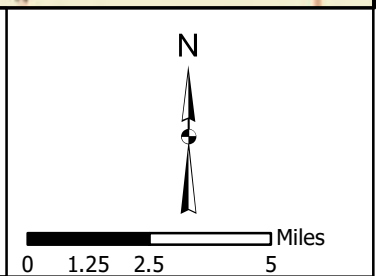
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Wetland A	22, 23, 24, 28, 29, 30, 31, 32	41.5518722°	-86.893778°	0.26	PEM	PEM1C	Poor	No

**Table 3**  
**Data Point Summary Table**

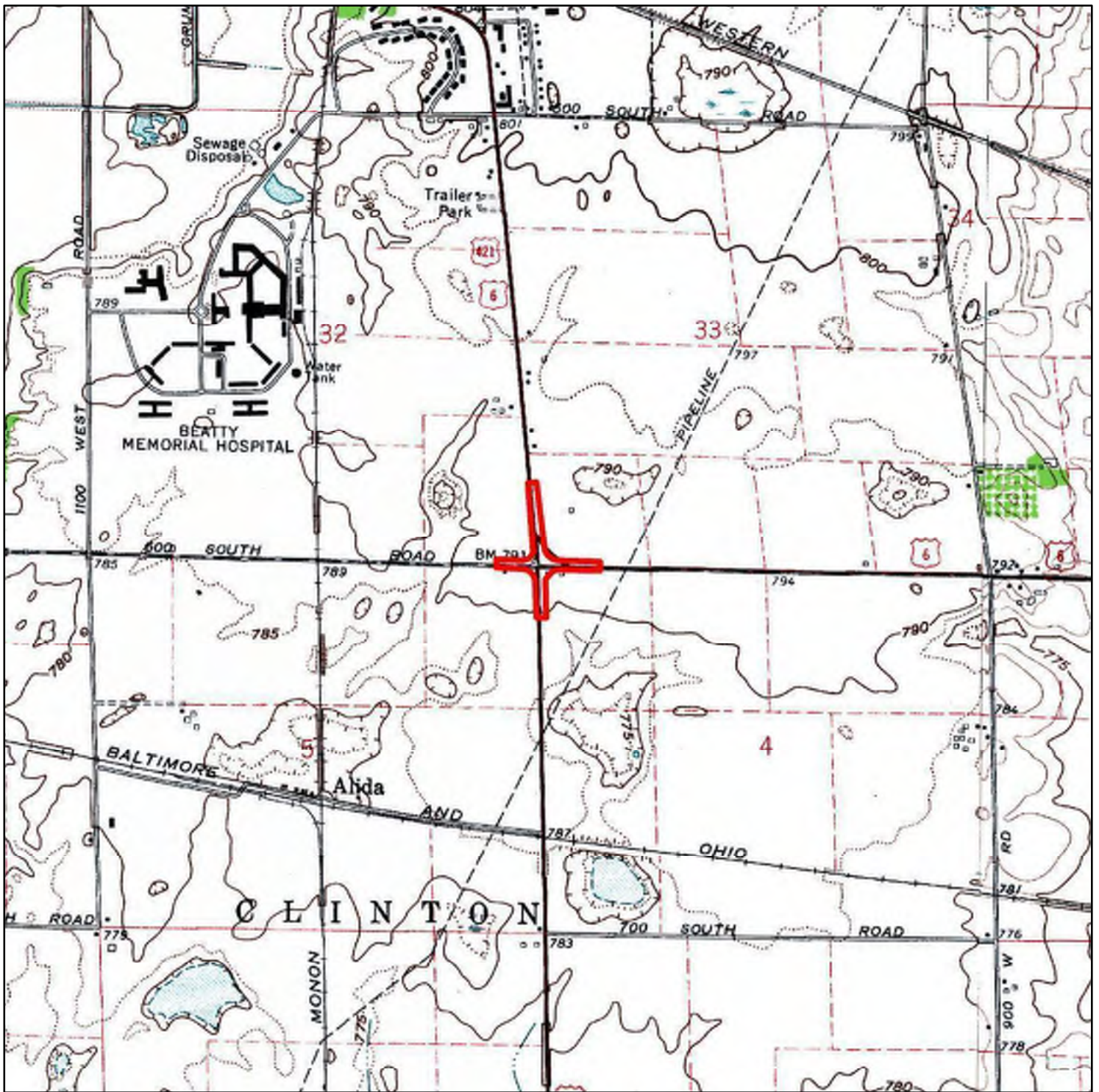
Data Point	Vegetation	Soils	Hydrology	Wetland
1	No	No	Yes	No
2	Yes	Yes	Yes	Yes
3	No	No	No	No



**State Location Map**  
**US 6 & US 421**  
**Intersection Improvement Project**  
**LaPorte County, Indiana**  
**Des 1702989**




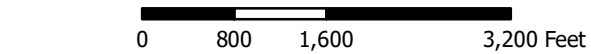
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



**USGS Topo Map**

**US 6 & US 421  
Intersection Improvement Project  
LaPorte County, Indiana  
Des 1702989**

 Study Area



WESTVILLE USGS 7.5 Minute Topo Map

Service Layer Credits: United States Geological Survey (USGS)





## Aerial Location Map

**US 6 & US 421  
Intersection Improvement Project  
LaPorte County, Indiana  
Des 1702989**

-  Study Area
-  Interstate
-  State Route
-  US Route
-  Local Road
-  Railroad



0 115 230 460 Feet








Service Layer Credits: INDOT  
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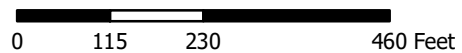




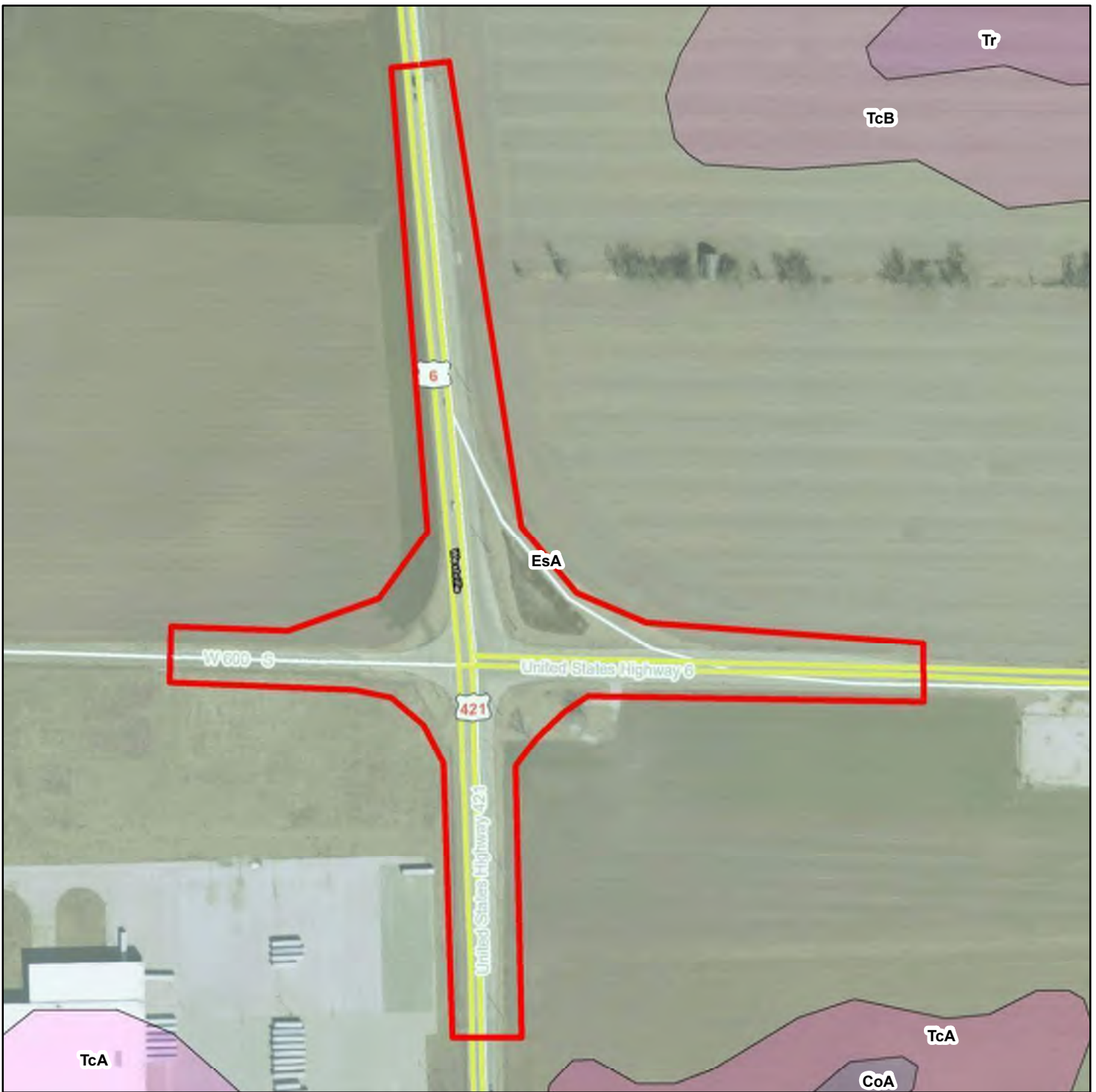
## NWI Wetlands Map

**US-6 & US-421  
Intersection Improvement Project  
LaPorte County, Indiana  
Des 1702989**

-  Study Area
-  NWI Wetland
-  Interstate
-  State Route
-  US Route
-  Local Road
-  Railroad














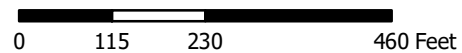
Service Layer Credits: INDOT  
 © 2021 Microsoft Corporation © 2021 Maxar ©CNES (2021) Distribution Airbus DS, U.S. Fish and Wildlife Service, National Wetlands Inventory



## NRCS Soils Map

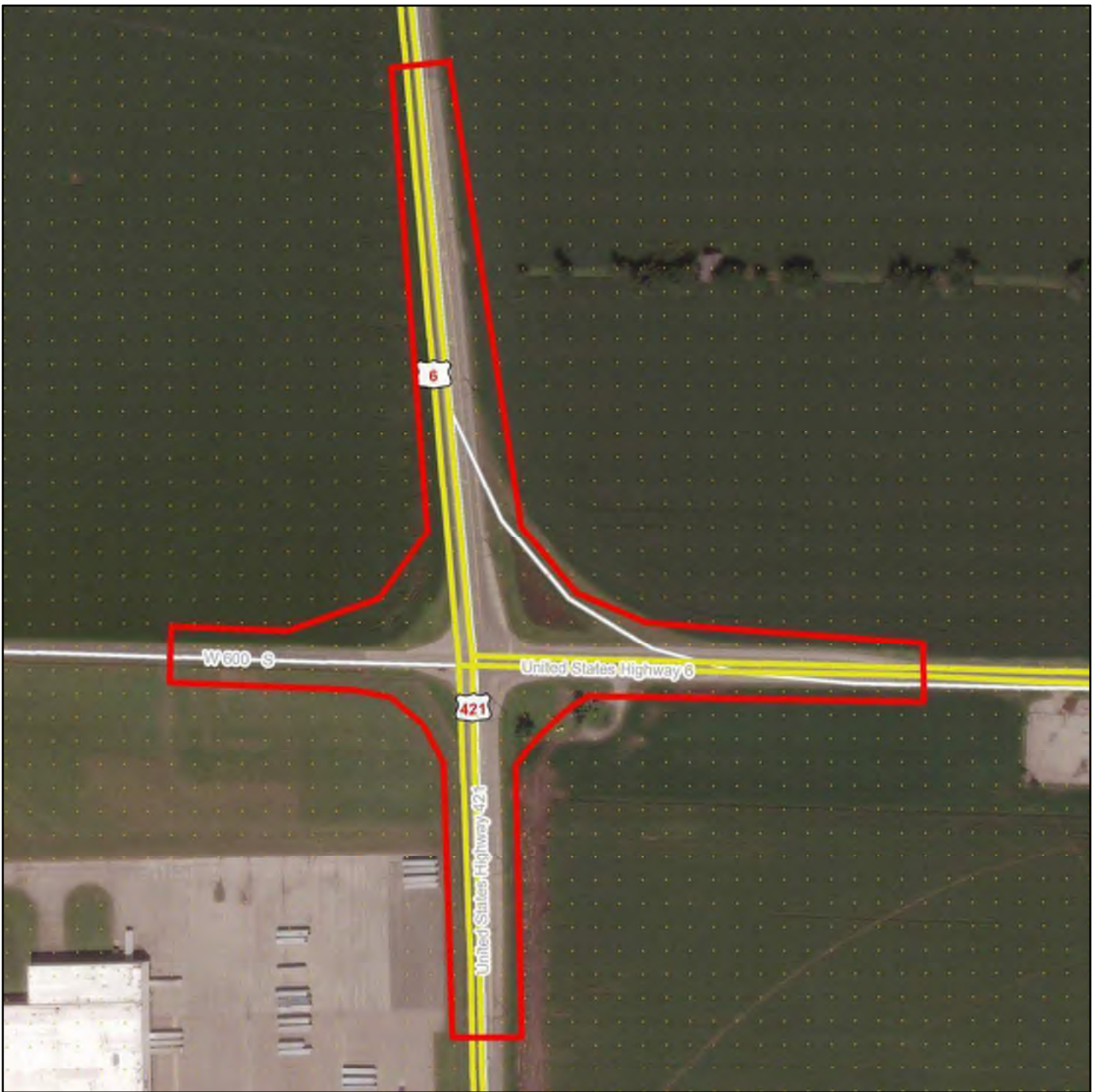
**US-6 & US-421  
Intersection Improvement Project  
LaPorte County, Indiana  
Des No. 1702989**

- |   |   |
|---|---|
|  Study Area  |  CoA |
|  Interstate  |  EsA |
|  State Route |  TcA |
|  US Route    |  TcB |
|  Local Road  |  Tr  |
|  Railroad    |   |












Service Layer Credits: INDOT  
 Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community  
 Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community  
 Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS,

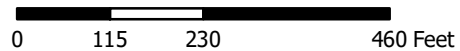




## FEMA Floodzone Map

**US-6 & US-421  
Intersection Improvement Project  
LaPorte County, Indiana  
Des 1702989**

	Study Area	<b>Flood Hazard</b>
	Interstate	 A
	State Route	 AE
	US Route	 X
	Local Road	
	Railroad	FIRM PANEL(S): 18091C0245D



Service Layer Credits: INDOT  
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 Indiana Department of Natural Resources FIRM Floodplains and Flood Hazards of Indiana,  
 FEMA NFHL








## LiDAR Map

**US-6 & US-421  
Intersection Improvement Project  
LaPorte County, Indiana  
Des 1702989**

 Study Area



0 600 1,200 2,400 Feet








Service Layer Credits: INDOT  
IGIC, IOT, UITS, IGS, Woolpert

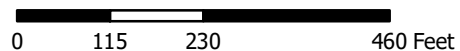




# Wetland Delineation Map

**US-6 & US-421  
Intersection Improvement Project  
LaPorte County, Indiana  
Des 1702989**

- |   |  |
|---|--|
|  Study Area  |  Wetland Data Point |
|  Interstate  |  Upland Data Point  |
|  State Route |  Delineated Wetland |
|  US Route    |  |
|  Local Road  |  |
|  Railroad    |  |



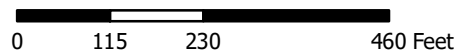
Service Layer Credits: INDOT  
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## Photo Location Map

**US-6 & US-421  
Intersection Improvement Project  
LaPorte County, Indiana  
Des 1702989**

- |             |                    |
|-------------|--------------------|
| Study Area  | Photo Point        |
| Interstate  | Drainage Feature   |
| State Route | Delineated Wetland |
| US Route    |                    |
| Local Road  |                    |
| Railroad    |                    |



Service Layer Credits: INDOT  
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community  
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Photo 1. Looking north from the center of US 421, approximately 0.07 mile north of the US 6 and US 421 intersection.



Photo 2. Looking south from the center of US 421, approximately 0.07 mile north of the US 6 and US 421 intersection.



Photo 3. Looking east toward a drainage pipe that runs underneath US 421, approximately 0.02 mile north of the US 6 and US 421 intersection.



Photo 4. Looking north from the center of US 421, just north of the US 6 and US 421 intersection.



Photo 5. Looking south from the center of US 421, just north of the US 6 and US 421 intersection.



Photo 6. Looking north up US 421 from the southwest corner of the US 6 and US 421 intersection.



Photo 7. Looking west from the southwest corner of the US 6 and US 421 intersection.



Photo 8. Looking west at the land and vegetation surrounding DP-1.



Photo 9. DP-1 soil profile. DP-1 was determined not to be within a wetland.



Photo 10. Looking south from DP-1.



Photo 11. Looking west from the center of CR W. 600 S., approximately 0.03 mile west of the US 6 and US 421 intersection.



Photo 12. Looking west from the center of CR W. 600 S., approximately 0.03 mile west of the US 6 and US 421 intersection.



Photo 13. Looking northeast toward the US 6 and US 421 intersection.



Photo 14. Looking southeast toward US 421 from the southwest corner of the US 6 and US 421 intersection.



Photo 15. Looking north from the center of US 421, toward the US 6 and US 421 intersection.



Photo 16. Looking south from the center of US 421, just south of the US 6 and US 421 intersection.



Photo 17. Looking north from the center of US 421, approximately 0.07 mile south of the US 6 and US 421 intersection.



Photo 18. Looking south from the center of US 421, approximately 0.07 mile south of the US 6 and US 421 intersection.



Photo 19. Looking east from the northbound lane of US 421, just south of the US 6 and US 421 intersection.



Photo 20. Looking west from the center of US 6, approximately 0.03 mile east of the US 6 and US 421 intersection.





Photo 21. Looking east from the center of US 6, approximately 0.03 mile east of the US 6 and US 421 intersection.



Photo 22. Looking northeast toward the southern edge of Wetland A located in the northeast corner of the US 6 and US 421 intersection.



Photo 23. Looking northwest toward the southern edge of Wetland A.



Photo 24. DP-2 soil profile. DP-2 was determined to be within a wetland.



Photo 25. DP-3 soil profile. DP-3 was determined not to be within a wetland.



Photo 26. Looking southeast toward US 6, from the northeast corner of the US 6 and US 421 intersection.



Photo 27. Looking southwest toward the US 6 and US 421 intersection.



Photo 28. Looking southeast from the western side of Wetland A.



Photo 29. Looking southeast from the northern edge of Wetland A.



Photo 30. Looking south from the eastern side of Wetland A.



Photo 31. Looking northwest from the western side of Wetland A.



Photo 32. Looking southwest from the western side of Wetland A.

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: US 6 & US 421 Intersection City/County: Westville/ LaPorte County Sampling Date: 5/20/2020  
 Applicant/Owner: INDOT State: IN Sampling Point: DP-2  
 Investigator(s): Harlan Ford & Raquel Walker Section, Township, Range: S-32 & 33, T-36-N, R-4-W / S-4 & 5, T-35-N, R- 4- W  
 Landform (hillside, terrace, etc.): footslope Local relief (concave, convex, none): Concave Slope (%): 0  
 Subregion (LRR or MLRA): LRR L Lat: 41.518585° Long: -86.893650° Datum: NAD 83  
 Soil Map Unit Name: Elston Loam (EsA) NWI classification: Yes

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If no, explain in Remarks.)  
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
--	--

<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>2</u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>16</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>18</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
---	---

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

Remarks:

**VEGETATION** – Use scientific names of plants.

Sampling Point: DP-2

<u>Tree Stratum</u> (Plot size: <u>30 ft.</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	_____ =Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15 ft.</u> )			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	_____ =Total Cover		
<u>Herb Stratum</u> (Plot size: <u>5 ft.</u> )			
1. <u>Typha latifolia</u>	<u>50</u>	<u>Yes</u>	<u>OBL</u>
2. <u>Phragmites australis</u>	<u>50</u>	<u>Yes</u>	<u>FACW</u>
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
	<u>100</u> =Total Cover		
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft.</u> )			
1. _____			
2. _____			
3. _____			
4. _____			
	_____ =Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

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

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>50</u>	x 1 = <u>50</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>150</u> (B)
Prevalence Index = B/A = <u>1.50</u>	

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?**      Yes       No   

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: DP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/1	100						
3-18	10YR 3/2	95	10YR 5/6	5	C	PL	Mucky Loam/Clay	Prominent redox concentrations

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- High Chroma Sands (S11) (LRR K, L)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR K, L)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

**Remarks:**

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. ([http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_051293.docx](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx))

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: US 6 & US 421 Intersection City/County: Westville/ LaPorte County Sampling Date: 5/20/2020  
 Applicant/Owner: INDOT State: IN Sampling Point: DP-1  
 Investigator(s): Harlan Ford & Raquel Walker Section, Township, Range: S-32 & 33, T-36-N, R-4-W / S-4 & 5, T-35-N, R- 4- W  
 Landform (hillside, terrace, etc.): flat Local relief (concave, convex, none): None Slope (%): 0  
 Subregion (LRR or MLRA): LRR L Lat: 41.518563 Long: -86.894552 Datum: NAD 83  
 Soil Map Unit Name: Elston Loam (EsA) NWI classification: No

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  No, Soil  No, or Hydrology  No significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  No, Soil  No, or Hydrology  No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) This data point was taken due to the presence of standing water and sparse vegetation.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
--	---

<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0.5</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

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

Remarks:

**VEGETATION** – Use scientific names of plants.

Sampling Point: DP-1

<u>Tree Stratum</u> (Plot size: <u>30 ft.</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	=Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15 ft.</u> )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	=Total Cover		
<u>Herb Stratum</u> (Plot size: <u>5 ft.</u> )			
1. <u>Setaria viridis</u>	30	Yes	UPL
2. <u>Taraxacum officinale</u>	20	Yes	FACU
3. <u>Cirsium arvense</u>	20	Yes	FACU
4. <u>Ambrosia artemisiifolia</u>	5	No	FACU
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	75 =Total Cover		
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft.</u> )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	=Total Cover		

**Dominance Test worksheet:**

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

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

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

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>45</u>	x 4 = <u>180</u>
UPL species <u>30</u>	x 5 = <u>150</u>
Column Totals: <u>75</u> (A)	<u>330</u> (B)
Prevalence Index = B/A = <u>4.40</u>	

**Hydrophytic Vegetation Indicators:**

   1 - Rapid Test for Hydrophytic Vegetation

   2 - Dominance Test is >50%

   3 - Prevalence Index is ≤3.0<sup>1</sup>

   4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

   Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?**      Yes         No   X  

Remarks: (Include photo numbers here or on a separate sheet.)



**SOIL**

Sampling Point: DP-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 3/1	100					Loamy/Clayey	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- High Chroma Sands (S11) (LRR K, L)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR K, L)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**      Yes \_\_\_\_\_ No X

Remarks:  
 This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. ([http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_051293.docx](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx))

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: US 6 & US 421 Intersection City/County: Westville/ LaPorte County Sampling Date: 5/20/2020  
 Applicant/Owner: INDOT State: IN Sampling Point: DP-3  
 Investigator(s): Harlan Ford & Raquel Walker Section, Township, Range: S-32 & 33, T-36-N, R-4-W / S-4 & 5, T-35-N, R- 4- W  
 Landform (hillside, terrace, etc.): footslope Local relief (concave, convex, none): None Slope (%): 0  
 Subregion (LRR or MLRA): LRR L Lat: 41.518574 Long: -86.893824 Datum: NAD 83  
 Soil Map Unit Name: Elston Loam (EsA) NWI classification: No

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  No , Soil  No , or Hydrology  No  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  No , Soil  No , or Hydrology  No  naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
--	--

<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
--	---

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

Remarks:

**VEGETATION** – Use scientific names of plants.

Sampling Point: DP-3

<u>Tree Stratum</u> (Plot size: <u>30 ft.</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	_____ =Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15 ft.</u> )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	_____ =Total Cover		
<u>Herb Stratum</u> (Plot size: <u>5 ft.</u> )			
1. <u>Schedonorus arundinaceus</u>	<u>50</u>	<u>Yes</u>	<u>FACU</u>
2. <u>Poa annua</u>	<u>50</u>	<u>Yes</u>	<u>FACU</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	<u>100</u> =Total Cover		
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft.</u> )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	_____ =Total Cover		

**Dominance Test worksheet:**

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

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

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

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>100</u>	x 4 = <u>400</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>400</u> (B)
Prevalence Index = B/A = <u>4.00</u>	

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?**      Yes         No   X  

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: DP-3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 3/1	100					Loamy/Clayey	No redox features.

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.     <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> )	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR K, L, MLRA 149B</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> <b>MLRA 149B</b>	<input type="checkbox"/> Coast Prairie Redox (A16) ( <b>LRR K, L, R</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B</b> )	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) ( <b>LRR K, L, R</b> )
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> High Chroma Sands (S11) ( <b>LRR K, L</b> )	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR K, L</b> )
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR K, L</b> )
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR K, L, R</b> )
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 149B</b> )
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Mesic Spodic (TA6) ( <b>MLRA 144A, 145, 149B</b> )
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Marl (F10) ( <b>LRR K, L</b> )	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Dark Surface (S7)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b>	
Type: _____	
Depth (inches): _____	
<b>Hydric Soil Present?</b>	Yes _____ No <u>X</u>

Remarks:  
 This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. ([http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_051293.docx](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx))

**Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM**

**BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR PJD:** December 20, 2020

**B. NAME AND ADDRESS OF PERSON REQUESTING PJD:** Raquel Walker, GAI Consultants, 9921 DuPont Circle Drive West, Suite 100, Fort Wayne, Indiana 46825

**C. DISTRICT OFFICE, FILE NAME, AND NUMBER:**

**D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:** Des. No. 1702989 - US 6/US 421 Intersection Improvement Project  
**(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)**

State: Indiana County/parish/borough: LaPorte City: Westville

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

Lat.: 41.518425° Long.: -86.894137°

Universal Transverse Mercator: NAD83

Name of nearest waterbody:

**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	41.5518722 °	-86.893778 °	0.26 ac.	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:

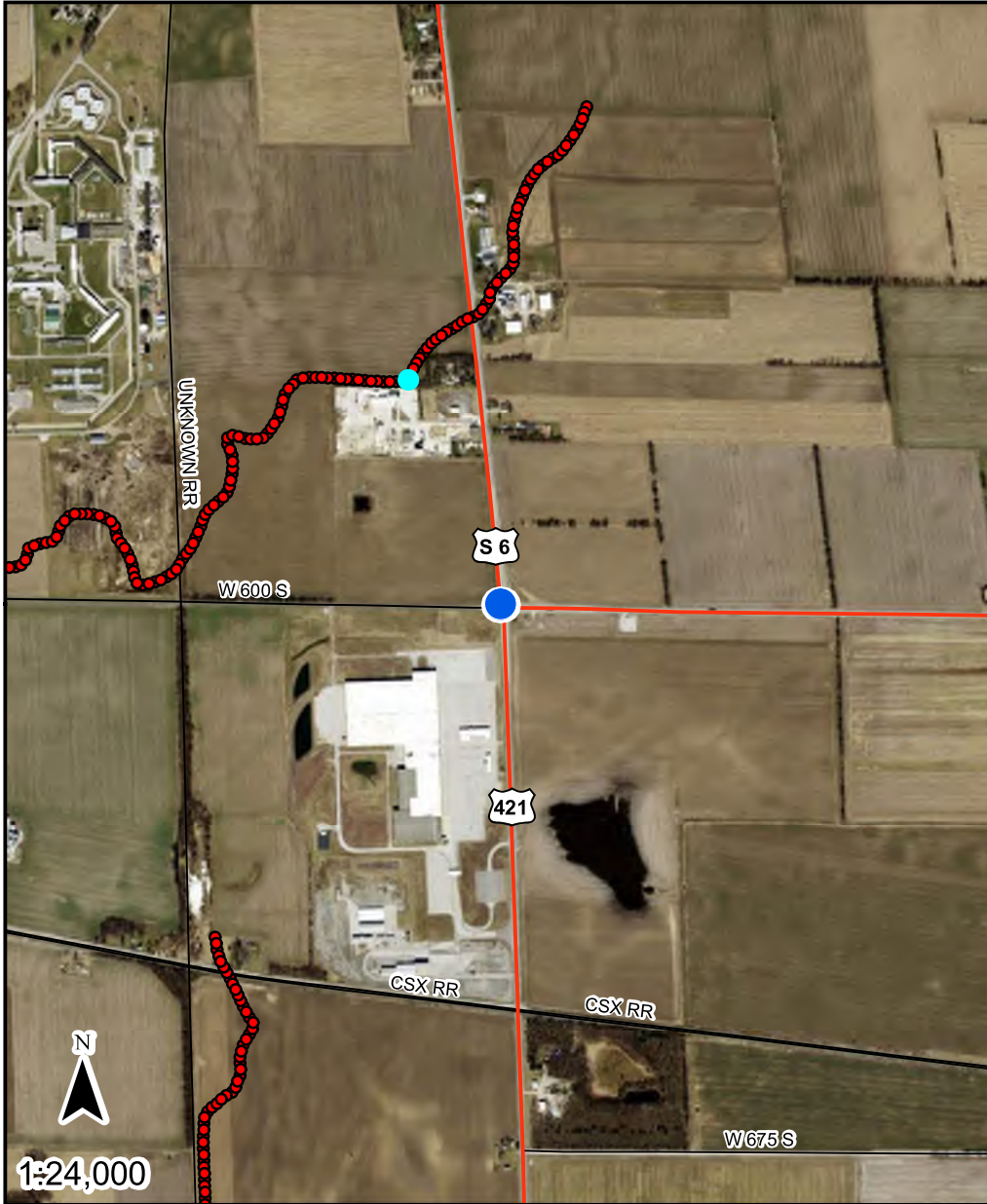
- Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:  
Map: Delineation Report Dated December 1, 2020
- Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - Office concurs with data sheets/delineation report.
  - Office does not concur with data sheets/delineation 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: Westville Indiana 7.5 Minute Series
- Natural Resources Conservation Service Soil Survey. Citation: USDA NRCS Soil Survey Geographic (SSURGO) Database for LaPorte County, Indiana \_\_\_\_\_
- National wetlands inventory map(s). Cite name: NWI accessed 2020
- State/local wetland inventory map(s): \_\_\_\_\_
- FEMA/FIRM maps: 18091C0245D
- 100-year Floodplain Elevation is: \_\_\_\_\_.(National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date): ESRI World Imagery 2014  
or  Other (Name & Date): Delineation Report Dated December 1, 2020 (Photos May 20, 2020)
- 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

*Rachel Walker*  
\_\_\_\_\_  
Signature and date of  
person requesting PJD  
(REQUIRED, unless obtaining  
the signature is impracticable)<sup>1</sup>

<sup>1</sup> 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.



- Point of Interest
- Base Flood Elevation Point
- Flood Elevation Points**
- JURISDICTIONAL UNSTUDIED STREAM
- Rivers and Streams at least 1 square mile**
- Drainage Area (sq. miles)**
- 1 - 10

Point of Interest Coordinates (WGS84)  
 Long: **-86.8942530228**  
 Lat: **41.5185146212**

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

County: <b>Laporte</b>	Approximate Ground Elevation: <b>793.3 feet (NAVD88)</b>
Stream Name: <b>Unnamed Tributary</b>	Base Flood Elevation: <b>Not Available</b>
	Drainage Area: <b>Not available</b>

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: **Town Of Westville, City proper**  
 Phone: **No Phone Number Available**  
 Email: **No Email Address Available**

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



# Appendix G

## Public Involvement

Item	Appendix Page
Example NOS letter	G1
Legal Notice of Public Hearing	G2 to G3
Recipients List	G4
Legal Publication and Affidavit	G5 to G18
Hearing Presentation	G19 to G47
Summary of Comments and Responses from Certified Public Hearing	G48 to G63



GAI Indiana offices located in:  
Fishers, Fort Wayne, Indianapolis, and Vevay

October 25, 2019

GAI Project No. D190007.00

## SAMPLE NOTICE OF ENTRY

**US 421 / US 6 Roundabout  
Intersection Improvement Project  
Laporte County, Indiana**

### **Notice of Entry for Survey Beginning October 29, 2019**

Dear Owner or Current Occupant:

Our information indicates that you own or occupy property(ies) near the above proposed transportation project. As representatives of the City of Indianapolis, Department of Public Works, GAI Consultants, Inc., or other consultants, will be conducting field and environmental surveys in the future. It may be necessary for them to enter onto your property to complete this work. This is permitted under Indiana Code § 8-23-7-26. Anyone performing this type of work has been instructed to identify himself or herself to you, if you are available, before they enter your property. If you no longer own this property or it is currently occupied by someone else, please provide us the name of the new owner or occupant and their contact information so we can contact them regarding the survey.

The field survey(s) may include but is/are not limited to topographic survey including the mapping of locations of features such as trees, buildings, fences and drives, and obtaining ground elevations and geotechnical investigation. The environmental survey(s) may include but is/are not limited to archaeological investigations (which may involve the survey, testing, or excavation of identified archaeological sites), identification and mapping of wetlands and waterways, taking photographs of the area (which may include infrastructure, roads, residential properties, and commercial properties), a historical review of the properties within the vicinity of the proposed project area, evaluation of land use for completion of environmental documentation and various other environmental studies. The information we obtain from such surveys and studies is necessary for the proper planning and design of this project.

It is our sincere desire to cause you as little inconvenience as possible during these surveys. If problems arise, please contact me at [r.webb@gaiconsultants.com](mailto:r.webb@gaiconsultants.com) or 317.436.9143. Please keep in mind that **no specific information regarding this project is available at this time**. Thank you in advance for your cooperation.

Sincerely,

**GAI Consultants, Inc.**

A handwritten signature in blue ink that reads "Ron Webb".

Ron Webb, PE  
Project Manager



## LEGAL NOTICE OF PUBLIC HEARING

### Proposed Improvement US 6 & US 421 in LaPorte County

**The Indiana Department of Transportation (INDOT) will host a public hearing on February 15, 2023 Open house to begin at 5:00 PM CST with hearing to follow at 6:00 PM CST at the Westville Middle/Senior High School, 207 E. Valparaiso St., Westville, IN 46391.** The purpose of the public hearing is to offer all interested persons an opportunity to comment on current preliminary design plans for US 6 & US 421 in LaPorte County. The purpose of the project is to provide safer travel for motorists at the US 6 and US 421 intersection by reducing the number of crashes associated with westbound vehicles running the stop sign or failing to yield once stopped. The need for this project stems from the high number of crashes at US 6 and US 421 resulting from westbound traffic running the stop sign or failing to yield once stopped. Crash data provided by the LaPorte District for the three-year analysis period from January 2014 to September 2016 documents 16 crashes involving 32 vehicles within the project limits. This data indicates that the Intersection Crash Rate is 1.715 crashes per million vehicles per year. This crash rate is at INDOT's safety threshold.

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<u>Name</u>	<u>Organization</u>	<u>Attn:</u>	<u>Mailing Address</u>	<u>Mailing City</u>
Richard O. Krumbacher Life Estate Trust 1/2 Etal.			P.O. Box 146	Harbert, MI 49115
Patricia A. Kresel & Aaron Patrick, JTWROS			P.O. Box 585	Westville, IN 46391
Roy H. Kresel Corporation			7548 W US Highway 6	Westville, IN 46391
Robert W. and Lavonn L. Meyers			4744 S Wozniak Road	Laporte, IN 46350
NP Westville Industrial, LLC			4825 NW 41st Street, Suite 500	Riverside, MO 64150
Field Supervisor	U.S. Fish and Wildlife Service	Northern Indiana Suboffice	P.O. Box 2016	Chesterton, IN 46304
State Conservationist	Natural Resources Conservation Service		6013 Lakeside Boulevard	Indianapolis, IN 46278
Section Head	Indiana Geological Survey	Environmental Geology	611 N Walnut Grove, Ste. S103	Bloomington, IN 47405
Chief Airport Inspector	Indiana Department of Transportation	Aviation Division	100 North Senate Avenue	Indianapolis, IN 46204
Regional Environmental Coordinator	National Park Service	Midwest Regional Office	601 Riverfront Drive	Omaha, NE 68102
Environmental Coordinator	IN Dept. of Natural Resources	Division of Water, Fish & Wildlife Unit	402 West Washington Street	Indianapolis, IN 46204
Planning & Environmental Specialist	Federal Highway Administration	Indiana Division	575 North Pennsylvania Street	Indianapolis, IN 46204
Field Environmental Officer	U.S. Dept. of Housing & Urban Development	Chicago Regional Office, Metcalf Fed. Bldg.	77 West Jackson Boulevard	Chicago, IL 60604
Environmental Section Manager	Indiana Department of Transportation	LaPorte District	315 E. Boyd Boulevard	LaPorte, IN 46350
Public Involvement Manager	Indiana Department of Transportation	Office of Public Involvement	100 N. Senate Avenue	Indianapolis, IN 46204
Environmental Analysis Branch	Department of the Army	Corps of Engineers, Detroit District	231 S. LaSalle Street	Chicago, IL 60604
Commissioner	IN Dept. of Environmental Management	Office of Planning and Assessment	100 North Senate Avenue	Indianapolis, IN 46204
Michael Grylewicz, Project Manager	Indiana Department of Transportation	LaPorte District	315 E. Boyd Boulevard	LaPorte, IN 46350
Superintendent	LaPorte County Highway Department		1805 W 5th Street	LaPorte, IN 46350
LaPorte County Surveyor	LaPorte County Government		555 Michigan Avenue	LaPorte, IN 46350
Executive Director	Northwestern Indiana Regional Planning Commission		3100 Southport Road	LaPorte, IN 46350
MS4 Coordinator	LaPorte County Government		2857 W SR 2	LaPorte, IN 46350
Floodplain Administrator	LaPorte County Government		809 State Street	LaPorte, IN 46350

# DES.#1702989 LEGAL NOTICE OF PUBLIC HEARING

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## Details for DES.#1702989 LEGAL NOTICE OF PUBLIC HEARING

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### DES.#1702989

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## **LEGAL NOTICE OF PUBLIC HEARING PROPOSED IMPROVEMENT US 6 LEGAL NOTICE OF PUBLIC HEARING**

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DES. # 1702989

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July 7, 2021

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Appeared in: **The Times** on 02/02/2023 and 02/03/2023



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AFFP

DES 1702989 Imp US 6 & 421

# Affidavit of Publication

STATE OF IN }  
COUNTY OF LA PORTE } SS

DES.#1702989

LEGAL NOTICE OF PUBLIC HEARING  
Proposed Improvement US 6 & US 421 in LaPorte County

Isis Cains, being duly sworn, says:

That she is Legal Clerk of the La Porte County Herald Dispatch, a daily newspaper of general circulation, printed and published in Michigan City, La Porte County, IN; that the publication, a copy of which is attached hereto, was published in the said newspaper on the following dates:

February 02, 2023  
February 09, 2023

Publication Fees: \$ 182.07

That said newspaper was regularly issued and circulated on those dates

SIGNED:

Subscribed to and sworn to me this 9th day of February 2023.

Hope R Stevens, Notary Public 06/07/2024



00014447 70577581

Kim Mendez  
GAI Consultants  
201 N Illinois Street, Suite 1700  
Indianapolis, IN 46204

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\*\*\* Proof of Publication \*\*\*

State of Indiana )  
                          ) ss:  
Lake County )

Personally appeared before me, a notary public in and for said county and state, the undersigned Nicole Muscari who, being duly sworn, says that She/he is Legal Clerk of the Northwest Indiana Times newspaper of general circulation printed and published in the English language in the Town of Munster in state and county afore-said, and that the printed matter attached hereto is a true copy, which was duly published in said paper for 2 time(s), the date(s) of publication being as follows:

Feb 2 + 9, 2023

GAI Consultants / LEGALS  
Jarrod M. Armstrong, MS  
9921 DUPONT CIRCLE DRIVE WEST. SUITE 100  
FORT WAYNE IN 46825

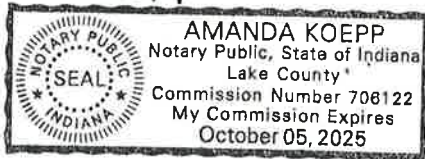
ORDER NUMBER 110547

The undersigned further states that the Northwest Indiana Times newspaper maintains an Internet website, which is located at www.nwi.com website and that a copy of the above referenced printed matter was posted on such website on the date(s) of publication set forth above.

\_\_\_\_\_  
Nicole Muscari, Legal Clerk  
By: [Signature]

Subscribed and sworn to before me this 9 day of Feb, 2023

[Signature]  
Notary Public



My commission expires:

Section: Legals  
Category: 198 Legal - Lake County

PUBLISHED ON: 02/02/2023, 02/09/2023

TOTAL AD COST: 152.36  
FILED ON: 2/9/2023

# \*\*\* Proof of Publication \*\*\*

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July 7, 2021

2/2,2/9 -

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GAI Consultants  
(Governmental Unit)

To: The Times Media Company

Lake County, Indiana

601-45th Avenue, Munster, IN 46321

PUBLISHER'S CLAIM

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Display Master (Must not exceed two actual lines, neither of which shall total more than four solid lines of the type in which the body of the advertisement is set) -- number of equivalent lines

Head -- number of lines

Body -- number of lines

Tail -- number of lines

Total number of lines in notice

COMPUTATION OF CHARGES

903 lines, ..... columns wide equals 903 equivalent lines at .7543 cents per line

- 1 Line

Additional charges for notices containing rule or tabular work (50 per cent of above amount)

Charge for extra proofs of publication (\$1.00 for each proof in excess of two)

TOTAL AMOUNT OF CLAIM

\$ 152.36  
\$ 152.36

DATA FOR COMPUTING COST

Width of single column in picas 9p4  
Number of insertions 2

Size of type 7.0 point.

110547

Pursuant to the provisions and penalties of IC 5-11-10-1, I hereby certify that the foregoing account is just and correct, that the amount claimed is legally due, after allowing all just credits, and that no part of the same has been paid.

I also certify that the printed matter attached hereto is a true copy, of the same column width and type size, which was duly published in said paper (2) times. The dates of publication being as follows:

Feb 2 & 9, 2023

Additionally, the statement checked below is true and correct:

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..... Newspaper has a Web site but refuses to post the public notice.

Date Feb 10 2023

Nicole L. Muscari  
Title: Legal Clerk

By:

*Nicole L. Muscari*  
*AC Muscari*

\*\*\* Proof of Publication \*\*\*

State of Indiana )  
                          ) ss:  
Lake County )

Personally appeared before me, a notary public in and for said county and state, the undersigned Nicole Muscari who, being duly sworn, says that She/he is Legal Clerk of the Northwest Indiana Times newspaper of general circulation printed and published in the English language in the Town of Munster in state and county afore-said, and that the printed matter attached hereto is a true copy, which was duly published in said paper for 2 time(s), the date(s) of publication being as follows:  
Feb 24, 2023

GAI Consultants / LEGALS  
Jarrod M. Armstrong, MS  
9921 DUPONT CIRCLE DRIVE WEST. SUITE 100  
FORT WAYNE IN 46825

ORDER NUMBER 110547

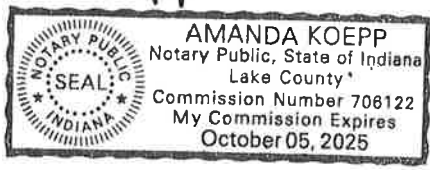
The undersigned further states that the Northwest Indiana Times newspaper maintains an Internet website, which is located at www.nwi.com website and that a copy of the above referenced printed matter was posted on such website on the date(s) of publication set forth above.

Nicole Muscari, Legal Clerk  
By: [Signature]

Subscribed and sworn to before me this 9 day of Feb, 2023

[Signature]  
Notary Public

My commission expires:



Section: Legals  
Category: 198 Legal - Lake County  
PUBLISHED ON: 02/02/2023, 02/09/2023

TOTAL AD COST: 152.36  
FILED ON: 2/9/2023



# \*\*\* Proof of Publication \*\*\*

## LEGAL NOTICE OF PUBLIC HEARING

### Proposed Improvement US 6 & US 421 in LaPorte County

DES. # 1702989

The Indiana Department of Transportation (INDOT) will host a public hearing on February 15, 2023 Open house to begin at 5:00 PM CST with hearing to follow at 6:00 PM CST at the Westville Middle/Senior High School, 207 E. Valparaiso St., Westville, IN 46391. The purpose of the public hearing is to offer all interested persons an opportunity to comment on current preliminary design plans for US 6 & US 421 in LaPorte County. The purpose of the project is to provide safer travel for motorists at the US 6 and US 421 intersection by reducing the number of crashes associated with westbound vehicles running the stop sign or failing to yield once stopped. The need for this project stems from the high number of crashes at US 6 and US 421 resulting from westbound traffic running the stop sign or failing to yield once stopped. Crash data provided by the LaPorte District for the three-year analysis period from January 2014 to September 2016 documents 16 crashes involving 32 vehicles within the project limits. This data indicates that the Intersection Crash Rate is 1.715 crashes per million vehicles per year. This crash rate is at INDOT's safety threshold.

As proposed, the project involves constructing a single-lane roundabout to reduce the number of crashes, as right-angle type crashes would be eliminated. The roundabout would have single-lane entries, exits, and a circulatory roadway. This project would include:

- Installing splitter islands to extend with the center curb on all but the west approach
- Adding a chicane to the east approach alignment
- Installing new lighting and reusing or replacing existing lighting
- Adding curbing for speed control
- Replace and install stormwater pipes beneath the roadway pavement

The Maintenance of Traffic (MOT) plan for the project involves a road closure using an official detour. The detour route for US 6 will utilize SR 39, US 30, and SR 49. This detour would add approximately 13.4 miles and 0.25 hours of added travel for motorists. The detour route for US 421

will utilize US 30, SR 49, and SR 2. This detour would add approximately 10.4 miles and 0.25 hours of added travel for motorists. The detours are anticipated to be in place for approximately four months. All adjacent properties will have access through the detoured route. MOT details will be presented during the public hearing. Access to all properties will be maintained during construction. INDOT will coordinate with emergency services, local school corporation officials, and project stakeholders to ensure potential disruptions and impacts are minimized as much as possible. The project will require approximately 0.053 acre of permanent new right-of-way.

Federal and state funds are proposed to be used to construct this project, \$2,500,000 in fiscal year 2024 funds. INDOT and the Federal Highway Administration have agreed that this project poses minimal impact on the natural environment. Therefore, a Categorical Exclusion (CE) level one environmental document has been prepared for the project. The environmental documentation and preliminary design information is available to view prior to the

# \*\*\* Proof of Publication \*\*\*

available to view prior at the following locations:

1. Westville Public Library, 153 Main St. Westville, IN 46391
2. INDOT LaPorte District Office 315 E. Boyd Blvd; LaPorte, IN 46350; Toll Free: 855-INDOT4U (463-6848)
3. INDOT: Welcome to the LaPorte District

Emergency Situation Guidance: During emergency situations, public viewing locations may be limited or prohibited as part of the Notice of Planned Improvement. Project documents may only be available online during emergency situations. The notice must offer the public the opportunity to request project documents be mailed. INDOT and/or the project sponsor will mail project documents upon request.

A project webpage will be created prior to the public hearing to ensure project information is available on-line via the INDOT LaPorte District page (INDOT: Welcome to the LaPorte District).

Public statements for the record will be taken as part of the public hearing procedure. All verbal statements recorded during the public hearing and all written comments submitted prior to, during and for a period of two (2) weeks following the hearing date, will be evaluated, considered and

addressed in subsequent environmental documentation. Written comments may be submitted prior to the public hearing and within the comment period to GAI Consultants, 9998 Crosspoint Blvd., Suite 110, Indianapolis, IN 46256. E-Mail: k.mcmullen@gaiconsultants.com  
INDOT respectfully requests comments be submitted by March 02, 2023.

With advance notice, INDOT will provide accommodations for persons with disabilities with regards to participation and access to project information as part of the hearings process including arranging auxiliary aids, interpretation services for the hearing impaired, services for the sight impaired and other services as needed. In addition, INDOT will provide accommodations for persons of Limited English Proficiency (LEP) requiring auxiliary aids including language interpretation services and document conversion. Should an accommodation be required please contact Amy Stanley, INDOT LaPorte District, astanley@indot.in.gov 219-325-7475.

## WINTER WEATHER NOTICE

In the event of inclement weather resulting in hazardous driving conditions, please call the Indiana Department of Transportation's LaPorte District at (855)464-6368 or INDOT Customer Service at 855-INDOT4U (463-6848) to learn of any postponement of the public hearing. If the public hearing is postponed due to inclement weather, it will be rescheduled and the public comment period would be extended.

This notice is published in compliance with Code of Federal Regulations, Title 23, Section 771 (CFR 771.111(h)(1) states: "Each State must have procedures approved by the FHWA to carry out a public involvement/public hearing program." 23 CFR 450.212(a)(7) states: "Public involvement procedures shall provide for periodic review of the effectiveness of the public involvement process to ensure that the process provides full and open access to all and revision of the process as necessary." approved by the Federal Highway Administration, US Department of Transportation on

July 7, 2021

2/2/29 -

HSPAXLP

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GAI Consultants  
(Governmental Unit)

To: The Times Media Company

Lake County, Indiana

601-45th Avenue, Munster, IN 46321

PUBLISHER'S CLAIM

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Tail -- number of lines .....  
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COMPUTATION OF CHARGES

203 lines, ..... columns wide equals 203 equivalent lines at .7543 - 1 Line  
cents per line ..... \$ 152.3  
Additional charges for notices containing rule or tabular work (50 per cent of above amount) .....  
Charge for extra proofs of publication (\$1.00 for each proof in excess of two) .....  
TOTAL AMOUNT OF CLAIM ..... \$ 152.3

DATA FOR COMPUTING COST

Width of single column in picas 9p4  
Number of insertions 2  
Size of type 7.0 point. 110547

Pursuant to the provisions and penalties of IC 5-11-10-1, I hereby certify that the foregoing account is just and correct, that the amount claimed is legally due, after allowing all just credits, and that no part of the same has been paid.

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Date Feb 10 2023

Nicole L. Muscarì  
Title: Legal Clerk  
By: [Signature]

# Public Hearing for R-43059



**US 6 at US 421 East Junction  
Intersection Improvement  
Near Town of Westville, LaPorte County  
DES 1702989**

**Wednesday, February 15, 2023**

**5:00 pm CST Open House**

**6:00 pm CST Hearing Presentation**

**Westville Middle/Senior High School**



# Public Hearing for R-43059



## Welcome

- Purpose of Hearing
- Hearing format
- Visit Sign-In Table
- Informational Handouts
- How to Participate
- Submitting written comments
- Project display area



# Public Hearing for R-43059



## Introduction of INDOT project team

- Project Management
- Public Involvement
- La Porte District- INDOT Regional Office
- Environmental Services
- Real Estate

## GAI Consultants

- Project Management
- Design
- Environmental Documentation
- Permits

## Recognition of Elected Officials

- Sign-In at attendance table to be added to a project mailing list.
- A Public Hearing notice was mailed to known property owners in the project area.
- An announcement of this hearing was posted to INDOT's website.
- A copy of the presentations and project documentation is available online via INDOT's website.

## Legal Notice publishing – Feb 2<sup>nd</sup> & 9<sup>th</sup>

- Northwest Indiana Times
- Laporte Herald Dispatch



# Public Hearing for R-43059



## Submit Public Comments

- **Submit public comments using the options described in the page of the information packet:**
  - Public Comment Form
  - Via email ([R.Webb@GAIConsultants.com](mailto:R.Webb@GAIConsultants.com) or [mgrylewcz@indot.in.gov](mailto:mgrylewcz@indot.in.gov))
  - Participating during the public comment session via microphone
    - Note that verbal comments will be recorded and transcribed for inclusion into the public hearing transcript.
- **INDOT respectfully requests comments be submitted by (Thursday, March 2, 2023).**
- All comments submitted will become part of the public record, and they will be entered into a transcript, reviewed, evaluated, and given full consideration during the decision-making process.



# Public Hearing for R-43059



## Project Resource Locations

- Westville Public Library, 153 Main St. Westville, IN 46391

## Project website on LaPorte District Page

- <https://www.in.gov/indot/about-indot/central-office/welcome-to-the-laporte-district/us-6-at-us-421-east-junction-intersection-improvement/>

## • Transportation Services Call Center

- Provide citizens and business customers with a single point of contact to request transportation services, obtain information, or provide feedback through multiple channels of communication.



855-463-6848 ● INDOT4U.com ● INDOT@indot.in.gov





# Public Hearing for R-43059



## Project Stakeholders

- Indiana Department of Transportation
- Indiana Division of Federal Highway
- La Porte County
- Town of Westville
- Elected and Local Officials
- Residents and citizens
- Commuters
- Businesses
- Emergency Services
- Schools
- Churches
- Community organizations



# Public Hearing for R-43059



## Project Schedule

- Public Hearing: February 15, 2023
- Public Comments Requested by 5:00 pm CST, March 2, 2023
- INDOT review and consideration of comments (Winter 2023)
  - Finalize environmental document
  - Complete Design
  - Project decision
- Real Estate acquisition phase has been completed
- Utility relocation work in early 2023
- Construction in 2024



# Public Hearing for R-43059



## Environmental Document

### National Environmental Policy Act (NEPA)

- Requires INDOT to analyze and evaluate the impacts of a proposed project to the natural and socio-economic environments

NEPA is a decision-making process

- Purpose and Need
- Alternatives Screening
- Preferred Alternative

NEPA Environmental Documents are divided into categories based on impact level

- Programmatic Categorical Exclusion (PCE) and CE Level 1 – Least impacts
- CE Level 2-4 – Average level of impacts
- Environmental Assessment/Impact Statement – Greatest level of impacts



# Public Hearing for R-43059



## Environmental Document (cont.)

Impacts are analyzed, evaluated and described in an environmental document

- What are the impacts this project might have on the community?
- How can impacts be avoided?
- Can impacts be minimized?
- Mitigation for impacts?

Environmental document released for public involvement

- CE Level 1
- December 2, 2022
- Available for review via public repositories



# Public Hearing for R-43059

## Environmental Document Levels



Categorical Exclusion Level Thresholds

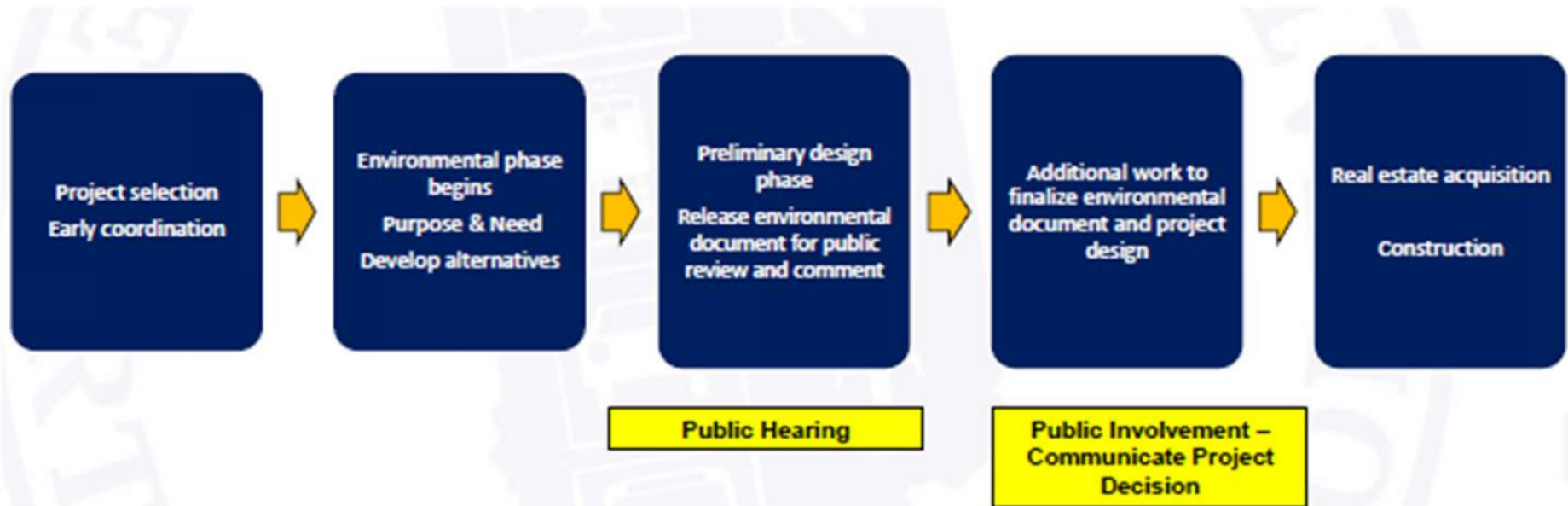
	PCE	Level 1	Level 2	Level 3	Level 4 <sup>1</sup>
Section 106	Falls within guidelines of Minor Projects PA	"No Historic Properties Affected"	"No Adverse Effect"	-	"Adverse Effect" Or Historic Bridge involvement <sup>2</sup>
Stream Impacts <sup>3</sup>	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	USACE Individual 404 Permit <sup>4</sup>
Wetland Impacts <sup>3</sup>	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
Right-of-way <sup>5</sup>	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations <sup>6</sup>	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 <sup>7</sup> )	"Not likely to Adversely Affect" (With any AMMs or commitments)	-	"Likely to Adversely Affect"	Project does not fall under Species Specific Programmatic <sup>8</sup>
Threatened/Endangered Species (Any other species)*	Falls within guidelines of USFWS 2013 Interim Policy or "No Effect"	"Not likely to Adversely Affect"	-	-	"Likely to Adversely Affect"
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential <sup>9</sup>
Sole Source Aquifer	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Section 4(f) Impacts	None	-	-	-	Any <sup>10</sup>
Section 6(f) Impacts	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes <sup>11</sup>
Approval Level					
<ul style="list-style-type: none"> <li>District Env. (DE)</li> <li>Env. Serv. Div. (ESD)</li> <li>FHWA</li> </ul>	Concurrence by DE or ESD	DE or ESD	DE or ESD	DE and/or ESD	DE and/or ESD; and FHWA



# Public Hearing for R-43059



## Project Development

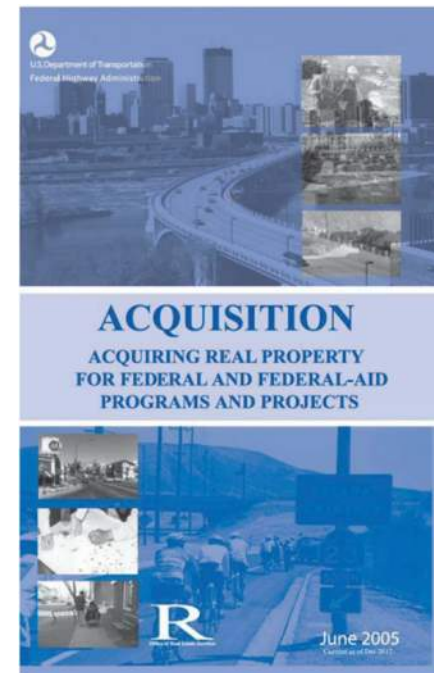


# Public Hearing for R-43059



## Right of Way Acquisition Process

- U.S. Department of Transportation  
Federal Highway Administration  
Publication No. FHWA – HEP-05-030  
“Acquisition – Acquiring Real Property  
for Federal and Federal-Aid Programs  
and Projects”.
- Describes the process to determine  
the fair market value of the land to be  
acquired. Written offers are presented.  
When possession changes hands, etc.



# Public Hearing for R-43059

## Existing Intersection





# Public Hearing for R-43059



## Alternatives for Intersection Improvement

- No Build Alternative would not address the purpose and need of the project.
- Four-Way Stop Control
  - Crash history indicates west bound traffic does not stop for existing stop sign.
  - Double signs, rumble stripes, overhead flasher have all failed to get drivers' attention.
  - All-Way stop control is recommended when all approaches have similar volumes.
- Traffic Signal
  - None of the nine signal warrants were satisfied at this location.
- Roundabout – preferred alternative
  - Crash frequency and severity would be reduced with lower approach speeds.
  - Rear end crashes would be fewer with reduced Queue lengths from improve flow.
- All Other Alternatives
  - Remaining alternatives considered were either infeasible or imprudent.



# Public Hearing for R-43059



## Roundabout – INDOT Preferred Alternative

- One-way circular intersection
- Traffic flows counter-clockwise around a center island
- Yield at entrance to vehicles on the circulating roadway
- No Parking
- No “activity” in center island\*



\*Center island will be used for oversized vehicles



# Public Hearing for R-43059



## Roundabouts Enhance Safety

U.S. DOT Federal Highway Administration Statistics

Traditional intersections account for:

- 45% of all crashes
- 33% of all traffic fatalities

Compared to traditional intersections, roundabouts:

- Reduce fatalities and injuries by 82%
- Reduce total crashes by 44%
- Require vehicles to travel at lower speeds

For more information:

<http://safety.fhwa.dot.gov/intersection/innovative/roundabouts/>

Collisions at traditional intersections are severe because of:

- High speeds
- Angle of impact



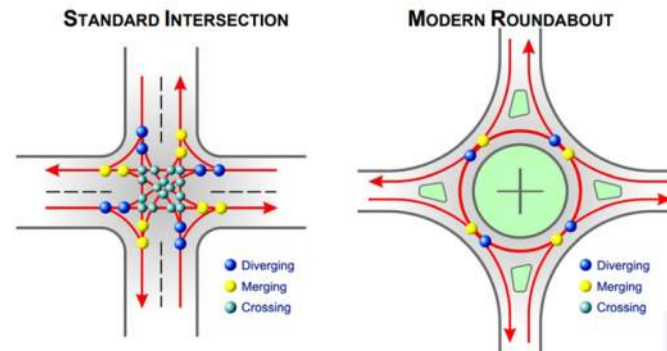
# Public Hearing for R-43059



## Roundabouts Enhance Safety

Conflict points are dramatically reduced because all vehicles travel in the same direction.

- Enhances Safety
  - Roundabouts reduce the number of potential collision points within an intersection.
  - 75% fewer conflict points than a four-way intersections.
- Slower vehicle speeds
  - Reduces the severity of crashes
- Efficient traffic flow
  - Reduces need for turn lanes
  - Improves traffic flow
- Community benefits
  - Reduced congestion
  - Aesthetically pleasing landscaping



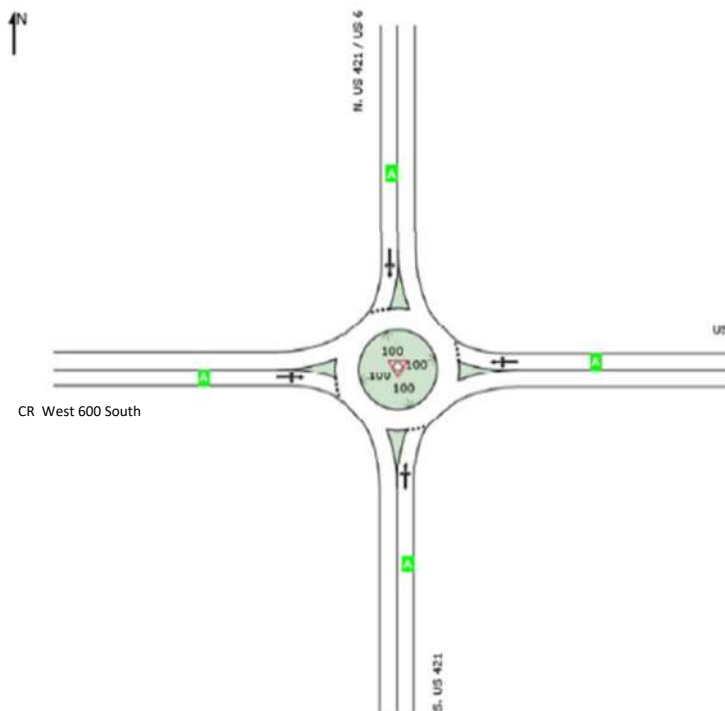
# Public Hearing for R-43059



## Roundabout Operation

- All approaches will operate at a Level of Service A in the design year.
- This is the highest level of operation based on the Highway Capacity Manual analysis for roundabouts.
- It represents a less than 10 second per vehicle average delay when entering the intersection.

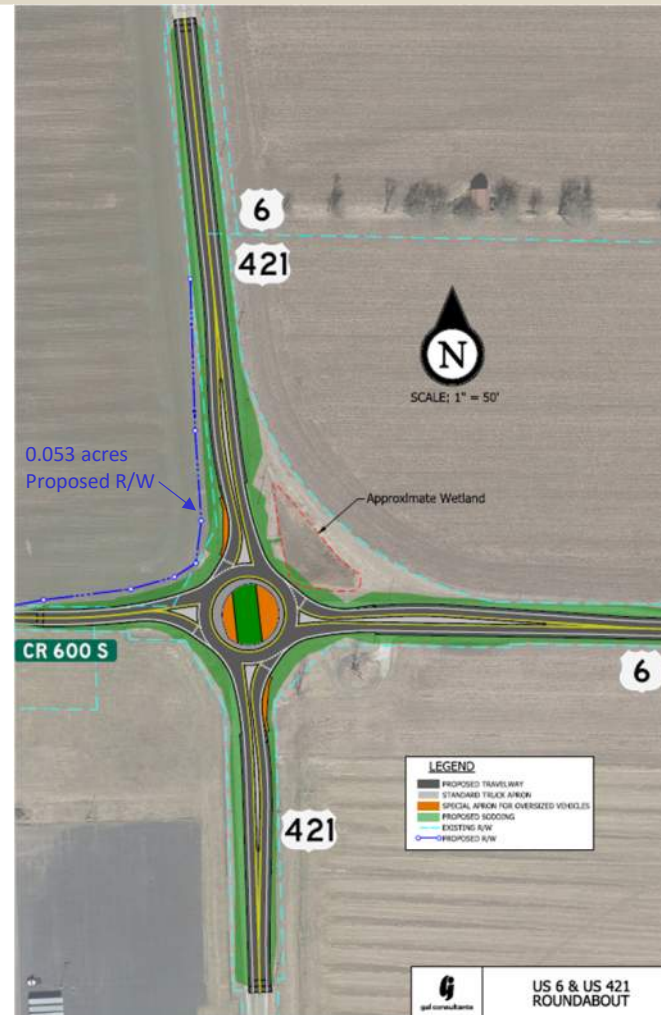
	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	A	A



# Public Hearing for R-43059

## Proposed Roundabout Layout

- Requires 0.053 acres of Right of Way
- Reuses some lighting, new lights are added
- Orange areas are oversized vehicle apron
- Minor impact to wetland in NE corner
- Cost Estimate is \$2.5 million



# Public Hearing for R-43059



## Central Island Appearance and Maintenance

- Proposed to use Geocell reinforcement under turf for Oversized Vehicle Apron in island and outside curblines.
- Would have grass that would be mowed.



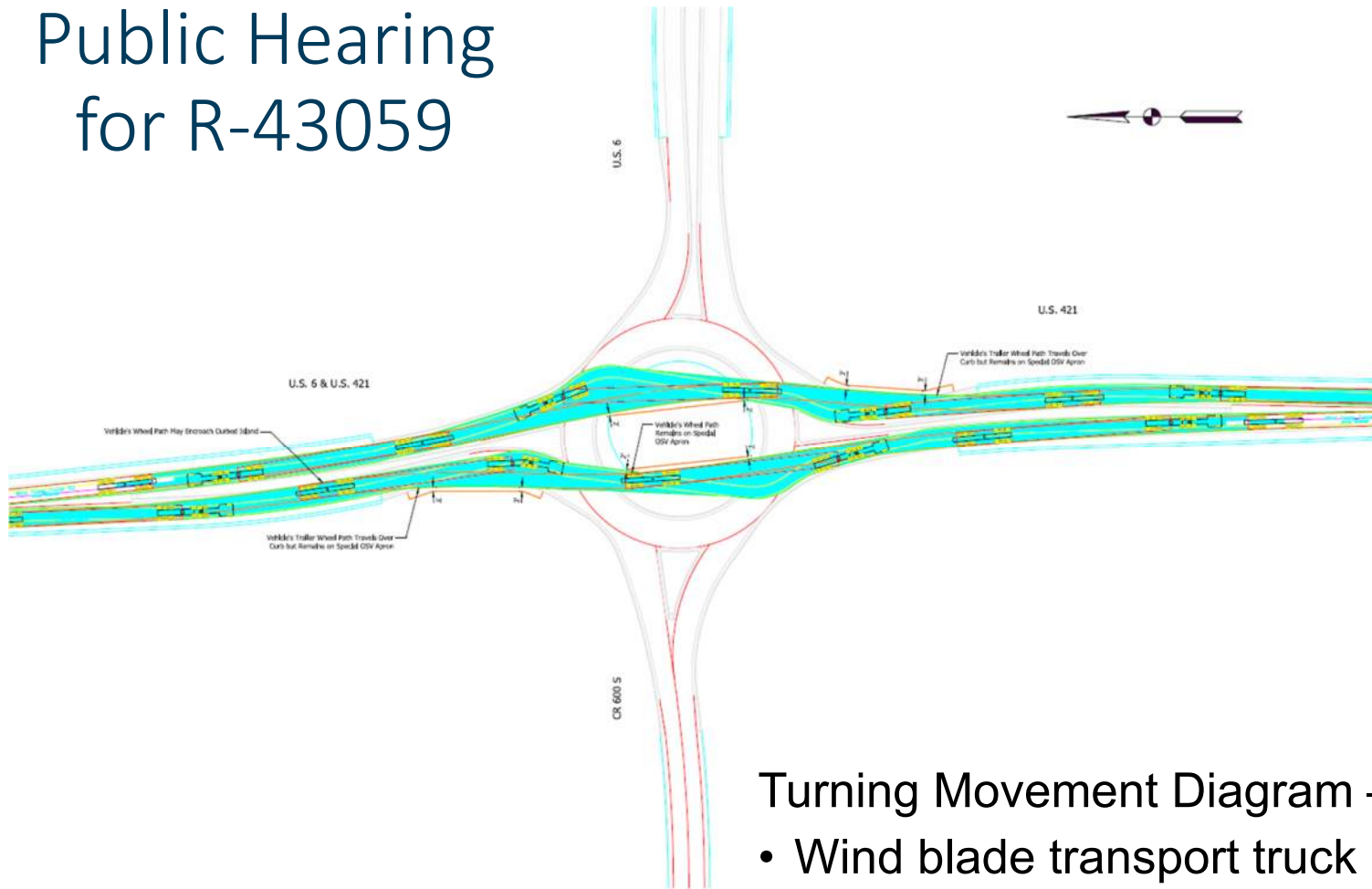
Greendale, WI



Westfield, IN



# Public Hearing for R-43059



Turning Movement Diagram –  
• Wind blade transport truck





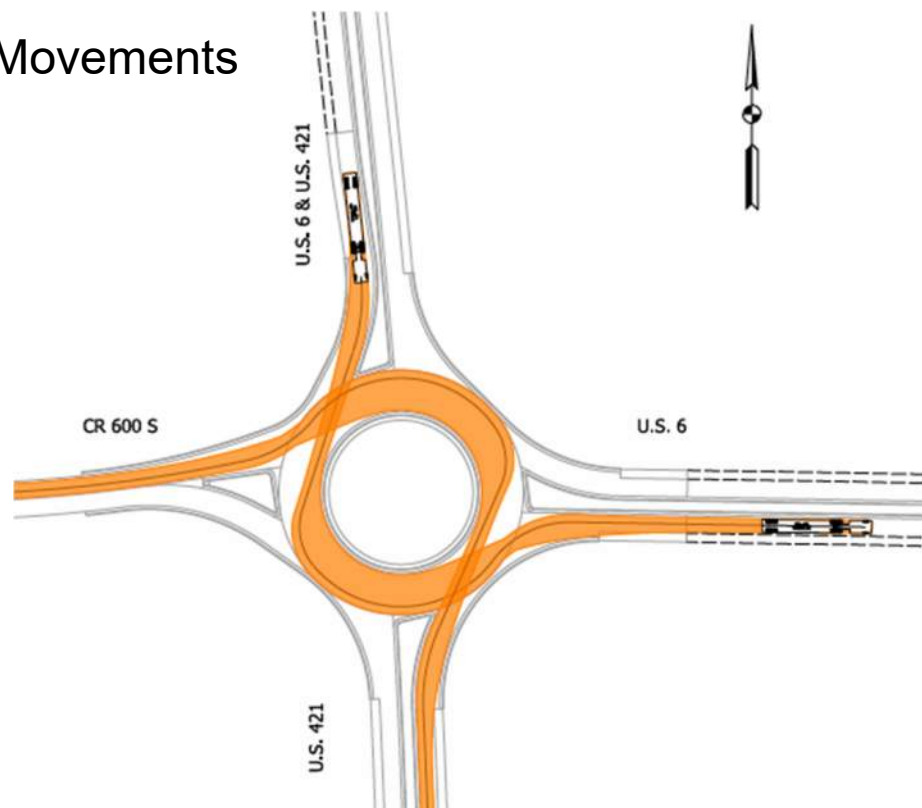
# Public Hearing for R-43059



## Design Vehicle Turning Movements

Indiana Design Vehicle WB-65 turning from:

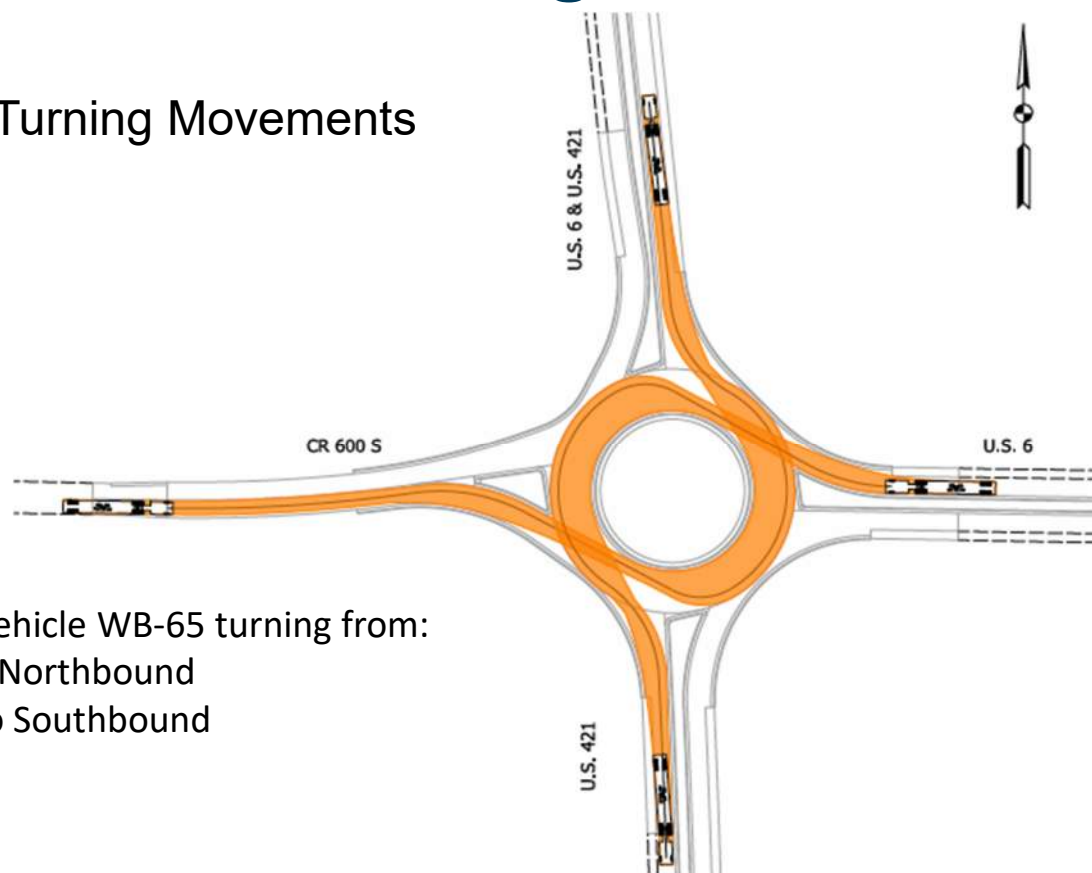
- Southbound to Eastbound
- Northbound to Westbound



# Public Hearing for R-43059



## Design Vehicle Turning Movements

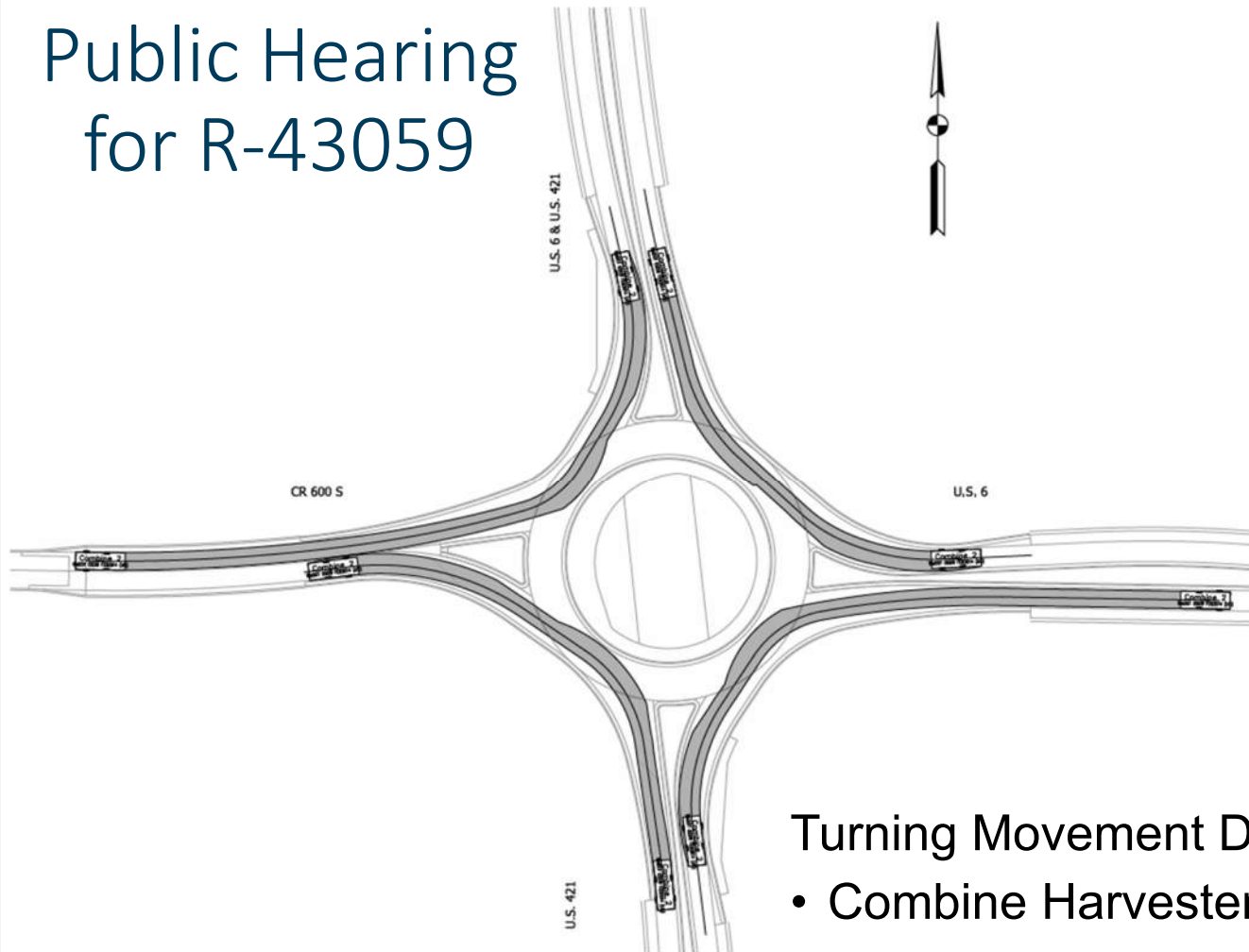


Indiana Design Vehicle WB-65 turning from:

- Eastbound to Northbound
- Westbound to Southbound



# Public Hearing for R-43059



Turning Movement Diagram –  
• Combine Harvester



# Public Hearing for R-43059



## Full Closure vs Construction under Traffic

- Phase Construction under traffic
  - It will require temporary pavement, temporary markings and signs that add to the construction costs of the project.
  - It takes more time to complete the project and fully open it to traffic. Estimate is that 180 days would be required to phase construct the intersection.
  - Short term closures of CR 600 South and US 6 east leg would still be required and still require a posted detour.
  - If the pavement is replaced with concrete, joints will be more frequent and partial width pavement joints require more maintenance.
- Construction with Full Closure
  - Requires all traffic to follow posted detours adding distance to trips
  - Full closure is estimated to require 120 days with some additional days to fully open to traffic.
- Either option will detour any wide loads during construction.



# Public Hearing for R-43059



## Maintenance of Traffic

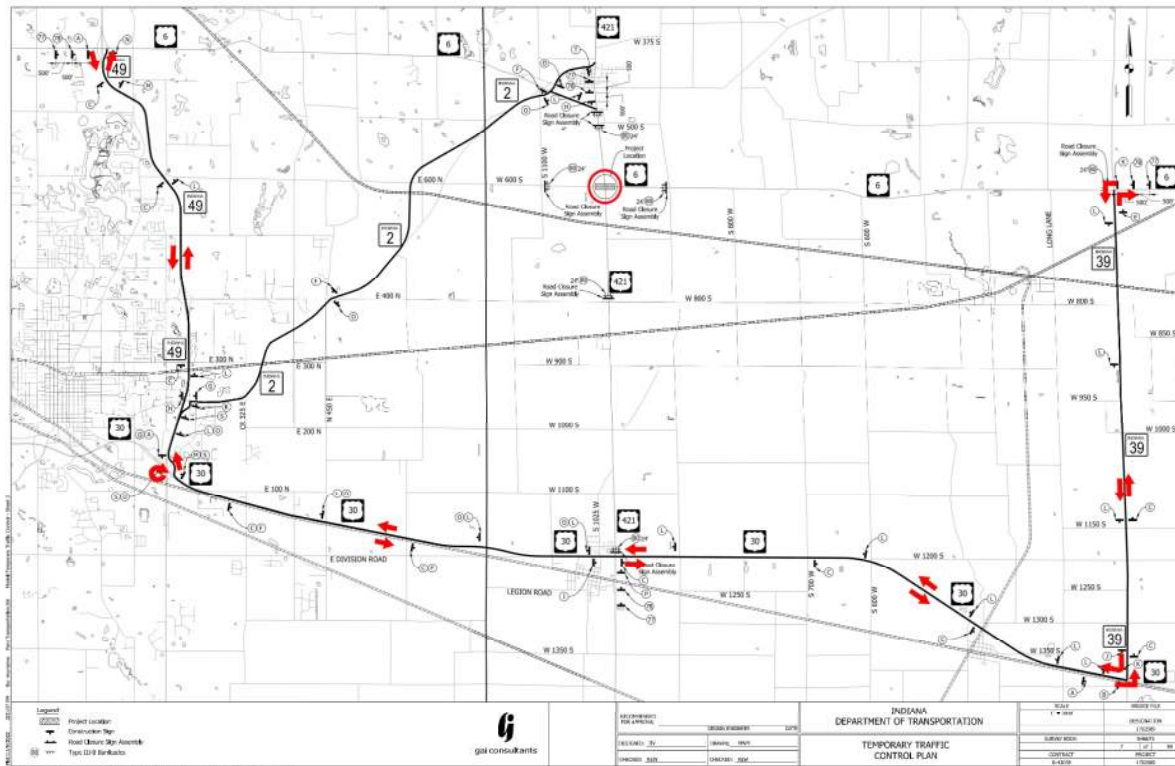
Intersection of US 6 and US 421 will be closed to all traffic during the reconstruction of the intersection and pavement replacement.

- Access to the Dollar General Distribution Center, Tazco Ready Mix Concrete Plant, residential and agricultural properties will be permitted. Temporary surface will be provided to maintain access to the properties.
- Detours will be established for US 6 and US 421 for traffic on those routes to be guided around the closure.

# Public Hearing for R-43059



## Maintenance of Traffic



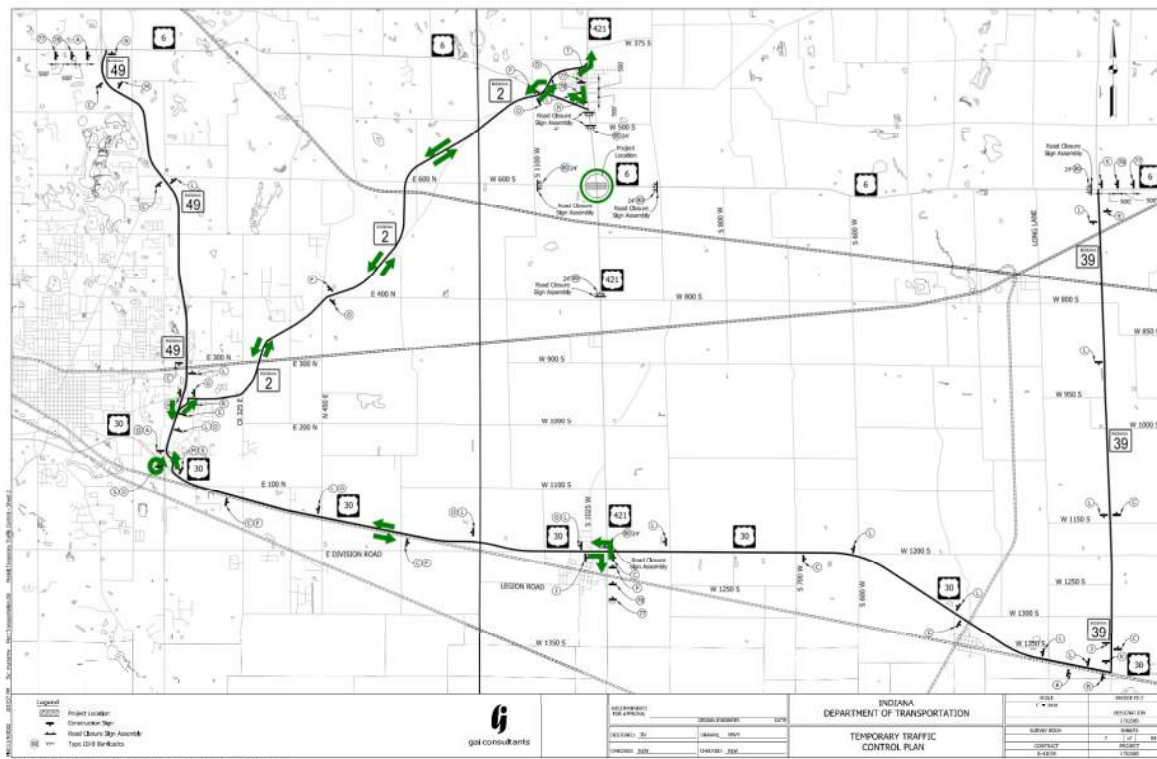
Westbound US 6 Detour Route –

- South on SR 39 to US 30
- West on US 30 to SR 49
- North on SR 49 to US 6
- Eastbound US 6 would be reverse
- Detour adds 13.4 miles
- Detour adds approximately 15 minutes of travel time

# Public Hearing for R-43059



## Maintenance of Traffic



Northbound US 421 Detour Route –

- West on US 30 to SR 49
- North on SR 49 to SR 2
- Northeasterly on SR 2 to US 421
- Detour route adds 10.4 miles
- Detour route adds approximately 15 minutes of travel time

# Public Hearing for R-43059



## Submit Public Comments

- **Submit public comments using the options described in the page of the information packet:**
  - Public Comment Form
  - Via email ([R.Webb@GAIConsultants.com](mailto:R.Webb@GAIConsultants.com) or [mgrylewcz@indot.in.gov](mailto:mgrylewcz@indot.in.gov))
  - Participating during the public comment session via microphone
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- **INDOT respectfully requests comments be submitted by (Thursday, March 2, 2023).**
- All comments submitted will become part of the public record, and they will be entered into a transcript, reviewed, evaluated, and given full consideration during the decision-making process.





Name	Comment	Email	Comment Method	Response
Julie Griffin	In my considered judgment the proposed single-lane roundabout at the intersection of US-6's East Jct and US-421 is ill advised and an extreme solution to mitigate crashes initiated by westbound motorist. Roundabouts are well documented to minimize/eliminate broadside collisions on 2-lane or 4-lane roadway intersections with a high frequency of crashes. I do not understand justification to interrupt the north/southbound flow of US421.	<a href="mailto:g2g4re@gmail.com">g2g4re@gmail.com</a>	Email	Thank you for your comment, it will be added to the environmental document and become a part of the official record. We value your learned opinion, however detailed traffic and crash data studies do indicate a need for this action as well as provide the evidence needed to appropriately discern that the Roundabout is the only feasible and prudent solution to the stated need. The proposed roundabout does not constitute an interruption to the north-south flow of US 421 any more than any other intersection treatment would. (Pages G62- G63)
Julie Griffin	This route frequently has OSW (oversized/overweight INDOR/Motor Carrier permitted loads) traversing the route specifically because of its straight alignment. Additionally, US421 is traversed by oversized farming equipment that would not be able to navigate a roundabout.	<a href="mailto:g2g4re@gmail.com">g2g4re@gmail.com</a>	Email	Thank you for your comment, it will be added to the environmental document and become a part of the official record. The current roundabout design does take into account the over size/over weight traffic. (Pages G62- G63)
Julie Griffin	I do not know if the three-year traffic analysis by INDOT (2014-2016) identified all of varied the types of vehicles that utilize US421 or if it only focused on the number. and types of vehicles involved in crashes at study site. That study (sited in The Regional News February 9, 2023, vol.CVIII, Issue6) is more than five years old and the census volumes have increased in subsequent years.	<a href="mailto:g2g4re@gmail.com">g2g4re@gmail.com</a>	Email	Thank you for your comment, it will be added to the environmental document and become a part of the official record. While the study provided as part of the environmental document shows data from 2014-2016 (the projects programmed year), the engineers used the most recent data and estimates for both safety and Level of Service determinations and models.(Pages G62- G63)

Name	Comment	Email	Comment Method	Response
Gregory Capps	Thank you for hosting the public hearing last night to answer questions and present the project. I am still wondering why a set of regular traffic lights on both US 6 AND US 421 would not be a cost effective way of fixing the one issue with the intersection that was raised last night with the westbound 6 traffic not yielding to northbound 421 traffic. The roundabout would lessen the impact of the collisions but not eliminate them due to the requirements of the merging traffic in the roundabout. The only true way in my opinion is to install the 4 way traffic lights on both highways like is being done on all the intersections on US 421 thru its complete route. The argument against this last night was that the intersection did not have enough traffic throughout a 24 hour period. That makes zero sense to me since all the major intersections on the route already have lights. In my view the opposite argument should have been raised. If there is not enough traffic all hours of the day what justifies spending 2.5 million on this intersection. Please help me understand this?	<a href="mailto:GDCAPPS@suncoke.com">GDCAPPS@suncoke.com</a>	Email	As mentioned during the public hearing in order to consider traffic lights for a particular intersection the Indiana Manual for Uniform Traffic Control Devices requires certain signal warrants be exceeded. Some warrants are for 4 hours per day and some for 8 hours per day. The traffic signal has to operate 24 hours per day. This project is not being performed to address delays in traffic movements. It is to address the crash history of the intersection. This project did not exceed any of those particular warrants for the traffic volumes. (Pages G58-G59)
Gregory Capps	One other major concern I have is all of the traffic down the county roads we live on. This will be a major disruption for the proposed 120 days plus on these county roads because few to none of the traffic will follow the state detours. The traffic will be up and down the closest county roads.	<a href="mailto:GDCAPPS@suncoke.com">GDCAPPS@suncoke.com</a>	Email	Thank you for your comment, it will be added to the environmental document and become a part of the official record. Your concern will be broached with La Porte County to see if any consideration can be made prior to construction. INDOT provides a signed Detour that traffic is encouraged to take for this closure. (Pages G58-G59)

Name	Comment	Email	Comment Method	Response
Gregory Capps	<p>If this project does get approved I will have one environmental concern of a heavily traveled limestone county road (700 south) creating mass dust floating thru the air. I own a house and land on this road and the heavy traffic flow this road will see will create massive amounts of limestone dust. If INDOT can help or influence the county highway department to add dust suppression to the complete 1 mile length of this road before the project begins myself and other residents in this area would be of great appreciation. Currently they only apply dust suppression on the extreme ends of the road at 900 west and US 421. Roughly 100 feet both ends which leaves the remaining 1 mile very dusty. We are just lucky the road is only used sparingly under normal conditions. This detour will not be a normal condition since it is only ½ mile south of the intersection closure.</p>	<p><a href="mailto:GDCAPPS@suncoke.com">GDCAPPS@suncoke.com</a></p>	<p>Email</p>	<p>Thank you for your comment, it will be added to the environmental document and become a part of the official record.</p> <p>Your concern will be broached with the County to see if any consideration can be made prior to construction. INDOT provides a signed Detour that traffic is encouraged to take for this closure. (Pages G58-G59)</p>
Gregory Capps	<p>The other portion of the proposal was to completely tear out the concrete and replace it throughout the intersection. Not sure why this would be needed. It seems black topping the current concrete slab with the addition of the traffic lights would be a much more cost effective way of correcting this issue with the intersection. Thus saving taxpayer money that could be used elsewhere and saving the major inconvenience and disruption of peace of mind of residents living on the county roads in this area.</p>	<p><a href="mailto:GDCAPPS@suncoke.com">GDCAPPS@suncoke.com</a></p>	<p>Email</p>	<p>Thank you for your comment, it will be added to the environmental document and become a part of the official record.</p> <p>Due to the severe deterioration of the pavement and the continued use by Over Size/Over Weight traffic a simple overlay of the existing damaged pavement was not deemed prudent. The likely outcome of such a treatment would be temporary and cosmetic at best. Replacing the pavement will provide a better base for the surface as well as correct any cracking or wear of the existing surface treatment, which should provide a greater service life for the roadway. (Pages G58-G59)</p>

Name	Comment	Email	Comment Method	Response
James and Kim Hayden	My husband and I are residents on Co. Rd. 900 W. and we are opposed to the proposal of a roundabout at Rt 6 & 421. For much less money, the installation of a 4 way traffic light would be just as effective in eliminating the ongoing traffic accidents at this intersection....not to mention the major increase in traffic on our adjacent county roads. Some years back work was done at that intersection which resulted in a tremendous increase in traffic on our road. Our road essentially became 421, it was HORRIBLE. Vehicles flew up and down our road and we were constantly cleaning up garbage in our yard. It seems that the 2.5 million dollars could be put to better use in perhaps helping our schools and lowering taxes.	<a href="mailto:jameskjhjd@aol.com">jameskjhjd@aol.com</a>	Email	As mentioned during the public hearing in order to consider traffic lights for a particular intersection the Indiana Manual of Uniform Traffic Control Devices requires certain signal warrants be exceeded. This project did not exceed any of those particular warrants. (Pages G56- G57)
UNK	So with this proposed roundabout, are you compensating the businesses that will be affected during the road closure? Do you people ever stop and think about that? That roundabout on six and two about killed businesses as it took forever to get it constructed. I think there's a better way than roundabouts put in a stop light. As this high economy, inflation that we have affects businesses now you're going to put in construction it's gonna put businesses out. Think about that with you before you screw it all up.	<a href="mailto:bruno43745@gmail.com">bruno43745@gmail.com</a>	Email	Thank you for your comment, it will be added to the environmental document and become a part of the official record. Business impacts are always a consideration on how to control traffic during construction. Unlike the US 6 and SR 2 intersection, the businesses closest to the subject project do not rely on public access for their clientel. The Dollar General Distribution Center and the Tazco Redi-Mix Concrete plant are locations where materials are prepared and dispensed on dedicated trucking. (Pages G60-G61)

Name	Comment	Email	Comment Method	Response
Jim Scherik	<p>One of my biggest concerns after the first roundabout, I saw (inaudible) Porter County Road 600 South or rather 600 North, there were an awful lot of large semi's on the county roads and they did a lot of damage. It is really unsafe. Is there any way to minimize the heavy truck traffic on the county roads in the area around where that area is going to be closed. Because most of the time people ignore detour signs and road closed signs. You know. I didn't see during that former procedure much law enforcement. You didn't even see a county cop much out there. I know several times I saw people going down 600 South 80 – 90 mph because I think they were trying to make up for lost time having to do the detour. Anyway, that was one of my concerns. And then again, even if it's not heavy trucks or big equipment, you're still going to have citizens taking those back roads, driving fast, again damage to the road, and things like that. Is there any way that can be managed or minimized? I do understand that local law enforcement is very short handed. They don't have a lot of officers to post and that. But I don't know if there is any kind of solution to that.</p>	<p>Comment given at hearing no email</p>	<p>Hearing</p>	<p>Thank you for your comment, it will be added to the environmental document and become a part of the official record. Your concern will be broached with the County to see if any consideration can be made prior to construction. INDOT provides a signed Detour that traffic is encouraged to take for this closure.</p>

Name	Comment	Email	Comment Method	Response
Julie Griffin	<p>So, I am Julie Griffin. I am really curious as to what is the most recent census, volume, statistics that you're working from. What crash data have you gotten from the county sheriff and Westville PD that specifically supports what you are proposing? Because from what I had learned partly from what I saw on line looking at the project documentation and what I read in the local paper, the only thing that I saw was a traffic analysis that was from 2014 – 2016. That is more than 6 years old. So the volume has increased. The types of vehicles that are using the highway have increased. I was just kind of curious, you guys were mentioning about the westbound traffic and what you did out there is not stopping them. Seems to me that there is a failure of design or something. And there are all these feeder roads coming in, crossing these highways and no one else seems to be having these particular problems. So I am like, what is going on westbound 6 that you are not getting a lot of people stopping. I personally haven't seen that. I work at the prison. I am up and down there all the time. I am sure you know that the state is trying to get their money together but when the prison does build the new building, they're going to be on the south side of the property which is going to really impact County Road 600 even more.</p>	<p>Comment given at hearing no email</p>	<p>Hearing</p>	<p>Thank you for your comment, it will be added to the environmental document and become a part of the official record. The district traffic engineer is here and like I said, we will be available here after the hearing he can sort of address a lot of that. While the study provided as part of the environmental document shows data from 2014-2016 (the projects programmed year), the engineers used the most recent data and estimates for both safety and Level of Service determinations and models.</p>

Name	Comment	Email	Comment Method	Response
Julie Griffin	I understand that, but what has been happening in the last year or two that would substantiate that you're still going down this path. Because as a citizen, as a former operator of a trucking company myself, working for another state in a previous life, working almost 30 years for the department of transportation in another state, having written oversized load permits, I am just like why on earth would you disrupt a straight alinement that has facilitated such large vehicles over width as well as the length as well as all the different types of farm equipment. It is obvious to me that you guys have decided that this particular method is going to mitigate what your concerns are. I am still not convince about the westbound accidents that are broadsides. I do like the idea that there is going to be this center area where people can drive over it with heavy vehicles, but is everybody going to be driving over it?	Comment given at hearing no email	Hearing	Thank you for your comment, it will be added to the environmental document and become a part of the official record. Please see email response for same/similar comment
Julie Griffin	I am struggling with this. I am really struggling with why this a huge, huge interruption to the 421. And then when you do project scheduling, are you going to work around planting season, around harvest season? Are you working with anybody in the DOR Motor Carrier to know what time of year that the blades are coming through mostly? The oversized machines? The oversized manufactured housing? The towers, the second towers that goes to the turbines? You've got to work around a lot of different schedules. You are taking a straight alignment and one of the reasons there are so much heavy extra legal loads is because it is a straight alinement. You guys are interrupting that because of some westbound accidents that were noted 4 or 5 years ago. What new data have you had since that analysis?	Comment given at hearing no email	Hearing	Thank you for your comment, it will be added to the environmental document and become a part of the official record. Our project development timeline goes back a number of years. We have a long sort of runway for projects like this. But, that said, we do continue to gather data throughout.
Julie Griffin	Is your current traffic data since 2016 that would substantiate this project?	Comment given at hearing no email	Hearing	Thank you for your comment, it will be added to the environmental document and become a part of the official record. Yes, absolutely.

Name	Comment	Email	Comment Method	Response
James Irwin	I live just south of Wanatah. About the accidents, I almost got three weeks ago almost got broadsided by a semi going west on 6. Then a week later, a car pulling a trailer hit one of them and it pushed them up against that fence. I saw one almost got hit coming from the west going east, I had to swerve around him, almost crossed the road to get around him. He didn't move for quite a while. I don't know if he was texting or phoning but he sure scared the daylights out of me. I am also concerned about all the trucks hauling stone up here. A lot of them come up and turn on 6 but a lot still go up to Michigan City.	Comment given at hearing no email	Hearing	Thank you for your comment, it will be added to the environmental document and become a part of the official record.
Mark Parkman	Mr. Parkman is a local farmer and has to move his equipment through the subject intersection multiple times per harvest season. He is concerned that his combine is 16 ft from outside tire to outside tire. The same width as the entering and exit lanes. He stated that he would drive with on tire on or behind the outside curb line.	Comment given at hearing no email	Hearing, staff conversation	Thank you for your comment, it will be added to the environmental document and become a part of the official record. The design will be altered to add reinforced aggregate areas behind the curb to support occasional use.
Mark Parkman	He is also concerned that vertical obstacles behind the curb line could hamper his ability to maneuver his equipment through the proposed roundabout.	Comment given at hearing no email	Hearing, staff conversation	Thank you for your comment, it will be added to the environmental document and become a part of the official record. Signs and lighting will be checked that they do not restrict wide vehicle use of the roundabout.



## Kenneth McMullen

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**From:** James Hayden <jameskjhjd@aol.com>  
**Sent:** Saturday, February 25, 2023 11:32 AM  
**To:** Kenneth McMullen  
**Subject:** Fw: Failure Notice

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

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----- Forwarded Message -----

**From:** "mailer-daemon@aol.com" <mailer-daemon@aol.com>  
**To:** "jameskjhjd@aol.com" <jameskjhjd@aol.com>  
**Sent:** Friday, February 24, 2023 at 01:02:31 PM CST  
**Subject:** Failure Notice

Sorry, we were unable to deliver your message to the following address.

<[k.mcmullin@gaiconsultants.com](mailto:k.mcmullin@gaiconsultants.com)>:

550: 5.4.1 Recipient address rejected: Access denied. AS(201806281) [DM6NAM12FT006.eop-nam12.prod.protection.outlook.com 2023-02-24T19:02:30.286Z 08DB1449B82D808E]

----- Forwarded message -----

My husband and I are residents on Co. Rd. 900 W. and we are opposed to the proposal of a roundabout at Rt 6 & 421. For much less money, the installation of a 4 way traffic light would be just as effective in eliminating the ongoing traffic accidents at this intersection....not to mention the major increase in traffic on our adjacent county roads. Some years back work was done at that intersection which resulted in a tremendous increase in traffic on our road. Our road essentially became 421, it was HORRIBLE. Vehicles flew up and down our road and we were constantly cleaning up garbage in our yard. It seems that the 2.5 million dollars could be put to better use in perhaps helping our schools and lowering taxes.

matter,

Thank you for your attention regarding this  
Kim Hayden

## Kenneth McMullen

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**From:** Kenneth McMullen  
**Sent:** Thursday, March 30, 2023 1:44 PM  
**To:** jameskjhjd@aol.com  
**Cc:** 'Grylewicz, Michael J'; Ronald Webb  
**Subject:** Comment received for DES 1702989 R-43059 US 6 & US 421 East Jct Intersection

Mr./Mrs. James & Kim Hayden,

Thank you for your comment, it will be added to the environmental document and become a part of the official record. As mentioned during the Public Hearing in order to consider traffic lights for a particular intersection the Indiana Manual of Uniform Traffic Control Devices requires certain signal warrants be exceeded. This project did not exceed any of those particular warrants.

Thank you again for your comment and interest in this project.

### **Kenneth B. McMullen, MELP**

Environmental Manager

**GAI Consultants**, 9998 Crosspoint Blvd, Suite 110, Indianapolis, IN 46256

**T** 317.436.9150 **D** 317.436.4849 **M** 765.427.6521

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## Kenneth McMullen

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**From:** CAPPs, GREGORY D. <GDCAPPs@suncoke.com>  
**Sent:** Thursday, February 16, 2023 4:18 PM  
**To:** Kenneth McMullen  
**Subject:** US 421 AND US 6 PROPOSED ROUNDABOUT PROPOSAL COMMENTS

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

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Thank you for hosting the public hearing last night to answer questions and present the project. I am still wondering why a set of regular traffic lights on both US 6 AND US 421 would not be a cost effective way of fixing the one issue with the intersection that was raised last night with the westbound 6 traffic not yielding to northbound 421 traffic. The roundabout would lessen the impact of the collisions but not eliminate them due to the requirements of the merging traffic in the roundabout. The only true way in my opinion is to install the 4 way traffic lights on both highways like is being done on all the intersections on US 421 thru its complete route. The argument against this last night was that the intersection did not have enough traffic throughout a 24 hour period. That makes zero sense to me since all the major intersections on the route already have lights. In my view the opposite argument should have been raised. If there is not enough traffic all hours of the day what justifies spending 2.5 million on this intersection. Please help me understand this? On other major concern I have is all of the traffic down the county roads we live on. This will be a major disruption for the proposed 120 days plus on these county roads because few to none of the traffic will follow the state detours. The traffic will be up and down the closest county roads. The other portion of the proposal was to completely tear out the concrete and replace it throughout the intersection. Not sure why this would be needed. It seems black topping the current concrete slab with the addition of the traffic lights would be a much more cost effective way of correcting this issue with the intersection. Thus saving taxpayer money that could be used elsewhere and saving the major inconvenience and disruption of peace of mind of residents living on the county roads in this area. Thanks for your time in reading my concerns and opinions in this matter. If this project does get approved I will have one environmental concern of a heavily traveled limestone county road (700 south) creating mass dust floating thru the air. I own a house and land on this road and the heavy traffic flow this road will see will create massive amounts of limestone dust. If INDOT can help or influence the county highway department to add dust suppression to the complete 1 mile length of this road before the project begins myself and other residents in this area would be of great appreciation. Currently they only apply dust suppression on the extreme ends of the road at 900 west and US 421. Roughly 100 feet both ends which leaves the remaining 1 mile very dusty. We are just lucky the road is only used sparingly under normal conditions. This detour will not be a normal condition since it is only ½ mile south of the intersection closure. Thanks again for your time and any response to the above concerns and opinions would be helpful.

Greg Capps

This e-mail and any files transmitted with it may contain confidential information and is intended solely for the use of the individual or entity to whom they are addressed. If you are not the intended recipient, you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited. Please notify the sender immediately by e-mail if you have received this e-mail by mistake and delete this e-mail from your system. Thank you for your cooperation.

## Kenneth McMullen

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**From:** Kenneth McMullen  
**Sent:** Thursday, March 30, 2023 1:44 PM  
**To:** 'GDCAPPS@suncoke.com'  
**Cc:** 'Grylewicz, Michael J'; Ronald Webb  
**Subject:** Comment received for DES 1702989 R-43059 US 6 & US 421 East Jct Intersection

Mr. Gregory Capps,

Thank you for your comment, it will be added to the environmental document and become a part of the official record. Your concern will be broached with La Porte County to see if any consideration can be made prior to construction. INDOT provides a signed Detour that traffic is encouraged to take for this closure.

As mentioned during the Public Hearing in order to consider traffic lights for a particular intersection the Indiana Manual for Uniform Traffic Control Devices requires certain signal warrants be exceeded. Some warrants are for 4 hours per day and some for 8 hours per day. The traffic signal has to operate 24 hours per day. This project is not being performed to address delays in traffic movements. It is to address the crash history of the intersection. This project did not exceed any of those particular warrants for the traffic volumes.

Your concern will be broached with the County to see if any consideration can be made prior to construction. INDOT provides a signed Detour that traffic is encouraged to take for this closure.

Due to the severe deterioration of the pavement and the continued use by Over Size/Over Weight traffic a simple overlay of the existing damaged pavement was not deemed prudent. The likely outcome of such a treatment would be temporary and cosmetic at best. Replacing the pavement will provide a better base for the surface as well as correct any cracking or wear of the existing surface treatment, which should provide a greater service life for the roadway. Thank you again for your comment and interest in this project.

### **Kenneth B. McMullen, MELP**

Environmental Manager

**GAI Consultants**, 9998 Crosspoint Blvd, Suite 110, Indianapolis, IN 46256

**T** 317.436.9150 **D** 317.436.4849 **M** 765.427.6521

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## Kenneth McMullen

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**From:** kdog happy <bruno43745@gmail.com>  
**Sent:** Tuesday, February 14, 2023 2:39 PM  
**To:** Kenneth McMullen  
**Subject:** Re: Round about

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

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Thanks for your great response, typical of people who sit in an office and dream up the shit like the proposed round a bout. I'm so glad you answered my question!!

On Tue, Feb 7, 2023 at 1:15 PM kdog happy <[bruno43745@gmail.com](mailto:bruno43745@gmail.com)> wrote:

So with this proposed roundabout, are you compensating the businesses that will be affected during the road closure? Do you people ever stop and think about that? That roundabout on six and two about killed businesses as it took forever to get it constructed. I think there's a better way than roundabouts put in a stop light. As this high economy, inflation that we have affects businesses now you're going to put in construction it's gonna put businesses out. Think about that with you before you screw it all up.

## Kenneth McMullen

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**From:** Kenneth McMullen  
**Sent:** Thursday, March 30, 2023 1:44 PM  
**To:** bruno43745@gmail.com  
**Cc:** 'Grylewicz, Michael J'; Ronald Webb  
**Subject:** Comment received for DES 1702989 R-43059 US 6 & US 421 East Jct Intersection

Dear Commenter,

Thank you for your comment, it will be added to the environmental document and become a part of the official record. Business impacts are always a consideration on how to control traffic during construction. Unlike the US 6 and SR 2 intersection, the businesses closest to the subject project do not rely on public access for their clientel. The Dollar General Distribution Center and the Tazco Redi-Mix Concrete plant are locations where materials are prepared and dispensed on dedicated trucking.

Thank you again for your comment and interest in this project.

**Kenneth B. McMullen, MELP**

Environmental Manager

**GAI Consultants**, 9998 Crosspoint Blvd, Suite 110, Indianapolis, IN 46256

**T** 317.436.9150 **D** 317.436.4849 **M** 765.427.6521

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## Kenneth McMullen

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**From:** Julie Griffin <g2g4re@gmail.com>  
**Sent:** Sunday, February 12, 2023 8:55 PM  
**To:** Kenneth McMullen  
**Cc:** TrafficStatistics@indot.in.gov; rboone5@dor.in.gov; Kiel Media  
**Subject:** INDOT Laporte District Project No. 1702989 - proposed intersection improvements (roundabout) US-6 East Jct @US-421  
**Attachments:** PHRG-PublicNotice-1901895(1).pdf; PHRG-Plans-1901895-For-Roadway-Services.pdf  
**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

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Attn: K.McMullen  
GAI CONSULTANTS

In my considered judgment the proposed single-lane roundabout at the intersection of US-6's East Jct and US-421 is ill advised and an extreme solution to mitigate crashes initiated by westbound motorist. Roundabouts are well documented to minimize/eliminate broadside collisions on 2-lane or 4-lane roadway intersections with a high frequency of crashes. I do not understand justification to interrupt the north/southbound flow of US421. This route frequently has OSW (oversized/overweight INDOR/Motor Carrier permitted loads) traversing the route specifically because of its straight alignment. Additionally, US421 is traversed by oversized farming equipment that would not be able to navigate a roundabout. I do not know if the three-year traffic analysis by INDOT (2014-2016) identified all of varied the types of vehicles that utilize US421 or if it only focused on the number. and types of vehicles involved in crashes at study site. That study (sited in The Regional News February 9, 2023, vol.CVIII, Issue6) is more than five years old and the census volumes have increased in subsequent years.

I believe I am qualified to make these observations as a community member who daily travels the US-421 south of Westville; and having previously worked in another state's department of transportation; in oversized truckload permitting; & having been an owner-operator in the past.

Thank you for your sincere consideration.

I welcome feedback on my interest and concerns regarding this proposed project INDOT Project No. 1702989

MS. JULIE GRIFFIN  
607 E DOMINIC ST  
LA CROSSE, IN 46348

[G2G4RE@GMAIL.COM](mailto:G2G4RE@GMAIL.COM)

## Kenneth McMullen

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**From:** Kenneth McMullen  
**Sent:** Thursday, March 30, 2023 1:44 PM  
**To:** g2g4re@gmail.com  
**Cc:** Ronald Webb; 'Grylewicz, Michael J'  
**Subject:** Comment received for DES 1702989 R-43059 US 6 & US 421 East Jct Intersection

Mrs. Julie Griffin,

Thank you for your comment, it will be added to the environmental document and become a part of the official record. Below are the official responses to your detailed comment:

We value your learned opinion, however detailed traffic and crash data studies do indicate a need for this action as well as provide the evidence needed to appropriately discern that the Roundabout is the only feasible and prudent solution to the stated need. The proposed roundabout does not constitute an interruption to the north-south flow of US 421 any more than any other intersect treatment would.

The current roundabout design does take into account the Over Size/Over Weight traffic.

While the study provided as part of the environmental document shows data from 2014-2016 (the project's programmed year), the engineers used the most recent data and estimates for both safety and Level of Service determinations and models.

Thank you again for your comment and interest in this project.

### **Kenneth B. McMullen, MELP**

Environmental Manager

**GAI Consultants**, 9998 Crosspoint Blvd, Suite 110, Indianapolis, IN 46256

**T** 317.436.9150 **D** 317.436.4849 **M** 765.427.6521

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# Appendix H

## Air Quality

Item	Appendix Page
STIP FHWA approval	H1 H2 to H5

Northwestern Indiana Regional Planning Commission 2022-2026 Transportation Improvement Program

1801869	Intersect. Improv. W/ Added Turn Lanes	Intersection Improvement with median U-Turn; LaPorte County	INDOT	NHPP Non Interstate	\$1,048,000	\$262,000	\$0	\$260,000	\$0	\$1,050,000	\$0	\$160,000	\$50,000	\$1,100,000	\$0	\$0	\$0	\$1,310,000	Yes
2000052	Intersection or Intersection Groups	Intersection Improvement Project in Lake County	INDOT	NHPP Interstate	\$1,755,000	\$195,000	\$0	\$150,000	\$0	\$1,800,000	\$0	\$0	\$150,000	\$120,000	\$0	\$1,680,000	\$0	\$1,950,000	Yes
1702994	Intersection or Intersection Groups	District Intersection Improvement Project in Lake County	INDOT	NHPP Non Interstate	\$2,900,298	\$340,000	\$0	\$340,000	\$80,000	\$2,820,298	\$0	\$0	\$340,000	\$530,000	\$0	\$2,370,298	\$0	\$3,240,298	Yes
1383615	Intersection or Intersection Groups	Intersection Improvement, Roundabout at SR 55 in Merrillville	INDOT	State Funds	\$0	\$3,058,486	\$0	\$290,000	\$500,000	\$2,268,486	\$0	\$620,000	\$2,438,486	\$0	\$0	\$0	\$0	\$3,058,486	No
1702989	Intersection or Intersection Groups	Intersection Improvement, Roundabout in Westville	INDOT	NHPP Non Interstate	\$1,055,040	\$322,000	\$0	\$194,000	\$20,000	\$1,194,040	\$0	\$164,000	\$40,000	\$1,174,040	\$0	\$0	\$0	\$1,375,040	Yes
1700022	Intersection or Intersection Groups	Intersection Improvement Project; Lake County	INDOT	State Funds	\$0	\$2,511,899	\$0	\$0	\$54,000	\$2,457,899	\$0	\$74,000	\$2,437,899	\$0	\$0	\$0	\$0	\$2,511,899	No
1600693	Intersection or Intersection Groups	Intersection Improvement; Roundabout in Hobart	INDOT	State Funds	\$0	\$1,658,058	\$0	\$0	\$0	\$1,658,058	\$0	\$0	\$1,658,058	\$0	\$0	\$0	\$0	\$1,658,058	No
1800861	Its Devices Maintenance Contracts	ITS Maintenance Contract	INDOT	State Funds	\$0	\$1,846,515	\$0	\$0	\$0	\$1,846,515	\$0	\$0	\$1,846,515	\$0	\$0	\$0	\$0	\$1,846,515	Yes
1800885	Its Traffic Management Systems	ITS Maintenance	INDOT	NHPP Interstate	\$270,000	\$30,000	\$0	\$0	\$0	\$300,000	\$0	\$0	\$0	\$0	\$300,000	\$0	\$0	\$300,000	Yes
1800881	Its Traffic Management Systems	ITS maintenance	INDOT	State Funds	\$0	\$200,000	\$0	\$0	\$0	\$200,000	\$0	\$0	\$0	\$200,000	\$0	\$0	\$0	\$200,000	Yes
2002572	Its Traffic Management Systems	Traffic Management System Project	INDOT	State Funds	\$0	\$1,180,000	\$0	\$0	\$0	\$1,180,000	\$0	\$0	\$1,180,000	\$0	\$0	\$0	\$0	\$1,180,000	Yes
1800865	Its Traffic Management Systems	ITS devices replacement and maintenance	INDOT	State Funds	\$0	\$600,000	\$0	\$0	\$0	\$600,000	\$0	\$0	\$600,000	\$0	\$0	\$0	\$0	\$600,000	Yes
1901643	Its Traffic Management Systems	ITS Traffic Management	INDOT	NHPP Interstate	\$32,000	\$3,000,000	\$0	\$5,000,000	\$0	\$30,000,000	\$0	\$5,000,000	\$0	\$0	\$30,000,000	\$0	\$0	\$35,000,000	No
1900834	New Bridge	Bridge over Canadian National; Schererville	INDOT	State Funds	\$0	\$1,693,847	\$5,166,435	\$1,030,282	\$0	\$5,830,000	\$0	\$1,030,282	\$0	\$0	\$5,830,000	\$0	\$0	\$6,860,282	Yes
<b>TIP ID</b>	<b>Work Type</b>	<b>Project Title</b>	<b>Lead Agency</b>	<b>FED Fund Type</b>	<b>FED</b>	<b>STATE</b>	<b>LOC</b>	<b>PE</b>	<b>RW</b>	<b>CN</b>	<b>CE</b>	<b>Funding in Prior Years</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>Total Project Costs</b>	<b>Air Quality Exempt</b>



# INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue  
Room N758-Executive Office  
Indianapolis, Indiana 46204

PHONE: (855) 463-6848

**Eric Holcomb, Governor**  
**Michael Smith, Commissioner**

April 26, 2022

Mr. Jermaine R. Hannon, Division Administrator  
FHWA Indiana Division  
575 North Pennsylvania St., Room 254  
Indianapolis, IN 46204

Ms. Kelley Brookins, Regional Administrator  
FTA Region 5  
200 West Adams St.  
Suite 320  
Chicago, IL 60606-5253

Dear Mr. Hannon /Ms. Brookins:

The Indiana Department of Transportation is pleased to submit its Draft FY 2022-2026 Statewide Transportation Improvement Program (STIP) for review and comment by your offices.

Included in the final submitted document is a listing of the state’s expansion/preservation and local small urban and rural and rural transit projects. The following Metropolitan Planning Organization TIP’s will be included in the FY 2022-2026 STIP by reference, pending FHWA approval in May 2022.

Area Plan Commission of Tippecanoe County (APCTC)	FY 2022-2026
• <i>Version 3/10/2022</i>	
Bloomington-Monroe County Metropolitan Planning Organization (BMCMPPO)	FY 2022-2026
• <i>Version 3/11/2022</i>	
Columbus Area Metropolitan Planning Organization (CAMPO)	FY 2022-2026
• <i>Version 3/22/2021</i>	
Delaware-Muncie Metropolitan Plan Commission (DMMPC)	FY 2022-2025
• <i>Version 12/15/2021</i>	
Evansville Metropolitan Planning Organization (EMPO)	FY 2022-2026
• <i>Version 3/10/2022</i>	
Kokomo-Howard County Governmental Coordinating Council (KHCGCC)	FY 2022-2026
• <i>Version 3/10/2022</i>	
Kentuckiana Regional Planning and Development Agency (KIPDA)	FY 2020-2025
• <i>Version 3/29/2022</i>	
Indianapolis Metropolitan Planning Organization (IMPO)	FY 2022-2025
• <i>Version 8/18/2021</i>	
Michiana Area Council of Governments (MACOG)	FY 2022-2026
• <i>Version 3/09/2022</i>	

Madison County Council of Governments (MCCOG)	FY 2022-2026
• <i>Version 7/13/2021</i>	
Northeastern Indiana Regional Coordinating Council (NIRCC)	FY 2022-2026
• <i>Version 3/28/2022</i>	
Northwestern Indiana Regional Planning Commission (NIRPC)	FY 2022-2026
• <i>Version 3/17/2022</i>	
Ohio-Kentucky-Indiana Regional Council of Governments (OKI)	FY 2020-2023
• <i>Version 03/10/2022</i>	
Terre Haute Area Metropolitan Planning Organization (THAMPO)	FY 2020-2024
• <i>Version 08/26/2021</i>	

In addition, INDOT has expanded our public involvement process by taking advantage of virtual meeting techniques and allowing accessibility to online documents, materials, virtual meeting registration, recorded virtual meetings, and comment forms. INDOT also leveraged our planning partner contacts (MPOs, RPOs, LTAP), social media, and notifications sent to local libraries, housing authorities, senior aging centers, and local newspapers across the state.

We greatly appreciate FHWA/FTA support in the development of the STIP 2022-2026 and look forward to working together to achieve our mutual goals. 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](mailto:mmcneil@indot.in.gov).

Sincerely,



Michael Smith, Commissioner  
Indiana Department of Transportation

cc: (w/enclosure): FTA  
Michelle Allen, FHWA  
Jeffrey Brooks, INDOT  
Kristin Brier, INDOT  
Kathy Eaton-McKalip, INDOT  
Louis Feagans, INDOT  
Roy Nunnally, INDOT  
Larry Buckel, INDOT  
Jay Mitchell, INDOT  
Jason Casteel, INDOT  
Michael McNeil, INDOT



**Federal Transit Administration**  
Region V  
200 West Adams St., Suite 320  
Chicago, IL 60606-5253

U.S. Department  
of Transportation

**Federal Highway Administration**  
Indiana Division  
575 N. Pennsylvania St., Rm 254  
Indianapolis, IN 46204-1576

June 17, 2022

Mr. Michael Smith  
Commissioner  
Indiana Department of Transportation  
100 N Senate Ave. N955  
Indianapolis, IN 46204

**SUBJECT: Indiana FY2022-2026 STIP Approval and Associated Federal Planning Finding**

Dear Mr. Smith:

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have completed our review of the FY2022-2026 Indiana Statewide Transportation Improvement Program (INSTIP), which was submitted by the INDOT request letter dated April 27, 2022.

Based on our review of the information provided, certifications of the Statewide and Metropolitan transportation planning processes for and within the state of Indiana, and our participation in those transportation planning processes (including planning certification reviews conducted in Transportation Management Areas), FHWA and FTA are jointly approving the FY2022-2026 STIP, including the Metropolitan Planning Organization (MPO) Transportation Improvement Programs (TIPs) directly incorporated into the STIP, subject to the corrective actions identified in the attached Federal Planning Finding (FPF) report. FHWA and FTA consider the projects in the 5<sup>th</sup> year for informational purposes only, and our approval does not exceed four years per 23 CFR 450.220(c).

FHWA and FTA are required under 23 CFR 450.220(b) to document and issue an FPF in conjunction with the approval of the FY2022-2026 STIP. At a minimum, the FPF verifies that the development of the STIP is consistent with the provisions of both the Statewide and Metropolitan transportation planning requirements. FHWA and FTA find that the Indiana FY2022-2026 STIP substantially meets the transportation planning requirements and are approving the STIP subject to the corrective actions outlined in the FPF. This approval is effective June 17, 2022, and is given with the understanding that an eligibility determination of individual projects for funding must be met, and INDOT must ensure the satisfaction of all administrative and statutory requirements, as well as address the corrective actions outlined in the attached report. FHWA and FTA will continue to partner with INDOT to ensure the previously developed action plan (attached) is implemented to address the corrective actions. If progress is not made in addressing the corrective actions, future amendments to the FY2022-2026 STIP, or adoption of the FY2024-2028 STIP, may not be approved by USDOT.

If you have questions or need additional information concerning our approval and the FPF, please contact Ms. Michelle Allen of the FHWA Indiana Division at (317) 226-7344, or by email at michelle.allen@dot.gov, or Mr. Jason Ciavarella of the FTA Region 5 Office at (312) 353-1653, or by email at jason.ciavarella@dot.gov.

Sincerely,

**KELLEY  
BROOKINS** Digitally signed by  
KELLEY BROOKINS  
Date: 2022.06.13  
10:08:34 -05'00'

Kelley Brookins  
Regional Administrator  
FTA Region V

Sincerely,

**JERMAINE  
R HANNON** Digitally signed by  
JERMAINE R  
HANNON  
Date: 2022.06.13  
15:57:46 -04'00'

Jermaine R. Hannon  
Division Administrator  
FHWA Indiana Division

cc: (transmitted by e-mail)  
Louis Feagans, INDOT  
Roy Nunnally, INDOT  
Karen Hicks, INDOT

Attachments have been removed for the purposes of this NEPA document.

# Appendix I

## Additional Studies

Item	Appendix Page
Engineer's Report	I1 to I40
LWCF LaPorte County List	I41

**ADDENDUM No. 1  
TO ENGINEER'S REPORT**

Project Number: 1702989  
 Route / Feature Crossed: US 6 at South Junction with US 421  
 Project Location: 0.3 mi W of US 421 to 0.3 mi E of US 421  
 Date: May 19, 2021

**ADDENDUM JUSTIFICATION:**

The Engineers Report called for 3R design criteria. INDOT has commented at Stage 1 that 4R Rehabilitation criteria should be utilized for the approach legs to the roundabout. Addendum will revise the majority of criteria to 4R and the rest rely on AASHTO Policy on the Geometric Design of Highways and Streets, 7<sup>th</sup> Edition.

**REVISION TO ORIGINAL SCOPE DOCUMENT:**

The Engineer's Report is being revised as follows:

**E. EXISTING FACILITY**

Both U.S. 6 and U.S. 421 are classified as Principal Arterials serving LaPorte County residents and providing access to Westville, Michigan City, Wanatah, Portage, Kingsbury, and the surrounding area. Both U.S. 6 and U.S. 421 are part of the National Highway System and the National Truck Network. C.R. West 600 South comprises the west approach of the intersection. It is not included in the National Highway System or the National Truck Network.

The posted speed limit on U.S. 6 is 55 mph. The posted speed limit on U.S. 421 is 45 mph. The posted speed limit on C.R.W. 600 South is 40 mph.

Ground level photographs of the existing conditions are located in Appendix B.

*U.S. 6 Pavement History*

Year	Width	Type of Work
1929	18'	Gravel
1932	20'	Grading and Concrete Pavement
1944	24'	HMA Overlay with Widening
1956	24'	Asphalt Overlay
1967	24'	Asphalt Overlay
1970	24'	Asphalt Overlay
1979	24'	Asphalt Overlay
1992	30'	Bituminous Overlay with Widening
2003	48'	Concrete Pavement Reconstruction with Concrete Shoulders



*U.S. 421 Pavement History*

Year	Width	Type of Work
Unkn	12'	Gravel
1932	18'	Grading and Asphalt Pavement
1938	18'	Asphalt Overlay
1956	20'	Widening and Asphalt Overlay
1963	24'	Widening and Asphalt Overlay
1967	24'	Asphalt Overlay
1984	24'	Asphalt Overlay
2003	48'	Concrete Pavement Reconstruction with Concrete Shoulders

<b>Roadway Information — U.S.6</b>			
<b>Geometric Criteria</b>			
<i>Design Speed</i>	55 mph	<i>Functional Class</i>	Principal Arterial-Other
<i>Design Criteria</i>	4R, Non-Freeway	<i>Rural/Urban</i>	Rural
<i>Terrain</i>	Level	<i>Access Control</i>	None
<b>Approach Cross Section</b>			
<i>IDM Figure Reference</i>	IDM Fig. 53-2		
<i>Travel Lane Count</i>	2	<i>Travel Lane Width</i>	12 ft (existing)
			12 ft (proposed)
<i>Shoulder Width (Usable)</i>	8 ft (exist)	<i>Shoulder Width (Paved)</i>	6 ft (existing)
	8 ft (proposed)		6 ft (proposed)
<i>Mainline Pavement</i>	Concrete (existing)	<i>Shoulder Pavement</i>	PCCP (existing)
	Concrete (proposed)		PCCP (proposed)
<b>Alignment</b>			
<i>Horizontal</i>	Tangent	<i>Vertical</i>	Straight grade (existing)
			Straight grade (proposed)

<b>Roadway Information — U.S. 421</b>			
<b>Geometric Criteria</b>			
<i>Design Speed</i>	45 mph	<i>Functional Class</i>	Principal Arterial-Other
<i>Design Criteria</i>	4R, Non-Freeway	<i>Rural/Urban</i>	Rural
<i>Terrain</i>	Level	<i>Access Control</i>	None
<b>Approach Cross Section</b>			
<i>IDM Figure Reference</i>	IDM Fig. 53-2		
<i>Travel Lane Count</i>	2	<i>Travel Lane Width</i>	12 ft (existing)
			12 ft (proposed)
<i>Shoulder Width</i>	8 ft (exist)	<i>Shoulder Width (Paved)</i>	6 ft (existing)
	8 ft (proposed)		6 ft (proposed)
<i>Mainline Pavement</i>	Concrete (existing)	<i>Shoulder Pavement</i>	PCCP (existing)
	Concrete (proposed)		PCCP (proposed)
<b>Alignment</b>			
<i>Horizontal</i>	Tangent	<i>Vertical</i>	Straight grade (existing)
			Straight grade (proposed)

G. TRAFFIC DATA AND CAPACITY ANALYSIS

	West Approach CR 600 S	North Approach US 421	South Approach US 421	East Approach US 6
2016 AADT (vpd)	472	3460	2526	2062
2022 AADT (vpd)	1,000	5,910	3,890	3,460
2042 AADT (vpd)	1,100	6,490	4,270	3,800
2042 DHV (%)	10%	9%	9%	9%
Commercial Vehicles (% AADT)	2.5%	18.5%	15.0%	19.8%
Commercial Vehicles (%DHV)	2.2%	13.5%	14.1%	13.2%

Does the revision change the project’s Purpose & Need statement?  Yes  No

Does the revision change the project’s recommended alternative?  Yes  No

Does the revision change the project’s cost estimate?  Yes  No

<i>Estimated Total Project Costs</i>	<i>Revised Amount</i>	<i>Original Amount</i>
Right of Way Purchase	\$ 5,000.00	\$ 13,000.00
Right of Way Services	\$ 10,000.00	\$ 0.00
Preliminary Engineering	\$ 277,900.00	\$ 235,000.00
Railroad PE	\$ 0.00	\$ 0.00
Railroad CN	\$0.00	\$ 0.00
Utilities PE (UT1)	\$ 10,000.00	\$ 10,000.00
Utilities CE (UT2)	\$ 2,500.00	\$ 0.00
<b>Construction Total:</b>	\$2,029,811.14	\$ 1,980,000.00
Construction Engineering (CE)	\$ 305,000.00	\$ 297,000.00
Other Considerations	\$ 0.00	\$ 0.00
<b>TOTAL:</b>	\$ 2,640,211.14	\$ 2,535,000.00

Does the revision change the project’s environmental impacts?  Yes  No

Does the revision require additional Right-of-Way?  Yes  No

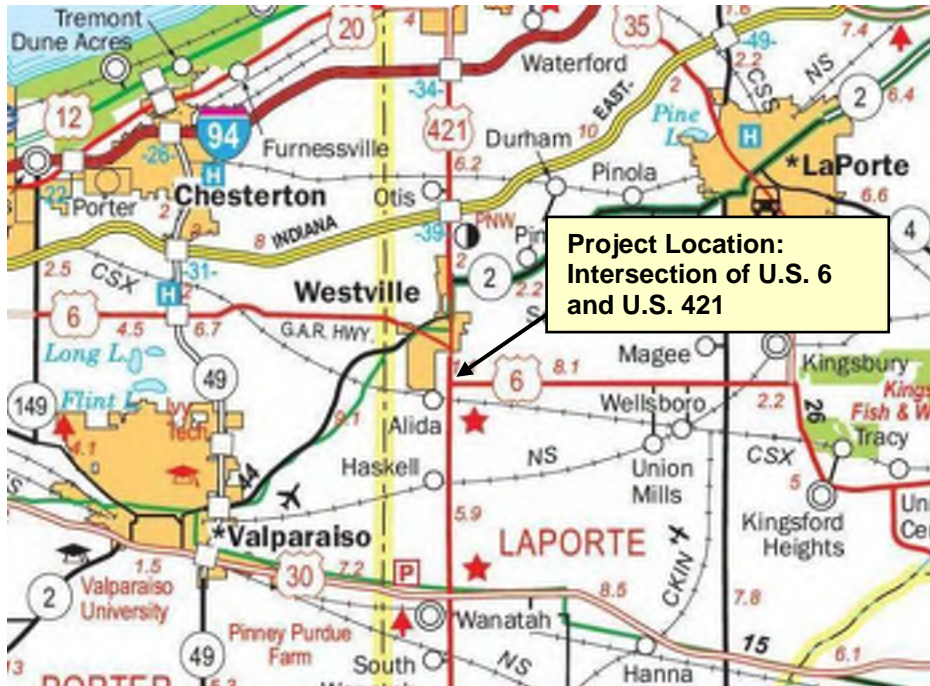
The addition of curvature to slow approach speeds of southbound traffic will result in an additional 0.1 acres of farmland to be acquired for construction of the roundabout.

Does the revision change the project’s schedule (design or construction)?  Yes  No

Does the revision require additional coordination with utility companies?  Yes  No

The utility coordination is still on-going and Stage 2 plans will generally be used to check for potential conflicts and generate work plans for utility relocations. Some utilities that were not impacted by the original layout of the roundabout may now have impacts.

Indiana Department of Transportation  
**ENGINEER'S REPORT**  
Des No: 1702989  
Intersection Improvement Project  
Location: Intersection of U.S. 6 and U.S. 421, South Junction  
County: LaPorte



Prepared by:



Lawson-Fisher Associates P.C.  
525 West Washington Avenue  
South Bend, Indiana 46601

Date: March 8, 2019

**A. PURPOSE OF THE REPORT**

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

**B. PROJECT LOCATION**

The project is located at the south junction of U.S. 6 and U.S. 421 in LaPorte County (RP 36+60, U.S. 6). The latitude / longitude coordinates for this intersection are 41°58'84" North and 86°89'41" West. The project is in the Indiana Department of Transportation's LaPorte District, LaPorte Sub-District. This location is in a rural planning organization region, the Northwest Indiana Regional Planning Commission (NIRPC). See the project location map in Appendix A for reference.

**C. PROJECT NEED AND PURPOSE**

The primary need for this project is that westbound vehicles run the stop sign or fail to yield once stopped. The stop sign running is primarily attributed to the distance from the last stop (8 miles from the previous stop sign) and highway daze.

The project purpose is to improve intersection operational safety at this location and decrease the intersection crash rate to less than 1.

**D. PROJECT HISTORY**

This intersection has gone through several iterations in the last two decades but the crash problem with westbound vehicles has never been resolved. A bypass lane was removed and an overhead flashing beacon was installed for a two-way stop control configuration in a 2003 INDOT project (R-26740). The overhead beacons were removed around March 2015 in favor of sign-mounted flashers, mirroring a state and national movement to remove overhead red-yellow flashers where crash history showed the minor approach drivers mistaking the overhead flashers as all-way stop. In 2017, a small triangular island was constructed on the westbound approach for the right-turn lane and an additional stop sign was added on the island. Since that time, various combinations of yellow and red flashers have been positioned on the westbound approach between the stop-ahead warning signs and the three stop signs. Transverse rumble strips were also installed on the westbound lanes following the island installation in the fall of 2017.

**E. EXISTING FACILITY**

Both U.S. 6 and U.S. 421 are classified as Principal Arterials serving LaPorte County residents and providing access to Westville, Michigan City, Wanatah, Portage, Kingsbury, and the surrounding area. Both U.S. 6 and U.S. 421 are part of the National Highway System and the National Truck Network. C.R. West 400 South comprises the west

approach of the intersection. It is not included in the National Highway System or the National Truck Network.

The posted speed limit on U.S. 6 is 55 mph. The posted speed limit on U.S. 421 is 45 mph. The posted speed limit on C.R. W. 400 S. is 30 mph.

Ground level photographs of the existing conditions are located in Appendix B.

Roadway Classification

U.S. 6 and U.S. 421 are both functionally classified as Rural – Other Principal Arterials. C.R. West 400 South is classified as a Local Minor Collector

Intersection Geometry

U.S. 6 / C.R. W. 400 S. at U.S. 421 is a 2-way stop controlled intersection with ground level stop signs and beacons. The westbound U.S. 6 approach includes an auxiliary right-turn lane. The northbound and southbound approaches of U.S. 421 include opposing auxiliary left turn lanes. Each approach has a 6 ft. shoulder.

Roadway History

This section of U.S. 6 was constructed in 1929 with gravel at a width of 18 ft. The roadway was graded and paved with concrete to a width of 20 ft. in 1932. In 1944, the roadway was resurfaced and widened to 24 ft. The roadway was resurfaced in 1956, 1967, 1970, and 1979. In 1992, the roadway was resurfaced and widened to the present width of 30 ft.

*U.S. 6 Pavement History*

Year	Width	Type of Work
1929	18'	Gravel
1932	20'	Grading and Concrete Pavement
1944	24'	HMA Overlay with Widening
1956	24'	Asphalt Overlay
1967	24'	Asphalt Overlay
1970	24'	Asphalt Overlay
1979	24'	Asphalt Overlay
1992	30'	Bituminous Overlay with Widening
2001	40'	Concrete Pavement Reconstruction with Asphalt Shoulders

This date of original construction of this section of U.S. 421 is unknown. The original 12 ft. gravel roadway was improved in 1932 with rock asphalt to a width of 18 ft. The roadway was widened to 20 ft. and resurfaced with rock asphalt in 1938, then resurfaced with rock

asphalt again in 1956-57. In 1963, the roadway was resurfaced and widened to 24 ft. The roadway was resurfaced in 1967 and 1984. Finally, the intersection of U.S. 6 and U.S. 421 was reconstructed in 2001 to a width of 36 ft. with full depth concrete pavement with 2 ft. asphalt shoulders on each side.

*U.S. 421 Pavement History*

Year	Width	Type of Work
Unkn	12'	Gravel
1932	18'	Grading and Asphalt Pavement
1938	18'	Asphalt Overlay
1956	20'	Widening and Asphalt Overlay
1963	24'	Widening and Asphalt Overlay
1967	24'	Asphalt Overlay
1984	24'	Asphalt Overlay
2001	40'	Concrete Pavement Reconstruction with Asphalt Shoulders

Roadway Cross Section

U.S. 6 is approximately 30 ft. of concrete pavement. The roadway consists of 12 ft. travel lanes with 2 ft. paved and 6 ft. usable shoulders. There are no curbs or sidewalks on this section of roadway. The apparent existing R/W is 30 ft. from the centerline of U.S. 6 and 35 ft. from the centerline of U.S. 421. Snowplowable raised pavement markers are present on U.S. 6 and U.S. 421. Milled corrugations are not present on either roadway.

<b>Roadway Information – U.S. 6</b>			
<b>Geometric Criteria</b>			
<i>Design Speed</i>	55 mph	<i>Functional Class</i>	Choose an item.
<i>Design Criteria</i>	3R, Non-Freeway	<i>Rural/Urban</i>	Rural
<i>Terrain</i>	Level	<i>Access Control</i>	None
<b>Approach Cross Section</b>			
<i>IDM Figure Reference</i>	IDM Fig. 55-3E		
<i>Travel Lane Count</i>	2	<i>Travel Lane Width</i>	12 ft (existing)
			12 ft (proposed)
<i>Shoulder Width (Usable)</i>	6 ft (exist)	<i>Shoulder Width (Paved)</i>	3 ft (existing)
	6 ft (proposed)		3 ft (proposed)
<i>Mainline Pavement</i>	Concrete (existing)	<i>Shoulder Pavement</i>	HMA (existing)
	Concrete (proposed)		HMA (proposed)
<b>Alignment</b>			
<i>Horizontal</i>	Tangent	<i>Vertical</i>	Straight grade (existing)
			Straight grade (proposed)

There is one railroad crossing located 0.6 miles south of the intersection along U.S. 421. The width of U.S. 421 crossing the railroad is approximately 30 ft.

<b>Roadway Information – U.S. 421</b>			
<b>Geometric Criteria</b>			
<i>Design Speed</i>	45 mph	<i>Functional Class</i>	Choose an item.
<i>Design Criteria</i>	3R, Non-Freeway	<i>Rural/Urban</i>	Rural
<i>Terrain</i>	Level	<i>Access Control</i>	None
<b>Approach Cross Section</b>			
<i>IDM Figure Reference</i>	IDM Fig. 55-3A		
<i>Travel Lane Count</i>	2	<i>Travel Lane Width</i>	12 ft (existing)
			12 ft (proposed)
<i>Shoulder Width (Usable)</i>	6 ft (exist)	<i>Shoulder Width (Paved)</i>	2 ft (existing)
	6 ft (proposed)		2 ft (proposed)
<i>Mainline Pavement</i>	Concrete (existing)	<i>Shoulder Pavement</i>	HMA (existing)
	Concrete (proposed)		HMA (proposed)
<b>Alignment</b>			
<i>Horizontal</i>	Tangent	<i>Vertical</i>	Straight grade (existing)
			Straight grade (proposed)

Drainage

The general overland flow is from north to south with intermittent shallow roadside ditches along U.S. 421 draining to the south and along U.S. 6 draining towards the intersection. An existing 15 in. CMP culvert crosses under U.S. 421 approximately 110 ft. north of U.S. 6.

Public Road Approaches and Private Drives

The nearest public road approach on U.S. 421 is located 0.82 miles south of the intersection. There are commercial approaches located 0.35 miles south and 0.28 miles north of the intersection along U.S. 421 and a commercial approach 0.26 miles west along C.R. W. 600 South. The nearest residential approach is located 0.27 miles north of the intersection along U.S. 421.

Land Use

There is one residential property and one distribution facility within the limits of the project. The surrounding area is primarily agricultural. The Westville Correctional Facility, located northwest of the project limits, will not be impacted.



## F. FIELD CHECK

A field check was performed on February 19, 2020. Existing traffic control devices, utilities, right-of-way status, and wetlands were confirmed and photographed. It was noted that a slight vertical curve exists along U.S. 6 to the east of U.S. 421. This vertical curve may contribute to the poor visibility of the intersection and crash history.

## G. TRAFFIC DATA AND CAPACITY ANALYSIS

Traffic data was furnished by INDOT LaPorte District. The 24-hour Turning Movement Count (TMC), dated 11/22/2016 is included in Appendix C. This data was used to develop the Design Traffic Data listed below. An annual growth factor of 0.5 % per year was used to project the 2042 Design Data.

	West Approach CR 600 S	North Approach US 421	South Approach US 421	East Approach US 6
2016 AADT (vpd)	472	3460	2526	2062
2022 AADT (vpd)	486	3564	2602	2124
2042 AADT (vpd)	534	3910	2855	2331
2042 DHV (%)	13%	10%	8%	6%
Commercial Vehicles (% AADT)	22%	36%	32%	42%
Commercial Vehicles (% DHV)	27%	36%	37%	36%
Directional Distribution	19%	58%	42%	81%

Capacity analysis of the existing intersection resulted in an average vehicle delay of 22.8 seconds for the west approach and an average approach delay of 10.1 seconds for the intersection. This average delay corresponds to a level of service of B. It is not anticipated that capacity improvements will be required at this location through the design year.

## H. CRASH DATA AND ANALYSIS

Crash data for the U.S. 6 and U.S. 421 Intersection was provided by the LaPorte District for the three-year analysis period from January 2014 through September 2016. During that time, 16 crashes involving 32 vehicles occurred within the project limits. There were seven crashes with injures with one that resulted in one fatality. Crashes occurring in the three-year analysis period resulted in the following statistics with a full crash summary analysis provided in Appendix D:

- Approximately 44% of the crashes resulted in personal injury.
- Ten of 16 crashes were Right-Angle type crashes, the predominant type of crash. These ten crashes resulted in seven injuries and one fatality.
- Of the ten right-angle crashes, all were confirmed to involve traffic travelling westbound on U.S. 6.

- Six of 16 crashes were rear-end, the next dominant crash type, all occurring on U.S. 6 travelling westbound. These six crashes resulted in one injury.
- Based upon this data, the Intersection Crash Rate, "R" is 1.715 crashes per million vehicles entering the intersection per year. This crash rate is at INDOT's safety threshold, indicating consideration of crash reduction improvements may be needed.

The crash data and statistical results indicate patterns of right angle and rear end type accidents.

The LaPorte District has additional crash data records extending back to 2004, and report that annual crash totals have ebbed and flowed. Fatal crashes occurred in 2004, 2005, 2008, and 2016. The crash patterns typically point to the westbound approach and include rear end, failure to yield, and right-angle accidents caused by running the stop sign. The most recent fatal and a severe 9-person injury crash that happened months earlier both resulted from a westbound driver disregarding the intersection entirely.

Chapter 55 of the IDM lists the following crash reduction methods that may provide the most beneficial crash type reduction:

- Install Stop Signs
- Provide Signal
- Improve Advance Warning Signs and Markings (stop ahead and intersection warning with flashing beacon, rumble strips already in place)
- Improve Marking and Signing

Each of the methods listed above has been used at this location without success, except for the addition of a traffic signal.

## I. **ALTERNATIVES AND RECOMMENDATIONS**

The intersection improvement project shall be designed in compliance with Indiana Design Manual (IDM), Chapter 55, "3R Projects" and any other applicable standards. Alternatives were identified using INDOT's Intersection Decision Guide.

### Alternative 1: Do Nothing

This alternative would not address the safety issues and concerns. The right-angle and rear end crashes would continue. This alternative will not be considered further.

### Alternative 2: Conventional Intersection (signalized or unsignalized)

Signalized: The crash history indicates a high amount of rear end collisions. This accident type is typically addressed by the addition of left-turn lanes, which are present. None of the nine signal warrants were satisfied. The crash experience warrant was not met because the volume requirements were not met.

Unsignalized: Installation of a 4-way stop would make driver movements more predictable and would decrease the amount of rear end and right-angle collisions. Drivers of trailing vehicles would focus on the vehicle directly in front of them until they are at the front of the queue instead of assuming when the vehicle in front would find an acceptable gap. An accident analysis was performed for this location as a four-way stop by eliminating accidents from the history where the police narrative stated that one of the drivers thought that the intersection was a four-way stop. The resulting crash frequency was 0.82, below the moderate crash rate threshold of 1. Using accident reduction factors provided in IDM Figure 50-2G, all accidents would be expected to be reduced by 70% with the implementation of four-way stop signs. The severity of the collisions would likely be reduced with vehicle speed reduction associated with all-way stop control.

IDM 502-1.02(02) states that multiway stop control should not be used unless the traffic volume for each approach leg of the intersection is approximately equal. This is not the case for this location.

#### Alternative 3: Median U-Turn Intersection

The geometric requirements for this alternative include a multi-lane major street with medians present. The existing roadway is a 2 two lane roadway without medians. The existing condition does not satisfy the geometric requirements. This alternative will not be considered further.

#### Alternative 4: Roundabout (Preferred)

This alternative would consist of reconstructing the intersection as a roundabout. Right-angle crashes would be eliminated as roundabout geometry allows for only rear end and sideswipe type collisions. This alternative would also decrease the severity of collisions with the reduced approach speeds and the amount of rear end crashes with the reduction of vehicle queue lengths (delays) and with improved markings and signage required in advance of the roundabout. The estimated construction cost for this alternative is \$1,980,000.00, refer to Appendix E.

#### Alternative 5: Displaced Left-Turn Intersection

This alternative focuses on improving traffic mobility for locations with high left-turning and through volumes. The primary concern with this intersection is safety instead of mobility. The volume and geometric requirements for this option are not satisfied. This alternative will not be considered further.

#### Alternative 6: Jug-Handle Intersection

This alternative removes arterial left turns to improve traffic mobility. Additional right-of-way would be required. The primary concern at this location is safety instead of mobility and volume and geometric requirements are not satisfied. This alternative will not be considered further.

#### Alternative 7: Offset "T" Intersection

This alternative is most effective in multi-lane skewed intersections of major roads. The existing roadways are two-lane highways and the U.S. 6 route turns 90-degrees and follows the U.S. 421 route and not consistent with the normal application of this intersection type. This alternative will not be considered further.

#### Alternative 8: Green "T" Intersection

This alternative is viable for a signalized three-leg intersection. The current existing intersection is unsignalized and four-legged. This alternative will not be considered further.

#### Alternative 9: Quadrant Roadway Intersection

This alternative removes all left turns to improve traffic mobility. Additional right-of-way would be required. As the primary concern with this intersection is safety instead of mobility, this alternative is not appropriate. This alternative will not be considered further.

#### Alternative 10: Grade Separation

This alternative would eliminate right-angle and left-turn accidents through geometric improvements. Ramps would be required for route continuity which would result in significant right-of-way and environmental impacts.

#### Details of Preferred Alternative

A single lane roundabout would eliminate the severe right-angle collisions in the intersection while providing Level-of-Service A for the intersection. The conceptual roundabout layout is included in Appendix F and the preliminary analysis is include in Appendix G.

During the peak hour, the overall truck volume is 30.2%. The roundabout shall accommodate the turning movements for the Indiana Design Vehicle (WB-65) for all movements. Splitter islands should be extended with center curb on the north, south, and east approaches, and a chicane should be added to the east approach alignment to improve visibility and driver awareness of the intersection. Lighting shall be included within the project limits. Storm water retention facilities shall be located on site.

A 4-way stop may also reduce the severe right-angle collisions in the intersection as vehicle actions would be consistent and predictable. The all-way stop control (AWSC) analysis, as shown in Appendix H, provides a design year LOS B for the whole intersection. This alternative may be used either as a temporary measure or permanent treatment if proven effective in reducing crashes at this location.

*Design standards used for this project shall be as follows:*

<i>Design Standard:</i>	2-Lane, 3R Project, 3000<AADT<5000 (Fig. 55-3A)
<i>Design Speed</i>	Posted, 55 mph
<i>Lane Width:</i>	12 ft (match existing)
<i>Paved Shoulder Width:</i>	2 ft (match existing)
<i>Usable Shoulder Width:</i>	6 ft (match existing)
<i>Side Slopes:</i>	2:1 or flatter (match existing)
<i>Obstruction Free Zone:</i>	20 ft (IDM Chap. 53-5.02 #1, Arterial with Shoulders)
<i>Clear Zone:</i>	20-22 ft for 6:1 or flatter (IDM Fig. 49-2A, 55 mph, 1500-6000 AADT)

**J. MAINTENANCE OF TRAFFIC DURING CONSTRUCTION**

The following provisional recommendation is presented regarding the Maintenance of Traffic during construction. The designer is instructed to revisit and refine this strategy.

Traffic will be detoured around the project area. The preliminary detour route under consideration for U.S. 6 would utilize U.S. 35, U.S. 30, and S.R. 49. The official detour length will be approximately 35.3 miles, requiring an additional 10.8 miles of travel that equates to a user cost of \$464,000 on an anticipated 75-day closure.

The preliminary detour route under consideration for U.S. 421 would utilize U.S. 30, S.R. 49, and S.R. 2. The official detour length will be approximately 17.5 miles, requiring an additional 7.6 miles of travel that equates to a user cost of \$501,000 on an anticipated 75-day closure.

Total anticipated user costs for the 75-day closure are \$965,000.

**K. COST ESTIMATE**

The project development cost for the preferred alternative is as follows:

Construction Cost (CN)	\$ 1,980,000.00
Preliminary Engineering (PE)	235,000.00
Utility (UT)	10,000.00
Right-of Way Cost (RW)	13,000.00
<u>Construction Engineering</u>	<u>297,000.00</u>
Total Project Cost	\$ 2,535,000.00

**L. ENVIRONMENTAL ISSUES**

This project will likely require preparation of a CE Level 3 due to impacts greater than 0.1 acres to the wetland located northeast of the existing intersection. A full Section 106 investigation is expected as the scope of this project exceeds the threshold for the Minor Projects Programmatic Agreement.

**M. SURVEY REQUIREMENTS**

Topographic survey is anticipated within approximately 800 ft. north and south along U.S. 421, 800 ft. east along U.S. 6, and 700 ft. west along C.R. 600 S with a 100 ft. width per side of the roadway.

**N. RIGHT-OF-WAY IMPACT**

This project is not expected to require any additional permanent right-of-way.

Right-of-way plans from December 2000 (Des. No. 8351130) do not indicate any property interests are held by utilities within the project limits.

**O. RAILROAD IMPACT**

No impacts to the railroad located 0.61 miles south are anticipated.

**P. UTILITY IMPACT**

Overhead electric, telephone, and cable facilities are located primarily along the east side of U.S. 421 within the vicinity of the intersection. An underground gas line runs along the east side of U.S. 421 with a branch running east along the south side of U.S. 6. Underground cable and fiber facilities are located along the roadway in the southwest, northwest, and northeast quadrants of the intersection.

Refer to Appendix G for the 811 locate report listing utility companies within the limits of the project. Utility coordination procedures shall be in accordance with the design manual.

Electric service will be required for additional roadway lighting.

**Q. RELATED PROEJCTS**

There are no other projects planned within this project's limits during the programmed construction year (2023). A bridge replacement project (Des. No. 1703005) located on the detour route along U.S. 30 is scheduled to begin in Q2 2023. Designers and INDOT Project Managers will coordinate nearby projects as required during project development.

**R. COORDINATION, MEETINGS, CONCURRENCE**

A preliminary scoping meeting was conducted at LFA with Mr. Paul South, P.E., on January 16, 2019. LFA conducted a project site visit on February 19, 2019.

**S. CHANGES TO THIS ENGINEER'S REPORT**

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

LAWSON-FISHER ASSOCIATES P.C.  
 525 WEST WASHINGTON AVENUE  
 SOUTH BEND, INDIANA 46601

Job #: 201874.3  
 Designed by: CJN  
 Checked by: BPH

Date: 2/19/2020  
 Date: 2/20/2020

Project: US 6 / US 421 Intersection

Subject: Traffic Calculations for Capacity Analysis

**Study Name US 6 & US 421 (S. Jct.)**

**Start Date 11/22/2016**

**Start Time 6:00 AM**

**Site Code**

**Project**

**Type Road  
 Classification Totals**

Start Time	US421 Southbound				US 6 Westbound				US421 Northbound				US 6 Eastbound			
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	5	56	53	0	94	38	29	0	11	119	6	0	8	16	4	0
<b>7:00 AM</b>	<b>7</b>	<b>97</b>	<b>47</b>	<b>0</b>	<b>104</b>	<b>39</b>	<b>19</b>	<b>0</b>	<b>20</b>	<b>159</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>19</b>	<b>5</b>	<b>0</b>
8:00 AM	2	102	67	0	97	27	17	0	13	144	6	0	4	10	5	0
9:00 AM	2	100	63	0	108	13	15	0	17	143	4	0	2	8	3	0
10:00 AM	4	109	55	1	95	19	20	0	12	135	3	0	5	10	1	0
11:00 AM	1	142	81	2	85	11	9	0	8	121	2	0	3	15	5	0
12:00 PM	8	122	85	1	91	12	17	0	20	136	5	0	1	20	4	0
1:00 PM	6	129	84	0	81	12	10	0	14	138	2	0	7	16	1	0
2:00 PM	4	148	96	0	89	24	18	0	21	115	0	0	8	25	7	0
<b>3:00 PM</b>	<b>9</b>	<b>216</b>	<b>124</b>	<b>0</b>	<b>90</b>	<b>25</b>	<b>15</b>	<b>0</b>	<b>29</b>	<b>171</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>48</b>	<b>6</b>	<b>0</b>
4:00 PM	9	211	128	0	83	34	28	0	22	145	4	0	3	36	8	0
5:00 PM	4	150	90	0	83	21	15	0	21	141	8	0	2	30	2	0
6:00 PM	3	116	65	0	52	12	11	0	15	95	4	0	7	24	3	0
7:00 PM	3	78	61	0	33	3	10	0	13	75	3	0	4	9	3	0
8:00 PM	2	61	35	0	18	4	7	0	7	45	1	0	6	7	1	0
9:00 PM	1	53	31	0	12	3	3	0	6	43	1	0	2	11	2	0
10:00 PM	0	36	27	0	15	3	6	0	7	24	3	0	0	3	1	1
11:00 PM	0	22	18	0	26	0	1	0	5	18	1	0	0	4	1	0
12:00 AM	0	10	12	1	16	2	1	0	4	17	0	0	3	0	0	0
1:00 AM	1	8	4	0	9	1	2	0	1	7	1	0	0	2	1	0
2:00 AM	0	7	10	0	13	0	0	0	1	11	0	0	0	1	0	0
3:00 AM	0	12	6	0	14	3	3	0	4	10	0	0	2	2	0	0
4:00 AM	2	25	12	0	53	7	6	0	3	30	4	0	0	4	0	0
5:00 AM	4	46	24	0	73	18	9	0	5	105	7	0	0	6	1	0

LAWSON-FISHER ASSOCIATES P.C.  
 525 WEST WASHINGTON AVENUE  
 SOUTH BEND, INDIANA 46601

Job #: 201874.30  
 Designed by: CJN  
 Checked by: BPH

Date: 02/19/19  
 Date: 02/20/20

Project: US 6 / US 421 Intersection

Subject: Traffic Calculations for Capacity Analysis

**Study Name US 6 & US 421 (S. Jct.)**

**Start Date 11/22/2016**

**Start Time 6:00 AM**

**Site Code**

**Project**

Start Time	US421	US 6	US421	US 6	TOTAL		
	Southbound	Westbound	Northbound	Eastbound			
6:00 AM	114	161	136	28	439	5.2%	
<b>7:00 AM</b>	<b>151</b>	<b>162</b>	<b>181</b>	<b>27</b>	<b>521</b>	<b>6.2%</b>	<b>AM PEAK</b>
8:00 AM	171	141	163	19	494	5.9%	
9:00 AM	165	136	164	13	478	5.7%	
10:00 AM	169	134	150	16	469	5.6%	
11:00 AM	226	105	131	23	485	5.8%	
12:00 PM	216	120	161	25	522	6.2%	
1:00 PM	219	103	154	24	500	5.9%	
2:00 PM	248	131	136	40	555	6.6%	
<b>3:00 PM</b>	<b>349</b>	<b>130</b>	<b>201</b>	<b>59</b>	<b>739</b>	<b>8.8%</b>	<b>PM PEAK</b>
4:00 PM	348	145	171	47	711	8.5%	
5:00 PM	244	119	170	34	567	6.7%	
6:00 PM	184	75	114	34	407	4.8%	
7:00 PM	142	46	91	16	295	3.5%	
8:00 PM	98	29	53	14	194	2.3%	
9:00 PM	85	18	50	15	168	2.0%	
10:00 PM	63	24	34	5	126	1.5%	
11:00 PM	40	27	24	5	96	1.1%	
12:00 AM	23	19	21	3	66	0.8%	
1:00 AM	13	12	9	3	37	0.4%	
2:00 AM	17	13	12	1	43	0.5%	
3:00 AM	18	20	14	4	56	0.7%	
4:00 AM	39	66	37	4	146	1.7%	
5:00 AM	74	100	117	7	298	3.5%	

8412



**LAWSON-FISHER ASSOCIATES P.C.**  
 525 WEST WASHINGTON AVENUE  
 SOUTH BEND, INDIANA 46601

Job # : 201874.30  
 Designed by: CJN  
 Checked by: BPH

Date: 02/19/19  
 Date: 02/20/20

Project: US 6 / US 421 Intersection

Subject: AM Peak Turn Movements

November Seasonal Adjustment Factor: 1.013

Growth Rate: 0.50%

**AM PEAK HOUR (7:00am):**

<u>Approach</u>		Count Yr 2016	Seasonal 2016	Const Yr 2022	Design Yr 2042
<b>West</b>	<b>EB</b>				
	Left	5	5	5	6
	Thru	19	19	20	23
	Right	3	3	3	3
	U-Turn	0	0	0	0
<b>East</b>	<b>WB</b>				
	Left	19	19	20	23
	Thru	39	40	41	46
	Right	104	105	109	123
	U-Turn	0	0	0	0
<b>South</b>	<b>NB</b>				
	Left	2	2	2	2
	Thru	159	161	166	187
	Right	20	20	21	24
	U-Turn	0	0	0	0
<b>North</b>	<b>SB</b>				
	Left	47	48	49	55
	Thru	97	98	101	114
	Right	7	7	7	8
	U-Turn	0	0	0	0

Project: US 6 / US 421 Intersection

Subject: PM Peak Turn Movements

November Seasonal Adjustment Factor: 1.013

Growth Rate: 0.50%

**PM PEAK HOUR (3:00pm):**

<u>Approach</u>		Count Yr 2016	Seasonal 2016	Const Yr 2022	Design Yr 2042
<b>West</b>	<b>EB</b>				
	Left	6	6	6	<b>7</b>
	Thru	48	49	50	<b>56</b>
	Right	5	5	5	<b>6</b>
	U-Turn	0	0	0	<b>0</b>
<b>East</b>	<b>WB</b>				
	Left	15	15	16	<b>18</b>
	Thru	25	25	26	<b>29</b>
	Right	90	91	94	<b>106</b>
	U-Turn	0	0	0	<b>0</b>
<b>South</b>	<b>NB</b>				
	Left	1	1	1	<b>1</b>
	Thru	171	173	178	<b>201</b>
	Right	29	29	30	<b>34</b>
	U-Turn	0	0	0	<b>0</b>
<b>North</b>	<b>SB</b>				
	Left	124	126	129	<b>145</b>
	Thru	216	219	225	<b>253</b>
	Right	9	9	9	<b>10</b>
	U-Turn	0	0	0	<b>0</b>
					<b>866</b>

Project: INDOT-US 6 & US 421 Intersection Improvement, Des. No. 1702989

Subject: Crash Summary

CRASH DATE	Number of Crashes			Severity			Reference	Crash Factors*							Causal Theory	
	2014	2015	2016	Vehicles	Injured	Fatalities		Route #	Weather	Surface Condition	Lighting	Collision Involved	First Damage	Road Character		Collision Diagram
				V	I	F			A	B	C	D	E	F		G
January 22, 2014	1			2	0		U.S. 421	4	5	4	18	3	1	6	D2 WB (failure to yeild R/W) to D1 traveling SB, D1 could not avoid the collision	
May 8, 2014	1			2	1		U.S. 6	1	1	1	18	6	1	2	D2 WB to NB was following too closely while distracted	
July 3, 2014	1			2	0		U.S. 421	1	1	4	18	3	1	6	D1 WB (failure to yeild R/W) to D2 traveling NB, believed the intersection was a 4 way stop	
July 3, 2014	1			2	0		U.S. 421	1	1	1	18	3	1	6	D1 WB (failure to yeild R/W) to D2 traveling NB, believed the intersection was a 4 way stop	
July 14, 2014	1			2	0		U.S. 6	2	1	1	18	6	1	2	D1 WB to NB was following too closely while slowing in traffic	
August 22, 2014	1			2	0		U.S. 6	1	1	2	18	6	1	2	D1 WB was following too closely while slowing in traffic	
December 19, 2014	1			2	0		U.S.6	1	1	3	18	6	1	2	D1 WB to NB was following too closely while slowing in traffic	
January 5, 2015		1		2	1		U.S. 421	1	5	3	18	3	1	6	D1 WB (failure to yeild R/W) to D2 traveling NB	
February 15, 2016			1	2	0		U.S. 421	1	2	1	18	6	1	2	D1 WB was following too closely while slowing in traffic, thought D2 was going to turn	
April 18, 2016			1	2	1		U.S. 421	1	1	2	18	3	1	6	D1 WB (failure to yeild R/W) to D2 traveling SB, D2 could not avoid the collision	
May 8, 2016			1	2	9		U.S. 421	1	1	1	18	3	1	6	D1 WB (failure to yeild R/W) to D2 traveling SB, D1 did not see the stop sign and believed NB/SB traffic had to stop	
June 4, 2016			1	2	0		U.S. 421	1	1	4	18	6	1	2	D1 WB was following too closely while slowing in traffic, thought D2 was going to turn	
July 22, 2016			1	2	0		U.S. 421	1	1	4	18	3	1	6	D1 WB (failure to yeild R/W) to D2 traveling SB, D2 could not avoid the collision	
September 6, 2016			1	2	2		U.S. 421	1	1	1	18	3	1	6	D1 WB (failure to yeild R/W) to D2 traveling SB, D1 disregarded the stop sign	
September 13, 2016			1	2	2		U.S. 421	1	1	1	18	3	1	6	D1 WB (failure to yeild R/W) to D2 traveling NB, believed the intersection was a 4 way stop	
September 24, 2016			1	2	2	1	U.S. 421	1	1	1	18	3	1	6	D1 WB (failure to yeild R/W) to D2 traveling NB, D1 failed to stop	
<b>TOTAL</b>	<b>7</b>	<b>1</b>	<b>8</b>	<b>32</b>	<b>18</b>	<b>1</b>										

TOTAL	16
INTERSECTION	16
Head-on	0
Rear-End	6
Same-Dir Sideswipe	0
Opposite-Dir Sideswipe	0
Off-Road	0
RT. Angle	10
Left Turns	0
Right Turns	0
Deer	0

CRASHES PER YEAR	5.3
INJURIES PER YEAR	6.0
FATALITIES PER YEAR	0.3
CRASH RATE R=	1.715

**INTERSECTION CRASH RATES**

R= crashes per million entering vehicles (mev)

$$R = \frac{(A)(1,000,000)}{(T)(V)}$$

A = number of crashes during the period  
 T = time period in days  
 V = total average daily traffic (ADT) entering the intersection

\* From IDM Figure 55-8B and 55-8C  
 \*\* Severe cross wind

**LAWSON-FISHER ASSOCIATES P.C.**  
 525 WEST WASHINGTON AVENUE  
 SOUTH BEND, INDIANA 46601

Job # : 201874.30  
 Designed by: CJN  
 Checked by: BPH

Date: 02/25/19  
 Date: 02/26/19

Project: U.S.6/U.S. 421 Roundabout

Subject: Engineer's Estimate of Probable Construction Costs

Item Code	Pay Item	Quantity	Unit	Unit Cost	Total Cost
105-06845	Construction Engineering	1	LSUM	36,900.00	\$ 36,900.00
110-01001	Mobilization and Demobilization	1	LSUM	61,500.00	\$ 61,500.00
201-52370	Clearing Right-of-Way	1	LSUM	24,600.00	\$ 24,600.00
202-02224	Pavement Removal	10,575	SYS	12.50	\$ 132,187.50
203-02000	Excavation, Common	1,625	CYS	20.00	\$ 32,500.00
203-02070	Borrow	975	CYS	10.00	\$ 9,750.00
205-12108	Storm Water Management Budget	30,000	DOL	1.00	\$ 30,000.00
205-12109	SWQCP Preparation and Implementation, Level 1	1	LSUM	10,000.00	\$ 10,000.00
207-08264	Subgrade Treatment, Type II	9,125	SYS	20.00	\$ 182,500.00
302-06464	Subbase for PCCP	1,570	CYS	60.00	\$ 94,200.00
501-06321	QC/QA-PCCP, 10 IN.	8,945	SYS	70.00	\$ 626,150.00
605-06255	Center Curb, D Concrete	430	SYS	65.00	\$ 27,950.00
605-06090	Curb, Integral Concrete	1,870	LFT	25.00	\$ 46,750.00
621-06559	Mulched Seeding R	14,168	SYS	1.00	\$ 14,168.00
715-05154	Pipe, Type 2, Circular, 24 in.	200	LFT	65.00	\$ 13,000.00
720-98555	Inlet, C15	4	EACH	2,500.00	\$ 10,000.00
801-06775	Maintenance of Traffic	1	LSUM	30,000.00	\$ 30,000.00
	Pavement Marking	1	LSUM	12,300.00	\$ 12,300.00
	Street Lighting	1	LSUM	73,700.00	\$ 73,700.00
	New Signs	1	LSUM	6,100.00	\$ 6,100.00
	Miscellaneous Items (10%)	1	LSUM	122,900.00	\$ 122,900.00
Subtotal					\$ 1,597,155.50
+ 10% Contingency					\$ 159,720.00
Total (Rounded to nearest \$1,000)					\$ 1,756,875.50
Inflation at 3% per year for 2023 letting					\$ 1,977,378.85
<b>CONSTRUCTION TOTAL</b>					<b>\$ 1,977,378.85</b>

**SAY: \$1,980,000.00**

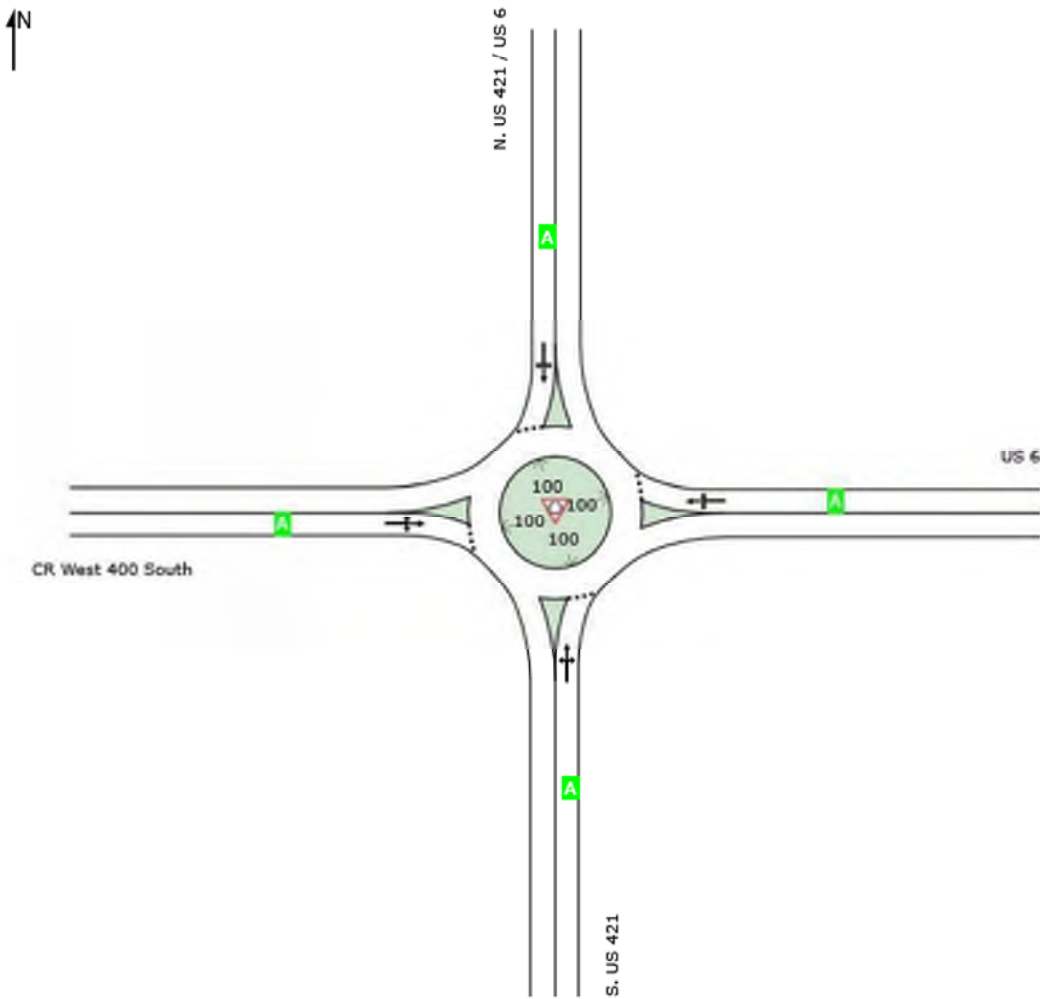
# LANE LEVEL OF SERVICE

## Lane Level of Service

 Site: 101 [U.S. 6 & U.S. 421]

U.S. 6 & U.S. 421  
 Site Category: (None)  
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 Roundabout LOS Method: Same as Sign Control.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.

LOS F will result if  $v/c > 1$  irrespective of lane delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

# QUEUE DISTANCE (AVER)

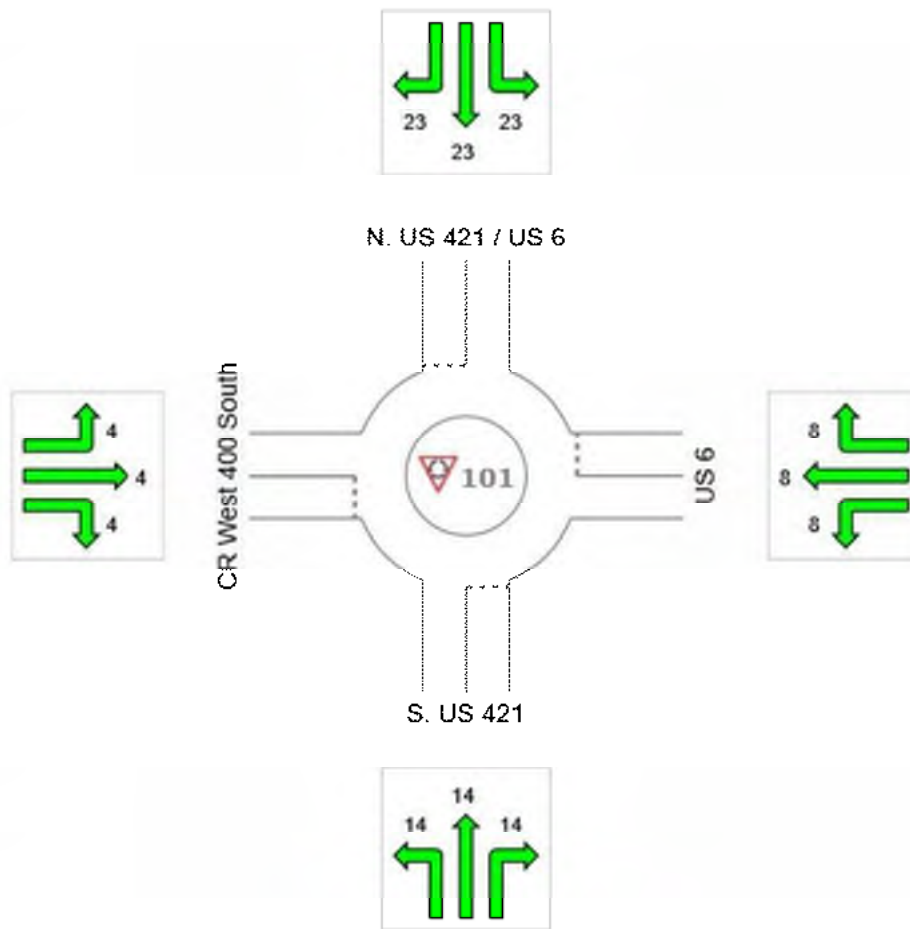
Average Back of Queue Distance for any lane used by vehicle movement (feet)

 Site: 101 [U.S. 6 & U.S. 421]

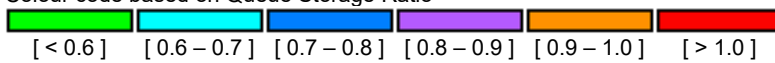
U.S. 6 & U.S. 421  
 Site Category: (None)  
 Roundabout

## All Movement Classes

	Approaches				Intersection
	South	East	North	West	
Queue Distance (Aver)	14	8	23	4	23








Colour code based on Queue Storage Ratio



**DETAILED OUTPUT**
 Site: 101 [U.S. 6 & U.S. 421]

U.S. 6 & U.S. 421  
 Site Category: (None)  
 Roundabout

**OUTPUT TABLE LINKS**

-  Roundabouts
  - Roundabout Basic Parameters
  - Roundabout Circulating / Exiting Stream Parameters
  - Roundabout Gap Acceptance Parameters
  - Roundabout Flow Rates
-  Movements
  - Intersection Negotiation and Travel Data
  - Movement Capacity and Performance Parameters
  - Fuel Consumption, Emissions and Cost
-  Lanes
  - Lane Performance and Capacity Information
  - Lane, Approach and Intersection Performance
  - Driver Characteristics
  - Lane Delays
  - Lane Queues
  - Lane Queue Percentiles
  - Lane Stops
-  Flow Rates
  - Origin-Destination Flow Rates (Total)
  - Origin-Destination Flow Rates by Movement Class
  - Lane Flow Rates
-  Other
  - Parameter Settings Summary
  - Diagnostics

**Roundabouts**

Roundabout Basic Parameters  
 Site: U.S. 6 & U.S. 421

Site ID: 101  
 Roundabout

Central Island Diam ft	Circ Width ft	Insc Diam. ft	Entry Radius ft	Entry Angle deg	Circ Lanes	Entry Lanes	Av. Entry Lane Width ft	App Dist ft	Prop Upstr	Queued Signal	Extra Bunching %
-----											
South: S. US 421											
100.0*	18.0*	136.0*	100.0*	30.0*	1	1	12.00*	1600		NA	0.0N
-----											
East: US 6											
100.0*	18.0*	136.0*	100.0*	30.0*	1	1	12.00*	1600		NA	0.0N
-----											
North: N. US 421 / US 6											
100.0*	18.0*	136.0*	100.0*	30.0*	1	1	12.00*	1600		NA	0.0N
-----											
West: CR West 400 South											
100.0*	18.0*	136.0*	100.0*	30.0*	1	1	12.00*	1600		NA	0.0N
-----											

Roundabout Capacity Model: US HCM 6

\* These parameters do not affect estimated capacity values in the HCM 6 Capacity Model.

NA Not Applicable (single Site analysis or unconnected Site in Network analysis).

N Program option resulted in zero value (single Site analysis or unconnected Site in Network analysis).

[Go to Table Links \(Top\)](#)

Roundabout Circulating / Exiting Stream Parameters  
Site: U.S. 6 & U.S. 421

Site ID: 101  
Roundabout

Dest	Turn	Lane No.	Lane Type	Opng Flow veh/h	HVE pcu/veh	Adj. Flow pcu/h	%Near Only	%Exit Flow Incl.	Cap. Const. Effect	O-D Factor	Aver Speed mph	In-Bunch Headway sec	Prop. Bunched
South: S. US 421													
W	L2	1	Dominant	208	1.31	273	0.0	0.0	N	-	18.0	0.00	0.000
N	T1	1	Dominant	208	1.31	273	0.0	0.0	N	-	18.0	0.00	0.000
E	R2	1	Dominant	208	1.31	273	0.0	0.0	N	-	18.0	0.00	0.000
East: US 6													
S	L2	1	Dominant	209	1.26	264	0.0	0.0	N	-	24.4	0.00	0.000
W	T1	1	Dominant	209	1.26	264	0.0	0.0	N	-	24.4	0.00	0.000
N	R2	1	Dominant	209	1.26	264	0.0	0.0	N	-	24.4	0.00	0.000
North: N. US 421 / US 6													
E	L2	1	Dominant	48	1.17	56	0.0	0.0	N	-	21.1	0.00	0.000
S	T1	1	Dominant	48	1.17	56	0.0	0.0	N	-	21.1	0.00	0.000
W	R2	1	Dominant	48	1.17	56	0.0	0.0	N	-	21.1	0.00	0.000
West: CR West 400 South													
N	L2	1	Dominant	416	1.31	543	0.0	0.0	N	-	21.1	0.00	0.000
E	T1	1	Dominant	416	1.31	543	0.0	0.0	N	-	21.1	0.00	0.000
S	R2	1	Dominant	416	1.31	543	0.0	0.0	N	-	21.1	0.00	0.000

Roundabout Capacity Model: US HCM 6

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Roundabout Gap Acceptance Parameters  
Site: U.S. 6 & U.S. 421

Site ID: 101  
Roundabout

Dest	Turn	Lane No.	Lane Type	In-Bunch Headway sec	Prop. Bunched	Priority Sharing	HVE for Entry	Critical Gap		Follow-up Headway sec
								Headway sec	Dist ft	
South: S. US 421										
Model Calibration Factor (HCM 6): 1.00										
Entry/Circ. Flow Adjustment (HCM 6): None										
W	L2	1	Dominant	0.00	0.000	N	1.00	4.98	131.2	2.61
N	T1	1	Dominant	0.00	0.000	N	1.27	4.98	131.2	2.61
E	R2	1	Dominant	0.00	0.000	N	1.57	4.98	131.2	2.61
East: US 6										
Model Calibration Factor (HCM 6): 1.00										
Entry/Circ. Flow Adjustment (HCM 6): None										
S	L2	1	Dominant	0.00	0.000	N	1.17	4.98	178.1	2.61
W	T1	1	Dominant	0.00	0.000	N	1.17	4.98	178.1	2.61
N	R2	1	Dominant	0.00	0.000	N	1.35	4.98	178.1	2.61
North: N. US 421 / US 6										
Model Calibration Factor (HCM 6): 1.00										
Entry/Circ. Flow Adjustment (HCM 6): None										
E	L2	1	Dominant	0.00	0.000	N	1.35	4.98	153.9	2.61
S	T1	1	Dominant	0.00	0.000	N	1.29	4.98	153.9	2.61
W	R2	1	Dominant	0.00	0.000	N	1.20	4.98	153.9	2.61
West: CR West 400 South										
Model Calibration Factor (HCM 6): 1.00										
Entry/Circ. Flow Adjustment (HCM 6): None										
N	L2	1	Dominant	0.00	0.000	N	1.14	4.98	154.2	2.61
E	T1	1	Dominant	0.00	0.000	N	1.24	4.98	154.2	2.61
S	R2	1	Dominant	0.00	0.000	N	1.34	4.98	154.2	2.61

Roundabout Capacity Model: US HCM 6

Dist (Distance): Spacing, i.e. distance between the front ends of two



successive vehicles across all lanes in the circulating  
or exiting stream

[Go to Table Links \(Top\)](#)

## Roundabout Flow Rates

Site: U.S. 6 & U.S. 421

Site ID: 101  
Roundabout

### CIRCULATING LANE FLOW RATES

Lane No.	Circulating Flow Rate		
	veh/h	pcu/h	Percent
-----			
South: S. US 421			
1	208	273	100.0%
Total	208	273	
-----			
East: US 6			
1	209	264	100.0%
Total	209	264	
-----			
North: N. US 421 / US 6			
1	48	56	100.0%
Total	48	56	
-----			
West: CR West 400 South			
1	416	543	100.0%
Total	416	543	
-----			

The US HCM 6 roundabout capacity model option is in use.  
This model considers only the total circulating flow and not the flow rates in individual circulating lanes. To model the effects of flow distribution in circulating lanes on the entry capacity results, you should use the SIDRA Standard roundabout capacity model.

### APPROACH LANE FLOW RATES

Lane No.	Approach Flows (veh/h)		
	Out	To Downst	Total
-----			
South: S. US 421			
1	34	202	236
Total	34	202	236
-----			
East: US 6			
1	106	47	153
Total	106	47	153
-----			
North: N. US 421 / US 6			
1	10	398	408
Total	10	398	408
-----			
West: CR West 400 South			
1	6	63	69
Total	6	63	69
-----			

[Go to Table Links \(Top\)](#)

## Movements

### Intersection Negotiation and Travel Data

Site: U.S. 6 & U.S. 421

Site ID: 101  
Roundabout

TRAVEL SPEED, TRAVEL DISTANCE AND TRAVEL TIME

From Approach	To Exit	Turn	Running Speed mph	Travel Speed mph	Travel Distance ft	Travel Time s	Total Dem Flows veh-mi/h	Travel Distance Arv Flows veh-mi/h	Tot.Trav. Time veh-h/h
South: S. US 421									
	West	L2	39.5	36.2	3324.5#	62.6#	0.6	0.6	0.0
	North	T1	35.5	32.8	3324.5#	69.0#	126.6	126.6	3.9
	East	R2	30.7	28.7	3324.5#	79.0#	21.4	21.4	0.7
East: US 6									
	South	L2	40.6	37.6	3293.8#	59.7#	11.2	11.2	0.3
	West	T1	41.4	38.2	3293.8#	58.8#	18.1	18.1	0.5
	North	R2	37.2	34.6	3293.8#	64.9#	66.1	66.1	1.9
North: N. US 421 / US 6									
	East	L2	33.6	30.4	3360.1#	75.3#	92.3	92.3	3.0
	South	T1	35.1	31.7	3360.1#	72.3#	161.0	161.0	5.1
	West	R2	35.1	31.7	3360.1#	72.3#	6.4	6.4	0.2
West: CR West 400 South									
	North	L2	40.4	37.9	3335.8#	60.0#	4.4	4.4	0.1
	East	T1	39.5	37.1	3335.8#	61.3#	35.4	35.4	1.0
	South	R2	36.7	34.6	3335.8#	65.7#	3.8	3.8	0.1
ALL VEHICLES:			35.7	32.6	3336.7#	69.8#	547.3	547.3	16.8

"Running Speed" is the average speed excluding stopped periods.

Travel Time values include cruise times and intersection delays including acceleration, deceleration and idling delays.

# Travel Distance and Travel Time values include travel on the External Exit section based on the Exit Distance or user-specified Downstream Distance value as applicable.

INTERSECTION NEGOTIATION DATA

From Approach	To Exit	Turn	Negn Radius ft	Negn Speed mph	Negn Dist ft	App Dist ft	Exit Dist ft	Downstr Dist ft
South: S. US 421								
	West	L2	57.2	15.5	224.6	1600	488	NA
	North	T1	197.6	24.8	131.0	1600	488	NA
	East	R2	121.0	20.6	52.5	1600	488	NA
East: US 6								
	South	L2	57.2	15.5	224.6	1600	488	NA
	West	T1	197.6	24.8	131.0	1600	488	NA
	North	R2	121.0	20.6	52.5	1600	488	NA
North: N. US 421 / US 6								
	East	L2	57.2	15.5	224.6	1600	488	NA
	South	T1	197.6	24.8	131.0	1600	488	NA
	West	R2	121.0	20.6	52.5	1600	488	NA
West: CR West 400 South								
	North	L2	57.2	15.5	224.6	1600	488	NA
	East	T1	197.6	24.8	131.0	1600	488	NA
	South	R2	121.0	20.6	52.5	1600	488	NA

Maximum Negotiation (Design) Speed = 30.0 mph

- NA Downstream Distance does not apply if:
- Exit is an internal leg of a network
  - "Program" option was specified
  - Distance specified was less than the Exit Negotiation Distance
  - Distance specified was greater than the exit leg length

MOVEMENT SPEEDS AND GEOMETRIC DELAY

Mov ID	Turn	App. Speeds		Exit Speeds		Queue Move-up Speed mph	Geom Delay sec
		Cruise mph	Negn mph	Negn mph	Cruise mph		
South: S. US 421							

3	L2	45.0	15.5	15.5	45.0	28.2	0.0
8	T1	45.0	24.8	24.8	45.0	28.2	0.0
18	R2	45.0	20.6	20.6	45.0	28.2	0.0
-----							
East: US 6							
1	L2	55.0	15.5	15.5	55.0	28.5	0.0
6	T1	55.0	24.8	24.8	55.0	28.5	0.0
16	R2	55.0	20.6	20.6	55.0	28.5	0.0
-----							
North: N. US 421 / US 6							
7	L2	45.0	15.5	15.5	45.0	34.4	0.0
4	T1	45.0	24.8	24.8	45.0	34.4	0.0
14	R2	45.0	20.6	20.6	45.0	34.4	0.0
-----							
West: CR West 400 South							
5	L2	55.0	15.5	15.5	55.0	20.4	0.0
2	T1	55.0	24.8	24.8	55.0	20.4	0.0
12	R2	55.0	20.6	20.6	55.0	20.4	0.0

HCM Delay Formula option used: Geometric Delay is not included in Control Delay.

[Go to Table Links \(Top\)](#)

Movement Capacity and Performance Parameters  
Site: U.S. 6 & U.S. 421

Site ID: 101  
Roundabout

MOVEMENT CAPACITY PARAMETERS

Mov ID	Turn	Mov Cl.	Arv Flow veh/h	Opng Flow veh/h	Movement Adjust. Flow pcu/h	Total Cap. veh/h	Prac. Deg. Satn xp	Prac. Spare Cap. %	Deg. Satn x
-----									
South: S. US 421									
3	L2	#	1	208	273	3	0.85	187	0.296
8	T1	#	201	208	273	678	0.85	187	0.296
18	R2	#	34	208	273	115	0.85	187	0.296
-----									
East: US 6									
1	L2	#	18	209	264	96	0.85	352	0.188
6	T1	#	29	209	264	154	0.85	352	0.188
16	R2	#	106	209	264	564	0.85	352	0.188
-----									
North: N. US 421 / US 6									
7	L2	#	145	48	56	354	0.85	107	0.410*
4	T1	#	253	48	56	617	0.85	107	0.410*
14	R2	#	10	48	56	24	0.85	107	0.410*
-----									
West: CR West 400 South									
5	L2	#	7	416	543	65	0.85	689	0.108
2	T1	#	56	416	543	520	0.85	689	0.108
12	R2	#	6	416	543	56	0.85	689	0.108

\* Maximum degree of saturation

# Combined Movement Capacity parameters are shown for all Movement Classes.

MOVEMENT PERFORMANCE

Mov ID	Turn	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Eff. Stop Rate	Total Stops	Perf. Index	Tot.Trav. Distance (veh-mi/h)	Tot.Trav. Time (veh-h/h)	Aver. Speed (mph)
-----										
South: S. US 421										
3	L2	0.00	0.00	6.8	0.35	0.3	0.46	0.6	0.0	36.2
8	T1	0.43	0.52	7.8	0.35	70.0	4.52	126.6	3.9	32.8
18	R2	0.08	0.10	8.8	0.35	11.8	1.51	21.4	0.7	28.7
-----										
East: US 6										
1	L2	0.03	0.04	6.0	0.30	5.4	0.79	11.2	0.3	37.6
6	T1	0.05	0.06	6.0	0.30	8.7	0.96	18.1	0.5	38.2
16	R2	0.19	0.23	6.6	0.30	32.0	2.10	66.1	1.9	34.6
-----										
North: N. US 421 / US 6										

7	L2	0.33	0.40	8.3	0.10	14.0	3.95	92.3	3.0	30.4
4	T1	0.57	0.68	8.1	0.10	24.5	5.77	161.0	5.1	31.7
14	R2	0.02	0.03	7.9	0.10	1.0	1.66	6.4	0.2	31.7
-----										
West: CR West 400 South										
5	L2	0.01	0.01	6.4	0.48	3.4	0.40	4.4	0.1	37.9
2	T1	0.11	0.13	6.8	0.48	26.9	1.18	35.4	1.0	37.1
12	R2	0.01	0.01	7.3	0.48	2.9	0.38	3.8	0.1	34.6
-----										

[Go to Table Links \(Top\)](#)

### Fuel Consumption, Emissions and Cost Site: U.S. 6 & U.S. 421

Site ID: 101  
Roundabout

#### FUEL CONSUMPTION, EMISSIONS AND COST (TOTAL)

Mov ID	Turn	Cost Total \$/h	Fuel Total gal/h	CO2 Total kg/h	CO Total kg/h	HC Total kg/h	NOX Total kg/h
-----							
South: S. US 421							
3	L2	0.45	0.1	0.5	0.00	0.000	0.003
8	T1	90.68	12.9	120.1	0.10	0.008	0.710
18	R2	15.48	2.5	23.4	0.02	0.002	0.143
		106.61	15.4	144.0	0.12	0.010	0.856
-----							
East: US 6							
1	L2	8.00	1.1	10.4	0.01	0.001	0.055
6	T1	12.89	1.8	16.7	0.02	0.001	0.089
16	R2	47.40	7.2	67.0	0.07	0.005	0.371
		68.29	10.1	94.0	0.10	0.007	0.515
-----							
North: N. US 421 / US 6							
7	L2	66.93	9.5	89.2	0.08	0.006	0.523
4	T1	116.57	16.2	151.2	0.13	0.011	0.878
14	R2	4.60	0.6	5.7	0.01	0.000	0.033
		188.10	26.4	246.1	0.21	0.017	1.434
-----							
West: CR West 400 South							
5	L2	2.93	0.4	3.7	0.00	0.000	0.018
2	T1	23.49	3.4	31.1	0.03	0.002	0.158
12	R2	2.53	0.4	3.5	0.00	0.000	0.018
		28.94	4.1	38.3	0.04	0.003	0.195
		391.94	56.1	522.5	0.47	0.037	2.999
-----							

#### FUEL CONSUMPTION, EMISSIONS AND COST (RATE)

Mov ID	Turn	Cost Rate \$/mi	Fuel Eff. mpg	CO2 Rate g/km	CO Rate g/km	HC Rate g/km	NOX Rate g/km
-----							
South: S. US 421							
3	L2	0.44	11.2	510.6	0.50	0.037	2.885
8	T1	0.45	9.8	589.8	0.50	0.040	3.485
18	R2	0.45	8.6	677.8	0.51	0.044	4.151
		0.45	9.6	602.2	0.51	0.041	3.578
-----							
East: US 6							
1	L2	0.44	10.0	574.2	0.65	0.045	3.056
6	T1	0.44	10.0	574.2	0.65	0.045	3.056
16	R2	0.45	9.2	629.1	0.63	0.047	3.486
		0.44	9.5	612.3	0.64	0.046	3.354
-----							
North: N. US 421 / US 6							

7	L2	0.45	9.7	600.8	0.51	0.042	3.521
4	T1	0.45	9.9	583.4	0.51	0.041	3.389
14	R2	0.45	10.4	557.3	0.50	0.040	3.191
		0.45	9.8	588.9	0.51	0.041	3.431
-----							
West: CR West 400 South							
5	L2	0.41	11.1	516.8	0.62	0.043	2.546
2	T1	0.41	10.5	547.0	0.61	0.043	2.782
12	R2	0.41	10.0	577.1	0.60	0.044	3.017
		0.41	10.5	546.5	0.61	0.043	2.778
-----							
INTERSECTION:		0.45	9.8	593.2	0.54	0.042	3.406
-----							

[Go to Table Links \(Top\)](#)

## Lanes

### Lane Performance and Capacity Information Site: U.S. 6 & U.S. 421

Site ID: 101  
Roundabout

#### LANE PERFORMANCE

Lane No.	Flow veh/h	Cap veh/h	Deg. Satn x	Aver. Delay sec	Eff. Stop Rate	Q u e u e		Lane Length ft
						95% Back veh	ft	
-----								
South: S. US 421								
1	236	796	0.296	7.9	0.35	1.1	34.3	1600.0
-----								
East: US 6								
1	153	814	0.188	6.4	0.30	0.7	20.3	1600.0
-----								
North: N. US 421 / US 6								
1	408	996	0.410	8.2	0.10	1.9	57.7	1600.0
-----								
West: CR West 400 South								
1	69	640	0.108	6.8	0.48	0.4	10.5	1600.0
-----								

#### LANE FLOW AND CAPACITY INFORMATION

Lane No.	Total Arv Flow veh/h	Min Cap veh/h	Tot Cap veh/h	Deg. Satn x	Lane Util %
South: S. US 421					
1	236	150	796	0.296	100
-----					
East: US 6					
1	153	150	814	0.188	100
-----					
North: N. US 421 / US 6					
1	408	150	996	0.410	100
-----					
West: CR West 400 South					
1	69	69	640	0.108	100
-----					

The capacity values of Continuous Lanes are obtained by adjusting the basic saturation flow for lane width, grade, movement class and turning vehicle effects. Saturation flow scale applies if specified.

[Go to Table Links \(Top\)](#)

### Lane, Approach and Intersection Performance Site: U.S. 6 & U.S. 421

Site ID: 101  
Roundabout

Lane No.	Arrival Flow (veh/h)	%HV	Adj. Basic Satf.	Deg Sat x	Aver. Delay sec	Longest Queue ft	Lane Length ft
-----							
South: S. US 421							
1	236	31		0.296	7.9	34	1600
	236	31		0.296	7.9	34	
-----							
East: US 6							
1	153	29		0.188	6.4	20	1600
	153	29		0.188	6.4	20	
-----							
North: N. US 421 / US 6							
1	408	31		0.410	8.2	58	1600
	408	31		0.410	8.2	58	
-----							
West: CR West 400 South							
1	69	24		0.108	6.8	11	1600
	69	24		0.108	6.8	11	
=====							
ALL VEHICLES							
	Total Flow	% HV		Max X	Aver. Delay	Max Queue	
	866	30		0.410	7.7	58	
=====							

Peak flow period = 60 minutes.

Queue values in this table are 95% queue (feet)  
Note: Basic Saturation Flows at roundabouts or sign-controlled intersections apply only to continuous lanes.

[Go to Table Links \(Top\)](#)

### Driver Characteristics

Site: U.S. 6 & U.S. 421

Site ID: 101  
Roundabout

Lane No.	Satn Speed mph	Satn Flow veh/h	Satn Hdwy sec	Satn Spacing ft	Average Queue Space ft	Driver Response Time sec
-----						
South: S. US 421						
1	24.1	1380	2.61	92.28	31.24	1.73
-----						
East: US 6						
1	20.8	1380	2.61	79.45	30.89	1.59
-----						
North: N. US 421 / US 6						
1	21.4	1380	2.61	81.73	31.18	1.61
-----						
West: CR West 400 South						
1	23.5	1380	2.61	89.74	29.77	1.74
-----						

Saturation Flow and Saturation Headway are derived from follow-up headway.

[Go to Table Links \(Top\)](#)

### Lane Delays

Site: U.S. 6 & U.S. 421

Site ID: 101  
Roundabout

LANE DELAYS

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Delay (seconds/veh)									
				Min Del dm	Stop-line 1st d1	Delay 2nd d2	Total dSL	Acc. Dec. dn	Queuing Total dq	MvUp dqm	Stopd (Idle) di	Geom dig	Control dic
South: S. US 421													
1	0.296	NA	NA	4.5	6.0	1.9	7.9	6.0	5.2	0.0	5.2	0.0	7.9
East: US 6													
1	0.188	NA	NA	4.4	5.4	1.0	6.4	4.6	4.5	0.0	4.5	0.0	6.4
North: N. US 421 / US 6													
1	0.410	NA	NA	3.6	5.7	2.5	8.2	5.0	7.1	0.0	7.1	0.0	8.2
West: CR West 400 South													
1	0.108	NA	NA	5.6	6.2	0.7	6.8	5.6	3.8	0.0	3.8	0.0	6.8

HCM Delay Formula option used (Exclude Geometric Delay option applies). Control Delay does not include Geometric Delay, and Stop-line Delay is treated as being same as Control Delay.

dm: Minimum delay for gap acceptance cases  
dSL: Stop-line delay (=d1+d2)  
dn: Average stop-start delay for all vehicles queued and unqueued  
dq: Queuing delay (the part of the stop-line delay that includes stopped delay and queue move-up delay)  
dqm: Queue move-up delay  
di: Stopped delay (stopped (idling) time at near-zero speed)  
dig: Geometric delay  
dic: Control delay

[Go to Table Links \(Top\)](#)

Lane Queues

Site: U.S. 6 & U.S. 421

Site ID: 101  
Roundabout

BACK OF QUEUE (VEHICLES)

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Back of Queue (veh)				Queue Stor. Ratio		Prob. Block %	Prob. SL Ov. %
					Nb1	Nb2	Nb	95%	Av.	95%		
South: S. US 421												
1	0.296	NA	NA	0.0	0.4	0.0	0.4	1.1	0.01	0.02	0.0	NA
East: US 6												
1	0.188	NA	NA	0.0	0.3	0.0	0.3	0.7	0.01	0.01	0.0	NA
North: N. US 421 / US 6												
1	0.410	NA	NA	0.0	0.7	0.0	0.7	1.9	0.01	0.04	0.0	NA
West: CR West 400 South												
1	0.108	NA	NA	0.0	0.1	0.0	0.1	0.4	0.00	0.01	0.0	NA

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

BACK OF QUEUE (DISTANCE)

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Back of Queue (ft)				Queue Stor. Ratio		Prob. Block %	Prob. SL Ov. %
					Nb1	Nb2	Nb	95%	Av.	95%		
South: S. US 421												
1	0.296	NA	NA	0.0	13.8	0.0	13.8	34.3	0.01	0.02	0.0	NA
East: US 6												
1	0.188	NA	NA	0.0	8.2	0.0	8.2	20.3	0.01	0.01	0.0	NA
North: N. US 421 / US 6												
1	0.410	NA	NA	0.0	23.2	0.0	23.2	57.7	0.01	0.04	0.0	NA

```

-----
West: CR West 400 South
1  0.108  NA    NA    0.0  4.2  0.0  4.2  10.5  0.00  0.01  0.0  NA
-----

```

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

OTHER QUEUE RESULTS (VEHICLES)

```

-----
Lane  Deg.  % Arv  Prog.  Ovrfl.  Cyc-Av.  Queue
No.   Satn  During  Factor  Queue   No       Nc       95%
      x   Green
-----
South: S. US 421
1  0.296  NA     NA     0.0    0.5    0.9
-----
East: US 6
1  0.188  NA     NA     0.0    0.3    0.5
-----
North: N. US 421 / US 6
1  0.410  NA     NA     0.0    0.9    1.7
-----
West: CR West 400 South
1  0.108  NA     NA     0.0    0.1    0.2
-----

```

HCM Delay Formula option used:  
Cycle-Average Queue is calculated using average delay from the HCM equation.  
(i.e. HCM delays are treated as stop-line delays for this purpose).

OTHER QUEUE RESULTS (DISTANCE)

```

-----
Lane  Deg.  % Arv  Prog.  Ovrfl.  Cyc-Av.  Queue
No.   Satn  During  Factor  Queue   No       Nc       95%
      x   Green
-----
South: S. US 421
1  0.296  NA     NA     0.0    16.2   29.4
-----
East: US 6
1  0.188  NA     NA     0.0    8.4    15.2
-----
North: N. US 421 / US 6
1  0.410  NA     NA     0.0    28.9   52.4
-----
West: CR West 400 South
1  0.108  NA     NA     0.0    3.9    7.1
-----

```

HCM Delay Formula option used:  
Cycle-Average Queue is calculated using average delay from the HCM equation.  
(i.e. HCM delays are treated as stop-line delays for this purpose).

[Go to Table Links \(Top\)](#)

### Lane Queue Percentiles

Site: U.S. 6 & U.S. 421

Site ID: 101  
Roundabout

LANE QUEUE PERCENTILES (VEHICLES)

```

-----
Lane  Deg.  Percentile Back of Queue (veh)
No.   Satn  50%   70%   85%   90%   95%   98%   100%
      x
-----
South: S. US 421
1  0.296  0.4   0.6   0.8   0.9   1.1   1.2   1.3
-----
East: US 6
1  0.188  0.3   0.3   0.5   0.6   0.7   0.7   0.8
-----
North: N. US 421 / US 6
-----

```



1	0.410	0.7	1.0	1.4	1.6	1.9	2.1	2.2
-----								
West: CR West 400 South								
1	0.108	0.1	0.2	0.3	0.3	0.4	0.4	0.4
-----								

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

LANE QUEUE PERCENTILES (DISTANCE)

Lane No.	Deg. Satn x	Percentile Back of Queue (feet)						
		50%	70%	85%	90%	95%	98%	100%
-----								
South: S. US 421								
1	0.296	13.8	17.9	25.2	29.2	34.3	38.1	40.9
-----								
East: US 6								
1	0.188	8.2	10.6	14.9	17.3	20.3	22.6	24.3
-----								
North: N. US 421 / US 6								
1	0.410	23.2	30.1	42.4	49.1	57.7	64.0	68.8
-----								
West: CR West 400 South								
1	0.108	4.2	5.5	7.7	8.9	10.5	11.7	12.5
-----								

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

[Go to Table Links \(Top\)](#)

Lane Stops

Site: U.S. 6 & U.S. 421

Site ID: 101  
Roundabout

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	-- Effective Stop Rate --				Total Stops H	Queue Move-up Rate hqm	Total Queue Move-ups Hqm	Prop. Queued pq	Aver. Num. of Cycles to Depart
				he1	he2	Geom. hig	Overall h					
-----												
South: S. US 421												
1	0.296	NA	NA	0.35	0.00	0.00	0.35	82.2	0.00	0.0	0.45	0.45
-----												
East: US 6												
1	0.188	NA	NA	0.30	0.00	0.00	0.30	46.1	0.00	0.0	0.42	0.42
-----												
North: N. US 421 / US 6												
1	0.410	NA	NA	0.10	0.00	0.00	0.10	39.5	0.00	0.0	0.22	0.22
-----												
West: CR West 400 South												
1	0.108	NA	NA	0.48	0.00	0.00	0.48	33.2	0.00	0.0	0.54	0.54
-----												

hig is the average value for all movements in a shared lane  
hqm is average queue move-up rate for all vehicles queued and unqueued

[Go to Table Links \(Top\)](#)

Flow Rates

Origin-Destination Flow Rates (Total)

Site: U.S. 6 & U.S. 421

Site ID: 101  
Roundabout

TOTAL FLOW RATES for All Movement Classes (veh/h)

From SOUTH To:	W	N	E
----------------	---	---	---

Turn:	L2	T1	R2	TOT
Flow Rate	1.0	201.0	34.0	236.0
%HV (all designations)	0.0	27.0	57.0	31.2
-----				
From EAST To:	S	W	N	
Turn:	L2	T1	R2	TOT
Flow Rate	18.0	29.0	106.0	153.0
%HV (all designations)	17.0	17.0	35.0	29.5
-----				
From NORTH To:	E	S	W	
Turn:	L2	T1	R2	TOT
Flow Rate	145.0	253.0	10.0	408.0
%HV (all designations)	35.0	29.0	20.0	30.9
-----				
From WEST To:	N	E	S	
Turn:	L2	T1	R2	TOT
Flow Rate	7.0	56.0	6.0	69.0
%HV (all designations)	14.0	24.0	34.0	23.9
-----				

Peak Flow factor value of 100% has been used for all movements since equal values of Unit Time for Volumes and Peak Flow Period were specified in the Volumes dialog.

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:  
 Unit Time for Volumes = 60 minutes  
 Peak Flow Period = 60 minutes  
 Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.  
 Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

#### Origin-Destination Flow Rates by Movement Class Site: U.S. 6 & U.S. 421

Site ID: 101  
 Roundabout

FLOW RATES for Light Vehicles (veh/h)

From SOUTH To:	W	N	E	TOT
Turn:	L2	T1	R2	TOT
Flow Rate	1.0	146.7	14.6	162.3
Mov Class %	100.0	73.0	43.0	68.8
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	1.00	1.00	1.00	-
Residual Demand	0.0	0.0	0.0	0.0
-----				
From EAST To:	S	W	N	
Turn:	L2	T1	R2	TOT
Flow Rate	14.9	24.1	68.9	107.9
Mov Class %	83.0	83.0	65.0	70.5
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	1.00	1.00	1.00	-
Residual Demand	0.0	0.0	0.0	0.0
-----				
From NORTH To:	E	S	W	
Turn:	L2	T1	R2	TOT
Flow Rate	94.2	179.6	8.0	281.9
Mov Class %	65.0	71.0	80.0	69.1
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	1.00	1.00	1.00	-
Residual Demand	0.0	0.0	0.0	0.0
-----				
From WEST To:	N	E	S	
Turn:	L2	T1	R2	TOT
Flow Rate	6.0	42.6	4.0	52.5
Mov Class %	86.0	76.0	66.0	76.1
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	1.00	1.00	1.00	-
Residual Demand	0.0	0.0	0.0	0.0
-----				

FLOW RATES for Heavy Vehicles (veh/h)

-----				
From SOUTH To:	W	N	E	
Turn:	L2	T1	R2	TOT
-----				
Flow Rate	0.0	54.3	19.4	73.7
Mov Class %	0.0	27.0	57.0	31.2
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	1.00	1.00	1.00	-
Residual Demand	0.0	0.0	0.0	0.0
-----				
From EAST To:	S	W	N	
Turn:	L2	T1	R2	TOT
-----				
Flow Rate	3.1	4.9	37.1	45.1
Mov Class %	17.0	17.0	35.0	29.5
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	1.00	1.00	1.00	-
Residual Demand	0.0	0.0	0.0	0.0
-----				
From NORTH To:	E	S	W	
Turn:	L2	T1	R2	TOT
-----				
Flow Rate	50.8	73.4	2.0	126.1
Mov Class %	35.0	29.0	20.0	30.9
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	1.00	1.00	1.00	-
Residual Demand	0.0	0.0	0.0	0.0
-----				
From WEST To:	N	E	S	
Turn:	L2	T1	R2	TOT
-----				
Flow Rate	1.0	13.4	2.0	16.5
Mov Class %	14.0	24.0	34.0	23.9
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	1.00	1.00	1.00	-
Residual Demand	0.0	0.0	0.0	0.0
-----				

Peak Flow factor value of 100% has been used for all movements since equal values of Unit Time for Volumes and Peak Flow Period were specified in the Volumes dialog.

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:  
Unit Time for Volumes = 60 minutes  
Peak Flow Period = 60 minutes  
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.  
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

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## Lane Flow Rates

Site: U.S. 6 & U.S. 421

Site ID: 101  
Roundabout

### LANE FLOW RATES AT STOP LINE (veh/h)

-----				
From SOUTH To:	W	N	E	
Turn:	L2	T1	R2	TOT
-----				
Lane 1				
LV	1.0	146.7	14.6	162.3
HV	*	54.3	19.4	73.7
Total	1.0	201.0	34.0	236.0
-----				
Approach	1.0	201.0	34.0	236.0
-----				
From EAST To:	S	W	N	
Turn:	L2	T1	R2	TOT
-----				
Lane 1				
LV	14.9	24.1	68.9	107.9
HV	3.1	4.9	37.1	45.1
Total	18.0	29.0	106.0	153.0
-----				
Approach	18.0	29.0	106.0	153.0

From NORTH To:	E	S	W	TOT
Turn:	L2	T1	R2	
-----				
Lane 1				
LV	94.2	179.6	8.0	281.9
HV	50.8	73.4	2.0	126.1
Total	145.0	253.0	10.0	408.0
-----				
Approach	145.0	253.0	10.0	408.0
-----				
From WEST To:	N	E	S	TOT
Turn:	L2	T1	R2	
-----				
Lane 1				
LV	6.0	42.6	4.0	52.5
HV	1.0	13.4	2.0	16.5
Total	7.0	56.0	6.0	69.0
-----				
Approach	7.0	56.0	6.0	69.0

\* Movement not allocated to the lane

#### EXIT LANE FLOW RATES

Movement Class:	LV	HV	TOT
-----			
Exit: SOUTH			
Lane: 1	198.5	78.5	277.0
Total	198.5	78.5	277.0
-----			
Exit: EAST			
Lane: 1	151.4	83.6	235.0
Total	151.4	83.6	235.0
-----			
Exit: NORTH			
Lane: 1	221.7	92.3	314.0
Total	221.7	92.3	314.0
-----			
Exit: WEST			
Lane: 1	33.1	6.9	40.0
Total	33.1	6.9	40.0

\* Movement not allocated to the lane

#### DOWNSTREAM LANE FLOW RATES FOR EXIT ROADS

Movement Class:	LV	HV	TOT
-----			
Exit: SOUTH			
Lane: 1	198.5	78.5	277.0
Total	198.5	78.5	277.0
-----			
Exit: EAST			
Lane: 1	151.4	83.6	235.0
Total	151.4	83.6	235.0
-----			
Exit: NORTH			
Lane: 1	221.7	92.3	314.0
Total	221.7	92.3	314.0
-----			
Exit: WEST			
Lane: 1	33.1	6.9	40.0
Total	33.1	6.9	40.0

\* Movement not allocated to the lane

Peak Flow factor value of 100% has been used for all movements since equal values of Unit Time for Volumes and Peak Flow Period were specified in the Volumes dialog.

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:

Unit Time for Volumes = 60 minutes

Peak Flow Period = 60 minutes

Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.

Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

## Other

### Parameter Settings Summary

Site: U.S. 6 & U.S. 421

Site ID: 101  
Roundabout

\* Basic Parameters:

Intersection Type: Roundabout  
US HCM 6 Roundabout Capacity Model used  
Driving on the right-hand side of the road  
Input data specified in US units  
Model Defaults: US HCM (Customary)  
Peak Flow Period (for performance): 60 minutes  
Unit time (for volumes): 60 minutes.  
HCM Delay Model option used  
HCM Queue Model option used  
Level of Service based on: Delay and v/c (HCM 6)  
Queue percentile: 95%

[Go to Table Links \(Top\)](#)

### Diagnostics

Site: U.S. 6 & U.S. 421

Site ID: 101  
Roundabout

Lane Flow-Capacity Iterations:

Site Model Variability Index (Iterations 3 to N): 0.0%  
Number of Iterations: 3 (Maximum: 10)

Other Diagnostic Messages (if any):

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Organisation: LAWSON-FISHER ASSOCIATES P.C. | Processed: Tuesday, February 19, 2019 2:58:55 PM

Project: U:\2018\201874 INDOT LaPorte\30 US6-US421\Eng\Design Road\Traffic\Capacity Analysis\Roundabout\US\_6\_US21

3p Peak.sip8

# HCS7 All-Way Stop Control Report

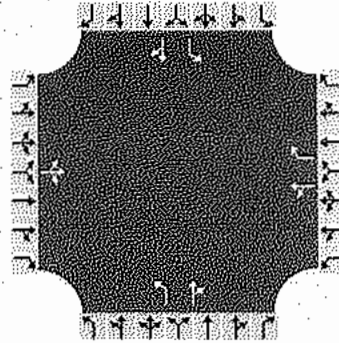
## General Information

Analyst	CJN
Agency/Co.	LFA
Date Performed	2/21/2019
Analysis Year	2019
Analysis Time Period (hrs)	1.00
Time Analyzed	
Project Description	2042 PM Peak Design

## Site Information

Intersection	U.S. 6 and U.S. 421
Jurisdiction	
East/West Street	U.S. 6
North/South Street	U.S. 421
Peak Hour Factor	1.00

## Lanes



## Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement												
Volume	7	56	6	18	29	106	1	201	34	145	253	10
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR			LT			L			L		
Flow Rate, v (veh/h)	69			47			1			145		
Percent Heavy Vehicles	0			0			0			0		

## Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20	3.20		3.20	3.20		3.20	3.20	
Initial Degree of Utilization, x	0.061			0.042	0.094		0.001	0.209		0.129	0.234	
Final Departure Headway, hd (s)	6.41			6.53	5.95		6.22	6.09		5.99	5.98	
Final Degree of Utilization, x	0.123			0.085	0.175		0.002	0.398		0.241	0.437	
Move-Up Time, m (s)	2.0			2.3	2.3		2.3	2.3		2.3	2.3	
Service Time, ts (s)	4.41			4.23	3.65		3.92	3.79		3.69	3.68	

## Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	69			47	106		1	235		145	263	
Capacity	562			551	605		579	591		601	602	
95% Queue Length, Q <sub>95</sub> (veh)	0.4			0.3	0.6		0.0	2.0		1.0	2.3	
Control Delay (s/veh)	10.3			9.8	9.9		8.9	12.8		10.6	13.3	
Level of Service, LOS	B			A	A		A	B		B	B	
Approach Delay (s/veh)	10.3			9.9			12.8			12.3		
Approach LOS	B			A			B			B		
Intersection Delay, s/veh   LOS	11.9						B					

**• YOUR TICKET NUMBER IS 1902072505.**

NORMAL NOTICE

Ticket : 1902072505 Date: 02/07/2019 Time: 14:43 Oper: SARAH.WEAVER.IN Chan:000

State: IN Cnty: LAPORTE Twp: NEW DURHAM  
 Cityname: WESTVILLE Inside: N Near: Y  
 Subdivision:

Address :  
 Street : S IN RT 421  
 Cross 1 : W CO RT 600 S Within 1/4 mile: Y  
 Location: STARTING ON IN RT 421, 500 FEET NORTH OF THE ABOVE INTERSECTION -  
 LOCATE HEADING SOUTH ON 421 FOR 1000 FEET ON BOTH SIDES OF THE ROAD AND STOPPING  
 AT THE EDGES OF THE FARM FIELDS FOR THE ENTIRE DISTANCE

:  
 Grids : 4130A8653B 4131D8653B  
 Boundary: n 41.520151 s 41.516420 w -86.895357 e -86.893092

Work type : SURVEY  
 Done for : INDOT  
 Start date: 02/11/2019 Time: 15:00 Hours notice: 96/048 Priority: NORM  
 Ug/Oh/Both: U Blasting: N Boring: N Railroad: N Emergency: N  
 Duration : 1 DAY Depth: 6 FEET

Company : LAWSON FISHER ASSOCIATES Type: CONT  
 Co addr : 525 W WASHINGTON ST  
 City : SOUTH BEND State: IN Zip: 46601  
 Caller : SARAH.WEAVER.IN Phone: (574)234-3167  
 Contact : SARAH WEAVER Phone:  
 BestTime: N/A  
 Mobile : (219)577-5880  
 Email : SWEAVER@LAWSON-FISHER.COM

Remarks : All tickets are taken and processed on Eastern Daylight Time  
 Will you be white-lining the dig site area? NO

:

Submitted date: 02/07/2019 Time: 14:43  
 Members: COMCN ID1881 ID2511 ID2885 ID8000 NI0007 NI0008 UQ USIC

Member Name	Facility Types
COMCAST NORTH	CABLE TV
FRONTIER	TELEPHONE
KANKAKEE VALLEY R.E.M.C.	ELECTRIC
MEDIACOM, LLC (AUBURN)	CABLE TV
NIPSCO ELECTRIC (LAPORTE)	ELECTRIC
NIPSCO GAS (LAPORTE)	GAS
WESTVILLE, TOWN OF	WATER, SEWER

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

ProjectNumber	SubProjectCode	County	Property
1800200	1800200	LaPorte	Fox Memorial Park
1800228	1800228	LaPorte	Fox Memorial Park
1800265	1800265	LaPorte	Kesling Park
1800332	1800332	LaPorte	Rumley Park
1800351	1800351	LaPorte	Westville Park (Prairie Meadow Park)
1800373	1800373	LaPorte	Kesling Park
1800402	1800402	LaPorte	Nelson Park
1800405	1800405V	LaPorte	Galena Marsh Nature Preserve
1800453	1800453	LaPorte	Luhr Park
1800547	1800547	LaPorte	Hansen & Gifford Parks/Old Spur Trail
1800608	1800608	LaPorte	Luhr County 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.