

**FHWA-Indiana Environmental Document**  
**CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM**  
**General Project Information**

<b>Road No./County:</b>	State Road (SR) 1, SR 26, US 27 / Blackford, Jay, and Randolph Counties
<b>Designation Number(s):</b>	1902734
<b>Project Description/Termini:</b>	Small Structures Project at the following locations: <ul style="list-style-type: none"> <li>• Structure No. 1 on SR 1, approx. 1.93 miles north of SR 32</li> <li>• Structure No. 2 on SR 1, approx. 1.09 miles south of SR 18</li> <li>• Structure No. 3 on SR 1, approx. 0.87 mile south of SR 18</li> <li>• Structure No. 4 on SR 26, approx. 0.26 mile west of CR 700 E</li> <li>• Structure No. 5 on US 27, approx. 1.20 miles north of SR 28</li> <li>• Structure No. 6 on US 27, approx. 3.11 miles north of SR 28</li> <li>• Structure No. 7 on US 27, approx. 3.28 miles south of SR 26</li> </ul>

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

**Approval**

\_\_\_\_\_  
 INDOT DE Signature and Date                      INDOT ESD Signature and Date

\_\_\_\_\_  
 FHWA Signature and Date

**Release for Public Involvement**

 9/7/2022                      N/A  
 \_\_\_\_\_  
 INDOT DE Initials and Date                      INDOT ESD Initials and Date

**Certification of Public Involvement**

\_\_\_\_\_  
 INDOT Consultant Services Signature and Date

**INDOT DE/ESD Reviewer Signature and Date:** \_\_\_\_\_

**Name and Organization of CE/EA Preparer:** Robert B. Winebrinner/Lochmueller Group, Inc.

# Indiana Department of Transportation

County Blackford, Jay, Randolph

Route SR 1, SR 26, US 27

Des. No. 1902734

## Part I – Public Involvement

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

Does the project have a historic bridge processed under the Historic Bridges PA*?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
If No, then: Opportunity for a Public Hearing Required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

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

Notice of Entry letters were mailed to potentially affected property owners near the project area on April 28, 2021 notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of Entry letter is included in Appendix F, F1.

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

## **Public Controversy on Environmental Grounds**

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

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

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

Sponsor of the Project: INDOT INDOT District: Greenfield

Local Name of the Facility: SR 1, SR 26, and US 27

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

\*If other is selected, please identify the funding source: N/A

### **PURPOSE AND NEED:**

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

#### **Need:**

The need for the project is evidenced by the deteriorated condition, which commonly includes section loss, and hydraulic inadequacy of the existing culverts. According to the INDOT Scoping Reports for these structures (2019-2021), the condition rating for each culvert is a 3, which is representative of a structure in "poor" condition. The condition ratings range from 0 to 9, with 0 being a failed structure and 9 being a structure in excellent condition.

#### **Purpose:**

The purpose of the project is to provide for a condition rating of at least 7 out of 9 ("good" rating) and provide sufficient hydraulic conveyance, increasing the life of the culverts an additional 25 years.

This is page 2 of 30 Project name: Small Structures Project Date: August 12, 2022

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County Blackford, Jay, Randolph

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**PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):**

Counties: Blackford, Jay, & Randolph

Municipality: N/A

- Limits of Proposed Work:
- 315 feet west to 279 feet east of Structure No. 1
  - 90 feet south to 85 feet north of Structure No. 2
  - 85 feet south to 80 feet north of Structure No. 3
  - 145 feet west to 155 feet east of Structure No. 4
  - 80 feet south to 85 feet north of Structure No. 5
  - 55 feet west to 60 feet east of Structure No. 6
  - 77 feet south to 73 feet north of Structure No. 7

Total Work Length: 0.32\* Mile(s)

Total Work Area: 3.26\* Acre(s)

\* cumulative among all seven structures

Is an Interstate Access Document (IAD)<sup>1</sup> required?

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

Yes <sup>1</sup>	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
Date: <input style="width: 100%;" type="text"/>	

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

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

INDOT, Greenfield District, with funding from the Federal Highway Administration (FHWA), intends to proceed with a small structures project along SR 1, SR 26, and US 27 in Blackford, Jay, and Randolph Counties, Indiana.

**Locations:**

Structure No. 1 - CLV-001-068-87.96

The subject culvert is located in Randolph County along SR 1, approximately 1.93 miles north of SR 32. Specifically, the culvert is located in Sections 1, and 36, Townships 20 and 21 N, Range 12 E in Monroe Township, as depicted on the Farmland USGS 7.5 Minute Topographic Map (Appendix B, B5).

Structure No. 2 - CLV-001-038-110.71

The subject culvert is located in Jay County along SR 1, approximately 1.09 miles south of SR 18. Specifically, the culvert is located in Section 15, Township 24 N, Range 12 E in Penn Township, as depicted on the Petroleum USGS 7.5 Minute Topographic Map (Appendix B, B6).

Structure No. 3 - CLV-001-038-110.93

The subject culvert is located in Jay County along SR 1, approximately 0.87 mile south of SR 18. Specifically, the culvert is located in Section 10, Township 23 N, Range 12 E in Penn Township, as depicted on the Petroleum USGS 7.5 Minute Topographic Map (Appendix B, B6).

Structure No. 4 - CLV-026-005-125.01

The subject culvert is located in Blackford County along SR 26, approximately 0.26 mile west of CR 700 East in Hartford City. Specifically, the culvert is located in Sections 11 and 14, Township 23 N, Range 11 E in Jackson Township, as depicted on the Pennville USGS 7.5 Minute Topographic Map (Appendix B, B7).

Structure No. 5 - CLV-027-068-55.25

The subject culvert is located in Randolph County along US 27, approximately 1.20 miles north of SR 28. Specifically, the culvert is located in Sections 4 and 5, Township 21 N, Range 14 E in Ward Township, as depicted on the Deerfield USGS 7.5 Minute Topographic Map (Appendix B, B8).

Structure No. 6 - CLV-027-038-57.06

The subject culvert is located in Jay County along US 27, approximately 3.11 miles north of SR 28. Specifically, the culvert is located in Sections 28, 29, 32, and 33, Township 22 N, Range 14 E in Pike Township, as depicted on the Deerfield USGS 7.5 Minute Topographic Map (Appendix B, B8).

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County Blackford, Jay, Randolph

Route SR 1, SR 26, US 27

Des. No. 1902734

### Structure No. 7 – CLV-027-038-61.28

The subject culvert is located in Jay County along US 27, approximately 3.28 miles south of SR 26. Specifically, the culvert is located in Sections 4 and 5, Township 22 N, Range 14 E in Pike Township, as depicted on the Portland USGS 7.5 Minute Topographic Map (Appendix B, B9).

#### **Existing Conditions:**

### Structure No. 1 - CLV-001-068-87.96

Adjacent land use is rural and consists of agriculture, residential, and wooded areas (Appendix B, B10). SR 1 is functionally classified as rural, major collector on level terrain. The typical cross section of SR 1 at this location consists of two 11-foot wide travel lanes with a minimum 2-foot wide aggregate shoulders present (Appendix B, B46). The posted speed limit is 55 miles per hour (mph). The existing culvert is a 46-foot long, 30-inch diameter corrugated metal pipe (CMP), joined by 4 feet of 36-inch diameter corrugated polyethylene pipe.

### Structure No. 2 - CLV-001-038-110.71

Adjacent land use is rural and consists of agriculture, residential, and a woodlot to the west (Appendix B, B11). SR 1 is functionally classified as rural, major collector on level terrain. The typical cross section of SR 1 at this location consists of two 12-foot wide travel lanes with 2-foot wide paved shoulders present (Appendix B, B47). The posted speed limit is 55 mph. The existing culvert is a 52-foot long, 24-inch diameter CMP.

### Structure No. 3 -CLV-001-038-110.93

Adjacent land use is rural and consists of agriculture, residential, and wooded areas (Appendix B, B12). SR 1 is functionally classified as rural, major collector on level terrain. The typical cross section of SR 1 at this location consists of two 12-foot wide travel lanes with 2-foot wide paved shoulders present (Appendix B, B48). The posted speed limit is 55 mph. The existing culvert is a 60-foot long, 18-inch diameter CMP.

### Structure No. 4 – CLV-026-005-125.01

Adjacent land use is rural and consists of agriculture, residential, and wooded areas (Appendix B, B13). SR 26 is functionally classified as rural, minor arterial on level terrain. The typical cross section of SR 26 at this location consists of two 12-foot wide travel lanes with 2-foot wide aggregate shoulders present (Appendix B, B49). The posted speed limit is 55 mph. The existing culvert is a 60-foot long, 18-inch diameter CMP.

### Structure No. 5 – CLV-027-068-55.25

Adjacent land use is rural and consists of agriculture, residential, and wooded areas (Appendix B, B14). US 27 is functionally classified as rural, principal arterial on level terrain. The typical cross section of US 27 at this location consists of two 12-foot wide travel lanes with 9-foot wide paved shoulders present (Appendix B, B50). The posted speed limit is 55 mph. The existing culvert is a 92-foot long, 24-inch diameter CMP.

### Structure No. 6 – CLV-027-038-57.06

Adjacent land use is rural and consists of agriculture, residential, and wooded areas (Appendix B, B15). US 27 is functionally classified as rural, principal arterial on level terrain. The typical cross section of US 27 at this location consists of two 12-foot wide travel lanes with 13-14-foot wide paved shoulders present (Appendix B, B51). The posted speed limit is 55 mph. The existing culvert is a 97-foot long, 24-inch diameter CMP.

### Structure No. 7 – CLV-027-038-61.28

Adjacent land use is rural and consists of agriculture, residential, and wooded areas (Appendix B, B16). US 27 is functionally classified as rural, principal arterial on level terrain. The typical cross section of US 27 at this location consists of two 12-foot wide travel lanes with 9-foot wide paved shoulders present (Appendix B, B52). The posted speed limit is 55 mph. The existing culvert is a 69-foot long, 24-inch diameter CMP.

#### **Preferred Alternative:**

The proposed work involves replacement of each small structure. Each replacement impact proposed is the minimum impact necessary to meet the project need, providing for a condition rating of at least 7 out of 9, while also providing sufficient hydraulic conveyance, and increasing the life of the culverts an additional 25 years. Details of each replacement are listed separately below:

### Structure No. 1 - CLV-001-068-87.96

The existing small structure will be replaced with a 74-foot long, 54-inch diameter CMP (Appendix B, B64). The replacement structure will not be sumped and riprap will be installed at the inlet (revetment riprap) and outlet (Class 2 riprap). The inlet riprap will be placed 11.5-feet wide by 5.8-feet long (0.002 acre, 2.5 cubic yards) and the outlet riprap will be placed 18.2-feet long by 13.5-feet wide at the culvert outlet tapering to 22.5-feet wide (0.008 acre, 12.1 cubic yards), per the *Indiana Design Manual* (2013).

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SR 1 will be milled and resurfaced with a hot mix asphalt (HMA) overlay for a distance of 50 feet east and west of the small structure (100 feet total). The typical section of SR 1 will consist of two 11-foot wide asphalt travel lanes (one in each direction) with 4-foot wide paved shoulders. The resurfacing and shoulder widening will transition back into the existing section of SR 1 over a distance of incidental construction that extends an additional 265 feet to the west of the project begin point and 229 feet further to the east side of the project end point. The total length of road work, including incidental construction, is 594 feet (315 feet west and 279 feet east of the small structure).

### Structure No. 2 - CLV-001-038-110.71

The existing small structure will be replaced with a 49-foot long, 36-inch diameter Type 1 pipe (Appendix B, B65). The replacement structure will be sumped 3 inches, with the installation of Class 1 riprap at the outlet. The outlet riprap will be placed 12-feet long by 9-foot wide at the culvert outlet, tapering to 15-foot wide (0.003 acre, 5.4 cubic yards), per the *Indiana Design Manual* (2013).

SR 1 will be milled and resurfaced with a HMA overlay for a distance of 40 feet south and 35 feet north of the small structure (75 feet total). The typical section of SR 1 will consist of two 12-foot wide asphalt travel lanes (one in each direction) with 2-foot wide paved shoulders. The resurfacing and shoulder widening will transition back into the existing section of SR 1 over a distance of incidental construction that extends an additional 50 feet to the south of the project begin point and 50 feet further to the north side of the project end point. The total length of road work, including incidental construction, is 175 feet (90 feet south and 85 feet north of the small structure).

### Structure No. 3 -CLV-001-038-110.93

The existing small structure will be replaced with a 55-foot long, 30-inch diameter Type 1 pipe (Appendix B, B66). The replacement structure will be sumped 3 inches, with the installation of Class 1 riprap at the outlet. The outlet riprap will be placed 10-feet long by 7.5-foot wide at the culvert outlet tapering to 12.5-foot wide (0.002 acre, 3.7 cubic yards), per the *Indiana Design Manual* (2013).

SR 1 will be milled and resurfaced with a HMA overlay for a distance of 35 feet south and 30 feet north of the small structure (65 feet total). The typical section of SR 1 will consist of two 12-foot wide asphalt travel lanes (one in each direction) with 2-foot wide paved shoulders. The resurfacing and shoulder widening will transition back into the existing section of SR 1 over a distance of incidental construction that extends an additional 50 feet to the south of the project begin point and 50 feet further to the north side of the project end point. The total length of road work, including incidental construction, is 165 feet (85 feet south and 80 feet north of the small structure).

### Structure No. 4 – CLV-026-005-125.01

The existing small structure will be replaced with a 48-foot long, 24-inch Type 1 pipe (Appendix B, B67). The replacement structure will be sumped 7 inches, with the installation of Class 1 riprap at the outlet. The outlet riprap will be placed 8-feet long by 6-foot wide at the culvert outlet tapering to 10-foot wide (0.001 acre, 2.4 cubic yards), per the *Indiana Design Manual* (2013).

SR 26 will be milled and resurfaced with a HMA overlay for a distance of 95 feet west and 105 feet east of the small structure (200 feet total). The typical section of SR 26 will consist of two 12-foot wide asphalt travel lanes (one in each direction) with 2-foot wide paved shoulders. The resurfacing and shoulder widening will transition back into the existing section of SR 26 over a distance of incidental construction that extends an additional 50 feet to the west of the project begin point and 50 feet further to the east side of the project end point. The total length of road work, including incidental construction, is 300 feet (145 feet west and 155 feet east of the small structure).

### Structure No. 5 – CLV-027-068-55.25

The existing small structure will be replaced with an 86-foot long, 24-inch Type 1 pipe (Appendix B, B68). The replacement structure will not be sumped and Class 1 riprap will be installed at the outlet. The outlet riprap will be placed 8-feet long by 5.5-foot wide at the culvert outlet tapering to 10-foot wide (0.001 acre, 2.3 cubic yards), per the *Indiana Design Manual* (2013).

US 27 will be milled and resurfaced with a HMA overlay for a distance of 30 feet south and 35 feet north of the small structure (65 feet total). The typical section of US 27 will consist of two 12-foot wide asphalt travel lanes (one in each direction) with 9-foot wide paved shoulders. The resurfacing and shoulder widening will transition back into the existing section of US 27 over a distance of incidental construction that extends an additional 50 feet to the south of the project begin point and 50 feet further to the north side of the project end point. The total length of road work, including incidental construction, is 165 feet (80 feet south and 85 feet north of the small structure).

### Structure No. 6 – CLV-027-038-57.06

The existing small structure will be replaced with a 93-foot long, 30-inch Type 1 pipe (Appendix B, B69). The replacement structure will be sumped 3 inches, with the installation of Class 1 riprap at the outlet. The outlet riprap will be placed 10-feet long by 8-foot wide at the culvert outlet tapering to 12.5-foot wide (0.002 acre, 3.6 cubic yards), per the *Indiana Design Manual* (2013).

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US 27 will be milled and resurfaced with a HMA overlay for a distance of 25 feet south and 25 feet north of the small structure (50 feet total). The typical section of US 27 will consist of two 12-foot wide asphalt travel lanes (one in each direction), one 12-foot wide auxiliary lane (northbound), and a 10-13-foot wide paved shoulder (southbound) and 2-foot wide paved shoulder (northbound). The resurfacing and shoulder widening will transition back into the existing section of US 27 over a distance of incidental construction that extends an additional 50 feet to the south of the project begin point and 35 feet further to the north side of the project end point (the intersection with CR W 800 S). The total length of road work along US 27, including incidental construction, is 135 feet (75 feet south and 60 feet north of the small structure). The total length of incidental work along CR 800 S is 115 feet (55 feet west and 60 feet east of the US 27 centerline).

### Structure No. 7 – CLV-027-038-61.28

The existing small structure will be replaced with a 72-foot long, 30-inch Type 1 pipe (Appendix B, B70). The replacement structure will be sumped 3 inches, with the installation of Class 1 riprap at the outlet. The outlet riprap will be placed 10-feet long by 7.5-feet wide at the culvert outlet tapering to 12.5-feet wide (0.002 acre, 3.6 cubic yards), per the *Indiana Design Manual* (2013).

US 27 will be milled and resurfaced with a HMA overlay for a distance of 27 feet south and 23 feet north of the small structure (50 feet total). The typical section of US 27 will consist of two 12-foot wide asphalt travel lanes (one in each direction) with 9-foot wide paved shoulders. The resurfacing and shoulder widening will transition back into the existing section of US 27 over a distance of incidental construction that extends an additional 50 feet to the south of the project begin point and 50 feet further to the north side of the project end point. The total length of road work, including incidental construction, is 150 feet (77 feet south and 73 feet north of the small structure).

### **Right-of-way:**

Existing right-of-way (ROW) was determined to be edge of the roadway or insufficient to provide for replacement of the culvert at Structures 1 through 4. Therefore, the project will require ROW acquisition from the surrounding agricultural land for a total of 2.178 acres of permanent ROW, and no temporary ROW (Appendix B, B64 to B67). The project will require a total of approximately 0.726 acre, 0.327 acre, 0.712 acre, and 0.412 acre of permanent ROW from Structures 1, 2, 3, and 4, respectively (Appendix B, B64 to B67). The proposed work at Structures 5 through 7 will occur within existing ROW. No relocations are required.

### **Maintenance of Traffic:**

The maintenance of traffic (MOT) plan will include a full closure with detour route for Structure Nos. 1, 2, 3, and 4 along SR 1 and SR 26 (Appendix B, B53 to B56). The MOT for the US 27 structures (Structure Nos. 5, 6, and 7) will occur in two phases, with lane closures (Appendix B, B57 to B63). US 27 traffic will be reduced to a single open lane with a temporary portable signal. The travel lane will be shifted opposite the lane of construction for each phase, while one half of the structure is replaced. The MOT is expected to take place during the construction season, typically March through November. Local access will be maintained to adjacent property owners. The MOT will be implemented per the *Indiana Design Manual* guidelines.

The project will not require tree clearing. Construction is anticipated to begin in 2023.

### **Logical Termini/Independent Utility:**

The termini of the project provide the logical beginning and end point necessary to complete the intersection improvement. The project is independent of any other action and able to be constructed without relying on the completion of any other project.

## **OTHER ALTERNATIVES CONSIDERED:**

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

### **No Build Alternative:**

This alternative would involve no improvements to the existing structures. While this alternative eliminates any project costs and environmental impacts, it would not meet the objectives of the purpose and need of the project. Therefore, this alternative was discarded from further consideration.

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

It would not correct existing capacity deficiencies;

It would not correct existing safety hazards;

It would not correct the existing roadway geometric deficiencies;

It would not correct existing deteriorated conditions and maintenance problems; or

It would result in serious impacts to the motoring public and general welfare of the economy.

Other (Describe):

X

### ROADWAY CHARACTER:

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

Name of Roadway SR 1 at Structure No. 1  
 Functional Classification: Major Collector  
 Current ADT: 1,221 VPD (2023) Design Year ADT: 1,456 VPD (2043)  
 Design Hour Volume (DHV): 1,007 Truck Percentage (%) 9.6  
 Designed Speed (mph): 55 Legal Speed (mph): 55

	Existing		Proposed
Number of Lanes:	2		2
Type of Lanes:	through		through
Pavement Width:	22	ft.	22
Shoulder Width:	2	ft.	2
Median Width:	N/A	ft.	N/A
Sidewalk Width:	N/A	ft.	N/A

Setting:  Urban  Suburban  Rural  
 Topography:  Level  Rolling  Hilly

Name of Roadway SR 1 at Structure No. 2  
 Functional Classification: Major Collector  
 Current ADT: 2,121 VPD (2023) Design Year ADT: 2,528 VPD (2043)  
 Design Hour Volume (DHV): 1,007 Truck Percentage (%) 9.6  
 Designed Speed (mph): 55 Legal Speed (mph): 55

	Existing		Proposed
Number of Lanes:	2		2
Type of Lanes:	through		through
Pavement Width:	24	ft.	24
Shoulder Width:	2	ft.	2
Median Width:	N/A	ft.	N/A
Sidewalk Width:	N/A	ft.	N/A

Setting:  Urban  Suburban  Rural  
 Topography:  Level  Rolling  Hilly

Name of Roadway SR 1 at Structure No. 3  
 Functional Classification: Major Collector  
 Current ADT: 1,973 VPD (2023) Design Year ADT: 2,352 VPD (2043)  
 Design Hour Volume (DHV): 1,007 Truck Percentage (%) 9.6  
 Designed Speed (mph): 55 Legal Speed (mph): 55

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	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	through		through	
Pavement Width:	24	ft.	24	ft.
Shoulder Width:	2	ft.	2	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:  Urban  Suburban  Rural  
 Topography:  Level  Rolling  Hilly

Name of Roadway SR 26 at Structure No. 4  
 Functional Classification: Minor Arterial  
 Current ADT: 1,841 VPD (2023) Design Year ADT: 2,191 VPD (2043)  
 Design Hour Volume (DHV): 1,015 Truck Percentage (%) 9.6  
 Designed Speed (mph): 55 Legal Speed (mph): 55

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	through		through	
Pavement Width:	24	ft.	24	ft.
Shoulder Width:	2	ft.	2	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:  Urban  Suburban  Rural  
 Topography:  Level  Rolling  Hilly

Name of Roadway US 27 at Structure No. 5  
 Functional Classification: Principal Arterial  
 Current ADT: 3,934 VPD (2023) Design Year ADT: 4,691 VPD (2043)  
 Design Hour Volume (DHV): 1,007 Truck Percentage (%) 9.6  
 Designed Speed (mph): 55 Legal Speed (mph): 55

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	through		through	
Pavement Width:	42	ft.	42	ft.
Shoulder Width:	9	ft.	9	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:  Urban  Suburban  Rural  
 Topography:  Level  Rolling  Hilly

Name of Roadway US 27 at Structure No. 6  
 Functional Classification: Principal Arterial  
 Current ADT: 3,432 VPD (2023) Design Year ADT: 4,092 VPD (2043)  
 Design Hour Volume (DHV): 1,007 Truck Percentage (%) 9.6  
 Designed Speed (mph): 55 Legal Speed (mph): 55



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	Existing		Proposed	
Number of Lanes:	3		3	
Type of Lanes:	through/auxiliary		through/auxiliary	
Pavement Width:	50-52	ft.	50-52	ft.
Shoulder Width:	2-13	ft.	2-13	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:  Urban  Suburban  Rural  
 Topography:  Level  Rolling  Hilly

Name of Roadway: US 27 at Structure No. 7  
 Functional Classification: Principal Arterial  
 Current ADT: 3,952 VPD (2023) Design Year ADT: 4,712 VPD (2043)  
 Design Hour Volume (DHV): 1,007 Truck Percentage (%): 9.6  
 Designed Speed (mph): 55 Legal Speed (mph): 55

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	through		through	
Pavement Width:	42	ft.	42	ft.
Shoulder Width:	9	ft.	9	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:  Urban  Suburban  Rural  
 Topography:  Level  Rolling  Hilly

### BRIDGES AND/OR SMALL STRUCTURE(S):

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

Structure/NBI Number(s): N/A Sufficiency Rating: N/A  
(Rating, Source of Information)

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

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

The proposed work involves replacement of each small structure. The proposed work is as follows:

Structure No. 1 - CLV-001-068-87.96

The existing small structure will be replaced with a 74-foot long, 54-inch diameter CMP (Appendix B, B64). The replacement structure will not be sumped and Class 1 riprap will be installed at the inlet and outlet. See table below for details.

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**Structure No. 2 - CLV-001-038-110.71**

The existing small structure will be replaced with a 49-foot long, 36-inch diameter Type 1 pipe (Appendix B, B65). The replacement structure will be sumped 3 inches, with the installation of Class 1 riprap at the outlet. See table below for details.

**Structure No. 3 -CLV-001-038-110.93**

The existing small structure will be replaced with a 55-foot long, 30-inch diameter Type 1 pipe (Appendix B, B66). The replacement structure will be sumped 3 inches, with the installation of Class 1 riprap at the outlet. See table below for details.

**Structure No. 4 – CLV-026-005-125.01**

The existing small structure will be replaced with a 48-foot long, 24-inch Type 1 pipe (Appendix B, B67). The replacement structure will be sumped 7 inches, with the installation of Class 1 riprap at the outlet. See table below for details.

**Structure No. 5 – CLV-027-068-55.25**

The existing small structure will be replaced with an 86-foot long, 24-inch Type 1 pipe (Appendix B, B68). The replacement structure will not be sumped and Class 1 riprap will be installed at the outlet. See table below for details.

**Structure No. 6 – CLV-027-038-57.06**

The existing small structure will be replaced with a 93-foot long, 30-inch Type 1 pipe (Appendix B, B69). The replacement structure will be sumped 3 inches, with the installation of Class 1 riprap at the outlet. See table below for details.

**Structure No. 7 – CLV-027-038-61.28**

The existing small structure will be replaced with a 72-foot long, 30-inch Type 1 pipe (Appendix B, B70). The replacement structure will be sumped 3 inches, with the installation of Class 1 riprap at the outlet. See table below for details.

Structure No.	Length (feet)	Diameter (inches)	Impacted Feature	Net culvert length (feet)	Inlet Impacts			Outlet Impacts		
					Length (feet)	Area (acres)	Volume (cubic yards)	Length (feet)	Area (acres)	Volume (cubic yards)
1	74	54	UNT to Bush Creek	28	5.8	0.002	2.5	18.2	0.008	12.1
2	49	36	Wetland 2W1	-3	n/a	n/a	n/a	14	0.004	7.2
3	55	30	UNT 1 to McClain Ditch	-5	n/a	n/a	n/a	10	0.002	2.4
4	48	24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
5	86	24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
6	93	30	UNT to Goshen Creek	-4	n/a	n/a	n/a	10	0.002	3.6
7	72	30	Wetland 7W1	3	n/a	n/a	n/a	10	0.002	3.6

For more details of the work to be done, see the *Project Description* section above.

**MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:**

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

Discuss closures, detours, and/or facilities (if any) that will be provided for maintenance of traffic. Any known impacts from these

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*temporary measures should be quantified to the extent possible, particularly with respect to properties such as Section 4(f) resources and wetlands. Discuss any pedestrian/bicycle closures. Any local concerns about access and traffic flow should be detailed as well.*

The MOT plan will include a full closure with detour route for the SR 1 and SR 26 structures (Structures 1-4). The SR 1 detour for Structure 2 and Structure 3 will involve SR 18 to US 27 to SR 26 (Appendix B, B54 and B55). The SR 1 detour for Structure 1 will involve SR 32 to US 27 to SR 28 (Appendix B, B53). The SR 26 detour for Structure 4 will involve SR 3 to SR 18 to SR 1 (Appendix B, B56). For the US 27 structures, MOT will occur in two phases. US 27 will remain open to traffic throughout replacement of Structures 5-7, reducing to one lane with the use of a temporary portable signal (Appendix B, B57 to B63). In each phase, the travel lane will be shifted opposite the lane of construction, while one half of the structure is replaced. Due to proximity of Structure 6 to the intersection with CR 800 South, it will be closed and the traffic detour will involve CR 100 West, CR 700 S, and CR 100 E (Appendix B, B61).

MOT is expected to take place during the 2023 construction season, typically March through November. Local access will be maintained to adjacent property owners. The MOT will be implemented per the *Indiana Design Manual* guidelines.

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

### ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$ 212,700 (2022) Right-of-Way: \$ 21,500 (2023) Construction: \$ 1,070,000 (2023)

Anticipated Start Date of Construction: Spring 2023

### RIGHT OF WAY:

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	0	0
Commercial	0	0
Agricultural	2.112	0
Forest	0	0
Wetlands	0.066	0
TOTAL	2.178	0.0

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

The existing and proposed right-of-way (ROW) widths and areas are presented per structure below. Each is measured from the centerline to either side of the roadway and given as ranges in feet. The existing ROW is mowed grasses and forbs and two small wetlands. Existing ROW was determined to be edge of the roadway or insufficient to provide for replacement of the culvert at Structures 1 through 4. The project will require a total of approximately 2.178 acres of permanent ROW from agricultural property (2.069 acres) and wetland (0.066 acre) to accommodate the replacement structures in four locations. One wetland at Structure 4 is located outside of the existing and proposed ROW limits. ROW acquisition is only proposed at Structures 1 through 4 (Appendix B, B64 to B67).

Structure Number	Existing ROW Width (feet)	Proposed ROW Width (feet)	Total ROW Proposed (acres)
1 - CLV-001-068-87.96	16-40	18-64	0.726
2 - CLV-001-038-110.71	12-14	50	0.327
3 - CLV-001-038-110.93	12-60	12-60	0.712
4 - CLV-026-005-125.01	12	12-40	0.412
5 - CLV-027-068-55.25	58-60	n/a	n/a
6 - CLV-027-038-57.06	58-60	n/a	n/a
7 - CLV-027-038-61.28	58-64	n/a	n/a

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

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

**SECTION A - EARLY COORDINATION:**

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

Early coordination letters were sent on March 24, 2022 (Appendix C, C1 to C5).

Agency	Date Sent	Date Response Received	Appendix C, Pages
Federal Highway Administration (FHWA), Indiana Division	March 24, 2022	No response received	N/A
Natural Resources Conservation Service (NRCS), Indianapolis Office	March 24, 2022	March 30, 2022	C6 to C7
U.S. Army Corps of Engineers (USACE), Louisville District	March 24, 2022	No response received	N/A
U.S. Housing and Urban Development (HUD)	March 24, 2022	No response received	N/A
Indiana Department of Natural Resources, Division of Fish and Wildlife (IDNR DFW)	March 24, 2022	April 21, 2022	C8 to C10
INDOT, Greenfield District Project Manager	March 24, 2022	No response received	N/A
INDOT, Environmental Services Division	March 24, 2022	No response received	N/A
INDOT, Greenfield District Environmental	March 24, 2022	No response received	N/A
Indiana Geological and Water Survey	March 24, 2022	No response received	C11 to C18
Jay County Board of Commissioners	March 24, 2022	No response received	N/A
Jay County Council	March 24, 2022	No response received	N/A
Jay County Highway Department	March 24, 2022	No response received	N/A
Jay County Engineer	March 24, 2022	No response received	N/A
Jay County Drainage Board	March 24, 2022	No response received	N/A
Jay County Surveyor's Office	March 24, 2022	No response received	N/A
Jay County Emergency Management Agency	March 24, 2022	No response received	N/A
Jay County Emergency Medical Services	March 24, 2022	No response received	N/A
Jay County Schools – Transportation Department	March 24, 2022	No response received	N/A
Jay County Sheriff's Department	March 24, 2022	No response received	N/A
Penn Township Trustee	March 24, 2022	No response received	N/A
Pike Township Trustee	March 24, 2022	No response received	N/A
Pennville Fire Department	March 24, 2022	No response received	N/A
Salamonia Fire Department	March 24, 2022	No response received	N/A
Portland Fire Department	March 24, 2022	No response received	N/A
Randolph County Board of Commissioners	March 24, 2022	No response received	N/A
Randolph County Council	March 24, 2022	No response received	N/A
Randolph County Highway Department	March 24, 2022	No response received	N/A
Randolph County Drainage Board	March 24, 2022	No response received	N/A
Randolph County Surveyor's Office	March 24, 2022	No response received	N/A
Randolph County Emergency Management Agency	March 24, 2022	No response received	N/A
Randolph County Emergency Medical Services	March 24, 2022	No response received	N/A
Randolph Central Schools – Transportation Department	March 24, 2022	No response received	N/A
Monroe Central Schools – Transportation Department	March 24, 2022	No response received	N/A
Randolph County Sheriff's Department	March 24, 2022	No response received	N/A
Monroe Township Trustee	March 24, 2022	No response received	N/A
Ward Township Trustee	March 24, 2022	No response received	N/A
Ridgeville Police Department	March 24, 2022	No response received	N/A
Ridgeville Fire Department	March 24, 2022	No response received	N/A
Farmland Police Department	March 24, 2022	No response received	N/A

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Farmland Fire Department	March 24, 2022	No response received	N/A
Blackford County Board of Commissioners	March 24, 2022	No response received	N/A
Blackford County Council	March 24, 2022	No response received	N/A
Blackford County Highway Department	March 24, 2022	No response received	N/A
Blackford County Drainage Board	March 24, 2022	No response received	N/A
Blackford County Surveyor's Office	March 24, 2022	No response received	N/A
Blackford County Emergency Management Agency	March 24, 2022	No response received	N/A
Blackford County Schools – Transportation Department	March 24, 2022	No response received	N/A
Blackford County Sheriff's Department	March 24, 2022	No response received	N/A
Hartford City Fire Department	March 24, 2022	No response received	N/A
Hartford City Police Department	March 24, 2022	No response received	N/A
Pennville Dunkirk Volunteer Fire Department	March 24, 2022	No response received	N/A

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

### SECTION B – ECOLOGICAL RESOURCES:

#### Streams, Rivers, Watercourses & Other Jurisdictional Features

- Federal Wild and Scenic Rivers
- State Natural, Scenic or Recreational Rivers
- Nationwide Rivers Inventory (NRI) listed
- Outstanding Rivers List for Indiana
- Navigable Waterways

**Presence**

X

**Impacts**

Yes	No
X	

Total stream(s) in project area: 533 Linear feet      Total impacted stream(s): 194.2 Linear feet

Stream Name	Classification	Total Size in Project Area (linear feet)	Impacted linear feet	Comments (i.e. location, flow direction, likely Water of the US, appendix reference)
UNT to Bush Creek	Ephemeral	73	54.2	Structure No. 1, flows south to north, likely WOTUS, Appendix B10
UNT 1 to McClain Dich	Ephemeral	280	100	Structure No. 3, flows north to south, likely WOTUS, Appendix B12
UNT 2 to McClain Ditch	Ephemeral	140	0	Structure No. 3, flows northwest to southeast, likely WOTUS, Appendix B12
UNT to Goshen Creek	Ephemeral	40	40	Structure No. 6, flows west to east, likely WOTUS, Appendix B15

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

#### Structure No. 1 - CLV-001-068-87.96

Based on the desktop review, the aerial map of the project area (Appendix B, B10), the topographic map of the project area (Appendix B, B5), and the National Wetland Inventory (NWI) map (Appendix E, E20), there is one stream, river, watercourse or other jurisdictional feature within the 0.5 mile search radius. There is one stream, river, watercourse or other jurisdictional feature within or adjacent to the project area, as confirmed during the site visit on October 4, 2021 by Lochmueller Group.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office on March 28, 2022. Please refer to Appendix E, E1 to E47 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that one likely jurisdictional stream, unnamed tributary (UNT) to Bush Creek and one roadside ditch (RSD), is located within the survey area.

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### **UNT to Bush Creek**

UNT to Bush Creek is an ephemeral channel that flows south to north starting from the outlet on the north side of SR 1 to outside the investigation area. Approximately 73 feet of the stream is within the investigation area (Appendix B, B5). The ordinary high water mark (OHWM) is 3.75 feet wide by 0.54 feet deep. The stream reach is considered to have poor quality due to lack of habitat, flow regime, and influence by agricultural activities. UNT to Bush Creek flows into Bush Creek which outlets into the Mississinewa River, which is navigable from its junction with the Wabash River to the Indiana/Ohio state line. Therefore, UNT to Bush Creek is likely considered a jurisdictional resource under Section 404 of the Clean Water Act (CWA). This stream is not subject to USACE jurisdiction under Section 10 of the River and Harbors Act. The USACE makes all final determinations regarding jurisdiction.

Approximately 54.2 linear feet (0.004 acre, 7.2 cubic yards) of UNT to Bush Creek will be permanently impacted, due to replacement of the existing culvert (36 linear feet, 0.003 acre, 5.0 cubic yards) and installation of Class 1 riprap at the outlet (18.2-feet long by 13.5-foot wide, tapering to 22.5-foot wide; 0.008 acre, 12.1 cubic yards). Temporary impacts (10 linear feet, <0.001 acre, 1.11 cubic yard) include placement of a sandbag cofferdam at the outlet for temporary dewatering during placement of fill. Impacts to UNT to Bush Creek were minimized to the maximum extent practicable. Mitigation is not anticipated for these impacts.

### **RSD 1**

RSD 1 is located within the investigation area for Structure 1 (Appendix B, B5). RSD 1 conveys roadside drainage from SR 1 north into the adjacent agricultural field parallel and independent of UNT to Bush Creek. RSD 1 lacks a bed, bank, and a defined OHWM and is not a captured stream. Therefore, RSD 1 would be considered non-jurisdictional. The USACE makes all final determinations regarding jurisdiction.

### **Structure No. 2 - CLV-001-038-110.71**

Based on the desktop review, the aerial map of the project area (Appendix B, B11), the topographic map of the project area (Appendix B, B6), and the NWI map (Appendix E, E21), there are three streams, rivers, watercourses or other jurisdictional features within the 0.5 mile search radius. There are no streams, rivers, watercourses or other jurisdictional features within or adjacent to the project area, which was confirmed during the site visit on October 6, 2021 by Lochmueller Group. Therefore, no impacts are expected.

### **Structure No. 3 - CLV-001-038-110.93**

Based on the desktop review, the aerial map of the project area (Appendix B, B12), the topographic map of the project area (Appendix B, B6), and the NWI map (Appendix E, E22), there are two streams, rivers, watercourses or other jurisdictional features within the 0.5 mile search radius. There are two streams, rivers, watercourses or other jurisdictional features within or adjacent to the project area, as confirmed during the site visit on October 6, 2021 by Lochmueller Group.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office on March 28, 2022. Please refer to Appendix E, E1 to E47 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that two likely jurisdictional streams, UNT 1 and UNT 2 to McClain Ditch and two roadside ditches, RSD 2 and RSD 3, are located within the survey area.

### **UNT 1 to McClain Ditch**

UNT 1 to McClain Ditch is an ephemeral channel that flows from north to south along the west side of SR 1 and outlets into UNT 2 to McClain Ditch. Approximately 280 feet of the stream is within the investigation area (Appendix B, B12). The OHWM is 2.0 feet wide by 0.33 feet deep. This stream reach is considered to have poor quality due to lack of habitat, flow regime, and location within the roadside. UNT 1 to McClain Ditch outlets to UNT 2 to McClain Ditch, which outlets to Beaver Creek and then into Salamonie River. The Salamonie River outlets into the Wabash River, which is navigable from its junction with the Ohio River through Wabash County to the Wells/Adam County line. Therefore UNT 1 to McClain Ditch is likely considered a jurisdictional resource under Section 404 of the CWA. This stream is not subject to USACE jurisdiction under Section 10 of the River and Harbors Act. The USACE makes all final determinations regarding jurisdiction.

Approximately 100 linear feet (0.005 acre, 13.3 cubic yards) of UNT 1 to McClain ditch will be permanently impacted, due to replacement of the existing culvert (12.5 linear feet, 0.001 acre, 1.7 cubic yards) and installation of Class 1 riprap at the outlet (10-feet long by 7.5-foot wide at the culvert outlet tapering to 12.5-foot wide, 0.002 acre, 3.7 cubic yards). The remainder of the permanent impacts are anticipated from disturbance within the construction limits. Temporary impacts (20 linear feet, 0.001 acre, 2.22 cubic yards) include placement of sandbag cofferdams within UNT 1 to McClain Ditch on either side of the outlet for temporary dewatering during placement of fill. Impacts to UNT 1 to McClain Ditch were minimized to the maximum extent practicable. Mitigation is not anticipated for these impacts.

### **UNT 2 to McClain Ditch**

UNT 2 to McClain Ditch is an intermittent stream feature that is a mapped NHD and a blue line feature on the USGS Petroleum topographic quadrangle. UNT 2 to McClain Ditch flows northwest to the southeast through the investigation area along the west side

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of SR 1. Approximately 140 feet of the stream is within the investigation area (Appendix B, B12). The OHWM is 5.45 feet wide by 0.5 feet deep. This stream reach is considered to have poor quality due to lack of habitat, flow regime, and influence from agriculture. UNT 2 to McClain Ditch ties into McClain Ditch which outlets to Beaver Creek and then on into the Salamonie River. The Salamonie River outlets into the Wabash River, which is navigable from its junction with the Ohio River through Wabash County to the Wells/Adam County line. Therefore UNT 2 to McClain Ditch is likely considered a jurisdictional resource under Section 404 of the CWA. This stream is not subject to USACE jurisdiction under Section 10 of the River and Harbors Act. UNT 2 to McClain Ditch is located outside of the construction limits and proposed right-of-way limits. Therefore, no impact is expected. The USACE makes all final determinations regarding jurisdiction.

### **RSD 2**

RSD 2 is located within the investigation area for Structure 3 (Appendix B, B12) and conveys roadside drainage south along the east side of SR 1 towards Structure 3. RSD 3 lacks a bed, bank, and a defined OHWM and is not a captured stream. Therefore, RSD 2 would be considered non-jurisdictional. The USACE makes all final determinations regarding jurisdiction.

### **RSD 3**

RSD 3 is also located within the investigation area for Structure 3 (Appendix B, B12) and conveys drainage south and west along the adjacent agricultural field on the east side of SR 1 towards Structure 3. RSD 3 lacks a bed, bank, and a defined OHWM and is not a captured stream. Therefore, RSD 3 would be considered non-jurisdictional. The USACE makes all final determinations regarding jurisdiction.

### Structure No. 4 – CLV-026-005-125.01

Based on the desktop review, the aerial map of the project area (Appendix B, B13), the topographic map of the project area (Appendix B, B7), and the NWI map (Appendix E, E23), there are seven streams, rivers, watercourses or other jurisdictional features within the 0.5 mile search radius. There are no streams, rivers, watercourses or other jurisdictional features within or adjacent to the project area, which was confirmed during the site visit on October 6, 2021 by Lochmueller Group. Therefore, no impacts are expected.

### Structure No. 5 – CLV-027-068-55.25

Based on the desktop review, the aerial map of the project area (Appendix B, B14), the topographic map of the project area (Appendix B, B8), and the NWI map (Appendix E, E24), there are nine streams, rivers, watercourses or other jurisdictional features within the 0.5 mile search radius. There are no streams, rivers, watercourses or other jurisdictional features within or adjacent to the project area, which was confirmed during the site visit on October 15, 2021 by Lochmueller Group. However, one roadside ditch (RSD 4) was identified.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office on March 28, 2022. Please refer to Appendix E, E1 to E47 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that the roadside ditch, RSD 4, was not likely jurisdictional.

### **RSD 4**

RSD 4 is located within the investigation area for Structure 5 (Appendix B, B14) and conveys drainage south along the east side of US 27 towards Structure 5. RSD 4 lacks a bed, bank, and a defined OHWM and is not a captured stream. Therefore, RSD 4 would be considered non-jurisdictional. The USACE makes all final determinations regarding jurisdiction.

### Structure No. 6 – CLV-027-038-57.06

Based on the desktop review, the aerial map of the project area (Appendix B, B15), the topographic map of the project area (Appendix B, B8), and the NWI map (Appendix E, E25), there are six streams, rivers, watercourses or other jurisdictional features within the 0.5 mile search radius. There is one stream, river, watercourse or other jurisdictional feature within or adjacent to the project area, as confirmed during the site visit on October 15, 2021 by Lochmueller Group.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office on March 28, 2022. Please refer to Appendix E, E1 to E47 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that one likely jurisdictional stream, UNT to Goshen Creek, is located within the survey area.

### **UNT to Goshen Creek**

UNT to Goshen Creek is a discontinuous ephemeral stream feature in the southwest quadrant of the intersection of US 27 and CR 800 S. UNT to Goshen Creek flows west to east along the roadside towards the inlet of Structure 6. The OHWM of UNT to Goshen Creek at this location is 6.0 feet wide by 0.42 feet deep. Approximately 40 feet of the stream is within the investigation area (Appendix B, B15). In the southeast quadrant of the intersection, at the outlet of Structure 6, there was no defined bed, bank, or OHWM. However, outside the investigation area a defined channel forms and continues east along the south side of the roadway embankment for CR 800 S. Field observations indicated that water from the outlet of the structure is conveyed via surface flow to the channel forming

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outside the investigation area and therefore is a continuation of the UNT identified in the southwest quadrant. This stream reach is considered to have poor quality due to lack of habitat, flow regime, and location within the roadside. UNT to Goshen Creek outlets via an unnamed agricultural ditch to Goshen Creek, which flows into O'Brien Creek and later into the Mississinewa River. The Mississinewa River is navigable from its junction with the Wabash River to the Indiana/Ohio state line. Therefore, UNT to Goshen Creek is likely considered a jurisdictional resource under Section 404 of the CWA. This stream is not subject to USACE jurisdiction under Section 10 of the River and Harbors Act. The USACE makes all final determinations regarding jurisdiction.

Approximately 40 linear feet (0.006 acre, 3.73 cubic yards) of UNT to Goshen Creek will be permanently impacted, due to the disturbance at the inlet associated with the replacement of the existing culvert. Riprap will not be placed in the channel, as riprap is only proposed at the outlet, where the channel is undefined. Temporary impacts (10 linear feet, <0.001 acre, 1.11 cubic yard) include placement of a sandbag cofferdam at the inlet for temporary dewatering during the replacement of the culvert. Impacts to UNT to Goshen Creek were minimized to the maximum extent practicable. Mitigation is not anticipated for these impacts.

Structure No. 7 – CLV-027-038-61.28

Based on the desktop review, the aerial map of the project area (Appendix B, B16), the topographic map of the project area (Appendix B, B9), and the NWI map (Appendix E, E26), there are eight streams, rivers, watercourses or other jurisdictional features within the 0.5 mile search radius. There are no streams, rivers, watercourses or other jurisdictional features within or adjacent to the project area, which was confirmed during the site visit on October 15, 2021 by Lochmueller Group. Therefore, no impacts are expected.

The IDNR DFW responded on April 21, 2022 with a recommendation regarding avoidance of excavation or placement of fill in any riparian wetland (Appendix C, C8 to C10). All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

**Open Water Feature(s)**

- Reservoirs
- Lakes
- Farm Ponds
- Retention/Detention Basin
- Storm Water Management Facilities
- Other: \_\_\_\_\_

**Presence**

**Impacts**

Yes	No

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

Structure No. 1 - CLV-001-068-87.96

Based on the desktop review, the aerial map of the project area (Appendix B, B10), the topographic map of the project area (Appendix B, B5), and the NWI map (Appendix E, E20), there is one open water feature within the 0.5 mile search radius. There are no open water features within or adjacent to the project area, which was confirmed during the site visit on October 4, 2021 by Lochmueller Group. Therefore, no impacts are expected.

Structure No. 2 - CLV-001-038-110.71

Based on the desktop review, the aerial map of the project area (Appendix B, B11), the topographic map of the project area (Appendix B, B6), and the NWI map (Appendix E, E21), there are two open water features within the 0.5 mile search radius. There are no open water features within or adjacent to the project area, which was confirmed during the site visit on October 6, 2021 by Lochmueller Group. Therefore, no impacts are expected.

Structure No. 3 -CLV-001-038-110.93

Based on the desktop review, the aerial map of the project area (Appendix B, B12), the topographic map of the project area (Appendix B, B6), and the NWI map (Appendix E, E22), there are two open water features within the 0.5 mile search radius. There are no open water features within or adjacent to the project area, which was confirmed during the site visit on October 6, 2021 by Lochmueller Group. Therefore, no impacts are expected.

Structure No. 4 – CLV-026-005-125.01

Based on the desktop review, the aerial map of the project area (Appendix B, B13), the topographic map of the project area (Appendix B, B7), and the NWI map (Appendix E, E23), there are three open water features within the 0.5 mile search radius. There are no open water features within or adjacent to the project area, which was confirmed during the site visit on October 6, 2021 by Lochmueller Group. Therefore, no impacts are expected.



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**Structure No. 5 – CLV-027-068-55.25**

Based on the desktop review, the aerial map of the project area (Appendix B, B14), the topographic map of the project area (Appendix B, B8), and the NWI map (Appendix E, E24), there are four open water features within the 0.5 mile search radius. There are no open water features within or adjacent to the project area, which was confirmed during the site visit on October 15, 2021 by Lochmueller Group. Therefore, no impacts are expected.

**Structure No. 6 – CLV-027-038-57.06**

Based on the desktop review, the aerial map of the project area (Appendix B, B15), the topographic map of the project area (Appendix B, B8), and the NWI map (Appendix E, E25), there are two open water features within the 0.5 mile search radius. There are no open water features within or adjacent to the project area, which was confirmed during the site visit on October 15, 2021 by Lochmueller Group. Therefore, no impacts are expected.

**Structure No. 7 – CLV-027-038-61.28**

Based on the desktop review, the aerial map of the project area (Appendix B, B16), the topographic map of the project area (Appendix B, B9), and the NWI map (Appendix E, E26), there are five open water features within the 0.5 mile search radius. There are no open water features within or adjacent to the project area, which was confirmed during the site visit on October 15, 2021 by Lochmueller Group. Therefore, no impacts are expected.

The IDNR DFW responded on April 21, 2022 with general recommendations (Appendix C, C8 to C10). Recommendations were not applicable as no open water features are present.

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

Total wetland area: 0.16 Acre(s)      Total wetland area impacted: 0.05 Acre(s)

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

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments (i.e. location, likely Water of the US, appendix reference)
Wetland 2W1	PEM	0.08	0.04	Structure No. 2, likely WOTUS, Appendix B11
Wetland 4W1	PEM	0.04	0.00	Structure No. 4, likely WOTUS, Appendix B13
Wetland 6W1	PEM	0.02	0.00	Structure No. 6, likely WOTUS, Appendix B15
Wetland 7W1	PEM	0.02	0.01	Structure No. 7, likely WOTUS, Appendix B16

	<b>Documentation</b>	<b>ESD Approval Dates</b>
<b>Wetlands (Mark all that apply)</b>		
Wetland Determination	<input checked="" type="checkbox"/>	<b>March 28, 2022</b>
Wetland Delineation	<input checked="" type="checkbox"/>	<b>March 28, 2022</b>
USACE Isolated Waters Determination	<input type="checkbox"/>	<input type="text"/>

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

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

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

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### Structure No. 1 - CLV-001-068-87.96

Based on the desktop review, the aerial map of the project area (Appendix B, B10), the topographic map of the project area (Appendix B, B5), and the NWI map (Appendix E, E20), there are seven wetlands within the 0.5 mile search radius. There are no wetlands within or adjacent to the project area, which was confirmed during the site visit on October 4, 2021 by Lochmueller Group. Therefore, no impacts are expected.

### Structure No. 2 - CLV-001-038-110.71

Based on the desktop review, the aerial map of the project area (Appendix B, B11), the topographic map of the project area (Appendix B, B6), and the NWI map (Appendix E, E21), there are six wetlands within the 0.5 mile search radius. There is one wetland within or adjacent to the project area, which was confirmed during the site visit on October 6, 2021 by Lochmueller Group.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office on March 28, 2022. Please refer to Appendix E, E1 to E47 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that one wetland, Wetland 2W1, is located within the survey area.

#### **Wetland 2W1**

Wetland 2W1 is a poor quality 0.08-acre palustrine, emergent (PEM) wetland, situated at the base of the roadside embankment on the east side of SR 1 and extends beyond the limits of constructed roadside ditch towards the adjacent agricultural field (Appendix B, B11). Wetland 2W1 conveys drainage via surface flow and a likely agricultural tile to UNT 2 to McClain Ditch. McClain Ditch outlets to Beaver Creek which flows into the Salamonie River and later outlets into the Wabash River in Wabash County. The Wabash River is navigable from its junction with the Ohio River through Wabash County to the Wells/Adam County line. Therefore, Wetland 2W1 would be considered a jurisdictional resource under Section 404 of the CWA. The USACE makes all final determinations regarding jurisdiction.

Approximately 0.03 acre of Wetland 2W1 will be impacted, due to replacement of the existing culvert and installation of Class 1 riprap at the outlet (12-feet long by 9-feet wide at the culvert outlet, tapering to 15-feet wide (0.003 acre, 5.4 cubic yards). The no-build alternative was considered in order to avoid impacts to wetlands, however, that alternative would not meet the purpose and need of the project. The remaining impact to Wetland 2W1 was minimized to the maximum extent practicable. The portion of Wetland 2W1 located outside of the construction limits will be marked as "do not disturb" on the plans, which has been included as a commitment in the Environmental Commitments section of this document. Mitigation is not anticipated for these impacts.

### Structure No. 3 -CLV-001-038-110.93

Based on the desktop review, the aerial map of the project area (Appendix B, B12), the topographic map of the project area (Appendix B, B6), and the NWI map (Appendix E, E22), there are nine wetlands within the 0.5 mile search radius. There are no wetlands within or adjacent to the project area, which was confirmed during the site visit on October 6, 2021 by Lochmueller Group. Therefore, no impacts are expected.

### Structure No. 4 – CLV-026-005-125.01

Based on the desktop review, the aerial map of the project area (Appendix B, B13), the topographic map of the project area (Appendix B, B7), and the NWI map (Appendix E, E23), there are 14 wetlands within the 0.5 mile search radius. There is one wetland within or adjacent to the project area, which was confirmed during the site visit on October 6, 2021 by Lochmueller Group.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office on March 28, 2022. Please refer to Appendix E, E1 to E47 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that one wetland, Wetland 4W1, is located within the survey area.

#### **Wetland 4W1**

Wetland 4W1 is a poor quality 0.04-acre PEM wetland, located south of SR 26 and formed within the adjacent residential property field (Appendix B, B13). Wetland 4W1 would be classified as Class I state isolated wetland under the Indiana Department of Environmental Management (IDEM) State Isolated Wetlands Program due to the level of disturbance through human activity, minimal support of wildlife, aquatic habitat, and hydrologic function as per IC 13-11-2-25.8(1)(B). Wetland 4W1 has been determined to meet the definition of a state "exempt isolated wetland" under IC 13-11-2-74.5(2)(D) because it represents an incidental feature. 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 4W1 is located outside of the construction limits and proposed right-of-way limits in the adjacent property. Therefore, no impact is expected. Wetland 4W1 will be marked as "do not disturb" on the plans, which has been included as a commitment in the Environmental Commitments section of this document. The USACE makes all final determinations regarding jurisdiction.

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**Structure No. 5 – CLV-027-068-55.25**

Based on the desktop review, the aerial map of the project area (Appendix B, B14), the topographic map of the project area (Appendix B, B8), and the NWI map (Appendix E, E24), there are 11 wetlands within the 0.5 mile search radius. There are no wetlands within or adjacent to the project area, which was confirmed during the site visit on October 15, 2021 by Lochmueller Group. Therefore, no impacts are expected.

**Structure No. 6 – CLV-027-038-57.06**

Based on the desktop review, the aerial map of the project area (Appendix B, B15), the topographic map of the project area (Appendix B, B8), and the NWI map (Appendix E, E25), there are five wetlands within the 0.5 mile search radius. There is one wetland within or adjacent to the project area, which was confirmed during the site visit on October 15, 2021 by Lochmueller Group.

**Wetland 6W1**

Wetland 6W1 is a poor quality 0.02-acre PEM wetland, located in the northeast quadrant of the intersection for US 27 and County Road 800 S (Appendix B, B15). Wetland 6W1 has formed at the outlet of a small structure and extends along the base of the roadside embankment for US 27 and CR 800 S and is connected via surface flow and a roadside ditch outside the investigation area to a UNT to Goshen Creek, which then flows into O'Brien Creek and on to the Mississinewa River. The Mississinewa River is navigable from its junction with the Wabash River to the Indiana/Ohio state line. Therefore, Wetland 6W1 would be considered a jurisdictional resource under Section 404 of the CWA. Wetland 6W1 is located outside of the construction limits and proposed right-of-way limits, north of CR 800 S. Therefore, no impact is expected. Wetland 6W1 will be marked as "do not disturb" on the plans, which has been included as a commitment in the Environmental Commitments section of this document. The USACE makes all final determinations regarding jurisdiction.

**Structure No. 7 – CLV-027-038-61.28**

Based on the desktop review, the aerial map of the project area (Appendix B, B16), the topographic map of the project area (Appendix B, B9), and the NWI map (Appendix E, E26), there are nine wetlands within the 0.5 mile search radius. There is one wetland within or adjacent to the project area, which was confirmed during the site visit on October 15, 2021 by Lochmueller Group.

**Wetland 7W1**

Wetland 7W1 is a poor quality 0.02-acre PEM wetland, located along the west side of US 27 (Appendix B, B16). This wetland has formed at the base of the roadside embankment and receives drainage from the roadway and agricultural field. Wetland 7W1 would be classified as Class I state isolated wetland under the IDEM State Isolated Wetlands Program due to the level of disturbance through human activity, minimal support of wildlife, aquatic habitat, and hydrologic function as per IC 13-11-2-25.8(1)(B). Wetland 7W1 has been determined to meet the definition of a state "exempt isolated wetland" under IC 13-11-2-74.5 (2) (D) because it represents an incidental feature. 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.

Approximately 0.01 acre of Wetland 7W1 will be impacted, due to replacement of the existing culvert and installation of Class 1 riprap at the outlet. Riprap will be placed 10-feet long by 7.5-feet wide at the culvert outlet tapering to 12.5-feet wide (0.002 acre, 3.6 cubic yards). The no-build alternative was considered in order to avoid impacts to wetlands, however, that alternative would not meet the purpose and need of the project. The remaining impact to Wetland 7W1 was minimized to the maximum extent practicable. The portion of Wetland 7W1 located outside of the construction limits will be marked as "do not disturb" on the plans, which has been included as a commitment in the Environmental Commitments section of this document. Mitigation is not anticipated for these impacts.

The IDNR DFW responded on April 21, 2022 with a recommendation regarding avoidance of excavation or placement of fill in any riparian wetland (Appendix C, C8 to C10). All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

**Terrestrial Habitat**

**Presence**

**Impacts**

Yes

No

Total terrestrial habitat in project area: 3.26 Acre(s)

Total tree clearing: 0.00 Acre(s)

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

Based on the desktop review, the aerial maps of the project area (Appendix B, B10 to B16), the topographic maps of the project area (Appendix B, B5 to B9), and site visits on October 4, 6, and 15, 2021 by Lochmueller Group, there is maintained herbaceous vegetation,

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wetland, rural residences, and agricultural areas within the project areas of the seven structures. Dominant vegetation includes red fescue (*Festuca rubra*), Kentucky bluegrass (*Poa pratensis*), reed canary grass (*Phalaris arundinacea*), yellow foxtail grass (*Setaria pumila*), rice cut grass (*Leersia oryzoides*), and corn (*Zea mays*).

The project will require up to 3.26 acres of ground disturbance including the existing roadway (Appendix B, B10 to B16). Excavation to a maximum depth of 3 feet below ground surface will occur for culvert replacement. Tree clearing is not anticipated for any of the structures. The avoidance of terrestrial habitat is not feasible as the defined project limits are required for the replacement culverts, and installation of scour protection, which meets the purpose and need for the project. Mitigation is not anticipated.

Structure Number	Total Disturbance (acres)
1 - CLV-001-068-87.96	1.10
2 - CLV-001-038-110.71	0.35
3 - CLV-001-038-110.93	0.30
4 - CLV-026-005-125.01	0.52
5 - CLV-027-068-55.25	0.39
6 - CLV-027-038-57.06	0.29
7 - CLV-027-038-61.28	0.31

IDNR DFW responded on April 21, 2022 with general recommendations to avoid or minimize tree clearing and impacts to terrestrial habitat (Appendix C, C8 to C11). These recommendations included revegetating bare and disturbed areas, minimizing brush and tree clearing to be within the project limits, time of year limits on tree clearing, implementing appropriately designed measures for controlling erosion, and tree clearing mitigation guidelines. All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

**Protected Species**

**Federally Listed Bats**

Information for Planning and Consultation (IPaC) determination key completed  **Yes**  **No**  
 Section 7 informal consultation completed (IPaC cannot be completed)  **Yes**  **No**  
 Section 7 formal consultation Biological Assessment (BA) required  **Yes**  **No**

Determination Received for Listed Bats from USFWS: NE  NLAA  LAA

**Other Species not included in IPaC**

Additional federal species found in project area (based on IPaC species list)  **Yes**  **No**  
 State species (not bird) found in project area (based upon consultation with IDNR)  **Yes**  **No**

**Migratory Birds**

Known usage or presence of birds (i.e. nests)  **Yes**  **No**  
 State bird species based upon coordination with IDNR  **Yes**  **No**

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

Based on the desktop review, the aerial maps of the project area (Appendix B, B10 to B16), the topographic maps of the project area (Appendix B, B5 to B9), and site visits on October 4, 6, and 15, 2021 by Lochmueller Group, the IDNR Blackford, Jay, and Randolph County Endangered, Threatened and Rare (ETR) Species Lists have been checked (<https://www.in.gov/dnr/nature-preserves/heritage-data-center/endangered-plant-and-animal-species/county>). According to the IDNR DFW early coordination response letter dated April 21, 2022 (Appendix C, C8 to C11), the Natural Heritage Program's Database has been checked and to date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity.

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, C19 to C33). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional species were generated in the IPaC species list other than the Indiana bat and the northern long-eared bat.

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The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB)*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. Culvert inspections occurred on October 4, 6, and 15, 2021 and no bats or signs of bats were identified (Appendix C, C44 to C50). An effect determination key was completed on December 29, 2021, and based on the responses provided, the project was found to "Not Likely to Adversely Affect" the Indiana bat and/or the NLEB (Appendix C, C34 to C50). INDOT reviewed and verified the effect finding on January 10, 2022, and requested USFWS's review of the finding. No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. Avoidance and Minimization Measures (AMMs) include lighting guidelines. AMMs and/or commitments are included as firm commitments in the *Environmental Commitments* section of this document.

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

**Geological and Mineral Resources**

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

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

Date Karst Evaluation reviewed by INDOT EWPO (if applicable): N/A

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

Based on a desktop review and the Indiana Karst Region map, the project is located outside the designated Indiana Karst Region as outlined in the most current *Protection of Karst Features during Project Development and Construction*. According to the topographic maps of the project area (Appendix B, B5 to B9) and karst resource data available on <https://www.indianamap.org/>, there are no karst features identified within or adjacent to the project area.

In the early coordination responses on May 20, 2022, the Indiana Geological and Water Survey (IGWS) did not indicate that karst features exist in the project area (Appendix C, C11 to C18). The IGWS response also stated that the project areas have the following geological hazards, resources, and/or extraction sites:

Structure No. 1 - CLV-001-068-87.96

- Moderate liquefaction potential, high potential for bedrock resources, and low potential for sand and gravel resources.

Structure No. 2 - CLV-001-038-110.71, Structure No. 3 -CLV-001-038-110.93

- Moderate liquefaction potential, high potential for bedrock resources, low potential for sand and gravel resources, and petroleum exploration wells

Structure No. 4 – CLV-026-005-125.01

- Moderate liquefaction potential, high potential for bedrock resources, low potential for sand and gravel resources, and petroleum exploration wells

Structure No. 5 – CLV-027-068-55.25, Structure No. 6 – CLV-027-038-57.06, and Structure No. 7 – CLV-027-038-61.28

- Moderate liquefaction potential, 1% annual chance flood hazard, high potential for bedrock resources, low potential for sand and gravel resources, petroleum exploration wells, and abandoned industrial minerals sand gravel pits

Response from IGWS has been communicated with the designer on May 20, 2022. No impacts are expected.

**SECTION C – OTHER RESOURCES**

**Drinking Water Resources**

- Wellhead Protection Area(s)
- Source Water Protection Area(s)

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

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Water Well(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Urbanized Area Boundary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Water System(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Is the project located in the St. Joseph Sole Source Aquifer (SSA):	<b>Yes</b>	<b>No</b>
If Yes, is the FHWA/EPA SSA MOU Applicable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If Yes, is a Groundwater Assessment Required?	<input type="checkbox"/>	<input type="checkbox"/>

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

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

**Wellhead Protection Area and Source Water:**  
The IDEM Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead/>) was accessed on March 23, 2022 by Lochmueller Group. None of the project sites are located within a Wellhead Protection Area or Source Water Area. No impacts are expected.

**Water Wells:**  
The IDNR Water Well Record Database website (<https://www.in.gov/dnr/water/3595.htm>) was accessed on March 23, 2022 by Lochmueller Group. No wells are located near the project sites. Therefore, no impacts are expected.

**Urban Area Boundary:**  
Based on a desktop review of <https://entapps.indot.in.gov/MS4/> by Lochmueller Group on March 23, 2022, none of the project sites are located in an Urban Area Boundary (UAB). No impacts are expected.

**Public Water System:**  
Based on a desktop review, site visits on October 4, 6, and 15, 2021 by Lochmueller Group, the aerial maps of the project areas (Appendix B, B10 to B16), and the design plans (Appendix B, B64 to B70), no public water systems were identified. Therefore, no impacts are expected.

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

If applicable, indicate the Floodplain Level?

Level 1     Level 2     Level 3     Level 4     Level 5

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

The IDNR Indiana Floodway Information Portal website (<http://dnrmaps.dnr.in.gov/appsphp/fdms/>) was accessed on March 23, 2022 by Lochmueller Group. This project is not located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix E, E27 to E33). Therefore, it does not fall within the guidelines for the implementation of 23 CFR 650, 23 CFR 771, and 44 CFR. No impacts are expected.

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

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Total Points (from Section VII of CPA-106/AD-1006\*) 146  
*\*If 160 or greater, see CE Manual for guidance.*

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

Based on a desktop review, site visits on October 4, 6, and 15, 2021 by Lochmueller Group, and the aerial maps of the project area (Appendix B, B10 to B16), the project will convert 1.039 acres of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on March 23, 2022, to the Natural Resources Conservation Service (NRCS). Coordination with the NRCS resulted in a score of 146 on the NRCS-AD-1006 (Appendix C, C7). NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

### SECTION D – CULTURAL RESOURCES

	Category(ies) and Type(s)	INDOT Approval Date(s)	N/A
<b>Minor Projects PA</b>	Category B, Type 9	March 2, 2022	

**Full 106 Effect Finding**

No Historic Properties Affected  No Adverse Effect  Adverse Effect

**Eligible and/or Listed Resources Present**

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

**Documentation Prepared** (mark all that apply)

	ESD Approval Date(s)	SHPO Approval Date(s)
APE, Eligibility and Effect Determination		
800.11 Documentation		
Historic Properties Report or Short Report		
Archaeological Records Check and Assessment		
Archaeological Phase Ia Survey Report		
Archaeological Phase Ic Survey Report		
Other:		

Memorandum of Agreement (MOA)

**MOA Signature Dates** (List all signatories)

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

On March 2, 2022, the INDOT Cultural Resources Office (CRO) determined that this project falls within the guidelines of Category B, Type 9 under the Minor Projects Programmatic Agreement (MPPA) (Appendix D, pages D1 to D4).

**B-9:** Installation, replacement, repair, lining, or extension of culverts and other drainage structures under conditions A & B

An archaeological records check revealed two previous archaeology investigations within the project areas of the seven structures (Bennett 1996 and Carmany 2000). Carmany (2000) did not encounter a site and the original site documented by Bennett (1996) was not relocated during the Crider and Terheide (2022) survey. No evidence of archaeological deposits was identified by Crider and Terheide. No additional archaeological investigations were recommended.

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

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<b>SECTION E – SECTION 4(f) RESOURCES/ SECTION 6(f) RESOURCES</b>
---

	<u>Presence</u>	<u>Use</u>	
		<u>Yes</u>	<u>No</u>
<b>Parks and Other Recreational Land</b>			
Publicly owned park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Publicly owned recreation area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (school, state/national forest, bikeway, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Wildlife and Waterfowl Refuges</b>			
National Wildlife Refuge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
National Natural Landmark	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Wildlife Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Nature Preserve	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Historic Properties</b>			
Site eligible and/or listed on the NRHP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Evaluations Prepared</u></b>			
Programmatic Section 4(f)	<input type="checkbox"/>		
“De minimis” Impact	<input type="checkbox"/>		
Individual Section 4(f)	<input type="checkbox"/>		
Any exception included in 23 CFR 774.13	<input type="checkbox"/>		

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

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

Based on a desktop review, the aerial maps of the project area (Appendix B, B10 to B16), and a review of public properties and features available on <https://www.indianamap.org/>, there are no 4(f) resources located within the 0.5 mile search radius. According to additional research and by the site visits on October 4, 6, and 15, 2021 by Lochmueller Group, there are no Section 4(f) resources within or adjacent to the project area. Therefore, no use is expected.

**Section 6(f) Involvement**

**Section 6(f) Property**

Presence

Use

Yes

No




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

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

A review of 6(f) properties on the INDOT ESD website revealed a total of six properties: one property in Blackford County, two properties in Jay County, and three properties in Randolph County (Appendix H, H1). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources.



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### SECTION F – Air Quality

**STIP/TIP and Conformity Status of the Project**

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

Yes	No
X	
	X
	X

Location in STIP: Page 296

Name of MPO (if applicable): N/A

Location in TIP (if applicable): N/A

Level of MSAT Analysis required?

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

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

**STIP/TIP:**  
 This project is included in the Fiscal Year (FY) 2022-2026 Statewide Transportation Improvement Program (STIP) (Appendix G, G1).

**Attainment Status:**  
 This project is located in Blackford, Jay, and Randolph Counties, which are currently in attainment for all criteria pollutants according to the EPA Green Book ([https://www3.epa.gov/airquality/greenbook/anayo\\_in.html](https://www3.epa.gov/airquality/greenbook/anayo_in.html)). Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

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

### SECTION G – NOISE

**Noise** **Yes**      **No**

Is a noise analysis required in accordance with FHWA regulations and INDOT's traffic noise policy?      

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

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

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

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## SECTION H – COMMUNITY IMPACTS

**Regional, Community & Neighborhood Factors**

- Will the proposed action comply with the local/regional development patterns for the area?
- Will the proposed action result in substantial impacts to community cohesion?
- Will the proposed action result in substantial impacts to local tax base or property values?
- Will construction activities impact community events (festivals, fairs, etc.)?
- Does the community have an approved transition plan?  
If No, are steps being made to advance the community's transition plan?
- Does the project comply with the transition plan? (explain in the discussion below)

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

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

The project will ultimately be beneficial to local business and properties due to the continued safe travel on SR 1, SR 26, and US 27 at the structure locations. Overall, the negative impacts to property owners and local businesses within the project area will consist primarily of short-term construction impacts. No relocations are expected. Property owners will be provided access throughout the duration of the project to reduce impacts as much as possible. The project is not anticipated to result in substantial impacts to community cohesion, because it will not change access to properties in the area. There are no pedestrian facilities within the project area and no pedestrian facilities will be constructed. The project is not expected to impact the surrounding community or cause economic impacts to the surrounding area. Therefore, this project will have minimal or no negative impacts to the community or local economy.

According to the Indiana Festivals website ([www.indianafestivals.org](http://www.indianafestivals.org)) accessed on March 23, 2022 by Lochmueller Group there are no fairs and festivals that will be directly impacted by the project. The MOT may pose delays and temporary inconveniences to traveling motorists (including school buses and emergency services); however, all inconveniences will cease upon project completion. The MOT for the project is not anticipated to impact access to community events.

The project complies with the Americans with Disabilities Act (ADA) Transition plans for Blackford, Jay, and Randolph Counties. This project will not interfere with ADA protections, as no facilities warranting ADA compliance are present within the area of proposed improvements at these seven structures.

The project sponsor will be responsible for contacting school districts and emergency services at least two weeks prior to any construction activities that would limit access, this is included as a commitment in the *Environmental Commitments* section of this CE document.

**Public Facilities and Services**

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

Based on a desktop review, the aerial map of the project area (Appendix B, B3) and a review of the available GIS layers, there are two cemeteries located within 0.5 mile of the Structure 4 project area, two pipelines located within 0.5 mile of the Structure 5 project area, one pipeline located within 0.5 mile of the Structure 6 project area, and two pipelines located within 0.5 mile of the Structure 7 project area. During design coordination it was confirmed that an Ohio Valley Gas Corp. pipeline exists within the ROW on the west side of US 27. Impact to this pipeline was avoided by limiting excavation depth on the west side of US 27. Therefore, no impacts are expected. Access to all properties will be maintained during construction.

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

**Environmental Justice (EJ) (Presidential EO 12898)**

- During the development of the project were EJ issues identified?
- Does the project require an EJ analysis?
- If YES, then:

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

- Are any EJ populations located within the project area?
- Will the project result in adversely high and disproportionate impacts to EJ populations?

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Indicate if EJ issues were identified during project development. If an EJ analysis was not required, discuss why. If an EJ analysis was required, describe how the EJ population was identified. Include if the project has a disproportionately high or adverse effect on EJ populations and explain your reasoning. If yes, describe actions to avoid, minimize and mitigate these effects.

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current *INDOT Categorical Exclusion Manual*, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent right-of-way. The project will require 2.178 acres of permanent ROW and no temporary ROW. Therefore, an EJ Analysis is required (Appendix H, H2 to H7).

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city or town and is called the community of comparison (COC). Due to the number of structures in this project and their rural locations, the COC is each county in which a structure resides. The COC is Blackford County for Structure 4, Jay County for Structures 2, 3, 6, and 7, and Randolph County for Structures 1 and 5 (Appendix H, H2).

The community that overlaps the project area is called the affected community (AC). In this project, AC 1 is Census Tract 9754, Blackford County, Indiana, which represents the Structure 4 project area. AC 2 is Census Tract 9627, Jay County, Indiana, which represents the project area for Structures 2 and 3. AC 3 is Census Tract 9629, Jay County, Indiana, which represents the project area for Structures 6 and 7. AC 4 is Census Tract 9514, Randolph County, Indiana, which represents the Structure 5 project area. AC 5 is Census Tract 9515, Randolph County, Indiana, which represents the Structure 1 project area (Appendix H, H2).

An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the 2016-2020 American Community Survey was obtained from the U.S Census Bureau's webpage (<https://data.census.gov/cedsci/>) on April 27, 2022 by Lochmueller Group (Appendix H, H4 to H7). The data collected for minority and low-income populations within the AC are summarized in the below table.

**Table: Minority and Low-Income Data (2016-2020 American Community Survey)**

	COC – Blackford County	AC 1 - Census Tract 9754, Blackford County	COC – Jay County	AC 2 – Census Tract 9627, Jay County	AC 3 – Census Tract 9629, Jay County	COC – Randolph County	AC 4 – Census Tract 9514, Randolph County	AC 5 – Census Tract 9515, Randolph County
Percent Minority	4.63%	1.03%	5.28%	2.63%	1.57%	7.74%	3.29%	4.68%
125% of COC	5.79%	<125% COC	6.60%	<125% COC	<125% COC	9.68%	<125% COC	<125% COC
EJ Population of Concern	--	No	--	No	No	--	No	No
Percent Low-Income	16.75%	13.96%	14.46%	12.14%	11.71%	12.15%	6.24%	7.74%
125% of COC	20.94%	<125% COC	18.07%	<125% COC	<125% COC	15.18%	<125% COC	<125% COC
EJ Population of Concern	--	No	--	No	No	--	No	No

**Blackford County COC:**

AC 1 - Census Tract 9754, representing the project area of Structure 4, has a percent minority of 1.03% which is below 50% and is below the 125% COC threshold. AC 1 has a percent low-income of 13.96% which is below 50% and is below the 125% COC. Therefore, AC-1 does not contain minority or low-income populations of EJ concern.

**Jay County COC:**

AC 2 - Census Tract 9627, representing the project area of Structures 2 and 3, has a percent minority of 2.63% which is below 50% and is below the 125% COC threshold. AC 2 has a percent low-income of 12.14% which is below 50% and is below the 125% COC. Therefore, AC 2 does not contain minority or low-income populations of EJ concern.

AC 3 - Census Tract 9629, representing the project area of Structures 6 and 7, has a percent minority of 1.57% which is below 50% and is below the 125% COC threshold. AC 3 has a percent low-income of 11.71% which is below 50% and is below the 125% COC. Therefore, AC 3 does not contain minority or low-income populations of EJ concern.

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**Randolph County COC:**

AC 4 - Census Tract 9514, representing the project area of Structure 5, has a percent minority of 3.29% which is below 50% and is below the 125% COC threshold. AC 4 has a percent low-income of 6.24% which is below 50% and is below the 125% COC. Therefore, AC 4 does not contain minority or low-income populations of EJ concern.

AC 5 - Census Tract 9515, representing the project area of Structure 1, has a percent minority of 4.68% which is below 50% and is below the 125% COC threshold. AC 5 has a percent low-income of 7.74% which is below 50% and is below the 125% COC. Therefore, AC 5 does not contain minority or low-income populations of EJ concern.

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

**Relocation of People, Businesses or Farms**

Will the proposed action result in the relocation of people, businesses or farms?  
Is a BIS or CSRS required?

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

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

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

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

**SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES**

**Hazardous Materials & Regulated Substances** (Mark all that apply)

Documentation

- Red Flag Investigation (RFI)
- Phase I Environmental Site Assessment (Phase I ESA)
- Phase II Environmental Site Assessment (Phase II ESA)
- Design/Specifications for Remediation required?

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Date RFI concurrence by INDOT SAM (if applicable):   N/A  

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

Based on coordination with INDOT Site Assessment and Management (SAM) on November 2, 2021, it was determined that a Red Flag Investigation was not warranted for this project. Further investigation for hazardous material concerns or regulated substances is not required at this time.

## Part IV – Permits and Commitments

**PERMITS CHECKLIST**

**Permits** (mark all that apply)

Likely Required

**Army Corps of Engineers (404/Section10 Permit)**

Nationwide Permit (NWP)	<input checked="" type="checkbox"/>
Regional General Permit (RGP)	<input type="checkbox"/>
Individual Permit (IP)	<input type="checkbox"/>
Other	<input type="checkbox"/>

**IN Department of Environmental Management (401/Rule 5)**

Nationwide Permit (NWP)	<input type="checkbox"/>
Regional General Permit (RGP)	<input type="checkbox"/>

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**Permits (mark all that apply)**

**Likely Required**

Individual Permit (IP)	<b>X</b>
Isolated Wetlands	
Construction Stormwater General Permit	<b>X</b>
Other	

**IN Department of Natural Resources**

Construction in a Floodway	
Navigable Waterway Permit	
Other	

**Mitigation Required**

**US Coast Guard Section 9 Bridge Permit**

**Others (Please discuss in the discussion below)**


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

**UNT to Bush Creek**

Approximately 52 linear feet (0.004 acre, 7.2 cubic yards) of UNT to Bush Creek will be permanently impacted, due to replacement of the existing culvert (28 linear feet, 0.003 acre, 5 cubic yards) and installation of Class 1 riprap at the outlet (14-feet long by 10.5-feet wide, tapering to 17.5-feet wide; 0.001 acre, 2.2 cubic yards). Temporary impacts (10 linear feet, <0.001 acre, 1.11 cubic yard) include placement of a sandbag cofferdam at the outlet for temporary dewatering during placement of fill (Appendix B, B64). The remainder of the impacts are anticipated from disturbance within the construction limits.

**Wetland 2W1**

Approximately 0.003 acre of Wetland 2W1 will be impacted (Appendix B, B65), due to replacement of the existing culvert and installation of Class 1 riprap at the outlet (12-feet long by 9-feet wide, tapering to 15-feet wide; 0.003 acre, 5.4 cubic yards). The remainder of the impacts are anticipated from disturbance within the construction limits.

**UNT 1 to McClain Ditch**

Approximately 100 linear feet (0.005 acre, 13.3 cubic yards) of UNT 1 to McClain ditch will be permanently impacted, due to replacement of the existing culvert (10 linear feet, 0.001 acre, 1.7 cubic yards) and installation of Class 1 riprap at the outlet (10-feet long by 7.5-feet wide at the culvert outlet tapering to 12.5-feet wide, 0.002 acre, 3.7 cubic yards). Temporary impacts (20 linear feet, 0.001 acre, 2.22 cubic yards) include placement of sandbag cofferdams within UNT 1 to McClain Ditch on either side of the outlet for temporary dewatering during placement of fill (Appendix B, B64). The remainder of the impacts are anticipated from disturbance within the construction limits.

**UNT to Goshen Creek**

Approximately 40 linear feet (0.006 acre, 3.73 cubic yards) of UNT to Goshen Creek will be permanently impacted, due to the disturbance at the inlet associated with the replacement of the existing culvert. Riprap will not be placed in the channel, as riprap is only proposed at the outlet, where the channel is undefined. Temporary impacts (10 linear feet, <0.001 acre, 1.11 cubic yard) include placement of a sandbag cofferdam at the inlet for temporary dewatering during the replacement of the culvert (Appendix B, B69).

**Wetland 7W1**

Approximately 0.01 acre of Wetland 7W1 will be impacted (Appendix B, B70), due to replacement of the existing culvert and installation of Class 1 riprap at the outlet. Riprap will be placed 10-feet long by 7.5-feet wide at the culvert outlet tapering to 12.5-feet wide (0.002 acre, 3.6 cubic yards). The remainder of the impacts are anticipated from disturbance within the construction limits.

Due to these impacts, it is likely that a USACE Section 404 Nationwide Permit (NWP) and an IDEM Section 401 WQC permit will be required for each structure. Because cumulative impacts are below the 300 linear feet/ 0.1 acre threshold to require mitigation, no mitigation is anticipated.

Although the IDNR responded to coordination that the project may require a Construction in a Floodway permit (Appendix C, page C8), none of the structures are located within a mapped floodway nor are any structures located within a waterway that has a drainage area of more than 1.0 square mile. Therefore, the proposed project does not require formal approval by the IDNR, pursuant to the Flood Control Act (IC 14-28-1).

The project may disturb up to 3.26 acres of land. Therefore, the project is expected to exceed the minimal guidelines of soil disturbance and a Construction Stormwater General Permit (CSGP) will be required.

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

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

### ENVIRONMENTAL COMMITMENTS

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

#### Firm:

1. Any work in a waterway or wetland area within INDOT's right of way or in borrow/waste areas is prohibited unless specifically allowed in the U.S. Army Corps of Engineers or the Indiana Department of Environmental Management (IDEM) permit. (INDOT ESD)
2. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT Greenfield District)
3. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
4. Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
5. General AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)
6. At Structure No. 2 - CLV-001-038-110.71, mark Wetland 2W1 on the plans as do not disturb outside of the construction limits. (Lochmueller Group)
7. At Structure No. 4 - CLV-026-005-125.01, mark Wetland 4W1 on the plans as do not disturb. (Lochmueller Group)
8. At Structure No. 6 - CLV-027-038-57.06, mark Wetland 6W1 on the plans as do not disturb. (Lochmueller Group)
9. At Structure No. 7 - CLV-027-038-61.28, mark Wetland 7W1 on the plans as do not disturb outside of the construction limits. (Lochmueller Group)

#### For Further Consideration:

1. Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10 inches dbh or greater (5:1 mitigation based on the number of large trees). (IDNR, DFW)
2. The new, replacement, or rehabbed structure should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. (IDNR, DFW)
3. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting from April 1 through September 30. (IDNR, DFW)
4. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the void. (IDNR, DFW)

**Appendix A: INDOT Supporting Documentation**

Threshold Chart.....A1

**Appendix B: Graphics**

General Location Maps ..... B1-B4  
USGS Topographic Maps ..... B5-B9  
Aerial Maps (2018) ..... B10-B16  
Photo Location Maps (2018) ..... B17-B23  
Site Photographs (October 4-15, 2021) ..... B24-B43  
Preliminary Plans..... B44-B70

**Appendix C: Early Coordination**

Sample Early Coordination Letter (March 24, 2022)..... C1-C5  
US Department of Agriculture, Natural Resource Conservation Service  
Response Letter (March 30, 2022) ..... C6  
NRCS-AD-1006 (March 30, 2022) ..... C7  
Indiana Department of Natural Resources, Division of Fish and Wildlife  
Response Letter (November 24, 2020) ..... C8-C10  
Indiana Geological and Water Survey  
Automatic Response Letters (October 30, 2020) ..... C11-C18  
US Fish and Wildlife Service  
Species List (July 5, 2022)..... C19-C33  
NLAA Concurrence Verification Letter (February 17, 2022)..... C34-C43  
Bridge/Structure Bat Assessment Forms  
Structure 1 (October 4, 2021)..... C44  
Structure 2-4 (October 6, 2021) ..... C45-C47  
Structures 5-7 (October 15, 2021)..... C48-C50

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

MPPA Category B Attachment (March 2, 2022) ..... D1-D4

**Appendix E: Water Resources**

Waters of the U.S. Report ..... E1-E12  
USDA SSURGO Soils Maps ..... E13-E19  
USFWS NWI Maps ..... E20-E26  
Best Available Flood Hazard Maps ..... E27-E33  
USGS StreamStats Watershed Maps..... E34-E36  
Water Resources Maps..... E37-E43  
Preliminary Jurisdictional Determination Form..... E44-E47

**Appendix F: Public Involvement**

Sample Notice of Survey (April 28, 2021)..... F1

**Appendix G: Air Quality**

Relevant pages from the INDOT FY 2022-2026 STIP .....G1

**Appendix H: Other Information**

Land and Water Conservation Fund Grants for Blackford, Jay, and Randolph Counties .....H1  
Environmental Justice Analysis  
Environmental Justice Map .....H2  
Environmental Justice Analysis .....H3  
Supporting Data ..... H4-H7

**Categorical Exclusion**

**Appendix A**

**INDOT Supporting Documentation**



## Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4 <sup>1</sup>
<b>Section 106</b>	Falls within guidelines of Minor Projects PA	“No Historic Properties Affected”	“No Adverse Effect”	-	“Adverse Effect” Or Historic Bridge involvement <sup>2</sup>
<b>Stream Impacts<sup>3</sup></b>	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>
<b>Wetland Impacts<sup>3</sup></b>	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
<b>Right-of-way<sup>5</sup></b>	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
<b>Relocations<sup>6</sup></b>	None	-	-	< 5	≥ 5
<b>Threatened/Endangered Species (Species Specific Programmatic for Indiana bat &amp; northern long eared bat)*</b>	“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>
<b>Threatened/Endangered Species (Any other species)*</b>	Falls within guidelines of USFWS 2013 Interim Policy or “No Effect”	“Not likely to Adversely Affect”	-	-	“Likely to Adversely Affect”
<b>Environmental Justice</b>	No disproportionately high and adverse impacts	-	-	-	Potential <sup>9</sup>
<b>Sole Source Aquifer</b>	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
<b>Floodplain</b>	No Substantial Impacts	-	-	-	Substantial Impacts
<b>Section 4(f) Impacts</b>	None	-	-	-	Any <sup>10</sup>
<b>Section 6(f) Impacts</b>	None	-	-	-	Any
<b>Permanent Traffic Alteration</b>	None	-	-	-	Any
<b>Noise Analysis Required</b>	No	-	-	-	Yes
<b>Air Quality Analysis Required</b>	No	-	-	-	Yes <sup>11</sup>
<b>Approval Level</b>	Concurrence by DE or ESD	DE or ESD	DE or ESD	DE and/or ESD	DE and/or ESD; and FHWA
<ul style="list-style-type: none"> <li>• District Env. (DE)</li> <li>• Env. Serv. Div. (ESD)</li> <li>• FHWA</li> </ul>					

<sup>1</sup> Coordinate with INDOT Environmental Services Division. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.

<sup>2</sup> Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.

<sup>3</sup> Total permanent impacts to streams (linear feet) and wetlands (acres).

<sup>4</sup> US Army Corps of Engineers Individual 404 Permit

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

<sup>6</sup> If any relocations are within an area with a known or suspected Environmental Justice (EJ) or disadvantaged population, or has greater than 5 relocations, a conversation with FHWA, through INDOT ESD, is needed to confirm NEPA classification and outreach plan for the project.

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

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

<sup>9</sup> Potential for causing a disproportionately high and adverse impact.

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

<sup>11</sup> Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

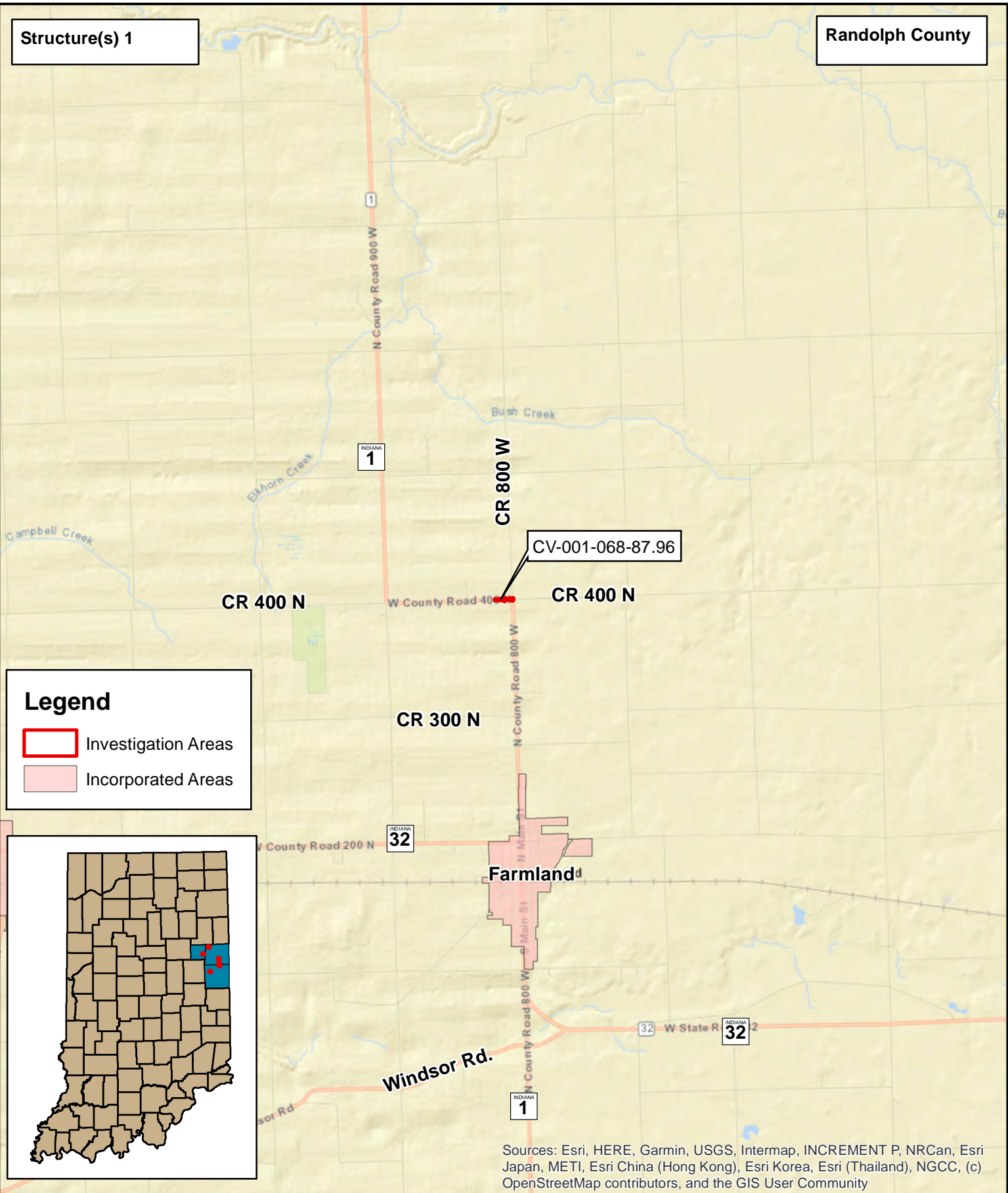
\* Includes the threatened/endangered species critical habitat

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

**Categorical Exclusion**  
**Appendix B**  
**Graphics**

Structure(s) 1

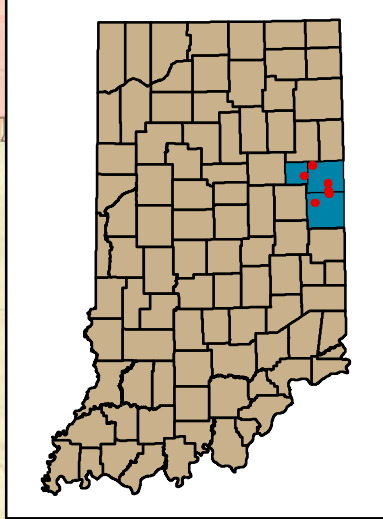
Randolph County



CV-001-068-87.96

### Legend

- Investigation Areas
- Incorporated Areas



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

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### Project Location Maps

Des. No. 1902734

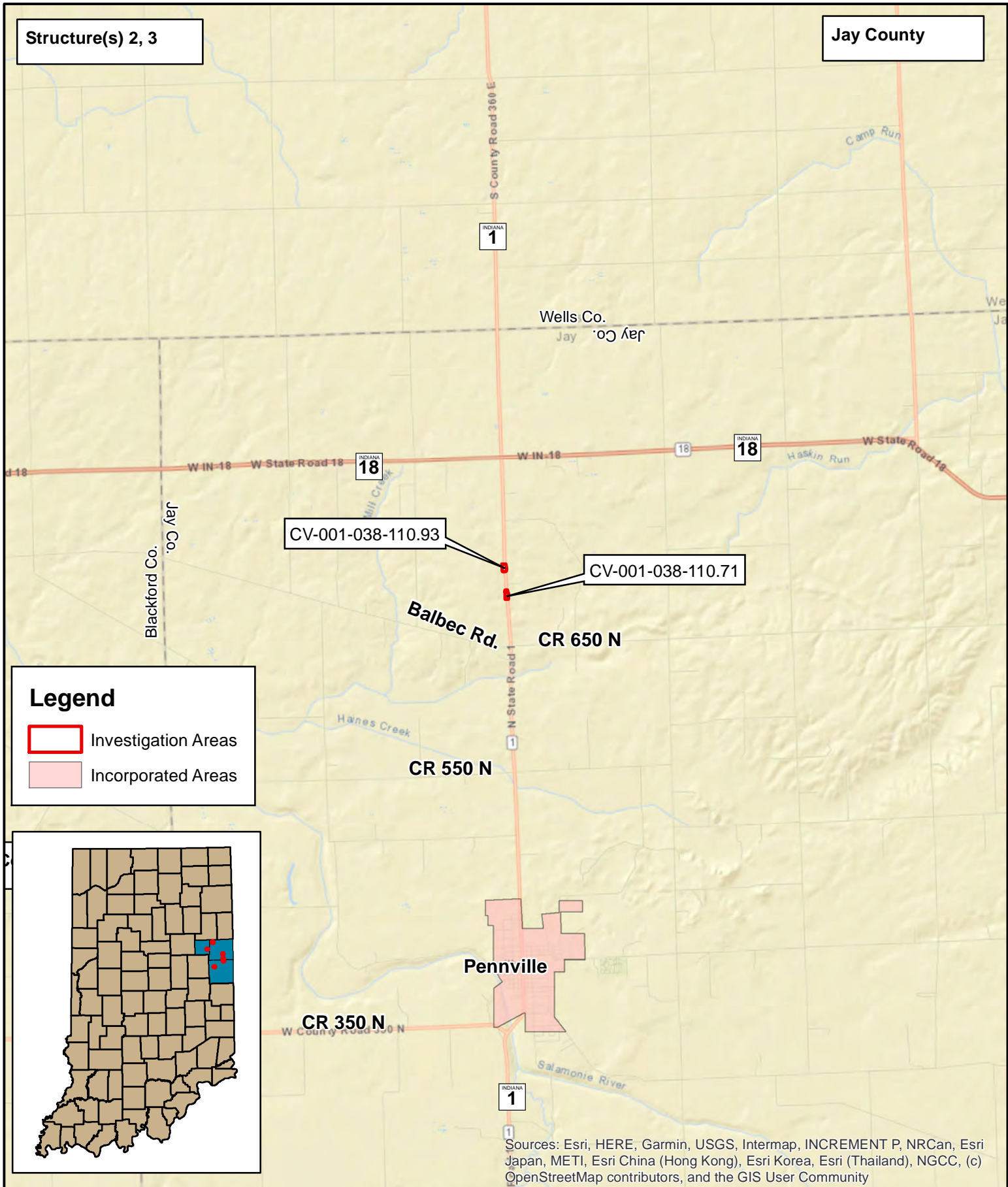


Counties: Blackford, Jay, & Randolph  
 Townships: Monroe, Ward, State: Indiana  
 Penn, Pike, & Jackson

Small Structures Project  
 Structures on SR 26, SR 1, and US 27  
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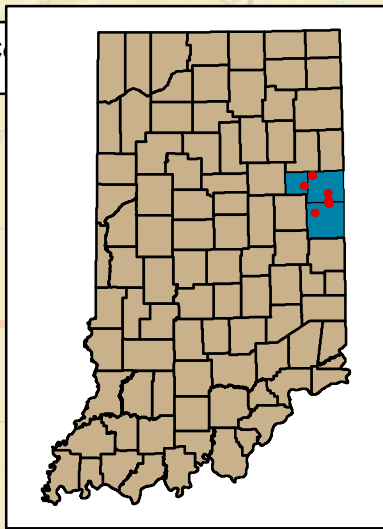
Structure(s) 2, 3

Jay County



### Legend

- Investigation Areas
- Incorporated Areas



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

## Project Location Maps

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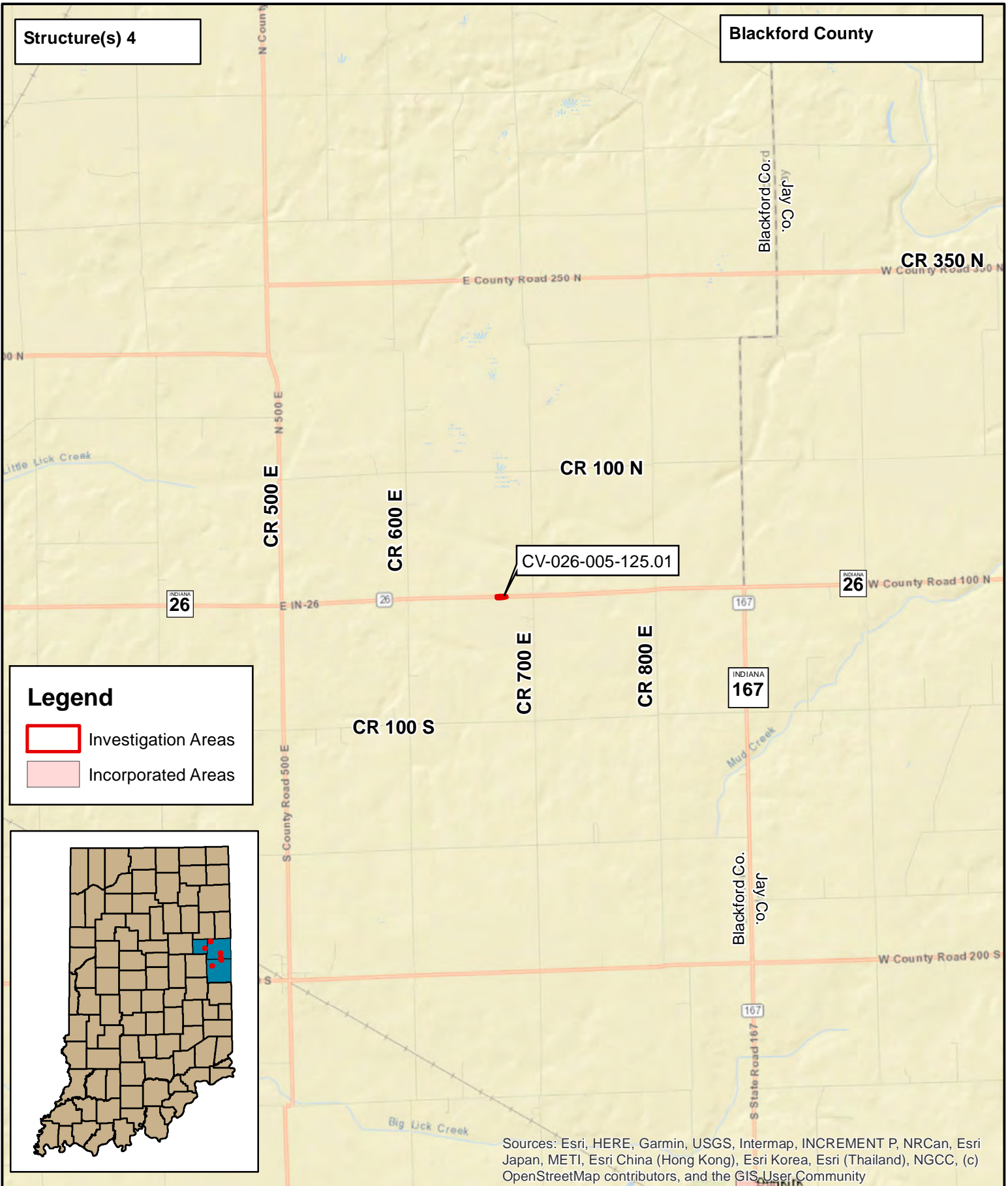
Counties: Blackford, Jay, & Randolph  
 Townships: Monroe, Ward, State: Indiana  
 Penn, Pike, & Jackson



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Structure(s) 4

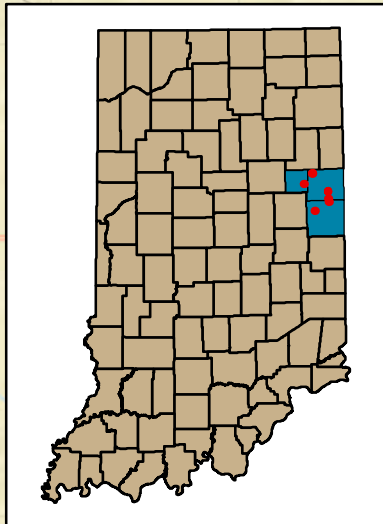
Blackford County



CV-026-005-125.01

### Legend

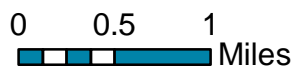
- Investigation Areas
- Incorporated Areas



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

## Project Location Maps

Des. No. 1902734



Counties: Blackford, Jay, & Randolph  
 Townships: Monroe, Ward, State: Indiana  
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 Structures on SR 26, SR 1, and US 27  
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Structure(s) 5, 6, 7

Randolph & Jay Counties

CV-027-38-61.28

CR 400 S

CR 450 S



CR 500 S

CR 550 S

CR 600 S

CR 650 S E County Road 650 S

CR 700 S

CR 800 S

CV-027-38-57.06



CV-027-68-55.25

CR 900 N



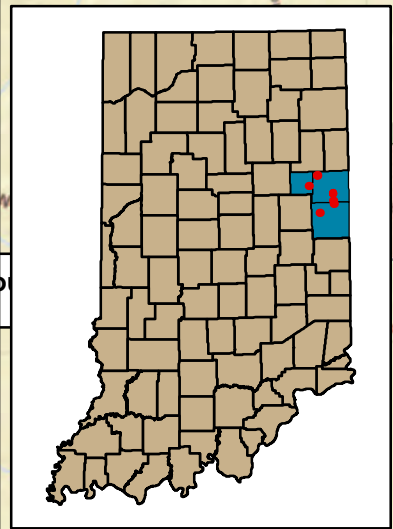
W State Road 28



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

### Legend

- Investigation Areas
- Incorporated Areas



Ridgeville

W County Road 900 N

W IN-28

W State Road 28

E IN-28

INDIANA 28

## Project Location Maps

Des. No. 1902734

Counties: Blackford, Jay, & Randolph  
Townships: Monroe, Ward, State: Indiana  
Penn, Pike, & Jackson

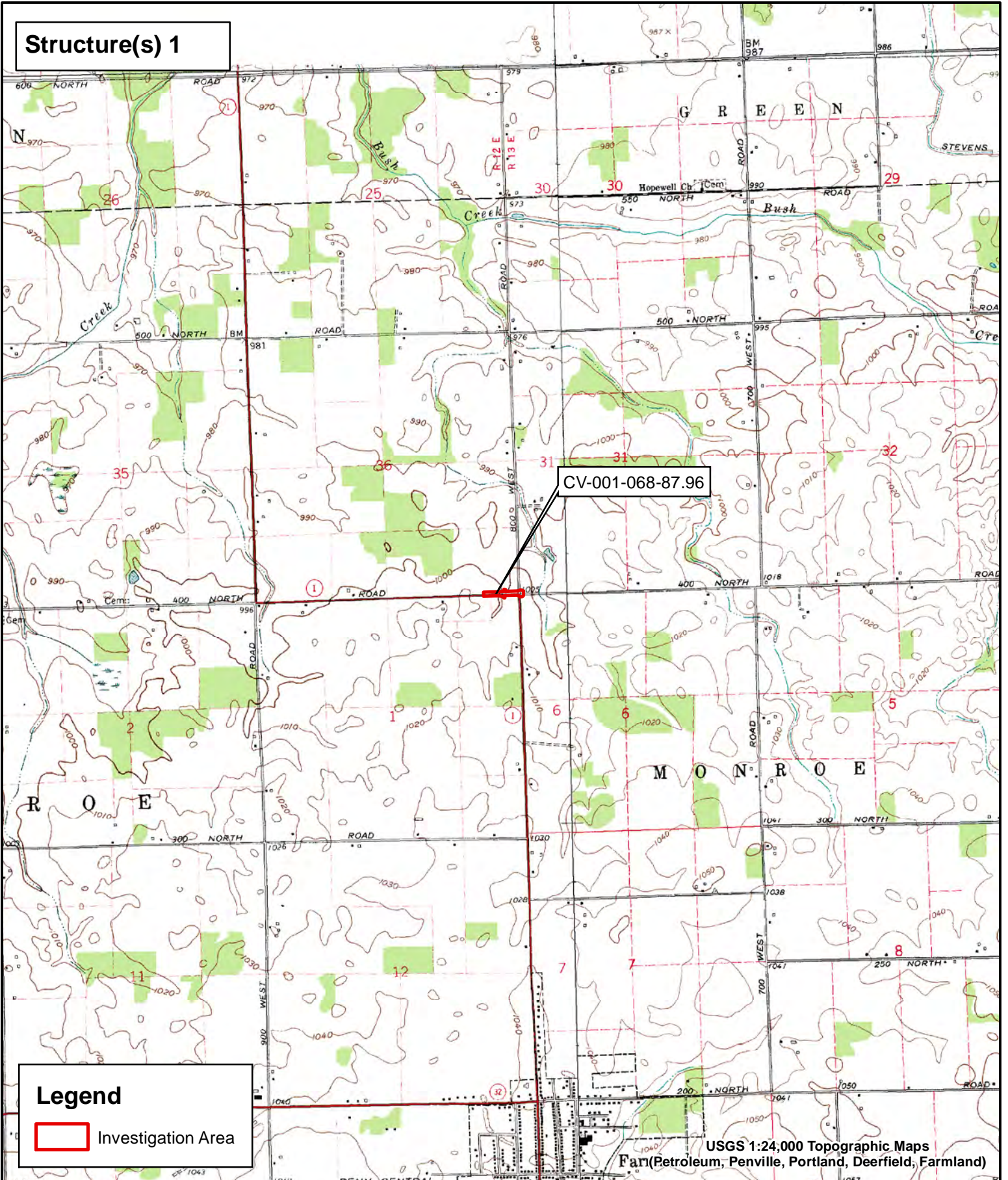


Small Structures Project  
Structures on SR 26, SR 1, and US 27  
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# Structure(s) 1



CV-001-068-87.96

## Legend

Investigation Area

USGS 1:24,000 Topographic Maps  
 Far(Petroleum, Penville, Portland, Deerfield, Farmland)

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## USGS Quad Maps

Des. No. 1902734



Counties: Blackford, Jay, & Randolph  
 Townships: Monroe, Ward, State: Indiana  
 Penn, Pike, & Jackson

Small Structures Project  
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 Created: 5/5/2022, RWinebrinner

Structure(s) 2, 3

CV-001-038-110.93

CV-001-038-110.71

**Legend**

 Investigation Area

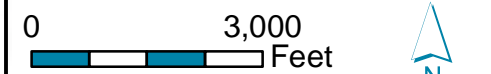
USGS 1:24,000 Topographic Maps  
(Petroleum, Penville, Portland, Deerfield, Farmland)



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**USGS Quad Maps**  
Des. No. 1902734

0 3,000 Feet



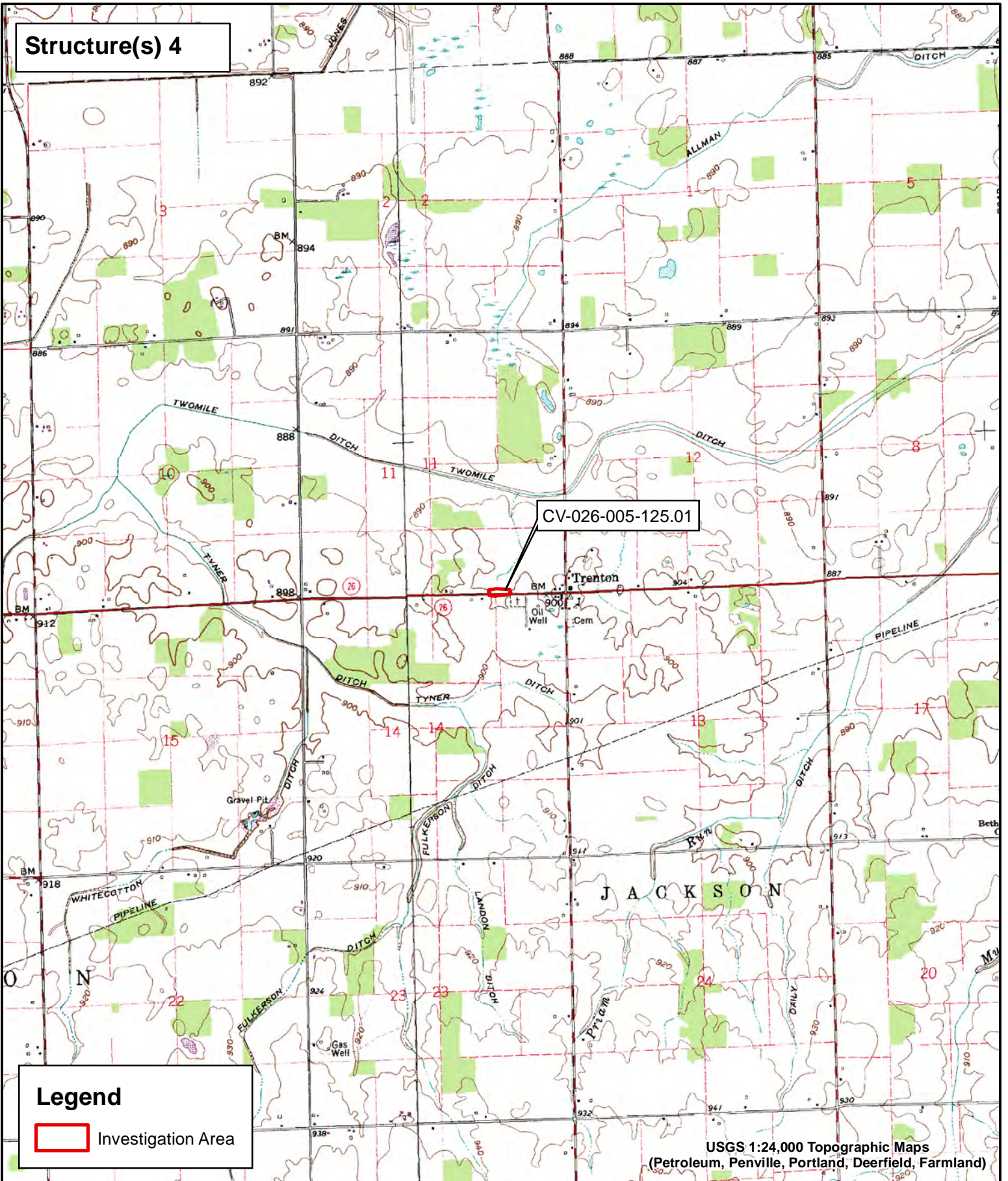
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Townships: Monroe, Ward, State: Indiana  
Penn, Pike, & Jackson

Small Structures Project  
Structures on SR 26, SR 1, and US 27  
Created:5/5/2022, RWinebrinner

X:\Production\FGDB\20201120-20281\Project\PR\_1\05-Outputs\MapDocs\Topo.mxd



# Structure(s) 4



CV-026-005-125.01

## Legend

Investigation Area

USGS 1:24,000 Topographic Maps  
(Petroleum, Penville, Portland, Deerfield, Farmland)

## USGS Quad Maps

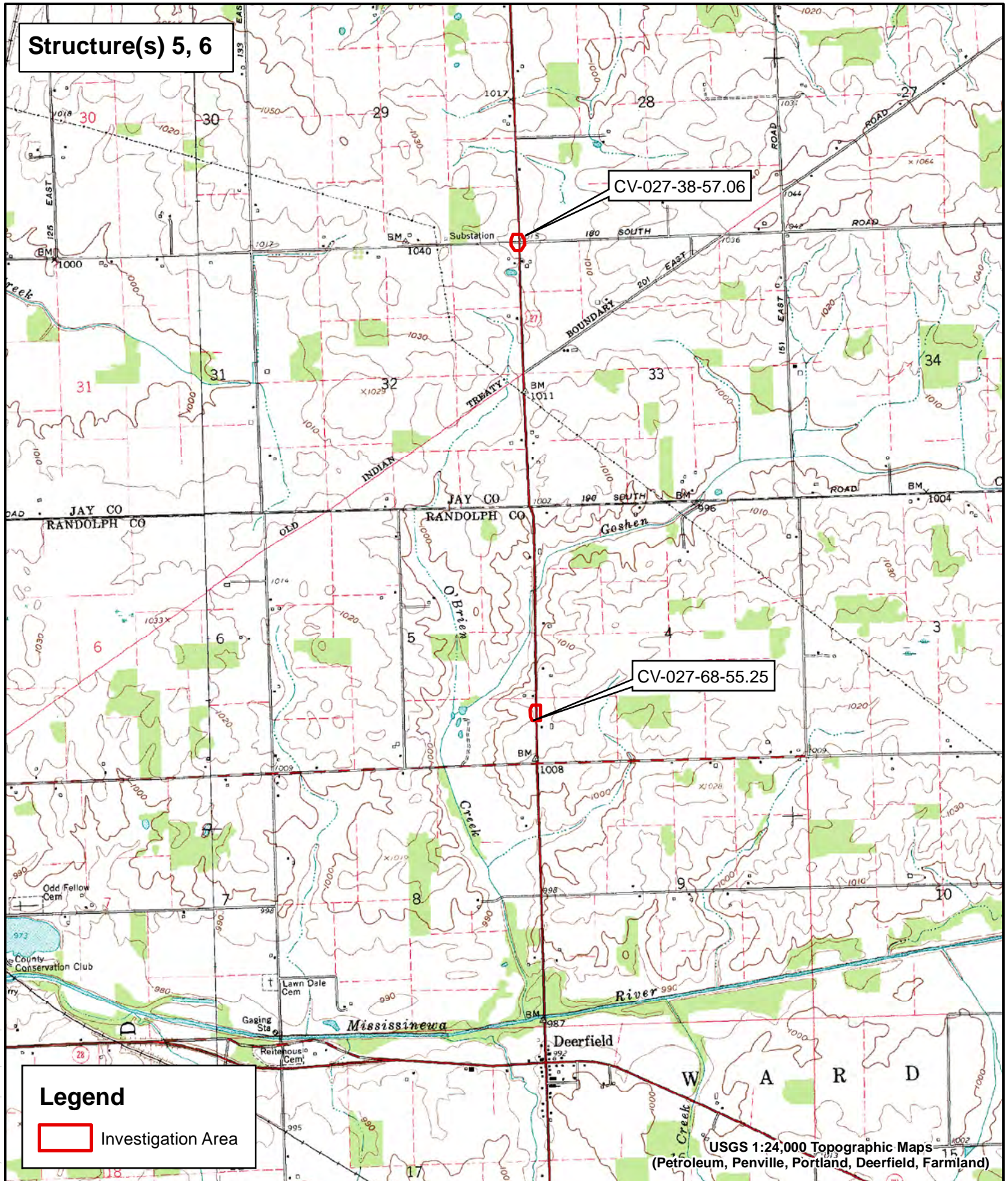
Des. No. 1902734

Counties: Blackford, Jay, & Randolph  
Townships: Monroe, Ward, State: Indiana  
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Structure(s) 5, 6

CV-027-38-57.06

CV-027-68-55.25

**Legend**

Investigation Area

USGS 1:24,000 Topographic Maps  
(Petroleum, Penville, Portland, Deerfield, Farmland)

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**USGS Quad Maps**  
Des. No. 1902734

0 3,000 Feet

Counties: Blackford, Jay, & Randolph  
Townships: Monroe, Ward, State: Indiana  
Penn, Pike, & Jackson

Small Structures Project  
Structures on SR 26, SR 1, and US 27  
Created: 5/5/2022, RWinebrinner

Structure(s) 7

CV-027-38-61.28

Legend

 Investigation Area

USGS 1:24,000 Topographic Maps  
(Petroleum, Penville, Portland, Deerfield, Farmland)

USGS Quad Maps

Des. No. 1902734

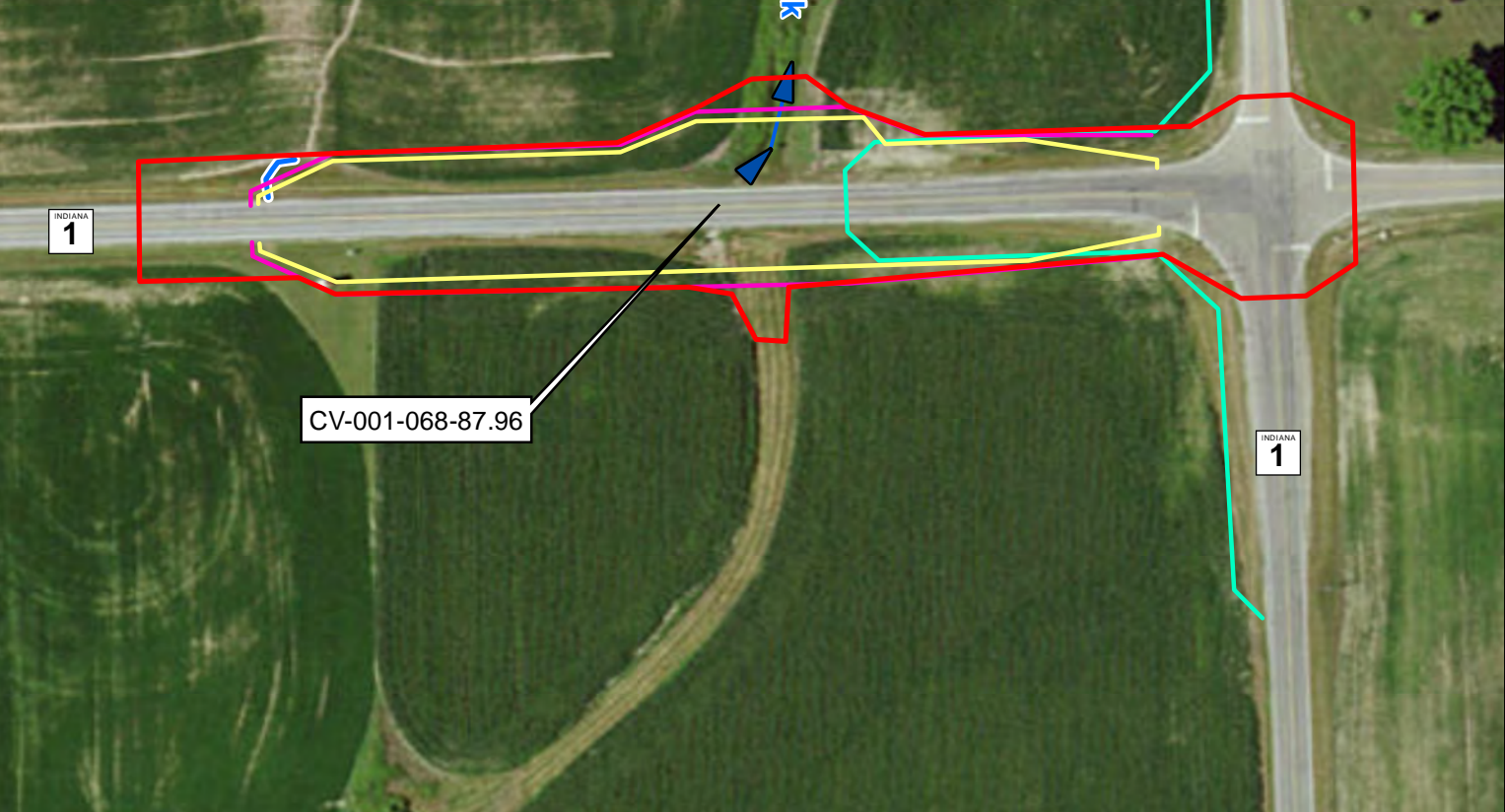
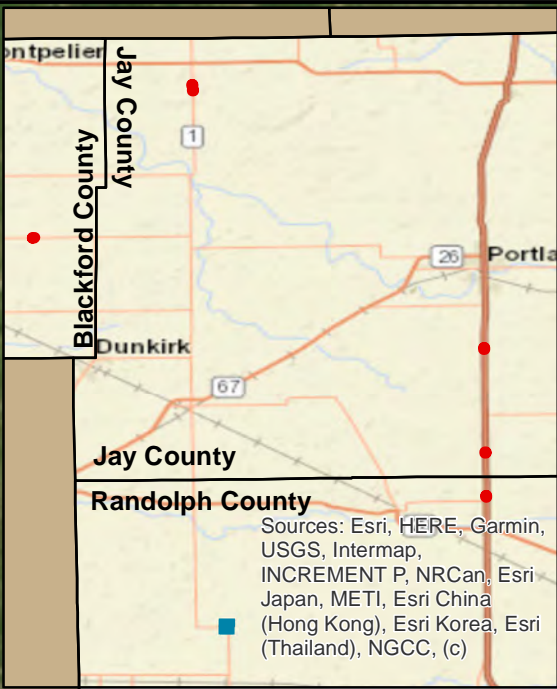
Counties: Blackford, Jay, & Randolph  
Townships: Monroe, Ward, State: Indiana  
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# Structure 1 - CLV-001-068-87.96



### Legend

Investigation Areas	Streams
Construction Limits	Roadside Ditches
Proposed Right-of-way	Concrete Lined Ditches
Existing Right-of-way	Wetlands

ational Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

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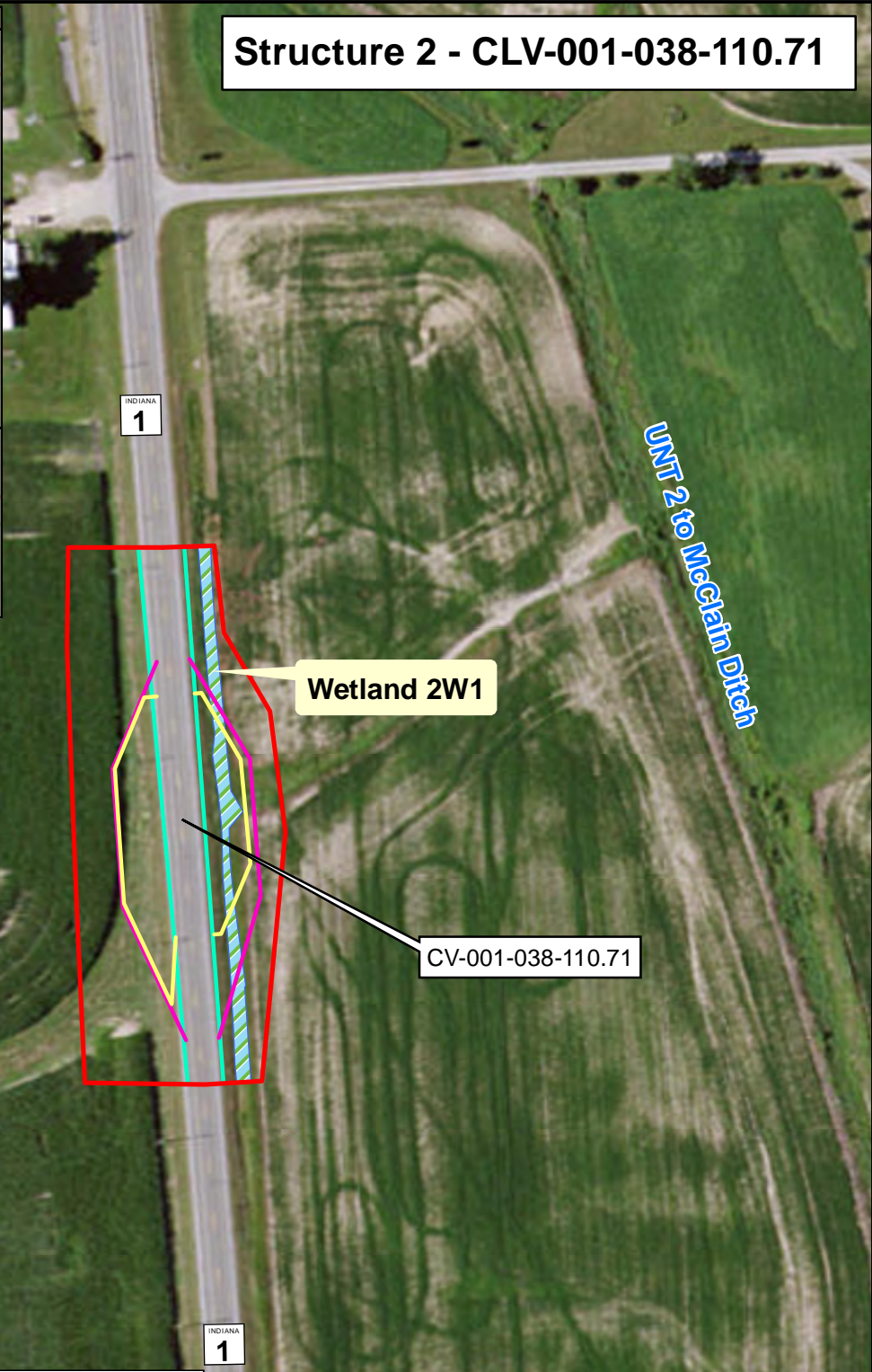
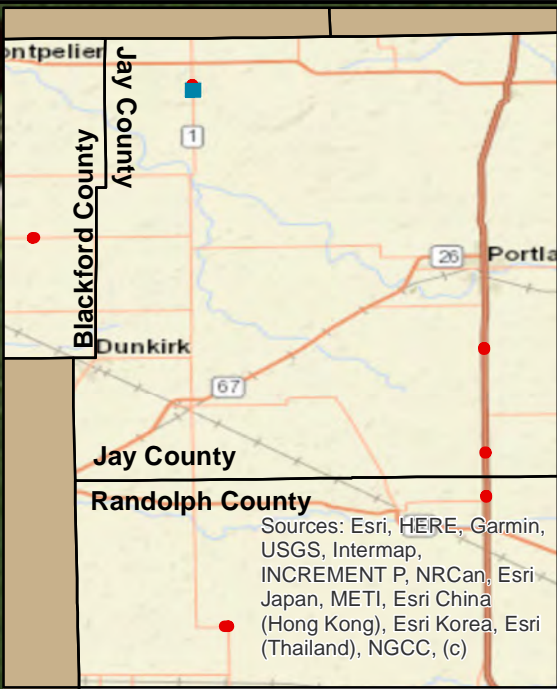
**Aerial Maps (2018)**  
 Des. No. 1902734

0 200 Feet

Counties: Blackford, Jay, & Randolph  
 Townships: Monroe, Ward, State: Indiana  
 Penn, Pike, & Jackson

Small Structures Project  
 Structures on SR 26, SR 1, and US 27  
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# Structure 2 - CLV-001-038-110.71



Wetland 2W1

CV-001-038-110.71

### Legend

Investigation Areas	Streams
Construction Limits	Roadside Ditches
Proposed Right-of-way	Concrete Lined Ditches
Existing Right-of-way	Wetlands

ational Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

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## Aerial Maps (2018)

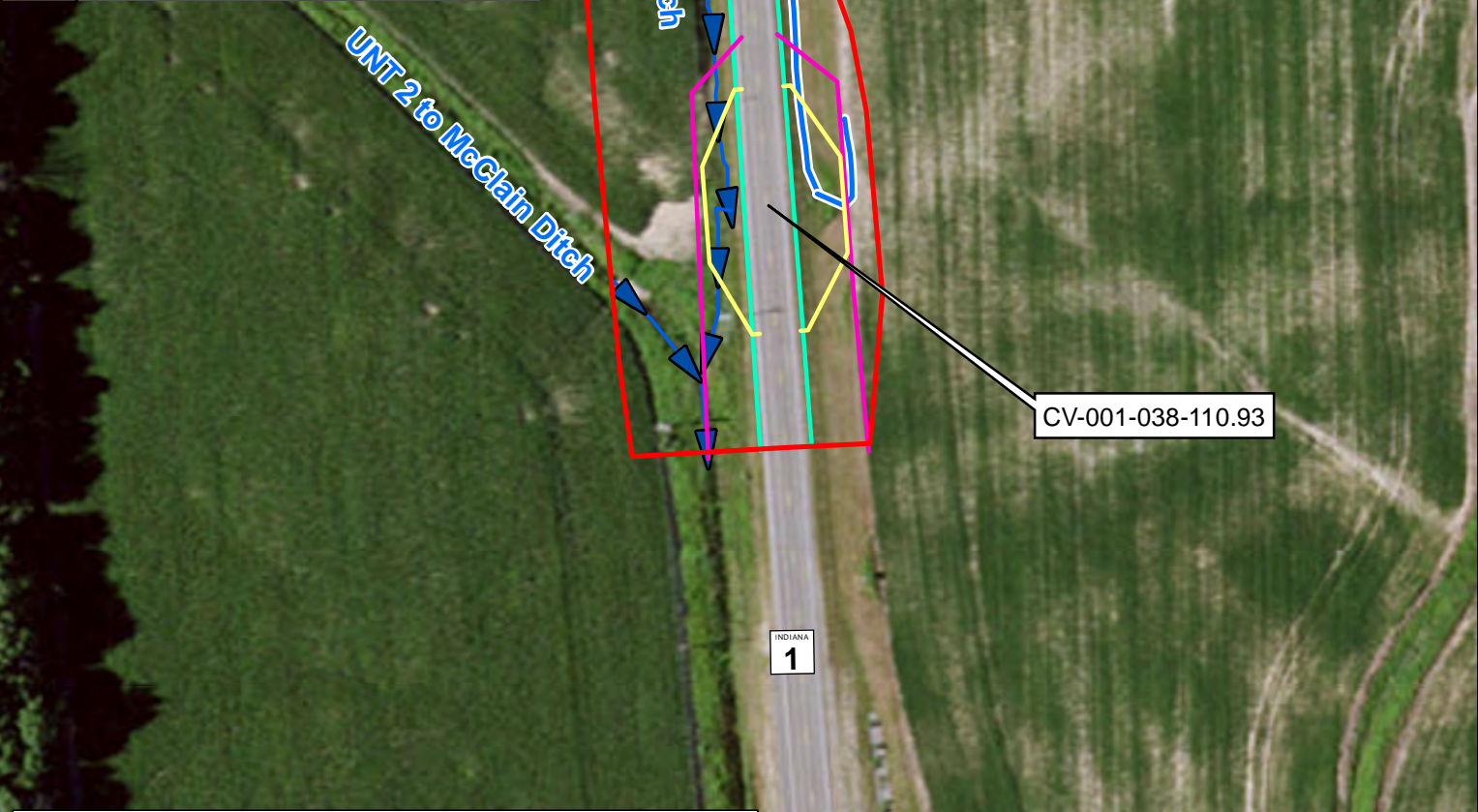
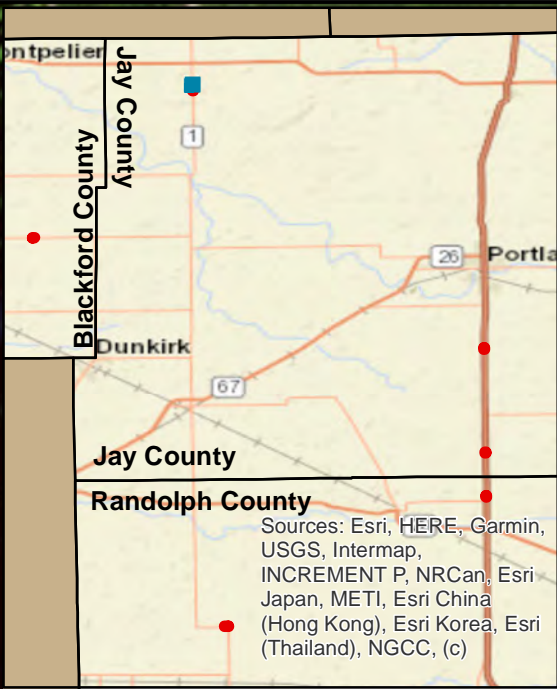
Des. No. 1902734

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Counties: Blackford, Jay, & Randolph  
Townships: Monroe, Ward, State: Indiana  
Penn, Pike, & Jackson

Small Structures Project  
Structures on SR 26, SR 1, and US 27  
Created: 5/6/2022, R. Winebrinner

# Structure 3 - CLV-001-038-110.93



### Legend

Investigation Areas	Streams
Construction Limits	Roadside Ditches
Proposed Right-of-way	Concrete Lined Ditches
Existing Right-of-way	Wetlands

ational Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

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Page 3 of 7

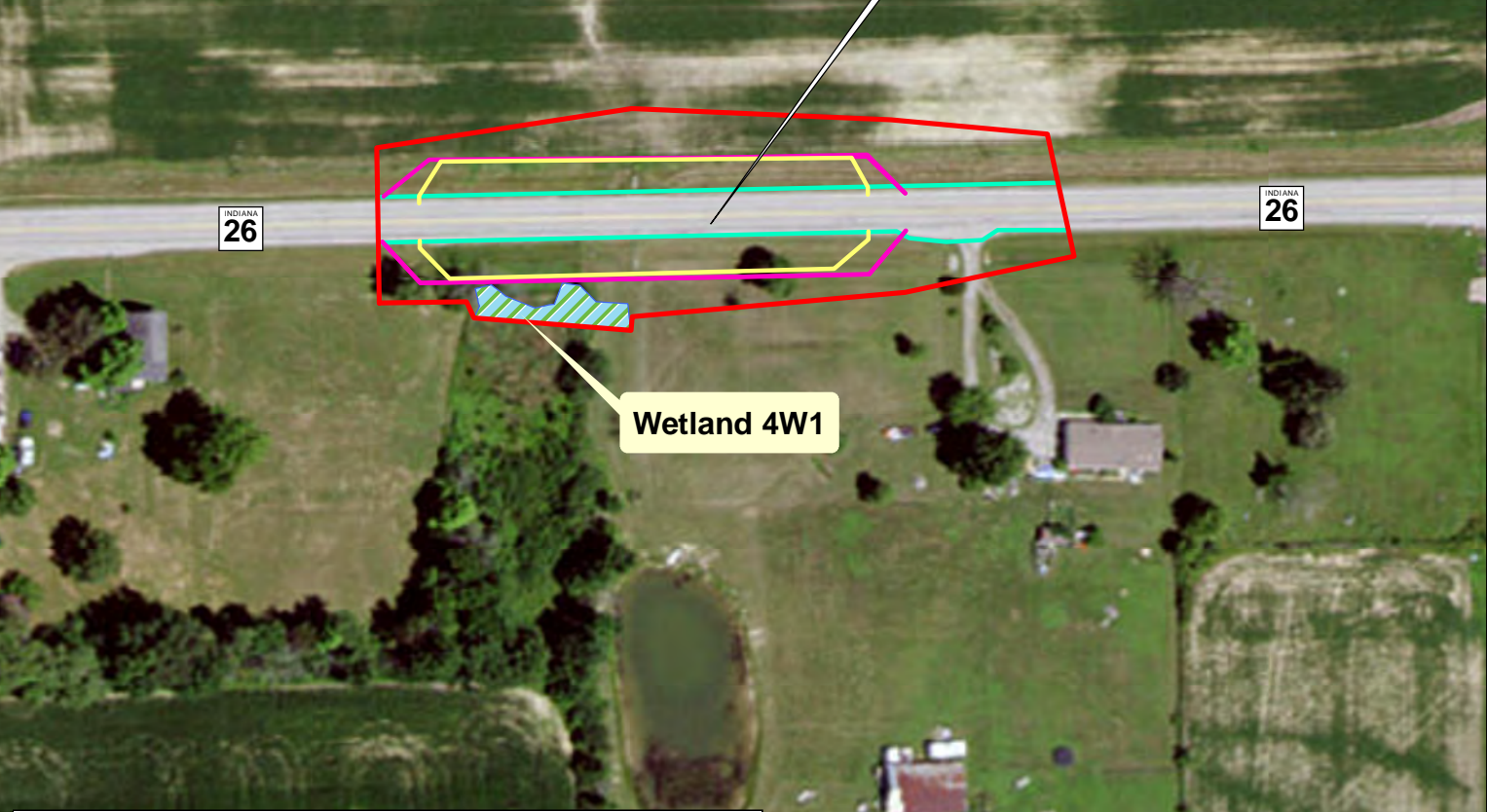
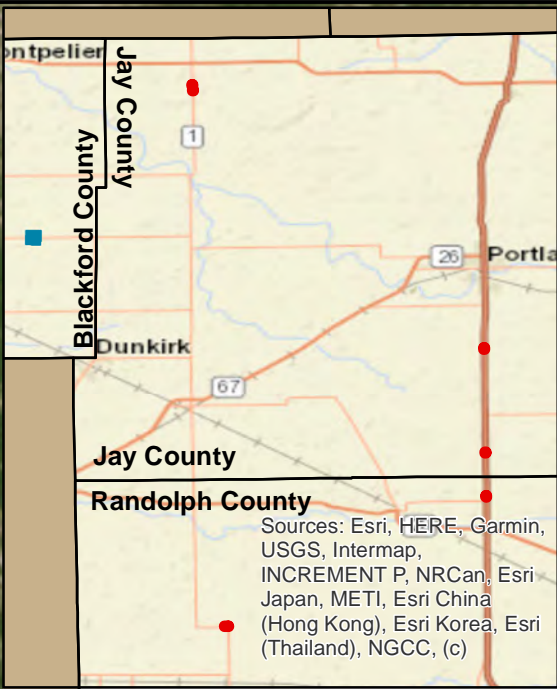
**Aerial Maps (2018)**  
 Des. No. 1902734

0 200 Feet

Counties: Blackford, Jay, & Randolph  
 Townships: Monroe, Ward, State: Indiana  
 Penn, Pike, & Jackson

Small Structures Project  
 Structures on SR 26, SR 1, and US 27  
 Created: 5/6/2022, R. Winebrinner

# Structure 4 - CLV-026-005-125.01



CV-026-005-125.01

Wetland 4W1

### Legend

Investigation Areas	Streams
Construction Limits	Roadside Ditches
Proposed Right-of-way	Concrete Lined Ditches
Existing Right-of-way	Wetlands

ational Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

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## Aerial Maps (2018)

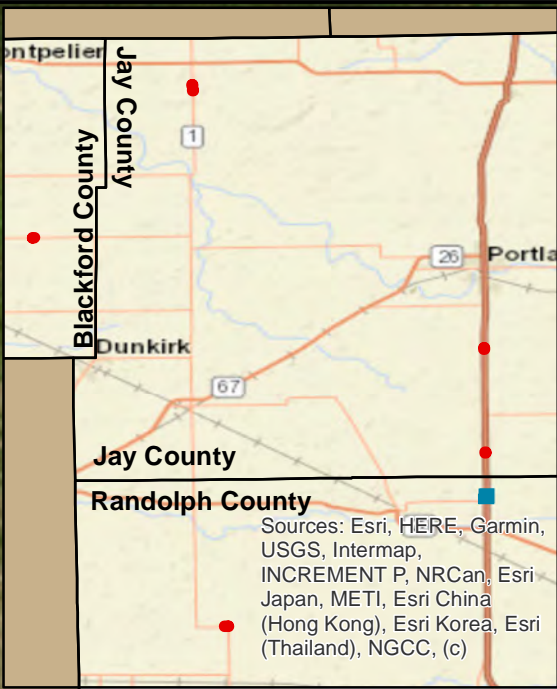
Des. No. 1902734

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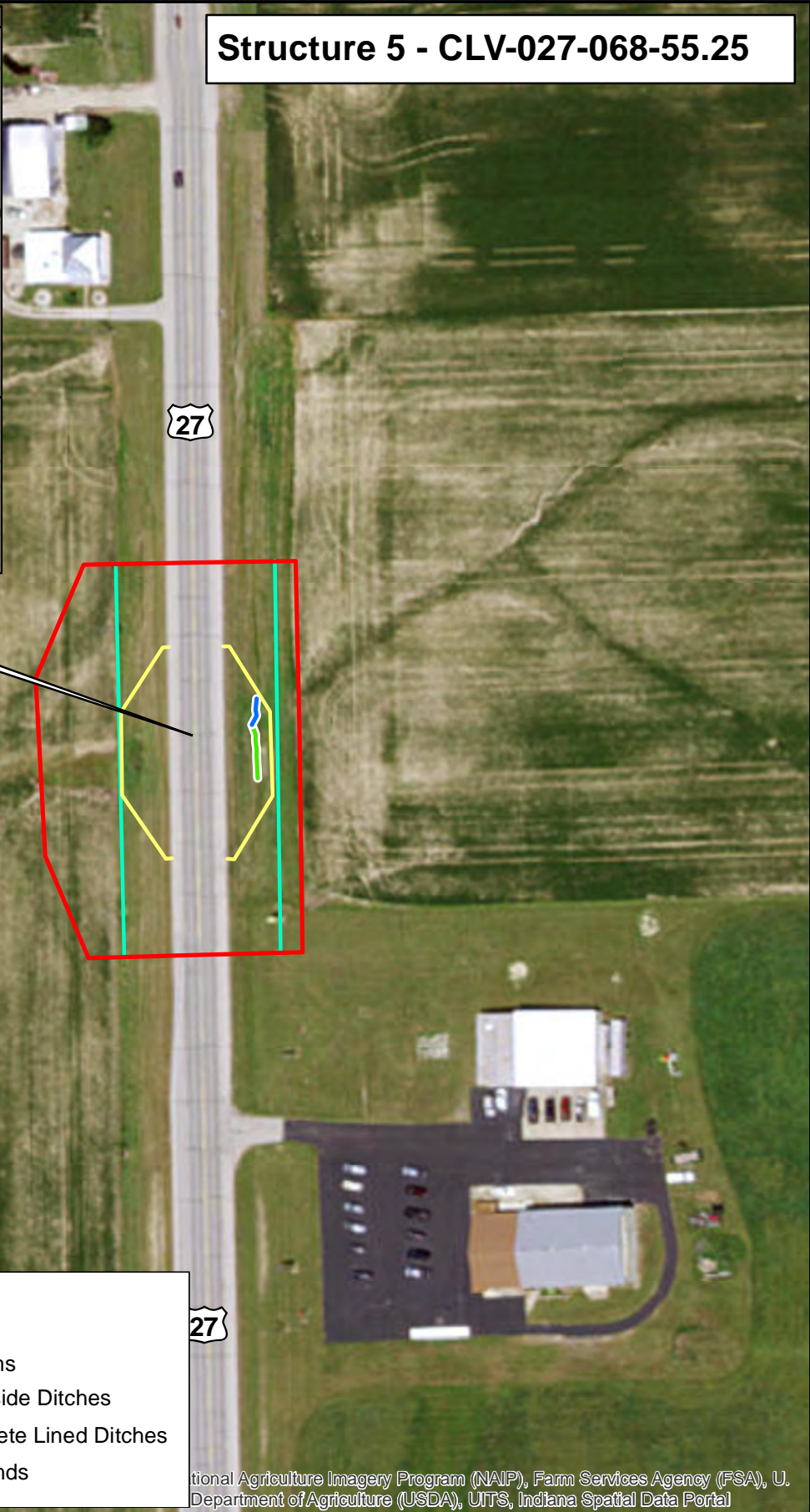
Counties: Blackford, Jay, & Randolph  
Townships: Monroe, Ward, State: Indiana  
Penn, Pike, & Jackson

Small Structures Project  
Structures on SR 26, SR 1, and US 27  
Created: 5/6/2022, R. Winebrinner

# Structure 5 - CLV-027-068-55.25



CV-027-68-55.25



### Legend

Investigation Areas	Streams
Construction Limits	Roadside Ditches
Proposed Right-of-way	Concrete Lined Ditches
Existing Right-of-way	Wetlands

National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U.S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

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## Aerial Maps (2018)

Des. No. 1902734

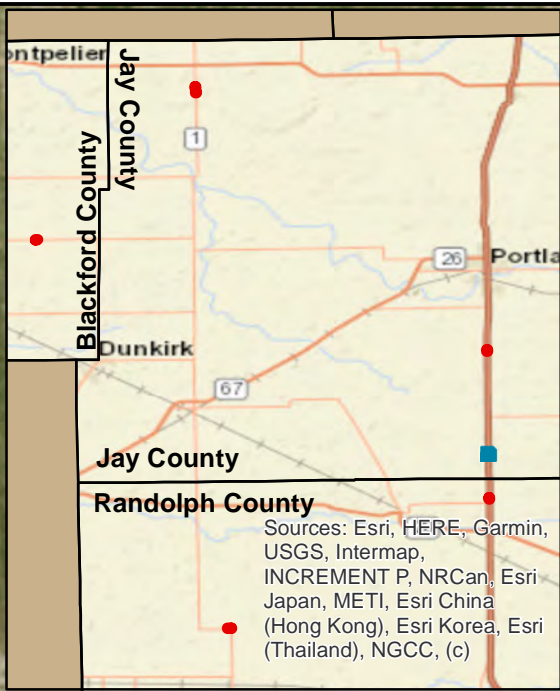
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Counties: Blackford, Jay, & Randolph  
Townships: Monroe, Ward, State: Indiana  
Penn, Pike, & Jackson

Small Structures Project  
Structures on SR 26, SR 1, and US 27  
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**Structure 6 - CLV-027-038-57.06**



**Legend**

Investigation Areas	Streams
Construction Limits	Roadside Ditches
Proposed Right-of-way	Concrete Lined Ditches
Existing Right-of-way	Wetlands

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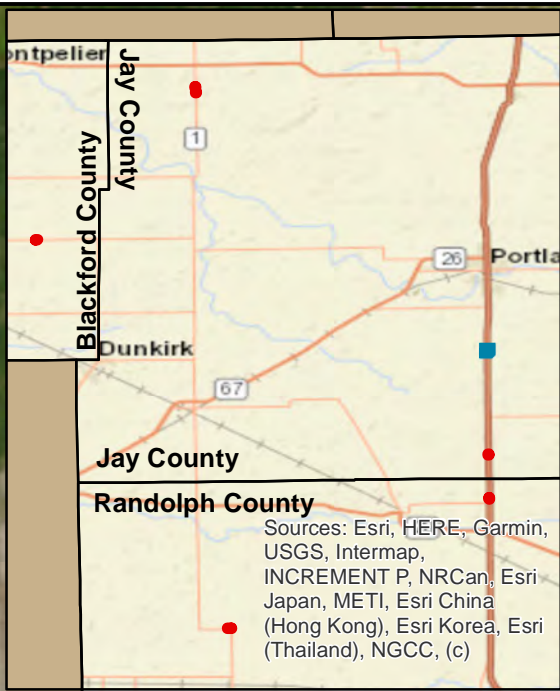
**Aerial Maps (2018)**  
 Des. No. 1902734

0 200 Feet

Counties: Blackford, Jay, & Randolph  
 Townships: Monroe, Ward, State: Indiana  
 Penn, Pike, & Jackson

Small Structures Project  
 Structures on SR 26, SR 1, and US 27  
 Created: 5/6/2022, R. Winebrinner

**Structure 7 - CLV-027-038-61.28**



**Wetland 7W1**

**CV-027-38-61.28**

**Legend**

Investigation Areas	Streams
Construction Limits	Roadside Ditches
Proposed Right-of-way	Concrete Lined Ditches
Existing Right-of-way	Wetlands

ational Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

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Page 7 of 7

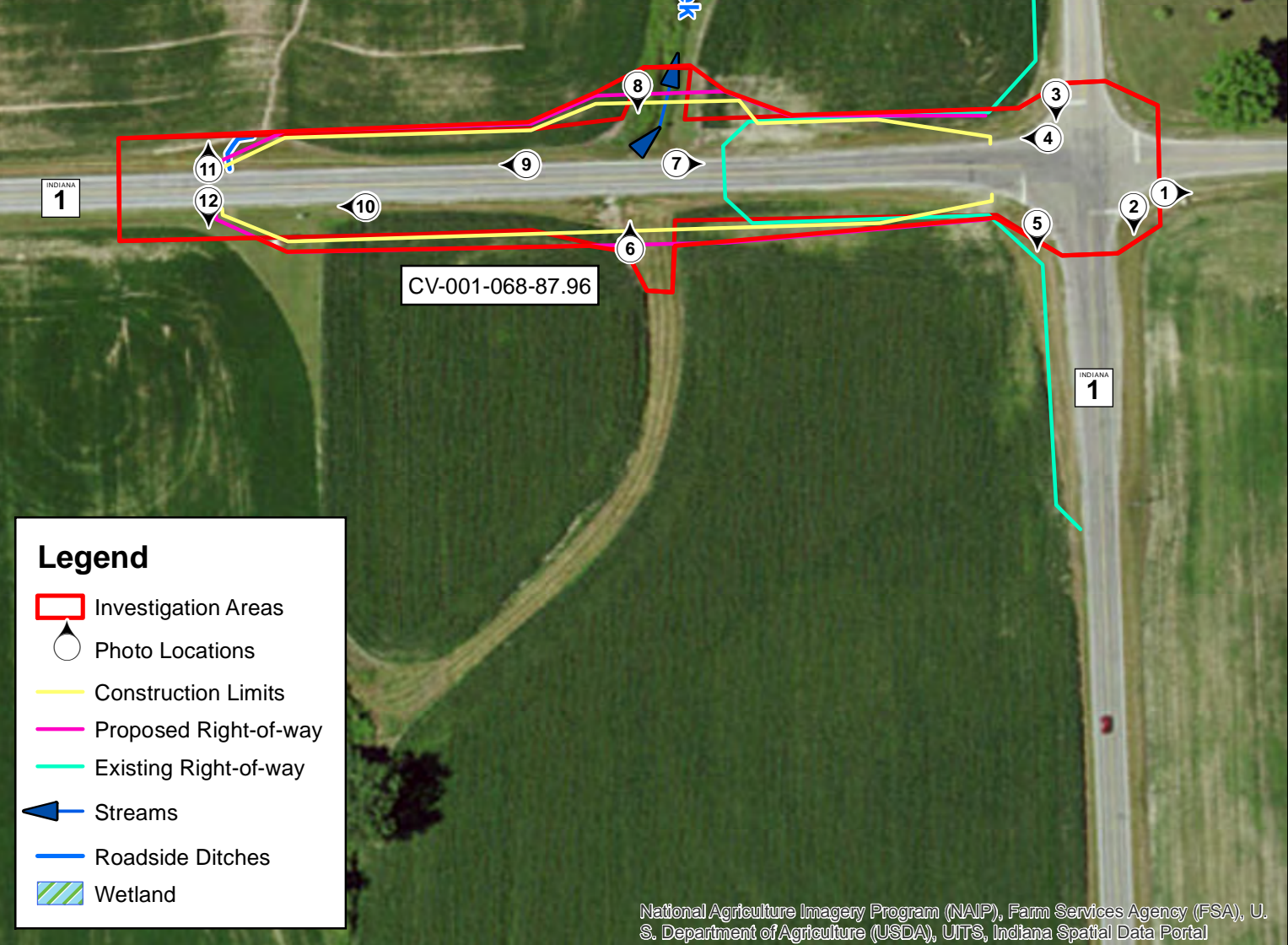
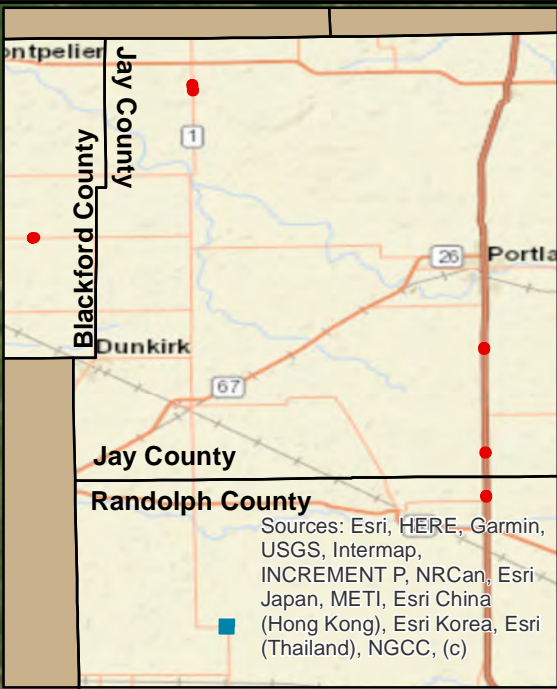
**Aerial Maps (2018)**  
Des. No. 1902734

0 200 Feet

Counties: Blackford, Jay, & Randolph  
Townships: Monroe, Ward, State: Indiana  
Penn, Pike, & Jackson

Small Structures Project  
Structures on SR 26, SR 1, and US 27  
Created:5/6/2022, R. Winebrinner

# Structure 1 - CLV-001-068-87.96



### Legend

- Investigation Areas
- Photo Locations
- Construction Limits
- Proposed Right-of-way
- Existing Right-of-way
- Streams
- Roadside Ditches
- Wetland

National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U.S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

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### Photo Locations (2018)

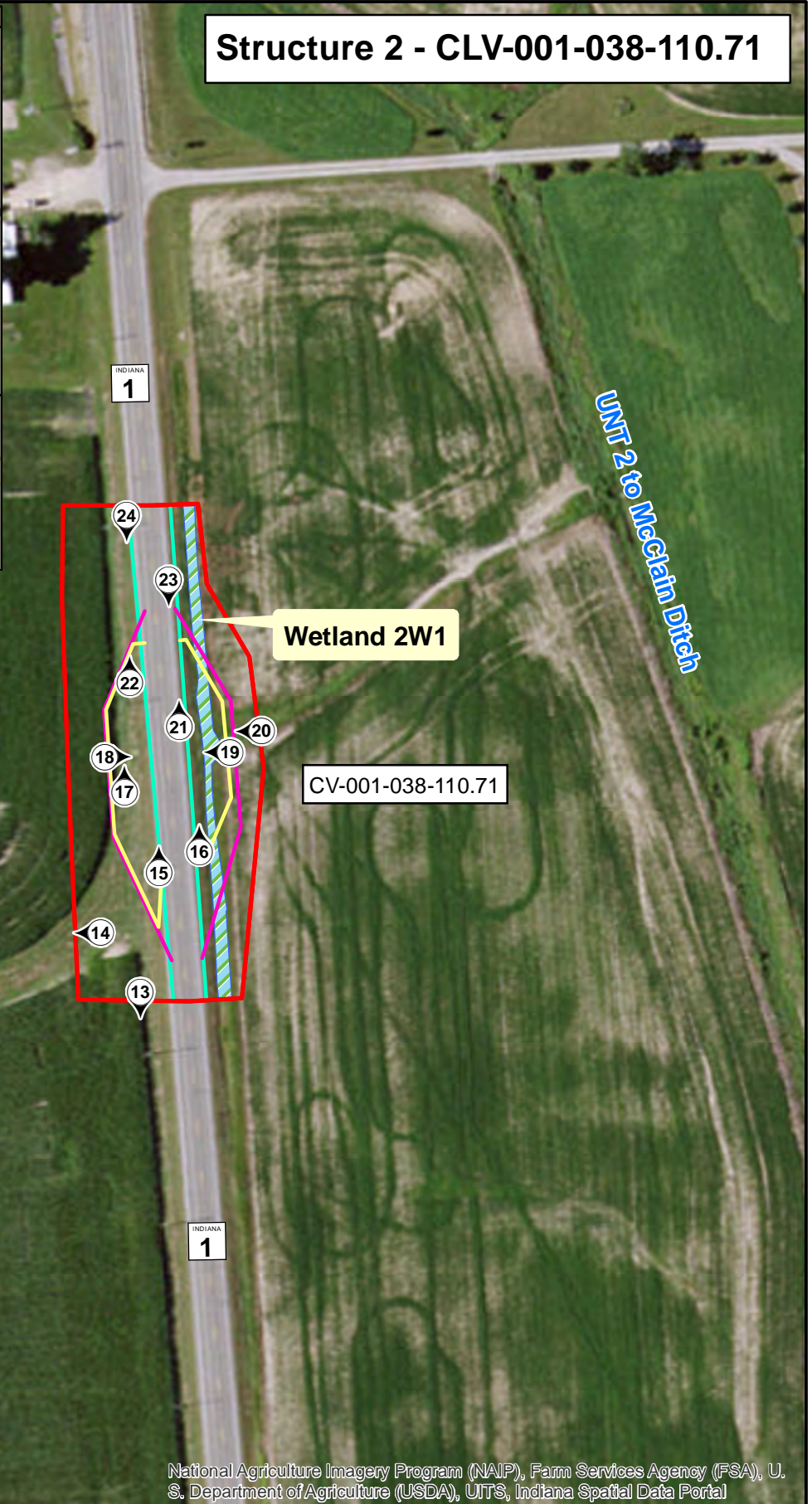
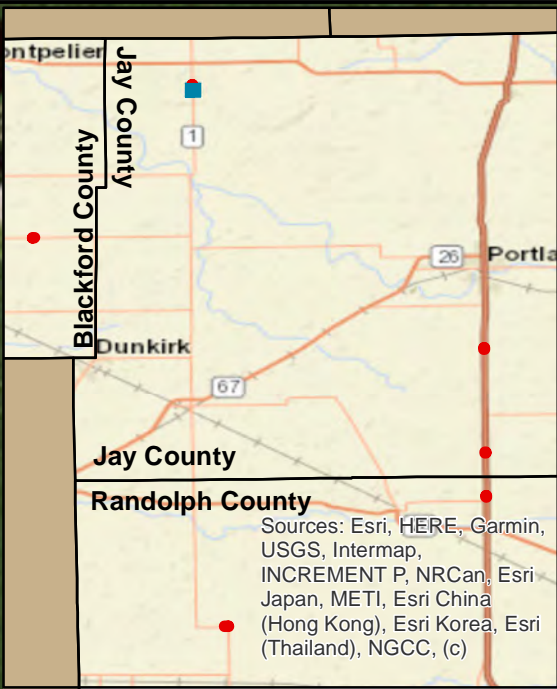
Des. No. 1902734

0 200 Feet

Counties: Blackford, Jay, & Randolph  
 Townships: Monroe, Ward, State: Indiana  
 Penn, Pike, & Jackson

Small Structures Project  
 Structures on SR 26, SR 1, and US 27  
 Created: 5/6/2022, R. Winebrinner

# Structure 2 - CLV-001-038-110.71



### Legend

- Investigation Areas
- Photo Locations
- Construction Limits
- Proposed Right-of-way
- Existing Right-of-way
- Streams
- Roadside Ditches
- Wetland

National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U.S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

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### Photo Locations (2018)

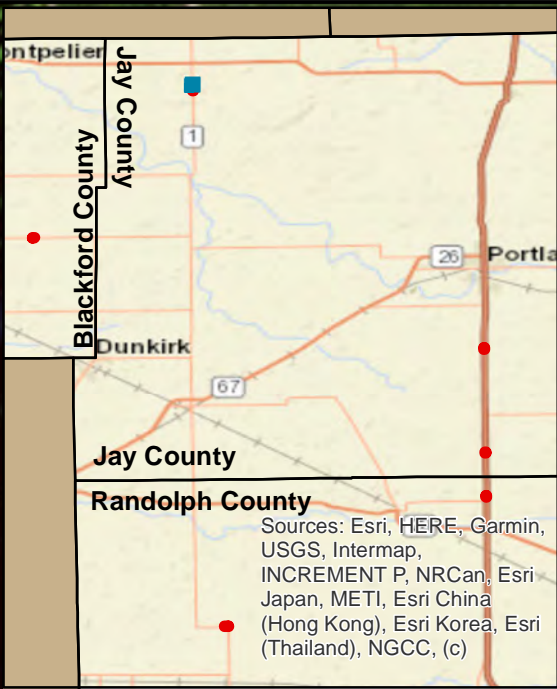
Des. No. 1902734

0 200 Feet

Counties: Blackford, Jay, & Randolph  
 Townships: Monroe, Ward, State: Indiana  
 Penn, Pike, & Jackson

Small Structures Project  
 Structures on SR 26, SR 1, and US 27  
 Created: 5/6/2022, R. Winebrinner

# Structure 3 - CLV-001-038-110.93



### Legend

- Investigation Areas
- Photo Locations
- Construction Limits
- Proposed Right-of-way
- Existing Right-of-way
- Streams
- Roadside Ditches
- Wetland

National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U.S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

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 TOLL FREE: 888.830.6977

### Photo Locations (2018)

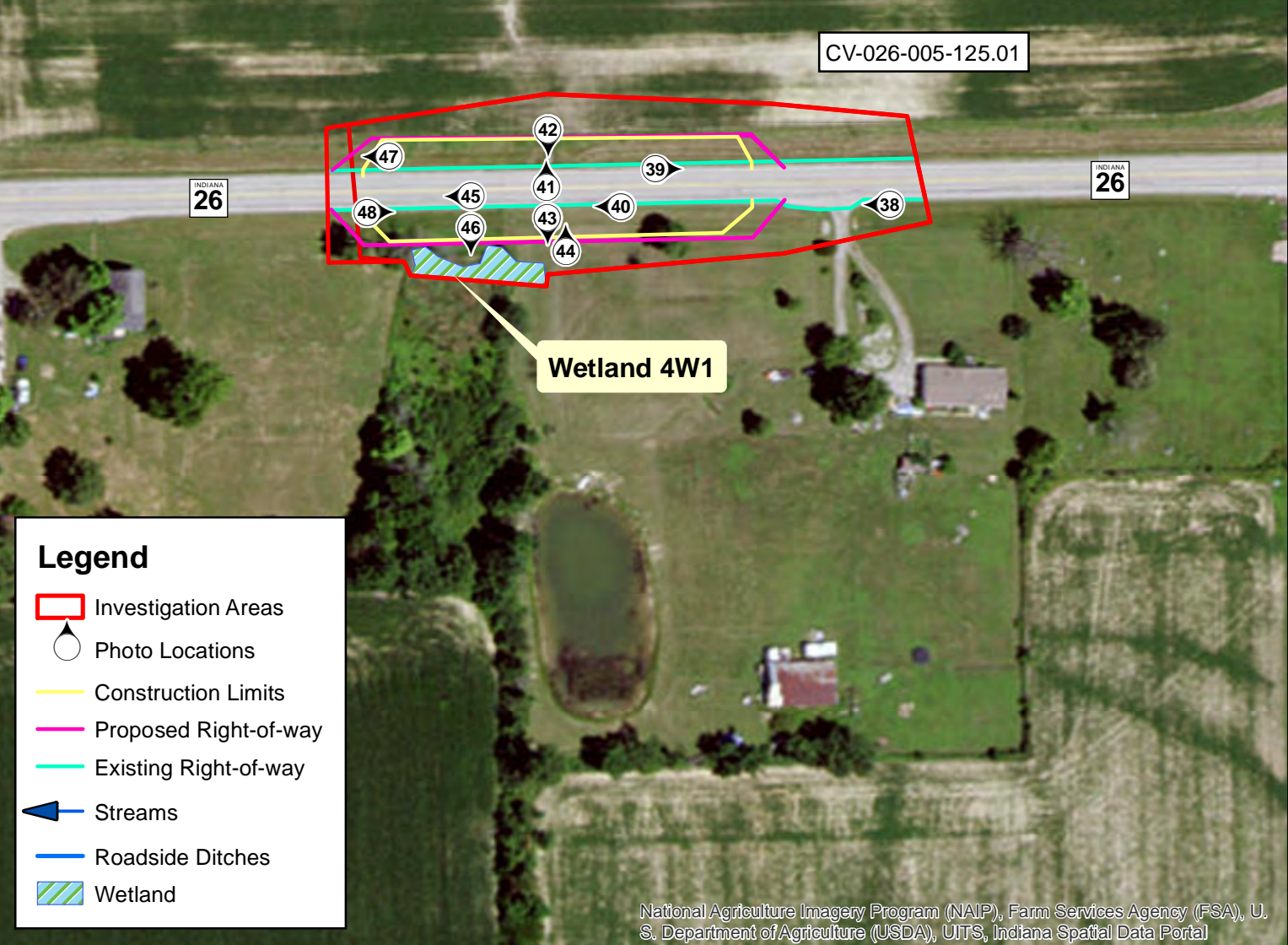
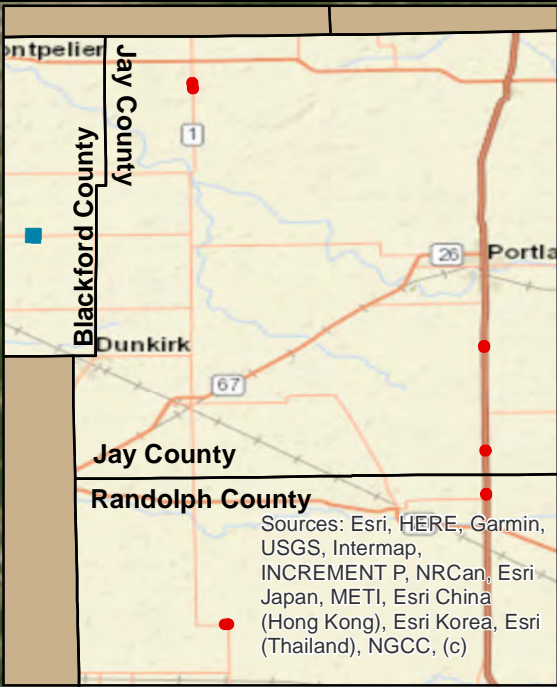
Des. No. 1902734

0 200 Feet

Counties: Blackford, Jay, & Randolph  
 Townships: Monroe, Ward, State: Indiana  
 Penn, Pike, & Jackson

Small Structures Project  
 Structures on SR 26, SR 1, and US 27  
 Created: 5/6/2022, R. Winebrinner

# Structure 4 - CLV-026-005-125.01



### Legend

- Investigation Areas
- Photo Locations
- Construction Limits
- Proposed Right-of-way
- Existing Right-of-way
- Streams
- Roadside Ditches
- Wetland

National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U.S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

**LOCHMUELLER GROUP**  
 3502 Woodview Trace, Suite 150  
 Indianapolis, Indiana 46268  
 PHONE: 317.222.3880  
 TOLL FREE: 888.830.6977

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### Photo Locations (2018)

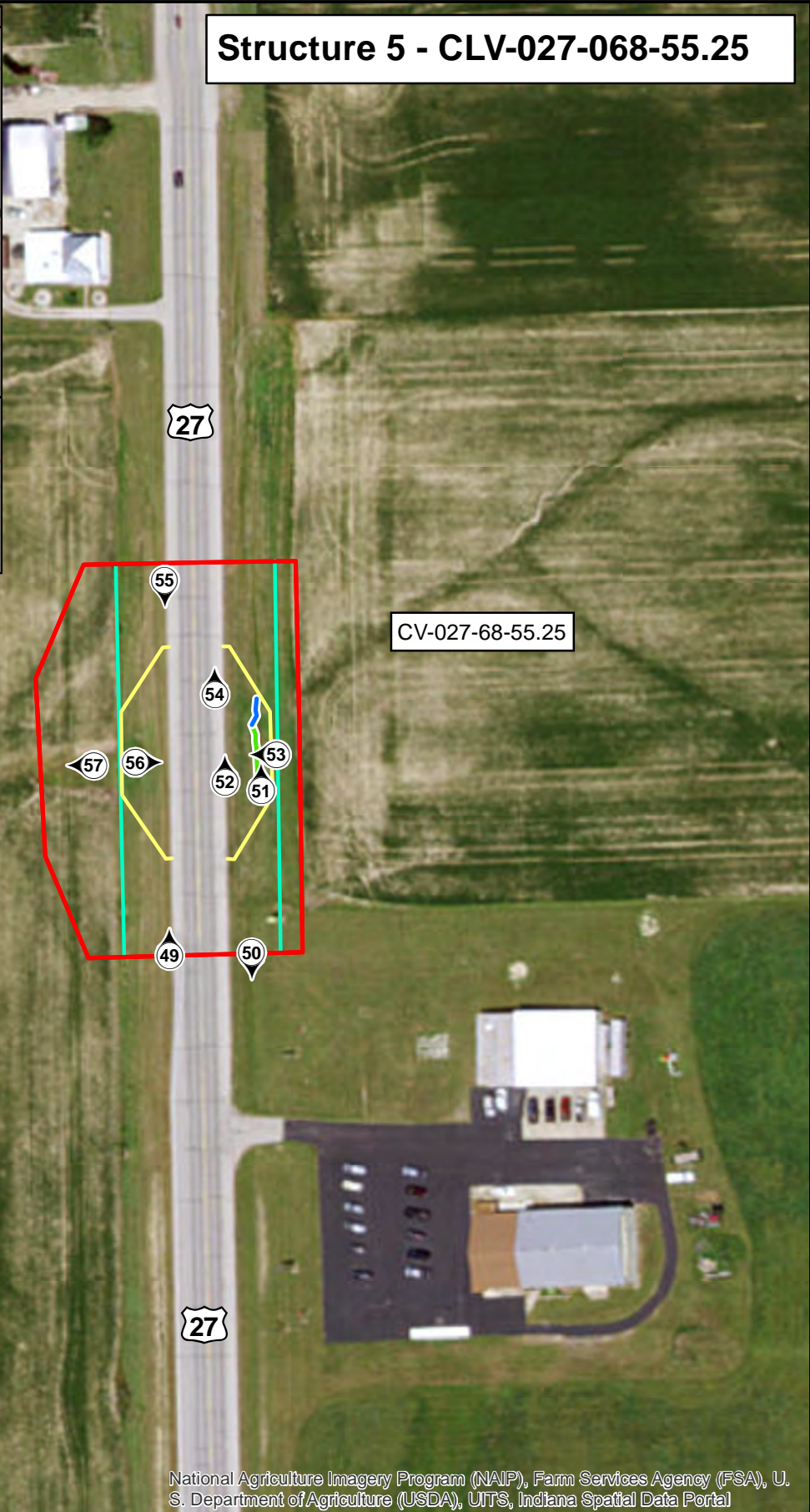
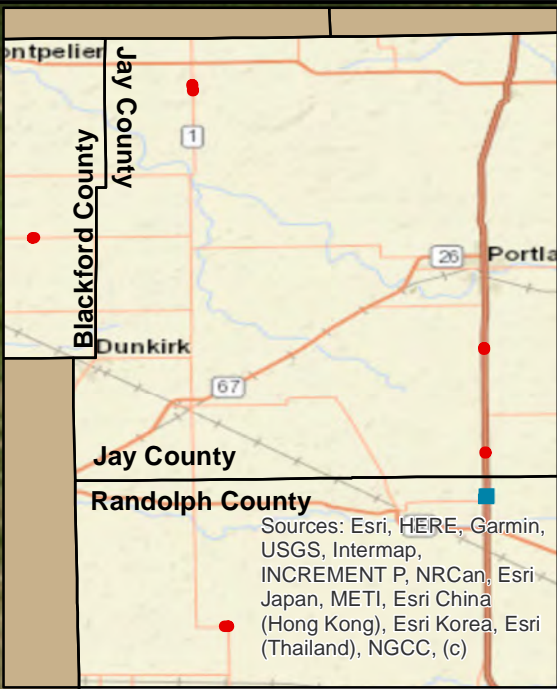
Des. No. 1902734

0 200 Feet

Counties: Blackford, Jay, & Randolph  
 Townships: Monroe, Ward, State: Indiana  
 Penn, Pike, & Jackson

Small Structures Project  
 Structures on SR 26, SR 1, and US 27  
 Created: 5/6/2022, R. Winebrinner

# Structure 5 - CLV-027-068-55.25



CV-027-68-55.25

### Legend

- Investigation Areas
- Photo Locations
- Construction Limits
- Proposed Right-of-way
- Existing Right-of-way
- Streams
- Roadside Ditches
- Wetland

National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U.S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

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 PHONE: 317.222.3880  
 TOLL FREE: 888.830.6977

### Photo Locations (2018)

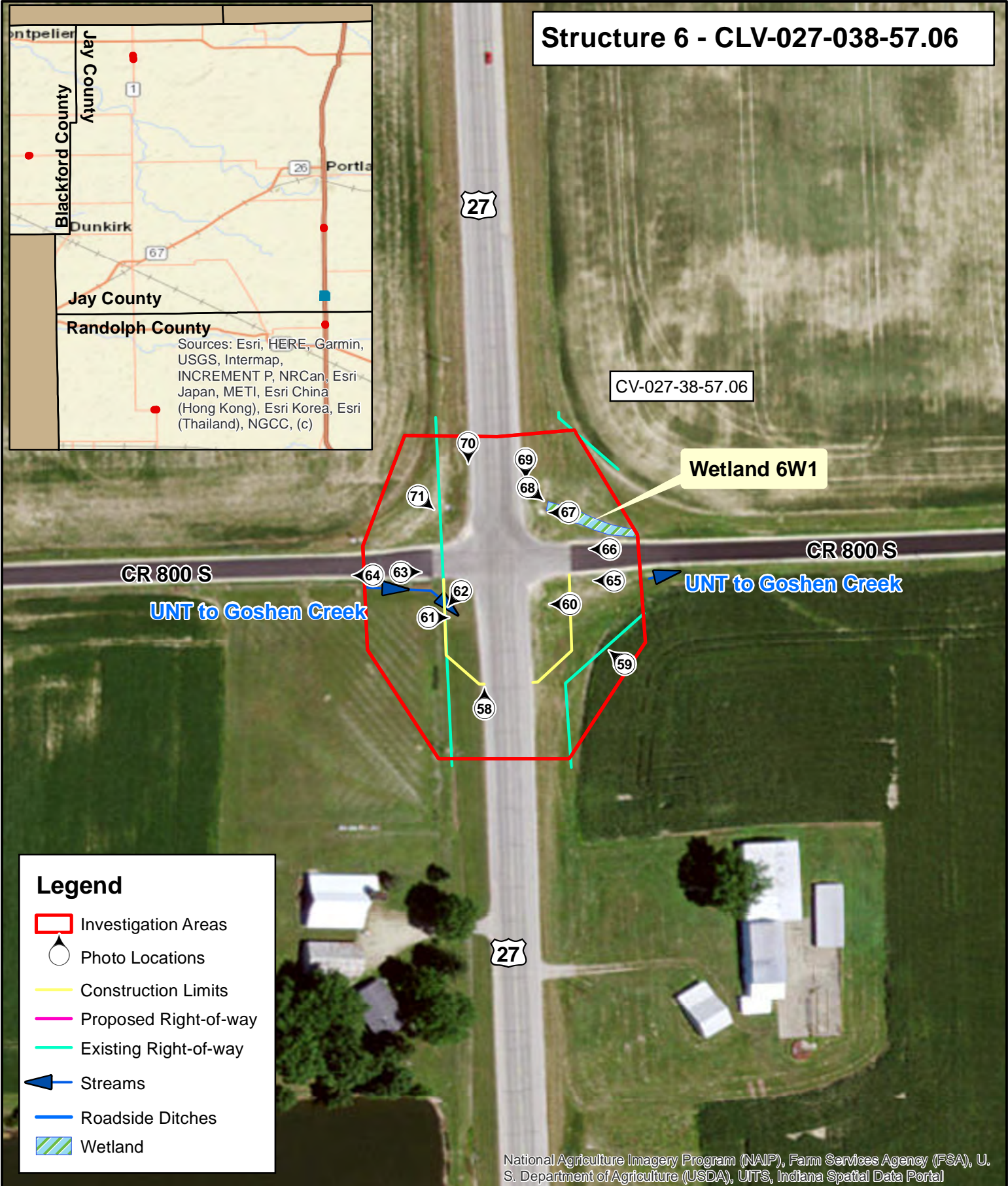
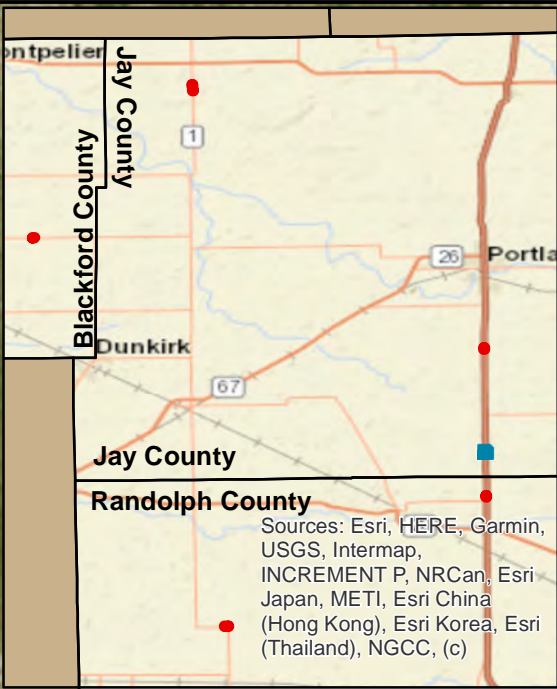
Des. No. 1902734

0 200 Feet

Counties: Blackford, Jay, & Randolph  
 Townships: Monroe, Ward, State: Indiana  
 Penn, Pike, & Jackson

Small Structures Project  
 Structures on SR 26, SR 1, and US 27  
 Created: 5/6/2022, R. Winebrinner

# Structure 6 - CLV-027-038-57.06



### Legend

- Investigation Areas
- Photo Locations
- Construction Limits
- Proposed Right-of-way
- Existing Right-of-way
- Streams
- Roadside Ditches
- Wetland

National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U. S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

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### Photo Locations (2018)

Des. No. 1902734

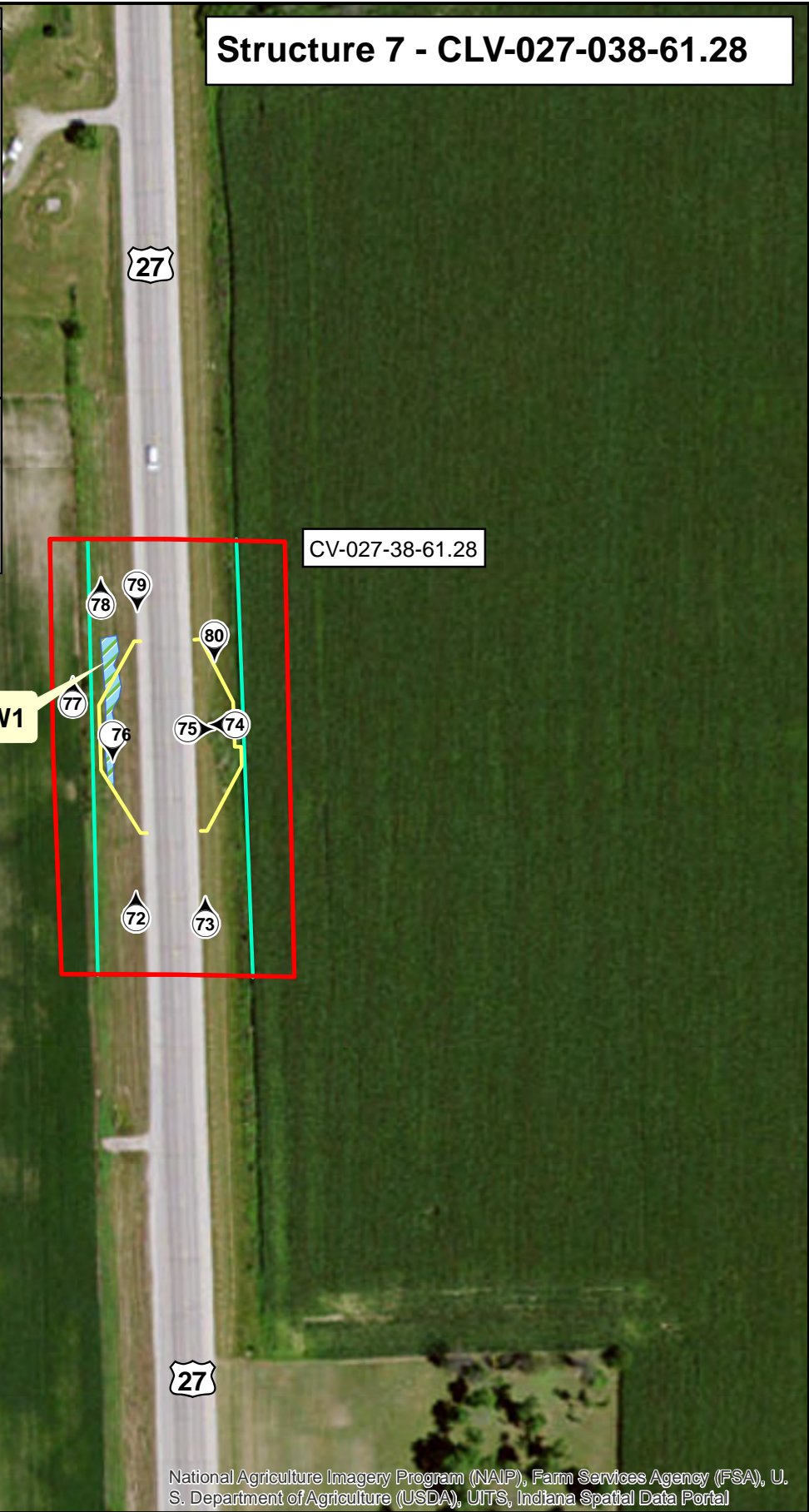
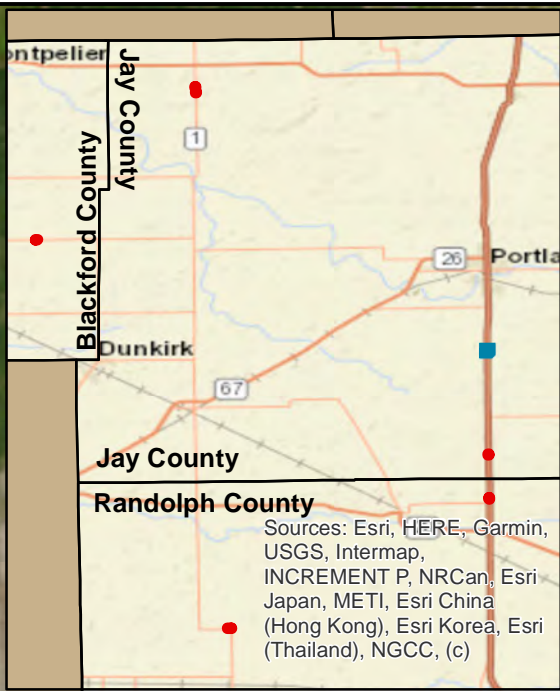
0 200 Feet

Counties: Blackford, Jay, & Randolph  
 Townships: Monroe, Ward, State: Indiana  
 Penn, Pike, & Jackson

Small Structures Project  
 Structures on SR 26, SR 1, and US 27  
 Created: 5/6/2022, R. Winebrinner



# Structure 7 - CLV-027-038-61.28



Wetland 7W1

CV-027-38-61.28

**Legend**

- Investigation Areas
- Photo Locations
- Construction Limits
- Proposed Right-of-way
- Existing Right-of-way
- Streams
- Roadside Ditches
- Wetland

National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U.S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

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**Photo Locations (2018)**  
Des. No. 1902734

0 200 Feet

Counties: Blackford, Jay, & Randolph  
Townships: Monroe, Ward, State: Indiana  
Penn, Pike, & Jackson

Small Structures Project  
Structures on SR 26, SR 1, and US 27  
Created: 5/6/2022, R. Winebrinner



1. Looking E from the intersection of SR 1 and CR 800 W (10/4/2021)



2. Looking S along the E side SR 1 from intersection with CR 800 W (10/4/2021)



3. Looking S along the W side CR 800 W towards SR 1 (10/4/2021)



4. Looking W along the N side SR 1 (10/4/2021)



5. Looking S along the W side SR 1 (10/4/2021)



6. Looking N towards SR 1 and the small structure inlet (10/4/2021)



7. Looking E along the N side of SR 1 (10/4/2021)



8. Looking S towards the small structure from agricultural field (10/4/2021)



9. Looking W along the N side of SR 1 (10/4/2021)



10. Looking W along the S side of SR 1 (10/4/2021)



11. Looking N at the drainage structure outlet that forms RSD 1 (10/4/2021)



12. Looking S a drainage structure outlet that forms RSD 1 (10/4/2021)



13. Looking S along the W side of SR 1 (10/6/2021)



14. Looking W along grass swale on the W side of SR 1 (10/6/2021)



15. Looking N along the W side of SR 1 (10/6/2021)



16. Looking N along the E side of SR 1 towards small structure (10/6/2021)



17. Looking N towards the small structure along the W side of SR 1 (10/6/2021)



18. Looking E towards the small structure on the W side of SR 1 (10/6/2021)



19. Looking W towards the small structure on the E side of SR 1 (10/6/2021)



20. Looking W toward the small structure along the grass swale (10/6/2021)



21. Looking N along the E side of SR 1 and ditch wetland (10/6/2021)



22. Looking N along the roadside on the W side of SR 1 (10/6/2021)



23. Looking S along SR 1 and ditch wetland (10/6/2021)



24. Looking S along the W side of SR 1 (10/6/2021)



25. Looking N along the E side of SR 1 (10/6/2021)



26. Looking E towards SR 1 across UNT 2 to McClain Ditch (10/6/2021)



27. Looking NW from SR 1 along UNT 2 to McClain Ditch (10/6/2021)



28. Looking SE (downstream) along UNT 2 to McClain Ditch (10/6/2021)





29. Looking SW across field access culvert carrying UNT 2 to McClain Ditch (10/6/2021)



30. Looking N along the roadside on the E side of SR 1 (10/6/2021)



31. Looking E across the small structure inlet on the E side of SR 1 (10/6/2021)



32. Looking N along UNT 1 to McClain Ditch from the small structure (10/6/2021)



33. Looking W at the small structure inlet on the E side of SR 1 (10/6/2021)



35. Looking W at the small structure outlet (10/6/2021)



34. Looking S (downstream) along UNT 1 to McClain Ditch (10/6/2021)



36. Looking S along roadside ditch (10/6/2021)



37. Looking S along the E side of SR 1 (10/6/2021)



38. Looking W along the S side of SR 26 (10/6/2021)



39. Looking E along the N side of SR 26 (10/6/2021)



40. Looking W along the S side of SR 26 towards the small structure (10/6/2021)



41. Looking N from SR 26 along the small structure (10/6/2021)



42. Looking S towards the small structure (10/6/2021)



43. Looking S along the small structure towards wetland (10/6/2021)



44. Looking N towards the small structure (10/6/2021)



45. Looking W along the south side of SR 26 (10/6/2021)



46. Looking S towards data point and wetland (10/6/2021)



47. Looking W along the roadside on the N side of SR 26 (10/6/2021)



48. Looking E along southside State Road 26 (10/6/2021)



49. Looking N along the W side of US 27 (10/15/2021)



50. Looking S along the roadside on the E side of US 27 (10/15/2021)



51. looking N along the concrete lined ditch to the small structure (10/15/2021)



52. Looking N along the E side US 27 (10/15/2021)



53. Looking W towards the small structure on the E side of US 27 (10/15/2021)



54. Looking N along the E side of US 27 (10/15/2021)



55. Looking S along the W side of US 27 (10/15/2021)



56. Looking E towards the small structure on the W side of US 27 (10/15/2021)



57. Looking W along the grass swale on the W side of US 27 (10/15/2021)



58. Looking N along US 27 towards UNT to Goshen Creek (10/15/2021)



59. Looking NW towards the intersection of US 27 and CR 800 W (10/15/2021)



60. Looking W towards the small structure outlet (10/15/2021)





61. Looking E at the confluence of UNT to Goshen Creek and the small structure (10/15/2021)



62. Looking southwest from US 27 across adjacent residential property (10/15/2021)



63. Looking east along UNT to Goshen Creek (10/15/2021)



64. Looking W along UNT to Goshen Creek outside investigation area (10/15/2021)



65. Looking W along surface flow for UNT to Goshen Creek (10/15/2021)



66. Looking W along the north side of CR 800 W towards wetland (10/15/2021)



67. Looking W towards structure in northeast quadrant of intersection (10/15/2021)



68. Looking SE along wetland from structure outlet (10/15/2021)



69. Looking S along the E side of US 27 (10/15/2021)



70. Looking S along the W side of US 27 (10/15/2021)



71. Looking SE towards small structure and the intersection of US 27 and CR 800 W (10/15/2021)



72. Looking N along the W side of US 27 towards wetland (10/15/2021)



73. Looking N along the east side of US 27 (10/15/2021)



74. Looking W at towards small structure inlet on E side of US 27 (10/15/2021)



75. Looking E from US 27 across small structure and adjacent agricultural field (10/15/2021)



76. Looking S along wetland on the W side of US 27 (10/15/2021)



77. Looking N along the roadside on the W side of US 27 (10/15/2021)



78. Looking N along the roadside on the W side of US 27 (10/15/2021)



79. Looking S along the W side of US 27 (10/15/2021)



80. Looking S along the roadside on the E side of US 27 (10/15/2021)

# End of Part 1

See Part 2 for Appendix B - Plan Set and Appendices  
C through H

