

Indiana Department of Transportation

County Jennings Route US 50 Des. No. 1700203

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

Road No./County:

US 50 Jennings County, Indiana

Designation Number:

1700203

Project Description/Termini:

Bridge Replacement over Six Mile Creek, approximately 5.6 miles east of US 31

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

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

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

Approval

ESM Signature

Date

ES Signature

Date

FHWA Signature

Date

Release for Public Involvement

DGD

2021.02.19 16:39:46
-05'00'

ESM Initials

Date

ES Initials

Date

Certification of Public Involvement

Office of Public Involvement

Date

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

INDOT ES/District Env.

Reviewer Signature: _____

Date: _____

Name and Organization of CE/EA Preparer: Brian Shaw – Beam, Longest, and Neff, LLC

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Route US 50

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Part I - PUBLIC INVOLVEMENT

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

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

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

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

Remarks:

Notice of Entry

Notice of entry letters were mailed to potentially affected property owners near the project area on June 27, 2018 notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of entry letter is included in Appendix G, page 1.

Project Does Meet

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

Public Controversy on Environmental Grounds

Will the project involve substantial controversy concerning community and/or natural resource impacts?

Yes	No
☐	☒

Remarks:

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

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

Sponsor of the Project: INDOT INDOT District: Seymour
Local Name of the Facility: US 50

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

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

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PURPOSE AND NEED:

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

Need:

The need is based on the overall condition of the existing structure and the existing deficiencies and deterioration exhibited by existing bridge. The bridge overall structural rating was poor, based on the 2020 INDOT Bridge Inspection report. The existing concrete deck exhibits cracking with efflorescence and spalls with exposed reinforcing steel at the construction joints. The wearing surface exhibited locations where the existing concrete overlay had been patched. The existing piers and abutments have multiple spalls and cracking, with exposed steel. Large amounts of debris were also noted at the substructure units. The existing wearing surface and superstructure are rated in fair condition and the substructure is rated in poor condition. The abutments are spalled with exposed reinforcing steel and the piers also exhibit similar deficiencies. The piers are also wall piers constructed on spread footings bearing on rock. The existing superstructure has locations with longitudinal cracking with efflorescence and spalls with exposed reinforcing palls on the top of the slab which have been patched with bituminous material.

Purpose:

The purpose of this project is to address the structural deficiencies and provide a structurally sufficient and hydraulically sound structure that maintains the flow of traffic on US 50 over Six Mile Creek.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Jennings Municipality: N/A

Limits of Proposed Work: Approximately 760 feet from the east end of bridge and 536 feet from the west end of bridge

Total Work Length: 0.104 Mile(s) Total Work Area: 2.72 Acre(s)

Is an Interchange Modification Study / Interchange Justification Study (IMS/IJS) required?
If yes, when did the FHWA grant a conditional approval for this project?

Yes ¹	No
☐	☒
Date:	

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

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

Location:

This project is located on US 50 approximately 5.6 miles east of US 31 in Section 10, Township 6 North, Range 7 East, in Spencer Township, Jennings County, Indiana. See Appendix B, page 1.

Existing Conditions:

The existing bridge is a three span reinforced concrete slab structure, 97.5 feet in length. Portions of the substructure are attached to remaining portions from the original bridge build in 1929. The bridge consists of three spans, 28 feet, 9.5 inches, 38 feet, 5 inches, 28 feet, 9.5 inches with a 26 degree skew right. The structure out-to-out coping width is approximately 43 feet, 2 inches, per the existing plans and current bridge inspection report. The clear roadway width was measured at 40 feet per the current INDOT bridge inspection report (2020). The substructure consists of concrete abutments and wall piers on spread footings on rock. The existing concrete deck, piers and abutments and superstructure are experiencing deficiencies and deterioration.

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Route US 50

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US 50 is classified as a Rural Principal Arterial and is part of the United States National Highway System. The existing facility is part of the 4R roadway network. US 50 consists of two 12 foot wide paved travel lanes, one in each direction, bordered by paved shoulders varying in width from 4.5 feet to 6.5 feet for each lane direction. As the approach roadway continues west, the shoulders widen out to approximately 10 feet in width. There is approximately 20 feet of obstruction free zone on either side of the roadway. The existing paved clear roadway width varies from 30 feet approaching from the east to 38 feet approaching from the west. The approaches are paved up to approximately 1 foot from the existing guardrail within each quadrant. The posted speed limit is 55 miles per hour (mph). Washington Street intersects US 50 approximately 110 feet west of the existing bridge over Six Mile Creek. Washington Street is a Rural Local Road and consists of two 10 foot wide paved travel lanes, one in each direction, with 3 foot wide paved shoulders. The posted speed limit is 30 mph.

The project area has a surrounding area of mixed use with agricultural fields in the southeast and southwest quadrants. There is a residential property in the northwest quadrant of US 50 and Washington Street and a commercial property, Hoosier Landscapes Inc. and Reasonable Construction located in the northeast quadrant of US 50 and Washington Street. The northeast quadrant, east of the Six Mike Creek channel is a combination of woods and residential property.

Preferred Alternative:

It is proposed to replace the structure over Six Mile Creek with a three span , 45 feet, 60 feet, 45 feet, composite steel beam bridge on the existing roadway alignment. The bridge and roadway will be widened within the project limits in order to accommodate maintaining two lanes of traffic during construction. The three span replacement structure will utilize semi-integral end bents on piles and piers founded on rock. The superstructure will consist of an 8 inch concrete deck on continuous steel beams. The US 50 cross section on the bridge will consist of two 12 foot wide travel lanes, one in each direction, with a 12 foot wide passing blister and an 8 foot wide left shoulder and an 11 foot 6 inch right shoulder. The posted speed limit will be 55 mph. US 50 will consist of two 12 foot wide paved travel lanes, one in each direction, with shoulder that vary from 8 feet to 23 feet along the project corridor. There will be a 20 foot wide obstruction free zone maintained on both side of the roadway. Washington Street will consist of two 10 foot wide paved travel lanes, one in each direction, with 3 foot wide paved shoulder. The limits of road reconstruction will utilize full depth pavement for shoulders and any widening and use milling and resurfacing where existing pavement is in good condition on US 50. The pavement shoulders on Washington Street will be fully reconstructed.

Traffic will be maintained throughout construction with a phased Maintenance of Traffic (MOT) plan. The MOT plan will maintain two lanes of traffic, one lane in each direction, open at all times during construction. Access to Washington Street from US 50 during construction will not be maintained during construction.

The project has logical termini starting approximately 760 feet from the east end of bridge and 536 feet from the west end of bridge. This will allow for replacement of the existing structure and provide adequate length for implementation of the MOT plan. The project has independent utility in that it does not rely on another project to accomplish its purpose, to address the structural deficiencies of the existing bridge on US 50 over Six Mile Creek.

OTHER ALTERNATIVES CONSIDERED:

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

"Do Nothing" Alternative:

This alternative would not require an expenditure of funds; however, it would not address the purpose of the project which is to correct the deteriorated condition of the existing pavement and drainage concerns. With the "Do Nothing" alternate, the existing roadway and drainage patterns will continue to deteriorate and require constant maintenance. The "Do Nothing" alternative does not address the purpose and need of the project and was dismissed from further consideration.

Replacement with Single Span Structure

This alternative would require replacement of the existing structure on the existing alignment with a single span structure. A grade raise would be required in order to provide proper freeboard and a larger waterway opening to satisfy hydraulic

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requirements. The grade raise would affect the sight lines for the intersection sight distance at US 50 and Washington Street. This would require additional approach work to adjust for the grade difference on Washington Street and add additional cost to the project. The Replacement with Single Span Structure alternative would address the purpose and need of the project but due to the additional cost was dismissed from further consideration.

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

It would not correct existing capacity deficiencies;

It would not correct existing safety hazards

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:

US 50

Functional Classification:	<u>Principal Arterial</u>			
Current ADT:	<u>11,020</u>	<u>VPD (2022)</u>	Design Year ADT:	<u>13,040</u> <u>VPD (2042)</u>
Design Hour Volume (DHV):	<u>1,217 VPH</u>	<u>Truck Percentage (%)</u>	<u>23.7</u>	
Designed Speed (mph):	<u>55</u>	<u>Legal Speed (mph):</u>	<u>55</u>	

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	Travel Lanes		Travel Lanes	
Pavement Width:	12	ft.	12	ft.
Shoulder Width:	8	ft.	8	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

Washington Street

Functional Classification:	<u>Local Road</u>			
Current ADT:	<u>353</u>	<u>VPD (2022)</u>	Design Year ADT:	<u>353</u> <u>VPD (2042)</u>
Design Hour Volume (DHV):	<u>14 VPH</u>	<u>Truck Percentage (%)</u>	<u>2</u>	
Designed Speed (mph):	<u>30</u>	<u>Legal Speed (mph):</u>	<u>30</u>	

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	Travel Lanes		Travel Lanes	
Pavement Width:	10	ft.	10	ft.
Shoulder Width:	3	ft.	3	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

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

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DESIGN CRITERIA FOR BRIDGES:

Structure/NBI Number(s): 050-40-00853B / 018660 Sufficiency Rating: 66.4 (2020 INDOT Bridge Inspection Report)

	Existing	Proposed
Bridge Type:	Reinforced Concrete Slab	Composite Steel Beam
Number of Spans:	3	3
Weight Restrictions:	None ton	None ton
Height Restrictions:	Unlimited ft.	Unlimited ft.
Curb to Curb Width:	40 ft.	55.5 ft.
Outside to Outside Width:	43.2 ft.	58.5 ft.
Shoulder Width:	4.5 to 6.5 ft.	8 to 11.5 ft.
Length of Channel Work:		195 ft.

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

Presence

Existing Bridge No.050-40-00853B is located on US 50 over Six Mile Creek approximately 5.6 miles east of US 31. The existing bridge is a three span reinforced concrete slab structure built in 1957 and rehabilitated in 1988. The bridge is not listed in the Indiana Historic Bridge Inventory. The project will replace the existing structure with a new three span composite steel beam bridge on the existing roadway alignment. The new bridge will carry a new bridge identification number, 050-40-10259.

Existing Structure No. 11 is a 74 foot by 24 inch corrugated metal pipe located under Washington Street just north of US 50. The pipe will be removed and replaced with a 92 foot by 24 inch Type 1 pipe in accord with INDOT Specifications.

Existing Structure No. 12 is a 38 foot by 15 inch corrugated metal pipe located under the driveway of the residence north of US 50 and east of Washington Street. The pipe will be removed and replaced with a 44 foot by 15 inch Type 3 pipe in accord with INDOT Specifications.

No other bridges or small structures are located within the project area.

Will the structure be rehabilitated or replaced as part of the project?

Yes ☒ No ☐ N/A ☐

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

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

Is a temporary bridge proposed?

Is a temporary roadway proposed?

Will the project involve the use of a detour or require a ramp closure? (describe in remarks)

Provisions will be made for access by local traffic and so posted.

Provisions will be made for through-traffic dependent businesses.

Provisions will be made to accommodate any local special events or festivals.

Will the proposed MOT substantially change the environmental consequences of the action?

Is there substantial controversy associated with the proposed method for MOT?

Yes	No
☐	☒
☐	☒
☒	☐
☒	☐
☒	☐
☐	☒
☐	☒

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Remarks: Traffic on US 50 will be maintained throughout construction with a phased Maintenance of Traffic (MOT) plan. The MOT plan will maintain two lanes of traffic, one lane in each direction, open at all times during construction. There will be some lane restrictions for oversize load trucks on US 50. Access to Washington Street from US 50 during construction will not be maintained. The residential and commercial property will require a detour route to access US 50. Those properties will use Washington Street to go north to County Road 20 South in Hayden, then go west to CR 700 West and then south on CR 700 West to access US 50 west of the project area. The total detour route is approximately 0.75 mile in length.

The closure of Washington Street will pose a temporary inconvenience to the residential and commercial properties just north of US 50. The lane restrictions for oversized vehicles on US 50 will provide a temporary inconvenience to large trucks using the roadway. The construction zone will pose a temporary inconvenience to traveling motorists (including school buses and emergency services); however, no significant delays are anticipated. All inconveniences will cease upon project completion. Delays may occur during construction but will cease with project completion.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$ 309,600.00 Right-of-Way: \$ 20,000.00 (2021) Construction: \$ 1,710,646.00 (2022)

Anticipated Start Date of Construction: Spring 2022

Date project incorporated into STIP July 2, 2019

Is the project in an MPO Area? ☐ Yes ☒ No

If yes,

Name of MPO N/A

Location of Project in TIP N/A

Date of incorporation by reference into the STIP _____

RIGHT OF WAY:

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	0.00	0.00
Commercial	0.00	0.00
Agricultural	0.52	0.00
Forest	0.11	0.00
Wetlands	0.00	0.00
Other:	0.00	0.00
Other: Driveway and channel bank regrading	0.00	0.17
TOTAL	0.63	0.17

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

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Remarks:

Right-of-way (ROW) required

The project requires approximately 0.63 acre of permanent ROW from agricultural and forested area and 0.17 acre of temporary ROW coming from residential driveway and channel bank regrading.

US 50 Maximum ROW = Existing 55 feet south and 50 feet north from alignment

US 50 Minimum ROW = Existing 50 feet south and 30 feet north from alignment

US 50 Maximum ROW Proposed = 75 feet north and 46 feet south from alignment

The existing Washington Street ROW is 40 feet east and 40 feet west. There will be no additional R/W required along Washington Street.

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

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

SECTION A – ECOLOGICAL RESOURCES

Streams, Rivers, Watercourses & Jurisdictional Ditches

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	

Remarks:

Presence, with impacts

Based on a desktop review, a site visit on September 27, 2019 by BLN, the aerial map of the project area (Appendix B, page 3), and the water resources map in the Red Flag Investigation (RFI) report (Appendix E-page 8), there are eleven streams located within the 0.5 mile search radius. One stream segment is present within the project area.

Waters Report

A *Waters of the U.S. Determination/Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office on September 24, 2020. Please refer to Appendix F, page 1 for the *Waters of the U.S. Determination/Wetland Delineation Report*. It was determined that Six Mile Creek, which runs through the project area is likely a jurisdictional waterway. USACE makes all final determinations regarding jurisdiction.

Six Mile Creek is not a Federal Wild and Scenic River, Indiana Natural, Scenic, and Recreational System River, Indiana Outstanding River, or listed on the Nationwide Rivers Inventory or the list of navigable waters in Indiana. Six Mile Creek is listed as impaired for Impaired Biotic Communities (IBC). Best Management Practices (BMPs) will be used to avoid further degradation to the stream. The USGS Stream Stats website calculated the drainage area of Six Mile Creek upstream of the bridge at 22.329 square miles. The stream has a defined Ordinary High-Water Mark (OHWM) that was measured as approximately 30 feet wide and 2 feet deep. Approximately 200 linear feet of Six Mile Creek is within the project area. Approximately 195 linear feet of impact is anticipated with construction of the new structure, geotextiles and riprap. The stream exhibited a riffle/pool area and a substrate of silt and cobble, with clear, slow-flowing water. Based on these

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observations, the stream quality was rated as fair. Due to the presence of an OHWM, Six Mile Creek would likely be considered a Water of the U.S. A Section 401 and Section 404 will be needed for impacts to the waterway. Mitigation is not anticipated.

Early Coordination

Early coordination letters were sent on August 10, 2020. The Indiana Department of Natural Resources Division of Fish and Wildlife (IDNR-DFW) responded on September 9, 2020 with recommendations to avoid and minimize impacts to fish, wildlife and botanical resources to the greatest extent possible and compensate for impacts (Appendix C, page 6). IDNR-DFW recommendations included consideration of aquatic organism passage in the project design, consideration of mitigation for impacts to riparian habitat, revegetation of disturbed areas, minimizing brush clearing and implementation and maintenance of appropriate design erosion control measures. All applicable IDNR-DFW recommendations are included in the *Environmental Commitments* section of this CE document.

Other Surface Waters

Reservoirs

Lakes

Farm Ponds

Detention Basins

Storm Water Management Facilities

Other: _____

Presence

Impacts

Yes

No

Remarks:

No presence, no impacts

Based on a desktop review, a site visit on September 27, 2019 by BLN, the aerial map of the project area (Appendix B, page 3), and the water resources map in the Red Flag Investigation (RFI) report (Appendix E, page 8), there are two lakes located within the 0.5 mile search radius. No other surface waters are present within the project area; therefore, no impacts are expected.

Waters Report

A *Waters of the U.S. Determination/Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office approved on September 24, 2020. Please refer to Appendix F-1 for the *Waters of the U.S. Determination/Wetland Delineation Report*. It was determined that no other surface waters are present within the project area. USACE makes all final determinations regarding jurisdiction.

Early Coordination

Early coordination letters were sent on August 10, 2020. The IDNR-DFW responded on September 9, 2020 with recommendations to avoid or minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible and compensate for impacts (Appendix C, page 6). IDNR-DFW recommendations included consideration of aquatic organism passage in the project design, consideration of mitigation for impacts to riparian habitat, revegetation of disturbed areas, minimizing brush clearing and implementation and maintenance of appropriate design erosion control measures. All applicable IDNR-DFW recommendations are included in the *Environmental Commitments* sections of this CE document.

Presence

--

Impacts

Yes

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No

--

Wetlands

Total wetland area: 0 acre(s)

Total wetland area impacted: 0 acre(s)

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

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Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments

Documentation

ES Approval Dates

Wetlands (Mark all that apply)

Wetland Determination

Wetland Delineation

USACE Isolated Waters Determination

Mitigation Plan

X

September 24, 2020

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.

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

Remarks:

No presence, no impacts

Based on a review of the National Wetlands Inventory (NWI) online mapper (<https://www.fws.gov/wetlands/data/Mapper.html>), a site visit on September 27, 2019 by BLN, the USGS topographic map (Appendix B, page 2) and the RFI report (Appendix E, page 1) nine wetlands are located within the 0.5 mile search radius. No wetlands are present within or adjacent to the project area, therefore, no impacts are expected.

Waters Report

A *Waters of the U.S. Determination/Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office approved on September 24, 2020. Please refer to Appendix F-1 for the *Waters of the U.S. Determination/Wetland Delineation Report*. It was determined that no wetlands are present within the project area. USACE makes all final determinations regarding jurisdiction.

Early Coordination

Early coordination letters were sent on August 10, 2020. The IDNR-DFW responded on September 9, 2020 with recommendations to avoid or minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible and compensate for impacts (Appendix C, page 6). IDNR-DFW recommendations included consideration of aquatic organism passage in the project design, consideration of mitigation for impacts to riparian habitat, revegetation of disturbed areas, minimizing brush clearing and implementation and maintenance of appropriate design erosion control measures. An early coordination letter was also sent to US Army Corps of Engineers (USACE) on August 10, 2020; no response from USACE was received. All applicable recommendations are included in the *Environmental Commitments* sections of this CE document.

Presence

Impacts

Yes No

Terrestrial Habitat

Unique or High-Quality Habitat

X

X

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

Remarks:

Presence, with impact

Based on a desktop review, a site visit on September 27, 2019 by BLN, the aerial map of the project area (Appendix B, page 3), there are residential lawns, agricultural fields areas and forested areas within the project area. There are agricultural fields in the southeast and southwest quadrants and residential / commercial properties in the northwest quadrant and some forested area and residential property in the northeast quadrant. The predominant vegetation present in the project area consists of black walnut, sycamore, hackberry, boxelder, green ash, slippery elm, cottonwood, poison ivy, roadside grasses and common weeds.

Approximately 0.63 acre of total terrestrial disturbance will occur to facilitate the proposed replacement. There will be approximately 0.11 acre of tree clearing; therefore, mitigation or additional plantings beyond seeding and stabilizing disturbed areas are not anticipated. Any disturbed areas will be restored following completion of construction activities.

Early Coordination

Early coordination letters were sent on August 10, 2020. The IDNR-DFW responded on September 9, 2020 with recommendations to avoid or minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible and compensate for impacts (Appendix C, page 6). IDNR-DFW recommendations included consideration of mitigation for impacts to riparian habitat, revegetation of disturbed areas, minimizing brush clearing and implementation and maintenance of appropriate design erosion control measures. All applicable recommendations are included in the *Environmental Commitments* sections of this CE document.

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

Karst

Is the proposed project located within or adjacent to the potential Karst Area of Indiana?
Are karst features located within or adjacent to the footprint of the proposed project?

Yes

No

☐
☐
☒
☒

If yes, will the project impact any of these karst features?

☐
☐

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

Remarks:

Outside Karst Area

Based on a desktop review, the project is located outside the designated karst region of Indiana as outlined in the October 13, 1993 Memorandum of Understanding (MOU). According to the topo map of the project area (Appendix B, page 2), the RFI report (Appendix E-1) there are no karst features identified within or adjacent to the project area. In the early coordination response, the Indiana Geological Survey (IGS) did not indicate that karst features exist in the project area (Appendix C-7). Response from IGS has been communicated with the designer on August 15, 2020. No impacts are expected.

Presence

Impacts

Threatened or Endangered Species

Within the known range of any federal species
Any critical habitat identified within project area
Federal species found in project area (based upon informal consultation)
State species found in project area (based upon consultation with IDNR)

☒
☐
☐
☐

Yes

No

☐
☐
☐
☐
☒
☐
☐
☐

Is Section 7 formal consultation required for this action?

Yes

No

☐
☒

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Remarks: Based on a desktop review and the RFI report (Appendix E, page 1), completed by BLN on February 5, 2020, the IDNR Jennings County Endangered, Threatened and Rare (ETR) Species List has been checked and is included in (Appendix E, page 11). The highlighted species on the list reflect the federal and state identified ETR species located within the county. According to the IDNR-DFW early coordination response letter dated September 9, 2020 (Appendix C, page 6), 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.

Indiana Bat and Northern Long-Eared Bat

Bats, Programmatic Informal Consultation – Not Likely to Adversely Affect

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, page 24). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional species were found within or adjacent to the project area other than the Indiana bat and northern long-eared bat.

The project qualifies for the Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB), dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. An effect determination key was completed on November 25, 2020, and based on the responses provided, the project was found to "Not Likely to Adversely Affect" the Indiana bat and/or the NLEB. INDOT reviewed and verified the effect finding on December 4, 2020 and requested USFWS's review of the finding (Appendix C-page 44). No response was received from USFWS within the 14 day review period; therefore, it was concluded they concur with the finding. Avoidance and Mitigation Measures (AMMs) are included as firm commitments in the Environmental Commitments section of this document

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

SECTION B – OTHER RESOURCES

Drinking Water Resources

Wellhead Protection Area
Public Water System(s)
Residential Well(s)
Source Water Protection Area(s)
Sole Source Aquifer (SSA)

Presence

X
X

Impacts

Yes	No
	X
	X

If a SSA is present, answer the following:

Is the Project in the St. Joseph Aquifer System?
Is the FHWA/EPA SSA MOU Applicable?
Initial Groundwater Assessment Required?
Detailed Groundwater Assessment Required?

Yes	No

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Remarks:

Outside of Sole Source Aquifer (SSA):

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

Not located in a Wellhead Protection Area or Source Water Area:

The Indiana Department of Environmental Management's (IDEM) Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead/>) was accessed on August 13, 2020 by BLN. This project is not located within a Wellhead Protection Area or Source Water Area. In an early coordination letter dated August 24, 2020 IDEM stated the project is not located within a wellhead area (Appendix C, page 23). No impacts are expected.

Wells present, no impacts:

The Indiana Department of Natural Resources Water Well Record Database website (<https://www.in.gov/dnr/water/3595.htm>) was accessed on August 13, 2020 by BLN. The nearest well is located in the southwest quadrant east of Washington Street. The features will not be affected as the well location is outside the project limits. Therefore, no impacts are expected. Should it be determined during the ROW phase that the well is affected, a cost to cure will likely be included in the appraisal to restore the wells.

Not in a Urban Area Boundary Location

Based on a desktop review of the INDOT MS4 website <https://entapps.indot.in.gov/MS4/> on August 13, 2020 by BLN and the RFI report; this project is not located in an Urban Area Boundary location. No impacts are expected.

In a Public Water System Location

Based on a desktop review, a site visit on September 27, 2019 by BLN and the aerial map of the project area (Appendix B, page 3), this project is located where there is a public water system. The public water system will not be affected as the project design will not impact the existing water line. There will be no relocation required or temporary disruption of service. No impacts are expected.

Flood Plains

Longitudinal Encroachment
Transverse Encroachment
Project located within a regulated floodplain
Homes located in floodplain within 1000' up/downstream from project

Presence

X
X
X

Impacts

Yes	No
X	
X	
	X

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

Remarks:

In floodplain

Based on a desktop review of The Indiana Department of Natural Resources Indiana Floodway Information Portal website (<http://dnrmmaps.dnr.in.gov/appsphp/fdms/>) by BLN on August 12, 2020, and the RFI report; this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix B, page 5). An early coordination letter was sent on August 10, 2020, to the local Floodplain Administrator. The floodplain administrator did not respond within the 30 day time frame. This project qualifies as a Category 4 per the current INDOT CE Manual, which states "2 homes are located within the base floodplain within 1,000 feet upstream and 0 homes are located within the base floodplain within 1,000 feet downstream. The proposed structure will have an effective capacity such that backwater surface elevations are not expected to substantially increase. As a result, there will be no substantial adverse impacts on natural and beneficial floodplain values; there will be no substantial change in flood risks; and there will be no substantial increase in potential for interruption or termination of emergency service or emergency evacuation routes; therefore, it has been determined that this encroachment is not substantial. A hydraulic design study that addresses various structure size alternatives was completed during the preliminary design phase. A summary of this study was included with the Field Check Plans."

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Farmland	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Agricultural Lands	☒	☒	☐
Prime Farmland (per NRCS)	☒	☒	☐

Total Points (from Section VII of CPA-106/AD-1006* 132

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

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

Remarks:

Presence, score under 160

Based on a desktop review, a site visit on September 27, 2019 by BLN staff, the aerial map of the project area (Appendix B, page 3) there are 0.36 acre of farmland within the project limits as defined by the Farmland Protection Policy Act. An early coordination letter was sent on August 20, 2020, to Natural Resources Conservation Service (NRCS). Coordination with NRCS resulted in a score of 132 on the NCRS-AD-1006 (Appendix C, page 9). NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

SECTION C – CULTURAL RESOURCES

	Category	Type	INDOT Approval Dates	N/A
Minor Projects PA Clearance	B	12	November 19, 2020	☐

**Eligible and/or Listed
Resource Present**

Results of Research

Archaeology	☐
NRHP Buildings/Site(s)	☐
NRHP District(s)	☐
NRHP Bridge(s)	☐

Project Effect

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

**Documentation
Prepared**

Documentation (mark all that apply)

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

Memorandum of Agreement (MOA)

☐

MOA Signature Dates (List all signatories)

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

Remarks:

Minor Project PA Category B projects

On November 11, 2020, the INDOT Cultural Resources Office (CRO) determined that this project falls within the guidelines of Category B, Type 12 under the Minor Projects Programmatic Agreement (Appendix D-1). This covers work that includes the replacement, widening, or raising the elevation of the superstructure on existing bridges, and bridge replacement projects (when both the superstructure and substructure are removed), under the following conditions:

An archaeological record check and field reconnaissance was prepared for this site. The records check found that all or a portion of the project area had been examined in the past, however no cultural materials have been found within the project area. The archaeological reconnaissance did not locate cultural resources and no additional archaeological investigation is recommended. No further consultation is required. INDOT – CRO reviewed and approved the report on November 19, 2020 (Appendix D, page 9). This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

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

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

Parks & Other Recreational Land

Publicly owned park
Publicly owned recreation area
Other (school, state/national forest, bikeway, etc)

Presence

Use

Yes	No

**Evaluations
Prepared**

Programmatic Section 4(f)*
“De minimis” Impact*
Individual Section 4(f)

**FHWA
Approval date**

--

Wildlife & Waterfowl Refuges

National Wildlife Refuge
National Natural Landmark
State Wildlife Area
State Nature Preserve

Presence

Use

Yes	No

**Evaluations
Prepared**

Programmatic Section 4(f)*
“De minimis” Impact*
Individual Section 4(f)

**FHWA
Approval date**

--

Historic Properties

Sites eligible and/or listed on the NRHP

Presence

--

Use

Yes	No

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Evaluations Prepared

Programmatic Section 4(f)*
"De minimis" Impact*
Individual Section 4(f)

FHWA Approval date

--

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

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

Remarks:

No presence, no impact

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

Based on a desktop review, a site visit on September 27, 2019 by BLN staff, the aerial map of the project area (Appendix B, page 3), and the RFI report (Appendix E, page 1) there are no Section 4(f) resources within or adjacent to the project area. Therefore, no use is expected.

Section 6(f) Involvement

Presence

Use

Yes

No

Section 6(f) Property

--

--

--

Discuss proposed alternatives that satisfy the requirements of Section 6(f). Discuss any Section 6(f) involvement.

Remarks:

Presence, no impact

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

A review of 6(f) properties on the Land and Water Conservation Fund (LWCF) website at <https://www.lwcfcoalition.com/tools> revealed a total of one property in Jennings County (Appendix I, page 1). This property is not located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources as a result of this project.

SECTION E – Air Quality

Air Quality

Conformity Status of the Project

Is the project in an air quality non-attainment or maintenance area?

Yes

No
X

If YES, then:

Is the project in the most current MPO TIP?

--

--

Is the project exempt from conformity?

--

--

If the project is NOT exempt from conformity, then:

Is the project in the Transportation Plan (TP)?

--

--

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Is a hot spot analysis required (CO/PM)?

☐ ☐

Level of MSAT Analysis required?

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

Remarks:

Standalone Project

This project is included in the Fiscal Year (FY) 2020 – 2024 Statewide Transportation Improvement Program (STIP) (Appendix G-1).

Attainment area

This project is located in Jennings County, which is currently in attainment for all criteria pollutants according to the IDEM Nonattainment Status for Indiana Counties website:

https://www.in.gov/idem/airquality/files/nonattainment_areas_map.pdf. Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

MSAT Level 1a Analysis

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

SECTION F - NOISE

Noise

Yes

No

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

☐☒

No Yes/ Date

ES Review of Noise Analysis

Remarks:

Type III Project:

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

SECTION G – COMMUNITY IMPACTS

Regional, Community & Neighborhood Factors

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

Yes

No

☒☐

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 remarks box)

☒☐

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Remarks: There may be temporary inconveniences associated with construction such as increased travel times, possible construction noise and fugitive dust. There will be no substantial impacts on community cohesion or property values as a result of the project. No permanent or temporary economic effects are expected to result from the proposed project. Acquisition of the additional permanent and temporary right-of-way would not appreciably affect the property tax base of the Decatur County. A review of www.fairsandfestivals.net, an online resource for local fairs and festivals, there are no scheduled festivals or other public events that will be impacted as a result of the project.

As required by the Americans with Disabilities Act (ADA) Jennings County has developed an ADA Transition Plan. As proposed, US 50 is a rural road that does not include any ADA components. There are no existing sidewalks or other pedestrian facilities adjacent to the project area or within the project limits. There are no sidewalks or other pedestrian facilities included in the design; however, the project complies with local development patterns for the area. No sidewalks or pedestrian facilities for the project area are included in the ADA transition plan.

Indirect and Cumulative Impacts

Will the proposed action result in substantial indirect or cumulative impacts?

Yes ☐ No ☒

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

The replacement of the existing bridge on US 50 over Six Mile Creek Bridge will not increase the capacity of the roadway or lead to any change in traffic patterns. The project is not anticipated to lead to changes in land use, tax base or contribute to or stimulate an increase in commercial or residential development in the surrounding area. The project will address the structural deficiencies and provide a hydraulically sound structure that maintains the flow of traffic on US 50 over Six Mile Creek. Indirect and cumulative impacts are unlikely to occur as a result of the project. Therefore, no impact is expected.

Public Facilities & Services

Will the proposed action result in substantial impacts on health and educational facilities, public and private utilities, emergency services, religious institutions, airports, public transportation or pedestrian and bicycle facilities? *Discuss how the maintenance of traffic will affect public facilities and services.*

Yes ☐ No ☒

Remarks: **Presence, no impact:**
Based on a desktop review, a site visit on September 27, 2019 by BLN personnel, the aerial map of the project area, Appendix B, page 3, USGS topographic map, Appendix B, page 2 and the RFI report (Appendix E, page 1) there are two religious facilities located within the 0.5 mile of the project. The closest facility the Hayden Baptist Church is approximately 0.3 mile northwest of the project area and no impact is expected. There is one school located within the 0.5 mile of the project. The Hayden Elementary School is located approximately 0.5 mile north/northwest of the project area. These facilities are outside of the MOT and will not be affected.

Early Coordination:
Early coordination letters were sent to the Jennings County Board of County Commissioners on August 10, 2020. No response was received to the early coordination letter.

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

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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:

Are any EJ populations located within the project area?

Will the project result in adversely high or disproportionate impacts to EJ populations?

Yes	No
☐	☒
☒	☐

☒	☐
☐	☒

Remarks:

EJ Analysis, No EJ Populations

Under FHWA Order 6640.23A, FHWA and INDOT 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 0.63 acre of permanent right-of-way, 0.10 acre of temporary right-of-way and no relocations. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city or town and is called the community of comparison (COC). In this project, the COC is Jennings County. The community that overlaps the project limits is called the affected community (AC). In this project, the AC is Block Group 4, Census Tract 9604. 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 US Census Bureau 2015 – 2019 American Community Survey 5 Year Estimates was obtained from the US Census Bureau Website <https://factfinder.census.gov/> on December 21, 2020 by BLN staff. The data collected for minority and low-income populations within the AC are summarized in the below table.

Table: Minority and Low-Income Data (ACS, 2015-2019)		
	COC Jennings County	AC Census Tract 9604
Percent Minority	4.97	4.90
125% of COC	6.22	6.22
EJ Population of Concern		No
Percent Low-Income	10.92	10.31
125% of COC	13.65	13.65
EJ Population of Concern		No

AC Census Tract 9604 has a percent minority of 4.90 % which is below 50% and is below the 125% COC threshold. Therefore, the AC does not contain a minority population of EJ concern.

AC Census Tract 9604 has a percent low-income of 10.31% which is below 50% and is below the 125% COC threshold. Therefore, the AC does not contain a low-income population of EJ concern.

Conclusion

The census data sheets, map and calculations can be found in Appendix I, page 2 to page 6 . 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?

Yes	No
☐	☒

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Is a Business Information Survey (BIS) required?
 Is a Conceptual Stage Relocation Study (CSRS) required?
 Has utility relocation coordination been initiated for this project?

	X
	X
X	

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

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

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

SECTION H – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Documentation

Hazardous Materials & Regulated Substances (Mark all that apply)

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

X

No Yes/ Date

ES Review of Investigations		X / March 15, 2020
------------------------------------	--	--------------------

Include a summary of findings for each investigation.

Remarks: **Presence, with potential impact**
 Based on a review of GIS and available public records, a Red Flag Investigation (RFI) was completed by BLN and approved on March 15, 2020 by INDOT Site Assessment & Management (SAM), Appendix E, page 1. There are two RCRA Generator/TSD sites within 0.5 mile of the project area. There is one underground storage tank (UST) site within 0.5 mile of the project area. There is one NPDES facility within 0.5 mile of the project area. There are two leaking underground storage tank (LUST) facilities within 0.5 mile of the project area.

There is one RCRA Generator/TSD site located approximately 0.1 mile north/northwest that could affect the project area. The facility is Industrial Machine Repair, Inc. (AI ID #25163). The IDEM Virtual File cabinet (VFC) had only two records for the facility, both inspection reports that indicated violations. The most recent inspection report, from August 2001, noted an oil spill north of the facility and directed the owner to clean it up within 30 days; no record of the clean-up was found. Given the distance and the nature of the incident, an impact is not likely; however, it is possible. Excavation will occur during the project, proper removal and disposal of contaminated soil and/or groundwater may be necessary.

SECTION I – PERMITS CHECKLIST

Permits (mark all that apply)

Likely Required

Army Corps of Engineers (404/Section10 Permit)

Individual Permit (IP)
 Nationwide Permit (NWP)
 Regional General Permit (RGP)
 Pre-Construction Notification (PCN)
 Other
 Wetland Mitigation required
 Stream Mitigation required

X

IDEM

Section 401 WQC

X

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Isolated Wetlands determination

Rule 5

Other

Wetland Mitigation required

Stream Mitigation required

IDNR

Construction in a Floodway

Navigable Waterway Permit

Lake Preservation Permit

Other

Mitigation Required

US Coast Guard Section 9 Bridge Permit

Others (Please discuss in the remarks box below)

Remarks:

A Rule 5 Notice of Intent and erosion control plan will be necessary as more than one acre of land disturbance is anticipated. Section 401 and Section 404 will be necessary for impacts to waterways.

A Section 401 Water Quality Certification and a Section 4040 Permit for Discharge of Dredge or Fill Material below the Ordinary High-Water Level will be required for this project.

A construction in a Floodway permit is not required as the project is located in a rural area and the drainage area is less than 50 square miles.

Applicable recommendations provided by USFWS, INDOT and IDNR 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 those recommendations.

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

SECTION J- ENVIRONMENTAL COMMITMENTS

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

Remarks:

FIRM

- 1) If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT Seymour District)
- 2) It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
- 3) USFWS Bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after September 20, 2022, an inspection of the structure by a qualified individual, must be performed. Inspection of the structure should check for presence of bats/bat indicators and /or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. (INDOT-ESD)
- 4) 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)

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- 5) Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
- 6) Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)
- 7) Tree Removal AMM 2: Apply time of the year restrictions (no tree clearing April 1 – September 30) for when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of the year within 100 feet of existing road/rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. (No tree clearing from April 1 to September 30). (USFWS)
- 8) Tree Removal AMM 3: Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits). (USFWS)
- 9) Tree Removal AMM 4: Do not remove documented Indiana bat or NLEB roosts that are still suitable for roosting or trees within 0.25 mile of roosts or document foraging habitat any time of year. (USFWS)

FOR FURTHER CONSIDERATION

- 10) Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 3 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30. (IDNR)
- 11) Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR)
- 12) Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR)
- 13) Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR)
- 14) Plant native hardwood trees along the top of the bank and right-of-way to replace the vegetation destroyed during construction. (IDNR)
- 15) Riprap must not be placed in the active thalweg channel or placed in the streambed in a manner that precludes fish or aquatic organism passage (riprap must not be placed above the existing streambed elevation). Riprap may be used, only at the toe of the side slopes up to the ordinary high-water mark (OHWM). The banks above the OHWM should be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to the area and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. (IDNR)
- 16) 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)

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SECTION K- EARLY COORDINATION

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

Remarks: Early coordination was initiated on August 20, 2020 with applicable federal, state, and local agencies. A copy of the outgoing early coordination letter is included in Appendix C-1 to C-3. The agencies that were contacted and the date on which they replied are identified below.

EARLY COORDINATION RECIPIENTS	RESPONSE RECEIVED	APPENDIX
Indiana Department of Natural Resources	September 9, 2020	C-6
Natural Resources Conservation Service	January 31, 2019	C-7
Indiana Geological Survey	August 10, 2020	C-11
Indiana Department of Environmental Management	August 10, 2020	C-14
Indiana Department of Environmental Management - Groundwater Section	August 24, 2020	C-23
US Fish and Wildlife Service – Species List	November 25, 2020	C-24
US Fish and Wildlife Service – Concurrence Letter	November 25, 2020	C-30
U.S. Army Corps of Engineers - Louisville District	No Response	-
US Department of the Interior National Parks Service	No Response	-
Hoosier National Forest	No Response	-
Jennings County Board of County Commissioners	No Response	-
Jennings County Highway Superintendent	No Response	-
Jennings County Emergency Management	No Response	-
Jennings County Surveyor	No response	-
Jennings County Council	No Response	-
Jennings County Area Plan Commission	No Response	-
Southeastern Indiana Regional Planning Commission	No Response	-

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Appendix A:

INDOT Supporting Documentation

Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4 ¹
Section 106	Falls within guidelines of Minor Projects PA	"No Historic Properties Affected"	"No Adverse Effect"	-	"Adverse Effect" Or Historic Bridge involvement ²
Stream Impacts	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	Individual 404 Permit
Wetland Impacts	No adverse impacts to wetlands	< 0.1 acre	-	< 1 acre	≥ 1 acre
Right-of-way³	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)	"No Effect", "Not likely to Adversely Affect" (Without AMMs ⁴ or with AMMs required for all projects ⁵)	"Not likely to Adversely Affect" (With any other AMMs)	-	"Likely to Adversely Affect"	Project does not fall under Species Specific Programmatic
Threatened/Endangered Species (Any other species)	Falls within guidelines of USFWS 2013 Interim Policy	"No Effect", "Not likely to Adversely Affect"	-	-	"Likely to Adversely Affect"
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential ⁶
Sole Source Aquifer	Detailed Assessment Not Required	-	-	-	Detailed Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Coastal Zone Consistency	Consistent	-	-	-	Not Consistent
National Wild and Scenic River	Not Present	-	-	-	Present
New Alignment	None	-	-	-	Any
Section 4(f) Impacts	None	-	-	-	Any
Section 6(f) Impacts	None	-	-	-	Any
Added Through Lane	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Coast Guard Permit	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes ⁷
Approval Level - District Env. Supervisor - Env. Services Division - FHWA	Concurrence by INDOT District Environmental or Environmental Services	Yes	Yes	Yes Yes	Yes Yes Yes

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

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

³Permanent and/or temporary right-of-way.

⁴AMMs = Avoidance and Mitigation Measures.

⁵AMMs determined by the IPAC decision key to be needed that are listed in the USFWS User's Guide for the Range-wide Programmatic Consultation for Indiana bat and Northern long-eared bat as "required for all projects".

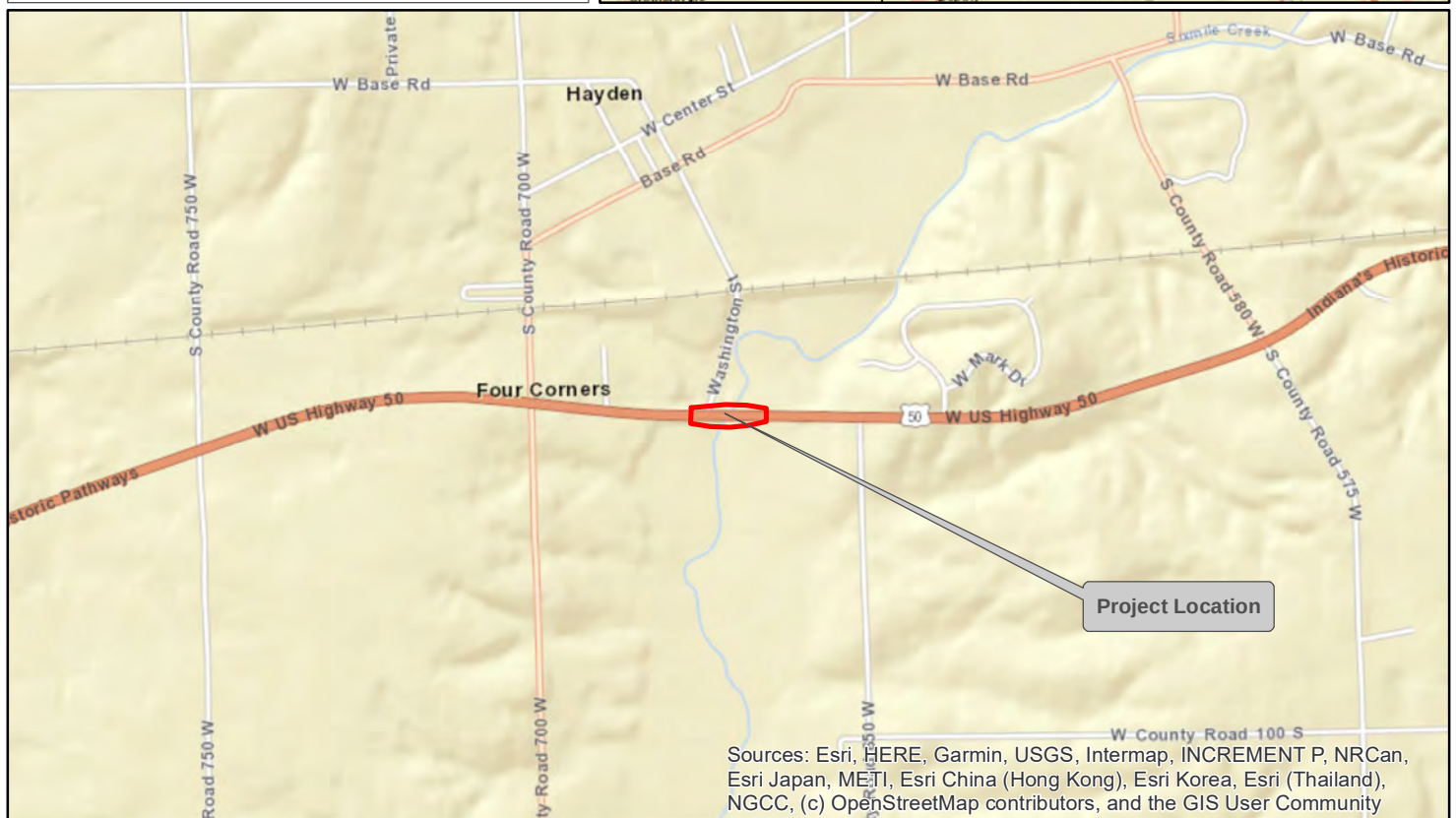
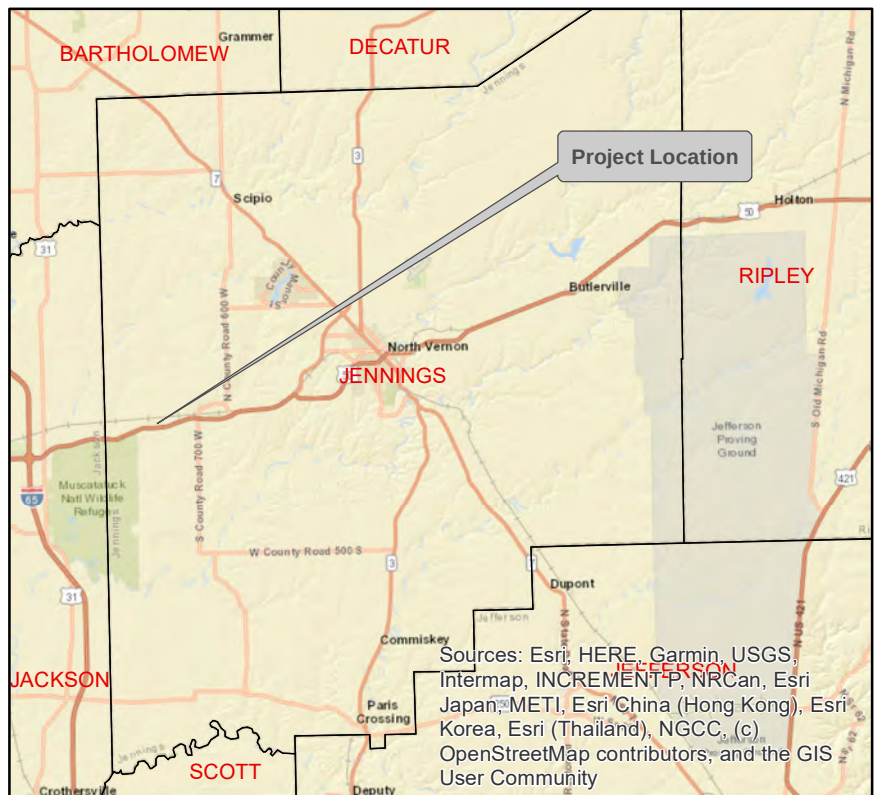
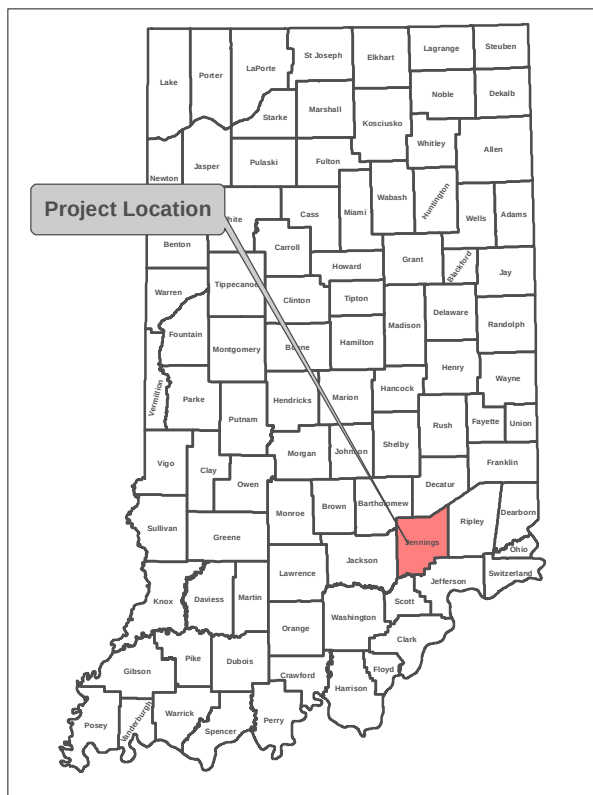
⁶Potential for causing a disproportionately high and adverse impact.

⁷Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

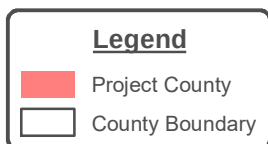
*Substantial public or agency controversy may require a higher-level NEPA document.

Appendix B:

Graphics

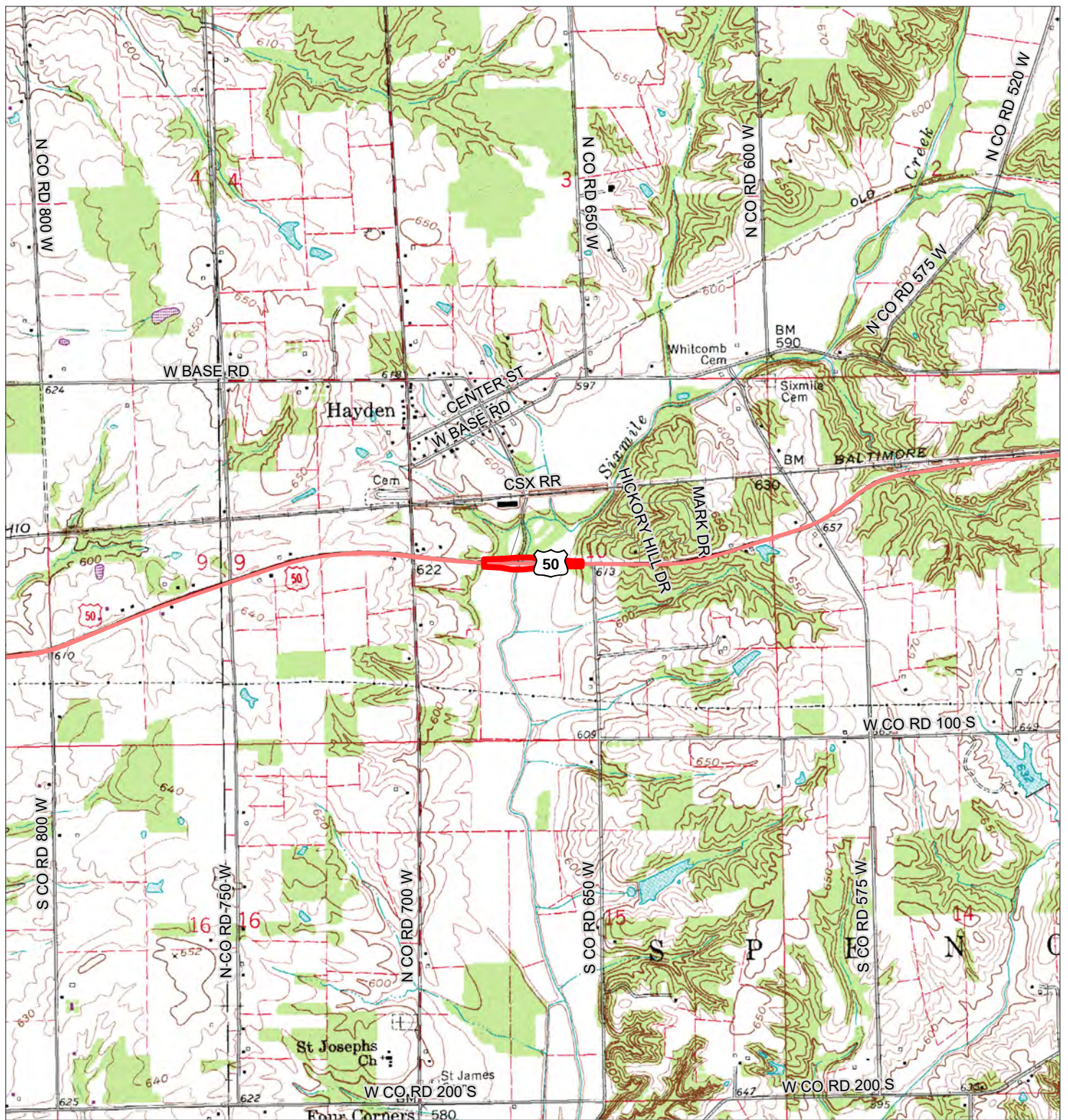


Source: Indiana MAP



Project Location Map
 Bridge #050-40-00853B
 US 50 over Six Mile Creek
 Jennings County, Indiana
 Des. No. 1700203

February 12, 2020



Source: Indiana MAP

1:24,000

1 in = 2,000 ft

BLN
BEAM-LONGEST-NEFF

Legend

Project Area

USGS Topographic Map
Bridge #050-40-00853B
US 50 over Six Mile Creek
Jennings County, Indiana
Des. No. 1700203

February 12, 2020

bln-netapp02\Project\180022 - Seymour District US 50 Des 1700203\07 Environmental\WOU\GIS\02 Data Displays.mxd | Saturday, January 9, 2021 | 9:15:54 AM

Categorical Exclusion B-2



Source: Indiana MAP

1:3,051

1 in = 254 ft

State of Indiana



Legend

Project Area

Aerial Photograph
 Bridge #050-40-00853B
 US 50 over Six Mile Creek
 Jennings County, Indiana Des.
 No. 1700203

February 12, 2020

\\bln-netapp02\Project\180022 - Seymour District US 50 Des 1700203\07 Environmental\WOUSR\IGIS\02 Data Displays.mxd | Saturday, January 9, 2021 | 8:40:16 AM

Categorical Exclusion B-3



Source: Indiana MAP

1:3,051

1 in = 254 ft

State of Indiana



Legend

- Project Area
- Freshwater Forested/Shrub Wetland
- Riverine
- NHDFlowline

NWI and NHD Map

#050-40-00853B

US 50 over Six Mile Creek
Jennings County, Indiana Des.

No. 1700203

February 12, 2020



Source: Indiana MAP

1:3,051

1 in = 254 ft



Legend

- Project Area
- 1 % Annual Chance Flood Hazard

Floodplain Map
 Bridge #050-40-00853B
 US 50 over Six Mile Creek
 Jennings County, Indiana
 Des. No. 1700203

February 12, 2020

\\bln-netapp02\Project\180022 - Seymour District US 50 Des 1700203\07 Environmental\WOUSR\GIS\02 Data Displays.mxd | Saturday, January 9, 2021 | 8:51:48 AM

Categorical Exclusion B-5



State of Indiana



Source: BLN Field Investigation

1:2,300

1 in = 192 ft



Legend

- Project Area
- Photo Location

Photo Orientation Map
 Bridge #050-40-00853B
 US 50 over Six Mile Creek
 Jennings County, Indiana
 Des. No. 1700203

January 11, 2021



Photo 1: Looking west along US 50 from near east end of project area.



Photo 2: Looking east along US 50 from near east end of project area.



Photo 3: Looking east along US 50 from intersection with Washington Street.



Photo 4: Looking west along US 50 from intersection with Washington Street.



Photo 5: Looking at northwest quadrant from bridge.



Photo 6: Looking north/northeast (upstream) at Six Mile Creek from bridge.



Photo 7: Looking at northeast quadrant from bridge.



Photo 8: Looking at southeast quadrant from bridge.



Photo 9: Looking southwest (downstream) at Six Mile Creek from bridge.



Photo 10: Looking at southwest quadrant from bridge.



Photo 11: Looking northeast at US 50 Bridge over Six Mile Creek.



Photo 12: Looking north at Washington Street from US 50.

PROJECT	DESIGNATION
1700203	1700203
CONTRACT	BRIDGE FILE
B-40414	050-40-10259

STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
050-40-10259	COMPOSITE STEEL BEAM BRIDGE	3 SPANS: 45'-0", 60'-0", & 45'-0" SKEW: 30° Rt.	SIX MILE CREEK	G STRUCTURE Sta.467+62.00 "PR-A"

INDIANA DEPARTMENT OF TRANSPORTATION



BRIDGE PLANS

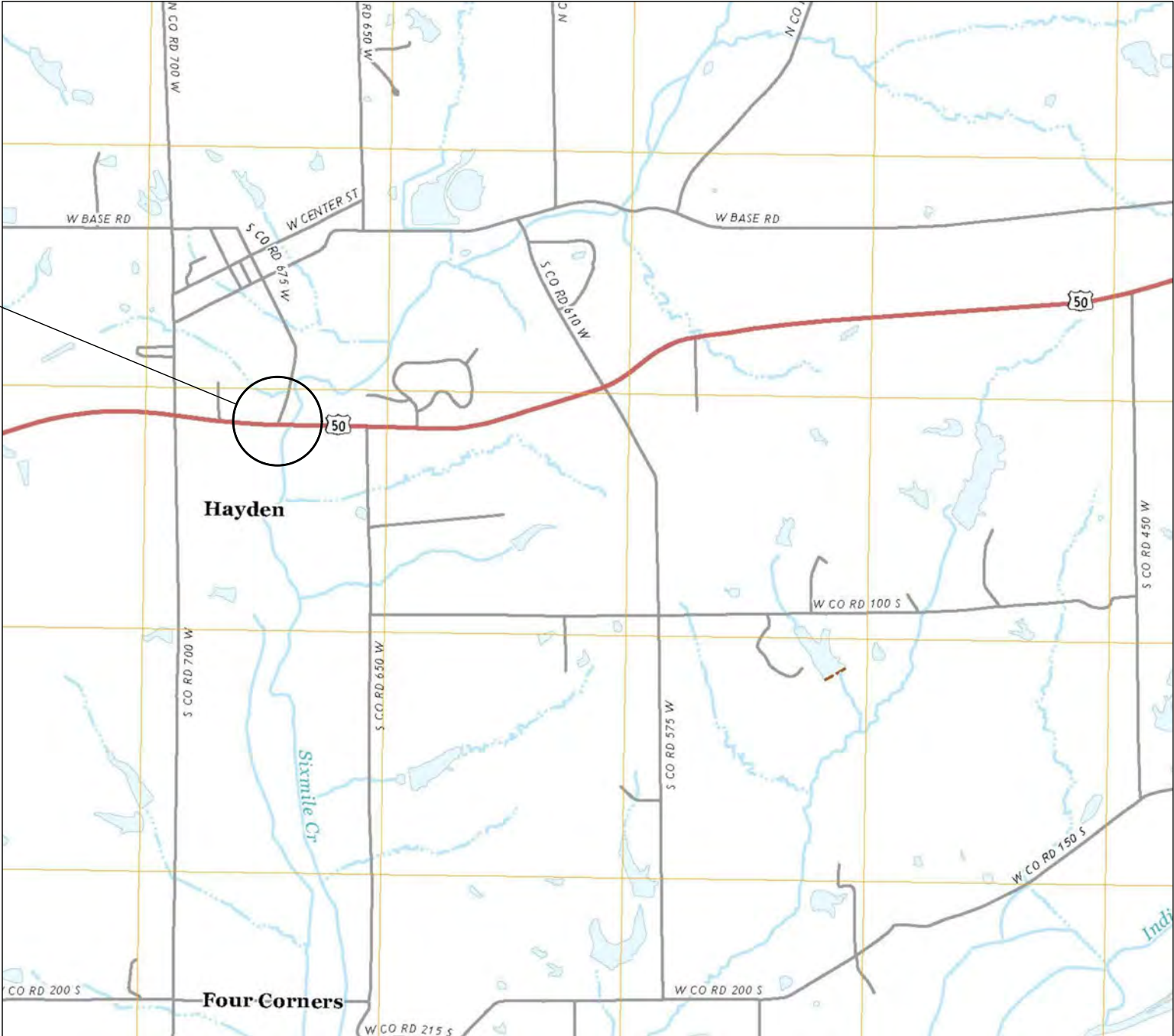
FOR SPANS OVER 20 FEET

ROUTE: US 50 OVER SIX MILE CREEK AT: RP 111 + 83

PROJECT NO. 1700203 P.E.
1700203 R/W
1700203 CONST.

Structure Replacement on US 50 over Six Mile Creek
Located 5.64 Miles East of US 31 in
Section 10, T-6N, R-7E, Spencer Township, Jennings County, Indiana

PROJECT LOCATION
Begin Project-Sta.464+50 "PR-A"
End Project-Sta.470+00 "PR-A"



LOCATION MAP
SCALE: 1:24000

TRAFFIC DATA		US 50	WASHINGTON ST.
A.A.D.T.	(2022)	11,020 V.P.D.	353 V.P.D.
A.A.D.T.	(2042)	13,040 V.P.D.	353 V.P.D.
D.H.V	(2042)	1,217 V.P.H.	14 V.P.H.
DIRECTIONAL DISTRIBUTION		50/50 %	63/37 %
TRUCKS		23.7 % A.A.D.T.	2 % A.A.D.T.
		18.6 % D.H.V.	2 % D.H.V.
DESIGN DATA			
DESIGN SPEED		55 M.P.H.	30 M.P.H.
PROJECT DESIGN CRITERIA		3R (NON-FREEWAY)	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION		RURAL OTHER PRINCIPAL ARTERIAL	RURAL LOCAL ROAD
RURAL/URBAN		RURAL	RURAL
TERRAIN		LEVEL	LEVEL
ACCESS CONTROL		NONE	NONE



PROJECT LOCATION SHOWN BY
JENNINGS COUNTY

LATITUDE: 38°58'33" N LONGITUDE: 85°44'5" W

BRIDGE LENGTH: 0.029 MI.
ROADWAY LENGTH: 0.075 MI.
TOTAL LENGTH: 0.104 MI.
MAX. GRADE: 0.07 %

HUC #05120207070060

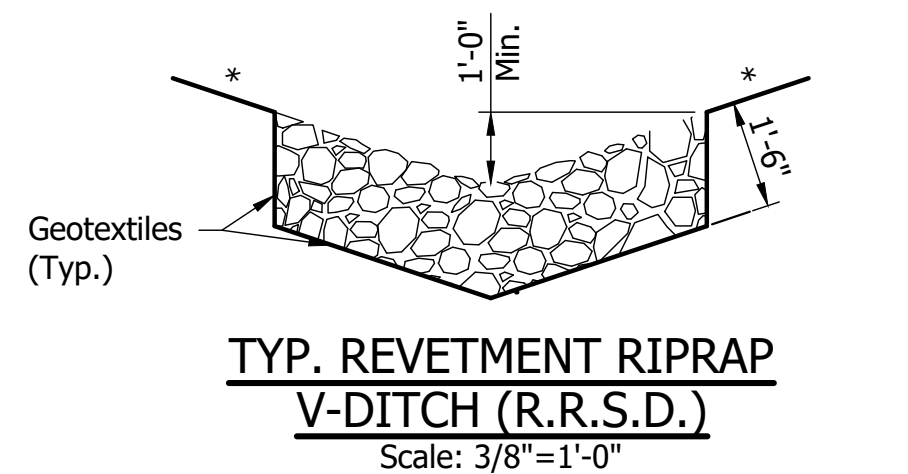
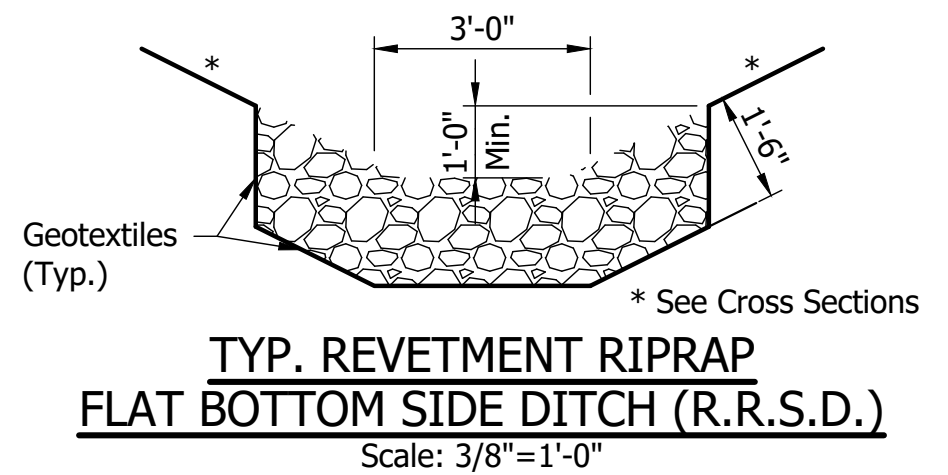
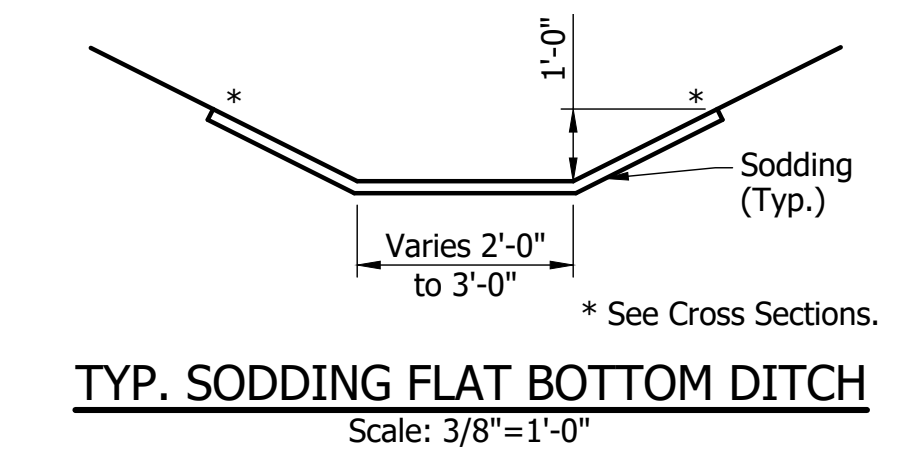
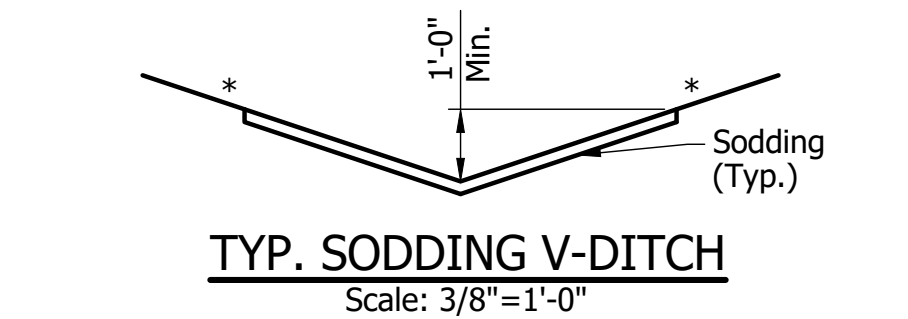
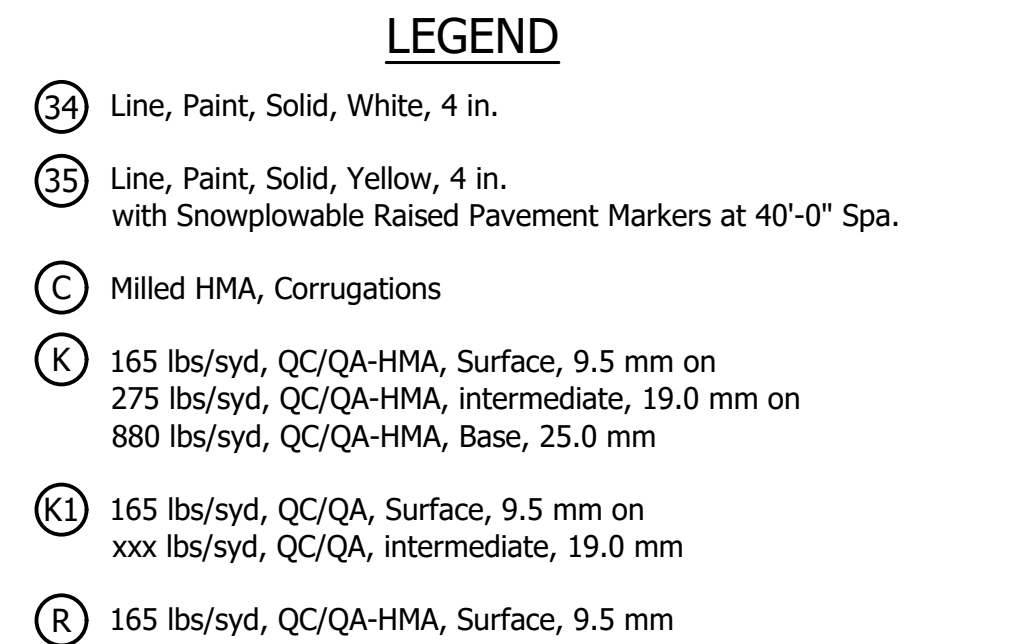
INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2020
TO BE USED WITH THESE PLANS.

PLANS PREPARED BY:



PLANS PREPARED BY:	BEAM, LONGEST & NEFF, LLC	(317)849-5832 PHONE NUMBER
CERTIFIED BY:		DATE
APPROVED FOR LETTING:	INDIANA DEPARTMENT OF TRANSPORTATION	DATE

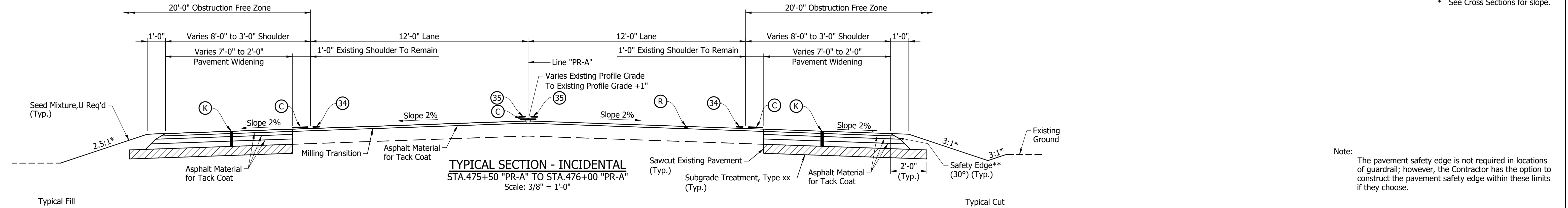
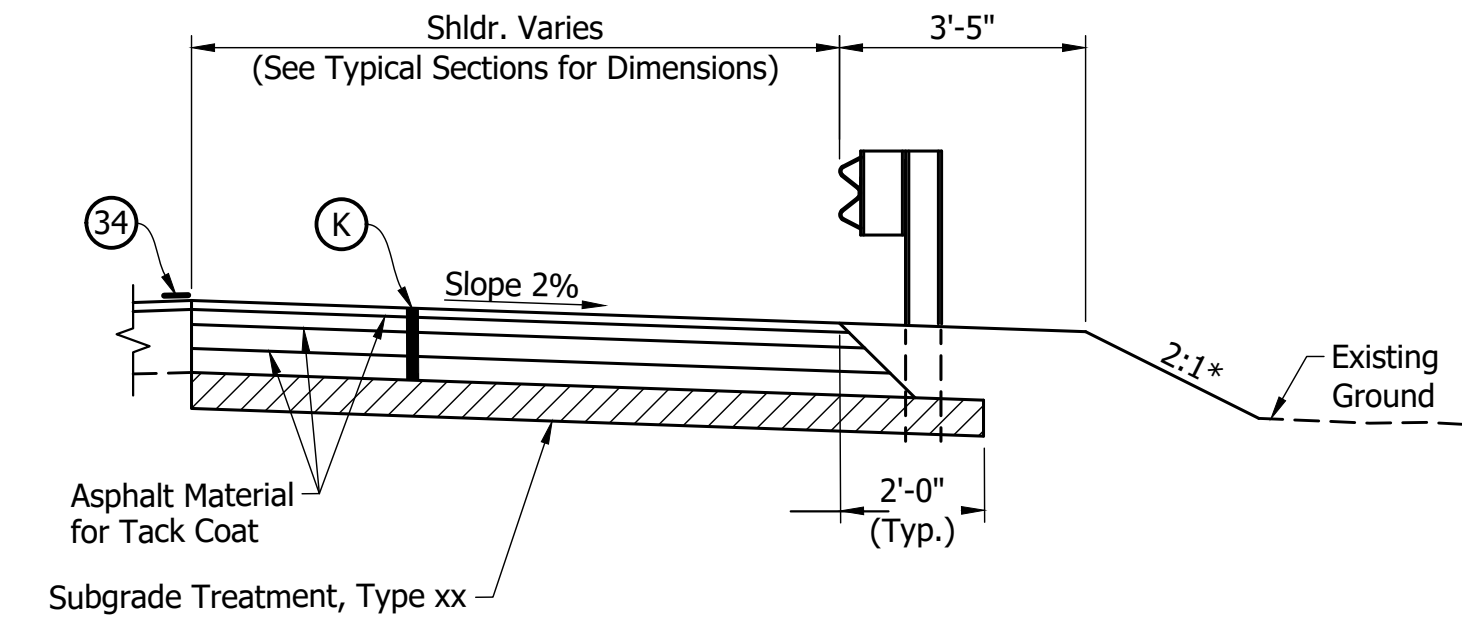
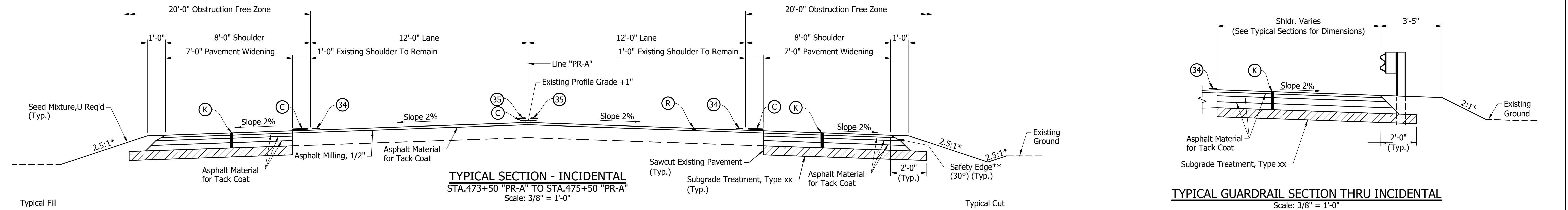
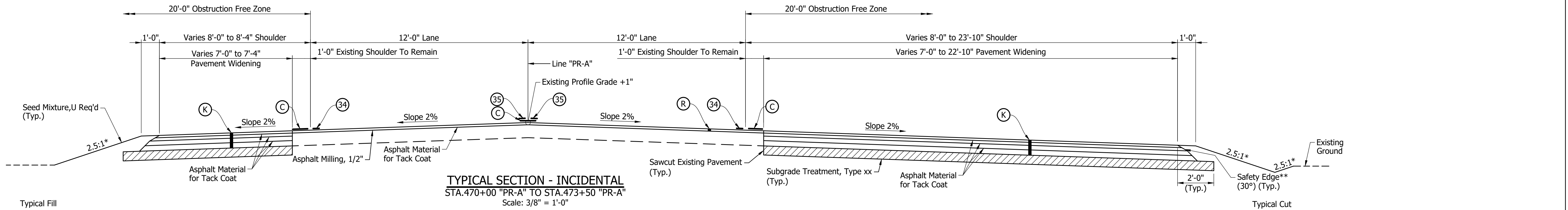
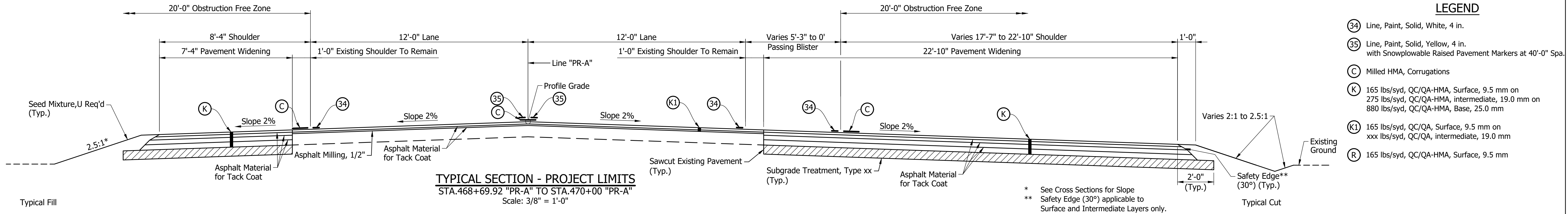
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	050-40-10259		
	DESIGNATION		
	1700203		
DRAWING NO.	SHEETS		
	1	of	36
CONTRACT	PROJECT		
B-40414	1700203		



Notes: The pavement safety edge is not required in locations of guardrail; however, the Contractor has the option to construct the pavement safety edge within these limits if they choose.

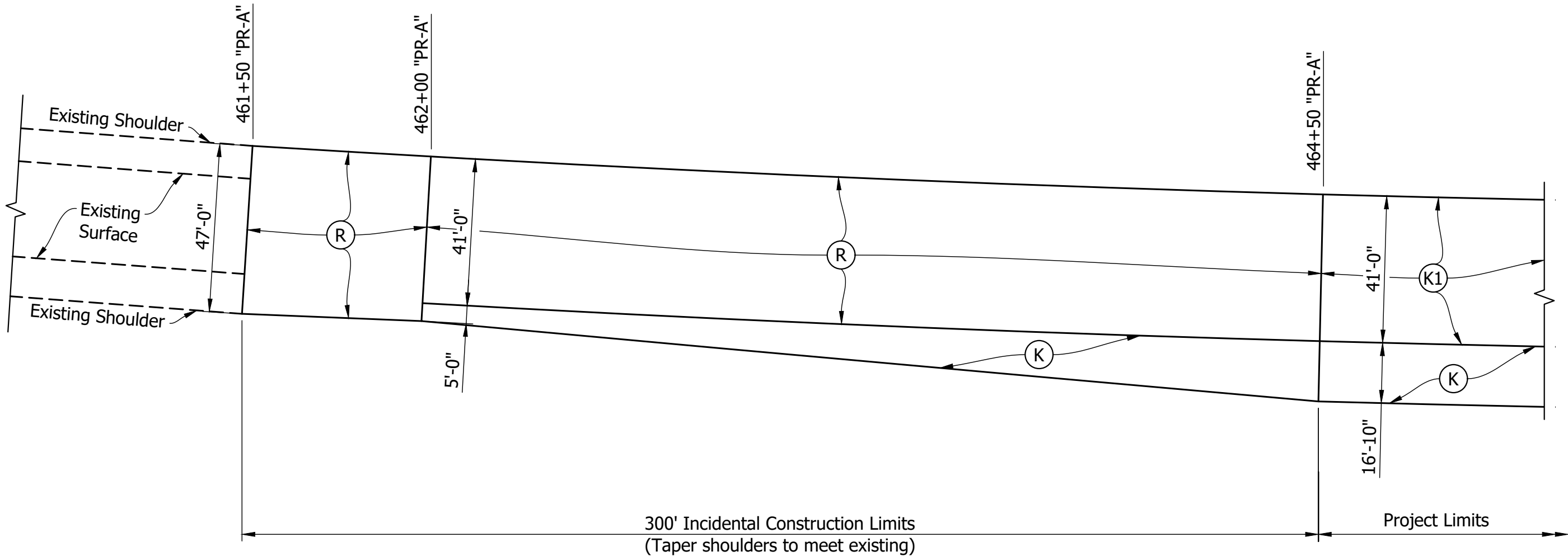
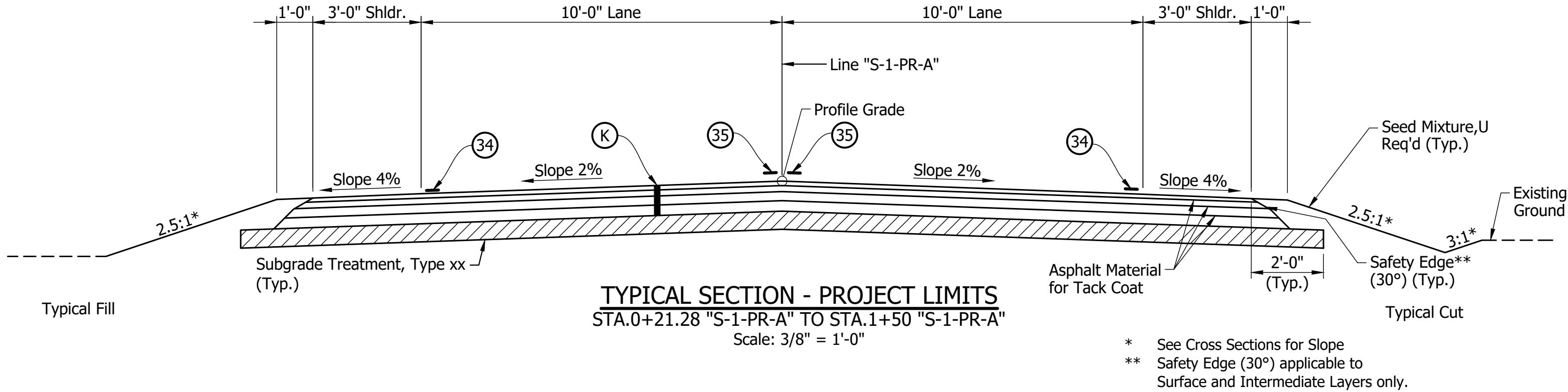
For additional Typical Sections, see Sht.4

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION			HORIZONTAL SCALE		BRIDGE FILE				
				AS NOTED		050-40-10259				
				VERTICAL SCALE		DESIGNATION				
				AS NOTED		1700203				
DESIGNED: <u>APL</u>	DRAWN: <u>NW</u>	TYPICAL SECTIONS			DRAWING NO.		SHEETS			
CHECKED: <u>DRT</u>	CHECKED: <u>APL</u>				3		of		36	
					CONTRACT		PROJECT			
					B-40414		1700203			

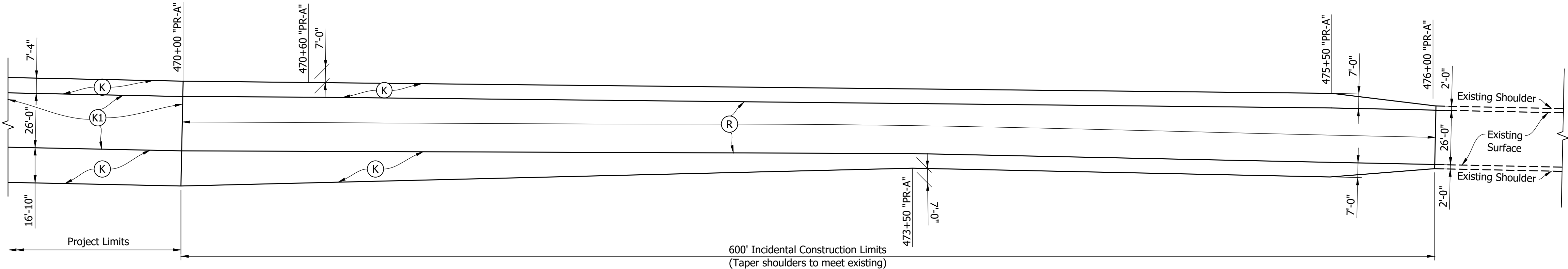


Note:
The pavement safety edge is not required in locations of guardrail; however, the Contractor has the option to construct the pavement safety edge within these limits if they choose.

	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE		BRIDGE FILE		
				AS NOTED		050-40-10259		
				VERTICAL SCALE		DESIGNATION		
				AS NOTED		1700203		
	DESIGNED: <u>APL</u>		DRAWN: <u>NW</u>		DRAWING NO.		SHEETS	
					4		of 36	
	CHECKED: <u>DRT</u>		CHECKED: <u>APL</u>		CONTRACT		PROJECT	
					B-40414		1700203	
				TYPICAL SECTIONS				



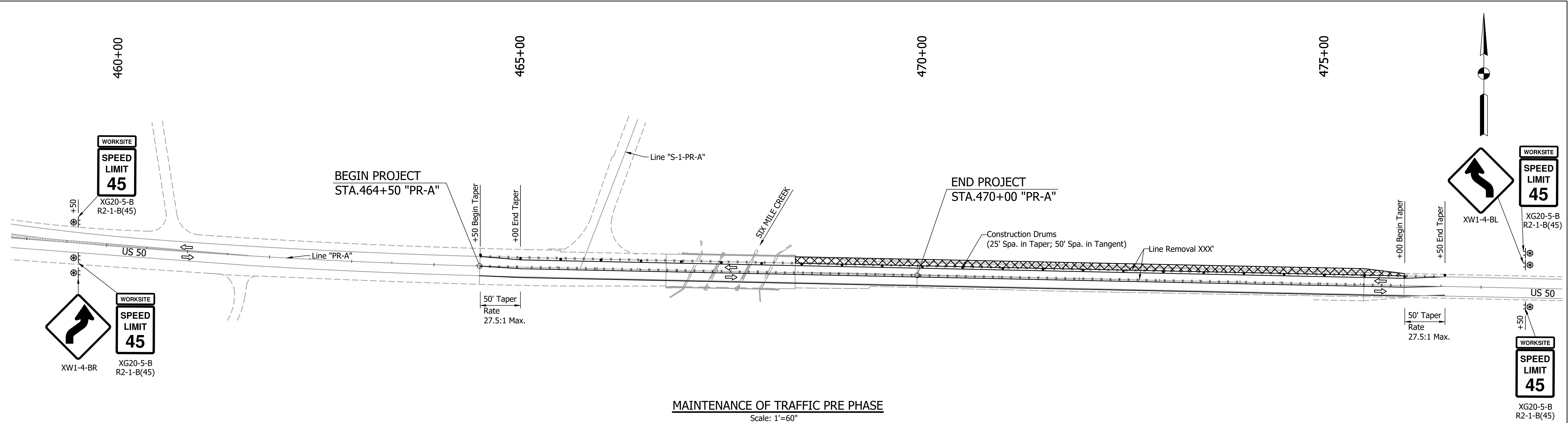
- LEGEND**
- 34 Line, Paint, Solid, White, 4 in.
 - 35 Line, Paint, Solid, Yellow, 4 in. with Snowplowable Raised Pavement Markers at 40'-0" Spa.
 - C Milled HMA, Corrugations
 - K 165 lbs/syd, QC/QA-HMA, Surface, 9.5 mm on 275 lbs/syd, QC/QA-HMA, intermediate, 19.0 mm on 880 lbs/syd, QC/QA-HMA, Base, 25.0 mm
 - K1 165 lbs/syd, QC/QA, Surface, 9.5 mm on xxx lbs/syd, QC/QA, intermediate, 19.0 mm
 - R 165 lbs/syd, QC/QA-HMA, Surface, 9.5 mm



Notes:
The pavement safety edge is not required in locations of guardrail; however, the Contractor has the option to construct the pavement safety edge within these limits if they choose.

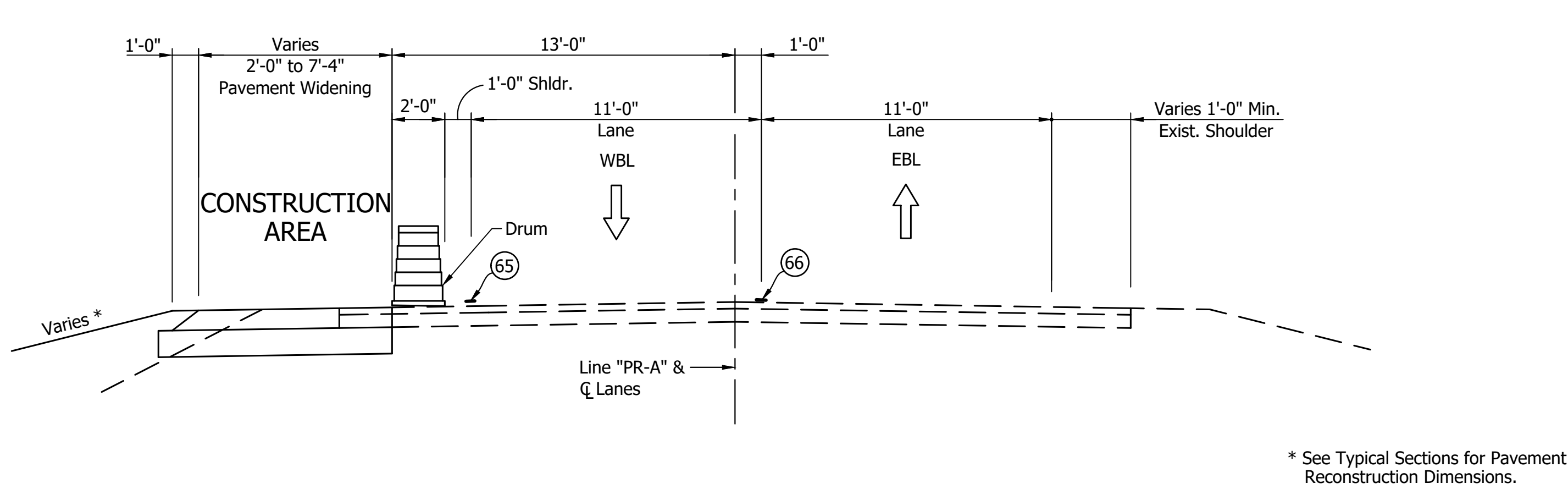
For additional Typical Sections, see Shts.3 & 4.

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MAINTENANCE OF TRAFFIC PRE PHASE
Scale: 1"=60"

CONSTRUCTION ZONE DESIGN SPEED = 45 MPH

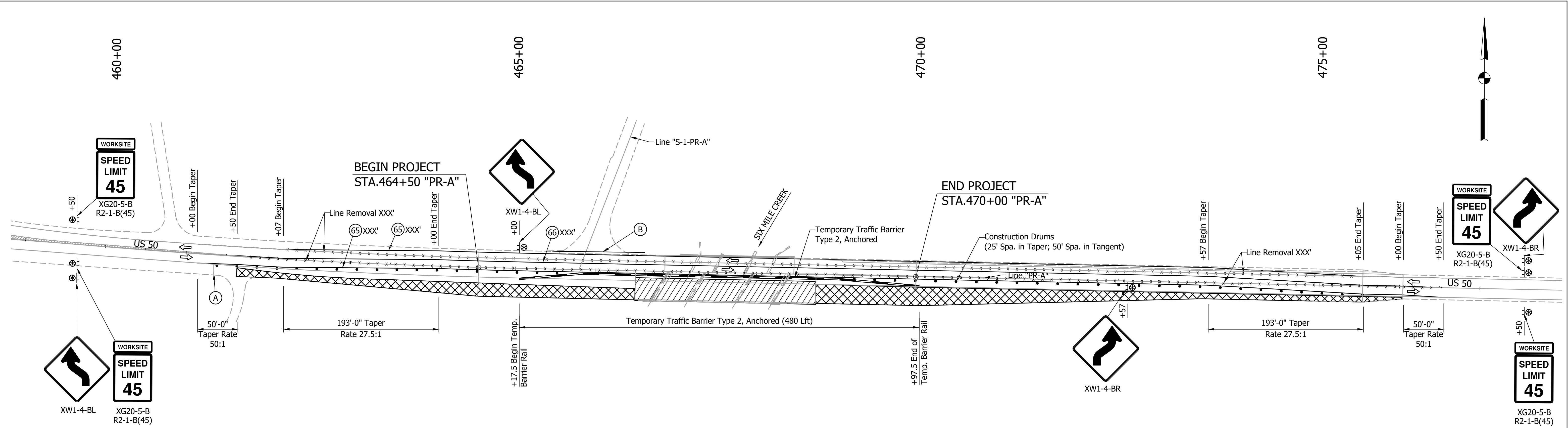


ROAD SECTION - PRE-PHASE
Sta. 468+42 "PR-A" to Sta. 476+00 "PR-A"
Scale: 1/4" = 1'-0"

- LEGEND**
- Construction Zone
 - XXX lb/syd, QC/QA-HMA, 3, 64, Surface, 9.5 mm on
XXX lb/syd, QC/QA-HMA, 3, 64, Intermediate, 19.0 mm on
XXX lb/syd, QC/QA-HMA, 3, 64, Base, 25.0 mm on
X in. Compacted Aggregate, No.53, Base on
Subgrade Treatment, Type
(Tack Coat between HMA layers)
 - Construction Sign and Supports
 - Construction Drums
 - Low Intensity Construction Warning Light Type A
 - Directional Traffic
 - Line Removal
 - (A) Barricade Type III-A & Road Closure Sign Assembly
 - (B) Barricade Type III-B & Road Closure Sign Assembly
 - (C) Barricade Type III-B
 - (65) Temporary Pavement Marking, 4 in. (White)
 - (66) Temporary Pavement Marking, 4 in. (Yellow)
 - Type "A" Construction Signs
 - (1) R11-2 Road Closed

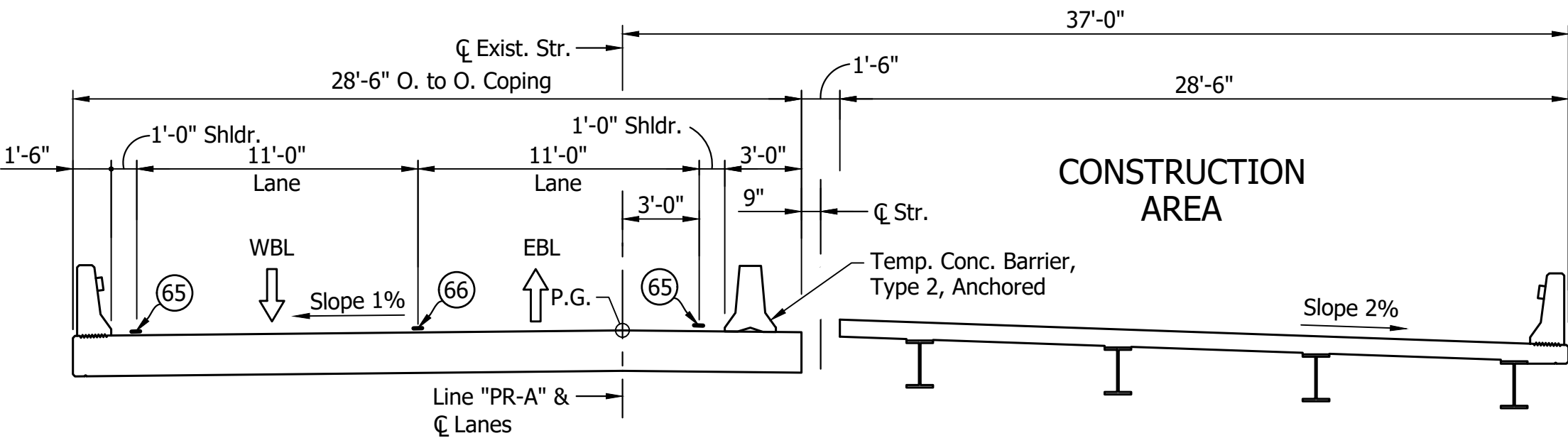
Notes:
For Additional Sign Placement Plan, see Sht.10.
For Quantities, see Sht.X.

		RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE AS NOTED	BRIDGE FILE 050-40-10259
		DESIGNED: APL DRAWN: AAO CHECKED: DRT CHECKED: APL	MAINTENANCE OF TRAFFIC PRE PHASE	VERTICAL SCALE AS NOTED	DESIGNATION 1700203
				DRAWING NO.	SHEETS 7 of 36
				CONTRACT B-40414	PROJECT 1700203

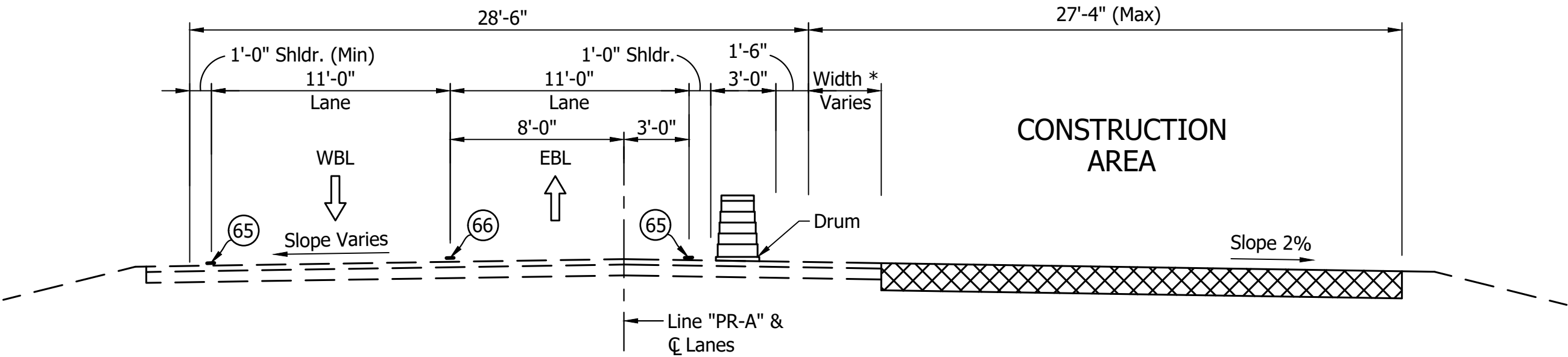


MAINTENANCE OF TRAFFIC PHASE I
Scale: 1"=60"

CONSTRUCTION ZONE DESIGN SPEED = 45 MPH



BRIDGE SECTION - PHASE I
Scale: 3/16" = 1'-0"

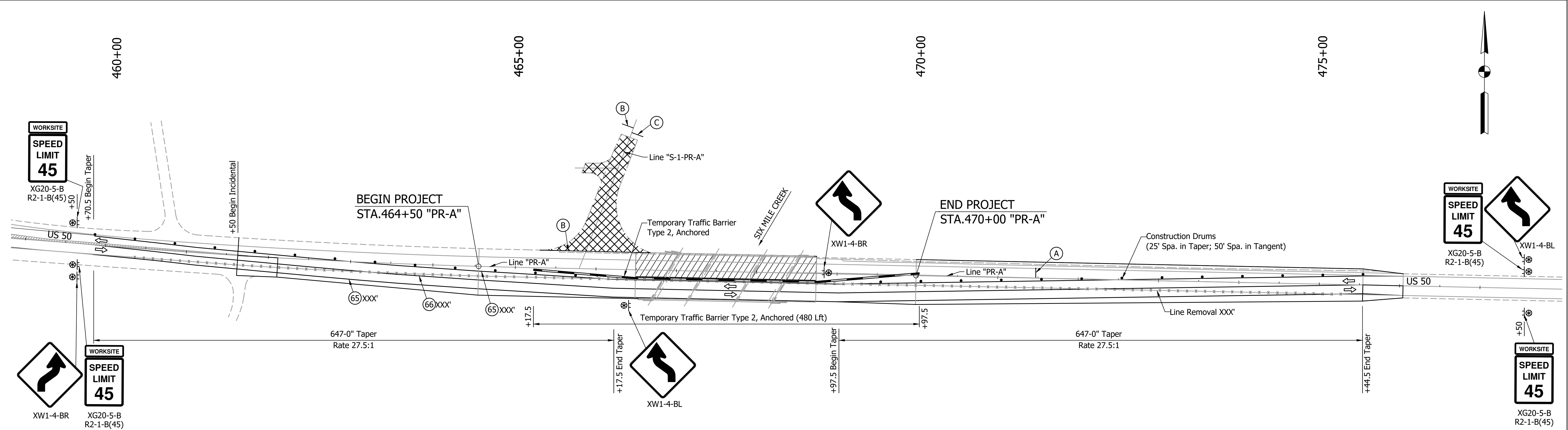


ROAD SECTION - PHASE I
Scale: 3/16" = 1'-0"

* See Typical Sections for Pavement Reconstruction Dimensions.

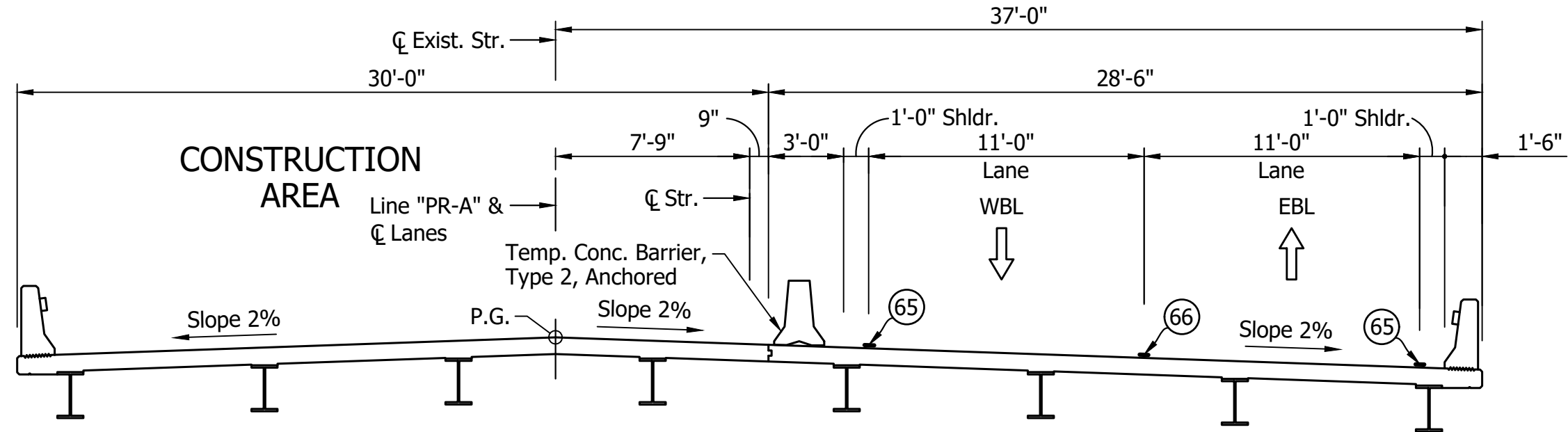
Notes:
For Legend, see Sht. 7.
For Additional Sign Placement Plan, see Sht. 10.
For Quantities, see Sht. X.

		RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
				AS NOTED	050-40-10259
				VERTICAL SCALE	DESIGNATION
				AS NOTED	1700203
	DESIGNED: APL DRAWN: AAO CHECKED: DRT	DRAWN: AAO CHECKED: APL	MAINTENANCE OF TRAFFIC PHASE I	DRAWING NO.	SHEETS
				8	of 36
				CONTRACT	PROJECT
				B-40414	1700203

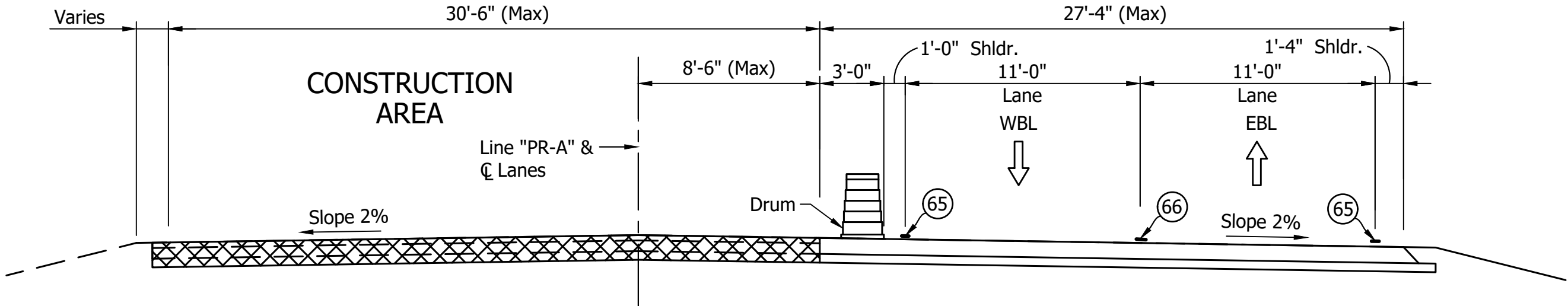


MAINTENANCE OF TRAFFIC PHASE II
Scale: 1"=60"

CONSTRUCTION ZONE DESIGN SPEED = 45 MPH



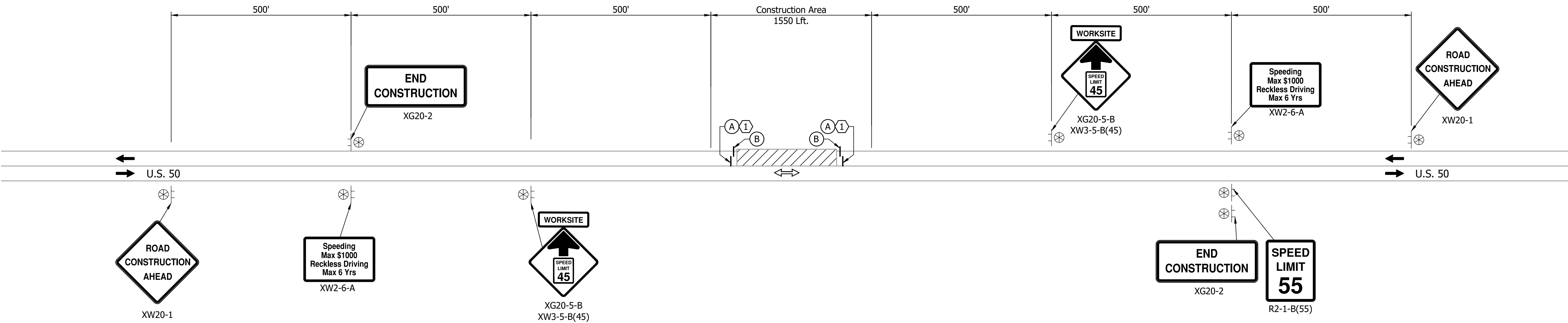
BRIDGE SECTION - PHASE II
Scale: 3/16" = 1'-0"



ROAD SECTION - PHASE II
Scale: 3/16" = 1'-0"

Notes:
For Legend, see Sht.7.
For Additional Sign Placement Plan, see Sht.10.
For Quantities, see Sht. X.

		RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE		BRIDGE FILE	
				AS NOTED		050-40-10259	
				VERTICAL SCALE		DESIGNATION	
				AS NOTED		1700203	
				DRAWING NO.		SHEETS	
						9 of 36	
		DESIGNED: <u>APL</u> CHECKED: <u>DRT</u> 	MAINTENANCE OF TRAFFIC PHASE II	CONTRACT		PROJECT	
				B-40414		1700203	



PLAN - ADDITIONAL CONSTRUCTION SIGNS
No Scale

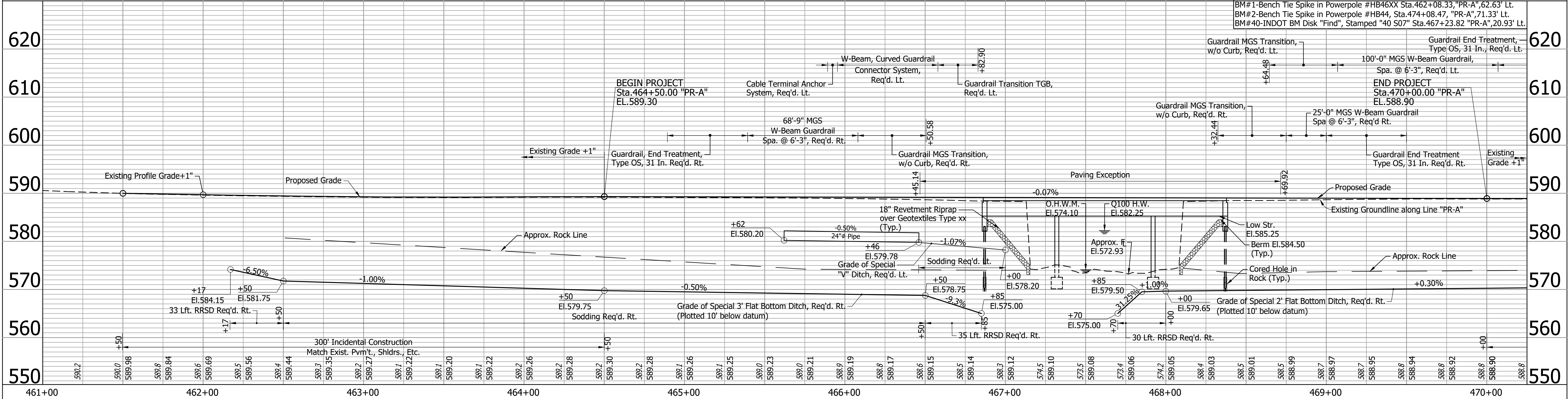
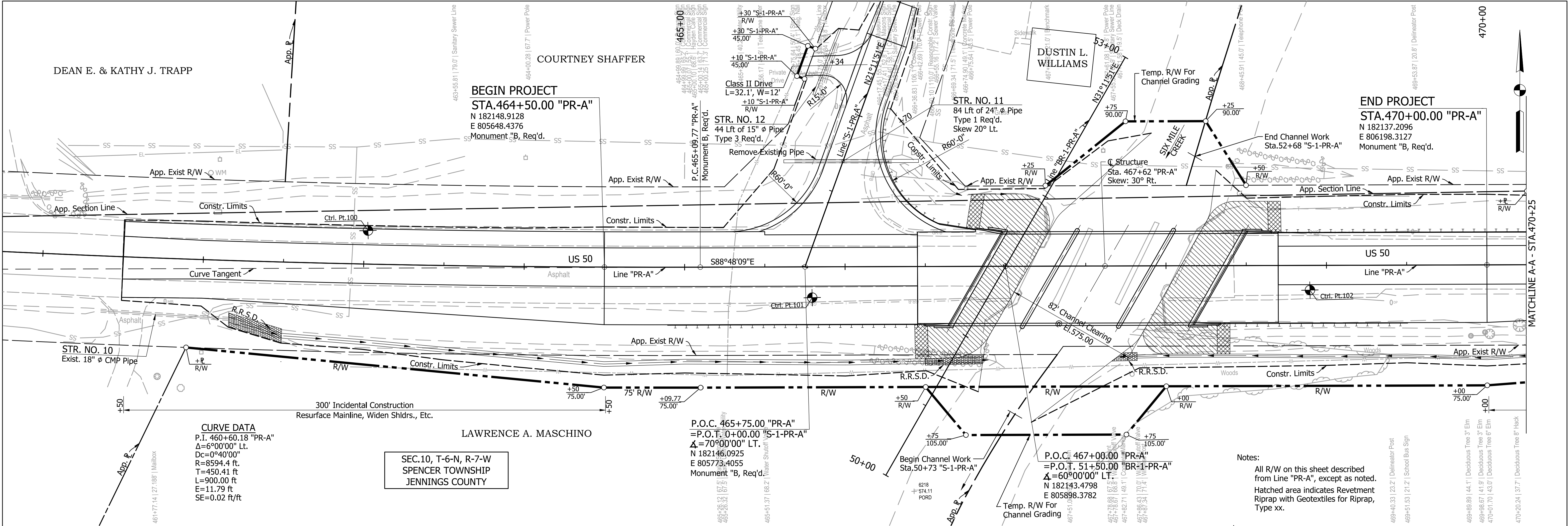
CONSTRUCTION ZONE DESIGN SPEED = 45 MPH

Notes:
For Legend, see Sht.7.
For Details within Construction Area, see Sht. X

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	
DESIGNED: APL	DRAWN: AAO
CHECKED: DRT	CHECKED: APL

INDIANA DEPARTMENT OF TRANSPORTATION	
MAINTENANCE OF TRAFFIC US 50	

HORIZONTAL SCALE	BRIDGE FILE	
AS NOTED	050-40-10259	
VERTICAL SCALE	DESIGNATION	
AS NOTED	1700203	
DRAWING NO.	SHEETS	
	10	of 36
CONTRACT	PROJECT	
B-40414	1700203	



N 182175.3076 E 805501.6417 Sewer Fence Main Valve Mag Nail in Utility Pole MAG NAIL w/WASHER SET CONTROL PT. #100 N 182126.9145 E 805777.4902 W. End of Guardrail Mag Nail in Utility Pole MAG NAIL w/WASHER SET CONTROL PT. #101 N 182124.0858 E 806087.3683 US 50 MAG NAIL w/WASHER SET CONTROL PT. #102			RECOMMENDED FOR APPROVAL DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION DESIGNED: APL DRAWN: NW CHECKED: DRT CHECKED: APL	HORIZONTAL SCALE 1"=30' VERTICAL SCALE 1"=10' DRAWING NO. CONTRACT B-40414		BRIDGE FILE 050-40-10259 DESIGNATION 1700203 SHEETS 11 of 36 PROJECT 1700203
--	--	--	--	--	---	--	--	--

SEC.10, T-6-N, R-7-W
SPENCER TOWNSHIP
JENNINGS COUNTY

BEGIN CONSTRUCTION
STA.0+21.28 "S-1-PR-A"
N 182165.9326
E 805781.1000

P.O.C. 465+75.00 "PR-A"
=P.O.T. 0+00.00 "S-1-PR-A"
Δ=70°00'00" LT.
N 182146.0925
E 805773.4055
Monument "B" Req'd.

P.C.465+09.77 "PR-A"

Class II Drive
L=32.1', W=12'
STR. NO. 11
84 Lft of 24" φ Pipe
Type 1 Req'd.
Skew: 20° Lt.

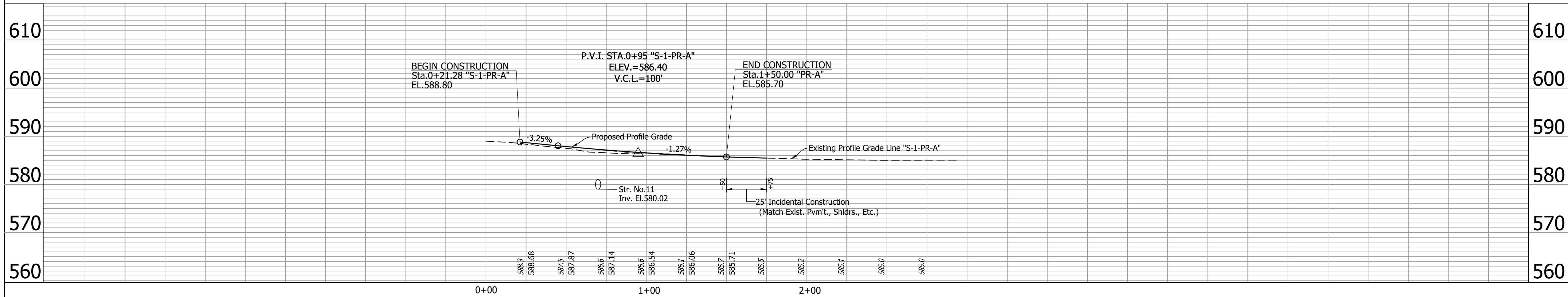
STR. NO. 12
44 Lft of 15" φ Pipe
Type 3 Req'd.

END CONSTRUCTION
STA.1+50.00 "S-1-PR-A"
N 182285.9433
E 805827.6434
Monument "B" Req'd.
25' Incidental Construction
Match Exist. Pvm't., Shldrs., Etc.

CURVE DATA
P.I. 3+42.88 "S-1-PR-A"
Δ=9°21'00" Lt.
Dc=2°30'00"
R=2291.8 ft
T=187.42 ft
L=374.00 ft
E=7.65 ft
SE=N/A

Notes:
All R/W on this sheet described from
Line "S-1-PR-A", except as noted.

For Topo Notes, see Shts.11 & 12.



N 182377.9534
E 805869.9734
Mailbox Post

N
Jennings
County Sign

Drive

Washington St.

End of Fence on S.
Side of Gravel Drive

CONTROL PT. #104

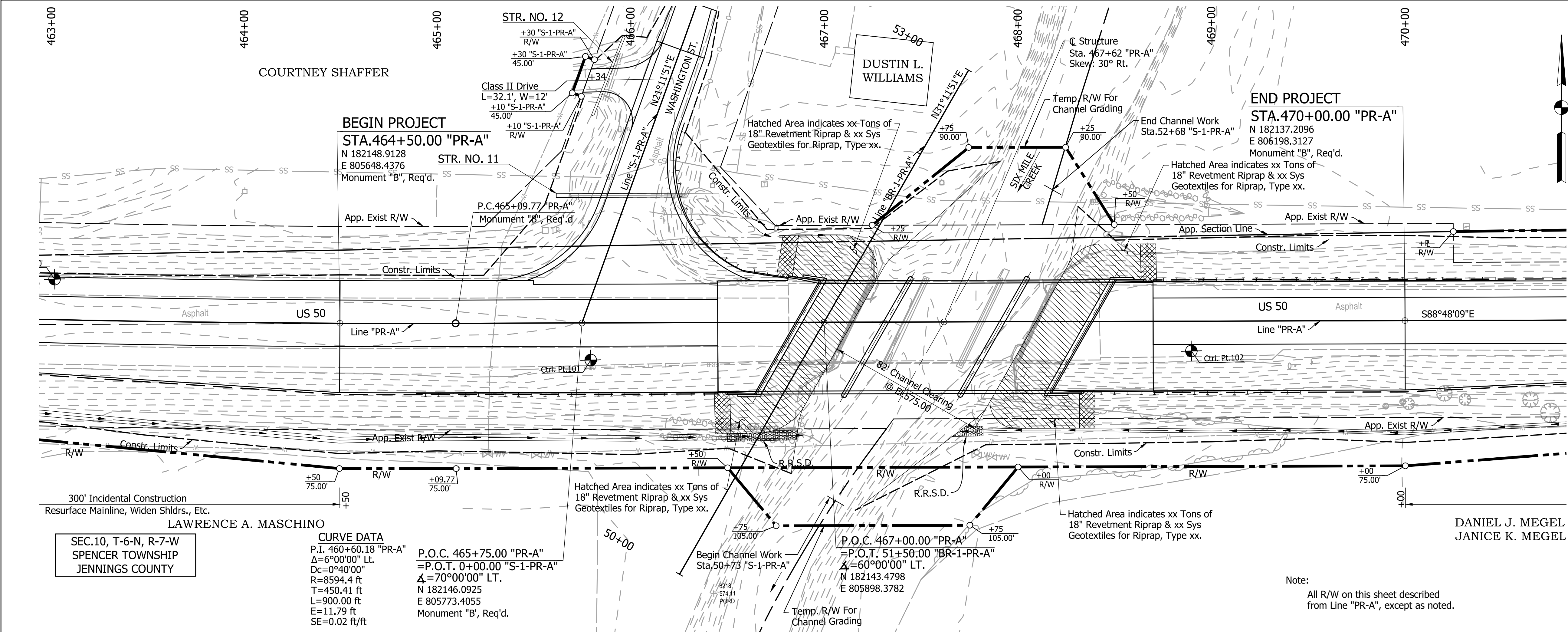
RECOMMENDED
FOR APPROVAL
DESIGN ENGINEER
DATE

DESIGNED: APL
DRAWN: NW
CHECKED: DRT
CHECKED: APL

INDIANA
DEPARTMENT OF TRANSPORTATION

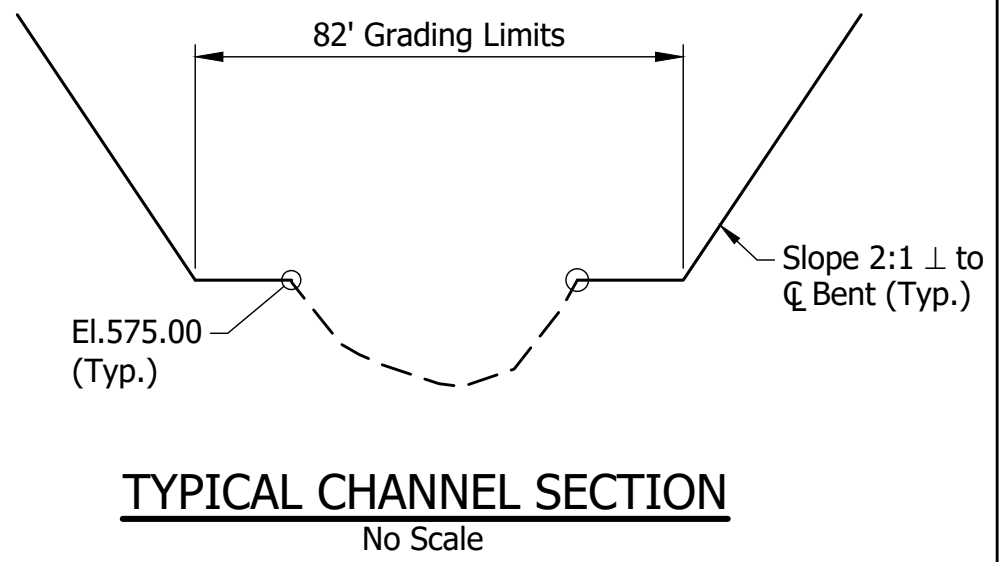
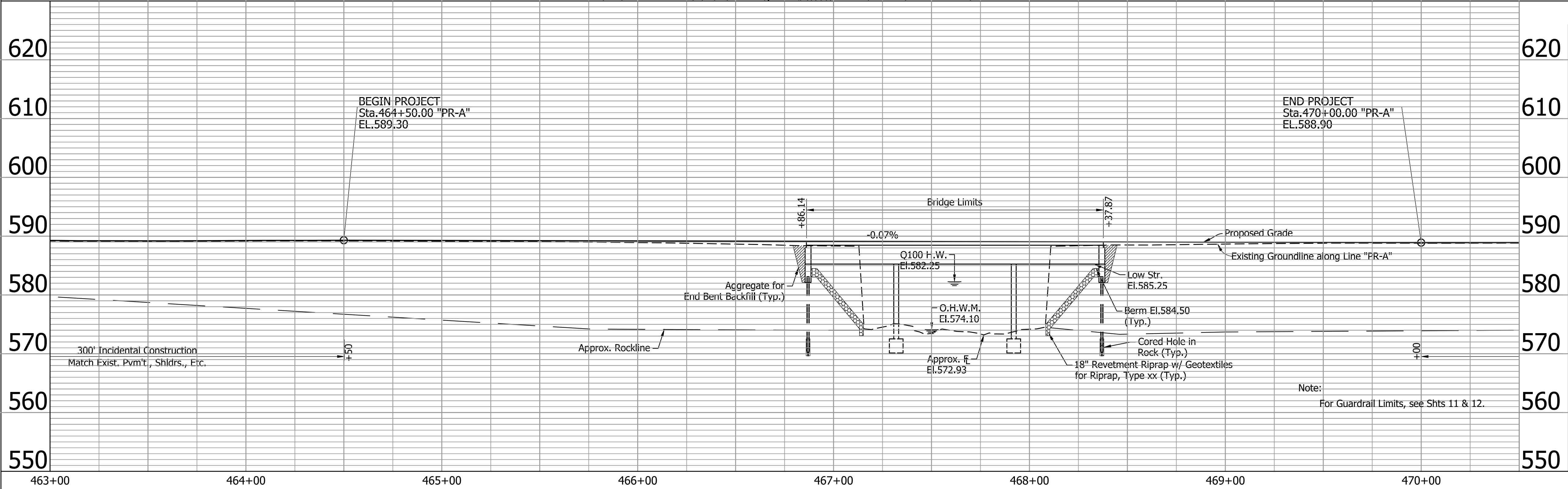
PLAN & PROFILE
LINE "S-1-PR-A"

HORIZONTAL SCALE 1"=30'	BRIDGE FILE 050-40-10259
VERTICAL SCALE 1"=10'	DESIGNATION 1700203
DRAWING NO.	SHEETS 13 of 36
CONTRACT B-40414	PROJECT 1700203



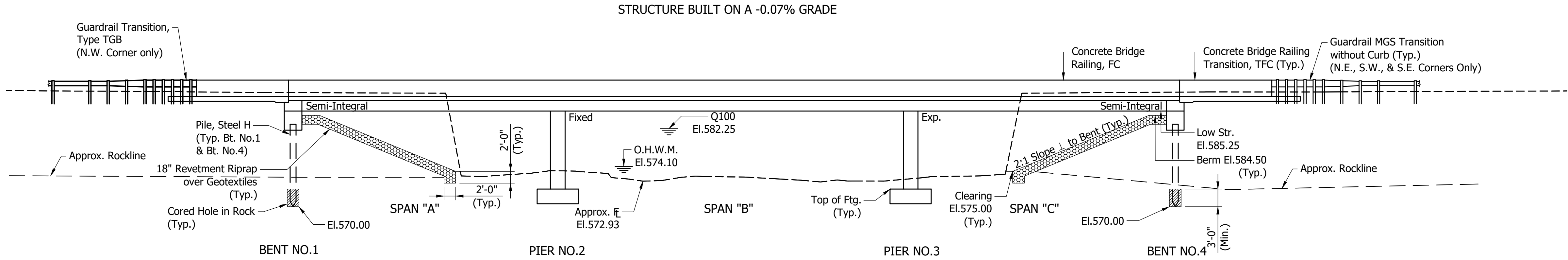
EXISTING STRUCTURE	
Existing Structure is a 3 Span Concrete Slab Bridge (28'-9 1/2", 38'-5", 28'-9 1/2") with a 40'-2" Clear Roadway. (To Be Removed)	
EARTHWORK TABULATION*	
Common Excavation	xxx Cys
Usable Common Excavation	xxx Cys
Fill + 20%	xxx Cys
Waterway Excavation	xx Cys
Usable Waterway Excavation (50%)	xx Cys
Borrow	xx Cys
* Quantities shown are to be used as final pay items.	
The estimated quantities for Benching are xxx Cys for Cut and xxx Cys for Fill and are not included in the Earthwork Summary.	

HYDRAULIC DATA	
Drainage Area	22.4 Sq Mi
Design Discharge, Q100	4600 cfs
Design Discharge, Q500	6100 cfs
High Water Elevation, Q100	El.582.25
Existing Bridge	
Waterway Area below Q100	
Net Area thru Bridge	655 Sft
Gross Area thru Bridge	682 Sft
Area over Road	0.0 Sft
Backwater	1.16 ft
Low Structure Elevation	El.586.5
Proposed Bridge	
Waterway Area below Q100	
Net Area thru Bridge	867.3 Sft
Provided Gross Area thru Bridge	906.1 Sft
Area over Road	0.0 Sft
Velocity thru Bridge	5.84 ft/sec
Backwater	0.95 ft
Proposed Low Structure Elevation	El.585.25
Skew	30° Rt
Flowline Elevation (@ Upstream Coping)	El.572.93
Contraction Scour, Q100	3.17 ft
Total Scour, Q100	7.84 ft
Low Scour Elevation, Q100	El.565.09
Max. Velocity, Q100 (C Channel)	7.20 ft/sec
Contraction Scour, Q500	7.88 ft
Total Scour, Q500	12.68 ft
Low Scour Elevation, Q500	El.560.25
Max. Velocity, Q500 (C Channel)	9.49 ft/sec
L	

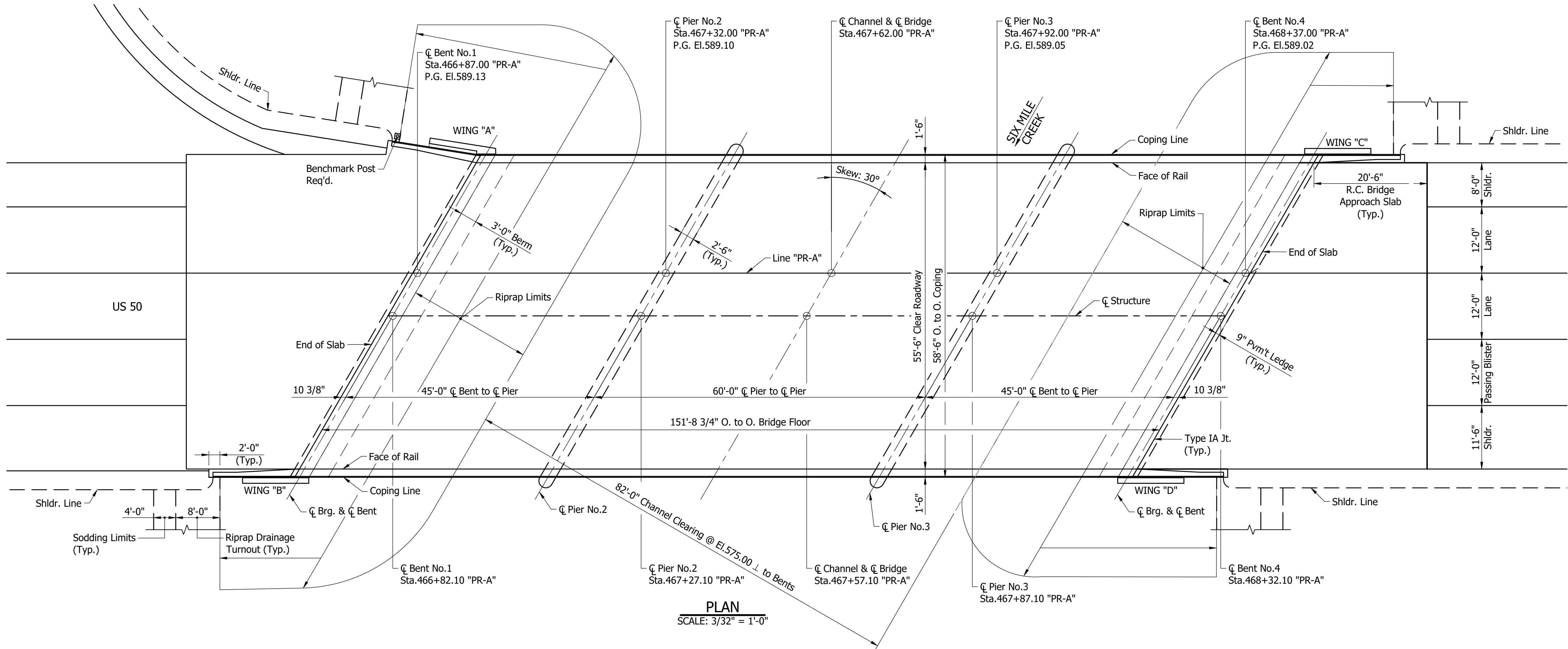


CONTINUOUS COMPOSITE STEEL BEAM BRIDGE
3 SPANS: 45'-0", 60'-0" & 45'-0"
55'-6" CLEAR ROADWAYS SKEW: 30° RT.
US 50 OVER SIX MILE CREEK
JENNINGS COUNTY

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ELEVATION
SCALE: 3/32" = 1'-0"



PLAN
SCALE: 3/32" = 1'-0"

Note:
For Typical Sections and General Notes, see Dwg.S3.

CONTINUOUS COMPOSITE STEEL BEAM BRIDGE
3 SPANS: 45'-0", 60'-0", 45'-0"
55'-6" CLEAR ROADWAYS SKEW: 30° RT.
US 50 OVER SIX MILE CREEK
JENNINGS COUNTY

RECOMMENDED FOR APPROVAL _____	
DESIGNED: APL	DRAWN: NW
CHECKED: DRT	CHECKED: APL

INDIANA
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

HORIZONTAL SCALE	BRIDGE FILE	
AS NOTED	050-40-10259	
VERTICAL SCALE	DESIGNATION	
AS NOTED	1700203	
DRAWING NO.	SHEETS	
S2 of S3	17	of 36
CONTRACT	PROJECT	
B-40414	1700203	

GENERAL NOTES

Reinforcing steel covering shall be 2 1/2" in top and 1" minimum in the bottom of the floor slabs, 3" in footings, except bottom steel which shall be 4", and 2" in all other parts unless noted.

The top of roadway surface from coping line to coping line, all exposed faces of concrete railings, face of deck copings, underside of bridge floor from coping to outside face of exterior beam, and all exposed top of bents, surfaces of wingwalls and end bents to be sealed in accordance with Article 702.21 of Specifications.
(Estimated Quantity = xxx Sft.)

Plans for existing structure are on file in the Research and Documents Section at the Indiana Department of Transportation, as Bridge File No. 050-40-00853 and are available upon request.

DESIGN DATA

- LIVE LOAD:Designed for HL-93 loading in accordance with 2018 AASHTO LRFD Bridge Design Specifications.
- DEAD LOAD:Actual weight plus 35 psf (composite) for future wearing surface and 15 psf (non-composite) for permanent metal deck forms.
- FLOOR SLAB:Slab designed for HL-93 loading with a 1/2" sacrificial wearing surface.
- DESIGN STRENGTHS:To be in accordance with 2018 AASHTO LRFD Bridge Design Specifications.
- CONCRETE:

Class "C": f'c=4000 psi

Class "B": f'c=3000 psi

Class "A": f'c=3500 psi
- REINFORCING STEEL:Grade 60: fy=60,000 psi
- STRUCTURAL STEEL:ASTM A709 Grade 50W: fy=50 ksi

CONSTRUCTION LOADING

The exterior beam has been checked for strength, deflection, and overturning using the construction loads shown below. Cantilever overhang brackets were assumed for support of the deck overhang past the edge of exterior beam. The finishing machine was assumed to be supported 6 inches outside the vertical coping form. The top overhang brackets were assumed to be located 6 inches past the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the beam bottom flange and web. The Contractor shall use blocking or other methods to ensure beam rotation does not occur prior to or during concrete placement on exterior beam. Temporary Bracing shall be installed at midspan of each permanent diaphragm on exterior beams prior to deck pour.

- Deck Falsework Loads:Designed for 15 psf for permanent metal stay-in-place deck forms, removable deck forms, and 2-ft exterior walkway.
- Construction Live Load:Designed for 20 psf extending 2 ft past the edge of coping and 75 plf vertical force applied at a distance of 6 inches outside the face of coping over a 30-ft length of the deck centered with the finishing machine.
- Finishing Machine Load:4500 lbs distributed over 10 ft along the coping.
- Wind Load:Designed for 70 mph horizontal wind loading in accordance with AASHTO LRFD 3.8.1.

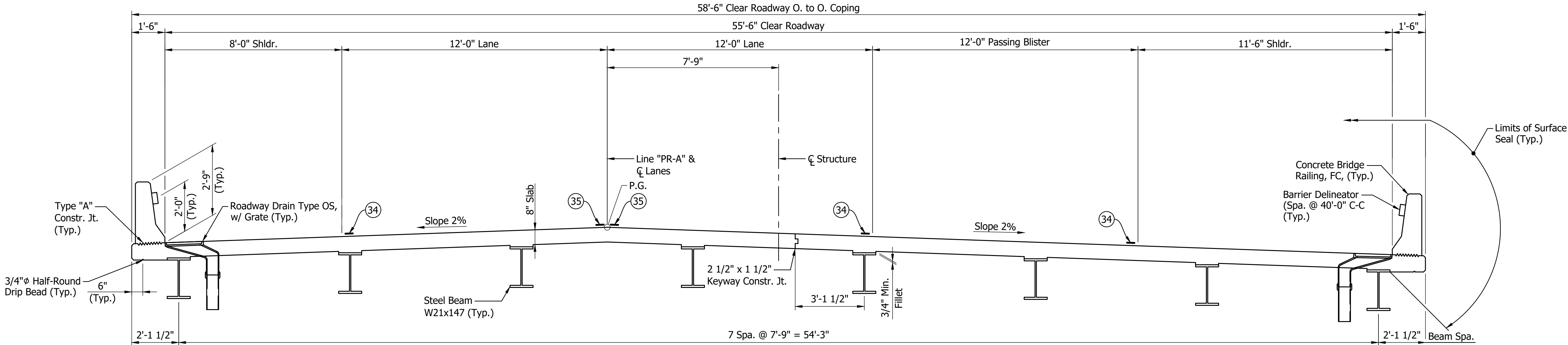
SEISMIC DATA

- AASHTO Guide Design Specifications for LRFD Seismic Bridge Design
- Seismic Design Category A
- S1=0.094
- Site Class C
- Fv=1.7

CONTINUOUS COMPOSITE STEEL BEAM BRIDGE
3 SPANS: 45'-0", 60'-0", 45'-0"
55'-6" CLEAR ROADWAYS SKEW: 30° RT.
US 50 OVER SIX MILE CREEK
JENNINGS COUNTY

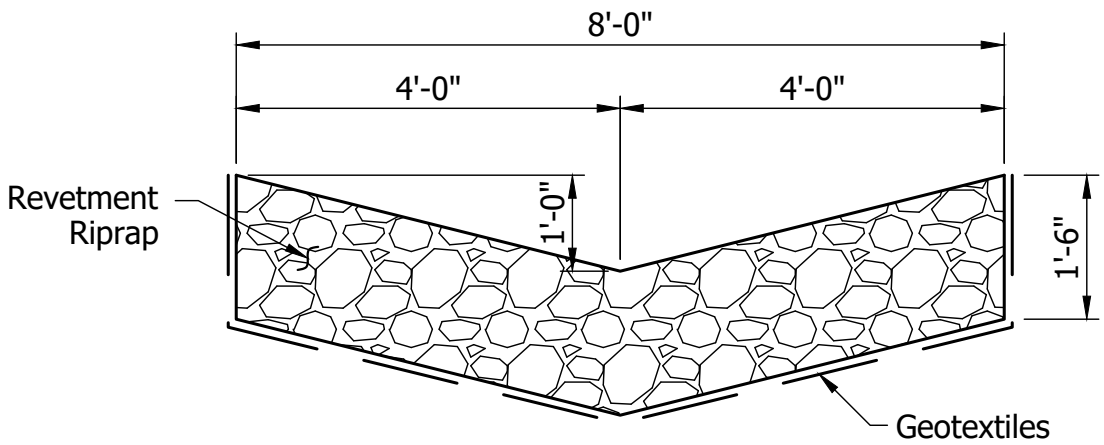
LEGEND

- 34 Line, Paint, Solid, White, 4 in.
- 35 Line, Paint, Solid, Yellow, 4 in.

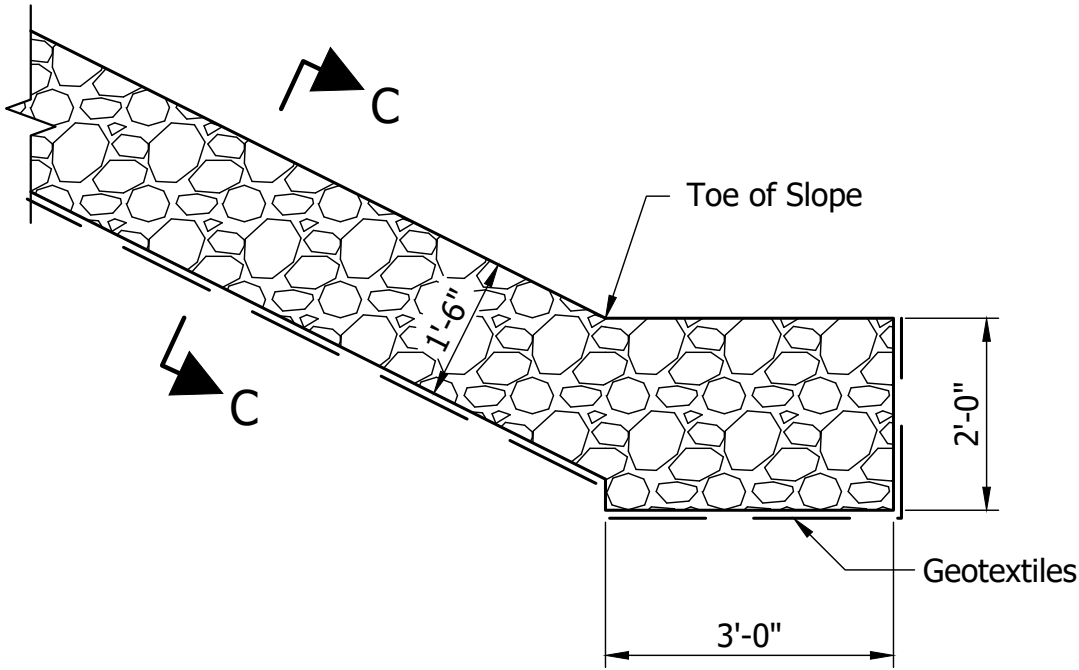


TYPICAL SECTION

Scale: 3/8" = 1'-0"



SECTION C-C



LONGITUDINAL SECTION

RIPRAP DRAINAGE TURNOUT DETAIL

Scale: 1/2"=1'-0"

		RECOMMENDED FOR APPROVAL _____		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE		BRIDGE FILE	
		DESIGN ENGINEER _____			AS NOTED		050-40-10259	
		DATE _____			VERTICAL SCALE		DESIGNATION	
					AS NOTED		1700203	
		DESIGNED: <u>APL</u>		GENERAL PLAN TYPICAL SECTIONS	DRAWING NO.		SHEETS	
		DRAWN: <u>NW</u>			S3 of S3		18 of 36	
		CHECKED: <u>DRT</u>			CONTRACT		PROJECT	
		CHECKED: <u>APL</u>			B-40414		1700203	

Appendix C:

Early Coordination



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue PHONE: (317) 233-6795
Room N642
Indianapolis, Indiana 46204

Eric J. Holcomb, Governor
Joe McGuinness, Commissioner

August 10, 2020

Sample Early Coordination Letter

Early Coordination Agency

Re: Des. No. 1700203, Bridge Replacement Project on US 50 over Six Mile Creek, in Spencer Township, Jennings County, Indiana

Dear Early Coordination Agency:

The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a project involving the referenced bridge (#050-40-00853B) in Jennings County, Indiana. This letter is part of the early coordination phase of the environmental review process. As the agent for INDOT, Beam, Longest, and Neff (BLN), we request you review the enclosed information and provide a written evaluation of potential impacts upon those resources under your jurisdiction. **Please use the referenced designation numbers and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

This project is located on US 50, at the crossing of Six Mile Creek, just east of the intersection with Washington Street in Jennings County, Indiana. The existing US 50 roadway facility is classified as a rural principal arterial and is part of the National Highway System and the 4R roadway network. There is an intersection with Washington Street located approximately 110 ft. west of the existing bridge. Based on the proposed project limits, the intersection will need to be reconstructed and a short portion of Washington Street reconstructed. Washington Street is classified as a rural local road. This project is located within a rural area in generally flat terrain.

The existing US 50 cross section includes a paved clear roadway width that varies from 30 feet approaching from the east to 38 feet approaching from the west. The approaches are paved up to approximately 1 foot from the existing guardrail within each quadrant. The existing facility provides 2, 12-foot paved travel lanes bordered by paved shoulders varying in width from 4.5 feet to 6.5 feet for each lane direction. As the approach roadway continues west, the shoulders widen out to approximately 10 feet in width. The road embankment side slopes at the bridge are at a maximum of 2:1 or flatter slope. The posted speed limit at the project location is 55 mph.

The existing bridge is a 3-span reinforced concrete slab structure constructed in 1929 and rehabilitated in 1988. with an overall length of 97 feet in length and an out-to-out width (deck width) of 43.2 feet. The bridge provides a clear roadway width of 40 feet and carries two lanes of traffic over Six Mile Creek. The substructure consists of concrete abutments and wall piers on spread footings on rock. The bridge will be replaced with a 3-span continuous composite steel beam bridge that will be 151.73 ft. long and have a deck width of 58.5 ft. and a clear roadway

width of 55.5 feet. The bridge will be constructed on semi-integral end bents with spill-through slopes armored by 18-inches of revetment riprap. The bridge piers will be wall piers constructed on spread footings founded in rock. The total project length is 550 feet along US 50 and an additional 128.7 ft. along Washington Street. A 55-mile-per-hour design speed will be used for this project.

The proposed US 50 roadway will consist of two 12-ft. travel lanes with paved shoulders that vary from 8 ft. to 11.83 ft. in width. A 12 ft. passing blister lane will be constructed with the eastbound traffic lane of US 50. Posted speed limit at the project location is 55 mph. The approach roadway work will consist of 550 ft. of mainline reconstruction and 300 ft. of incidental construction to the west and 600 ft. of incidental construction to the east. Pavement widening will be required throughout the incidental and project limits. The widening is required to accommodate the maintenance of traffic, maintaining two lanes of traffic throughout the duration of the reconstruction.

It is anticipated that traffic will be maintained on the road through phased construction. Two lanes of traffic will be maintained at all time. Washington Street is anticipated to be closed during construction. Temporary and permanent right-of-way is anticipated for the project. Land use in the vicinity of the project is primarily agricultural to the south of the bridge and residential and commercial to the north of the bridge. The anticipated letting date of the project is January of 2022 with construction anticipated to begin in Spring of 2022.

Six Mile Creek is classified as a riverine wetland on the National Wetland Inventory (NWI) map and is a perennial tributary to the Vernon Fork of the Muscatatuck River. Six Mile Creek flows generally from north to south and outfalls into the Vernon Fork of the Muscatatuck River approximately 5.5 miles south/southwest of the project area. The riparian corridor within the project area consists of open fields and agricultural land bordering the stream, with brush and trees along the tops of the banks. The banks of the stream within the project limits are steeply sloped. BLN will prepare a Waters of the US Report (WOUSR) including wetland determinations as appropriate. The Waters of the US Report will be reviewed by the INDOT Ecology and Waterway Permitting Office.

In addition, BLN will have Qualified Professionals (QPs) to investigate the additional right-of-way for archaeological and historic resources for compliance with Section 106 of the National Historic Preservation Act (NHPA). The results of this investigation will be forwarded to the Indiana State Historic Preservation Officer (IN SHPO) for review and concurrence.

Should we not receive your response **within 30 calendar days** of the date of this letter, it will be assumed that your agency has no comment on potential adverse effects as a result of the proposed project. However, if an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions, or if we can be of any further assistance, please contact either Brian Shaw at bshaw@b-l-n.com or telephone 317-806-3028 or Greg Carlton, INDOT Project Manager at gcarleton@indot.in.gov or telephone 812-524-3719. Thank you for your cooperation.

Sincerely,

A handwritten signature in black ink that reads "Brian C. Shaw". The signature is written in a cursive, slightly slanted style.

Brian Shaw
Environmental Services Department Manager
Beam, Longest, and Neff

Attachments:

ECL Listing

Maps (Location, Topographic, Aerial, NWI, Floodplain and Ground Level Photographs)

EARLY COORDINATION MAILING LIST

Federal Highway Administration Federal Office Building, Room 254 575 North Pennsylvania Street Indianapolis, Indiana 46204 Sent electronically – erica.tait@dot.gov	Environmental Section Manager Seymour District Indiana Department of Transportation
Indiana Geological Survey 611 North Walnut Grove Bloomington, IN 47405 Sent electronically - https://igs.indiana.edu/eAssessment/	State Conservationist Natural Resources Conservation Service 6013 Lakeside Boulevard Indianapolis, Indiana 46278 Sent electronically – rick.neilson@in.usda.gov
Chief, Groundwater Section Indiana Department of Environmental Management 100 N. Senate Avenue Indianapolis, IN 46204 Sent electronically – https://www.in.gov/idem/cleanwater/pages/wellhead/	U.S. Army Corps of Engineers Louisville District ATTN: CELRL-RDN P.O. Box 59 Louisville, KY 40201-0059 Sent electronically – Gregory.a.mckay@usace.army.mil
Environmental Coordinator Indiana Department of Natural Resources Division of Fish and Wildlife 402 West Washington Street, Rm. W273 Indianapolis, IN 46204 Sent electronically – environmentalreview@dnr.in.gov	Jennings County Commissioners Sent electronically – commdavelane@gmail.com mattsporleder@gmail.com commissionerwillhite@aol.com David Lane 200 Brown Street. P.O. Box 383 Vernon, Indiana 47282 Matt Sporleder 200 Brown Street. P.O. Box 383 Vernon, Indiana 47282 Robert Willhite 200 Brown Street. P.O. Box 383 Vernon, Indiana 47282
Indiana Department of Environmental Management Sent electronically – https://www.in.gov/idem/5284.htm	Jennings County Highway Superintendent 4800 North State Highway 3, P.O. Box 198 North Vernon, Indiana 47265 Sent electronically – highway@jenningscounty-in.gov
Manager, Public Hearings Indiana Department of Transportation 100 N. Senate Avenue, Rm. 642 Indianapolis, IN 46204	Jerry Shephard Jennings County Emergency Management 925 South State Street North Vernon, Indiana 47265

Jennings Count Surveyor 72 Henry Street North Vernon, Indiana 47265 Attn: Charles Ebinger	Jennings County Council 100 East Main Street Crawfordsville, Indiana 47933
Jennings County Council, President 200 Brown Street. P.O. Box 383 Vernon, Indiana 47282 Howard Malcomb hbmalcomb@cinergymetro.net	Southeastern Indiana Regional Planning Commission 405 West US Highway 50 Versailles Indiana 47042 Sent electronically – susan.craig@sirpc.org
Field Environmental Officer, Chicago Regional Office US Department of Housing & Urban Development Metcalf Fed. Bldg. 77 W. Jackson Blvd. Room 2401 Chicago, IL 60604 Sent electronically – paul.j.lehmann@hud.gov	USFWS Bloomington Field Office 620 South Walker Street Bloomington, IN 47403-2121 Scott_Pruitt@fws.gov
Regional Environmental Coordinator Midwest Regional Office National Park Service 601 Riverfront Drive Omaha, Nebraska 68102	Hoosier National Forest 811 Constitution Avenue Bedford, Indiana 47421 Forest Supervisor r9_hoosier website@fs.fed.us

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

DNR #: ER-22955

Request Received: August 10, 2020

Requestor: Beam, Longest and Neff, LLC
Brian C Shaw
8126 Castleton Road
Indianapolis, IN 46250-2007

Project: US 50 bridge (#050-40-00853B) replacement over Sixmile Creek, just east of Washington Street; Des #1700203

County/Site info: Jennings

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

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

Regulatory Assessment: This proposal will require the formal approval of our agency for construction in a floodway pursuant to the Flood Control Act (IC 14-28-1), unless it qualifies for a bridge exemption (see enclosure). Please include a copy of this letter with the permit application if the project does not meet the bridge exemption criteria.

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

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

1) Crossing Structure:

For purposes of maintaining fish and wildlife passage through a crossing structure, the Environmental Unit recommends bridges rather than culverts and bottomless culverts rather than box or pipe culverts. Wide culverts are better than narrow culverts, and culverts with shorter through lengths are better than culverts with longer through lengths. If box or pipe culverts are used, the bottoms should be buried a minimum of 6" (or 20% of the culvert height/pipe diameter, whichever is greater up to a maximum of 2') below the stream bed elevation to allow a natural streambed to form within or under the crossing structure. Crossings should: span the entire channel width (a minimum of 1.2 times the OHWM width); maintain the natural stream substrate within the structure; have a minimum openness ratio (height x width / length) of 0.25; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel. Banklines should be restored within box and pipe structures to allow for wildlife passage above the ordinary highwater mark.

2) Bank Stabilization:

The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. The photos submitted show that there is no significant, or consistent, riprap coverage on the spill-slopes indicating relatively unimpaired wildlife passage conditions under the bridge. Any new or added riprap

Attachments: A - Bridge Exemption Criteria

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would impair wildlife passage compared to current conditions.

A level area of natural ground under the structure is ideal for wildlife passage. If channel clearing will result in a flat bench area above the normal water level under the structure, this area should allow wildlife passage and should remain free of riprap and other similar materials that can impair wildlife passage.

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

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

Information about bioengineering techniques can be found at <http://www.in.gov/legislative/iac/20120404-IR-312120154NRA.xml.pdf>. Also, the following is a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization: <http://directives.sc.egov.usda.gov/17553.wba>.

3) Riparian Habitat:

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

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

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

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Division of Fish and Wildlife
Early Coordination/Environmental Assessment

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

1. Revegetate all bare and disturbed areas with a mixture of native grasses, sedges, wildflowers, and also native hardwood trees and shrubs if any woody plants are disturbed during construction as soon as possible upon completion. Do not use any varieties of Tall Fescue or other non-native plants, including prohibited invasive species (see 312 IAC 18-3-25).
2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.
6. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds.
7. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
8. Plant native hardwood trees along the top of the bank and right-of-way to replace the vegetation destroyed during construction.
9. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
10. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

Contact Staff:

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

Christie L. Stanifer

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

Date: September 9, 2020

August 13, 2020

Brian Shaw
Beam, Longest and Neff, L.L.C.
8320 Craig Street
Indianapolis, Indiana 46250

Dear Mr. Shaw:

The proposed project to replace the bridge along US 50 over Six Mile Creek in Spencer Township, Jennings County, Indiana (Des. No. 1700203), as referred to in your letter received August 10, 2020, will cause a conversion of prime farmland.

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

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

Sincerely,

RICK NEILSON
State Soil Scientist

Enclosures



FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request				
Name of Project DES1700203 US50 over sixmile cr		Federal Agency Involved				
Proposed Land Use		County and State Jennings County, Indiana				
PART II (To be completed by NRCS)		Date Request Received By NRCS 8/10/2020		Person Completing Form: JRA		
Does the site contain Prime, Unique, Statewide or Local Important Farmland? (If no, the FPPA does not apply - do not complete additional parts of this form)		YES ☒ NO ☐		Acres Irrigated 251 ac		
Major Crop(s) Corn		Farmable Land In Govt. Jurisdiction Acres: 197780 % 82		Amount of Farmland As Defined in FPPA Acres: 153944 % 64		
Name of Land Evaluation System Used LESA		Name of State or Local Site Assessment System		Date Land Evaluation Returned by NRCS 8/13/2020		
PART III (To be completed by Federal Agency)		Alternative Site Rating				
		Site A	Site B	Site C	Site D	
A. Total Acres To Be Converted Directly						
B. Total Acres To Be Converted Indirectly						
C. Total Acres In Site						
PART IV (To be completed by NRCS) Land Evaluation Information						
A. Total Acres Prime And Unique Farmland		0.36				
B. Total Acres Statewide Important or Local Important Farmland		0.00				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		<0.001				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		103				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)		47				
PART VI (To be completed by Federal Agency) Site Assessment Criteria (Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)		Maximum Points	Site A	Site B	Site C	Site D
1. Area In Non-urban Use		(15)	12			
2. Perimeter In Non-urban Use		(10)	8			
3. Percent Of Site Being Farmed		(20)	10			
4. Protection Provided By State and Local Government		(20)	0			
5. Distance From Urban Built-up Area		(15)	15			
6. Distance To Urban Support Services		(15)	15			
7. Size Of Present Farm Unit Compared To Average		(10)	10			
8. Creation Of Non-farmable Farmland		(10)	0			
9. Availability Of Farm Support Services		(5)	5			
10. On-Farm Investments		(20)	10			
11. Effects Of Conversion On Farm Support Services		(10)	0			
12. Compatibility With Existing Agricultural Use		(10)	0			
TOTAL SITE ASSESSMENT POINTS		160	85	0	0	0
PART VII (To be completed by Federal Agency)						
Relative Value Of Farmland (From Part V)		100	47	0	0	0
Total Site Assessment (From Part VI above or local site assessment)		160	85	0	0	0
TOTAL POINTS (Total of above 2 lines)		260	132	0	0	0
Site Selected: Site A		Date Of Selection 11-20-2020		Was A Local Site Assessment Used? YES ☐ NO ☒		
Reason For Selection: Score is less than 160, no other alternative sites were evaluated.						
Name of Federal agency representative completing this form: Brian Shaw					Date: 11-20-2020	

(See Instructions on reverse side)

Form AD-1006 (03-02)



Organization and Project Information

Project ID: Bridge Replacement Project - Jennings County
Des. ID: 1700203
Project Title: Replacement of Bridge #050-40-00853B on US 50 over Six Mile Creek
Name of Organization: Beam, Longest and Neff
Requested by: Brian Shaw

Environmental Assessment Report

1. Geological Hazards:

- High liquefaction potential
- 1% Annual Chance Flood Hazard

2. Mineral Resources:

- Bedrock Resource: High Potential
- Sand and Gravel Resource: Low Potential

3. Active or abandoned mineral resources extraction sites:

- Petroleum Exploration Wells

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

DISCLAIMER:

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

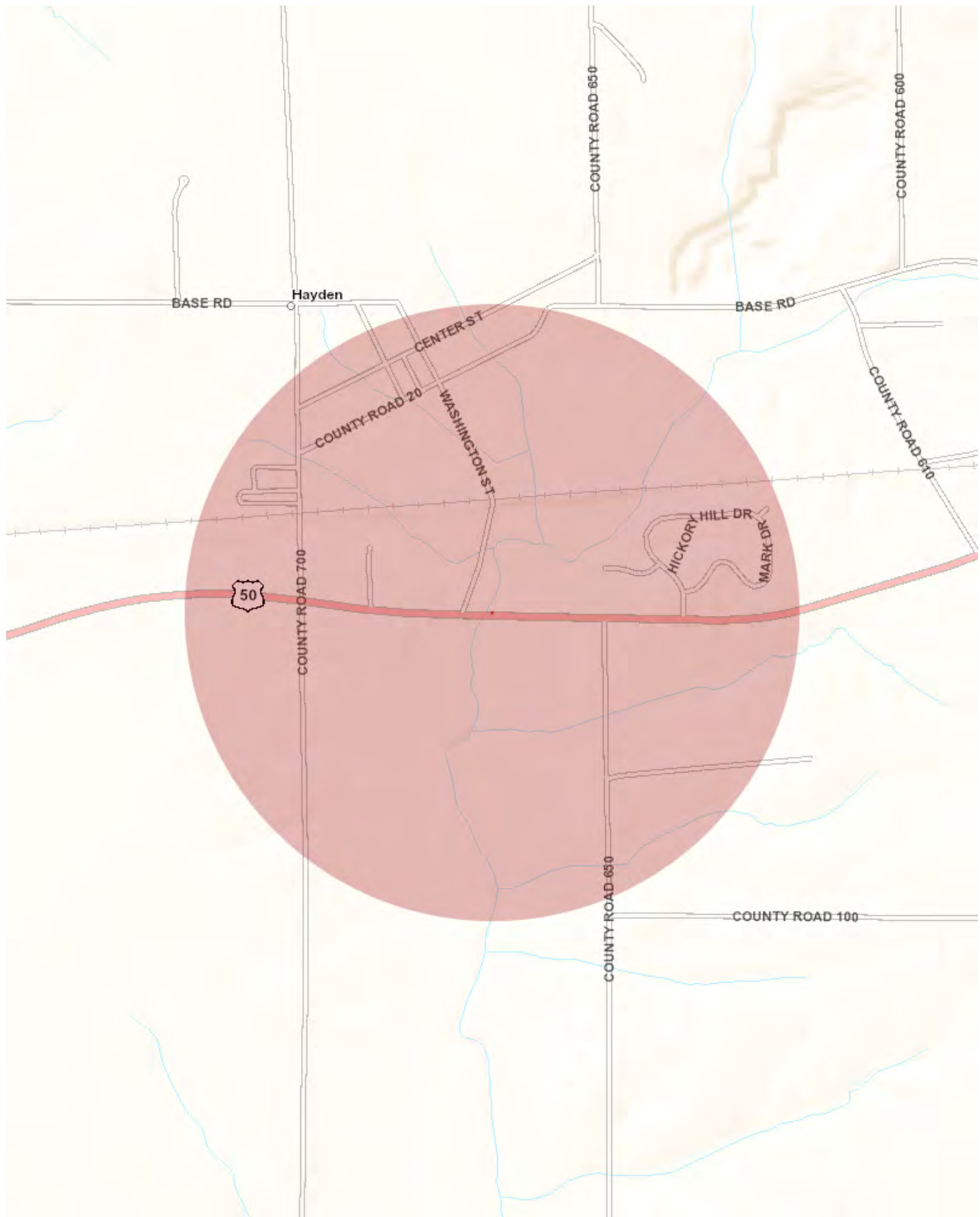
This information was furnished by Indiana Geological Survey

Address: 420 N. Walnut St., Bloomington, IN 47404

Email: IGSEnvir@indiana.edu

Phone: 812 855-7428

Date: August 10, 2020



Metadata:

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

Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 North Senate Avenue - Indianapolis, IN 46204
(800) 451-6027 - (317) 232-8603 - www.idem.IN.gov

Indiana Department of Transportation
Terry Summers
185 Agrico Lane
Seymour , IN 47274
Date

Beam, Longest and Neff
Brian Shaw
8320 Craig Street
Indianapolis , IN 46250

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: Bridge Replacement Project - Des. No. 1700203 on US 50 Over Six Mile Creek The existing bridge will be replaced with a 3-span continuous composite steel beam bridge that will be 151.73 ft. long and have a deck width of 58.5 ft. and a clear roadway width of 55.5 feet. The bridge will be constructed on semi-integral end bents with spill-through slopes armored by 18-inches of revetment riprap. The bridge piers will be wall piers constructed on spread footings founded in rock. The total project length is 550 feet along US 50 and an additional 128.7 ft. along Washington Street. A 55-mile-per-hour design speed will be used for this project. The proposed US 50 roadway will consist of two 12-ft. travel lanes with paved shoulders that vary from 8 ft. to 11.83 ft. in width. A 12 ft. passing blister lane will be constructed with the eastbound traffic lane of US 50. Posted speed limit at the project location is 55 mph. The approach roadway work will consist of 550 ft. of mainline reconstruction and 300 ft. of incidental construction to the west and 600 ft. of incidental construction to the east. Pavement widening will be required throughout the incidental and project limits. The widening is required to accommodate the maintenance of traffic, maintaining two lanes of traffic throughout the duration of the reconstruction. It is anticipated that traffic will be maintained on the road through phased construction. Two lanes of traffic will be maintained at all time. Washington Street is anticipated to be closed during construction. Temporary and permanent right-of-way is anticipated for the project. Land use in the vicinity of the project is primarily agricultural to the south of the bridge and residential and commercial to the north of the bridge. The anticipated letting date of the project is January of 2022 with construction anticipated to begin in Spring of 2022. Six Mile Creek is classified as a riverine wetland on the National Wetland Inventory (NWI) map and is a perennial tributary to the Vernon Fork of the Muscatatuck River. Six Mile Creek flows generally from north to south and outfalls into the Vernon Fork of the Muscatatuck River approximately 5.5 miles south/southwest of the project area. The riparian corridor within the project area consists of open fields and agricultural land bordering the stream, with brush and trees along the tops of the banks. The banks of the stream within the project limits are steeply sloped.

This letter from the Indiana Department of Environmental Management (IDEM) serves as a standardized response to enquiries inviting IDEM comments on roadway construction, reconstruction, or other improvement projects within existing roadway corridors when the proposed scope of the project

is beneath the threshold requiring a formal National Environmental Policy Act-mandated Environmental Assessment or Environmental Impact Statement. As the letter attempts to address all roadway-related environmental topics of potential concern, it is possible that not every topic addressed in the letter will be applicable to your particular roadway project.

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

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

WATER AND BIOTIC QUALITY

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

USACE recommends that you have a consultant check to determine whether your project will abut, or lie within, a wetland area. To view a list of consultants that have requested to be included on a list posted by the USACE on their Web site, see USACE Permits and Public Notices (<http://www.lrl.usace.army.mil/orf/default.asp>) (<http://www.lrl.usace.army.mil/orf/default.asp> (<http://www.lrl.usace.army.mil/orf/default.asp>)) and then click on "Information" from the menu on the right-hand side of that page. Their "Consultant List" is the fourth entry down on the "Information" page. Please note that the USACE posts all consultants that request to appear on the list, and that inclusion of any particular consultant on the list does not represent an endorsement of that consultant by the USACE, or by IDEM.

Much of northern Indiana (Newton, Lake, Porter, LaPorte, St. Joseph, Elkhart, LaGrange, Steuben, and Dekalb counties; large portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and lesser portions of Benton, White, Pulaski, Kosciusko, and Wells counties) is served by the USACE District Office in Detroit (313-226-6812). The central and southern portions of the state (large portions of Benton, White, Pulaski, Kosciusko, and Wells counties; smaller portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and all other Indiana

counties located in north-central, central, and southern Indiana) are served by the USACE Louisville District Office (502-315-6733).

Additional information on contacting these U.S. Army Corps of Engineers (USACE) District Offices, government agencies with jurisdiction over wetlands, and other water quality issues, can be found at <http://www.in.gov/idem/4396.htm> (<http://www.in.gov/idem/4396.htm>). IDEM recommends that impacts to wetlands and other water resources be avoided to the fullest extent.

2. In the event a Section 404 wetlands permit is required from the USACE, you also must obtain a Section 401 Water Quality Certification from the IDEM Office of Water Quality Wetlands Program. To learn more about the Wetlands Program, visit: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>).
3. If the USACE determines that a wetland or other water body is isolated and not subject to Clean Water Act regulation, it is still regulated by the state of Indiana . A State Isolated Wetland permit from IDEM's Office of Water Quality (OWQ) is required for any activity that results in the discharge of dredged or fill materials into isolated wetlands. To learn more about isolated wetlands, contact the OWQ Wetlands Program at 317-233-8488.
4. If your project will involve over a 0.5 acre of wetland impact, stream relocation, or other large-scale alterations to water bodies such as the creation of a dam or a water diversion, you should seek additional input from the OWQ Wetlands Program staff. Consult the Web at: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>) for the appropriate staff contact to further discuss your project.
5. Work within the one-hundred year floodway of a given water body is regulated by the Department of Natural Resources, Division of Water. The Division issues permits for activities regulated under the follow statutes:
 - IC 14-26-2 Lakes Preservation Act 312 IAC 11
 - IC 14-26-5 Lowering of Ten Acre Lakes Act No related code
 - IC 14-28-1 Flood Control Act 310 IAC 6-1
 - IC 14-29-1 Navigable Waterways Act 312 IAC 6
 - IC 14-29-3 Sand and Gravel Permits Act 312 IAC 6
 - IC 14-29-4 Construction of Channels Act No related code

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

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

6. For projects involving construction activity (which includes clearing, grading, excavation and other land disturbing activities) that result in the disturbance of one (1), or more, acres of total

land area, contact the Office of Water Quality – Watershed Planning Branch (317/233-1864) regarding the need for of a Rule 5 Storm Water Runoff Permit. Visit the following Web page

- <http://www.in.gov/idem/4902.htm> (<http://www.in.gov/idem/4902.htm>)

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

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

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

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

Regardless of the size of your project, or which agency you work with to meet storm water requirements, IDEM recommends that appropriate structures and techniques be utilized both during the construction phase, and after completion of the project, to minimize the impacts associated with storm water runoff. The use of appropriate planning and site development and appropriate storm water quality measures are recommended to prevent soil from leaving the construction site during active land disturbance and for post construction water quality concerns. Information and assistance regarding storm water related to construction activities are available from the Soil and Water Conservation District (SWCD) offices in each county or from IDEM.

7. For projects involving impacts to fish and botanical resources, contact the Department of Natural Resources - Division of Fish and Wildlife (317/232-4080) for addition project input.
8. For projects involving water main construction, water main extensions, and new public water supplies, contact the Office of Water Quality - Drinking Water Branch (317-308-3299) regarding the need for permits.

9. For projects involving effluent discharges to waters of the State of Indiana , contact the Office of Water Quality - Permits Branch (317-233-0468) regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit.
10. For projects involving the construction of wastewater facilities and sewer lines, contact the Office of Water Quality - Permits Branch (317-232-8675) regarding the need for permits.

AIR QUALITY

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

Consideration should be given to the following:

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

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

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

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

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

The U.S. EPA further recommends that all homes (and apartments within three stories of ground level) be tested for radon. If in-home radon levels are determined to be 4 pCi/L, or higher, EPA recommends a follow-up test. If the second test confirms that radon levels are 4 pCi/L, or higher,

EPA recommends the installation of radon-reduction measures. (For a list of qualified radon testers and radon mitigation (or reduction) specialists visit:

http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf

(http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf.) It also is recommended that radon reduction measures be built into all new homes, particularly in areas like Indiana that have moderate to high predicted radon levels.

To learn more about radon, radon risks, and ways to reduce exposure visit:

<http://www.in.gov/isdh/regsvcs/radhealth/radon.htm>

(<http://www.in.gov/isdh/regsvcs/radhealth/radon.htm>), <http://www.in.gov/idem/4145.htm>

(<http://www.in.gov/idem/4145.htm>), or <http://www.epa.gov/radon/index.html>

(<http://www.epa.gov/radon/index.html>).

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

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

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

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

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

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

4. With respect to lead-based paint removal: IDEM encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDEM is particularly concerned that young children exposed to lead can suffer from learning disabilities. Although lead-based paint abatement efforts

are not mandatory, any abatement that is conducted within housing built before January 1, 1978 , or a child-occupied facility is required to comply with all lead-based paint work practice standards, licensing and notification requirements. For more information about lead-based paint removal visit: <http://www.in.gov/isdh/19131.htm> (<http://www.in.gov/isdh/19131.htm>).

5. Ensure that asphalt paving plants are permitted and operate properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months April through October. See 326 IAC 8-5-2 , Asphalt Paving Rule (<http://www.ai.org/legislative/iac/T03260/A00080.PDF> (<http://www.ai.org/legislative/iac/T03260/A00080.PDF>)).
6. If your project involves the construction of a new source of air emissions or the modification of an existing source of air emissions or air pollution control equipment, it will need to be reviewed by the IDEM Office of Air Quality (OAQ). A registration or permit may be required under 326 IAC 2 (View at: www.ai.org/legislative/iac/t03260/a00020.pdf (<http://www.ai.org/legislative/iac/t03260/a00020.pdf>)). New sources that use or emit hazardous air pollutants may be subject to Section 112 of the Clean Air Act and corresponding state air regulations governing hazardous air pollutants.
7. For more information on air permits visit: <http://www.in.gov/idem/4223.htm> (<http://www.in.gov/idem/4223.htm>), or to initiate the IDEM air permitting process, please contact the Office of Air Quality Permit Reviewer of the Day at (317) 233-0178 or OAMPROD atdem.state.in.us.

LAND QUALITY

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

1. If the site is found to contain any areas used to dispose of solid or hazardous waste, you need to contact the Office of Land Quality (OLQ) at 317-308-3103.
2. All solid wastes generated by the project, or removed from the project site, need to be taken to a properly permitted solid waste processing or disposal facility. For more information, visit <http://www.in.gov/idem/4998.htm> (<http://www.in.gov/idem/4998.htm>).
3. If any contaminated soils are discovered during this project, they may be subject to disposal as hazardous waste. Please contact the OLQ at 317-308-3103 to obtain information on proper disposal procedures.
4. If PCBs are found at this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding management of any PCB wastes from this site.
5. If there are any asbestos disposal issues related to this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding the management of asbestos wastes (Asbestos removal is addressed above, under Air Quality).

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

FINAL REMARKS

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

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

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

Signature(s) of the Applicant

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

Project Description

Bridge Replacement Project - Des. No. 1700203 on US 50 Over Six Mile Creek The existing bridge will be replaced with a 3-span continuous composite steel beam bridge that will be 151.73 ft. long and have a deck width of 58.5 ft. and a clear roadway width of 55.5 feet. The bridge will be constructed on semi-integral end bents with spill-through slopes armored by 18-inches of revetment riprap. The bridge piers will be wall piers constructed on spread footings founded in rock. The total project length is 550 feet along US 50 and an additional 128.7 ft. along Washington Street. A 55-mile-per-hour design speed will be used for this project. The proposed US 50 roadway will consist of two 12-ft. travel lanes with paved shoulders that vary from 8 ft. to 11.83 ft. in width. A 12 ft. passing blister lane will be constructed with the eastbound traffic lane of US 50. Posted speed limit at the project location is 55 mph. The approach roadway work will consist of 550 ft. of mainline reconstruction and 300 ft. of incidental construction to the west and 600 ft. of incidental construction to the east. Pavement widening will be required throughout the incidental and project limits. The widening is required to accommodate the maintenance of traffic, maintaining two lanes of traffic throughout the duration of the reconstruction. It is anticipated that traffic will be maintained on the road through phased construction. Two lanes of traffic will be maintained at all time. Washington Street is anticipated to be closed during construction. Temporary

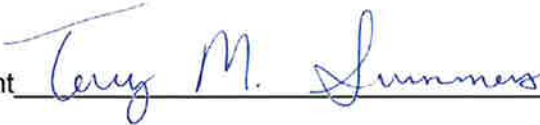
and permanent right-of-way is anticipated for the project. Land use in the vicinity of the project is primarily agricultural to the south of the bridge and residential and commercial to the north of the bridge. The anticipated letting date of the project is January of 2022 with construction anticipated to begin in Spring of 2022. Six Mile Creek is classified as a riverine wetland on the National Wetland Inventory (NWI) map and is a perennial tributary to the Vernon Fork of the Muscatatuck River. Six Mile Creek flows generally from north to south and outfalls into the Vernon Fork of the Muscatatuck River approximately 5.5 miles south/southwest of the project area. The riparian corridor within the project area consists of open fields and agricultural land bordering the stream, with brush and trees along the tops of the banks. The banks of the stream within the project limits are steeply sloped.

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

Date: 2/10/2021

Signature of the INDOT

Project Engineer or Other Responsible Agent



Terry Summers

Date: 2/10/2021

Signature of the

For Hire Consultant



Brian Shaw



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno Pigott
Commissioner

August 24, 2020

66-33

Beam, Longest, and Neff
Attention: Brian Shaw
8320 Craig Street
Indianapolis, Indiana 46250

Dear Brian Shaw,

RE: Wellhead Protection Area
Proximity Determination
Des No 1700203
Bridge Replacement Project on
US 50 over Six Mile Creek,
in Spencer County, Indiana

Upon review of the above referenced project site, it has been determined that the proposed project area **is not located within** a Wellhead Protection Area. The information is accurate to the best of our knowledge; however, there are in some cases a few factors that could impact the accuracy of this determination. Some Wellhead Protection Area Delineations have not been submitted, and many have not been approved by this office. In these cases we use a 3,000 foot fixed radius buffer to make the proximity determination. To find the status of a Public Water Supply System's (PWSS's) Wellhead Protection Area Delineation please visit our tracking database at <http://www.in.gov/idem/cleanwater/2456.htm> and scroll to the bottom of the page.

The project area **is not located within** a Source Water Assessment Area for a PWSS's surface water intake. The Source Water Assessment Area relates to the surface water drainage area that water could potentially flow and influence water quality for a PWSS's source of drinking water.

Note: the Drinking Water Branch has a self service feature which allows one to determine wellhead proximity without submitting the application form. Use the following instructions:

1. Go to <https://www.in.gov/idem/cleanwater/pages/wellhead/>
2. Use the search tool located in the upper left hand corner of the application to zoom to your site of interest by way of city, county, or address; or use the mouse to click on the site of interest displayed on the map.
3. Once the site of interest has been located and selected, use the print tool to create a .pdf of a wellhead protection area proximity determination response.

In the future please consider using this self service feature if it is suits your needs.

If you have any additional questions please feel free to contact me at the address above or at (317) 233-9158 and aturnbow@idem.in.gov.

Sincerely,

Alisha Turnbow,
Environmental Manager, Ground Water
Section, Drinking Water Branch, Office of
Water Quality



Please Reduce, Reuse, Recycle



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

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

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



In Reply Refer To:

November 25, 2020

Consultation Code: 03E12000-2021-SLI-0244

Event Code: 03E12000-2021-E-01116

Project Name: INDOT Des. No. 1700203 US 50 Over Six Mile Creek , Jennings County ,
Indiana

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

(812) 334-4261

Project Summary

Consultation Code: 03E12000-2021-SLI-0244

Event Code: 03E12000-2021-E-01116

Project Name: INDOT Des. No. 1700203 US 50 Over Six Mile Creek , Jennings County , Indiana

Project Type: TRANSPORTATION

Project Description: This project is located on US 50 approximately 5.6 miles east of US 31. The project will replace the structure on US 50 over Six Mile Creek with a three span composite steel beam bridge on the existing roadway alignment. The bridge and roadway will be widened within the project limits in order to accommodate maintaining two lanes of traffic during construction. The replacement structure will utilize semi-integral end bents on piles and piers founded on rock. The superstructure will consist of an 8-inch concrete deck on continuous steel beams. The US 50 cross section on the bridge will consist of two 12-foot wide travel lanes, one in each direction, with a 12-foot wide passing blister and an 8-foot left shoulder and an 11-foot 6-inch right shoulder. The posted speed limit will be 55 mph. US 50 will consist of two 12-footwide paved travel lanes, one in each direction, with shoulder that vary from 8-feet to 23-feet along the project corridor. There will be a 20-foot obstruction free zone maintained on both side of the roadway. Washington Street intersects US 50 just west of the Six Mile Creek channel. Washington Street will consist of two 10-foot wide paved travel lanes, one in each direction, with 3-foot paved shoulder. The posted speed limit will be 30-mph. Traffic will be maintained throughout construction with a phased Maintenance of Traffic (MOT) that will maintain two lanes of traffic, one lane in each direction, open at all times during construction. Construction is anticipated to begin in Spring 2022.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.975827316096385N85.73544951708689W>



Counties: Jennings, IN

Endangered Species Act Species

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

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

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

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

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

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/1/office/31440.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See www.fws.gov/midwest/endangered/mammals/nleb/index.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

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



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

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

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

In Reply Refer To:

December 04, 2020

Consultation Code: 03E12000-2021-I-0244

Event Code: 03E12000-2021-E-01308

Project Name: INDOT Des. No. 1700203 US 50 Over Six Mile Creek , Jennings County , Indiana

Subject: Concurrence verification letter for the 'INDOT Des. No. 1700203 US 50 Over Six Mile Creek , Jennings County , Indiana' project under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **INDOT Des. No. 1700203 US 50 Over Six Mile Creek , Jennings County , Indiana** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 *et seq.*).

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

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

Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO.

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

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

Project Description

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

Name

INDOT Des. No. 1700203 US 50 Over Six Mile Creek , Jennings County , Indiana

Description

The Indiana Department of Transportation, with funding from the Federal Highway Administration (FHWA) intends to proceed with a bridge replacement project on US 50 over Six Mile Creek approximately 5.6 miles east of US 31 in Jennings County Indiana (Des. No. 1700203). The project is approximately 550 feet in length. The proposed improvements will replace the structure over Six Mile Creek with a three span composite steel beam bridge on the existing roadway alignment. The bridge and roadway will be widened within the project limits in order to accommodate maintaining two lanes of traffic during construction. The US 50 cross section on the bridge will consist of two 12-foot wide travel lanes with a 12-foot wide passing blister and an 8-foot left shoulder and an 11-foot 6-inch right shoulder. The posted speed limit will be 55 mph. US 50 will consist of two 12-footwide paved travel lanes with shoulder that vary from 8-feet to 23-feet along the project corridor. There will be a 20-foot obstruction free zone maintained on both side of the roadway. Washington Street intersects US 50 just west of the Six Mile Creek channel. Approximately 150 feet of Washington Street will be reconstructed as the roadway improvements on US 50 will require a change in grade. There is suitable summer habitat located within the project area an approximately 0.11 acre of tree removal is anticipated. Beam, Longest and Neff (BLN) conducted an inspection of the bridge on September 20, 2020. No evidence of bats was identified. Temporary lighting may be required during construction. No new permanent lighting will be required. The project is planned to begin in Spring 2022 and be completed by Summer 2023.

Determination Key Result

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

Qualification Interview

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

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

Automatically answered

Yes

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

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

Automatically answered

Yes

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

A) Federal Highway Administration (FHWA)

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

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

No

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

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

No

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

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

No

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

No

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

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

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

Yes

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

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

Yes

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

No

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

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

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

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

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

No

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

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

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

No

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

Yes

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

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

B) During the inactive season

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

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

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

No

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

Yes

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

B) During the inactive season

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

Yes

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

No

20. Are *all* trees that are being removed clearly demarcated?

Yes

21. Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing **permanent** lighting?

No

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

No

23. Does the project include slash pile burning?

No

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

Yes

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

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

Yes

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

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

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

Yes

SUBMITTED DOCUMENTS

- *Bat Inspection 9-20-20.pdf* <https://ecos.fws.gov/ipac/project/6KWXCCKBR3FCLJMNB2FSXZ4WBMYP/ProjectDocuments/24437879>

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

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

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

No

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

No

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

No

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

Yes

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

Yes

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

No

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

No

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

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

Yes

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

No

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

Automatically answered

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

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

Automatically answered

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

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

Automatically answered

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

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

Automatically answered

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

40. General AMM 1

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

Yes

41. Tree Removal AMM 1

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

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

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

Yes

42. Tree Removal AMM 3

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

Yes

43. Tree Removal AMM 4

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

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

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

Yes

44. Lighting AMM 1

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

Yes

Project Questionnaire

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

Yes

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

No

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

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

0.11

4. Please describe the proposed bridge work:

Replacement of the existing bridge on US 50 over Six Mile Creek

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

Start in Spring 2022

6. Please enter the date of the bridge assessment:

September 20, 2020

Avoidance And Minimization Measures (AMMs)

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

GENERAL AMM 1

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

LIGHTING AMM 1

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

TREE REMOVAL AMM 1

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

TREE REMOVAL AMM 2

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

TREE REMOVAL AMM 3

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

TREE REMOVAL AMM 4

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

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

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

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

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

From: [Dye, David](#)
To: [Brian Shaw](#)
Subject: RE: Des. No. 1700203 US 50 Over Six Mile Creek, Jennings County IPaC Review
Date: Friday, December 4, 2020 2:17:49 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)

EXTERNAL EMAIL

Thanks Brian. I have reviewed and submitted this determination to USFWS for their 14-day review period.

Let me know if you have any additional questions.

David Dye

Environmental Section Manager

185 Agrico Lane
Seymour, IN 47274

Office: (812) 524-3723

Email: ddye@indot.in.gov



INDOT Bridge/Small Structure Bat Inspection Data Sheet (Rev 4/29/2016)

General Information		
Date of Inspection: 9/20/2020 Time of Inspection: 10:00am	Initial Inspection ☒ Follow-up Inspection ☐ Construction ☐	Temp: 80 Degrees Wind: Precip: Sunrise: Sunset:
County: Jennings	Inspected by: Brian Shaw	
GPS Northing: 38.975660 Easting: -85.734961 UTM Zone: 16	Contract Number: B-40414 Des No. 170023	Anticipated Start Date for Construction: March 2022

Bridge or Culvert	Bridge or Culvert
Stream or Road Crossed: Six Mile Creek	Station: 467=00.00 "PR-A"
Bridge/Culvert number: 050-40-10259	Number of Spans: 3
Type of Structure: ☐ Concrete box beam ☒ Steel beam ☒ Concrete I-beam ☐ Steel girder ☐ Concrete bulb tee beam ☐ Steel pony truss ☐ Concrete arch ☐ Welded steel thru girder ☐ Concrete girder ☐ Concrete box culvert ☐ Concrete slab ☐ Concrete pipe ☐ Multi-plate arch ☐ Corrugated steel pipe ☐ Other (list):	Material: ☐ Concrete ☒ Steel ☐ Other (describe): Shape: ☐ Box Culvert ☐ Pipe ☐ Arch ☐ Slab ☒ Other (describe) Composite Steel Beam Bridge
Searched entire structure? If not, why not? Yes.	Location of bats or signs of use (w/drawing and photos): N/A
Bats Present? ☐ Seen? ☐ Heard? No.	
In Clusters? Number of clusters: N/A	
Number of bats in largest cluster: N/A	
Approximate total number of bats found: Zero.	
Signs of previous bat use? No ☐ Guano ☐ Staining	

If Bats Present
Date and Time Project Supervisor was notified:
Name of Project Supervisor notified:

Appendix D:
Section 106 of the NHPA

Minor Projects PA Project Assessment Form

Date: 11/19/2020

Project Designation Number: 1700203

Route Number: United States (US) 50

Project Description: Bridge Replacement, 5.64 miles east of US 31 at Six Mile Creek

The US 50 over Six Mile Creek Bridge is located south of the community of Hayden, near the intersection with Washington Street. The project area is located within Section 10 of Township 6 North, Range 7 East, on the USGS 7.5' series Hayden, Indiana topographic quadrangle map. The project extends along US 50 for 1,025 feet east of intersection and 425 feet west of intersection.

The US 50 over Six Mile Creek Bridge is a three-span, reinforced concrete slab structure that was constructed in 1929 and reconstructed in 1957 and rehabilitated in 1988. The proposed project would replace the existing structure with a three (3) span, steel beam bridge on the existing roadway alignment. The project would increase the road grade less than one (1) foot in height and the width of the new structure would be widened by approximately fifteen feet four (4) inches in order to maintain two (2) lanes during construction. Additionally, both US 50 and Washington Street will be reconstructed with full-depth pavement replacement where necessary or milled and resurfaced where the pavement is in good condition. Finally, the project would construct a passing blister for eastbound traffic starting west of the bridge near Washington Street and continuing over the proposed bridge. The project is anticipated to require approximately 0.63 acre of permanent right-of-way (ROW) and 0.17 acre of temporary ROW.

Feature crossed (if applicable): Six Mile Creek

City/Township: Spencer Township

County: Jennings County

Information reviewed (please check all that apply):

- ☒ General project location map ☒ USGS map ☒ Aerial photograph ☒ Interim Report
☒ Written description of project area ☒ General project area photos ☒ Soil survey data
☐ Previously completed historic property reports ☒ Previously completed archaeology reports
☒ Bridge Inspection Information ☒ SHAARD ☒ SHAARD GIS ☒ Streetview Imagery

Other (please specify): Bridge Inspection Application System (BIAS); Indiana Historic Bridge Inventory; Indiana Buildings, Bridges, and Cemeteries Map website; *Jennings County Interim Report*; ArcMap GIS, Jennings County GIS website (accessed via <https://jenningsin.wthgis.com/>); MPPA application (including maps and photographs) sent by Weintraut & Associates staff dated September 17th, 2020 and on file at INDOT CRO.

Munro, Charity L. and Jason Goldbach

2020 *Phase Ia Archaeological Records Check and Field Reconnaissance: US 50 over Sixmile Creek Bridge Replacement, Spencer Township, Jennings County, Indiana Des. No.: 1700203.* Weintraut and Associates, Inc. Submitted to Beam, Longest and Neff, L.L.C. Report on file at IDNR, DHPA.

Snyder, Jim, Samuel Snell, and Samiran Chanchani

2011 *Phase Ia Archaeological Survey for the Proposed US 50 Spot Improvements (Des. No. 1005104 and ARPA Permit 2011-IN/3-1) Jackson Township in Jackson County, and Center and Spencer Townships in Jennings County, Indiana.* ASC Group, Indianapolis. Report on file at IDNR, DHPA.

Minor Projects PA Project Assessment Form

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

If yes, please specify categories and condition(s) (**conditions that are applicable are highlighted**):

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

Condition A (Archaeological Resources)

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

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

Condition B (Above-Ground Resources)

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

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

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

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

Additional Comments:

Above-ground Resources

An INDOT Cultural Resources Office (CRO) historian, who met the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for Jennings County. No listed resources are located within 0.25 mile of the project area, a distance that serves as an adequate area of potential effects given terrain and project scope.

Minor Projects PA Project Assessment Form

The Indiana Historic Sites and Structures Inventory (IHSSI) and National Register information for Allen County are available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM). The *Jennings County Interim Report* (1989; Spencer Township) of the Indiana Historic Sites and Structures Inventory (IHSSI) was also consulted. All sites were reviewed through the IHBBCM, which contains the most recently updated SHAARD information. No IHSSI documented resources rated higher than “contributing” are located within 0.25 mile of the project area.

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

The INDOT CRO historian reviewed structures adjacent to the project area utilizing online aerial, street-view photography, and the Jennings County GIS website. The project area is located in a rural, agricultural setting. The terrain has gently rolling hills with thickets of trees on each side of the road. The adjacent building stock is primarily mid-to-late twentieth century residences and commercial buildings. None of the structures appear to possess the historic significance or material integrity required to be considered NRHP-eligible.

The most-recent inspection report (C. Everman; 8/14/2020), accessed via the Bridge Inspection Application System (BIAS), was referenced to review the bridge. The subject structure (INDOT Bridge # 050-40-00853B, NBI No. 18660) carries US 50 over Six Mile Creek and is a three (3) span continuous concrete slab bridge constructed in 1929 and reconstructed in 1988. During the survey of bridges for the *Indiana Historic Bridge Inventory*, structures built after 1965 were not included in data-gathering; therefore, the reconstructed 1988 bridge was not evaluated as part of the inventory.

On November 12, 2012 the Advisory Council on Historic Preservation (ACHP) issued the *Program Comment for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges (Program Comment)*. The *Program Comment* relieves federal agencies from the Section 106 requirement to consider the effects of undertakings on most concrete and steel bridges built after 1945. On March 19, 2013, federal agencies were approved to use the *Program Comment for Indiana projects*.

The *Program Comment* applies for Bridge # 050-40-00853B because it has not been previously listed in or determined eligible for listing in the National Register of Historic Places and it is not located in or adjacent to a historic district (Section IV.A of the *Program Comment*). As an example of a continuous concrete slab structure, the bridge is also not one of the types exempted from the *Program Comment* (arch bridges, truss bridges, bridges with movable spans, suspension bridges, cable-stayed bridges, or covered bridges [Section IV.B]). Additionally, this bridge has not been identified as having exceptional significance for association with a person or event, being a very early or particularly important example of its type in the state or the nation, having distinctive engineering or architectural features that depart from standard designs, or displaying other elements that were engineered to respond to a unique environmental context (Section IV.C). This bridge also has not been identified as having some exceptional quality. Based on consultation between FHWA, INDOT, SHPO and interested parties, no bridges with exceptional significance were identified in Indiana (Section IV.C). Because the above criteria from the *Program Comment* have been met, no individual consideration under Section 106 is required for Bridge # 050-40-00853B.

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

Archaeological Resources

An INDOT CRO archaeologist, who met the Secretary of the Interior’s Professional Qualification Standards as per 36 CFR Part 61, reviewed and concurred with the archaeological report provided by Weintraut and Associates, Inc. (Munro and Goldbach 2020). The records check found that all or a portion of the project area had

Minor Projects PA Project Assessment Form

been examined in the past (Snyder et al. 2011), However no cultural materials have been found within the project area.

The archaeological reconnaissance consisted of shovel testing all areas not obviously disturbed by road construction or buried utilities. The reconnaissance did not locate cultural resources and no additional archaeological investigation is recommended.

Accidental Discovery: If any archaeological artifacts or human remains are uncovered during construction, demolition, or earth moving activities, construction in the immediate area of the find will be stopped, and the INDOT Cultural Resources Office and the Division of Historic Preservation and Archaeology will be notified immediately.

INDOT Cultural Resources staff reviewer(s): Clint Kelly and David Moffatt

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



INDIANA ARCHAEOLOGICAL SHORT REPORT

State Form 54566 (1-11)

INDIANA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF HISTORIC PRESERVATION
AND ARCHAEOLOGY
402 West Washington Street, Room W274
Indianapolis, Indiana 46204-2739
Telephone Number: (317) 232-1646
Fax Number: (317) 232-0693
E-mail: dhpa@dnr.IN.gov

Where applicable, the use of this form is recommended but not required by the Division of Historic Preservation and Archaeology.

Author: Charity L. Munro (B.A.) and Jason Goldbach (M.A.)

Date (month, day, year):

November 11, 2020

Project Title:

Phase Ia Archaeological Records Check and Field Reconnaissance: US 50 over Six Mile Creek Bridge Replacement, 5.64 miles east of US 31 in Spencer Township, Jennings County, Indiana, Des. No.: 1700203

PROJECT OVERVIEW

Project Description:

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA) proposes to proceed with the US 50 over Six Mile Creek Bridge Project in Spencer Township, Jennings County. Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to take into account the effects of their undertakings on historic properties. The federal involvement is the funding from the FHWA.

The project is located within Section 10 of Township 6 North, Range 7 East, on the USGS 7.5' series Hayden, Indiana topographic quadrangle map (Figure 1). A survey area was provided to Weintraut & Associates, Inc. (W&A) by Beam, Longest and Neff, L.L.C. (B-L-N) for Phase Ia archaeological reconnaissance.

The US 50 over Six Mile Creek Bridge is located along US 50 (5.64 miles east of US 31) south of the unincorporated community of Hayden. The project area is located within Section 10 of Township 6 North, Range 7 East, on the USGS 7.5' series Hayden, Indiana topographic quadrangle map. The project area generally extends along US 50 for 1,025 feet east of intersection and 425 feet west of intersection.

The US 50 over Six Mile Creek Bridge is a three-span reinforced concrete slab structure that was constructed in 1957. The proposed project would replace the existing structure with a three-span, steel beam bridge on the existing roadway alignment. The project would increase the road grade less than one foot in height and the width of the new structure would be widened by approximately fifteen feet and four inches in order to maintain two lanes during construction. Additionally, both US 50 and Washington Street will be reconstructed with full depth pavement replacement where necessary, or milled and resurfaced where the pavement is in good condition. Finally, the project would construct a passing blister for eastbound traffic starting west of the bridge near Washington Street and continuing over the proposed bridge.

INDOT Designation Number/ Contract Number:

1700203

Project Number:

- ☐ Archaeological records check has determined that the project area does not have the potential to contain archaeological resources.
- ☐ Archaeological records check has determined that the project area has the potential to contain archaeological resources.
- ☒ Phase Ia reconnaissance has located no archaeological resources in the project area.
- ☐ Phase Ia reconnaissance has identified landforms conducive to buried archaeological deposits.

Actual Area Surveyed hectares: acres:

Comments:

The survey area was divided into four quadrants, with US 50 dividing the north and south halves, West Base Road dividing the northern quarters, and Sixmile Creek dividing the southern quarters (Figures 3 through 7).

The northwest quadrant contained no shovel test probes due to disturbance (Figure 3).

Two shovel test probes were dug in the northeast quadrant at the very eastern end of the survey area in an area of disturbed soils (UdaB) (Figures 4 through 6). Both of these probes were disturbed, showing a mix of brown and yellowish brown soils (10YR 4/3 and 5/6) in the A horizon. In the wooded area on the east end of the southeast quadrant, A horizons lacked plowzone and structure, likely the result of disturbance and/or erosion (Figure 7).

Twenty-one shovel test probes were dug in the southwest and southeast quadrants on the floodplain of Sixmile Creek. In the relatively level areas under cultivation, soil profiles observed in the probes exhibited a plowzone consisting of a brown (10YR 4/3 or 5/3) silt loam. Subsoils consisted of light brownish gray, brownish yellow, and yellowish brown (10YR 6/2, 6/6, 5/6) silt loam between 9 and 25 cm (3.5 to 9.8 in). In the wooded area flanking Sixmile Creek, profiles lacked a plowzone, and exhibited a brown (10YR 5/3) A horizon extending to between 20 and 21 cm (7.9 to 8.3 in) below surface. Below this, subsoils consisted of a yellowish brown (10YR 5/6) sand loam interpreted as recent channel deposits.

One shovel test probe near Sixmile Creek (see Figure 2) was extended with a bucket auger below the subsoil. The subsoil observed in the shovel test probe consisting of light brownish gray (10YR 6/2) silt loam with brownish yellow (10YR 6/6 mottling) between 20 and 30 cm (7.9 to 11.8 in) below surface. Below this, the auger encountered a yellowish brown (10YR 5/6) sand loam to a depth of 45 cm (17.7 in). Below this, clay content increased gradually, and a gray (7.5YR 6/1) with strong brown (7.5YR 5/6) mottling exhibited increasing mottling with depth. Between 90 and 100 cm (35.4 and 39.4 in) below surface a reddish gray (5YR 6/1) with red (5R 4/6) mottling sandy clay loam was observed. The profiles observed in the shovel test probes and bucket auger were consistent with those described for Wirt, Haymond, Stendal, and Steff series soils in their relatively shallow cambic horizons. These shallow soil series also lack the potential for buried stratified deposits in their C horizons (SSS 2020).

The Phase Ia survey resulted in no archaeological sites recorded. Shovel test probes found a lack of deep A-horizon soils, and no indication of buried A-horizons or cultural materials.

RECOMMENDATION

- ☐ The archaeological records check has determined that the project area has the potential to contain archaeological resources and a Phase Ia archaeological reconnaissance is recommended.
- ☐ The archaeological records check has determined that the project area does not have the potential to contain archaeological resources and no further work is recommended before the project is allowed to proceed.
- ☒ The Phase Ia archaeological reconnaissance has located no archaeological sites within the project area and it is recommended that the project be allowed to proceed as planned.

☐ The Phase Ia archaeological reconnaissance has determined that the project area includes landforms which have the potential to contain buried archaeological deposits. It is recommended that Phase Ic archaeological subsurface reconnaissance be conducted before the project is allowed to proceed.

☐ The Phase Ia archaeological reconnaissance has determined that the project area is within 100 feet of a cemetery and a Cemetery Development Plan is required per IC-14-21-1-26.5.

Cemetery Name:

Other Recommendations/Commitments:

Pursuant to IC-14-21-1, if any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646.

Attachments

- ☒ Figure showing project location within Indiana.
- ☒ USGS topographic map showing the project area (1:24,000scale).
- ☒ Aerial photograph showing the project area, land use and survey methods.
- ☒ Photographs of the project area.
- ☒ Project plans (if available)

Other Attachments:

References Cited:

Brinker, Ruth
1980 *An Archaeological Reconnaissance of the Proposed Water Storage Tank, Hayden, Jennings County, Indiana*. Glenn A. Black Laboratory of Archaeology, Indiana University, Bloomington.

Historic Landmarks Foundation of Indiana (HLFI)
1989 *Jennings County Interim Report*. Historic Landmarks Foundation of Indiana, Indianapolis, Indiana.

Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology (IDNR/DHPA)
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2015 *An Archaeological Field Reconnaissance of Proposed Additional Area Needed for a Sewage Treatment Site in Hayden, Jennings County, Indiana.* Cultural Resource Management Report 15FR144, Archaeological Consultants of Ossian, Muncie, Indiana.

Comments:

Curation

Curation Facility for Project Documentation:

W&A

From: [Moffatt, Charles D](#)
To: [Doug Fivcoast](#)
Cc: [Kelly, Clint](#); [Summers, Terry](#); [Dye, David](#); jason@weintrautinc.com; [Brian Shaw](#); [linda](#); [Miller, Shaun \(INDOT\)](#)
Subject: RE: US 50 over Six Mile Creek (1700203) MPPA Sec 1 Submission
Date: Thursday, November 19, 2020 5:27:53 PM
Attachments: [US50_Des1700203_ASR-2020-11-11.pdf](#)
[MPPA Determination Form B-12_Des 1700203.pdf](#)

EXTERNAL EMAIL

Doug,

Thank you for the submittal of this project information for our review. We have determined that this project falls under Category B-12 of the MPPA, thus concluding the Section 106 process. Please find attached the completed determination forms for inclusion in the CE.

The archaeological report has been reviewed and approved by INDOT-CRO. However, as I discussed with Jason Goldbach there are two minor revisions, see the highlighted text in the attached copy of the report. We do not need to review the report again, but will need a pdf copy of the revised report for our records.

Please forward one hard copy of the report to DHPA, indicating in the cover letter that the project qualified as a Minor Project and therefore the report is for their records only and no formal review is required under Section 106. In addition, we ask that a copy of the DHPA submittal letter be sent to INDOT CRO care of David Moffatt during the time of submission and that the archaeological report be posted to IN SCOPE (please ensure that the uploaded file follows the IN SCOPE naming conventions).

Please keep in mind that if the scope of the project or project limits should change, our office will need to re-examine the information to determine whether the MPPA still applies. Please don't hesitate to contact us should you have any questions or need additional information.

David Moffatt
Archaeologist
Environmental Services
Cultural Resources Office
Indiana Department of Transportation
1-317-439-3337

Appendix E:

Red Flag and Hazardous Materials



INDIANA DEPARTMENT OF TRANSPORTATION
Driving Indiana's Economic Growth

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

Eric Holcomb, Governor
Joe McGuinness,
Commissioner

Date: February 5, 2020

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

From: Colin Keith
Beam, Longest and Neff, LLC
8320 Craig Street
Indianapolis, IN 46250
ckeith@b-l-n.com

Re: RED FLAG INVESTIGATION
DES #1700203, State Project
Bridge Replacement
US 50 over Six Mile Creek (Structure #050-40-00853B)
Jennings County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The existing structure is a 3-span concrete slab bridge with an overall length of 97 feet and an out-to-out width (deck width) of 43.2 feet. The bridge provides a clear roadway width of 40 feet and carries two lanes of traffic over Six Mile Creek. The bridge will be replaced with a new 3-span continuous composite steel beam bridge that will be 150 feet long and have a deck width of 58.5 feet and a clear roadway width of 55.5 feet. The bridge will be constructed on semi-integral end bents with spill-through abutments, with 18" revetment riprap to be placed on the bridge slopes. The total project length is 550 feet and will include reconstruction of the intersection in the northwest quadrant.

Bridge and/or Culvert Project: Yes ☒ No ☐ Structure #050-40-00853B

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

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

Proposed right of way: Temporary ☒ # Acres ____ Permanent ☒ # Acres ____ Permanent and temporary right of way acquisition is anticipated; amount unknown at this time.

Type of excavation: New footings for the abutments and piers (if used) will be installed. The anticipated maximum depth of excavation is approximately 4 feet below the flowline elevation to construct the footings.

Maintenance of traffic: Because the project is located on US 50, it is anticipated that traffic will be maintained on the road through phased construction.

Work in waterway: Yes ☒ No ☐ Below ordinary high-water mark: Yes ☒ No ☐

State Project: ☒ LPA: ☐

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Any other factors influencing recommendations: N/A

INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure Indicate the number of items of concern found within the 0.5-mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	2¹	Recreational Facilities	N/A
Airports	N/A²	Pipelines	N/A
Cemeteries	2	Railroads	1
Hospitals	N/A	Trails	N/A
Schools	1	Managed Lands	N/A

¹ Religious facilities were identified through a review of aerial photographs and topographic maps; none were found during database search.

² The Federal Aviation Agency website was checked, and no public airports were found within 3.8 miles (20,000 feet) of the project.

Religious Facilities: Two (2) religious facilities are located within the 0.5-mile search radius. The closest is located approximately 0.3 mile northwest of the project area. No impact is expected.

Cemeteries: Two (2) cemeteries are located within the 0.5-mile search radius. The nearest, the Ewan Cemetery, is located approximately 0.4 mile north/northwest of the project area. No impact is expected.

Schools: One (1) school is located within the 0.5-mile search radius. The Hayden Elementary School is located approximately 0.5 mile north/northwest of the project area. No impact is expected.

Railroads: One (1) railroad line segment is present within the 0.5-mile search radius. The CSX RR is located approximately 0.2 mile north of the project area. No impact is expected.

WATER RESOURCES TABLE AND SUMMARY

Water Resources Indicate the number of items of concern found within the 0.5-mile search radius. If there are no items, please indicate N/A:			
NWI - Points	N/A	Canal Routes - Historic	N/A
Karst Springs	N/A	NWI - Wetlands	9
Canal Structures – Historic	N/A	Lakes	2
NPS NRI Listed	N/A	Floodplain - DFIRM	1
NWI-Lines	9	Cave Entrance Density	N/A
IDEM 303d-Listed Streams and Lakes (Impaired)	6	Sinkhole Areas	N/A
Rivers and Streams	11	Sinking-Stream Basins	N/A

National Wetlands Inventory (NWI) Lines: Nine (9) NWI line segments are located within the 0.5-mile search radius. All are associated with Six Mile Creek or one of its tributaries. Six Mile Creek is located within the project area. A Waters of the U.S. Report will be prepared and coordination with INDOT Ecology and Waterway Permitting will occur.

IDEM 303d-Listed Streams and Lakes: Six (6) 303d-listed stream line segments are located within the 0.5-mile search radius. All are associated with Six Mile Creek or one of its tributaries. Six Mile Creek is located within the project area

and, according to the IDEM e303d mapper, is listed for Impaired Biotic Communities (IBC) within the project area. Best Management Practices (BMPs) will be used to avoid further degradation to the stream.

Rivers and Streams: Eleven (11) stream segments are located within the 0.5-mile search radius. All are associated with Six Mile Creek or one of its tributaries. Six Mile Creek is located within the project area. A Waters of the U.S. Report will be prepared and coordination with INDOT Ecology and Waterway Permitting will occur.

NWI Wetlands: Nine (9) NWI wetlands are located within the 0.5-mile search radius. One wetland is located adjacent to the north of the project area. A Waters of the U.S. Report will be prepared and coordination with INDOT Ecology and Waterway Permitting will occur.

Lakes: Two (2) lakes are located within the 0.5-mile search radius. The closest is located approximately 0.5 mile northwest. No impact is expected.

Floodplains: One (1) floodplain polygon is located within the 0.5-mile search radius. The project area is located within the floodplain polygon. Coordination with INDOT Ecology and Waterway Permitting will occur.

URBANIZED AREA BOUNDARY SUMMARY

The project area is not located within an Urbanized Area Boundary.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

Mining/Mineral Exploration Indicate the number of items of concern found within the 0.5-mile search radius. If there are no items, please indicate N/A:			
Petroleum Wells	1	Mineral Resources	N/A
Mines – Surface	N/A	Mines – Underground	N/A

Petroleum Wells: One (1) petroleum well is located within the 0.5-mile search radius. The well is a dry hole located approximately 0.4 mile north/northwest. No impact is expected.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

Hazardous Material Concerns Indicate the number of items of concern found within the 0.5-mile search radius. If there are no items, please indicate N/A:			
Superfund	N/A	Manufactured Gas Plant Sites	N/A
RCRA Generator/TSD	2	Open Dump Waste Sites	N/A
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	N/A
State Cleanup Sites	N/A	Waste Transfer Stations	N/A
Septage Waste Sites	N/A	Tire Waste Sites	N/A
Underground Storage Tank (UST) Sites	1	Confined Feeding Operations (CFO)	N/A
Voluntary Remediation Program	N/A	Brownfields	N/A
Construction Demolition Waste	N/A	Institutional Controls	N/A
Solid Waste Landfill	N/A	NPDES Facilities	1

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY, CONTINUED

Hazardous Material Concerns Indicate the number of items of concern found within the 0.5-mile search radius. If there are no items, please indicate N/A:			
Infectious/Medical Waste Sites	N/A	NPDES Pipe Locations	N/A
Leaking Underground Storage (LUST) Sites	2	Notice of Contamination Sites	N/A

RCRA Generator/TSD: Two (2) RCRA generator facilities are located within the 0.5-mile search radius. The closest is located approximately 0.1 mile north/northwest of the project area. The facility is Industrial Machine Repair, Inc. (AI ID #25163). The IDEM Virtual File Cabinet (VFC) had only two records for the facility, both inspection reports that indicated violations. The most recent inspection report, from August 2001, noted an oil spill north of the facility and directed the owner to clean it up within 30 days; no record of the clean-up was found. Given the distance and the nature of the incident, an impact is not likely; however, it is possible. If excavation occurs during the project, proper removal and disposal of contaminated soil and/or groundwater may be necessary.

UST Sites: One (1) UST facility is located within the 0.5-mile search radius. Hayden Corner Store (AI ID #23193, listed in the VFC database as Big Boom Fireworks) is located approximately 0.3 mile west of the project area. Two 1,000-gallon tanks were removed from the property in February 2000. IDEM issued a No Further Action (NFA) letter under the 1994 UST guidance in July 2006. According to available records, no tanks remain on the property. No impact is expected.

LUST Sites: Two (2) LUST sites are located within the 0.5-mile search radius. The closest is Hayden Corner Store, discussed above. No impact is expected.

NPDES Facilities: One (1) NPDES facility is located within the 0.5-mile search radius. Hayden RSD WWTP, as mapped in the database, is located approximately 0.5 northwest; however, it should be noted that a review of aerial photography did not indicate the presence of a wastewater treatment plant in the mapped location. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Jennings County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high-quality natural communities is attached with ETR species highlighted. A preliminary review of the Indiana Natural Heritage Database by INDOT Environmental Services did not indicate the presence of endangered species. Due to the nature of the project activities, this project will fall under the guidelines set forth under the U.S. Fish & Wildlife Service (USFWS) *Interim Policy for the Review of Transportation Projects in Indiana* (dated May 29, 2013). No further coordination is necessary, apart from the routine coordination with IDNR that will be done as part of the environmental document process.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project area is located in a rural area surrounded by farm fields. The August 1, 2019 inspection report for bridge #050-40-00853B states that no evidence of bats was seen or heard under the bridge. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to "Using the USFWS's Information for Planning and Consultation (IPaC) System for Listed Bat Consultation for INDOT Projects".

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

RECOMMENDATIONS SECTION

INFRASTRUCTURE: N/A

WATER RESOURCES: Six Mile Creek is an IDEM 303(d) listed stream, listed for IBC. BMPs will be used to avoid further degradation to the stream.

The presence of the following water resources will require the preparation of a Waters of the U.S. report and coordination with INDOT Ecology and Waterway Permitting:

- The project area is located within a floodplain (coordination only).
- One stream, Six Mile Creek (and its associated NWI line), flows through the project area.
- An NWI wetland polygon is adjacent to the project area.

URBANIZED AREA BOUNDARY: N/A

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: The closest is located approximately 0.1 mile north/northwest of the project area. The facility is Industrial Machine Repair, Inc. (AI ID #25163). The IDEM VFC had only two records for the facility, both inspection reports that indicated violations. The most recent inspection report, from August 2001, noted an oil spill north of the facility and directed the owner to clean it up within 30 days; no record of the clean-up was found. Given the distance and the nature of the incident, an impact is not likely; however, it is possible. If excavation occurs during the project, proper removal and disposal of contaminated soil and/or groundwater may be necessary.

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

INDOT Environmental Services concurrence:

Nicole Fohey-
Breting

Digitally signed by
Nicole Fohey-Breting
Date: 2020.02.06
13:32:53 -05'00'

(Signature)

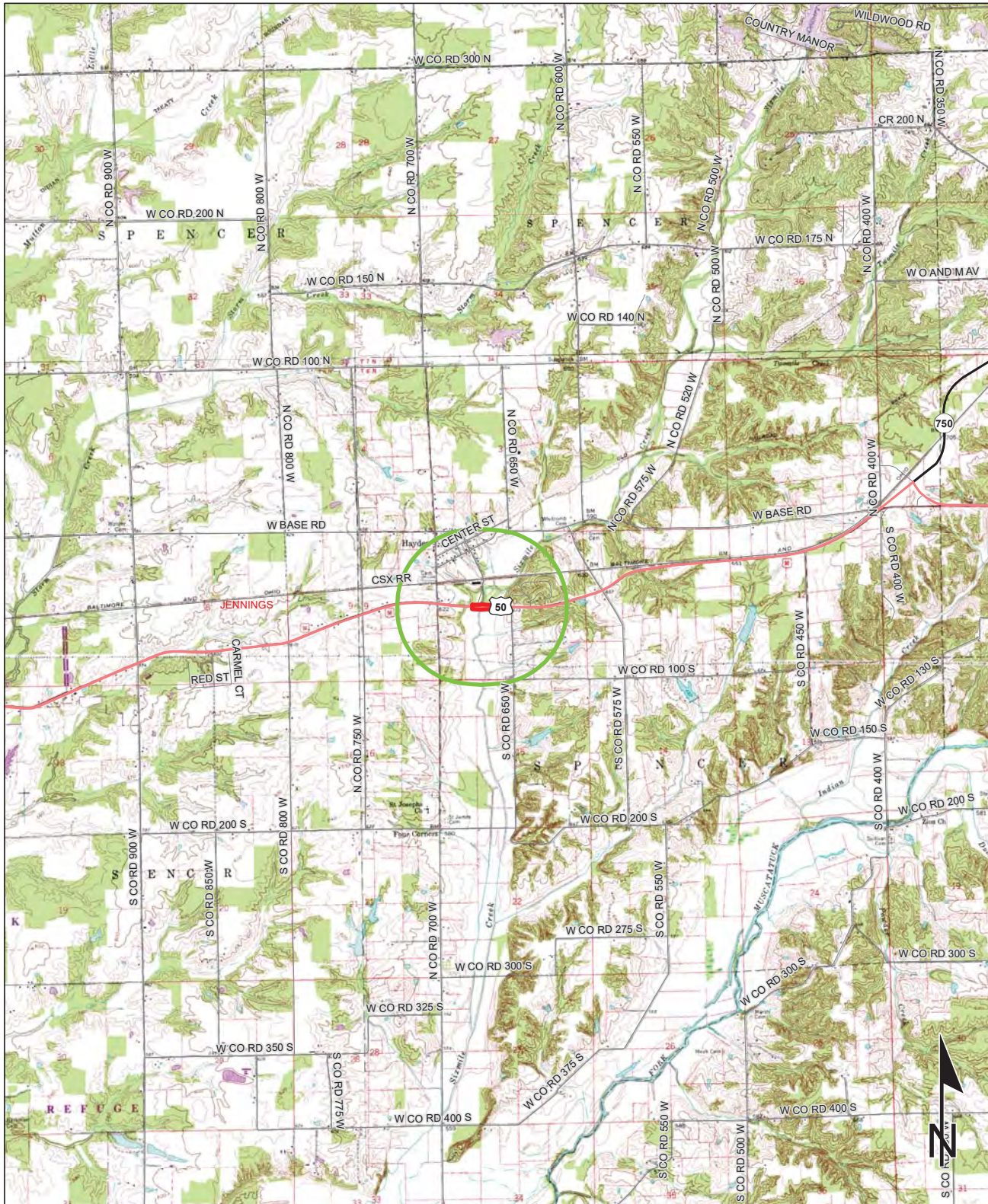
Prepared by:
Colin Keith
Environmental Analyst
Beam, Longest and Neff, LLC

Graphics:

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

SITE LOCATION: YES
INFRASTRUCTURE: YES
WATER RESOURCES: YES
URBANIZED AREA BOUNDARY: N/A
MINING/MINERAL EXPLORATION: YES
HAZARDOUS MATERIAL CONCERNS: YES

Red Flag Investigation - Project Location
US 50 over Six Mile Creek
Des. No. 1700203, Bridge Replacement
Jennings County, Indiana



Sources: 0.8 0.4 0 0.8 Miles
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83
 This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

HAYDEN QUADRANGLE
 INDIANA
 7.5 MINUTE SERIES
 (TOPOGRAPHIC)

Red Flag Investigation - Infrastructure
US 50 over Six Mile Creek
Des. No. 1700203, Bridge Replacement
Jennings County, Indiana



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

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

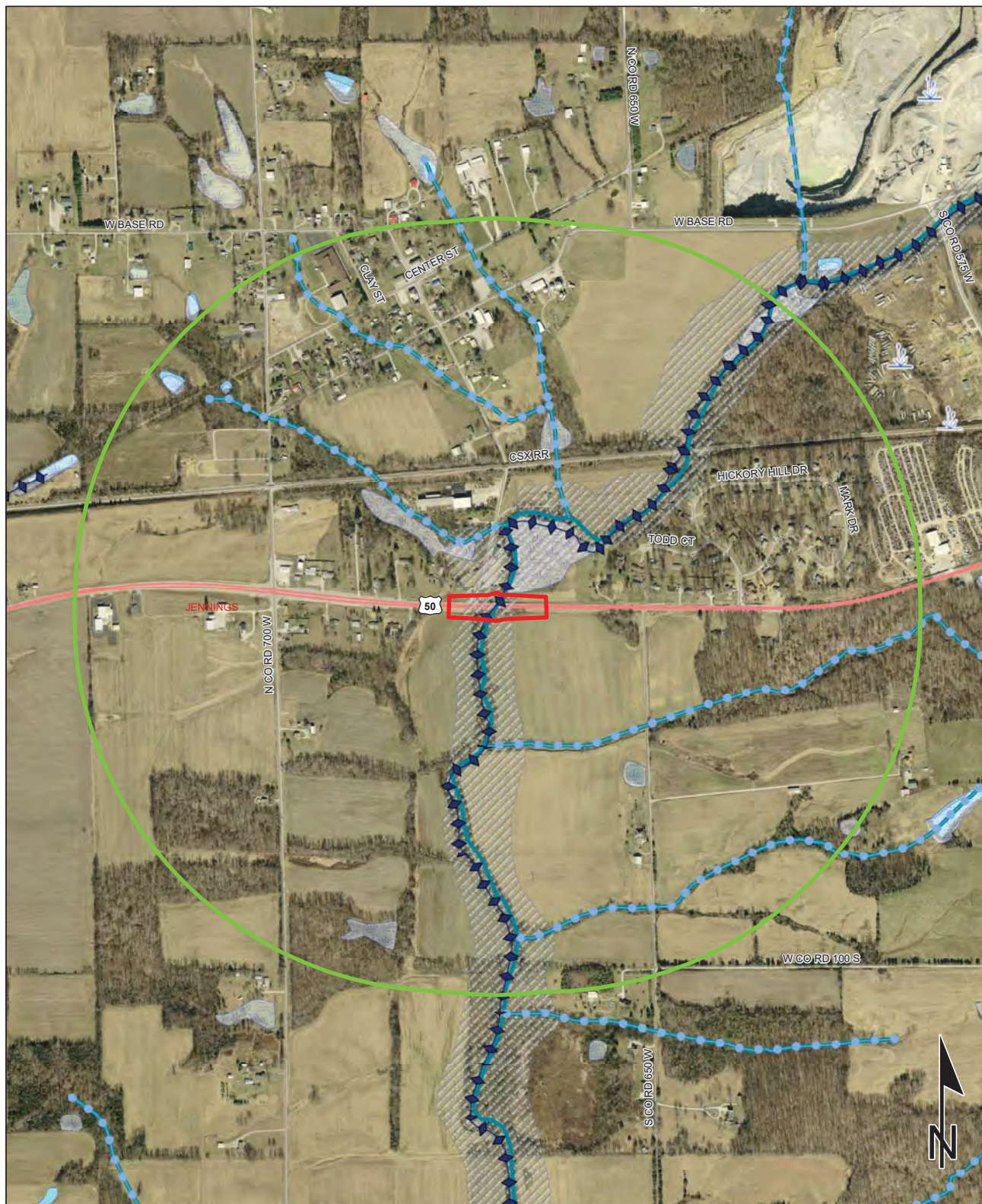
	Religious Facility		Recreation Facility		Project Area
	Airport		Pipeline		Half Mile Radius
	Cemeteries		Railroad		Toll
	Hospital		Trails		Interstate
	School		Managed Lands		State Route
			County Boundary		US Route
					Local Road

Red Flag Investigation - Water Resources

US 50 over Six Mile Creek

Des. No. 1700203, Bridge Replacement

Jennings County, Indiana



Sources:

Non Orthophotography

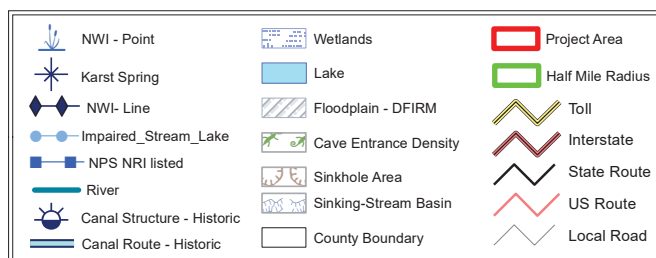
Data - Obtained from the State of Indiana Geographical Information Office Library

Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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

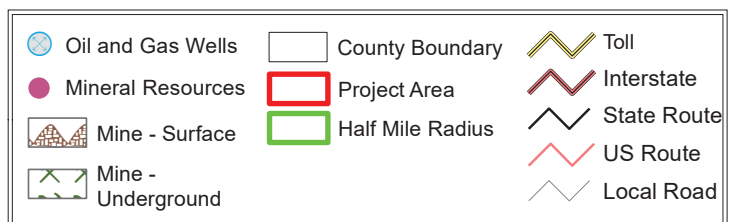
0.15 0.075 0 0.15 Miles



Red Flag Investigation - Mining and Mineral Exploration
 US 50 over Six Mile Creek
 Des. No. 1700203, Bridge Replacement
 Jennings County, Indiana



Sources:
 Non Orthophotography
 Data - Obtained from the State of Indiana Geographical Information Office Library
 Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
 Map Projection: UTM Zone 16 N Map Datum: NAD83
 This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

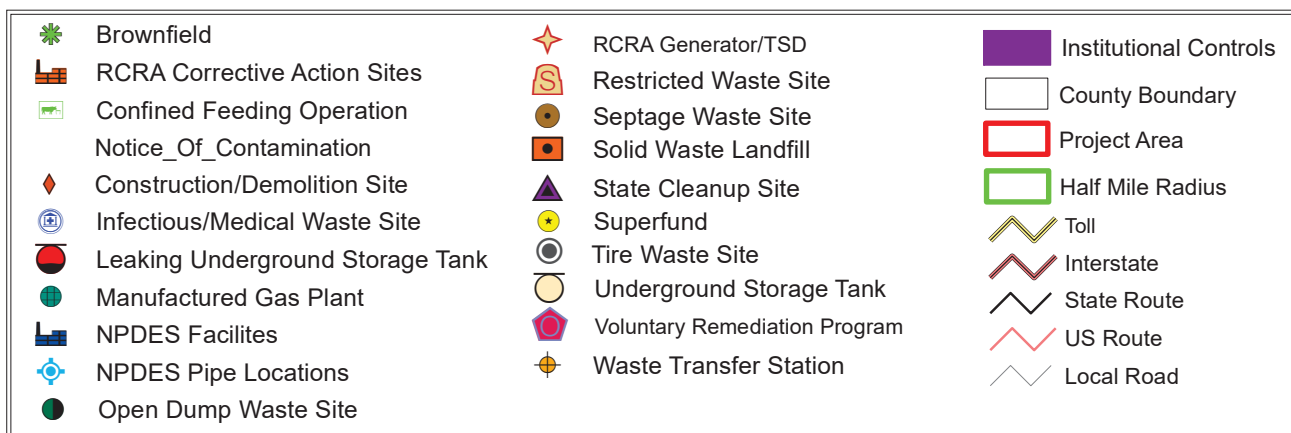


Red Flag Investigation - Hazardous Material Concerns

US 50 over Six Mile Creek

Des. No. 1700203, Bridge Replacement Jennings

County, Indiana



0.15 0.075 0 0.15
Miles

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

Sources:

Non Orthophotography

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

Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N Map Datum: NAD83

Categorical Exclusion E-10

Indiana County Endangered, Threatened and Rare Species List

County: Jennings

Species Name	Common Name	FED	STATE	GRANK	SRANK
Platyhelminthes (Flatworms)					
Sphalloplana weingartneri	Weingartner's Cave Flatworm		WL	G4	S3
Diplopoda					
Conotyia bollmani	Bollman's Cave Milliped		WL	G5	S3
Pseudopolydesmus collinus	A Millipede		SE	G4	S1
Crustacean: Malacostraca					
Caecidotea rotunda	Northeastern Cave Isopod		SR	G2G4	S3
Crangonyx anomalus	Anomalous Spring Amphipod		ST	G4G5	S2
Crangonyx packardi	Packard's Cave Amphipod		WL	G4	S3
Crustacean: Copepoda					
Diacyclops lewisi	Lewis' Groundwater Copepod		SE	G1	S1
Diacyclops salisae	Salisa's Groundwater Copepod		SE	G1	S1
Mollusk: Bivalvia (Mussels)					
Epioblasma triquetra	Snuffbox	LE	SE	G3	S1
Obovaria subrotunda	Round Hickorynut	C	SE	G4	S1
Ptychobranhus fasciolaris	Kidneyshell		SSC	G4G5	S2
Simpsonaias ambigua	Salamander Mussel	C	SSC	G3	S2
Toxolasma lividus	Purple Lilliput	C	SSC	G3Q	S2
Villosa lienosa	Little Spectaclecase		SSC	G5	S3
Eliipluran: Collembola					
Sinella alata	Springtail		WL	G5	S4
Sinella cavernarum	A Springtail		WL	G5	S3
Insect: Coleoptera (Beetles)					
Pseudanophthalmus chthonius	Cave Ground Beetle		SR	G3	S3
Insect: Lepidoptera (Butterflies & Moths)					
Artogeia virginiensis	West Virginia White		SR	G3?	S3
Insect: Odonata (Dragonflies & Damselflies)					
Hagenius brevistylus	Dragonhunter		SR	G5	S2S3
Arachnida					
Porhomma cavernicola	Appalachian Cave Spider		SE	G5	S2
Amphibian					
Lithobates areolatus circulosus	Northern Crawfish Frog		SE	G4T4	S2
Necturus maculosus	Common mudpuppy		SSC	G5	S2
Reptile					
Clonophis kirtlandii	Kirtland's Snake	C	SE	G2	S2
Nerodia erythrogaster neglecta	Copperbelly Water Snake	PS:LT	SE	G5T3	S2
Terrapene carolina carolina	Eastern Box Turtle		SSC	G5T5	S3
Bird					
Ammodramus henslowii	Henslow's Sparrow		SE	G4	S3B

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

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting
State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list
GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank
SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

Indiana County Endangered, Threatened and Rare Species List

County: Jennings

Species Name	Common Name	FED	STATE	GRANK	SRANK
Buteo lineatus	Red-shouldered Hawk		SSC	G5	S3
Circus hudsonius	Northern Harrier		SE	G5	S2
Cistothorus platensis	Sedge Wren		SE	G5	S3B
Coragyps atratus	Black Vulture			G5	S1N,S2B
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Helmitheros vermivorus	Worm-eating Warbler		SSC	G5	S3B
Ixobrychus exilis	Least Bittern		SE	G5	S3B
Nyctanassa violacea	Yellow-crowned Night-heron		SE	G5	S2B
Pandion haliaetus	Osprey		SE	G5	S1B
Rallus elegans	King Rail		SE	G4	S1B
Setophaga cerulea	Cerulean Warbler		SE	G4	S3B
Tyto alba	Barn Owl		SE	G5	S2
Wilsonia citrina	Hooded Warbler		SSC	G5	S3B
Mammal					
Mustela nivalis	Least Weasel		SSC	G5	S2?
Myotis grisescens	Gray Bat	LE	SE	G4	S1
Myotis sodalis	Indiana Bat or Social Myotis	LE	SE	G2	S1
Nycticeius humeralis	Evening Bat		SE	G5	S1
Taxidea taxus	American Badger		SSC	G5	S2
Vascular Plant					
Asplenium ruta-muraria	Wallrue Spleenwort		SR	G5	S2
Carex pedunculata	Longstalk Sedge		SR	G5	S2
Carex straminea	Straw Sedge		ST	G5	S2
Croton willdenowii	Elliptical Rushfoil		SE	G5	S1
Dentaria multifida	Divided Toothwort		SE	G4?	S1
Hydrastis canadensis	Golden Seal		WL	G3G4	S3
Juglans cinerea	Butternut		WL	G4	S3
Linum striatum	Ridged Yellow Flax		WL	G5	S3
Lycopodiella inundata	Northern Bog Clubmoss		SE	G5	S1
Lycopodium obscurum	Tree Clubmoss		SR	G5	S2
Lygodium palmatum	Climbing Fern		SE	G4	S1
Najas gracillima	Thread-like Naiad		ST	G5?	S1
Oenothera perennis	Small Sundrops		SR	G5	S2
Oxalis illinoensis	Illinois Woodsorrel		WL	G4Q	S2
Panax quinquefolius	American Ginseng		WL	G3G4	S3
Panax trifolius	Dwarf Ginseng		WL	G5	S2
Penstemon canescens	Gray Beardtongue		SE	G4	S2
Poa wolfii	Wolf Bluegrass		SR	G4	S2
Sagittaria australis	Longbeak Arrowhead		SR	G5	S2
Scirpus purshianus	Weakstalk Bulrush		SR	G4G5	S2

Indiana Natural Heritage Data Center
Division of Nature Preserves
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State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list
GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank
SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

Indiana County Endangered, Threatened and Rare Species List

County: Jennings

Species Name	Common Name	FED	STATE	GRANK	SRANK
Spiranthes lucida	Shining Ladies'-tresses		SR	G4	S2
Spiranthes vernalis	Grassleaf Ladies'-tresses		WL	G5	S2
Stachys clingmanii	Clingman Hedge-nettle		SE	G2	S1
Strophostyles leiosperma	Slick-seed Wild-bean		ST	G5	S2
Sullivantia sullivantii	Sullivantia		ST	G4	S2
Waldsteinia fragarioides	Barren Strawberry		SR	G5	S2
Woodwardia areolata	Netted Chainfern		SR	G5	S2
High Quality Natural Community					
Forest - flatwoods bluegrass till plain	Bluegrass Till Plain Flatwoods		SG	G3	S2
Forest - upland dry Bluegrass	Bluegrass Dry Upland Forest			GNR	S1
Forest - upland dry-mesic Bluegrass	Bluegrass Dry-mesic Upland Forest			GNR	S1
Forest - upland mesic Bluegrass	Bluegrass Mesic Upland Forest			GNR	S3
Primary - cliff limestone	Limestone Cliff		SG	GU	S1
Other Significant Feature					
Geomorphic - Nonglacial Erosional Feature - Water Fall and Cascade	Water Fall and Cascade			GNR	SNR

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

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting
State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list
GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank
SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

Appendix F:

Water Resources

**Waters Report
US 50 over Six Mile Creek
Jennings County, Indiana
Bridge Replacement
Des. No. 1700203
Asset ID #050-40-00853B**

Prepared by Colin Keith
ckeith@b-l-n.com; 317-806-3022
Beam, Longest and Neff, LLC (BLN)
Completed Date: September 14, 2020

PROJECT INFORMATION

Date of Field Reconnaissance
September 27, 2019

Location
Section 10, Township 6 North, Range 7 East
Hayden, Indiana Quadrangle Map
Latitude: 38.975796 North, Longitude: 85.734690 West

PROJECT DESCRIPTION

The proposed project (Des. No. 1700203) consists of the replacement of the existing bridge (#050-40-00853B) that carries US 50 over Six Mile Creek. The project is located in a rural area approximately 5.64 miles east of US 31 in Jennings County (Figures 1 and 2).

The existing structure is a 3-span concrete continuous slab bridge with an overall length of 97 feet and an out-to-out width (deck width) of 43.2 feet. The bridge provides a clear roadway width of 40 feet and carries two lanes of traffic over Six Mile Creek. The bridge will be replaced with a new 3-span continuous composite steel beam bridge that will be 150 feet long and have a deck width of 58.5 feet and a clear roadway width of 55.5 feet. The bridge will be constructed on semi-integral end bents with spill-through abutments, with 18-inches of revetment riprap to be placed on the bridge slopes. The total project length is 550 feet and will include reconstruction of the intersection in the northwest quadrant. Permanent and temporary right of way acquisition is anticipated, with the amount unknown at this time. Because the project is located on US 50, it is anticipated that traffic will be maintained on the road through phased construction.

The general topography of the project area is relatively flat along the roadway, sloping down to Six Mile Creek on both sides of the crossing. Drainage in the vicinity of the project is generally to the south. According to the United States Geological Survey (USGS) Hayden 7.5-minute topographic quadrangle map, the roadway has an elevation of approximately 580 feet above Mean Sea Level (MSL). The elevation of Six Mile Creek within the project area is approximately 560 feet above MSL (Figures 3a and 3b).

DESKTOP DATA REVIEW

National Wetland Inventory (NWI) Information

No NWI-mapped wetlands are present within the project area (Figure 4). One linear water feature is depicted on the NWI map within the project area: Six Mile Creek, which has a Cowardin classification of R2UBH (riverine, lower perennial, unconsolidated bottom, permanently flooded). Table 1 lists the NWI features present outside the project area in the surrounding vicinity, with distances measured from the center of the structure to the closest point of the feature boundary.

Table 1: NWI Features in Vicinity of Project Area

Water Feature Type	Location
PFO1A (palustrine, forested, broad-leaved deciduous, temporarily flooded)	0.02-mile northeast
PFO1A (palustrine, forested, broad-leaved deciduous, temporarily flooded)	0.07-mile northwest
R4SBC (riverine, intermittent, streambed, seasonally flooded)	0.09 mile north/northwest
R4SBC (riverine, intermittent, streambed, seasonally flooded)	0.10-mile northwest
PFO1A (palustrine, forested, broad-leaved deciduous, temporarily flooded)	0.12 mile north/northeast
PFO1A (palustrine, forested, broad-leaved deciduous, temporarily flooded)	0.14-mile northeast
R4SBC (riverine, intermittent, streambed, seasonally flooded)	0.15-mile northeast

Figure 4 also depicts data from the National Hydrography dataset (NHD), which represents the water drainage network surface water component on the USGS topographic maps. Two NHD flowlines are depicted within the project area, one corresponding with Six Mile Creek and one located in the southwest quadrant of the project area that does not correspond with a field-identified stream.

Soils

According to the Soil Survey Geographic (SSURGO) Database for Jennings County, the project area contains soil types on the national list of hydric soils (Figure 5). Table 2 lists the soil types present within the project area.

Table 2: Soil Series in the Project Area

Soil Name	Map Abbreviation	Hydric Range
Haymond silt loam, 0-2% slopes, frequently flooded, brief duration	HcgAH	0 (Not Hydric)
Steff silt loam, 0-2% slopes, frequently flooded, brief duration	StaAH	0 (Not Hydric)
Stendal silt loam, 0-2% slopes, rarely flooded	StdAQ	1-32 (Hydric)
Udorthents, loamy	Uby	0 (Not Hydric)
Wakeland silt loam, 0-2% slopes, occasionally flooded, very brief duration	WaaAW	1-32 (Hydric)
Wirt loam, 0-2% slopes, occasionally flooded, very brief duration	WprAW	0 (Not Hydric)

Floodplain

A Flood Insurance Rate Map (FIRM) obtained from the Federal Emergency Management Agency (FEMA) shows that the central portion of the project area is located within the 100-year flood hazard zone associated with Six Mile Creek (Figure 6).

Hydrological Unit Code (HUC)

The project is in the Six Mile Creek watershed, which is identified by the 12-digit HUC 051202070702 (Figure 7).

Attached Documents

- Graphics (Figures 1-9)
- Photo Orientation Map and Ground Level Photographs
- Wetland Data Sheets

FIELD RECONNAISSANCE

A field visit to inspect the project area for aquatic resources was conducted by BLN staff on September 27, 2019. Existing land use in the project area is generally agricultural property south of the road and commercial or vacant property north of the road. The survey footprint extended approximately 300 feet east and west of the bridge and 100 feet north and south of the centerline of US 50 to encompass the maximum estimated area of disturbance based on the design (Figure 2). The field investigation identified one waterway (Six Mile Creek) and no wetlands in the vicinity of the project area (Figure 8).

Streams

The project area was inspected for the presence of streams; any streams found were mapped, measured, and informally evaluated using the techniques described in *Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index* (Ohio EPA, 2006). Recommendations on the jurisdictional status of water resources within the project area were made based on guidance from the *US Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* (2007).

Six Mile Creek

The USGS topographic map identifies Six Mile Creek as a solid (perennial) blue-line tributary to the Vernon Fork of the Muscatatuck River. Six Mile Creek is a perennial stream that flows generally from north to south and outfalls into the Vernon Fork of the

Muscatatuck River approximately 5.5 miles south/southwest of the project area. The USGS *Stream Stats* website calculated the drainage area of Six Mile Creek upstream of the bridge at 22.329 square miles. The riparian corridor within the project area consists of open fields and agricultural land bordering the stream, with brush and trees along the tops of the banks. The banks of the stream within the project limits are steeply sloped. On the north side of bridge #050-40-00853B there are areas of riprap access on both sides of Six Mile Creek in the northeast and northwest quadrants. Six Mile Creek had a defined Ordinary High-Water Mark (OHWM) that was measured at approximately 30 feet wide and 2 feet deep (measured on the west bank approximately 50 feet south of the bridge). Approximately 200 linear feet of Six Mile Creek is present within the project area. Six Mile Creek exhibited moderate sinuosity, a substrate of predominantly silt and cobble, several riffle/run complexes, and a maximum pool depth of one foot, with clear, slow-flowing water present at the time of inspection. Based on these observations, the stream quality was rated as fair. Because Six Mile Creek flows to the Vernon Fork of the Muscatatuck River, which flows to the Muscatatuck River, which flows to the East Fork of the White River, which flows to the White River, which flows to the Wabash River, which flows to the Ohio River, a Section 10 Traditional Navigable Water, it would likely be considered a Water of the U.S.

Table 3: Stream Summary

Water Feature Name	Photos	Lat/Long	OHWM Width (ft)	OHWM Depth (ft)	USGS Blue-line? Type?	Quality	Substrate	Riffles/ Pools?	Likely Water of US?
Six Mile Creek	6, 7, 9, 10	38.975796 N 85.734690 W	30	2	Yes, perennial	Fair	Silt/cobble	R: Yes P: Yes	Yes

Wetland Sample Points

The *US Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual* and the *2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* were used to determine whether wetlands were present within the survey area. Wetland/non-wetland determinations were made using guidance and techniques provided by the *Delineation Manual* and *Regional Supplement*, including vegetation (*National Wetland Plant List*, Lichvar et al, 2016), hydrology, and soil characteristics. Sample points were taken in areas where potential wetland hydrology and/or hydrophytic vegetation were observed. The soils observed at each sample point location were compared to the hydric soil indicators presented in the *Field Indicators of Hydric Soils in the United States*.

Due to the steep slopes and lack of any evident wetland hydrology, no wetland sample point was collected in the northwest quadrant. One sample point was collected from each of the remaining quadrants (three in total), as discussed below. An aerial photograph that illustrates the sample point locations and any field-identified water resources is provided as Figure 8. Also attached to this report are ground-level photographs of the project area and sample points, a photo orientation map (Figure 9), and wetland determination data forms for the sample points.

Table 4: Wetland Determination Data Point Summary

Data Point	Photos	Lat/Long	Vegetation	Soils	Hydrology	Wetland
SP1	11, 12	38.975907 N, 85.734320 W	No	No	No	No
SP2	13, 14	38.975689 N, 85.734648 W	Yes	No	No	No
SP3	15, 16	38.975660 N, 85.734961 W	Yes	No	Yes	No

Sample Point 1 (SP1)

SP1 was taken in the northeast bridge quadrant, to investigate a terraced area above the streambank. Dominant vegetation at SP1 included black walnut (*Juglans nigra*, FACU) and sycamore (*Platanus occidentalis*, FACW) in the sapling/shrub stratum and wingstem (*Verbesina alternifolia*, FACW), bull thistle (*Cirsium vulgare*, FACU), hedge false bindweed (*Calystegia sepium*, FAC), and smooth crabgrass (*Digitaria ischaemum*, FACU) in the herb stratum. This observation did not meet the vegetation criterion for a positive wetland determination, with a dominance test of 50% and a prevalence index of 3.24. The soils in the test pit consisted of a silty clay loam with a matrix color of 10YR 3/4 (100%) to 12 inches below ground surface, with no redoximorphic features or other hydric soil indicators observed. A restrictive layer of rock was encountered at 12 inches. This observation did not meet the hydric soil criterion for a positive wetland determination. No primary indicators of wetland hydrology and only one secondary indicator (geomorphic position – toe of slope) were observed. This observation did not meet the hydrology criterion for a positive wetland determination. SP1 did not have sufficient wetland hydrology indicators, a dominance of hydrophytic vegetation, or hydric soils, and therefore was designated an upland point.

Sample Point 2 (SP2)

SP2 was taken in the southeast bridge quadrant, to investigate a terraced area above the streambank. Dominant vegetation at SP2 included sycamore (*Platanus occidentalis*, FACW) and hackberry (*Celtis occidentalis*, FAC) in the tree stratum, boxelder (*Acer*

negundo, FAC) and hackberry (*Celtis occidentalis*, FAC) in the sapling/shrub stratum, and spreading dogbane (*Apocynum androsaemifolium*, UPL), white baneberry (*Actaea pachypoda*, FACU), and poison ivy (*Toxicodendron radicans*, FAC) in the herb stratum. This observation met the vegetation criterion for a positive wetland determination, with a dominance test of 71%. The soils in the test pit consisted of a sandy loam with a matrix color of 2.5Y 4/4 (100%) to 20 inches below ground surface, with no redoximorphic features or other hydric soil indicators observed. This observation did not meet the hydric soil criterion for a positive wetland determination. No primary indicators of wetland hydrology and only one secondary indicator (geomorphic position – toe of slope) were observed. This observation did not meet the hydrology criterion for a positive wetland determination. SP2 did have a dominance of hydrophytic vegetation but lacked sufficient wetland hydrology indicators or hydric soils, and therefore was designated an upland point.

Sample Point 3 (SP3)

SP3 was taken in the southwest bridge quadrant, to investigate a terraced area above the streambank. Dominant vegetation at SP3 included sycamore (*Platanus occidentalis*, FACW) and black walnut (*Juglans nigra*, FACU) in the tree stratum, boxelder (*Acer negundo*, FAC), green ash (*Fraxinus pennsylvanica*, FACW), slippery elm (*Ulmus rubra*, FAC), and cottonwood (*Populus deltoides*, FAC) in the sapling/shrub stratum, and whitegrass (*Leersia virginica*, FACW) and mat sandbur (*Cenchrus longispinus*, UPL) in the herb stratum. This observation met the vegetation criterion for a positive wetland determination, with a dominance test of 75% and a prevalence index of 2.98. The soils in the test pit consisted of a silt loam with a matrix color of 2.5Y 4/3 (100%) to 16 inches below ground surface, with no redoximorphic features or other hydric soil indicators observed. A restrictive layer of rock was encountered at 16 inches. This observation did not meet the hydric soil criterion for a positive wetland determination. No primary indicators of wetland hydrology and two secondary indicators (geomorphic position – toe of slope and passing the FAC-neutral test) were observed. This observation met the hydrology criterion for a positive wetland determination. SP3 did have a dominance of hydrophytic vegetation and sufficient wetland hydrology indicators but lacked hydric soils, and therefore was designated an upland point.

Other Features

The project area was also surveyed for other aquatic features, including roadside ditches and open water bodies. Any features identified were evaluated for potential jurisdictional status.

Roadside Ditches

No roadside ditches were observed in the project area.

Open Water

No lakes, ponds, or other bodies of open water were observed in the project area.

Conclusions

BLN conducted a field investigation for wetlands and Waters of the U.S. at the project area on September 27, 2019. The investigation identified one waterway and no wetlands within the project limits.

Six Mile Creek is likely a Water of the U.S. Every effort should be taken to avoid and minimize impacts to the waterway. If impacts are necessary, mitigation may be required. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by USACE. This report is our best judgment based on the guidelines set forth by USACE.

Acknowledgement

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



Colin Keith
Environmental Analyst
Beam, Longest and Neff, LLC

PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD:

September 14, 2020

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

Colin Keith
Beam, Longest and Neff, LLC
8320 Craig Street
Indianapolis, Indiana 46250
317-806-3022

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The proposed project (Des. No. 1700203) consists of the replacement of the existing bridge (#050-40-00853B) that carries US 50 over Six Mile Creek. The project is located in a rural area approximately 5.64 miles east of US 31 in Jennings County. The existing structure is a 3-span concrete continuous slab bridge with an overall length of 97 feet and an out-to-out width (deck width) of 43.2 feet. The bridge provides a clear roadway width of 40 feet and carries two lanes of traffic over Six Mile Creek. The bridge will be replaced with a new 3-span continuous composite steel beam bridge that will be 150 feet long and have a deck width of 58.5 feet and a clear roadway width of 55.5 feet. The bridge will be constructed on semi-integral end bents with spill-through abutments, with 18-inches of revetment riprap to be placed on the bridge slopes. The total project length is 550 feet and will include reconstruction of the intersection in the northwest quadrant. Permanent and temporary right of way acquisition is anticipated, with the amount unknown at this time. Because the project is located on US 50, it is anticipated that traffic will be maintained on the road through phased construction.

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

State: Indiana County: Jennings City: Hayden
Center coordinates of site (lat/long in degree decimal format):
Lat. 38.975796 N Long. 85.734690 W
Universal Transverse Mercator: 16S
Name of nearest waterbody: Six Mile Creek

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- ☐ Office (Desk) Determination. Date:
☐ Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH “MAY BE” SUBJECT TO REGULATORY JURISDICTION

Site Number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non- wetland waters)	Geographic authority to which the aquatic resource “may be” subject (i.e., Section 404 or Section 10/404)
Six Mile Creek	38.975796 N	85.734690 W	0.138 acre/200 linear feet	non-wetland waters	CWA Section 404

1. The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring “pre-construction notification” (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant’s acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there “*may be*” waters of the U.S. and/or that there “*may be*” navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in case file. Appropriately reference sources below where indicated for all checked items:

- ☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor. Figures 1-9.
- ☒ Data sheets prepared/submitted by or on behalf of the PJD requestor.
 - ☐ Office concurs with data sheets/delineation report.
 - ☐ Office does not concur with data sheets/delineation report. Rationale:
- ☐ Data sheets prepared by the Corps.
- ☐ Corps navigable waters' study.
- ☐ U.S. Geological Survey Hydrologic Atlas.
 - ☐ USGS NHD data.
 - ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: USGS 7.5' Hayden Quadrangle.
- ☒ Natural Resources Conservation Service Soil Survey. Citation: SSURGO.
- ☒ National wetlands inventory map(s). Cite name: NWI, USFWS.
- ☐ State/Local wetland inventory map(s).
- ☒ FEMA/FIRM maps.
- ☒ 100-year Floodplain Elevation is: undetermined (project is in Zone A).
- ☒ Photographs: ☒ Aerial (Name & Date): Indiana Spatial Data Portal, 2016
or ☒ Other (Name & Date): Ground-Level Photos, September 27, 2019
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

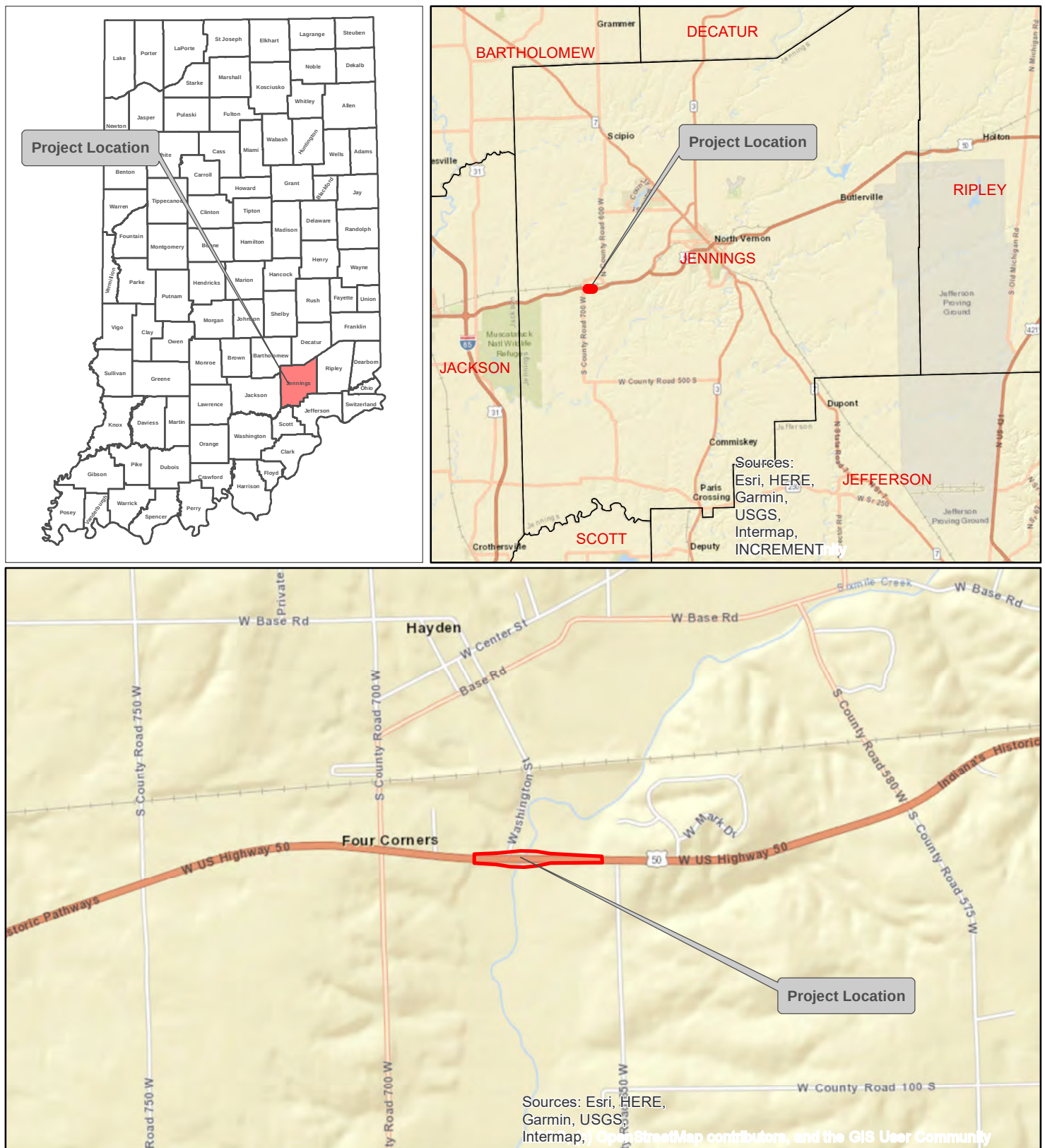
Signature and date of Regulatory staff member
completing PJD



September 14, 2020

Signature and date of person requesting PJD
(REQUIRED, unless obtaining the signature is
impracticable)¹

¹ Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.



Source: Indiana MAP

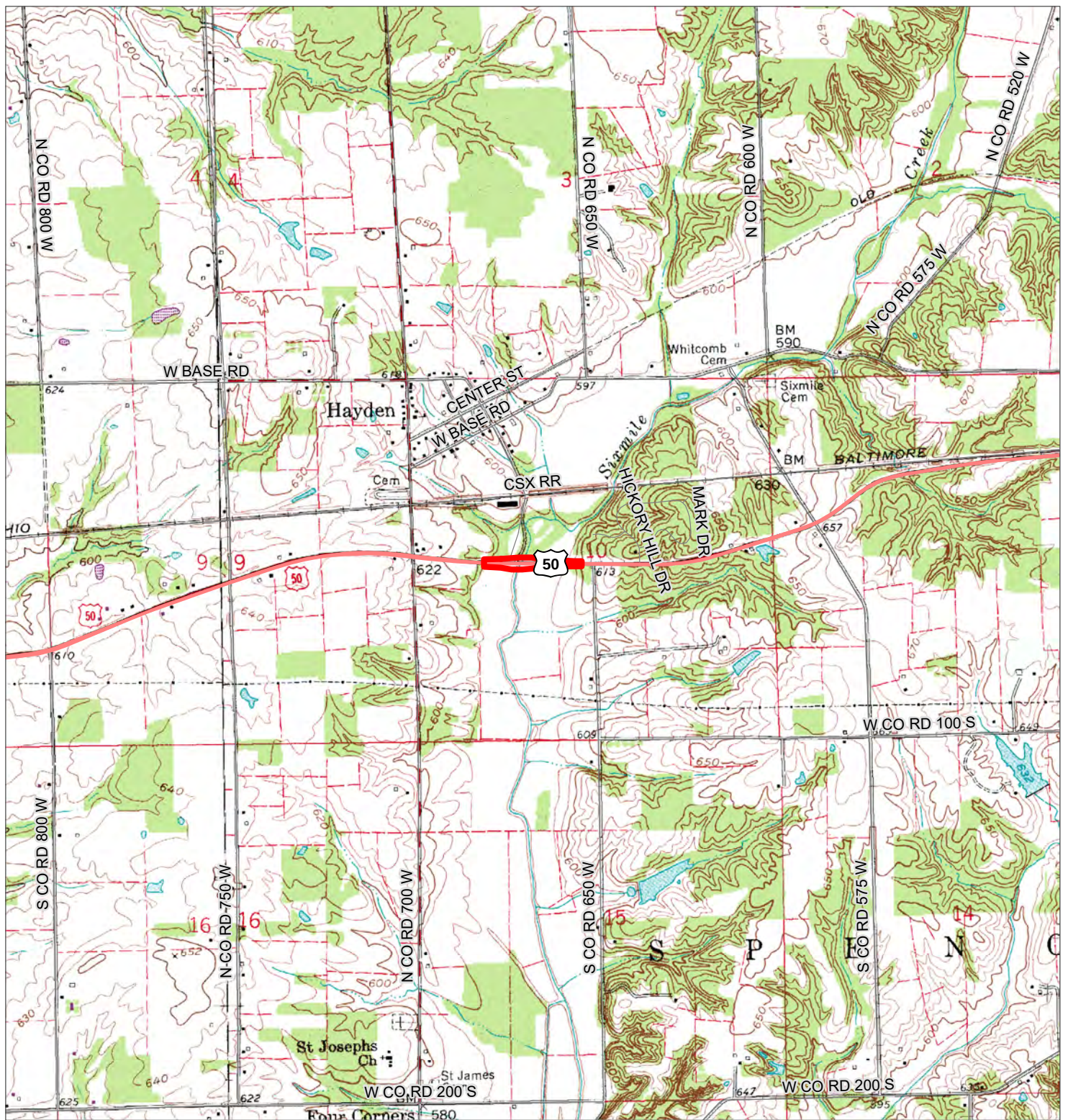
Legend

- Project County
- County Boundary

BLN
BEAM · LONGEST · NEFF

Figure 1: Project Location Map
Bridge #050-40-00853B
US 50 over Six Mile Creek
Jennings County, Indiana
Des. No. 1700203
Author: Colin Keith

January 09, 2021



Source: Indiana MAP

1:24,000

1 in = 2,000 ft



Legend

Project Area

Figure 3a: USGS Topographic Map - Area View

Bridge #050-40-00853B

US 50 over Six Mile Creek

Jennings County, Indiana

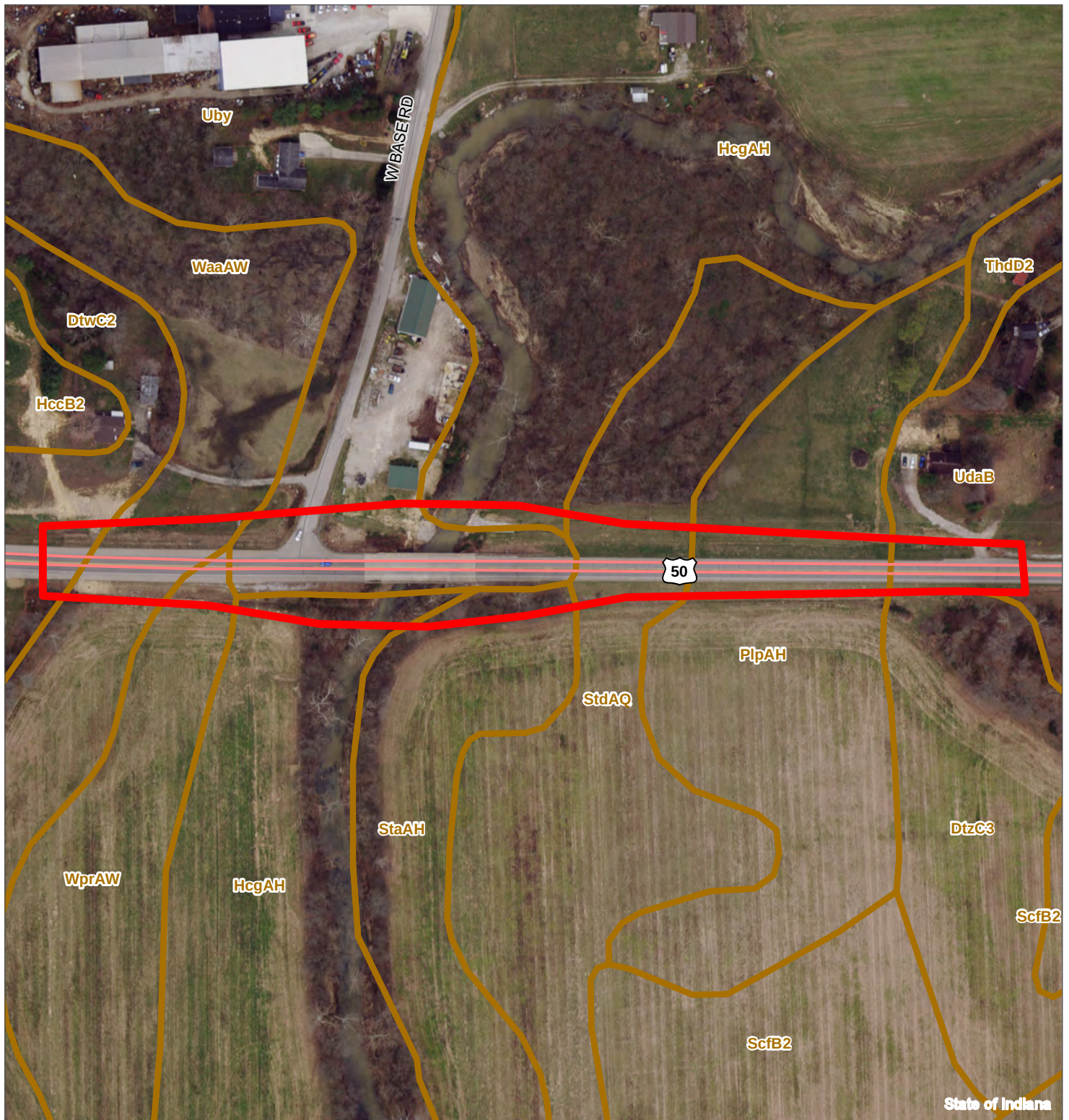
Des. No. 1700203

Author: Colin Keith

January 09, 2021

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Categorical Exclusion F-9



State of Indiana



Source: Indiana MAP

1:2,400

1 in = 200 ft



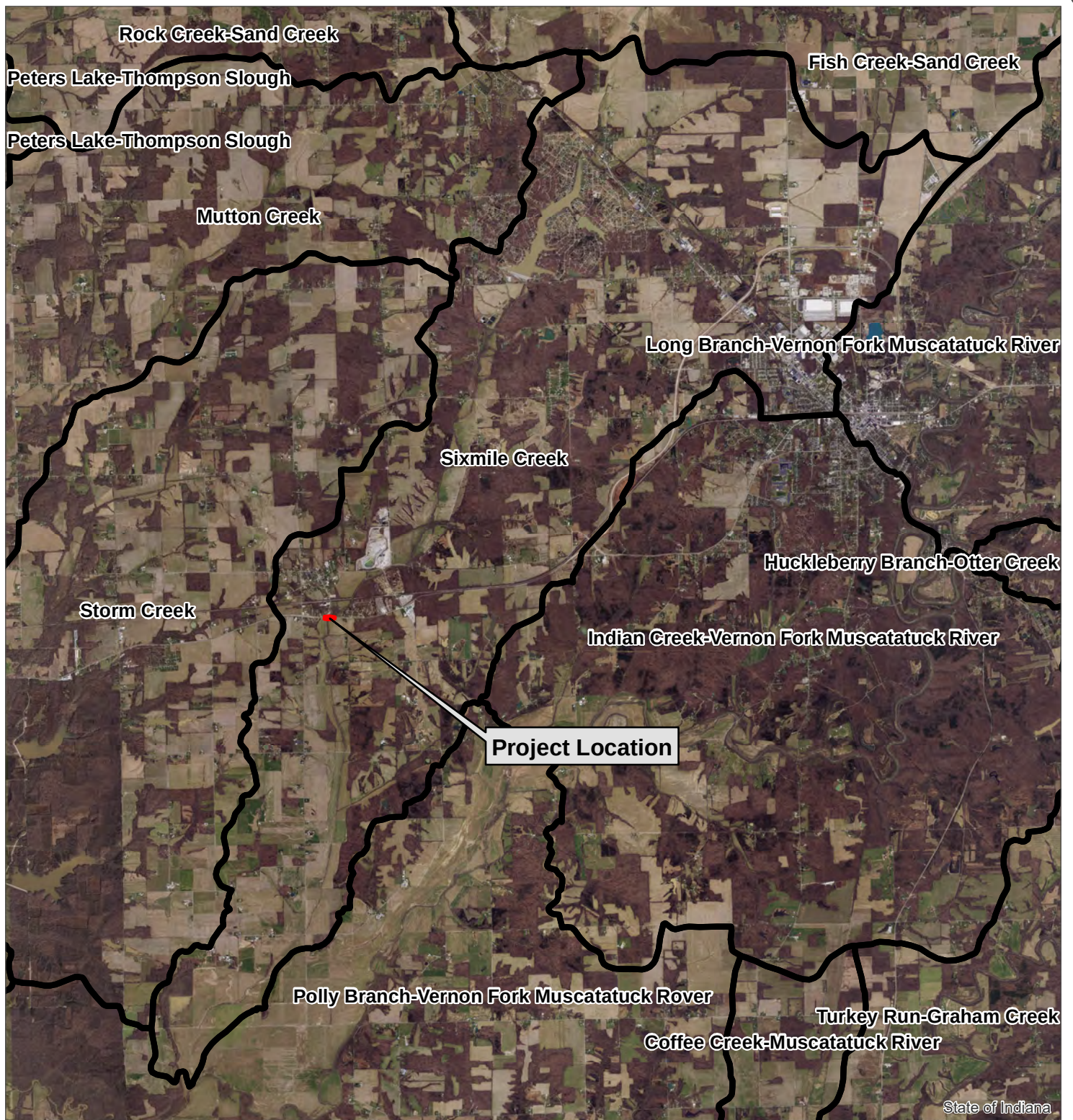
Legend

- Project Area
- Soil Classification

Figure 5: Soil Map
 Bridge #050-40-00853B
 US 50 over Six Mile Creek
 Jennings County, Indiana
 Des. No. 1700203
 Author: Colin Keith

January 09, 2021

\\bln-netapp02\Project\180022 - Seymour District US 50 Des 1700203\07 Environmental\WOUSR\IGIS\02 Data Displays.mxd | Saturday, January 9, 2021 | 9:11:56 AM



Source: Indiana MAP

1:96,000

1 in = 8,000 ft

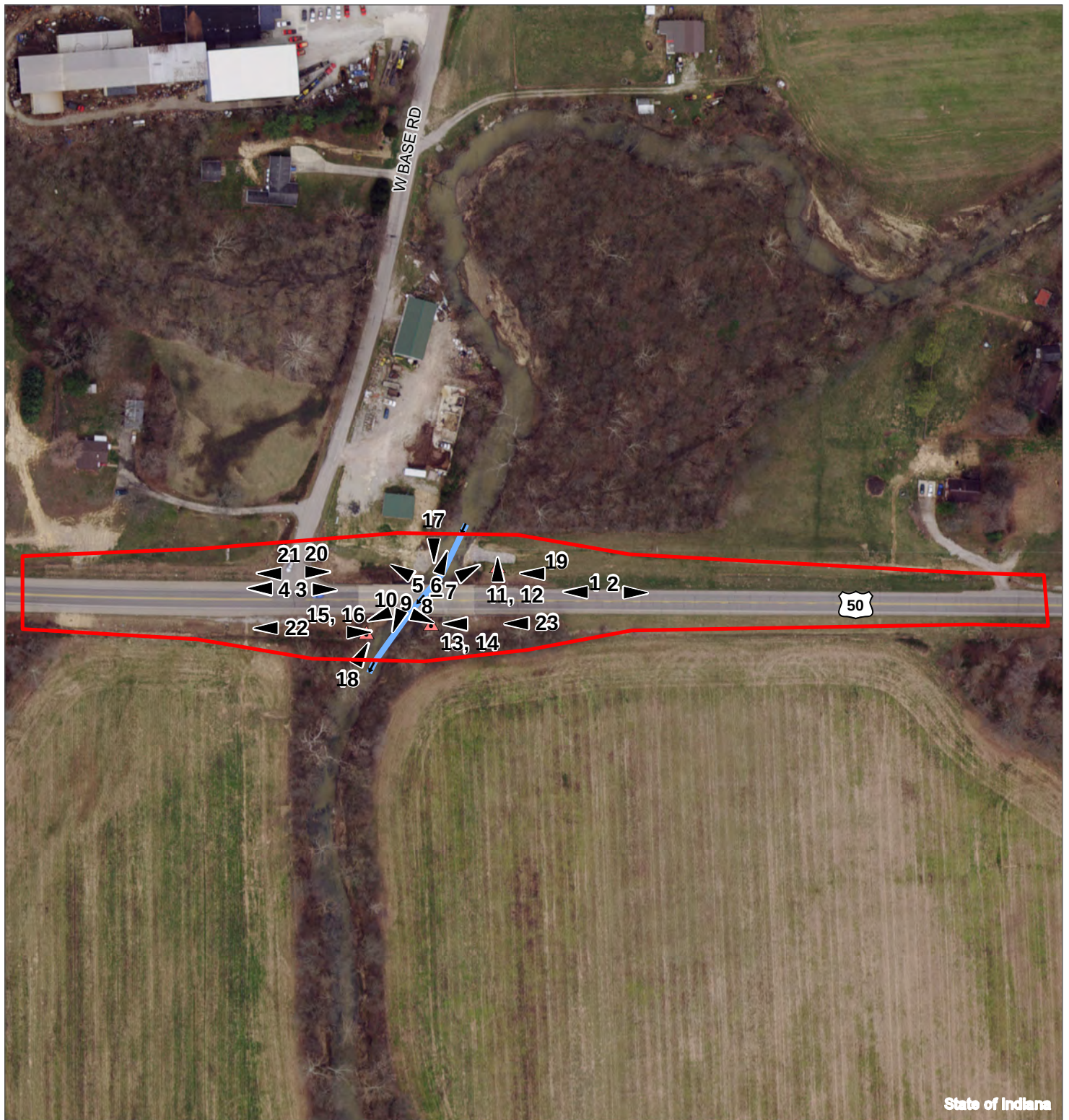


Legend

- Project Area
- Watershed - HUC 12

Figure 7: Watershed Map
 Bridge #050-40-00853B
 US 50 over Six Mile Creek
 Jennings County, Indiana
 Des. No. 1700203
 Author: Colin Keith

February 12, 2020



Source: BLN Field Investigation

1:2,300

1 in = 192 ft

State of Indiana



Legend

- Project Area
- Photo Location

Figure 9: Water Resources / Photo Orientation Map
 Bridge #050-40-00853B
 US 50 over Six Mile Creek
 Jennings County, Indiana
 Des. No. 1700203
 Author: Kirsten Lewis

January 12, 2021



Photo 11: Looking north at SP1.



Photo 12: SP1 soil detail.



Photo 13: Looking west at SP2.



Photo 14: SP2 soil detail.



Photo 15: Looking east at SP3.



Photo 16: SP3 soil detail.



Photo 17: Looking south, downstream, at US 50 Bridge over Six Mile Creek.



Photo 18 Looking north, upstream, at US 50 Bridge over Six Mile Creek



Photo 19: Looking west along north side of US 50 east of Six Mile Creek



Photo 20 Looking east along north side of US 50 west of Six Mile Creek



Photo 21: Looking west along north side of US 50 from intersection with Washington Street



Photo 22 Looking west along south side of US 50 from intersection with Washington Street



Photo 23: Looking west along south side of US 50 from east of Bridge over Six Mile Creek

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: US 50 over Six Mile Creek (Des 1700203) City/County: Hayden/Jennings Sampling Date: 9/27/19
 Applicant/Owner: INDOT State: IN Sampling Point: SP1
 Investigator(s): Colin Keith Section, Township, Range: 10-6N-7E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None
 Slope (%): 0-2 Lat: 38.975907 Long: -85.734320 Datum: NAD 83
 Soil Map Unit Name: Uby - Udorthents, loamy NWI classification: Upland

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

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

Hydrophytic Vegetation Present?	Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	
Remarks: Sample point taken near toe of slope, north of US 50, east of Six Mile Creek.		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30-foot radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)														
1. <u>None</u>																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
= Total Cover				Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>35</u></td> <td>x 2 = <u>70</u></td> </tr> <tr> <td>FAC species <u>25</u></td> <td>x 3 = <u>75</u></td> </tr> <tr> <td>FACU species <u>65</u></td> <td>x 4 = <u>260</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>125</u> (A)</td> <td><u>405</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.24</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>35</u>	x 2 = <u>70</u>	FAC species <u>25</u>	x 3 = <u>75</u>	FACU species <u>65</u>	x 4 = <u>260</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>125</u> (A)	<u>405</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>35</u>	x 2 = <u>70</u>																	
FAC species <u>25</u>	x 3 = <u>75</u>																	
FACU species <u>65</u>	x 4 = <u>260</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>125</u> (A)	<u>405</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15-foot radius</u>)																		
1. <u>Juglans nigra</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Platanus occidentalis</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>															
3. _____																		
4. _____																		
5. _____																		
= Total Cover																		
Herb Stratum (Plot size: <u>5-foot radius</u>)																		
1. <u>Verbesina alternifolia</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Cirsium vulgare</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Calystegia sepium</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>															
4. <u>Digitaria ischaemum</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
5. <u>Asclepias syriaca</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
6. <u>Toxicodendron radicans</u>	<u>10</u>	<u>N</u>	<u>FAC</u>															
7. <u>Campsis radicans</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
8. _____																		
9. _____																		
10. _____																		
= Total Cover																		
Woody Vine Stratum (Plot size: <u>30-foot radius</u>)																		
1. <u>None</u>																		
2. _____																		
= Total Cover																		
Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)																		
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
Hydrophytic Vegetation Present? Yes ☐ No ☒																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation was not dominant in this area. This observation does not satisfy the vegetation criterion.																		

Sampling Point: SP1

HYDROLOGY

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

Secondary Indicators (minimum of two required)

☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6)
☐ High Water Table (A2)	☐ Aquatic Fauna (B13)	☐ Drainage Patterns (B10)
☐ Saturation (A3)	☐ True Aquatic Plants (B14)	☐ Dry-Season Water Table (C2)
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Crayfish Burrows (C8)
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Stunted or Stressed Plants (D1)
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☒ Geomorphic Position (D2)
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	☐ FAC-Neutral Test (D5)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Gauge or Well Data (D9)	
☐ Sparsely Vegetated Concave Surface (B8)	☐ Other (Explain in Remarks)	

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

Sufficient hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: US 50 over Six Mile Creek (Des 1700203) City/County: Hayden/Jennings Sampling Date: 9/27/19
 Applicant/Owner: INDOT State: IN Sampling Point: SP2
 Investigator(s): Colin Keith Section, Township, Range: 10-6N-7E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None
 Slope (%): 0-2 Lat: 38.975689 Long: -85.734648 Datum: NAD 83
 Soil Map Unit Name: Uby - Udorthents, loamy NWI classification: Upland

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

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

Hydrophytic Vegetation Present? Yes ☒ No ☐	Hydic Soil Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Wetland Hydrology Present? Yes ☐ No ☒		
Remarks: Sample point taken near toe of slope, south of US 50, east of Six Mile Creek.		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30-foot radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>71%</u> (A/B)														
1. <u>Platanus occidentalis</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Celtis occidentalis</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Populus deltoides</u>	<u>10</u>	<u>N</u>	<u>FAC</u>															
4. <u></u>	<u></u>	<u></u>	<u></u>															
5. <u></u>	<u></u>	<u></u>	<u></u>															
<u>80</u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15-foot radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species <u>90</u></td> <td>x 3 = <u>270</u></td> </tr> <tr> <td>FACU species <u>30</u></td> <td>x 4 = <u>120</u></td> </tr> <tr> <td>UPL species <u>25</u></td> <td>x 5 = <u>125</u></td> </tr> <tr> <td>Column Totals: <u>185</u> (A)</td> <td><u>595</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.22</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species <u>90</u>	x 3 = <u>270</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>25</u>	x 5 = <u>125</u>	Column Totals: <u>185</u> (A)	<u>595</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>40</u>	x 2 = <u>80</u>																	
FAC species <u>90</u>	x 3 = <u>270</u>																	
FACU species <u>30</u>	x 4 = <u>120</u>																	
UPL species <u>25</u>	x 5 = <u>125</u>																	
Column Totals: <u>185</u> (A)	<u>595</u> (B)																	
1. <u>Acer negundo</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>															
2. <u>Celtis occidentalis</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Juglans nigra</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
4. <u></u>	<u></u>	<u></u>	<u></u>															
5. <u></u>	<u></u>	<u></u>	<u></u>															
<u>40</u> = Total Cover																		
Herb Stratum (Plot size: <u>5-foot radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ☒ 2 - Dominance Test is >50% ☒ 3 - Prevalence Index is ≤3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ☐ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Apocynum androsaemifolium</u>	<u>25</u>	<u>Y</u>	<u>UPL</u>															
2. <u>Actaea pachypoda</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Toxicodendron radicans</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>															
4. <u></u>	<u></u>	<u></u>	<u></u>															
5. <u></u>	<u></u>	<u></u>	<u></u>															
6. <u></u>	<u></u>	<u></u>	<u></u>															
7. <u></u>	<u></u>	<u></u>	<u></u>															
8. <u></u>	<u></u>	<u></u>	<u></u>															
9. <u></u>	<u></u>	<u></u>	<u></u>															
10. <u></u>	<u></u>	<u></u>	<u></u>															
<u>65</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30-foot radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes ☒ No ☐														
1. <u>None</u>	<u></u>	<u></u>	<u></u>															
2. <u></u>	<u></u>	<u></u>	<u></u>															
<u></u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation was dominant in this area. This observation satisfies the vegetation criterion.																		

SOIL

Sampling Point: SP2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	2.5Y 4/4	100	None	-	-	-	SL	no redox features

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: ☐ Histosol (A1) ☐ Histic Epipedon (A2) ☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4) ☐ Stratified Layers (A5) ☐ 2 cm Muck (A10) ☐ Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12) ☐ Sandy Mucky Mineral (S1) ☐ 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: ☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Loamy Mucky Mineral (F1) ☐ Loamy Gleyed Matrix (F2) ☐ Depleted Matrix (F3) ☐ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7) ☐ Redox Depressions (F8) ☐ Coast Prairie Redox (A16) ☐ Dark Surface (S7) ☐ Iron-Manganese Masses (F12) ☐ Very Shallow Dark Surface (TF12) ☐ Other (Explain in Remarks)
---	---

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
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Remarks:
Hydric soils were not observed. This observation does not satisfy the soils criterion.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ True Aquatic Plants (B14) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Gauge or Well Data (D9) ☐ Other (Explain in Remarks)	

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

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

Remarks:
Sufficient hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: US 50 over Six Mile Creek (Des 1700203) City/County: Hayden/Jennings Sampling Date: 9/27/19
 Applicant/Owner: INDOT State: IN Sampling Point: SP3
 Investigator(s): Colin Keith Section, Township, Range: 10-6N-7E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None
 Slope (%): 0-2 Lat: 38.975660 Long: -85.734961 Datum: NAD 83
 Soil Map Unit Name: HcgAH - Haymond silt loam, 0-2% slopes, frequently flooded, brief dur NWI classification: Upland
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☒ No ☐	
Remarks: Sample point taken near toe of slope, south of US 50, west of Six Mile Creek.		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30-foot radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)																
1. <u>Platanus occidentalis</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>																	
2. <u>Juglans nigra</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>85</u></td> <td>x 2 = <u>170</u></td> </tr> <tr> <td>FAC species <u>70</u></td> <td>x 3 = <u>210</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>30</u></td> <td>x 5 = <u>150</u></td> </tr> <tr> <td>Column Totals: <u>205</u> (A)</td> <td><u>610</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.98</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>85</u>	x 2 = <u>170</u>	FAC species <u>70</u>	x 3 = <u>210</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>30</u>	x 5 = <u>150</u>	Column Totals: <u>205</u> (A)	<u>610</u> (B)	Prevalence Index = B/A = <u>2.98</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>85</u>	x 2 = <u>170</u>																			
FAC species <u>70</u>	x 3 = <u>210</u>																			
FACU species <u>20</u>	x 4 = <u>80</u>																			
UPL species <u>30</u>	x 5 = <u>150</u>																			
Column Totals: <u>205</u> (A)	<u>610</u> (B)																			
Prevalence Index = B/A = <u>2.98</u>																				
Sapling/Shrub Stratum (Plot size: <u>15-foot radius</u>)																				
1. <u>Acer negundo</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>																	
2. <u>Fraxinus pennsylvanica</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>																	
3. <u>Ulmus rubra</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>																	
4. <u>Populus deltoides</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>																	
5. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ☐ 2 - Dominance Test is >50% ☒ 3 - Prevalence Index is ≤3.0 ¹ ☒ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ☐ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
Herb Stratum (Plot size: <u>5-foot radius</u>)																				
1. <u>Leersia virginica</u>	<u>35</u>	<u>Y</u>	<u>FACW</u>																	
2. <u>Cenchrus longispinus</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>																	
3. <u>Toxicodendron radicans</u>	<u>15</u>	<u>N</u>	<u>FAC</u>																	
4. <u>Conoclinium coelestinum</u>	<u>10</u>	<u>N</u>	<u>FACW</u>																	
5. <u>Lespedeza cuneata</u>	<u>10</u>	<u>N</u>	<u>UPL</u>																	
6. <u>Polygonum cespitosum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>																	
7. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes ☒ No ☐																
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
Woody Vine Stratum (Plot size: <u>30-foot radius</u>)																				
1. <u>None</u>	_____	_____	_____	Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation was dominant in this area. This observation satisfies the vegetation criterion.																
2. _____	_____	_____	_____																	

Sampling Point: SP3

HYDROLOGY

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

- Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☒ FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes X No

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

Remarks:

Sufficient hydrology indicators were observed. This observation satisfies the hydrology criterion.

Appendix G:

Public Involvement



NOTICE OF SURVEY
June 27, 2018

Jackie W. & Rayetta G. Wagster
P.O. Box 8
Hayden, IN 47245

Re: Jennings County, Indiana
US Highway 50 Bridge
Replacement Project
Des. No. 1700203

Dear Property Owner:

Our information indicates that you own or occupy property near this proposed bridge replacement project. Our employees will be doing a survey of the project area in the near future. It may be necessary for them to come onto your property to complete this work. This is permitted by law per Indiana Code IC 8-23-7-26. They will show you their identification, if you are available, before coming onto your property. If you have sold this property, or it is occupied by someone else, please let us know the name and address of the new owner or current occupant so we can contact them about the survey.

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

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

Sincerely,

BEAM, LONGEST AND NEFF, L.L.C.

A handwritten signature in blue ink, appearing to read 'Edward J. Sweetland', is written over the printed name.

Edward J. Sweetland, P.L.S.
Survey Manager

xc: 180022-108

Categorical Exclusion G-1

Appendix H:

Air Quality

Indiana Department of Transportation (INDOT)
State Preservation and Local Initiated Projects FY 2020 - 2024

SPONSOR	CONTR ACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024
Jennings County																		
Jennings County	38187 / 1500219	Init.	VA VARI	Bridge Inspections	Countywide Bridge Inspection and Inventory Program for Cycle Years 2019-2022	Seymour	0	STPBG		Local Funds	PE	\$0.00	\$17,821.71	\$2,682.42	\$12,707.27	\$2,432.02		
										Local Bridge Program	PE	\$71,286.85	\$0.00	\$10,729.68	\$50,829.09	\$9,728.08		
Jennings County	40276 / 1600797	Init.	IR 1011	Bridge Replacement, Concrete	Bridge #76 CR 800S over Big Graham Creek 0.5 miles E of CR 90W	Seymour	.14	STPBG		Group IV Program	CN	\$1,155,200.00	\$0.00			\$1,155,200.00		
										Local Funds	CN	\$0.00	\$288,800.00			\$288,800.00		
Indiana Department of Transportation	40414 / 1700203	Init.	US 50	Br Repl, Comp. Cont. Conc. Construction	5.64 miles E of US 31 at Six Mile Creek	Seymour	0	NHPP		Bridge Construction	CN	\$1,368,516.80	\$342,129.20			\$1,710,646.00		
										Bridge ROW	RW	\$16,000.00	\$4,000.00		\$20,000.00			
Indiana Department of Transportation	40437 / 1701502	Init.	SR 250	Replace Superstructure	04.16 miles W of SR 3 at Slate Creek	Seymour	0	STPBG		Bridge Construction	CN	\$577,543.20	\$144,385.80			\$721,929.00		
										Bridge ROW	RW	\$20,000.00	\$5,000.00		\$25,000.00			
Jennings County	40461 / 1600793	Init.	IR 1012	Road Reconstruction (3R/4R Standards)	O&M Ave 400ft E of Kipper Ln to Brownstown Rd to the end Hayden Pi	Seymour	.086	STPBG		Group III Program	CN	\$2,030,400.00	\$0.00			\$2,030,400.00		
										Local Funds	CN	\$0.00	\$507,600.00			\$507,600.00		
North Vernon	40896 / 1702963	Init.	ST 1015	Road Rehabilitation (3 R/4R Standards)	Walnut Street (US 50) from 7th Street to West Poplar Street	Seymour	.379	STPBG		Group III Program	CN	\$8,658,000.00	\$0.00			\$8,658,000.00		
Indiana Department of Transportation	40949 / 1801091	Init.	SR 750	Concrete Pavement Preservation (CPP)	US 50 to SR 3	Seymour	2.512	STPBG		Road Construction	CN	\$1,894,424.80	\$473,606.20		\$2,368,031.00			
Indiana Department of Transportation	40990 / 1800719	Init.	SR 750	Bridge Thin Deck Overlay	00.41 mile W of SR 3 over Unt Six Mile Creek	Seymour	0	STPBG		Bridge Construction	CN	\$103,202.40	\$25,800.60		\$129,003.00			
Indiana Department of Transportation	41021 / 1801313	Init.	SR 750	Centerline Rumble Stripes Installation	From SR 3 to US 50	Seymour	2.512	STPBG		Safety Construction	CN	\$88,693.60	\$22,173.40		\$110,867.00			
Indiana Department of Transportation	41447 / 1800994	Init.	SR 3	Small Structure Replacement	N of SR 250	Seymour	0	STPBG		Bridge Construction	CN	\$911,404.80	\$227,851.20				\$1,139,256.00	
										Bridge Consulting	PE	\$394,800.00	\$98,700.00	\$466,000.00			\$27,500.00	
										Bridge ROW	RW	\$24,000.00	\$6,000.00		\$30,000.00			
Indiana Department of Transportation	41535 / 1801692	Init.	SR 3	Slide Correction	.77 miles N of SR 7 in Vernon	Seymour	0	STPBG		Road Construction	CN	\$317,774.40	\$79,443.60				\$397,218.00	
										Road Consulting	PE	\$120,000.00	\$30,000.00	\$150,000.00				

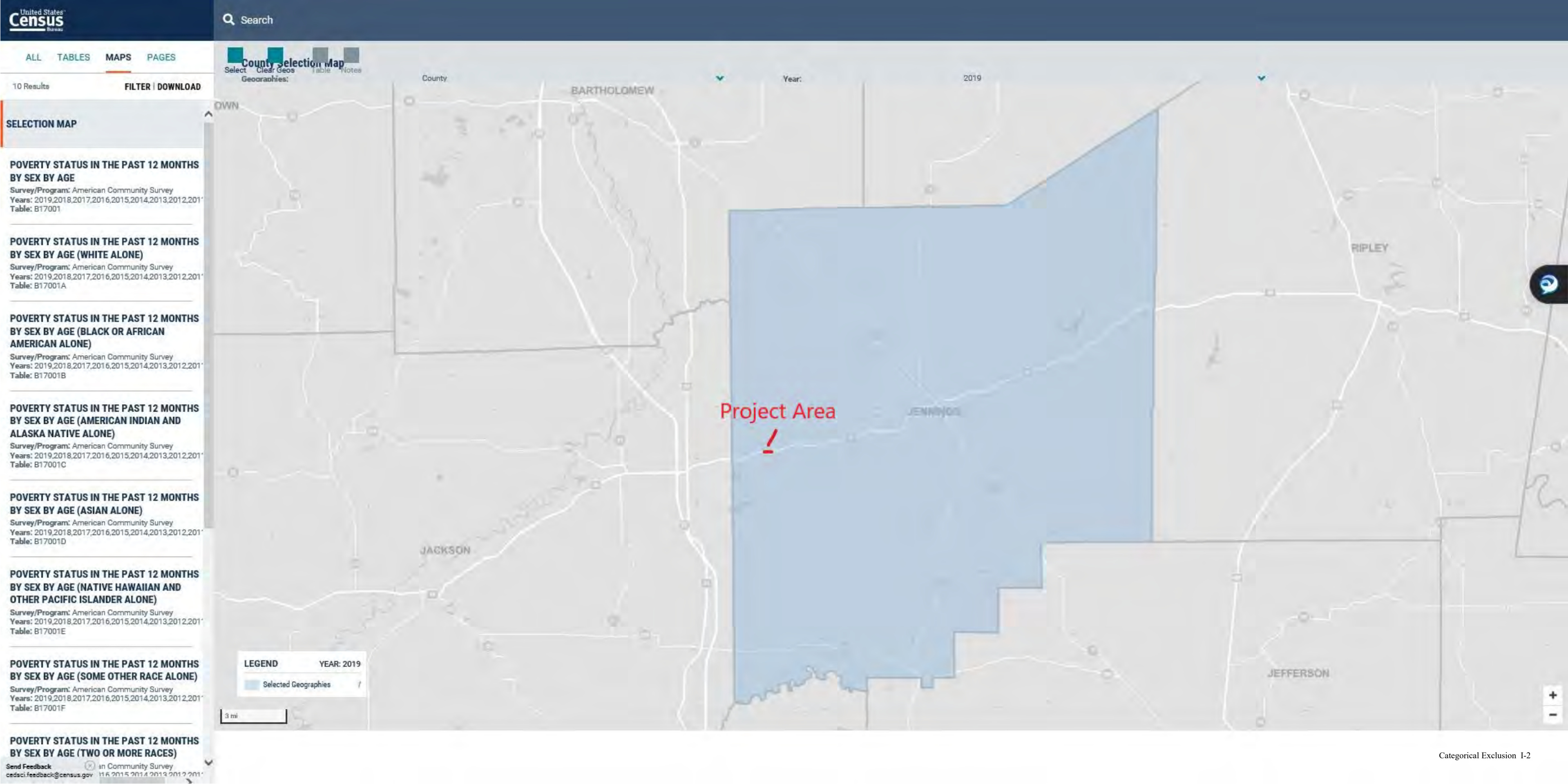
*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

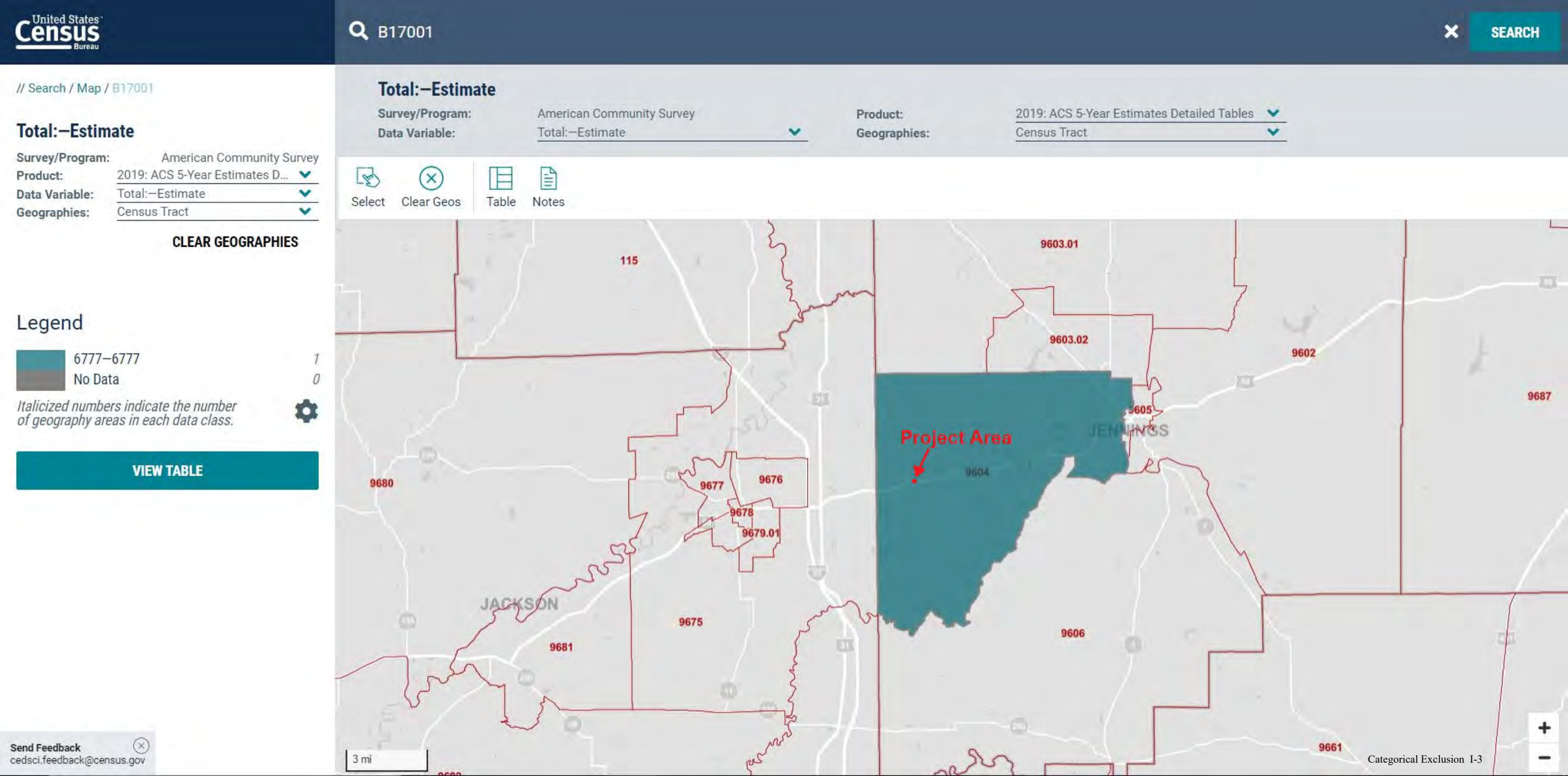
Appendix I:

Additional Studies

Land and Water Conservation Fund (LWCF) County Property List for Jennings County, Indiana

Project Number	Sub Project Code	County	Property
1800413	1800405H	Jennings	Wells (Commiskey) Woods Nature Preserve





HISPANIC OR LATINO ORIGIN BY RACE



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

Jennings County, Indiana			Census Tract 9604, Jennings County, Indiana		
Label		Estimate		Estimate	
▼ Total:		27,710		6,912	
▼ Not Hispanic or Latino:		27,027		6,754	
White alone		26,332		6,573	
Black or African American alone		395		94	
American Indian and Alaska Native alone		129		29	
Asian alone		63		0	
Native Hawaiian and Other Pacific Islander alone		0		0	
Some other race alone		0		0	
➤ Two or more races:		108		58	
➤ Hispanic or Latino:		683		158	

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE



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

Jennings County, Indiana		Census Tract 9604, Jennings County, Indiana	
Label	Estimate	Estimate	
▼ Total:	27,350	6,777	
➤ Income in the past 12 months below poverty level:	2,987	699	
➤ Income in the past 12 months at or above poverty level:	24,363	6,078	

Environmental Justice Workbook

	Jennings County, Indiana	Census Tract 9604, Jennings County, Indiana
Total Population	27,710	6,912
Black or African American alone	395	94
American Indian & Alaska Native alone	129	29
Asian alone	63	0
Native Hawaiian & other Pacific Islander	0	0
Some other race alone	0	0
Two or more races	108	58
Hispanic or Latino	683	158

Poverty Status	Jennings County, Indiana	Census Tract 9604, Jennings County, Indiana
Total Population	27,350	6,777
Income below poverty level	2987	699

Table: Minority and Low-Income Data (ACS, 2015-2019)		
	COC: Jennings County	AC: Census Tract 9604, Jennings County, IN
Percent Minority	4.97	4.90
125% of COC	6.22	6.22
EJ Population of Concern		No
Percent Low-Income	10.92	10.31
125% of COC	13.65	13.65
EJ Population of Concern		No