FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	County Road (CR) 26 / Elkhart County
Designation Number(s):	1902829
Project Description/Termini:	CR 26 over Baugo Creek Bridge Improvement / From approximately 0.08 mile west of CR 22 to approximately 0.31 mile west of CR 22.

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

Approval

N/A
INDOT DE Signature and Date

Drew Passmore April 4, 2023
INDOT ESD Signature and Date

N/A
FHWA Signature and Date

Release for Public Involvement

N/A
INDOT DE Initials and Date

ADWP February 27, 2023
INDOT ESD Initials and Date

Certification of Public Involvement

Angela Nicholson 3/24/2023
INDOT Consultant Services Signature and Date

INDOT DE/ESD Reviewer Signature and Date: Cindy Mauro April 4, 2023

Name and Organization of CE/EA Preparer: Sarah J. Everhart (lead) and Hannah R. Walker, American Structurepoint, Inc.

County Elkhart Route CR 26 Des. No. 1902829

Note: Refer to the most current INDOT CE Manual, guidance language, and other ESD resources for further guidance regarding any section of this form.

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*?		X
If No, then:		
Opportunity for a Public Hearing Required?	X	

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

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

Notice of Entry letters were mailed to potentially affected property owners near the project area on December 11, 2020 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 G-1.

The project met the minimum requirements described in the current *Indiana Department of Transportation (INDOT) Project Development Public Involvement Procedures Manual* which required the project sponsor to offer the public an opportunity to submit comments and/or request a public hearing. A Legal Notice of Planned Improvement (Appendix G, pages G-2 to G-3) was published in *The Elkhart Truth* on March 3, 2023, and again seven (7) days later on March 10, 2023 (Appendix G, pages G-4 to G-5). The public comment period closed fifteen (15) days after the first publication on March 17, 2023. The Legal Notice of Planned Improvement was also mailed or emailed to adjacent property owners, local businesses, and local or state officials who may be interested in the proposed project (Appendix G, page G-6). The environmental document and a project information packet (Appendix G, pages G-7 to G-12) were made available in-person at the Elkhart Public Library – Pierre Moran Branch (2400 Benham Avenue, Elkhart, IN 46517) and the Elkhart County Highway Department (610 Steury Avenue, Goshen, IN 46528), as well as online via the American Structurepoint, Inc. website (www.structurepointpublic.com/cr26overbaugo). No comments were received; therefore, no responses were required. No requests for a public hearing were received; therefore, no public hearing was held. INDOT Fort Wayne District certified the public involvement requirements on March 24, 2023.

Public Controversy on Environmental Grounds

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

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

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

Sponsor of the Project: The Elkhart County Highway Department INDOT District: Fort Wayne

Local Name of the Facility: CR 26

Funding Source (*mark all that apply*): Federal [X] State [ ] Local [X] Other* [ ]

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

PURPOSE AND NEED:

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

Need:

The need for the project is evidenced by the deteriorating condition of the bridge that carries CR 26 over Baugo Creek (Bridge No. 20-00145) and the substandard geometry of the roadway. Specific condition ratings noted in the August 12, 2021 *INDOT Bridge Inspection Report* for Bridge 20-00145 include 5 (fair/minor section loss) out of 9 (a score of 0 indicates failed condition and a score of 9 indicates excellent condition) for the deck, 4 (poor/advanced deterioration) out of 9 (excellent) for the superstructure, 6 (satisfactory/minor deterioration) out of 9 (excellent) for the substructure, and 5 (banks eroded/major damage) out of 9 (excellent) for the channel/channel protection (Appendix I, pages I-3 to I-4). Specific deficiencies cited in the August 12, 2021 INDOT Bridge Inspection Report include spalling, longitudinal cracks, and delaminations of the deck; exposed or broken strands, cracks, and bearing pad movement at the southwest corner of the superstructure; cracks, spall with exposed steel, and water seepage onto the seats of the substructure; and moderate bank erosion with stream flow directed at the east abutment resulting in the channel bottom being close to the bottom of the footing elevation. (Appendix I, pages I-3 to I-4)

The bridge inventory load rating is 26 (36 is required) and is posted at 15 tons (Appendix I, page I-4). The bridge sufficiency rating is cited as a 40.9 out of 100, making it structurally deficient (Appendix I, page I-4). The sufficiency rating takes into account bridge condition, geometry, traffic, and how well the waterway passes underneath the bridge. Additionally, the bridge does not meet the standard INDOT geometric clear roadway width requirements of 30 feet, and CR 26 currently does not meet standard horizontal and vertical sight distances.

Purpose:

The purpose of the project is to improve the bridge condition ratings of the deck, superstructure, substructure, and channel/channel protection to at least a 7 (good) out of 9 (excellent), increase the inventory load rating to 36, increase the bridge sufficiency rating from 40.9 to at least an 80 (out of 100). Additionally, the purpose of the project is to improve the bridge to meet the standard clear roadway width of 30 feet and improve the bridge and roadway to meet standard horizontal and vertical sight distances.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Elkhart Municipality: Near Jamestown

Limits of Proposed Work: From approximately 0.08 mile west of CR 22 to 0.31 mile west of CR 22

Total Work Length: 0.17 Mile(s) Total Work Area: 2.00 Acre(s)

	Yes[1]	No
Is an Interstate Access Document (IAD)[1] required?		X
If yes, when did the FHWA provide a Determination of Engineering and Operational Acceptability?	Date:	

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

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

The Elkhart County Highway Department, with funding from the Federal Highway Administration (FHWA) and administrative oversight from the Indiana Department of Transportation (INDOT), intends to proceed with a bridge improvement project.

Location:

The project is located at the CR 26 over Baugo Creek bridge (Bridge No. 20-00145), approximately 0.20 mile west of CR 22, near Jamestown, in Baugo Township, Elkhart County, Indiana. The project area begins approximately 0.08 mile west of CR 22 and extends west along CR 26 for approximately 0.23 mile where it terminates approximately 0.31 mile west of CR 22. The project area extends approximately 140 feet north and 160 feet south from the center of the roadway. The project is more specifically located on the Wakarusa, Indiana United States Geological Survey (USGS) 7.5 Minute Topographic Quadrangle in Section 36, Township 27 North,

Range 4 East (Appendix B, page B-2). Various maps, aerial photographs, and project area photographs can be referenced in Appendix B, pages B-1 to B-5.

Existing Conditions:
The existing bridge (Bridge No. 20-00145; NBI Bridge 2000027) is a single-span, prestressed concrete box beam bridge with steel bridge railings. Bridge No. 20-00145 carries CR 26 over Baugo Creek and has a total length of 71-feet, an out-to-out coping width of 27.5-feet and an existing clear roadway width of 25.5-feet. The existing typical bridge section consists of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by 1.75-foot-wide paved shoulders. Guardrails are present along both sides of the roadway for the length of the bridge and bridge approaches. Guardrails are also present along both sides of the roadway at the twin 60-foot long, 8-foot diameter reinforced concrete pipes (RCP) that carry UNT to Baugo Creek under CR 26, approximately 0.15 mile east of Baugo Creek. The existing bridge was originally constructed in 1959 with a rehabilitation in 1979. The bridge is not eligible for listing on the National Register of Historic Places. The existing typical section of CR 26 consists of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by approximately 2-foot-wide gravel shoulders. This section of CR 26 is functionally classified as a major collector within the limits of the project and has a posted speed limit of 45 miles per hour (mph).
Drainage throughout the project area is conveyed towards Baugo Creek via roadside ditches and sheet flow. The existing right-of-way along CR 26 extends north and south from the center of the roadway to approximately the edge of pavement. The project area predominately consists of maintained right-of-way surrounded by wooded areas to the north and residential properties to the south. Additionally, there are two streams (Baugo Creek and UNT to Baugo Creek) and one wetland (Wetland A) located within the project area. Ground level photographs of the existing conditions within the project area are included in Appendix B, pages B-4 to B-5.

Preferred Alternative:
The project will replace the existing CR 26 over Baugo Creek bridge (Bridge 20-00145) and realign CR 26 to meet horizontal and vertical sight distance standards. The existing 71-foot long, single span, prestressed concrete box beam bridge will be replaced with a 97-foot, 6-inch composite prestressed concrete hybrid bulb-tree beam bridge. The out-to-out coping width of the new superstructure will be 35-feet with a clear roadway width of 32-feet. The bridge will have a 13-degree skew and the center of the bridge will be shifted approximately 16-feet south (Appendix B, pages B-20 to B-21). The vertical alignment of the bridge and roadway will be raised by approximately 4-feet to meet vertical site distance standards and have a superelevation of 4% (Appendix B, page B-16). The existing bridge abutments will be removed and replaced. Class I riprap over geotextile will be installed at the bridge abutments for scour protection and across the stream channel. Additionally, riprap drainage turnouts with sodding strips and riprap keyways will be installed for drainage. (Appendix B, pages B-20 to B-21)

The bridge typical section will consist of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by 5-foot-wide paved shoulders and 1-foot, 4-inch-wide concrete bridge rails (Appendix B, page B-22). The existing approach slabs will be removed and replaced. The typical section of the new approach slabs east and west of the bridge will consist of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by 5-foot, 4-inch-wide paved shoulders (Appendix B, page B-21). Guardrail will be replaced along both sides of the roadway approaching the bridge. The roadway will be realigned east and west of the bridge to meet horizontal site distance standards, which will shift the roadway a maximum of approximately 12-feet south (Appendix B, pages B-13 to B-15). Adjacent drives will be reconstructed to tie-in to the realigned roadway. The roadway typical section will consist of two 11-foot-wide travel lanes (one eastbound, one west bound) bordered by 2-foot-wide paved shoulders (Appendix B, page B-9).

The project will require approximately 0.87 acre of temporary ROW and approximately 2.19 acres of permanent ROW acquisition (Appendix B, page B-10). No relocations are anticipated as a result of the proposed project. For additional details, see the *Right-of-Way* section of this document. It is anticipated that Baugo Creek will be permanently impacted for approximately 50-linear-feet and temporarily impacted for approximately 70-linear-feet. UNT to Baugo Creek is anticipated to be permanently impacted for approximately 15-linear-feet. Wetland A is anticipated to be permanently impacted for approximately 0.07-acre. Approximately 1-acre of tree clearing is anticipated to be required. Avoidance and minimization of environmental impacts have been incorporated into the design to the maximum extent practical. However, total avoidance of impacts to Baugo Creek, UNT to Baugo Creek, and Wetland A was not possible while still meeting the project's purpose and need. For more information about the project's anticipated impacts along with avoidance and minimization measures, please see the *Identification and Evaluation of Impacts of the Proposed Action* section of this document.

The maintenance of traffic (MOT) will include a full road closure with a detour utilizing State Road (SR) 19, CR 28, and CR 3. Access to all properties within and adjacent to the project limits will be maintained at all times during project construction. The MOT will be implemented per the Indiana Design Manual guidelines. The MOT described above will remain in place for the duration of construction. For additional details, see the *Maintenance of Traffic* section of this document and Appendix B, page B-12.

Logical Termini/Independent Utility:
The logical termini of the proposed project were selected to provide independent utility and fulfill the purpose and need of the project. The preferred alternative's termini represent the minimum limits needed to tie in the project with the existing roadway while meeting

the purpose and need of the project. This alternative has independent utility as it does not create the need for additional work and does not rely on any other project to meet the purpose and need. Therefore, it is a single and complete project.

OTHER ALTERNATIVES CONSIDERED:

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

Do Nothing:
This alternative leaves the existing deteriorating bridge and alignment as it currently exists. While this alternative eliminates cost and any environmental impacts, it would not address the purpose and need, which is to improve the deck, superstructure, substructure, and channel/channel protection condition ratings to at least a 7 (good) out of 9 (excellent), increase the inventory load rating to 36, increase the bridge sufficiency rating from 40.9 to at least an 80 (out of 100), improve the bridge to meet the standard clear roadway width of 30 feet, and improve the bridge and roadway to meet standard horizontal and vertical sight distances. Therefore, this alternative was eliminated from further consideration.

Rehabilitation:
This alternative would consist of rehabilitating and repairing the current bridge structure. This alternative is typically considered for bridges with minor structural deficiencies. Deterioration of the existing structure (including spalling, longitudinal cracks, and delaminations of the deck; exposed or broken strands, cracks, and bearing pad movement at the southwest corner of the superstructure; cracks, spall with exposed steel, and water seepage onto the seats of the substructure) are too significant to warrant repair. While this alternative would result in lower construction costs and environmental impacts than the preferred alternative, it would not meet the purpose and need of the project, which is to improve the deck, superstructure, substructure, and channel/channel protection condition ratings to at least a 7 (good) out of 9 (excellent), increase the inventory load rating to 36, increase the bridge sufficiency rating from 40.9 to at least an 80 (out of 100), improve the bridge to meet the standard clear roadway width of 30 feet, and improve the bridge and roadway to meet standard horizontal and vertical sight distances. Therefore, this alternative was eliminated from further consideration.

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

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

ROADWAY CHARACTER: CR 26

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

Name of Roadway: CR 26
Functional Classification: Major Collector
Current ADT: 1,800 VPD (2025) Design Year ADT: 2,340 VPD (2045)
Design Hour Volume (DHV): 280 Truck Percentage (%): 3
Designed Speed (mph): 45 Legal Speed (mph): 45

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	Travel		Travel	
Pavement Width:	22	ft.	26	ft.
Shoulder Width:	2	ft.	2	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:		Urban		X	Suburban		Rural
Topography:	X	Level			Rolling		Hilly

BRIDGES AND/OR SMALL STRUCTURE(S): CR 26 over Baugo Creek

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

Structure/NBI Number(s): Structure No. 20-00145 / NBI Bridge 2000027 Sufficiency Rating: 40.9 (*INDOT Bridge Inspection Report*; Appendix I, page I-4)
(Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	Prestressed Concrete Box Beam Bridge		Composite Prestressed Concrete Hybrid Bulb-Tee Beam Bridge	
Number of Spans:	1		1	
Weight Restrictions:	15	ton	N/A	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	25.5	ft.	32.0	ft.
Outside to Outside Width:	27.5	ft.	35.0	ft.
Shoulder Width:	1.75	ft.	5	ft.

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

The existing bridge (Bridge No. 20-00145; NBI Bridge 2000027) is a single-span, prestressed concrete box beam bridge with steel bridge railings. Bridge No. 20-00145 carries CR 26 over Baugo Creek and has a total length of 71-feet, an out-to-out coping width of 27.5-feet and an existing clear roadway width of 25.5-feet. The existing typical bridge section consists of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by 1.75-foot-wide paved shoulders. Guardrails are present along both sides of the roadway for the length of the bridge and bridge approaches. The existing bridge was originally constructed in 1959 with a rehabilitation in 1979. The bridge is not eligible for listing on the National Register of Historic Places. The project will replace the existing CR 26 over Baugo Creek bridge (Bridge 20-00145). For additional details regarding the bridge replacement, please see the *Project Description* section above.

BRIDGES AND/OR SMALL STRUCTURE(S): UNT to Baugo Creek

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

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

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

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

Approximately 0.15 mile east of Baugo Creek there are twin 60-foot long, 8-foot diameter RCPs that convey UNT to Baugo Creek under CR 26. No work is proposed to the RCPs; however, riprap is anticipated to be installed for scour protection adjacent to the RCPs along the banks of UNT to Baugo Creek where a roadside ditch directs flow into UNT to Baugo Creek (Appendix B, page B-15).

Approximately 15-linear-feet of permanent impacts to UNT to Baugo Creek are anticipated due to the installation of the riprap for scour protection.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

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

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

It is anticipated the MOT for the project will include a full road closure with a detour utilizing SR 19, CR 28, and CR 3. The detour will close CR 26 to through traffic between CR 22 and CR 3. During construction, westbound traffic will be diverted south onto SR 19 then west along CR 28 to CR 3. Traffic will then be diverted north onto CR 3 until CR 26 where they can continue westbound. The inverse will be used to travel east (Appendix B, page B-12). The detour will be approximately 3 miles long and will be in place for approximately 8 months. Access to all properties within and adjacent to the project limits will be maintained at all times during project construction. The MOT will be implemented per the Indiana Design Manual guidelines.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: $ 404,189* (2021*) Right-of-Way: $ 57,841 (2023) Construction: $ 2,386,811 (2025)

*PE funding was included in the 2020-2024 STIP and was expended in 2021. Therefore, the PE funding is not reflected in the current 2022-2026 STIP.

Anticipated Start Date of Construction: February 2025

RIGHT OF WAY:

Land Use Impacts	Amount (acres) Permanent	Temporary
Residential	1.17	0.29
Commercial	N/A	N/A
Agricultural	N/A	N/A
Forest	0.92	0.41
Wetlands	0.002	0.068
Other: Baugo Creek	0.09	0.07
Other:	N/A	N/A
TOTAL	2.19	0.87

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

The existing right-of-way along CR 26 extends north and south from the center of the roadway to approximately the edge of pavement. The project area predominately consists of maintained right-of-way surrounded by wooded areas to the north and residential properties to the south.

The project requires approximately 2.19 acres of permanent ROW due to the construction of the new bridge, realignment of CR 26, and associated grading. Of the 2.19 acres of permanent ROW, 1.17 acres will be from residential properties, 0.92 acre will be from forested land, 0.002 acre will be from wetlands, and 0.09 acre will be from Baugo Creek. The project requires approximately 0.87 acre of temporary ROW due to grading. Of the 0.87 acre of temporary ROW, 0.29 acre will be from residential properties, 0.41 acre will be from forested lands, 0.68 acre will be from wetlands, and 0.07 acre will be from Baugo Creek. No relocations are required. The limits of the existing ROW, temporary ROW, and permanent ROW can be seen in Appendix B, page B-10.

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

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

SECTION A - EARLY COORDINATION:

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

Early coordination letters were sent on May 12, 2021 (Appendix C, pages C-1 to C-3). After distribution, it was identified that INDOT Aviation was omitted from the distribution list. Therefore, an early coordination letter was also sent on December 23, 2022.

Agency	Date Sent	Date Response Received	Appendix
US Natural Resources Conservation Service	May 12, 2021	May 20, 2021	Appendix C, page C-18
US Fish and Wildlife Service	May 12, 2021	June 16, 2021	Appendix C, pages C-24 to C-61
National Park Service - Midwest Regional Office	May 12, 2021	No Response Received	N/A
US Department of Housing and Urban Development	May 12, 2021	No Response Received	N/A
US Army Corps of Engineers, Detroit District	May 12, 2021	No Response Received	N/A
US Coast Guard, Eighth Coast Guard District	May 12, 2021	May 28, 2021*	Appendix C, page C-19
Federal Highway Administration	May 12, 2021	No Response Received	N/A
Indiana Geological and Water Survey	May 12, 2021	May 12, 2021	Appendix C, pages C-4 to C-6
Indiana Department of Natural Resources, Division of Fish and Wildlife	May 12, 2021	June 10, 2021	Appendix C, pages C-20 to C-23
Indiana Department of Environmental Management	May 12, 2021	May 12, 2021	Appendix C, pages C-7 to C-15
INDOT Fort Wayne District Office	May 12, 2021	No Response Received	N/A
INDOT Environmental Services	May 12, 2021	No Response Received	N/A
Elkhart County Highway Department	May 12, 2021	No Response Received	N/A
Michiana Area Council of Governments	May 12, 2021	No Response Received	N/A
Elkhart County Soil and Water Conservation District	May 12, 2021	No Response Received	N/A
Elkhart County Council Members	May 12, 2021	No Response Received	N/A
Elkhart County Sheriff's Office	May 12, 2021	No Response Received	N/A
Elkhart County Surveyor	May 12, 2021	No Response Received	N/A
Baugo Community Schools	May 12, 2021	May 14, 2021	Appendix C, pages C-16 to C-17
Elkhart County Floodplain Administrator	May 12, 2021	No Response Received	N/A
Elkhart County MS4 Coordinator	May 12, 2021	No Response Received	N/A
Elkhart County Emergency Management Agency	May 12, 2021	No Response Received	N/A

INDOT Aviation	December 23, 2022	December 27, 2022	Appendix C, pages C-62 to C-63

*The date on the US Coast Guard, Eighth Coast Guard District response of May 28, 2020 is a mistake. The correct year is mentioned within the response and should be 2021.

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

SECTION B – ECOLOGICAL RESOURCES:

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

Total stream(s) in project area: 592 Linear feet Total impacted stream(s): 135 Linear feet

Stream Name	Classification	Total Size in Project Area (linear feet)	Impacted linear feet	Comments (i.e. location, flow direction, likely Water of the US, appendix reference)
Baugo Creek	R2UBH	506	50 (perm) 70 (temp)	Located approx. 0.20 mile west of CR 22, Perennial, Flowing Northeast, Excellent Quality, likely Waters of the US (Appendix F, pages F-1 to F-55)
UNT to Baugo Creek	R4SB4	90	15 (perm)	Located at the eastern termini of the project area, Intermittent, Flowing North, Average Quality, likely Waters of the US (Appendix F, pages F-1 to F-55)

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

Based on the desktop review, the 2020 aerial map of the project area (Appendix B, page B-3), and the Red Flag Investigation (RFI) report (Appendix E, pages E-1 to E-8) there are twenty-two stream segments within the 0.5-mile search radius. There are two streams within the project area. That number was confirmed by the site visit on May 27, 2021 by American Structurepoint, Inc.

A *Wetland Delineation and Waters Report* was completed for the project on July 1, 2022. Please refer to Appendix F, pages F-1 to F-55 for the *Wetland Delineation and Waters Report*. It was determined that two streams, Baugo Creek and UNT to Baugo Creek, totaling 596 linear feet (0.65 acre) were identified within the investigated area and are anticipated to be jurisdictional waters of the U.S. The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

Baugo Creek is a perennial stream that flows northeast under CR 26 at Bridge No. 20-00145 and then flows east out of the investigated area. Approximately 506-linear-feet of Baugo Creek was delineated within the investigated area. Baugo Creek is an Elkhart County legal drain. The ordinary high water mark (OHWM) was measured for Baugo Creek at 54 feet wide and 2.5 feet deep. The RFI report (Appendix E, pages E-1 to E-8) identified Baugo Creek as an IDEM 303d Listed Stream that is listed as impaired for E.coli. Workers who are working in or near water with E.coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. This is a firm commitment included in the *Environmental Commitments* section of this CE document.

UNT to Baugo Creek is an intermittent stream that flows north under CR 26 via twin RCPs at the eastern termini of the investigated area, approximately 0.15 mile east of Baugo Creek. Approximately 90-linear-feet of UNT to Baugo Creek was delineated within the investigated area. UNT to Baugo Creek is not an Elkhart County legal drain. The OHWM was measured for UNT to Baugo Creek approximately 68 feet north from the center of the bridge and was 10.5 feet wide and 0.8 feet deep.

The Federal, Wild and Scenic Rivers; State Natural, Scenic, and Recreational Rivers listing; Outstanding Rivers for Indiana list;

navigable waterways list; and Nationwide Rivers Inventory lists were researched by American Structurepoint, Inc. to determine the possible presence of protected waterways within the project area. The portion of Baugo Creek within the project area is listed on the Indiana Department of Natural Resources (IDNR) navigable waterways list. Due to this project replacing an existing bridge and that the bridge will continue to span the stream, it was determined that this project will not have an adverse effect on the navigability of the stream.

It is anticipated that Baugo Creek will be permanently impacted for approximately 50-linear-feet due to the placement Class I riprap for scour protection and temporarily impacted for approximately 70-linear-feet due to access for construction and dewatering during the bridge replacement. UNT to Baugo Creek is anticipated to be permanently impacted for approximately 15-linear-feet due to the placement of Class I riprap for scour protection. It is anticipated that an Indiana Department of Environmental Management (IDEM) 401 Regional General Permit (RGP), a USACE 404 RGP, and an IDNR Navigable Waterways Permit will be required for work below the OHWM of Baugo Creek. No mitigation is anticipated, but will be determined during permitting.

The USFWS responded on June 16, 2021 stating that Baugo Creek is a direct tributary of the St. Joseph River. Therefore, water and habitat quality in Baugo Creek affect the St. Joseph River. There are several sites along the stream that have been periodically monitored by the Elkhart-South Bend Aquatic Community Monitoring Program. Baugo Creek has not been sampled at CR 26; however, it has been repeatedly sampled upstream of the CR 3 crossing at Jamestown, which is about 1 mile downstream of CR 26. Given the importance of Baugo Creek within the St. Joseph River Watershed and its apparent macroinvertebrate habitat issues that indicate stream quality problems, USFWS was concerned that the proposed project could degrade aquatic and riparian habitat within the CR 26 reach of the creek. Therefore, USFWS requested that coordination be conducted with the City of Elkhart Aquatics Department and Public Works and Utilities Department.

The City of Elkhart Aquatics Department was invited to the preliminary field check (PFC) meeting on October 20, 2021. No response was received and they did not attend the PFC meeting on November 4, 2021 (Appendix C, page C-29). Additional coordination was conducted with the City of Elkhart Aquatics Department on June 17, 2022. They stated that to their knowledge there was no quality stream habitat in the area of the CR 26 bridge. They noted that the fish species they've identified within Baugo Creek like shallow fast moving water where riffles are present. They stated that implementing glacial stone along the stream or in the stream would be beneficial to provide that habitat; however, riprap is acceptable since it would provide better stabilization due to the significant fluctuation the stream experiences. They noted that they do not anticipate the project would negatively impact the stream quality upstream or downstream and had no further recommendations (Appendix C, pages C-30 to C-31).

The US Coast Guard, Eighth Coast Guard District responded on May 28, 2021 stating that there is no sufficient factual support for concluding that Baugo Creek, at the project location, has current or historic navigation occurring on this waterway. Since, this is the case, a Coast Guard bridge permit or exemption will not be required for the referenced bridge project and bridge lighting is not required (Appendix C, page C-19).

The IDNR, Division of Fish and Wildlife (DFW) responded on June 10, 2021 with standard recommendations regarding wildlife passage, bank stabilization, in-channel work, and erosion and sediment control (Appendix C, pages C-20 to C-23).

The IDEM automated response was received on May 12, 2021 with standard recommendations to avoid or minimize impacts to streams, rivers, and watercourses (Appendix C, pages C-7 to C-15). Those recommendations included completing appropriate permitting and agency coordination prior to disturbance of regulated resources.

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

Open Water Feature(s)	**Presence**	**Impacts**	
		Yes	**No**
Reservoirs			
Lakes			
Farm Ponds			
Retention/Detention Basin			
Storm Water Management Facilities			
Other: _____			

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

Based on the desktop review, the 2020 aerial map of the project area (Appendix B, page B-3), and the RFI report (Appendix E, pages E-1 to E-8) there are four open water features within the 0.5-mile search radius. There are no open water features within or adjacent to the project area, which was confirmed by the site visit on May 27, 2021 by American Structurepoint, Inc. staff. Therefore, no impacts are expected.

	Presence	Impacts	
		Yes	No
Wetlands	X	X	

Total wetland area: 0.07 Acre(s) Total wetland area impacted: 0.07 Acre(s)

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

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments (i.e. location, likely Water of the US, appendix reference)
Wetland A	PSS	0.07	0.07	Located approximately 235 feet east of Bridge 20-00145 and approximately 40 feet north of CR 26, Average Quality, likely Water of the US, Appendix F, pages F-1 to F-55

Wetlands (*Mark all that apply*)	Documentation	ESD Approval Dates
Wetland Determination	X	N/A
Wetland Delineation	X	N/A
USACE Isolated Waters Determination		

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;	X
Substantially increased project costs;	
Unique engineering, traffic, maintenance, or safety problems;	X
Substantial adverse social, economic, or environmental impacts, or	
The project not meeting the identified needs.	

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

Based on the desktop review, the 2020 aerial map of the project area (Appendix B, page B-3), and the RFI report (Appendix E, pages E-1 to E-8), there are eighteen wetlands within the 0.5-mile search radius. There are two wetlands within the project area. One wetland was confirmed within the project area by the site visit on May 27, 2021 by American Structurepoint, Inc. staff.

A *Wetland Delineation and Waters Report* was completed for the project on July 1, 2022. Please refer to Appendix F, pages F-1 to F-55 for the *Wetland Delineation and Waters Report*. It was determined that one wetland, Wetland A, totaling 0.07 acre was located within the investigated area. And are anticipated to be jurisdictional Waters of the U.S. The USACE makes all final determinations regarding jurisdiction.

Wetland A is a scrub-shrub wetland and is located approximately 235 feet east of Bridge 20-00145 and approximately 40 feet north of CR 26. Wetland A was delineated for approximately 0.07 acre within the investigated area. It is anticipated that approximately 0.07 acre of Wetland A will be permanently impacted due to tree clearing and the installation of Class I Riprap.

The project includes all practical measures to minimize harm to wetlands; however, wetland impacts could not be avoided due to the need to replace Bridge 20-00145 and realign CR 26. A Do Nothing alternative was considered which would eliminate wetland impacts, but would not meet the purpose and need of this project. It is anticipated that impacts to Wetland A will require the issuance of an IDEM Section 401 WQC RGP and a USACE Section 404 RGP. No mitigation is anticipated, but will be determined during permitting.

The IDEM automated response was received on May 12, 2021 with standard recommendations to avoid or minimize impacts to wetlands, and to complete appropriate permitting and agency coordination prior to the disturbance of the regulated resource (Appendix

C, pages C-7 to C-15).

The IDNR-DFW responded on June 10, 2021 with standard recommendations to contact and coordinate with the IDEM 401 program and the USACE 404 program for wetland impacts (Appendix C, pages C-20 to C-23).

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

	Presence	Impacts Yes	Impacts NO
Terrestrial Habitat	X	X	

Total terrestrial habitat in project area: 1.91 Acre(s) Total tree clearing: 1.0 Acre(s)

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

Based on a desktop review, a site visit on May 27, 2021 by American Structurepoint, Inc. staff, the 2020 aerial map of the project area (Appendix B, page B-3), there is residential lawns and forested areas within the project area. Dominant herbaceous species noted during the May 27, 2021 site visit included creeping jenny (*Lysimachia nummularia*). Dominant tree and sapling species included silver maple (*Acer saccharinum*), green ash (*Fraxinus pennsylvanica*) and northern spicebush (*Lindera benzoin*). Photos of the project area taken during the May 27, 2021 site visit can be referenced in Appendix F, pages F-38 to F-50.

The project will impact a total of approximately 1.91 acres of terrestrial habitat due to the construction of the new bridge, realigning CR 26, associated grading, and placement of Class I riprap. Of the approximately 1.91 acres of terrestrial habitat impact, approximately 0.91 acre is residential lawns and approximately 1 acre is trees.

Tree species to be cleared include silver maple (*Acer saccharinum*), honey locust (*Gleditsia triacanthos*) and box elder (*Acer negundo*). Tree removal will occur during bat inactive season (between October 1st and March 31st). Mitigation for tree clearing is not necessary as tree clearing will occur within 100 feet from the existing roadway.

Implementation of standard INDOT specifications for re-vegetation of disturbed areas will promote re-establishment of similar ground cover in areas temporarily impacted by construction equipment access. Mitigation for disturbance of terrestrial habitat is not anticipated as a result of this project. Mitigation for disturbance of terrestrial habitat within the floodplain is anticipated and the mitigation specifics will be determined during the permitting.

The USFWS responded on June 16, 2021 stating that Baugo Creek is a direct tributary of the St. Joseph River. Therefore, water and habitat quality in Baugo Creek affect the St. Joseph River. There are several sites along the stream that have been periodically monitored by the Elkhart-South Bend Aquatic Community Monitoring Program. Baugo Creek has not been sampled at CR 26; however, it has been repeatedly sampled upstream of the CR 3 crossing at Jamestown, which is about 1 mile downstream of CR 26. Given the important of Baugo Creek within the St. Joseph River Watershed and its apparent macroinvertebrate habitat issues that indicate stream quality problems, USFWS was concerned that the proposed project could degrade aquatic and riparian habitat within the CR 26 reach of the creek. Therefore, USFWS requested that coordination be conducted with the City of Elkhart Aquatics Department and Public Works and Utilities Department.

The City of Elkhart Aquatics Department was invited to the preliminary field check (PFC) meeting on October 20, 2021. No response was received and they did not attend the PFC meeting on November 4, 2021 (Appendix C, page C-29). Additional coordination was conducted with the City of Elkhart Aquatics Department on June 17, 2022. They had no specific recommendations regarding impacts to terrestrial habitat.

The IDNR-DFW responded on June 10, 2021 with standard recommendations regarding revegetation, riparian habitat, wildlife crossings, and tree clearing restrictions (Appendix C, pages C-20 to C-23).

All applicable USFWS and IDNR-DFW recommendations are included in the *Environmental Commitments* section of this document.

County Elkhart Route CR 26 Des. No. 1902829

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

Determination Received for Listed Bats from USFWS: NE [ ] NLAA [X] LAA [ ]

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

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

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

Based on a desktop review and the RFI report (Appendix E, pages E-1 to E-8), completed by American Structurepoint, Inc. staff on October 13, 2021, the IDNR Elkhart County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR-DFW early coordination response letter dated June 10, 2021 (Appendix C, pages C-20 to C-23), the Natural Heritage Program's Database has been checked and the Longnose Dace (*Rhinichthys cataractae*), a state species of special concern, has been documented in Baugo Creek within the project area. However, IDNR-DFW do not forsee any impacts to the Longnose Dace as a result of this project. An INDOT 0.5-mile bat review occurred on March 1, 2021 and did not indicate the presence of endangered bat species in or within 0.5-mile of the project area.

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, pages C-32 to C-46). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally endangered northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional threatened or endangered species were generated in the IPaC species list other than the Indiana bat and NLEB.

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. A bridge inspection occurred on May 27, 2021 and evidence of bats were seen and heard on the structure (Appendix C, page C-61). An effect determination key was completed on May 12, 2022, and based on the responses provided, the project was found to may affect, but not likely to adversely affect the Indiana bat and/or the NLEB (Appendix C, pages C-47 to C-60). INDOT reviewed and verified the effect finding on September 26, 2022, and requested USFWS's review of the finding. No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. Avoidance and Minimization Measures (AMMs) and/or commitments are included as firm commitments in the *Environmental Commitments* section of this document.

On May 27, 2021 a bridge inspection occurred on Bridge No. 20-00145 which found evidence of bats (live bats, guano, and staining) on the vertical surfaces of the concrete I-beams on the west bank of Baugo Creek (Appendix C, page C-61). Guano was collected on July 28, 2021 and sent to Northern Arizona University (NAU) for analysis. Guano analysis results were received from NAU on October 21, 2021 and resulted in the detection of one bat species, big brown bat (*Eptesicus fuscus*), among all samples. Guano analysis only resulted in non-federally listed bat species using Bridge No. 20-00145. The guano collection plan along with the guano analysis results have been uploaded and reviewed by INDOT during the IPaC coordination. No additional bat investigations are required at this time.

To minimize bat disturbance, the removal of the structure shall be completed after September 30 and before April 1. If the structure removal cannot be completed before April 1, the crevices shall temporarily be filled, for the entire length of the structure, with an expandable material. The structure shall also be inspected for bats prior to demolition, exclusion, or any construction activities. If signs of bats are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. Coordination has occurred on September 14, 2022 with the project designer about exclusionary measure needed for the project. Details of the required procedures are outlined in the "Bat Inspection and Coordination" Unique Special Provision (USP). A firm commitment is included in the *Environmental Commitments* of this document.

A bridge inspection occurred on May 27, 2021 and bats were found to be using the structure (Appendix C, page C-61). USFWS Bridge/Structure Assessment are only valid for two years. If construction will begin after May 27, 2023, 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. This firm commitment is included in the *Environmental Commitments* of this document.

Bridge No. 20-00145 is located approximately 0.20 mile west of CR 22 and the project's surrounding habitat is conducive for use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA). Prior to the start of nesting season (May 1) the structure must be inspected for birds or signs of birds. If birds or signs of birds are found during the inspection, avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the "Potential Migratory Bird on Structure" USP/RSP.

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

Geological and Mineral Resources	**Yes**	**No**
Project located within the Indiana Karst Region		X
Karst features identified within or adjacent to the project area		X
Oil/gas or exploration/abandoned wells identified in the project area		X

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

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

Based on a desktop review and the Indiana Karst Region map, the project is located outside the designated Indiana Karst Region as outlined in the most current *Protection of Karst Features during Project Development and Construction*. According to the topo map of the project area (Appendix B, page B-2) and the RFI report (Appendix *E, pages* E-1 to E-8), there are no karst features identified within or adjacent to the project area. In the early coordination response May 12, 2021, the Indiana Geological and Water Survey (IGWS) did not indicate that karst features exist in the project area (Appendix C, page C-4 to C-6). The response indicated moderate liquefaction potential and floodway as geological hazards. The response also indicated that mineral resources exist within the project area. Bedrock resources are classified as having "Moderate Potential" and Sand and Gravel resources are classified as having "Low Potential". The response also indicated that no active or abandoned mineral resources extraction sites are documented in the area. These features will not be affected because the depth of excavation will not be deep enough to reach bedrock. Response from IGWS has been communicated with the designer on May 13, 2021. No impacts are expected.

SECTION C – OTHER RESOURCES

Drinking Water Resources	**Presence**	**Impacts**	
		Yes	**No**
Wellhead Protection Area(s)			
Source Water Protection Area(s)			
Water Well(s)			
Urbanized Area Boundary			
Public Water System(s)			

	Yes	No
Is the project located in the St. Joseph Sole Source Aquifer (SSA):		X
If Yes, is the FHWA/EPA SSA MOU Applicable?		
If Yes, is a Groundwater Assessment Required?		

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

Sole Source Aquifer

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

Wellhead Protection Area

The Indiana Department of Environmental Management's Wellhead Proximity Determinator website (http://www.in.gov/idem/cleanwater/pages/wellhead/) was accessed on May 10, 2021 by American Structurepoint, Inc. staff. This project is not located within a Wellhead Protection Area or Source Water Area. No impacts are expected.

Water Wells

The Indiana Department of Natural Resources Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was accessed on May 10, 2021 by American Structurepoint Inc. staff. No wells are located near this project. Therefore, no impacts are expected.

Urban Area Boundary

Based on a desktop review of (https://entapps.indot.in.gov/MS4/) by American Structurepoint, Inc. staff on May 10, 2021 this project is located in an Urban Area Boundary (UAB). An early coordination letter was sent on May 12, 2021, to the Elkhart County MS4 Coordinator. The MS4 coordinator did not respond within the 30-day time frame. The project will comply with the Storm Water Quality Management Plan by implementing standard spill prevention and erosion control best management practices to avoid and minimize any impacts to water quality. Therefore, no impacts are expected.

Public Water System

Based on a desktop review, a site visit on May 10, 2021 by American Structurepoint, Inc. staff and the 2020 aerial map of the project area (Appendix B, page B-3), no public water systems were identified. Therefore, no impacts are expected.

Floodplains	**Presence**	**Impacts** Yes	**Impacts** No
Project located within a regulated floodplain	X	X	
Longitudinal encroachment			
Transverse encroachment	X	X	
Homes located in floodplain within 1000' up/downstream from project			

If applicable, indicate the Floodplain Level?

Level 1	Level 2	Level 3	Level 4	Level 5
			X	

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

Based on a desktop review of the Indiana Department of Natural Resources Indiana Floodway Information Portal website (http://dnrmaps.dnr.in.gov/appsphp/fdms/) by American Structurepoint, Inc. staff on May 18, 2022, and the RFI report (Appendix E, pages E-1 to E-8), this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, pages F-56). An early coordination letter was sent on May 12, 2021, 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 is for projects involving replacement of existing drainage structures on essentially the same alignment. For this project, no homes are located within the base floodplain within 1,000 feet upstream and no 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 was completed for this project and the hydraulic data from this report is included in the plans.

In an early coordination response dated June 10, 2021, the IDNR-DFW stated that the project will require a formal application for a CIF permit pursuant to the Flood Control Act (IC-14-28-1), as well as mitigation for any unavoidable habitat impacts.

	Presence	Impacts Yes	Impacts No
Farmland			
Agricultural Lands			
Prime Farmland (per NRCS)			

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

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

Based on a desktop review, a site visit on May 27, 2021 by American Structurepoint, Inc. staff, the 2020 aerial map of the project area (Appendix B, page B-3), there is no land that meets the definition of farmland under the Farmland Protection Policy Act (FPPA) within or adjacent to the project area. The requirements of the FPPA do not apply to this project; therefore, no impacts are expected. An early coordination letter was sent on May 12, 2021, to Natural Resources Conservation Service (NRCS). The NRCS responded on May 20, 2021 stating that the proposed project will not cause a conversion of prime farmland. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

SECTION D – CULTURAL RESOURCES

	Category(ies) and Type(s)	INDOT Approval Date(s)	N/A
Minor Projects PA	B-3 and B-12	April 4, 2022	

Full 106 Effect Finding
No Historic Properties Affected ☐ No Adverse Effect ☐ Adverse Effect ☐

Eligible and/or Listed Resources Present
NRHP Building/Site/District(s) ☐ Archaeology ☐ NRHP Bridge(s) ☐

Documentation Prepared (mark all that apply)		ESD Approval Date(s)	SHPO Approval Date(s)
APE, Eligibility and Effect Determination			
800.11 Documentation			
Historic Properties Report or Short Report			
Archaeological Records Check and Assessment	X	April 4, 2022	
Archaeological Phase Ia Survey Report	X	April 4, 2022	
Archaeological Phase Ic Survey Report			
Other:			

		MOA Signature Dates (List all signatories)
Memorandum of Agreement (MOA)		

If the project falls under the MPPA, describe the category(ies) that the project falls under and any approval dates. If the project requires full Section 106, use the headings provided. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of the paper(s) and the comment period deadline. Include any further

Section 106 work which must be completed at a later date, such as mitigation from a MOA or avoidance commitments.

On April 4, 2022 the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category B, Type 3 and Category B, Type 12 under the Minor Projects Programmatic Agreement, (Appendix D, pages D-1 to D-4). Category B, Type 3 covers "construction of added travel, turning, or auxiliary lanes (e.g., bicycle truck climbing, acceleration, and deceleration lanes) and shoulder widening under the following conditions". Category B, Type 12 covers "replacement, widening, or raising elevation of the superstructure on existing bridges, and bridge replacement projects (when both the superstructure and substructure are removed)". A *Phase Ia Archaeological Records Check and Field Reconnaissance* was prepared by Weintraut and Associates, Inc. (W&A) who meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. The report identified no archeological sites previously recorded within or adjacent to the project area. However, two new archaeological sites, 12E0520 and 12E0521, were identified during the Phase Ia archaeological field reconnaissance. Neither site was recommended as eligible for listing in the Indiana Register of Historic Sites and Structures (IRHSS) and/or the National Register of Historic Places (NRHP). No further work was recommended (Appendix D, pages D-5 to D-7).

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

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

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

	Evaluations Prepared
Programmatic Section 4(f)	☐
"De minimis" Impact	☐
Individual Section 4(f)	☐
Any exception included in 23 CFR 774.13	☐

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

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

Based on a desktop review, the 2020 aerial map of the project area (Appendix B, page B-3), and the RFI report (Appendix E, pages E-1 to E-8) there are no potential 4(f) resources located within the 0.5-mile search radius. According to additional research and by the site visit on May 27, 2021 by American Structurepoint, Inc. staff 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 Section 6(f) resources present or not present. Discuss if any conversion would occur as a result of this project. If conversion will occur, discuss the conversion approval.

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

A review of 6(f) properties on the INDOT ESD website revealed a total of nineteen (19) properties in Elkhart County (Appendix I, page I-6). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources.

SECTION F – Air Quality

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

Location in STIP: STIP FY 2022-2026 – Appendix C – MACOG, Elkhart County Page 1 of 5

Name of MPO (if applicable): Michiana Area Council of Governments

Location in TIP (if applicable): FY 2022-2026, Page 46

Level of MSAT Analysis required?

Level 1a [X] Level 1b [ ] Level 2 [ ] Level 3 [ ] Level 4 [ ] Level 5 [ ]

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

This project is listed in the Fiscal Year (FY) 2022-2026 Michiana Area Council of Governments (MACOG) Transportation Improvement Program (TIP), which is incorporated via reference into the 2022-2026 Statewide Transportation Improvement Program (STIP) (Appendix H, page H-1 to H-5).

This project is located in Elkhart County, which is currently in attainment for all criteria pollutants according to IDEM (https://www.in.gov/idem/sips/nonattainment-status-of-counties/). Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

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

SECTION G - NOISE

Noise	**Yes**	**No**
Is a noise analysis required in accordance with FHWA regulations and INDOT's traffic noise policy?		X

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

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

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

SECTION H – COMMUNITY IMPACTS

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

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

The project will have temporary negative socioeconomic impacts on the community including temporary inconveniences commonly associated with construction such as noise, fugitive dust, increased travel delay and utility disruptions. However, these impacts are temporary and will cease upon completion of the project.

Permanent socioeconomic effects are not expected. The proposed project is not anticipated to negatively affect community cohesion. Transportation within the community and access to community resources will not be affected. Minimal impacts are anticipated to the local tax base, property value and community events.

Overall, the project is expected to positively impact the community. The Elkhart County Convention and Visitors Bureau website (https://www.visitelkhartcounty.com/events/), Experience Elkhart County, Indiana Facebook page (https://www.facebook.com/ExperienceElkhartCountyIN/events), and the Elkhart Truth website (https://www.elkharttruth.com/local-events/), were checked to identify events or festivals occurring during the project. To date, no events are listed that the project would be in conflict with. Therefore, the project is not expected to impact community events. The temporary and permanent socioeconomic impacts discussed here do not outweigh the benefits the project will bring to the community by improving the bridge condition ratings of the deck, superstructure, substructure, and channel/channel protection to at least a 7 (good) out of 9 (excellent), increasing the inventory load rating to 36, increasing the bridge sufficiency rating from 40.9 to at least an 80 (out of 100), improving the bridge to meet the standard clear roadway, and improving the bridge and roadway to meet standard horizontal and vertical sight distances.

In order for a municipality to be eligible to receive federal funds they must have in place, or at least under development, an American with Disability Act (ADA) Transition Plan. The Transition Plan inventories the municipality's infrastructure identifying those areas with features (i.e., sidewalks, crosswalks, curb ramps, building access, etc.) that are not in compliance with the ADA and establishes a plan to program funding for improvement intended to bring the facilities into compliance.

The project takes place along roadways managed by the Elkhart County Highway Department. The project is a federal-aid project and therefore all improvements to the infrastructure must conform to the ADA. However, there are no sidewalks along this roadway corridor and no sidewalks will be added with this project. Therefore, the project will comply with the 2012 Elkhart County Americans with Disabilities Act Transition Plan: Pedestrian Facilities in the Public Right-of-Way (https://www.elkcohwy.org/wp-content/uploads/2016/01/2012-Elkhart-County-ADA-Transition-Plan-for-Right-of-Way-Facilities.pdf).

Public Facilities and Services

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

Based on a desktop review, the 2020 aerial map of the project area (Appendix B, page B-3), and the RFI report (Appendix E, pages E-1 to E-8) there are no public facilities within the 0.5-mile search radius. There are no public facilities within or adjacent to the project area, which was confirmed by the site visit on May 27, 2021 by American Structurepoint, Inc. staff. Therefore, no impacts are expected. Access to all properties will be maintained during construction.

INDOT Aviation responded to early coordination on December 27, 2022 stating that if equipment is used that is 200-feet in height or taller, then a permit will be required (Appendix C, C-62 to C-63).

Baugo Community Schools responded to early coordination on May 14, 2021 stating that they do not have a professional opinion on any environmental impacts that this project may have. However, they anticipate the project will have a significant impact on the routing of school buses and would appreciate future calendaring, so that they can respond to the impact and make routing to and from the school during construction (Appendix C, C-16 to C-17). Additional coordination with Baugo Community Schools will be completed by the project sponsor at least two weeks prior to any construction that would block or limit access of school buses. This firm commitment is included in the *Environmental Commitments* of this document.

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. This firm commitment is included in the *Environmental Commitments* of this document.

Currently, two communication companies (Frontier and Intercarrier Networks) and one electric and gas company [Northern Indiana Public Service Company (NIPSCO)] provide services to residents and businesses within the project area. Coordination with these utility companies to identify potential conflicts and relocation for the appropriate facilities has been initiated. This coordination will continue through the duration of the engineering phase of the project.

Environmental Justice (EJ) (Presidential EO 12898)	**Yes**	**No**
During the development of the project were EJ issues identified?		X
Does the project require an EJ analysis?	X	
If YES, then:		
Are any EJ populations located within the project area?		X
Will the project result in adversely high and disproportionate impacts to EJ populations?		X

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

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT Categorical Exclusion Manual, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent right-of-way. The project will require more than 0.5 acre of additional permanent right-of-way. 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 Elkhart County. The community that overlaps the project area is called the affected community (AC). In this project, the AC is Census Tract 14.01. 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 U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates were obtained from the U.S. Census Bureau's website (https://data.census.gov/cedsci/) on June 2, 2022 by American Structurepoint, Inc. staff. The data collected for minority and low-income populations within the AC are summarized in the below table.

	COC Elkhart County	**AC 1** Census Tract 14.01
LOW-INCOME POPULATION		
Total Population for Whom Poverty Status is Determined	201,533	5,219
Total Population Below Poverty Level	23,506	82
Percent Low-Income	11.66%	1.57%
125 Percent of COC	14.58%	
AC Percent Low-Income Greater Than 125 Percent of COC?		No
AC Percent Low-Income Greater Than 50 Percent?		No
Population of EJ Concern?		No
MINORITY POPULATION		
Total Population	205,184	5,287
Not Hispanic or Latino: White Alone	152,461	4,108
Minority Population	52,723	1,179
Percent Minority	25.70%	22.30%
125 Percent of COC	32.12%	

AC Percent Minority Greater Than 125 Percent of COC?		No
AC Percent Minority Greater Than 50 Percent?		No
Population of EJ Concern?		No

AC-1, Block Group 1, Census Tract 14.01 has a percent minority of 22.30% which is below 50% and is below the 125% COC threshold. Therefore, AC-1 does not contain minority populations of EJ concern.

AC-1, Block Group 1, Census Tract 14.01 has a percent low-income of 1.57% which is below 50% and is below the 125% COC threshold. Therefore, AC-1 does not contain low-income populations of EJ concern.

Conclusion:
The census data sheets, map, and calculations can be found in Appendix I, pages I-7 to I-15. AC-1 does not contain minority populations or low-income populations of EJ concern. No further environmental justice analysis is warranted.

Relocation of People, Businesses or Farms	**Yes**	**No**
Will the proposed action result in the relocation of people, businesses or farms?		X
Is a BIS or CSRS required?		X

Number of relocations: Residences: N/A Businesses: N/A Farms: N/A Other: N/A

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

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

SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)	**Documentation**
Red Flag Investigation (RFI)	X
Phase I Environmental Site Assessment (Phase I ESA)	
Phase II Environmental Site Assessment (Phase II ESA)	
Design/Specifications for Remediation required?	

Date RFI concurrence by INDOT SAM (if applicable): _____

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

Based on a review of GIS and available public records, the RFI was completed on October 13, 2021 by American Structurepoint, Inc. staff (Appendix E, pages E-1 to E-8). No sites with hazardous material concerns (hazmat sites) or sites involved with regulated substances were identified within 0.5-mile of the project area. Further investigation for hazardous material concerns or regulated substances is not required at this time.

Part IV – Permits and Commitments

PERMITS CHECKLIST

Permits (mark all that apply)	**Likely Required**
Army Corps of Engineers (404/Section10 Permit)	
Nationwide Permit (NWP)	

Permits (mark all that apply)	**Likely Required**
Regional General Permit (RGP)	X
Individual Permit (IP)	
Other	
IN Department of Environmental Management (401/Rule 5)	
Nationwide Permit (NWP)	
Regional General Permit (RGP)	X
Individual Permit (IP)	
Isolated Wetlands	
Rule 5	
Other	
IN Department of Natural Resources	
Construction in a Floodway	X
Navigable Waterway Permit	X
Other	
Mitigation Required	
US Coast Guard Section 9 Bridge Permit	
Others (Please discuss in the discussion below)	

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

It is anticipated that an IDEM 401 Regional General Permit (RGP), a USACE 404 RGP, and an IDNR Navigable Waterways Permit will be required for work below the OHWM of Baugo Creek. No compensatory mitigation is anticipated, but will be determined during permitting. Additionally, the project occurs within a 100-year floodplain, therefore a formal application for a CIF permit from the IDNR is required pursuant to the Flood Control Act (IC-14-28-1).

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

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

ENVIRONMENTAL COMMITMENTS

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

Firm:

1) If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT Fort Wayne District)
2) Additional coordination with Baugo Community Schools will be completed by the project sponsor at least two weeks prior to any construction that would block or limit access of school buses.
3) It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
4) USFWS Bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after May 27, 2023, 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)
5) To minimize bat disturbance, the removal of the structure shall be completed after September 30 and before April 1. If the structure removal cannot be completed before April 1, the crevices shall temporarily be filled, for the entire length of the structure, with an expandable material. The structure shall also be inspected for bats prior to demolition, exclusion, or any construction activities. If signs of bats are documented during this inspection, the INDOT District Environmental Manager must

be contacted immediately. (INDOT ESD)

6) Bridge No. 20-00145 is located approximately 0.20 mile west of CR 22 and the project's surrounding habitat is conducive for use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA). Prior to the start of nesting season (May 1) the structure must be inspected for birds or signs of birds. If birds or signs of birds are found during the inspection, avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. (INDOT ESD)
7) Any work in a wetland area within right-of-way or in borrow/waste areas is prohibited unless specifically allowed in the U.S. Army Corps of Engineers permit. (INDOT ESD)
8) TREE REMOVAL AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)
9) LIGHTING AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
10) TREE REMOVAL AMM 2: Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. (USFWS and IDNR-DFW)
11) 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)
12) 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. (USFWS)
13) 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)
14) Baugo Creek is listed as impaired for *E. coli*. Workers who are working in or near the water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. (INDOT SAM)

For Further Consideration:

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 sideslopes up to the ordinary high water mark (OHWM). The banks above the OHWM must be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. (IDNR-DFW)
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" 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. (IDNR-DFW)
17) Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR-DFW)
18) Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR-DFW)
19) Operate equipment used to replace the bridge from the existing roadway. (IDNR-DFW)
20) Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR-DFW)

Table of Contents for Appendix Items

Appendix A: INDOT Supporting Documents

A

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[3]	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	USACE Individual 404 Permit[4]
Wetland Impacts[3]	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
Right-of-way[5]	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations[6]	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long-eared bat) *	"No Effect", "Not likely to Adversely Affect" (With select AMMs[7])	"Not likely to Adversely Affect" (With any AMMs or commitments)	-	"Likely to Adversely Affect"	Project does not fall under Species Specific Programmatic[8]
Threatened/Endangered Species (any other species) *	Falls within guidelines of USFWS 2013 Interim Policy or "No Effect"	"Not likely to Adversely Affect"	-	-	"Likely to Adversely Affect"
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential[9]
Sole Source Aquifer	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Section 4(f) Impacts	None	-	-	-	Any[10]
Section 6(f) Impacts	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes[11]
Approval Level • **District Env. (DE)** • **Env. Serv. Div. (ESD)** • **FHWA**	Concurrence by DE or ESD	DE or ESD	DE or ESD	DE and/or ESD	DE and/or ESD; and FHWA

[1]Coordinate with INDOT Environmental Services Division. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.
[2]Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.
[3]Total permanent impacts to streams (linear feet) and wetlands (acres).
[4]US Army Corps of Engineers Individual 404 Permit
[5]Total permanent and temporary right-of-way. This does not include reacquisition of existing apparent right-of-way.
[6]If any relocations are within an area with a known or suspected Environmental Justice (EJ) or disadvantaged population, or has greater than 5 relocations, a conversation with FHWA, through INDOT ESD, is needed to confirm NEPA classification and outreach plan for the project.
[7]Avoidance and Mitigation Measures (AMMs) determined by IPAC determination key to be required that are not tree AMMs, bridge AMMs, or structure AMMs.
[8]Projects that do not fall under a Species Specific Programmatic and results in a "Likely to Adversely Affect." Other findings can be processed as a lower-level CE.
[9]Potential for causing a disproportionately high and adverse impact.
[10]Section 4(f) use resulting in an Individual, Programmatic, or *de minimis* evaluation. The only exception is a *de minimis* evaluation for historic properties (Effective January 2, 2020). If a historic property *de minimis* and no other use, mark the *None* column.
[11]Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.
*Includes the threatened/endangered species critical habitat.
Note: Substantial public or agency controversy may require a higher-level NEPA document.

N
W
E
S

12
Simonton Lake
80
Elkhart Muni
120
Elkhart
South Bend
19
20
Osceola
933
Mishawaka
331
Mishawaka Pilots Club
Dunlap
20
ST JOSEPH
ELKHART
33
Project Location
Goshen
19
119
Wakarusa

Source: ESRI Street Map North America

Not to Scale

Path: P:\2020\00681\D. Drawings\Environmental\Elkhart Co. Bridge 145\ECL\Exhibits\2020.00681.EV.2021.02.12.Bridge145.ECL.State.njk.mxd Date:3/10/2021 User:nkrahn

AMERICAN STRUCTUREPOINT INC.

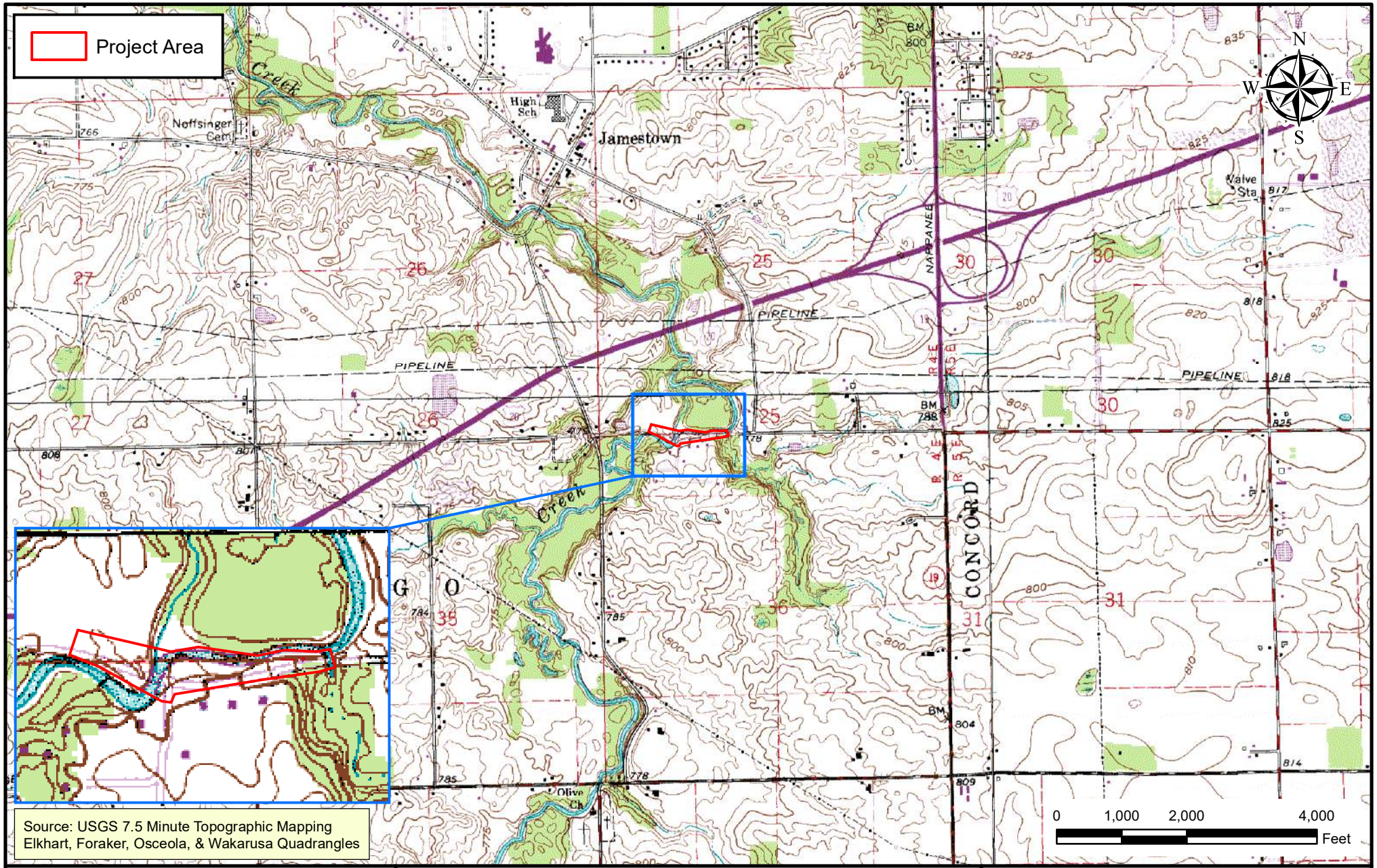
State Location Map

Elkhart County Highway Department
610 Steury Avenue
Goshen, IN 46528

CR 26 over Baugo Creek, Bridge Improvement
Des. No. 1902829
Location: near Jamestown
Township: Baugo
County: Elkhart
State: Indiana
Date: 02/23/2021

Appendix B
B-1

Path: P:\2020\00681\D. Drawings\Environmental\Elkhart Co. Bridge 145\ECL\Exhibits\2020.00681.EV.2021.02.12.Bridge145.ECL.Topo.njk.mxd Date:3/10/2021 User:nkrahn



Source: USGS 7.5 Minute Topographic Mapping
Elkhart, Foraker, Osceola, & Wakarusa Quadrangles

AMERICAN STRUCTUREPOINT INC.

USGS Topographic Map

Elkhart County Highway Department
610 Steury Avenue
Goshen, IN 46528

CR 26 over Baugo Creek, Bridge Improvement
Des. No. 1902829

Location: near Jamestown
Township: Baugo
County: Elkhart
State: Indiana

Date: 02/23/2021

Appendix B
B-2

Path: P:\2020\00681\D. Drawings\Environmental\Elkhart Co. Bridge 145\ECL\Exhibits\2020.00681.EV.2021.02.12.Bridge145.ECL.Aerial.njk.mxd Date:3/16/2021 User:nkrahn

AMERICAN STRUCTUREPOINT INC.

2020 Aerial Photography and Photo Location Map

Elkhart County Highway Department
610 Steury Avenue
Goshen, IN 46528

CR 26 over Baugo Creek, Bridge Improvement
Des. No. 1902829

Location: near Jamestown
Township: Baugo
County: Elkhart
State: Indiana

Date: 02/23/2021

Appendix B
B-3

Photo 1. Looking southeast along the south-bound lane of CR 26 at Bridge No. 20-00145.

Photo 2. Looking east from the western bank of Baugo Creek at Bridge No. 20-00145.

Photo 3. Looking west along the north-bound lane of CR 26 at Bridge No. 20-00145.

Photo 4. Looking north (downstream) along Baugo Creek south of Bridge No. 20-00145.

Photo 5. Looking west along the northern side of Bridge No. 20-00145 from the eastern bank of Baugo Creek.

Photo 6. Looking west along the south-bound lane of CR 26 from east of Bridge No. 20-00145.

PROJECT	DESIGNATION
1902829	1902829
CONTRACT	BRIDGE FILE
B-42769	20-00145

STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
20-00145	Composite Prestressed Concrete Hybrid Bulb-Tee Beam Bridge	Span: 97'-6" Skew: 13° Right	BAUGO CREEK	104+02.40 "PR-A"

INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

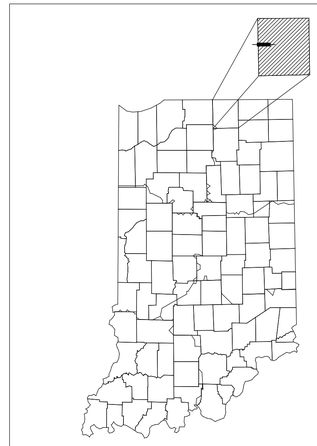
FOR SPANS OVER 20 FEET

ROUTE: CR 26 AT: RP

PROJECT NO. 1902829 P.E.
1902829 R/W
1902829 CONST.

TRAFFIC DATA			
A.A.D.T.	2025	1,800	V.P.D.
A.A.D.T.	2045	2,340	V.P.D.
D.H.V		280	V.P.H.
DIRECTIONAL DISTRIBUTION		59	%
TRUCKS		3 %	A.A.D.T.
		3 %	D.H.V.

DESIGN DATA		
DESIGN SPEED	45	M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)	
FUNCTIONAL CLASSIFICATION	LOCAL AGENCY COLLECTOR	
RURAL/URBAN	URBAN (SUBURBAN)	
TERRAIN	LEVEL	
ACCESS CONTROL	NONE	



PROJECT LOCATION SHOWN BY
Elkhart County

LATITUDE: 41°37'24" N LONGITUDE: 86°01'04" W

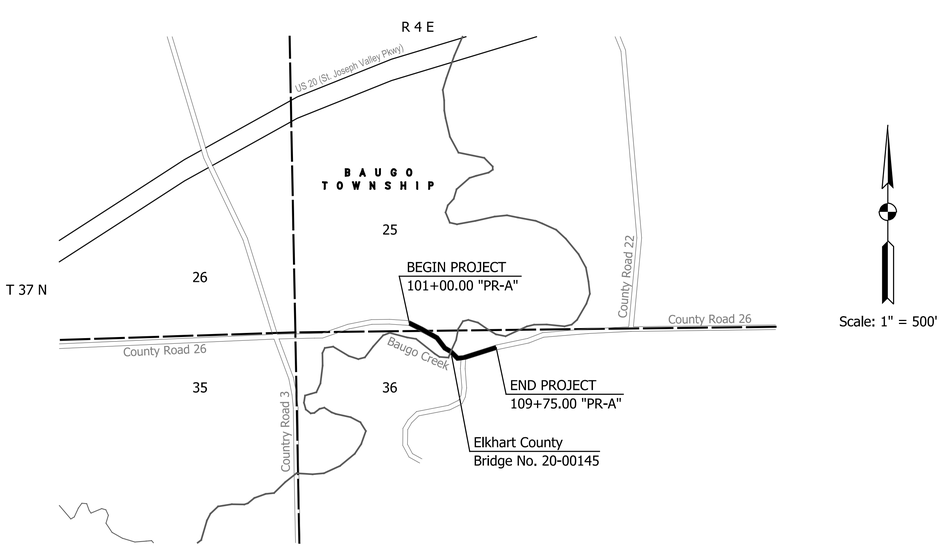
BRIDGE LENGTH: 0.02 MI.
ROADWAY LENGTH: 0.15 MI.
TOTAL LENGTH: 0.17 MI.
MAX. GRADE: 3.64%

HUC: 040500012104

ELKHART COUNTY HIGHWAY DEPARTMENT
APPROVED BY:

Name, Title	Date
Name, Title	Date
Tim Jackson, PE, Employee in Responsible Charge	Date

PROJECT DESCRIPTION: Bridge Replacment on CR 26 over Baugo Creek located approximately 0.20 miles West of CR 22, in Sections 25 and 36, Township 37 North, Range 4 East, Baugo Township, Elkhart County, Indiana.



Scale: 1" = 500'

STAGE 2 PLANS
SUBMITTED BY: American Structurepoint
DATE:

ELKHART COUNTY

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2022
TO BE USED WITH THESE PLANS.

AMERICAN STRUCTUREPOINT INC.
9025 RIVER ROAD, SUITE 200
INDIANAPOLIS, IN 46240
TEL 317.547.5580 FAX 317.543.0270
www.structurepoint.com

PLANS PREPARED BY: American Structurepoint, Inc. (317) 547-5580 PHONE NUMBER
CERTIFIED BY: DATE
APPROVED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE

BRIDGE FILE	
20-00145	
DESIGNATION	
1902829	
SURVEY BOOK	SHEETS
ELECTRONIC	1 of 30
CONTRACT	PROJECT
B-42769	1902829

Indy-Prof.dotrb
Indiana_Route.tbl

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UTILITIES

ELECTRIC
NIPSCO

(xxx) xxx-xxxx
Contact: Kyle Pugsley
kpugsley@nisource.com

GAS
NIPSCO
1039 Pennsylvania Avenue
South Bend, IN 46601
(574) 850-5520
Contact: Kayla Tracy
ktracy@nisource.com

TELEPHONE
Frontier
24373 CR 45
Elkhart, IN 46516
(574)-875-3786
Contact: Phil Nash
phil.nash@ftr.com

FIBER
Intercarrier Networks

(812) 623-4432
Contact: Dustin Nobbe
dnobbe@gpcom.com

GENERAL NOTES

**	All earth shoulders, median areas, and cut and fill slopes shall be plain or mulch seeded except where sodding is specified
	The final cross sections of the grading contract will be the original cross sections of the paving contract. However, partial or complete cross sections shall be taken if necessary to determine the actual excavation quantities.
	The paper relocation will be cross sectioned by the Engineer before construction.
	Existing asphalt pavement located outside the construction limits, between Sta. __________ and Sta. __________, shall be removed as directed.
	The quantity of peat excavation shown on the plans has been estimated on the basis of theoretical cross sections by using treatment of existing fills, treatment by removal, or treatment by displacement, where each treatment applies.
	All limited access right-of-way (L.A. R/W) is to be fenced with chain link type fence (CLTF) or farm field type fence (FFTF) where specified in the plans.
	Contractor shall verify existing flowline elevations to set the appropriate sump depth.

** REPRESENTS GENERAL NOTES REQUIRED

INDEX

REVISIONS

SHEET NO.	DATE	REVISED

RECOMMENDED FOR APPROVAL ______ DESIGN ENGINEER MM/DD/20YY DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: N/A; BRIDGE FILE: 20-00145; VERTICAL SCALE: N/A; DESIGNATION: 1902829
DESIGNED: JMB	DRAWN: CAK	INDEX AND GENERAL NOTES	SURVEY BOOK: ELECTRONIC; SHEETS: 2 of 30
CHECKED: ASU	CHECKED: JMB		CONTRACT: B-42769; PROJECT: 1902829

Indy-Pdf.pltcfg
Indiana_Shade.tbl

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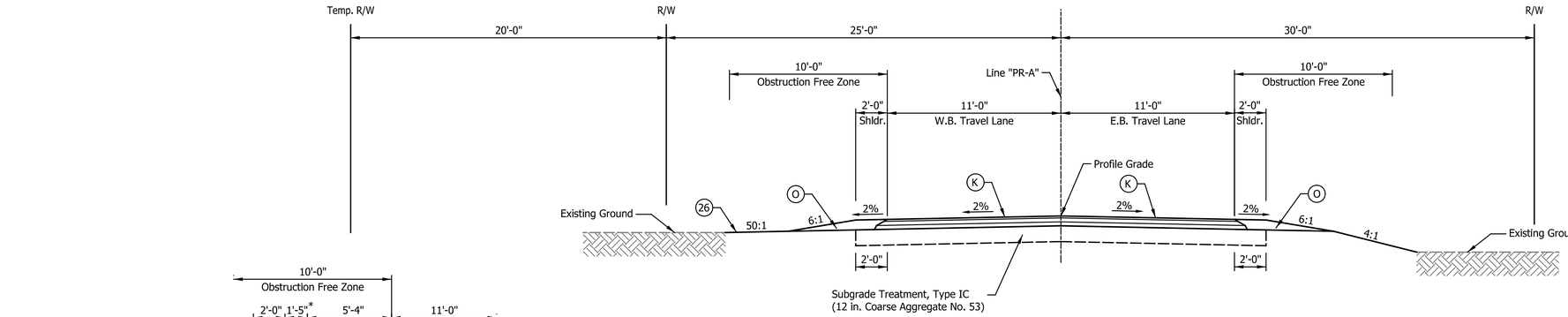
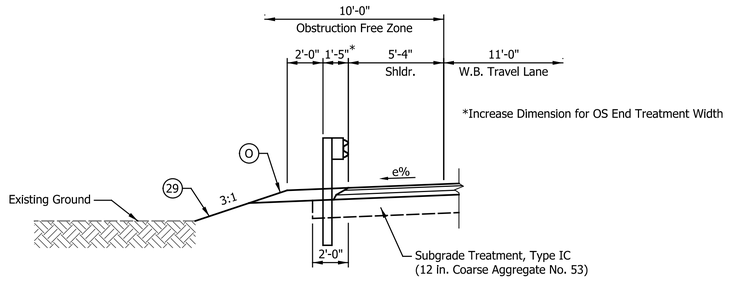


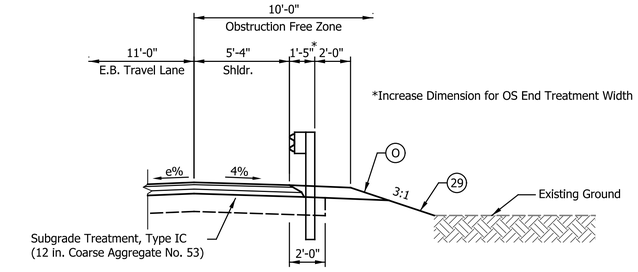
Typical Section - CR 26

101+00.00 to 102+27.50 "PR-A"



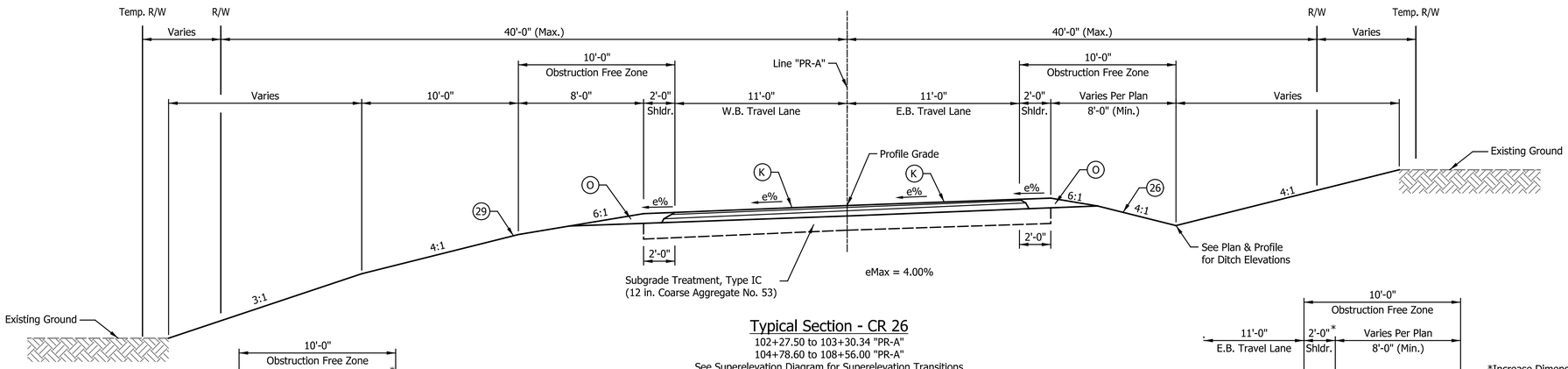
Shoulder Section Lt. - CR 26

102+48.00 to 103+30.34 "PR-A"
104+78.60 to 105+86.00 "PR-A"
See Superelevation Diagram for Superelevation Transitions



Shoulder Section Rt. - CR 26

102+38.00 to 103+30.34 "PR-A"
See Superelevation Diagram for Superelevation Transitions

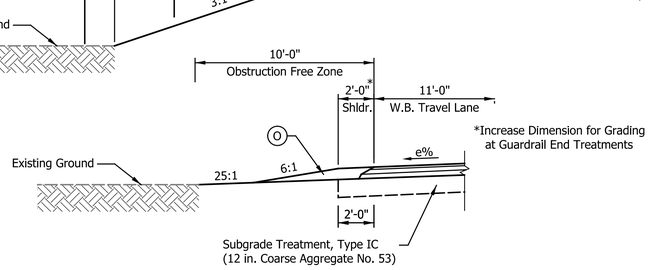


Typical Section - CR 26

102+27.50 to 103+30.34 "PR-A"
104+78.60 to 108+56.00 "PR-A"
See Superelevation Diagram for Superelevation Transitions

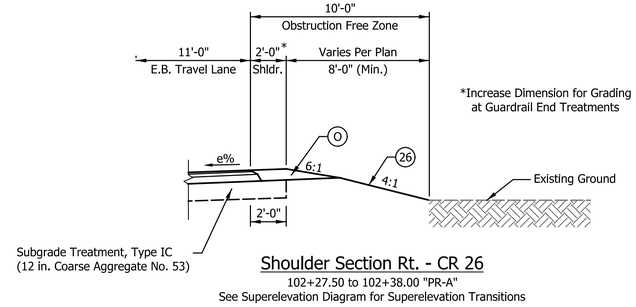
Paving Exception (Bridge) - CR 26

103+30.34 to 104+78.60 "PR-A"



Shoulder Section Lt. - CR 26

102+27.50 to 102+48.00 "PR-A"
See Superelevation Diagram for Superelevation Transitions



Shoulder Section Rt. - CR 26

102+27.50 to 102+38.00 "PR-A"
See Superelevation Diagram for Superelevation Transitions

LEGEND

- (K) Full Depth HMA Pavement
  165 #/Syd QC/QA-HMA, 2, 64, Surface, 9.5mm, on
  330 #/Syd QC/QA-HMA, 2, 64, Intermediate, 19.0mm, on
  330 #/Syd QC/QA-HMA, 2, 64, Base, 19.0mm, on
- (O) Compacted Aggregate, No. 53
- (W) 165 #/Syd QC/QA-HMA, 2, 64, Surface, 9.5mm, on
  Transition Milling (Asphalt)
- (26) Sodding, Nursery
- (29) Mulched Seeding, R

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: CAK
CHECKED: SMC CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	3 of 30
CONTRACT	PROJECT
B-42769	1902829

Indy-Prof.dftcfg
Indiana_Sheet6.tbl

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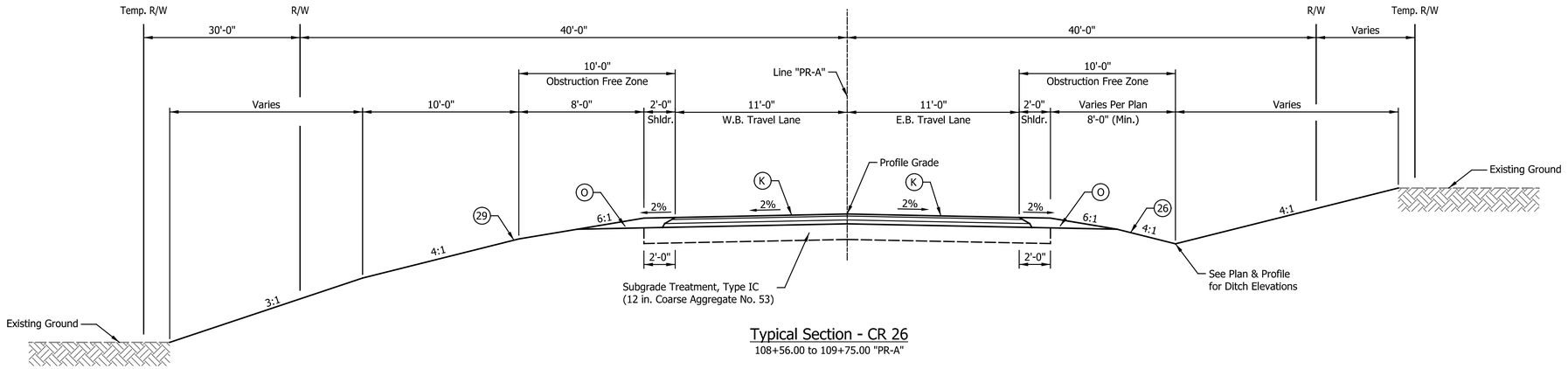
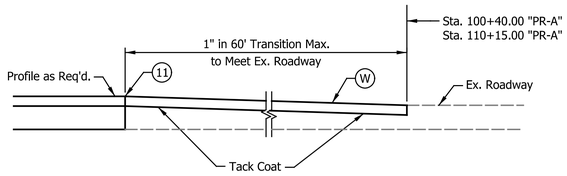
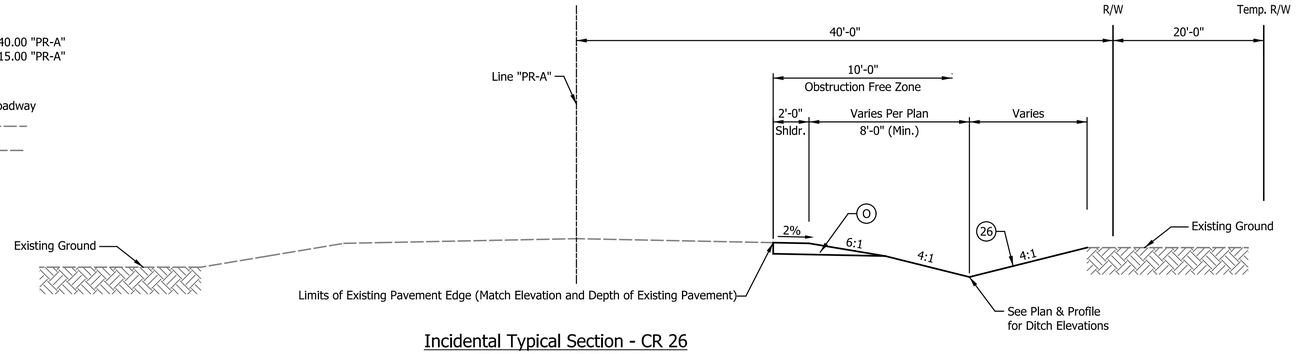


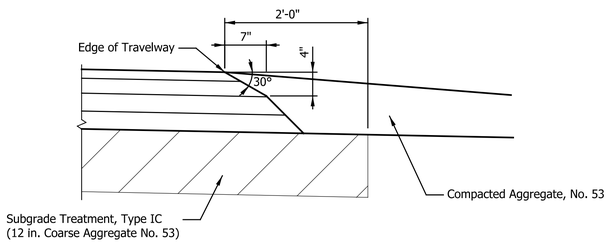
Typical Section - CR 26
108+56.00 to 109+75.00 "PR-A"



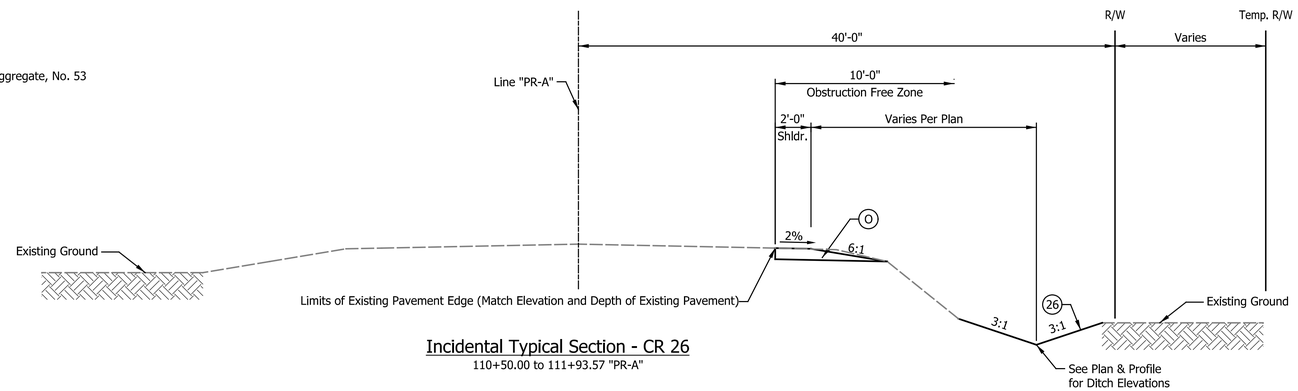
INCIDENTAL CONSTRUCTION DETAIL PROFILE SECTION
Not to Scale



Incidental Typical Section - CR 26
109+75.00 to 110+50.00 "PR-A"



HMA Pavement Safety Edge
Not to Scale



Incidental Typical Section - CR 26
110+50.00 to 111+93.57 "PR-A"

LEGEND

- (K) Full Depth HMA Pavement
  165 #/Syd QC/QA-HMA, 2, 64, Surface, 9.5mm, on
  330 #/Syd QC/QA-HMA, 2, 64, Intermediate, 19.0mm, on
  330 #/Syd QC/QA-HMA, 2, 64, Base, 19.0mm, on
- (O) Compacted Aggregate, No. 53
- (W) 165 #/Syd QC/QA-HMA, 2, 64, Surface, 9.5mm, on
  Transition Milling (Asphalt)
- (26) Sodding, Nursery
- (29) Mulched Seeding, R

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: CAK
CHECKED: SMC CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	4 of 30
CONTRACT	PROJECT
B-42769	1902829

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Indiana_Shade.tbl

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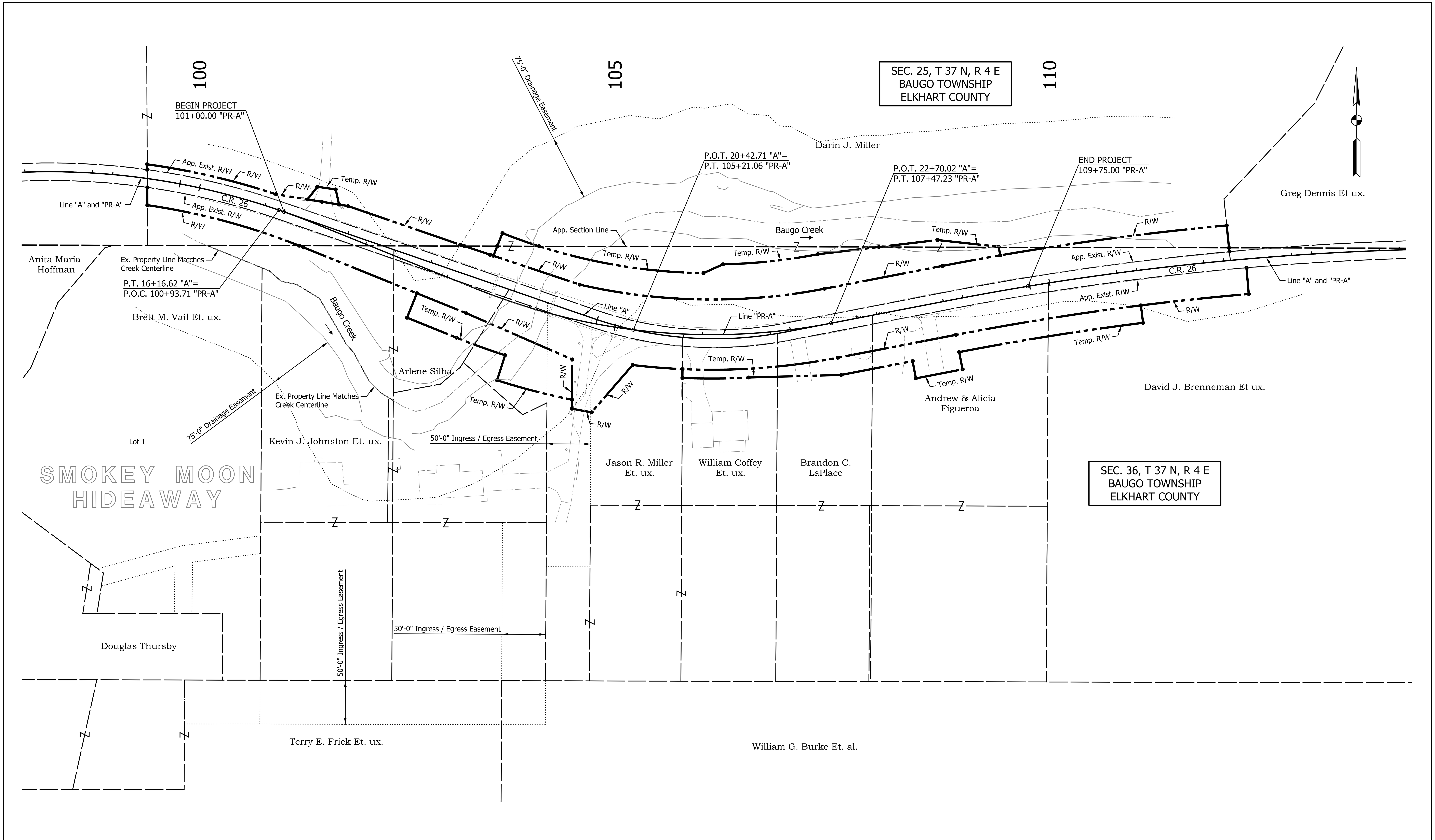
100
105
110
SEC. 25, T 37 N, R 4 E
BAUGO TOWNSHIP
ELKHART COUNTY
BEGIN PROJECT
101+00.00 "PR-A"
75'-0" Drainage Easement
Darin J. Miller
P.O.T. 20+42.71 "A"=
P.T. 105+21.06 "PR-A"
P.O.T. 22+70.02 "A"=
P.T. 107+47.23 "PR-A"
END PROJECT
109+75.00 "PR-A"
Greg Dennis Et ux.
App. Exist. R/W
R/W
Temp. R/W
Line "A" and "PR-A"
C.R. 26
App. Section Line
Baugo Creek
Anita Maria
Hoffman
Ex. Property Line Matches
Creek Centerline
P.T. 16+16.62 "A"=
P.O.C. 100+93.71 "PR-A"
Brett M. Vail Et. ux.
Line "A"
Line "PR-A"
Arlene Silba
Andrew & Alicia
Figueroa
David J. Brenneman Et ux.
Lot 1
Kevin J. Johnston Et. ux.
50'-0" Ingress / Egress Easement
SMOKEY MOON
HIDEAWAY
Jason R. Miller
Et. ux.
William Coffey
Et. ux.
Brandon C.
LaPlace
SEC. 36, T 37 N, R 4 E
BAUGO TOWNSHIP
ELKHART COUNTY
50'-0" Ingress / Egress Easement
Douglas Thursby
Terry E. Frick Et. ux.
William G. Burke Et. al.

DATE	REVISION

RECOMMENDED FOR APPROVAL ______ DESIGN ENGINEER DATE

DESIGNED: JMB | DRAWN: CAK

CHECKED: SMC | CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAT NO. 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	5 of 30
CONTRACT	PROJECT
B-42769	1902829

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Indiana_Shade.tbl

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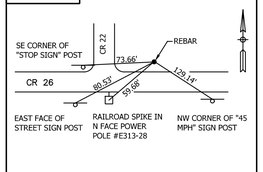
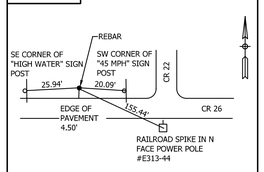
CPT. #600



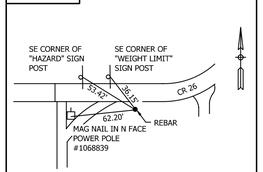
N: 472,873.2570 E: 742,824.1050

CPT. #601



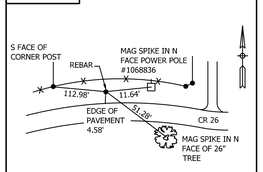
N: 472,855.6870 E: 742,640.4520

CPT. #602



STA. 105+44; 17' RT. "PR-A"
N: 472,729.7350 E: 741,690.6590

CPT. #603



STA. 99+83; 15' LT. "PR-A"
N: 472,928.4670 E: 741,161.9610

CHAIN	STATION	NORTHING	EASTING
"A"	P.O.T. 10+00.00	472,863.8188	740,661.6174
	P.C. 11+32.75	472,899.6036	740,789.4573
	P.I. 13+82.34	472,966.882	741,029.8069
	P.T. 16+16.62	472,885.5565	741,265.774
	P.C. 19+95.28	472,762.173	741,623.7734
	P.I. 21+09.04	472,725.1073	741,731.3199
	P.T. 22+17.58	472,746.7201	741,843.0025
	P.C. 24+06.83	472,782.677	742,028.8073
	P.I. 27+22.16	472,842.5864	742,338.3851
	P.T. 30+35.51	472,841.867	742,653.7056

CHAIN	STATION	NORTHING	EASTING
"PR-A"	P.C. 96+10.00	472,899.6464	740,789.6102
	P.I. 98+82.74	472,973.113	741,052.268
	P.T. 101+35.71	472,870.8359	741,305.1036
	P.C. 103+35.71	472,795.8358	741,490.5085
	P.I. 105+47.34	472,716.4724	741,686.6997
	P.T. 107+47.23	472,756.6821	741,894.4801
	P.C. 108+84.05	472,782.677	742,028.8073
	P.I. 111+99.37	472,842.5864	742,338.3851
	P.T. 115+12.72	472,841.867	742,653.7056
	P.O.T. 119+12.89	472,840.954	743,053.871

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: CAK
CHECKED: ASU CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

GEOMETRIC TIE-UPS

HORIZONTAL SCALE	BRIDGE FILE
N/A	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	6 of 30
CONTRACT	PROJECT
B-42769	1902829

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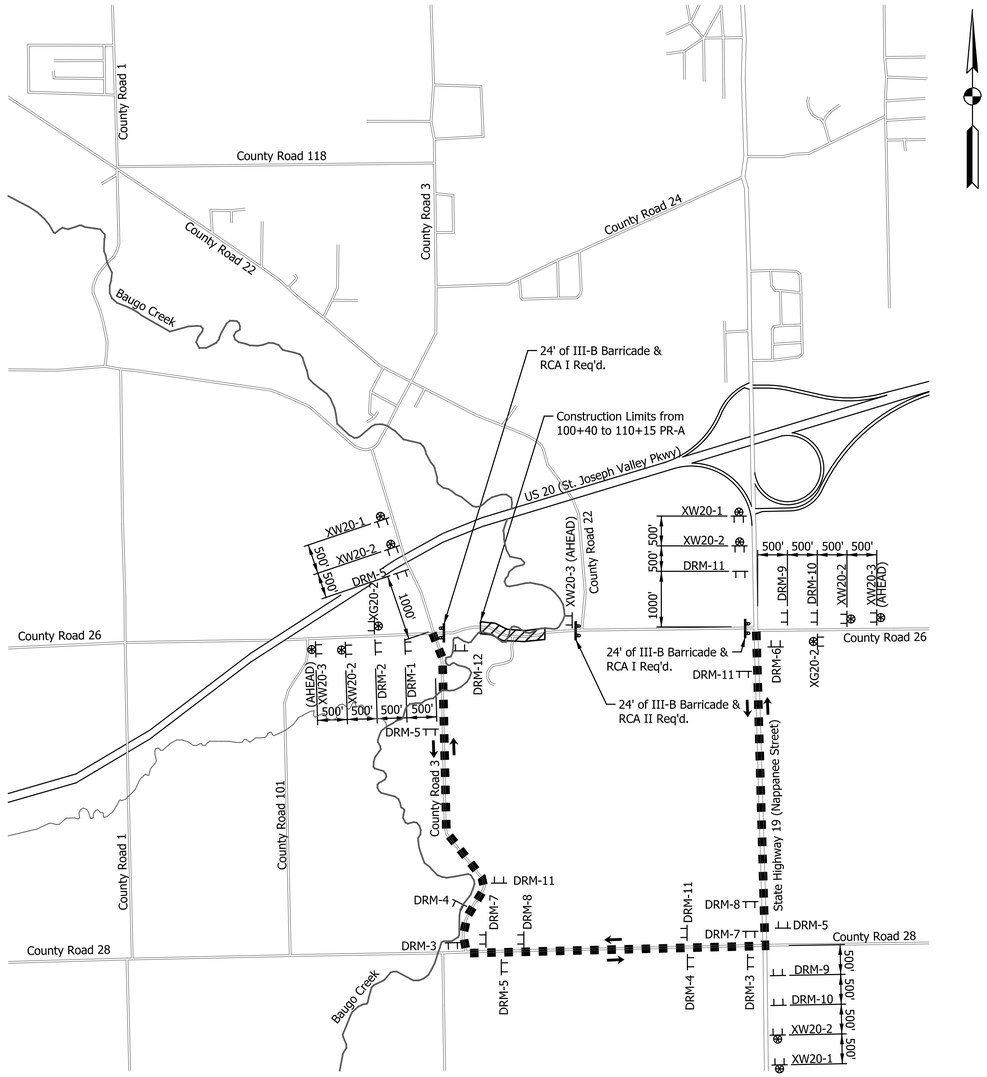
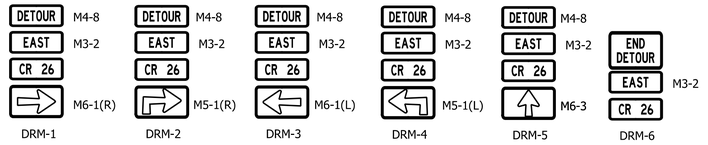
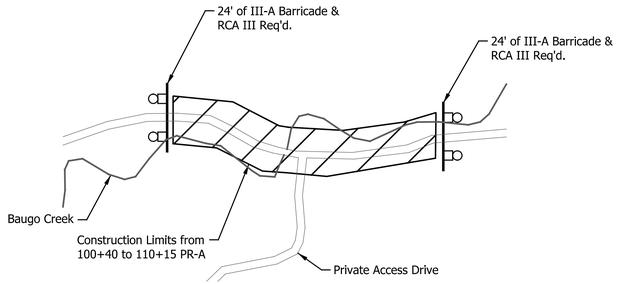
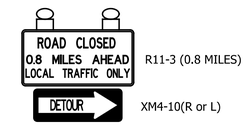




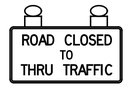
Detour Route Marker Assemblies



CR 26 - Road Closure Signing Detail
Not to Scale



R11-3 (0.8 MILES)
XM4-10(R or L)
Road Closure Sign Assembly (RCA I)



R11-4
Road Closure Sign Assembly (RCA II)

R11-2
Road Closure Sign Assembly (RCA III)

MOT QUANTITY SUMMARY - CR 26		
Detour Route Marker Assembly	23	Each
Construction Sign, Type A	12	Each
Type III-A Barricade	48	Lft.
Type III-B Barricade	72	Lft.
Road Closure Sign Assembly	5	Each

XG20-2
(60"x24")

XW20-1
(48" x 48")

XW20-2
(48" x 48")

XW20-3 (AHEAD)
(48" x 48")

NOTES:

1. An Existing R5-2 (No Truck) Sign on CR 28 West of the SR 19 and CR 28 Intersection for Westbound Traffic Shall be Covered. A New R5-2 (No Truck) Sign Shall Be Located on CR 28 West of CR 3 For Westbound Traffic. See Sheet Sign & Post Summary Sheet for Additional Information.

2. Access to all Private and Commercial Drives Shall be Maintained at All Times.

DATE	REVISION

LEGEND

- Direction of Traffic
- Detour Route
- Construction Area
- Construction Sign & Warning Light, Type "A"
- Detour Route Marker Assembly
- Barricades (Type Indicated by Notation) with RCA

RECOMMENDED FOR APPROVAL _____ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: CAK
CHECKED: SMC CHECKED: JMB

MAINTENANCE OF TRAFFIC
DETOUR ROUTE

HORIZONTAL SCALE	BRIDGE FILE
1" = 6000'	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	7 of 30
CONTRACT	PROJECT
B-42769	1902829

Indy-Prof.dgn
Indiana_Shade.tbl

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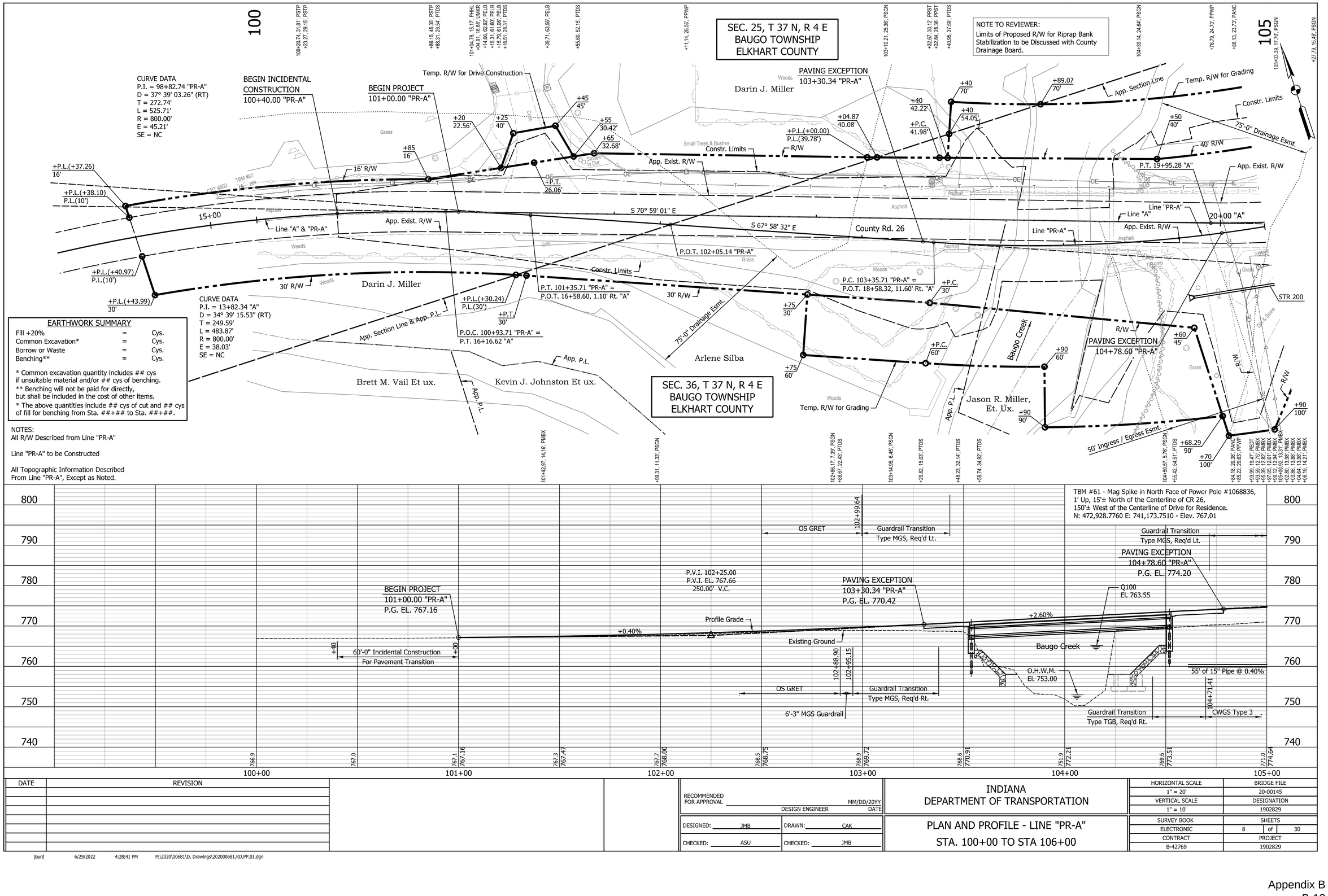

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: CAK
CHECKED: ASU CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "PR-A"
STA. 100+00 TO STA 106+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	20-00145
VERTICAL SCALE	DESIGNATION
1" = 10'	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	8 of 30
CONTRACT	PROJECT
B-42769	1902829

Indv+Prf.dftcfg
Indiana_Shade.tbl

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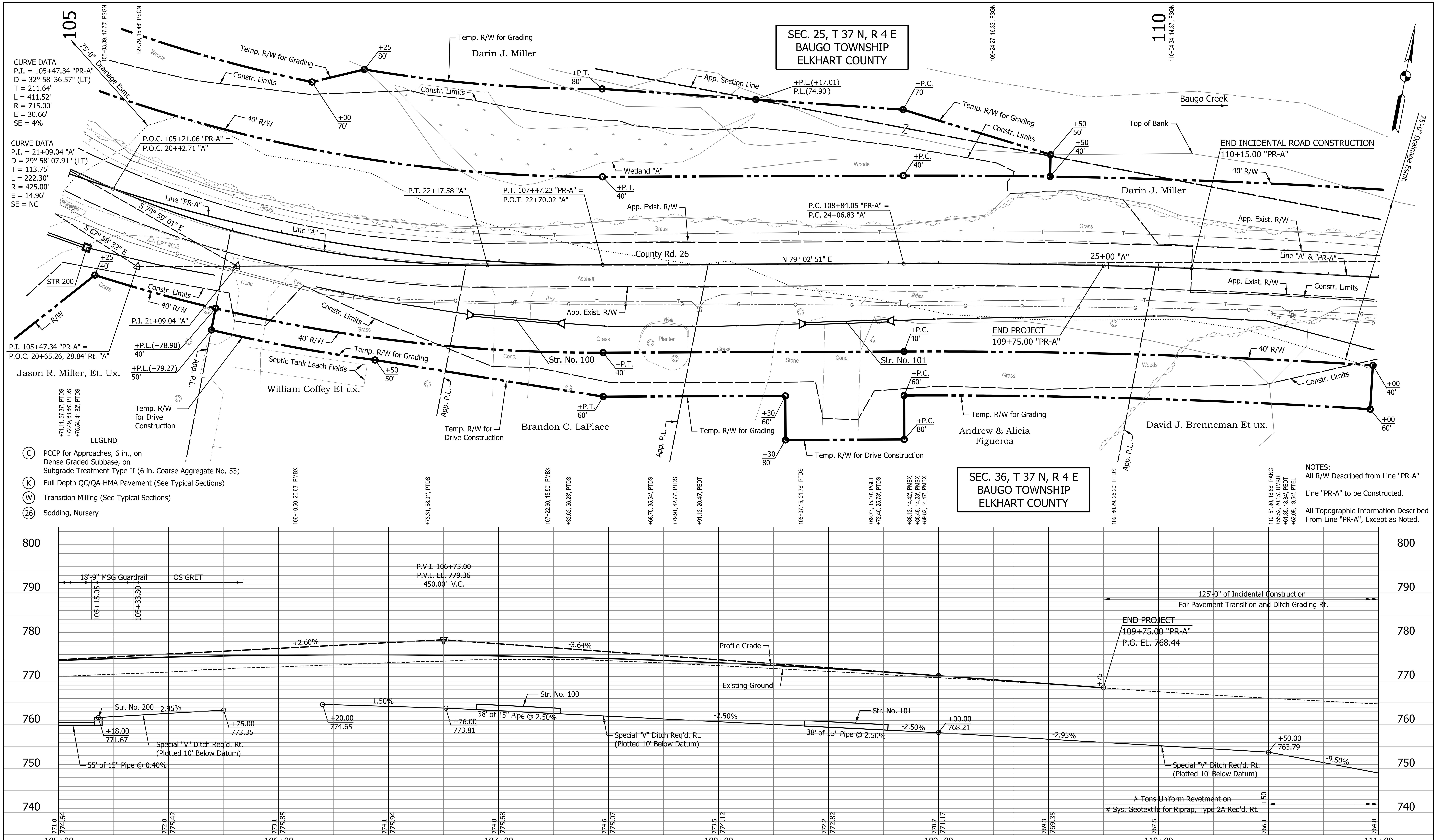
SEC. 25, T 37 N, R 4 E
BAUGO TOWNSHIP
ELKHART COUNTY
SEC. 36, T 37 N, R 4 E
BAUGO TOWNSHIP
ELKHART COUNTY
105
110
CURVE DATA
P.I. = 105+47.34 "PR-A"
D = 32° 58' 36.57" (LT)
T = 211.64'
L = 411.52'
R = 715.00'
E = 30.66'
SE = 4%
CURVE DATA
P.I. = 21+09.04 "A"
D = 29° 58' 07.91" (LT)
T = 113.75'
L = 222.30'
R = 425.00'
E = 14.96'
SE = NC
75'-0" Drainage Esmt.
Temp. R/W for Grading
Constr. Limits
40' R/W
Darin J. Miller
Wetland "A"
App. Section Line
+P.L.(+17.01)
P.L.(74.90')
Baugo Creek
Top of Bank
END INCIDENTAL ROAD CONSTRUCTION
110+15.00 "PR-A"
P.O.C. 105+21.06 "PR-A" =
P.O.C. 20+42.71 "A"
P.T. 22+17.58 "A"
P.T. 107+47.23 "PR-A" =
P.O.T. 22+70.02 "A"
App. Exist. R/W
P.C. 108+84.05 "PR-A" =
P.C. 24+06.83 "A"
Line "PR-A"
Line "A"
S 70° 59' 01" E
S 67° 58' 32" E
County Rd. 26
N 79° 02' 51" E
25+00 "A"
Line "A" & "PR-A"
STR 200
P.I. 21+09.04 "A"
P.I. 105+47.34 "PR-A" =
P.O.C. 20+65.26, 28.84' Rt. "A"
+P.L.(+78.90)
+P.L.(+79.27)
Jason R. Miller, Et. Ux.
Temp. R/W for Drive Construction
Septic Tank Leach Fields
William Coffey Et ux.
Str. No. 100
Str. No. 101
END PROJECT
109+75.00 "PR-A"
Brandon C. LaPlace
Temp. R/W for Drive Construction
Temp. R/W for Grading
Andrew & Alicia Figueroa
David J. Brenneman Et ux.
App. P.L.
P.V.I. 106+75.00
P.V.I. EL. 779.36
450.00' V.C.
18'-9" MSG Guardrail
OS GRET
105+15.05
105+33.80
+2.60%
-3.64%
Profile Grade
Existing Ground
125'-0" of Incidental Construction
For Pavement Transition and Ditch Grading Rt.
END PROJECT
109+75.00 "PR-A"
P.G. EL. 768.44
Str. No. 200
2.95%
+18.00
771.67
+75.00
773.35
55' of 15" Pipe @ 0.40%
Special "V" Ditch Req'd. Rt.
(Plotted 10' Below Datum)
-1.50%
+20.00
774.65
+76.00
773.81
Str. No. 100
38' of 15" Pipe @ 2.50%
-2.50%
Str. No. 101
38' of 15" Pipe @ 2.50%
+00.00
768.21
-2.95%
+50.00
763.79
-9.50%
Tons Uniform Revetment on
Sys. Geotextile for Riprap, Type 2A Req'd. Rt.
800
790
780
770
760
750
740
105+00
106+00
107+00
108+00
109+00
110+00
111+00

LEGEND

- (C) PCCP for Approaches, 6 in., on Dense Graded Subbase, on Subgrade Treatment Type II (6 in. Coarse Aggregate No. 53)
- (K) Full Depth QC/QA-HMA Pavement (See Typical Sections)
- (W) Transition Milling (See Typical Sections)
- (26) Sodding, Nursery

NOTES:

All R/W Described from Line "PR-A"

Line "PR-A" to be Constructed.

All Topographic Information Described From Line "PR-A", Except as Noted.

DATE	REVISION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	MM/DD/20YY DATE	
DESIGNED: JMB	DRAWN: CAK		
CHECKED: ASU	CHECKED: JMB		

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "PR-A"

STA. 106+00 TO STA 112+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	20-00145
VERTICAL SCALE	DESIGNATION
1" = 10'	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	9 of 30
CONTRACT	PROJECT
B-42769	1902829

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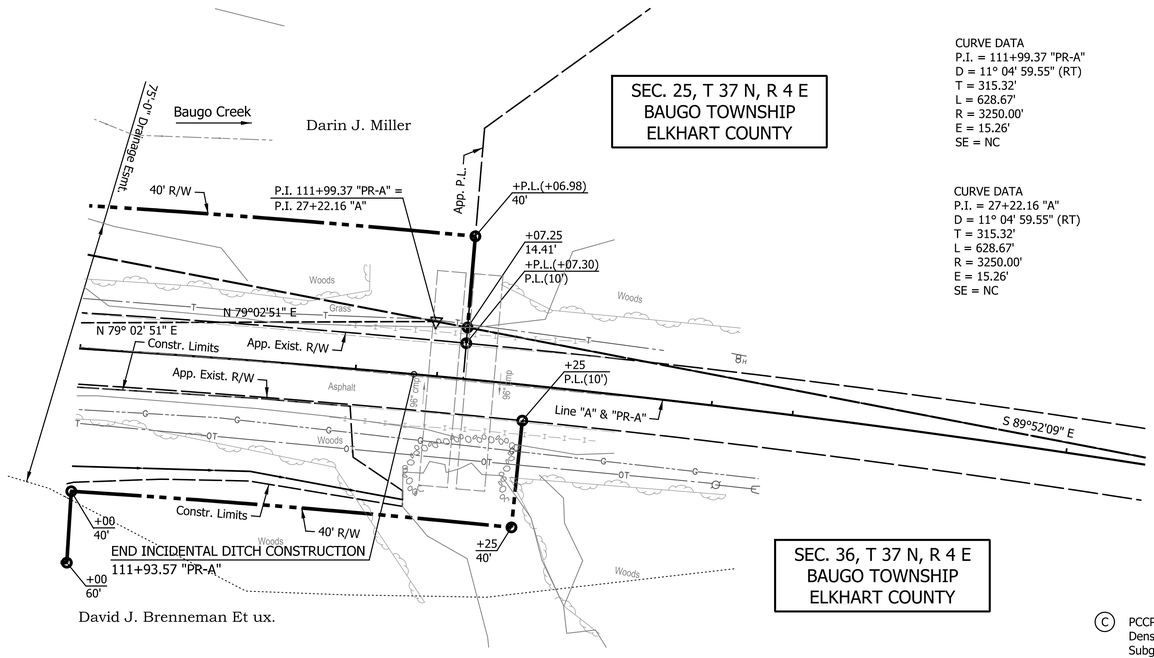
Indy-Pdf.pltcfg
Indiana_Shade.tbl

111



SEC. 25, T 37 N, R 4 E
BAUGO TOWNSHIP
ELKHART COUNTY

SEC. 36, T 37 N, R 4 E
BAUGO TOWNSHIP
ELKHART COUNTY

CURVE DATA
P.I. = 111+99.37 "PR-A"
D = 11° 04' 59.55" (RT)
T = 315.32'
L = 628.67'
R = 3250.00'
E = 15.26'
SE = NC

CURVE DATA
P.I. = 27+22.16 "A"
D = 11° 04' 59.55" (RT)
T = 315.32'
L = 628.67'
R = 3250.00'
E = 15.26'
SE = NC

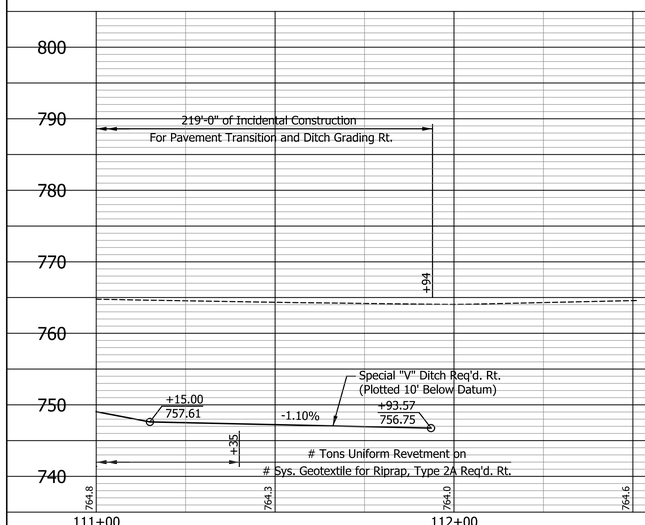
LEGEND

- (C) PCCP for Approaches, 6 in., on Dense Graded Subbase, on Subgrade Treatment Type II (6 in. Coarse Aggregate No. 53)
- (K) Full Depth QC/QA-HMA Pavement (See Typical Sections)
- (W) Transition Milling (See Typical Sections)
- (26) Sodding, Nursery

NOTES:
All R/W Described from Line "PR-A"

Line "PR-A" to be Constructed.

All Topographic Information Described From Line "PR-A", Except as Noted.



TBM #60 - Railroad Spike in North Face of Power Pole #313-28, 1' Up, at the Intersection of CR 26 & CR 22, 15'± South of Centerline of CR 26.
N: 472,822.6560 E: 742,792.3780 - Elev. 777.77

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: CAK
CHECKED: ASU CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "PR-A"
STA. 106+00 TO STA 112+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	20-00145
VERTICAL SCALE	DESIGNATION
1" = 10'	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	10 of 30
CONTRACT	PROJECT
B-42769	1902829

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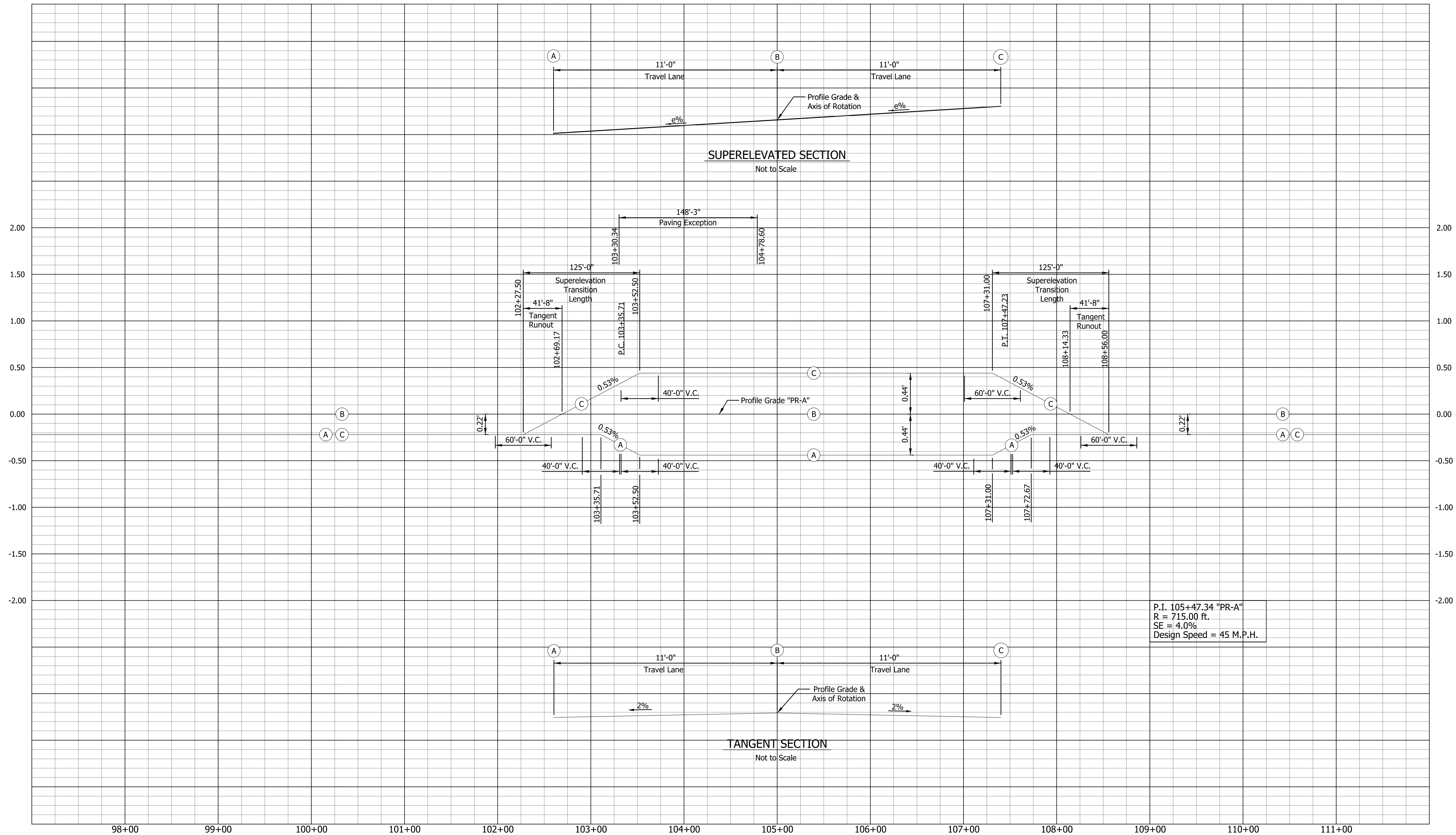

DATE	REVISION

RECOMMENDED FOR APPROVAL ______ DESIGN ENGINEER MM/DD/20YY DATE

DESIGNED: JMB DRAWN: CAK

CHECKED: ASU CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

SUPERELEVATION TRANSITION DIAGRAM
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	20-00145
VERTICAL SCALE	DESIGNATION
1" = 0.5'	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	11 of 30
CONTRACT	PROJECT
B-42769	1902829

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Indiana_Shade.tbl

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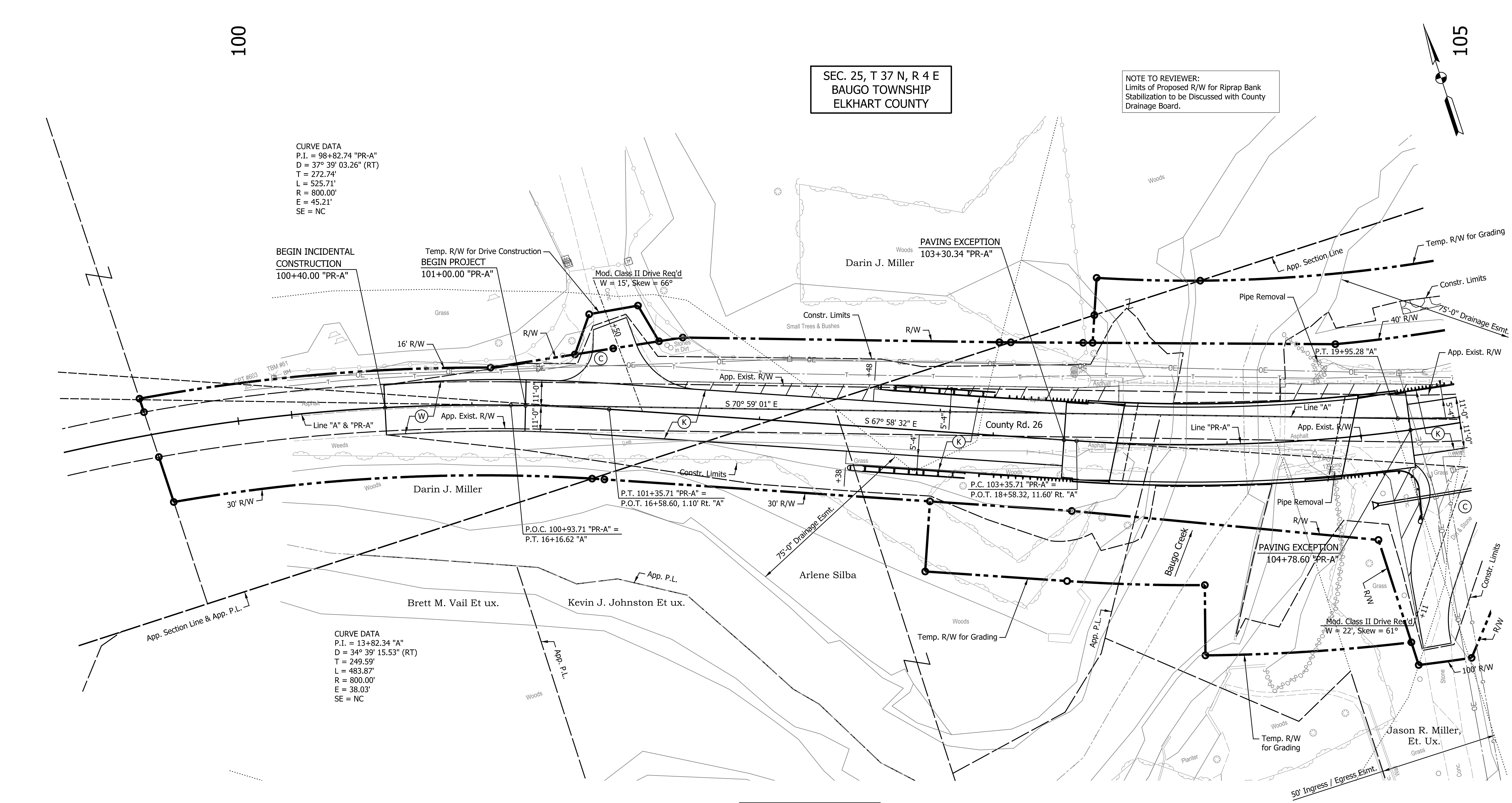
100
105
SEC. 25, T 37 N, R 4 E
BAUGO TOWNSHIP
ELKHART COUNTY
NOTE TO REVIEWER:
Limits of Proposed R/W for Riprap Bank Stabilization to be Discussed with County Drainage Board.
CURVE DATA
P.I. = 98+82.74 "PR-A"
D = 37° 39' 03.26" (RT)
T = 272.74'
L = 525.71'
R = 800.00'
E = 45.21'
SE = NC
BEGIN INCIDENTAL CONSTRUCTION
100+40.00 "PR-A"
Temp. R/W for Drive Construction
BEGIN PROJECT
101+00.00 "PR-A"
Mod. Class II Drive Req'd
W = 15', Skew = 66°
PAVING EXCEPTION
103+30.34 "PR-A"
Darin J. Miller
Constr. Limits
R/W
App. Section Line
Temp. R/W for Grading
Constr. Limits
Pipe Removal
40' R/W
75'-0" Drainage Esmt.
P.T. 19+95.28 "A"
App. Exist. R/W
16' R/W
App. Exist. R/W
S 70° 59' 01" E
S 67° 58' 32" E
County Rd. 26
Line "A"
Line "PR-A"
App. Exist. R/W
Line "A" & "PR-A"
App. Exist. R/W
Constr. Limits
P.C. 103+35.71 "PR-A" =
P.O.T. 18+58.32, 11.60' Rt. "A"
Darin J. Miller
30' R/W
P.T. 101+35.71 "PR-A" =
P.O.T. 16+58.60, 1.10' Rt. "A"
30' R/W
Pipe Removal
R/W
P.O.C. 100+93.71 "PR-A" =
P.T. 16+16.62 "A"
75'-0" Drainage Esmt.
Baugo Creek
PAVING EXCEPTION
104+78.60 "PR-A"
Arlene Silba
App. P.L.
Brett M. Vail Et ux.
Kevin J. Johnston Et ux.
App. Section Line & App. P.L.
Temp. R/W for Grading
App. P.L.
Mod. Class II Drive Req'd
W = 22', Skew = 61°
Constr. Limits
R/W
100' R/W
CURVE DATA
P.I. = 13+82.34 "A"
D = 34° 39' 15.53" (RT)
T = 249.59'
L = 483.87'
R = 800.00'
E = 38.03'
SE = NC
App. P.L.
Temp. R/W for Grading
Jason R. Miller, Et. Ux.
50' Ingress / Egress Esmt.
Grass
Woods
Weeds
Asphalt

SEC. 36, T 37 N, R 4 E
BAUGO TOWNSHIP
ELKHART COUNTY

LEGEND

- (C) PCCP for Approaches, 6 in., on Dense Graded Subbase, on Subgrade Treatment Type II (6 in. Coarse Aggregate No. 53)
- (K) Full Depth QC/QA-HMA Pavement (See Typical Sections)
- (W) Transition Milling (See Typical Sections)
- (26) Sodding, Nursery
- Pavement Removal, Add 6" of Topsoil

DATE	REVISION

RECOMMENDED FOR APPROVAL ________ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: JMB | DRAWN: CAK
CHECKED: SMC | CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	12 of 30
CONTRACT	PROJECT
B-42769	1902829

Indy-Pdf.pltcfg
Indiana_Shade.tbl

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105

110

CURVE DATA
P.I. = 105+47.34 "PR-A"
D = 32° 58' 36.57" (LT)
T = 211.64'
L = 411.52'
R = 715.00'
E = 30.66'
SE = 4%

CURVE DATA
P.I. = 111+99.37 "PR-A"
D = 11° 04' 59.55" (RT)
T = 315.32'
L = 628.67'
R = 3250.00'
E = 15.26'
SE = NC

CURVE DATA
P.I. = 27+22.16 "A"
D = 11° 04' 59.55" (RT)
T = 315.32'
L = 628.67'
R = 3250.00'
E = 15.26'
SE = NC

SEC. 25, T 37 N, R 4 E
BAUGO TOWNSHIP
ELKHART COUNTY

Darin J. Miller

Darin J. Miller

75'-0" Drainage Esmt.

Temp. R/W for Grading

Constr. Limits

Woods

Temp. R/W for Grading

App. Section Line

Temp. R/W for Grading

Constr. Limits

Baugo Creek

Top of Bank

75'-0" Drainage Esmt.

40' R/W

P.O.C. 105+21.06 "PR-A" =
P.O.C. 20+42.71 "A"

+86

Wetland "A"

END INCIDENTAL ROAD CONSTRUCTION
110+15.00 "PR-A"

40' R/W

P.T. 22+17.58 "A"

P.T. 107+47.23 "PR-A" =
P.O.T. 22+70.02 "A"

App. Exist. R/W

P.C. 108+84.05 "PR-A" =
P.C. 24+06.83 "A"

Line "PR-A"

S 70° 59' 01" E

Line "A"

11'-0"

11'-0"

Grass

Asphalt

County Rd. 26

N 79° 02' 51" E

App. Exist. R/W

25+00 "A"

11'-0"

App. Exist. R/W

Line "A" & "PR-A"

S 67° 58' 32" E

CPT #602

Conc.

Dwy

Constr. Limits

App. Exist. R/W

R/W

Constr. Limits

40' R/W

P.I. 21+09.04 "A"

App. Exist. R/W

Wall

Planter

Grass

Stone

Conc.

END PROJECT
109+75.00 "PR-A"

Woods

40' R/W

Constr. Limits

+18.0, 29.2' Rt.

40' R/W

Temp. R/W for Grading

P.I. 105+47.34 "PR-A" =
P.O.C. 20+65.26, 28.84' Rt. "A"

Str. No. 200
Inlet, Type "E-7" &
55' of 15" Pipe &
1 Pipe End Section Req'd.

Leach Field Tiles

Septic Tank

App. P.L.

William Coffey Et ux.

Temp. R/W for
Drive Construction

+07

Str. No. 100
38' of 15" Pipe & 2 Pipe
End Sections Req'd.

Mod. Class II Drive Req'd
W = 17', Skew = 92°

App. P.L.

Temp. R/W
for Grading

Temp. R/W for Drive Construction

+57

Mod. Class II Drive Req'd
W = 16', Skew = 88°

Str. No. 101
38' of 15" Pipe & 2 Pipe
End Sections Req'd.

Andrew & Alicia
Figueroa

Jason R. Miller, Et. Ux.

Brandon C. LaPlace

SEC. 36, T 37 N, R 4 E
BAUGO TOWNSHIP
ELKHART COUNTY

App. P.L.

Temp. R/W for Grading

David J. Brenneman Et ux.

CURVE DATA
P.I. = 21+09.04 "A"
D = 29° 58' 07.91" (LT)
T = 113.75'
L = 222.30'
R = 425.00'
E = 14.96'
SE = NC

+92

Mod. Class II Drive Req'd
W = 14', Skew = 93°

Septic Tank

LEGEND

(C) PCCP for Approaches, 6 in., on
Dense Graded Subbase, on
Subgrade Treatment Type II (6 in. Coarse Aggregate No. 53)

(K) Full Depth QC/QA-HMA Pavement (See Typical Sections)

(W) Transition Milling (See Typical Sections)

(26) Sodding, Nursery

Pavement Removal, Add 6" of Topsoil

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: CAK

CHECKED: SMC CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	13 of 30
CONTRACT	PROJECT
B-42769	1902829

Indy-Prf.dfcfg
Indiana_Sheet.tbl

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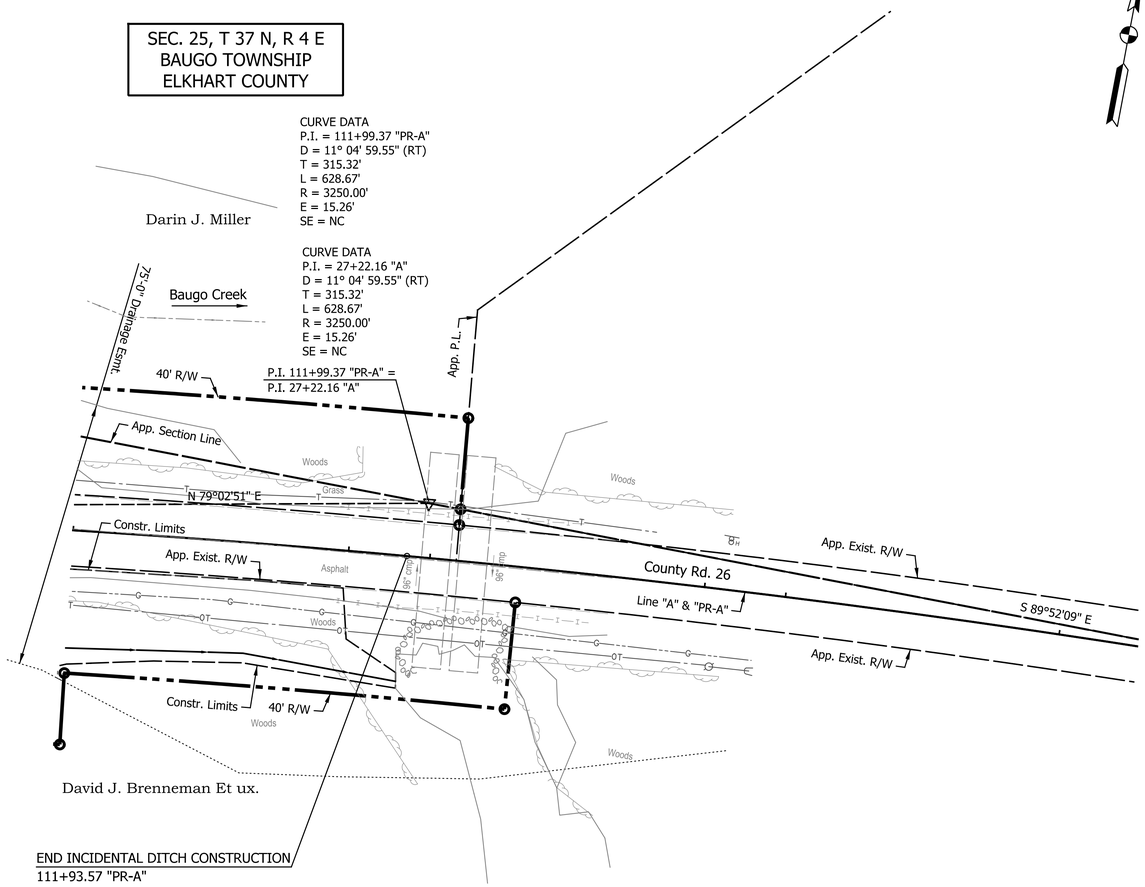
111

SEC. 25, T 37 N, R 4 E
BAUGO TOWNSHIP
ELKHART COUNTY



SEC. 36, T 37 N, R 4 E
BAUGO TOWNSHIP
ELKHART COUNTY

LEGEND

(C) PCCP for Approaches, 6 in., on Dense Graded Subbase, on Subgrade Treatment Type II (6 in. Coarse Aggregate No. 53)

(K) Full Depth QC/QA-HMA Pavement (See Typical Sections)

(W) Transition Milling (See Typical Sections)

(26) Sodding, Nursery

Pavement Removal, Add 6" of Topsoil

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: CAK
CHECKED: SMC CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	14 of 30
CONTRACT	PROJECT
B-42769	1902829

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Indiana_Shade.tbl

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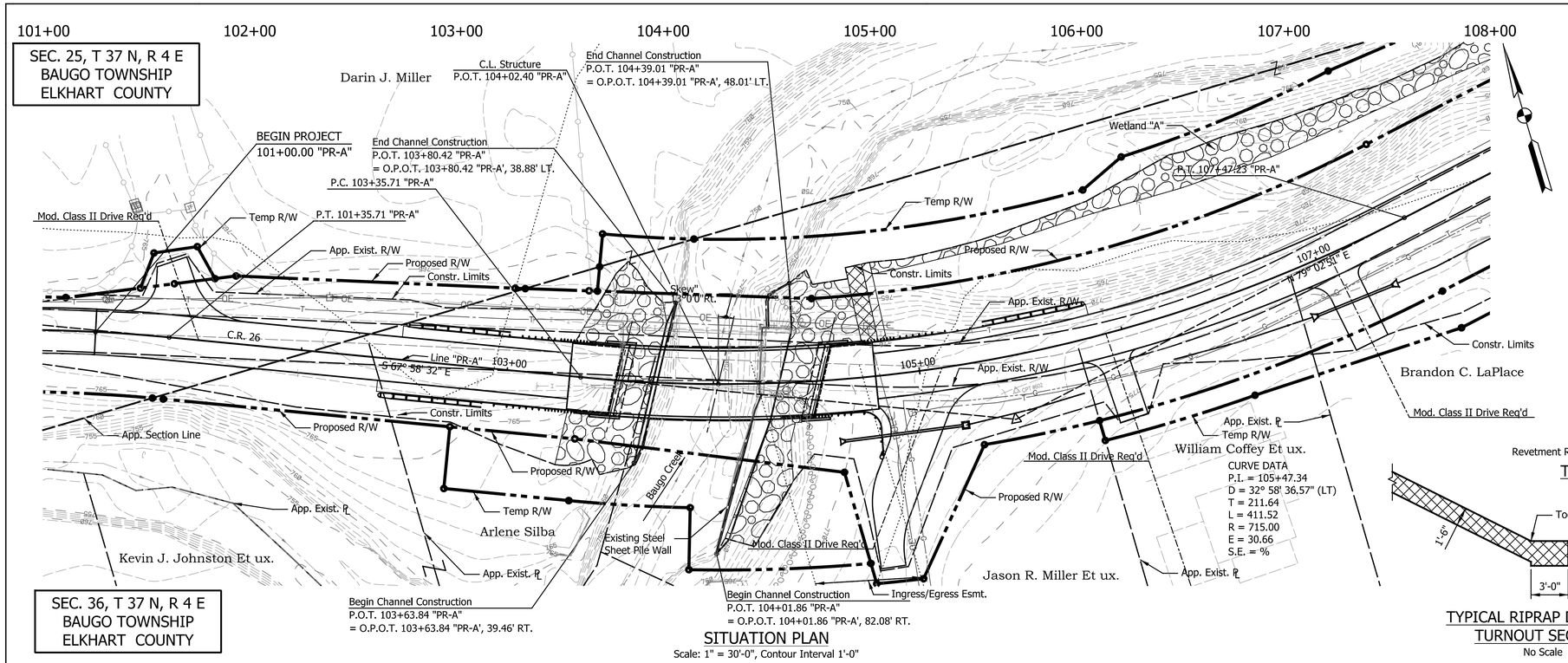
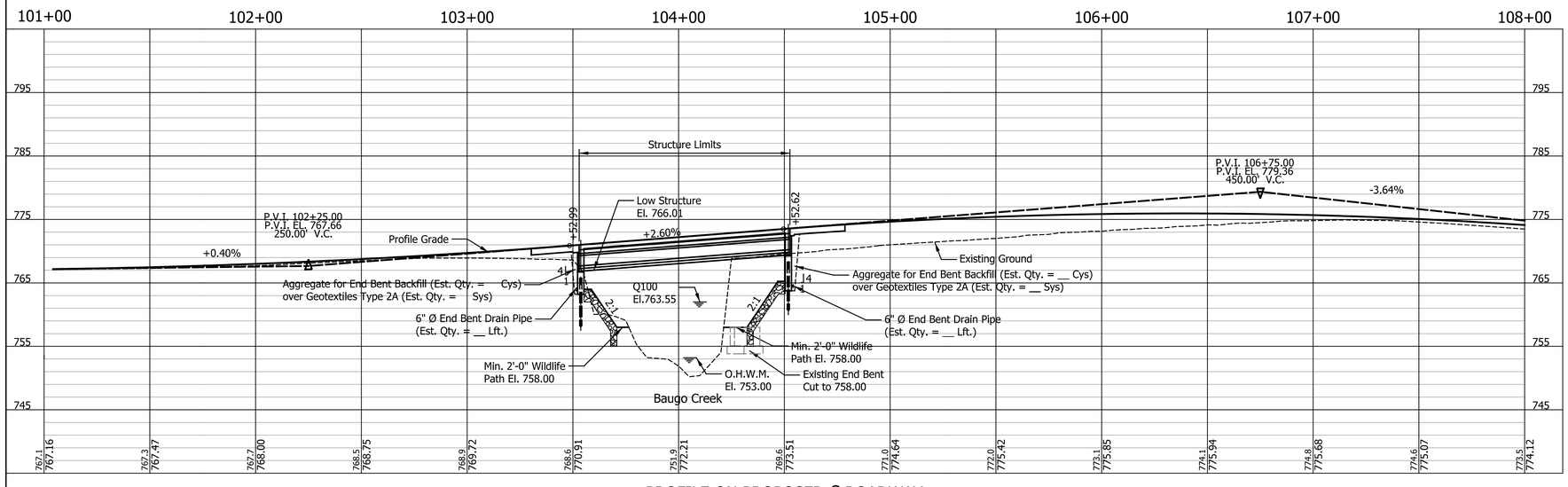


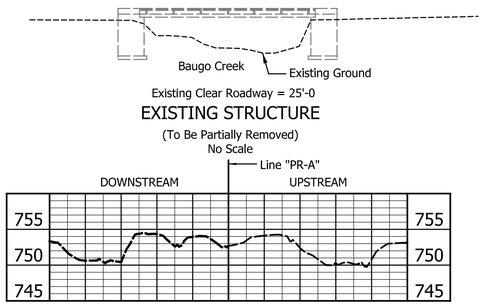
SITUATION PLAN

Scale: 1" = 30'-0", Contour Interval 1'-0"



PROFILE ON PROPOSED ℄ ROADWAY

Scales: 1" = 30'-0" Horizontal, 1" = 10'-0" Vertical

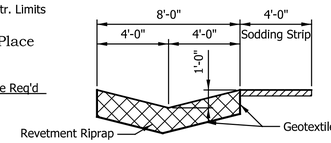


EXISTING STRUCTURE

(To Be Partially Removed)
No Scale

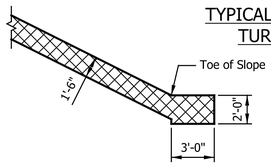
EXISTING STREAM PROFILE

Scales: 1" = 200'-0" Horizontal, 1" = 10'-0" Vertical



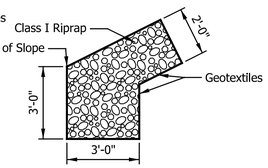
TYPICAL RIPRAP DRAINAGE TURNOUT SECTION

No Scale



TYPICAL RIPRAP DRAINAGE TURNOUT SECTION

No Scale



TYPICAL CLASS I RIPRAP KEYWAY DETAIL

No Scale

HYDRAULIC DATA

Drainage Area	= 70.000	Sq. Mi.
Q100 Flow	= 3000	Cfs.
Q100 Elevation	= 763.55	Ft.
Q100 Headwater Elevation	= 763.81	Ft.
Gross Waterway Area Below Q100	= 740.41	Sft.
Q100 Velocity	= 3.95	Ft/Sec.
Min. Low Structure Elevation	= 765.55	Ft.
Skew	= Variable	
Backwater	= 0.33	Ft.

SCOUR DATA

Q100 Discharge	= 3000	Cfs.
Scour Velocity	= 6.10	Ft.Sec.
Flow Line Elevation	= 749.30	Ft.
Contractor Scour	= 1.29	Ft.
Total Scour	= 1.29	Ft.
Low Scour Elevation	= 748.01	Ft.

NOTES:

All R/W on this sheet is described from Line "PR-A".

For guardrail limits, Benchmarks, Topo Reference and side ditch grades, see Road Plan and Profile Sheet.

For Alignment References, See Geometric Tie-Ups Sheet.

Cross-Hatched areas indicate limits of 18" Revetment Riprap over Geotextiles. (Est. Qty. = * Tons of 18" Revetment Riprap over * Sys. of Geotextiles)

Indicates limits of Class I Riprap over Geotextiles Type 2A. (Est. Qty. = * Tons of Class I Riprap over * Sys. of Geotextiles)

Hatched areas indicate limits of 4' wide sodding strip. (Est. Qty. = * Sys.)

COMPOSITE PRESTRESSED CONCRETE BULB TEE BEAM BRIDGE

1 SPAN: 97'-6" SKEW: 13° Rt. CLEAR ROADWAY: 32'-0"
COUNTY ROAD 26 OVER BAUGO CREEK
ELKHART COUNTY

RECOMMENDED FOR APPROVAL _____ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: NFG DRAWN: JRW
CHECKED: TJM CHECKED: TJM

INDIANA
DEPARTMENT OF TRANSPORTATION

LAYOUT

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	20-00145
VERTICAL SCALE	DESIGNATION
AS NOTED	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	15 of 30
CONTRACT	PROJECT
B-42769	1902829

Indy-hdf.dgn
Indiana_Sheet.tbl

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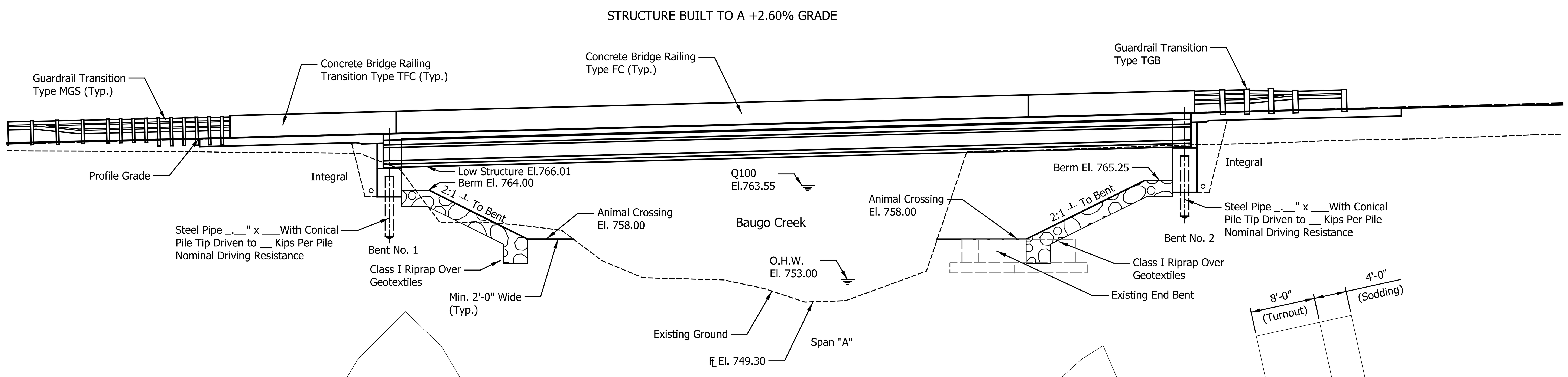
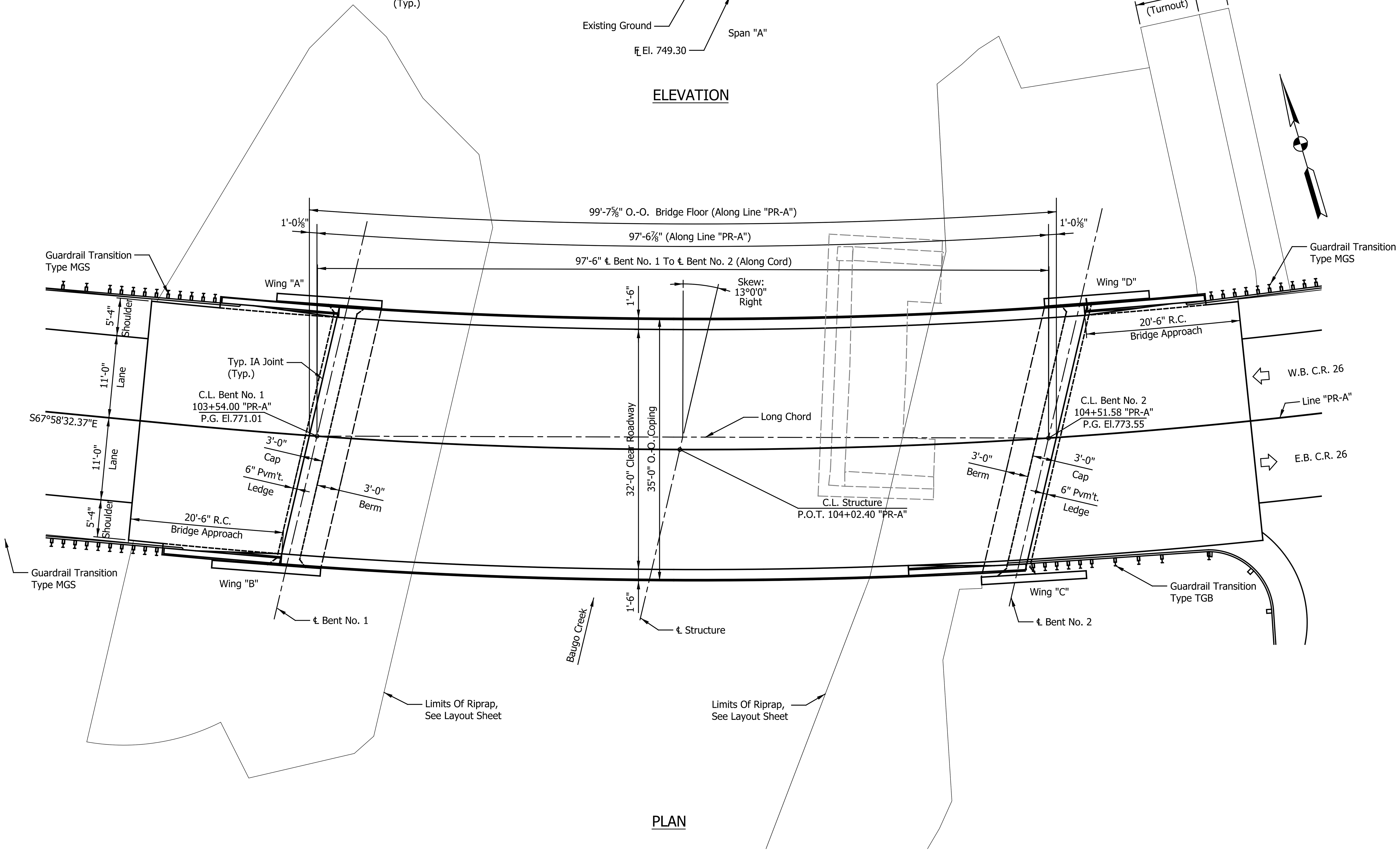


ELEVATION



PLAN

GENERAL NOTES

Reinforcing steel covering to be 2½" in the top and 1" minimum in the bottom of floor slabs, 3" in the footings except the bottom steel which shall be 4", and 2" in all other parts, unless noted.

DESIGN DATA

LIVE LOAD: Superstructure and substructure designed for HL-93 loading, in accordance with the AASHTO LRFD Bridge Design Specifications, 9th. Edition, 2020, and Interim Revisions.

DEAD LOAD: Actual Weight plus 35 Lbs./Sft. for future wearing surface and 15 Lbs./Sft. for permanent metal deck forms.

FLOOR SLAB: Designed for 32,000 Lbs. axle load impact with a structural depth of 7½".

UNIT STRESSES: Reinforcing Steel, Fy = 60,000 psi
Concrete Class B, f'c = 3,000 psi
Concrete Class A, f'c = 3,500 psi
Concrete Class C, f'c = 4,000 psi

CONSTRUCTION LOADING

The exterior girder has been checked for strength, deflection, and overturning using the constructions loads shown below. Cantilever overhang brackets were assumed for support of the deck overhang past the edge of the exterior girder. The finishing machine was assumed to be supported 6" outside the vertical coping form. The top overhang brackets were assumed to be located 6" past the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the girder bottom flange and web.

DESIGN DATA

DECK FALSEWORK LOADS: Designed for 15 Lbs./Sft. for permanent metal stay-in-place deck forms, removable deck forms, and 2' exterior walkway.

CONSTRUCTION LIVE LOAD: Designed for 20 Lbs./Sft. extending 2' past the edge of coping and 75 Lbs./Ft. vertical force applied at a distance of 6" outside the face of coping over a 30' length of the deck centered with the finishing machine.

FINISHING-MACHINE LOAD: 4500 Lbs. distributed over 10' along the coping.

WIND LOAD: Structure designed for 70 mph horizontal wind loading in accordance with LRFD 3.8.1.

COMPOSITE PRESTRESSED CONCRETE BULB TEE BEAM BRIDGE

1 SPAN: 97'-6" SKEW: 13° Rt. CLEAR ROADWAY: 32'-0"
COUNTY ROAD 26 OVER BAUGO CREEK
ELKHART COUNTY

RECOMMENDED FOR APPROVAL ______ DESIGN ENGINEER MM/DD/20YY DATE

DESIGNED: NFG DRAWN: JRW
CHECKED: TJM CHECKED: TJM

INDIANA
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
⅛" = 1'-0"	20-00145
VERTICAL SCALE	DESIGNATION
⅛" = 1'-0"	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	16 of 30
CONTRACT	PROJECT
B-42769	1902829

Indy-Pdf.pltcfg
Indiana_Shade.tbl

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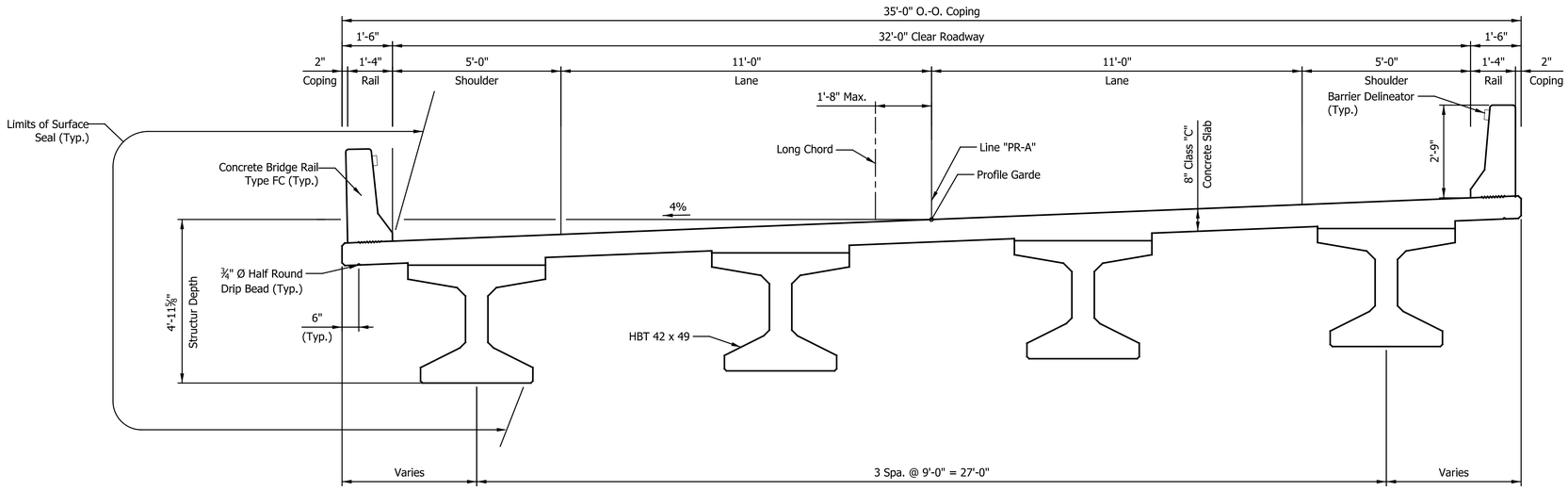

TYPICAL SECTION

COMPOSITE PRESTRESSED CONCRETE BULB TEE BEAM BRIDGE

1 SPAN: 97'-6" SKEW: 13° Rt. CLEAR ROADWAY: 32'-0"
COUNTY ROAD 26 OVER BAUGO CREEK
ELKHART COUNTY

RECOMMENDED FOR APPROVAL _____ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: NFG DRAWN: JRW
CHECKED: TJM CHECKED: TJM

INDIANA
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
½" = 1'-0"	20-00145
VERTICAL SCALE	DESIGNATION
½" = 1'-0"	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	17 of 30
CONTRACT	PROJECT
B-42769	1902829

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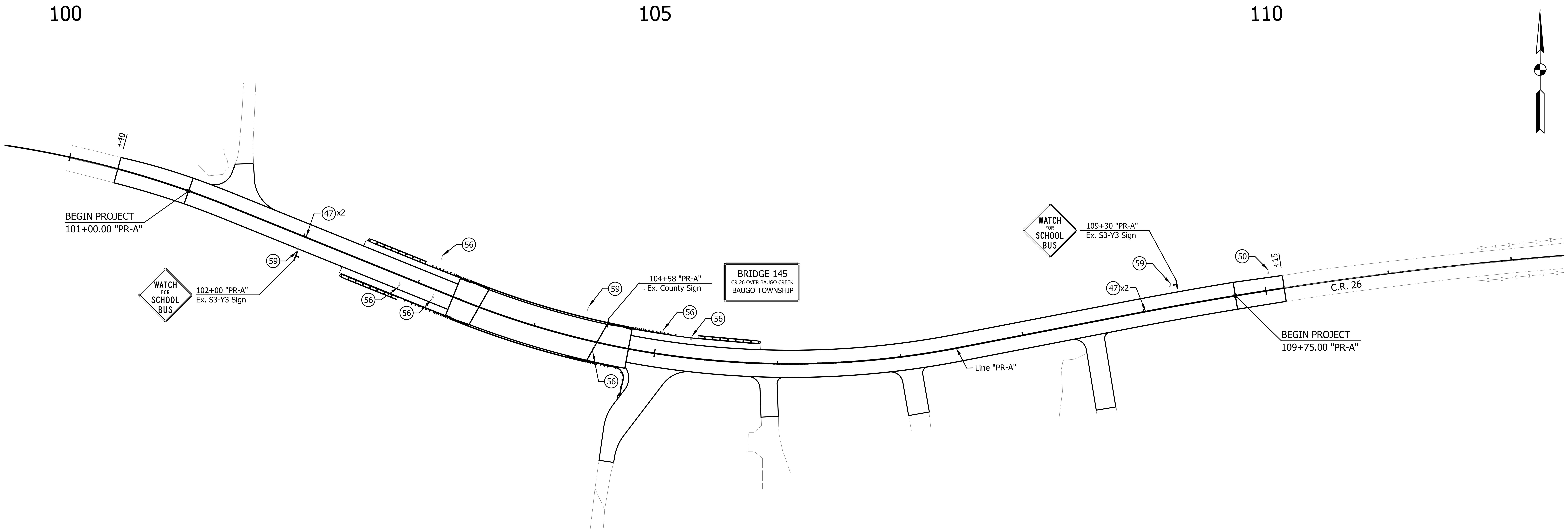
Indiana_Shee6.tbl



NOTE TO REVIEWER:
Need for Solid White Edge Line to be Discussed with County.

LEGEND

- (46) Line, Thermoplastic, Solid, White, 4 in.
- (47) Line, Thermoplastic, Solid, Yellow, 4 in.
- (50) No Change Req'd. for Exist. Sign and Supports
- (56) Sign, Sheet and Supports Remove
- (59) Existing Sheet Sign, Relocate (on New Supports)

DATE	REVISION

RECOMMENDED FOR APPROVAL ______ DESIGN ENGINEER MM/DD/20YY DATE

DESIGNED: JMB DRAWN: JMB
CHECKED: ASU CHECKED: ASU

INDIANA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS AND SIGNING DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 40'	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	19 of 30
CONTRACT	PROJECT
B-42769	1902829

Indy-Pdf.pltcfg
Indiana_Shade.tbl

jbyrd 6/29/2022 4:28:50 PM P:\2020\00681\D. Drawings\202000681.RD.PM.01.dgn

CUT

CROSS SECTIONS
Scale: 1 inch = 10 feet

FILL

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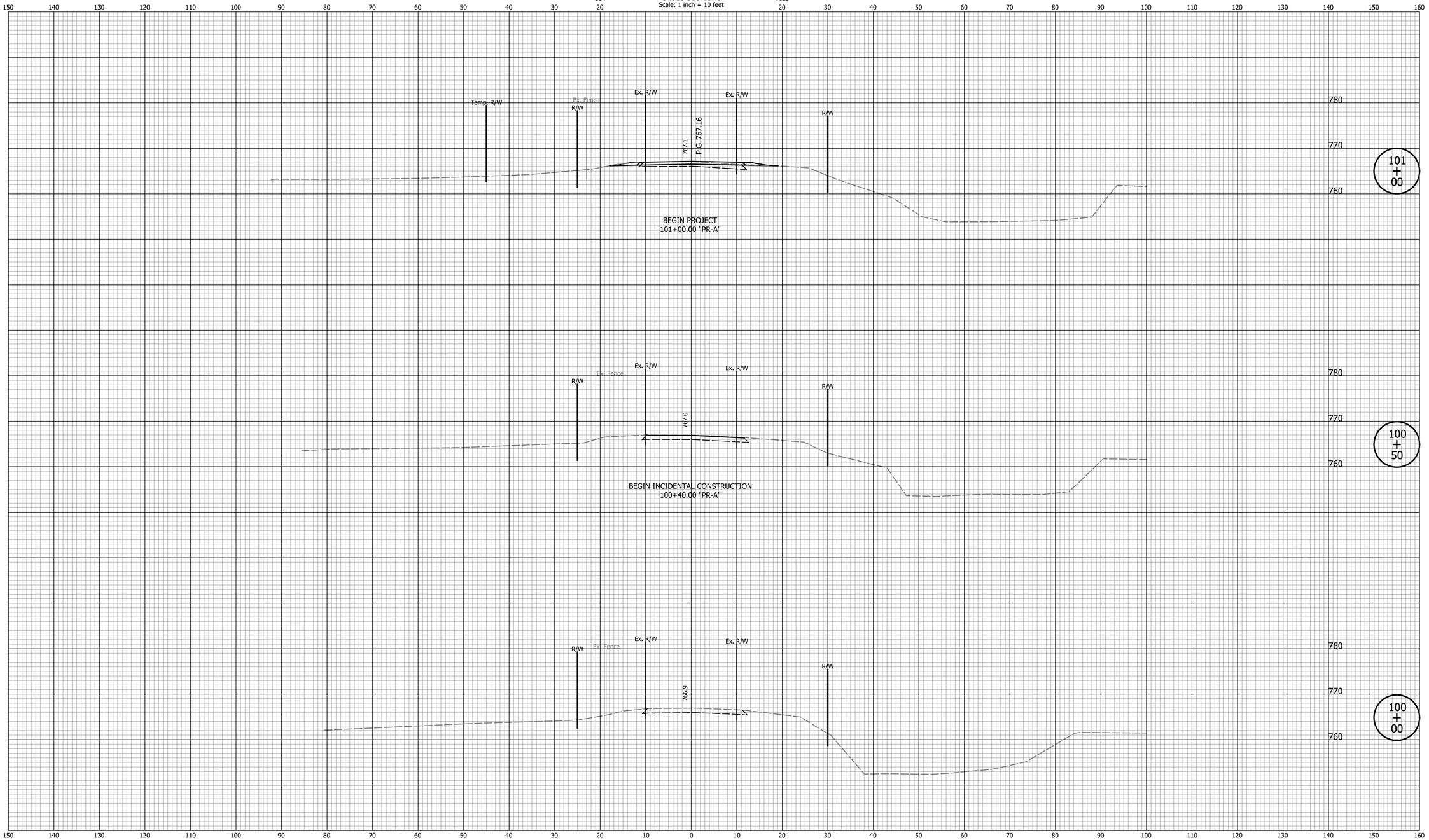

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 | 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: JMB | DRAWN: CAK

CHECKED: SMC | CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTION
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	20 of 30
CONTRACT	PROJECT
B-42769	1902829

Indy-PDF.dfd5
Indiana_Shade.tbl

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CROSS SECTIONS
Scale: 1 inch = 10 feet

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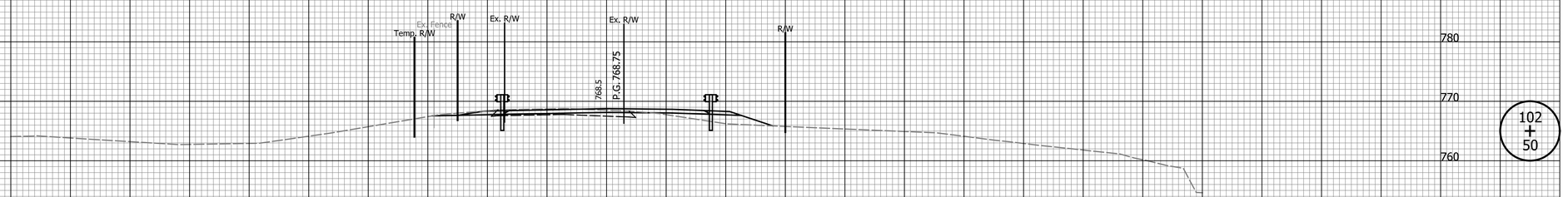

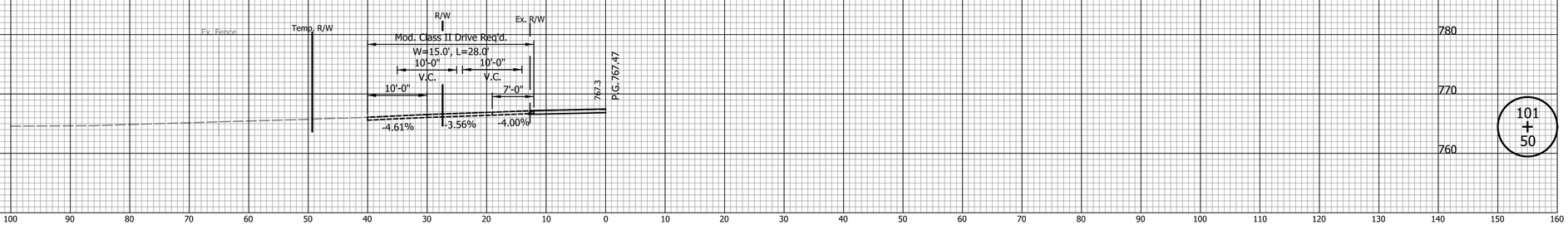

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 — 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: JMB | DRAWN: CAK

CHECKED: SMC | CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTION
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	21 of 30
CONTRACT	PROJECT
B-42769	1902829

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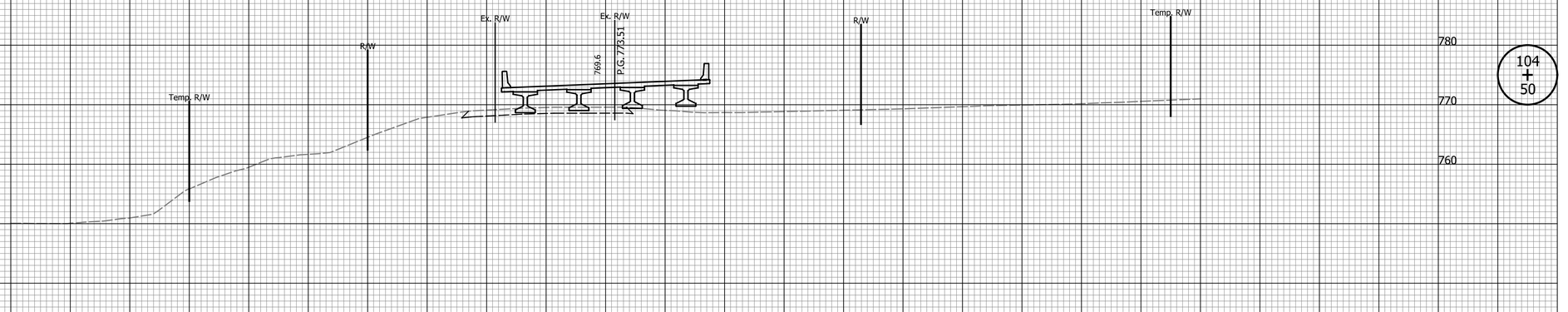
Indy-Prof.dfcfg
Indiana_Shee6.tbl

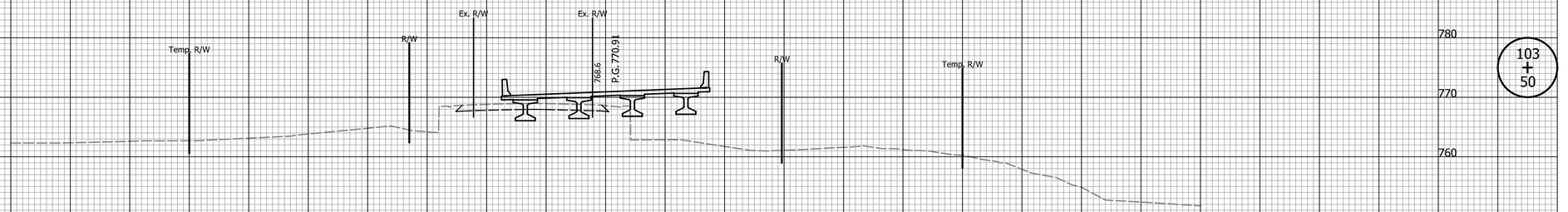
CROSS SECTIONS

Scale: 1 inch = 10 feet

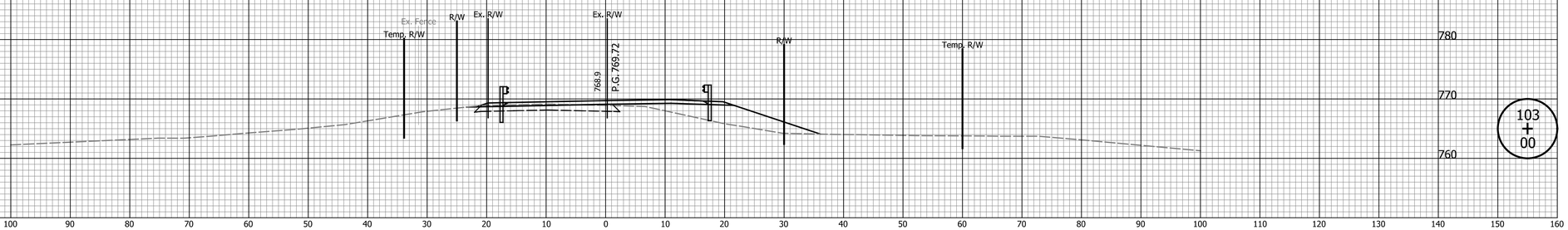
CUT 150 140 130 120 110 100 90 80 70 60 50 40 30 20 — FILL 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

END PAVING EXCEPTIONS FOR BRIDGE
104+78.60 "PR-A"





BEGIN PAVING EXCEPTION FOR BRIDGE
103+30.34 "PR-A"



DATE	REVISION

RECOMMENDED FOR APPROVAL _____ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: CAK

CHECKED: SMC CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTION
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	22 of 30
CONTRACT	PROJECT
B-42769	1902829

Indy-Prof.dfcfg
Indiana_Shee6.tbl

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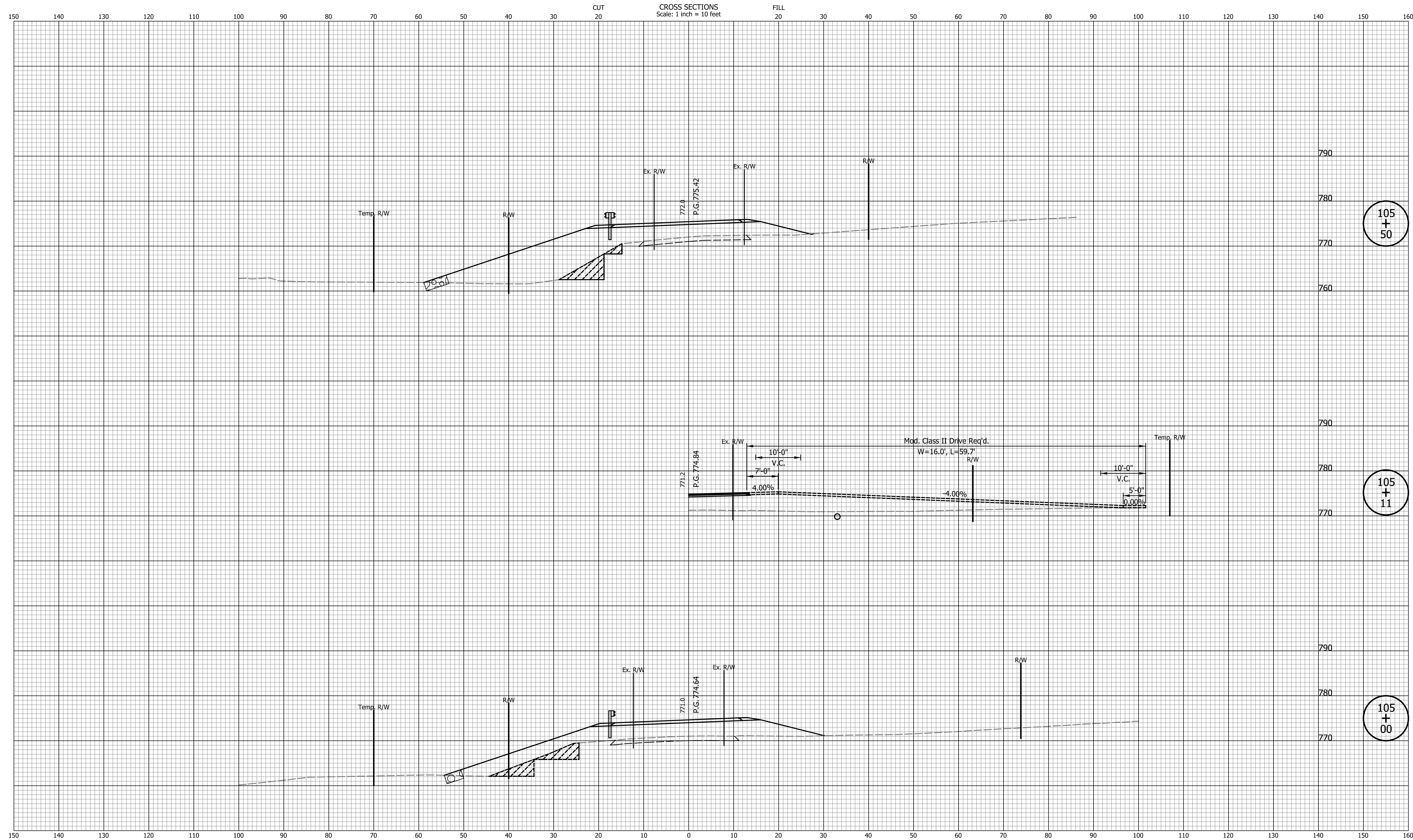

DATE	REVISION

RECOMMENDED FOR APPROVAL ____ DESIGN ENGINEER MM/DD/20YY DATE

DESIGNED: JMB DRAWN: CAK

CHECKED: SMC CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTION
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	23 of 30
CONTRACT	PROJECT
B-42769	1902829

Indy-Pdf.pltcfg
Indiana_Shade.tbl

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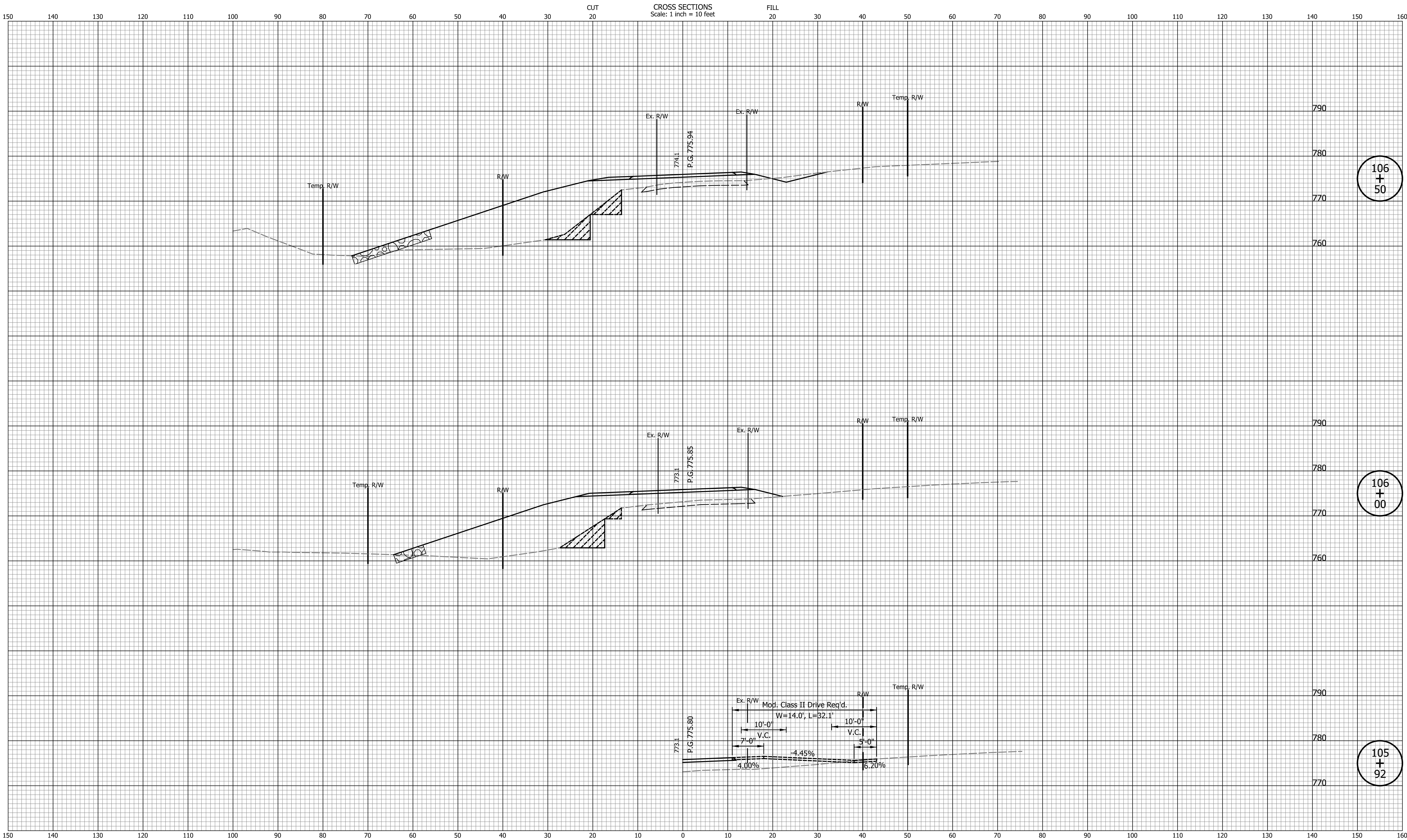

DATE	REVISION

RECOMMENDED FOR APPROVAL ______ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: CAK
CHECKED: SMC CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTION
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	24 of 30
CONTRACT	PROJECT
B-42769	1902829

Indy-Pdf.pltcfg
Indiana_Shade.tbl

jbyrd 6/29/2022 4:28:53 PM P:\2020\00681\D. Drawings\202000681.RD.CS.PRA.dgn

CROSS SECTIONS

Scale: 1 inch = 10 feet

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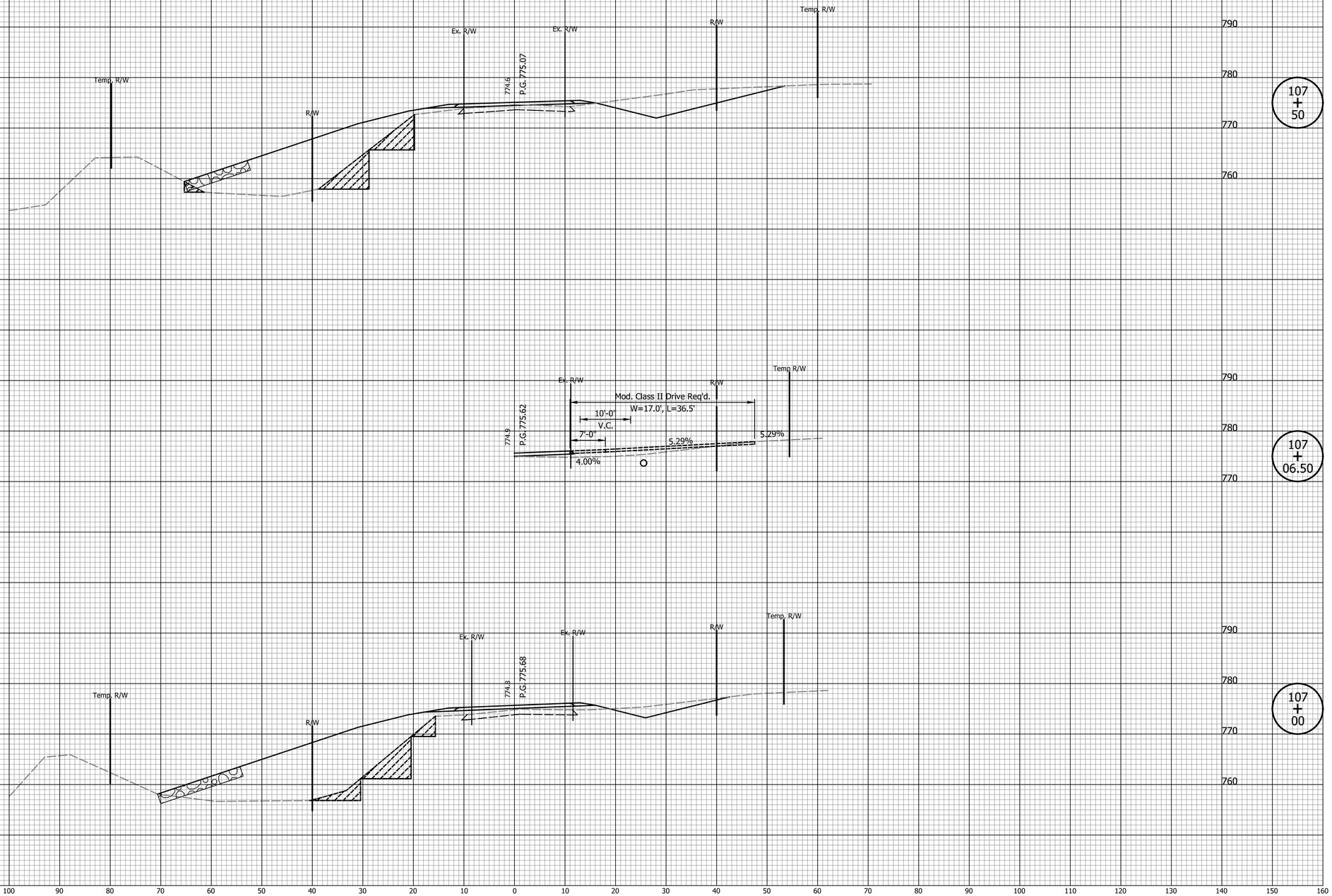

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DATE	REVISION

RECOMMENDED FOR APPROVAL _____ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: CAK

CHECKED: SMC CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTION
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	25 of 30
CONTRACT	PROJECT
B-42769	1902829

Indy-PDF.dfd5
Indiana_Shade.tbl

Jbyrd 6/29/2022 4:28:54 PM P:\2020\00681\D. Drawings\202000681.RD.CS.PRA.dgn

CUT

CROSS SECTIONS
Scale: 1 inch = 10 feet

FILL

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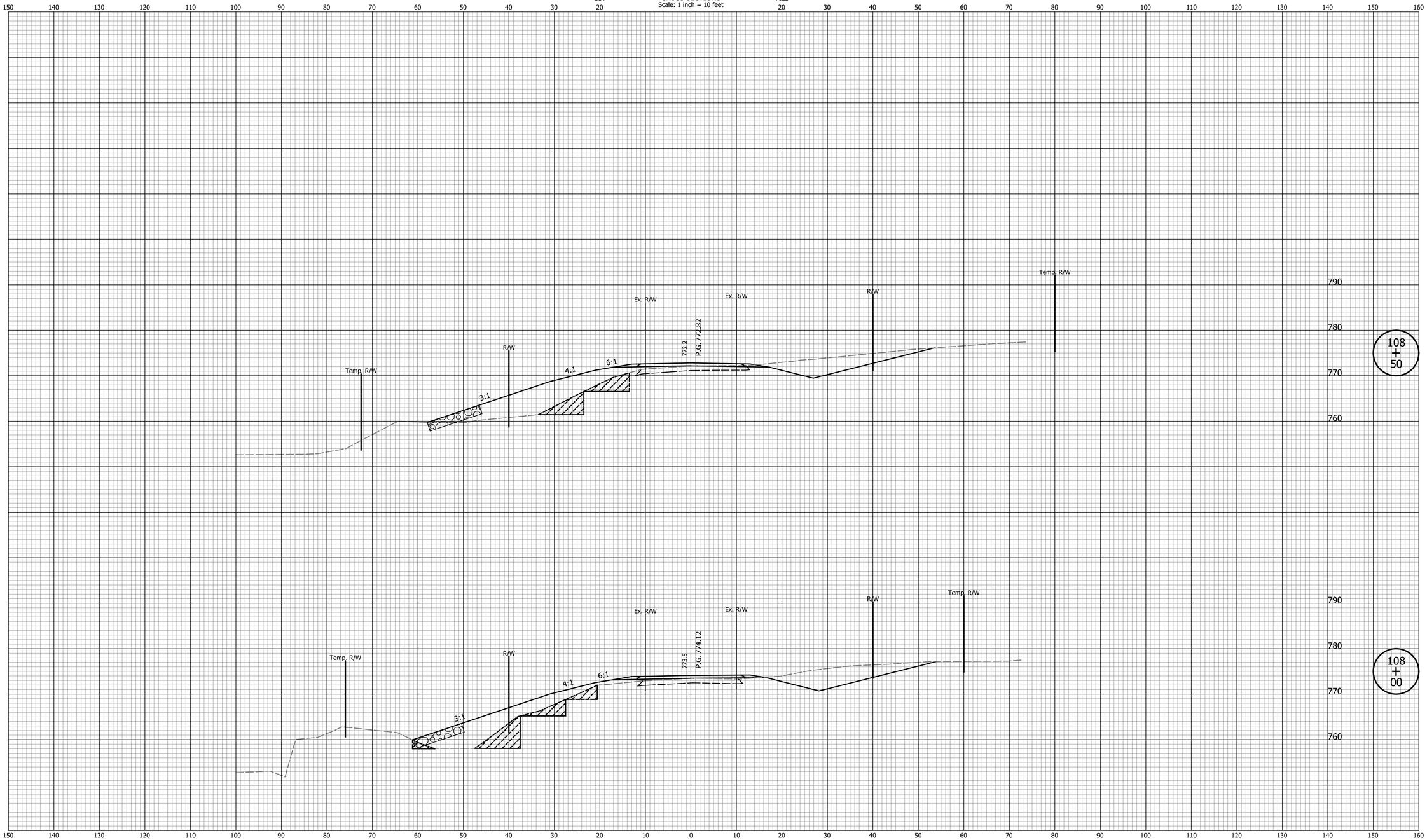

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: CAK
CHECKED: SMC CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTION
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	26 of 30
CONTRACT	PROJECT
B-42769	1902829

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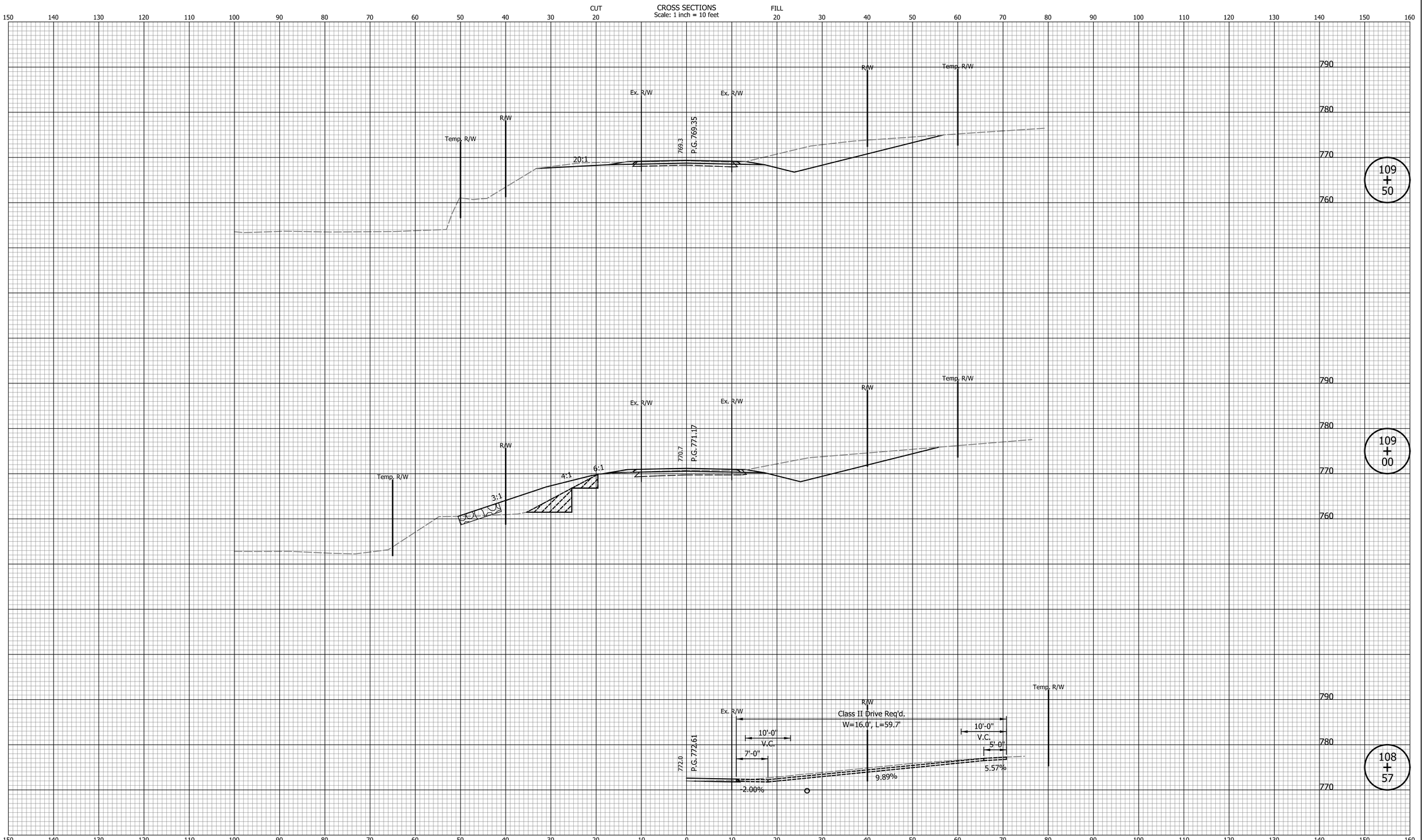
Indy-Prof.dfcfg
Indiana_Shad6.tbl

CROSS SECTIONS

Scale: 1 inch = 10 feet



DATE	REVISION

RECOMMENDED FOR APPROVAL _____ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: CAK

CHECKED: SMC CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTION
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	27 of 30
CONTRACT	PROJECT
B-42769	1902829

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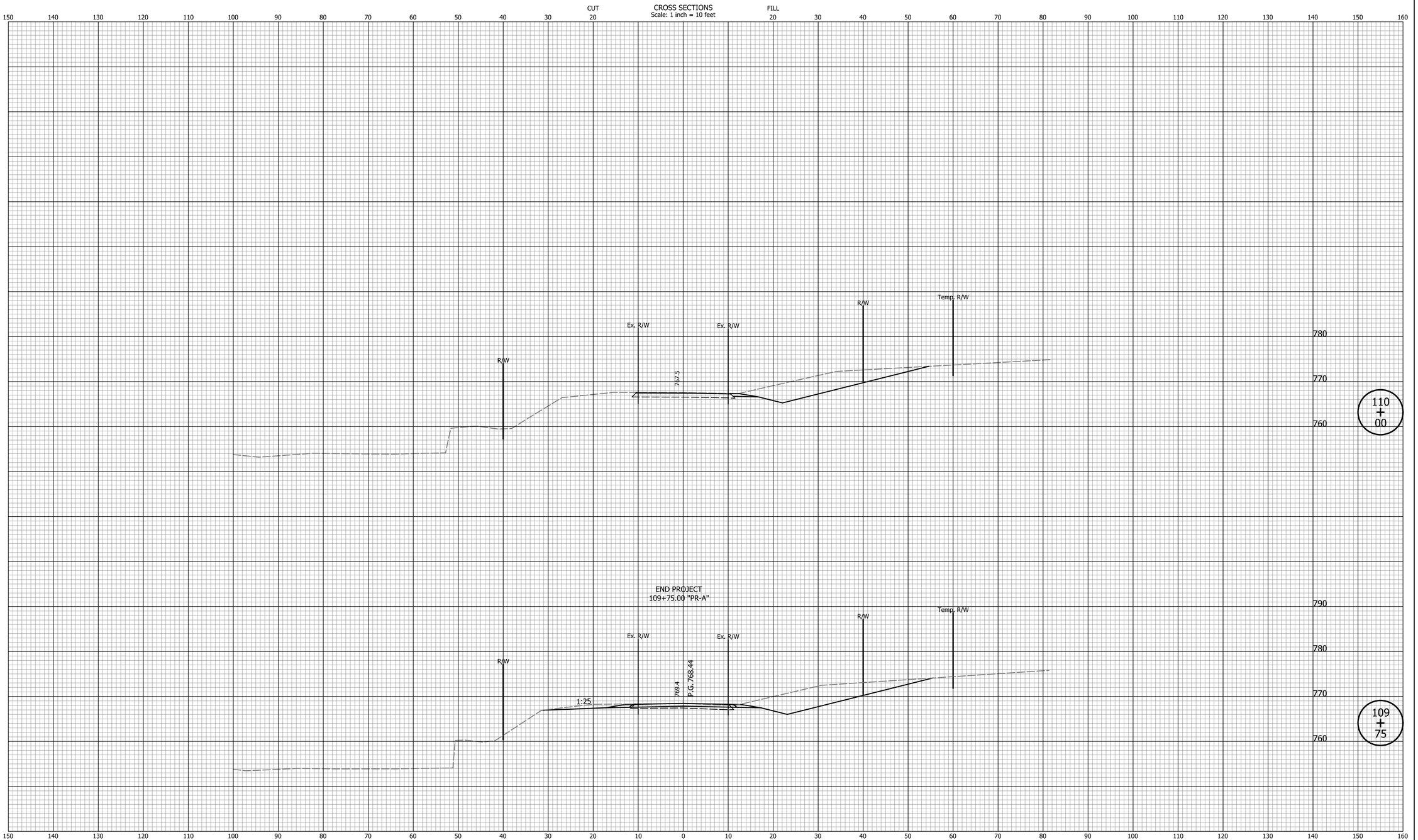
Indiana_Shee6.tbl

CROSS SECTIONS

Scale: 1 inch = 10 feet



DATE	REVISION

RECOMMENDED FOR APPROVAL _____ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: CAK

CHECKED: SMC CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTION
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	28 of 30
CONTRACT	PROJECT
B-42769	1902829

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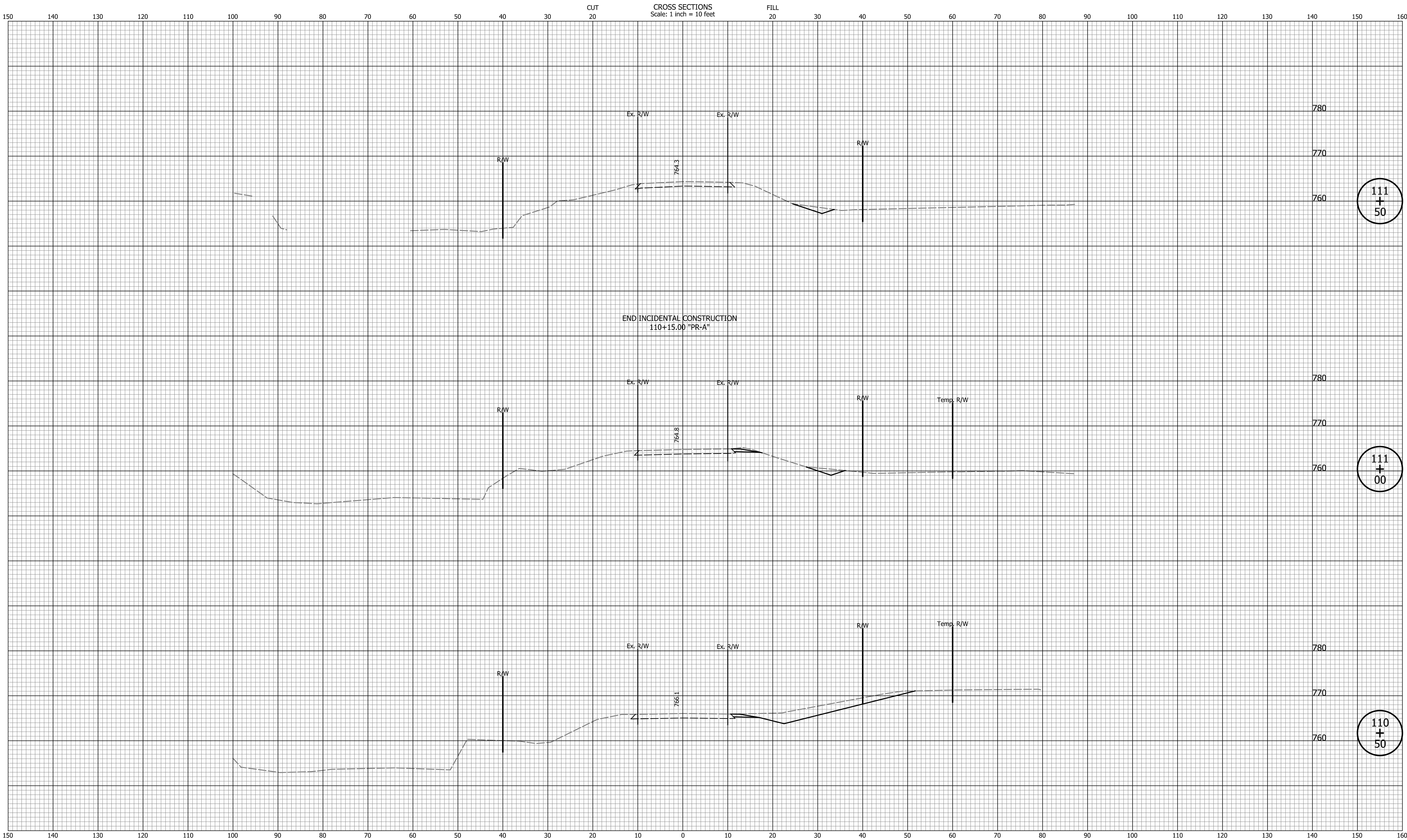


DATE	REVISION

RECOMMENDED FOR APPROVAL ______ DESIGN ENGINEER MM/DD/20YY DATE

DESIGNED:	JMB	DRAWN:	CAK
CHECKED:	SMC	CHECKED:	JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTION
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	29 of 30
CONTRACT	PROJECT
B-42769	1902829

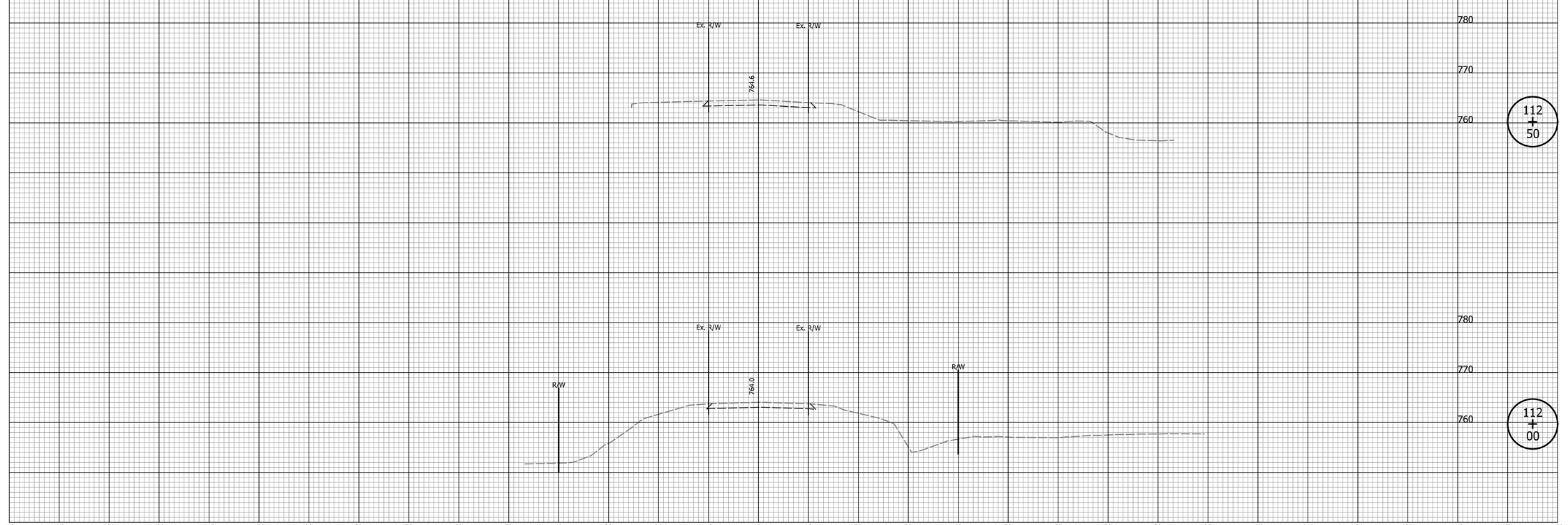
Indy-Pdf.pltcfg
Indiana_Shade.tbl

jbyrd 6/29/2022 4:28:56 PM P:\2020\00681\D. Drawings\202000681.RD.CS.PRA.dgn

CROSS SECTIONS
Scale: 1 inch = 10 feet

CUT 150 140 130 120 110 100 90 80 70 60 50 40 30 20

FILL 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160



10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ MM/DD/20YY
DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: CAK

CHECKED: SMC CHECKED: JMB

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTION
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	20-00145
VERTICAL SCALE	DESIGNATION
N/A	1902829
SURVEY BOOK	SHEETS
ELECTRONIC	30 of 30
CONTRACT	PROJECT
B-42769	1902829

Jbyrd 6/29/2022 4:28:56 PM P:\2020\00681\D. Drawings\202000681.RD.CS.PRA.dgn

Indy-PDF.shtcfg
Indiana_Shade.tbl

AMERICAN STRUCTUREPOINT INC.

9025 RIVER ROAD, SUITE 200
INDIANAPOLIS, INDIANA 46240
TEL 317.547.5580
FAX 317.543.0270

May 12, 2021

Sample Early Coordination Letter

Re: Des. No. 1902829
County Road (CR) 26 over Baugo Creek, Bridge Improvement Project
CR 26, 0.20 Mile West of CR 22
Near Jamestown, Elkhart County, Indiana

Dear Council Members:

The Elkhart County Highway Department, with funding from the Federal Highway Administration (FHWA) and administrative oversight from the Indiana Department of Transportation (INDOT), intends to proceed with the CR 26 over Baugo Creek (Des. No. 1902829) Bridge Improvement project located near Jamestown, Elkhart County, Indiana. This letter is part of the early coordination phase of the environmental review process. American Structurepoint, Inc., on behalf of Elkhart County Highway Department, is requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above designation number and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

The proposed project is located at the CR 26 Bridge over Baugo Creek (Bridge No. 20-00145), approximately 0.20 mile west of CR 22, near Jamestown, Elkhart County, Indiana. More specifically, the proposed project area is located on the Wakarusa Quadrangle on the United States Geological Survey (USGS) 7.5 Minute Topographic Map. The proposed project area extends approximately 820 feet east and 395 feet west from the center of the existing bridge. The existing apparent right-of-way appears to be generally 25 feet north and south from the center of CR 26.

This section of CR 26 is functionally classified as a major collector and has a posted speed limit of 45 miles per hour (mph). The existing CR 26 typical section roadway approach consists of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by approximately 2-foot-wide gravel shoulders. The existing typical section of the bridge consists of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by 1.75-foot-wide paved shoulders. The existing Bridge No. 20-00145 is a single-span, prestressed concrete box beam bridge with steel bridge railings. The bridge carries CR 26 over Baugo Creek. The existing bridge has a total length of 71 feet, an out-to-out coping width of 27.5 feet, and an existing clear roadway width of 25.5 feet. The existing bridge was originally constructed in 1959 with a rehabilitation in 1979. The bridge is not eligible for listing on the National Register of Historic Places.

The need for the proposed project is evidenced by the deteriorating condition of the bridge and the substandard geometry of the roadway. Specific condition ratings noted in the August 17, 2020, INDOT Bridge Inspection Report for Bridge 20-00145 include 5 (fair) out of 9 (excellent) for the deck and 4 (poor) out of 9 (excellent) for the superstructure. A score of 0 indicates failed condition and a score of 9 indicates excellent condition. Deficiencies noted in the Bridge Inspection Report include longitudinal cracking for the deck and deterioration and spalling for the substructure. The bridge inventory load rating is 31 (36 is required) and is posted at 15 tons. The bridge sufficiency rating is a 33.7 out of 100, making it structurally deficient. The sufficiency rating takes into account bridge condition, geometry, traffic, and how well the waterway passes underneath the bridge. Additionally, the bridge does not meet the standard INDOT geometric clear roadway width requirements of 30 feet, and CR 26 currently does not meet standard horizontal and vertical sight distances. The purpose of the proposed project is to improve the condition ratings of Bridge No. 20-00145 to at least a 7 (good) out of 9 (excellent) for the bridge deck and superstructure, raise the inventory load rating above a 36, and raise the bridge sufficiency rating from 33.7 to at least an 80 (out of 100). An additional purpose of the project is to meet the standard clear roadway width of 30 feet and address the substandard horizontal and vertical sight distance.

The current alternative proposes the replacement of Bridge 20-00145 and realignment of CR 26 to meet horizontal and vertical sight distance standards. The proposed bridge type and new alignment of CR 26 has yet to be determined. However, the proposed typical section of the bridge would consist of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by 4- to 5-foot-wide paved shoulders with a proposed clear roadway width of approximately 32feet. The roadway could shift up to 11 feet north or 12 feet south.

The amount of combined temporary and permanent right-of-way acquisition is anticipated to exceed 0.5 acre. Final right-of-way amounts will be determined during design development. No relocations are anticipated as a result of the proposed project. Brush and tree removal would occur. Maintenance of traffic (MOT) for the project is expected to include a detour for through traffic. Phased construction that maintains local access would be utilized. A full MOT plan will be developed as design further develops. Construction is expected to begin in early 2025.

Land use in the vicinity of the project is primarily forested land with some residential areas. Baugo Creek and its associated floodplain cross through the project area. A wetland delineation and waters investigation will be performed to identify ecological resources that may be present. Coordination for the Indiana bat and northern long-eared bat will be completed using the USFWS Information for Planning and Consulting (IPaC) system, and the results of the IPaC determination will be reviewed by the USFWS. The project area will be evaluated in regards to archaeological and historic recourses for Section 106 compliance. The result of any cultural resource evaluations/investigations will be forwarded to the State Historic Perseveration Officer for review and concurrence as required.

American Structurepoint, on behalf of Elkhart County Highway Department, is requesting comments regarding any possible environmental effects associated with this project. Should we not receive your response **within thirty (30) calendar days** from the date of this letter, it will be assumed that your agency feels that there will be no adverse effects incurred as a result of the proposed project. However, should you find that an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions regarding this matter, please feel free to contact Nakayla Krahn, American Structurepoint by phone at (317) 547-5580 or e-mail at nkrahn@structurepoint.com, or Tim Jackson, Elkhart County Highway Department, Project Manager at (574) 533-0538 or e-mail at tjackson@elkcohwy.org. Thank you in advance for your input.

Very truly yours,

Nakayla Krahn, Environmental Specialist, American Structurepoint
Consultant soliciting comments on behalf of Elkhart County Highway Department

NJK:mgn

Enclosures

State Location Map
USGS Topographic Map – Elkhart, Foraker, Osceola, and Wakarusa Quadrangles
2020 Aerial Photography and Photo Location Map
General Project Photos

Distribution List

Baugo Community Schools
Eighth Coast Guard District
Elkhart County Council Members
Elkhart County EMA
Elkhart County Floodplain Administrator
Elkhart County Highway Department
Elkhart County Sheriff's Office
Elkhart County Soil and Water Conservation District
Elkhart County Surveyor
Federal Highway Administration
Indiana Department of Environmental Management
Indiana DNR, Division of Fish and Wildlife
Indiana Geological and Water Survey
INDOT Environmental Services
INDOT Fort Wayne District
Michiana Area Council of Governments
MS4 Coordinator, Elkhart County
National Park Service, Midwest Regional Office
US Army Corps of Engineers, Detroit District
US Department of Housing and Urban Development
US Fish and Wildlife Service
US Natural Resources Conservation Service

Duplicate Mapping and Photos have been removed to reduce file size and can be found in Appendix B, pages B-1 to B-5.

INDOT Aviation received a copy of this early coordination letter on December 23, 2022.

Organization and Project Information

Project ID:	2020.00681
Des. ID:	1902829
Project Title:	CR 26 over Baugo Creek Bridge Improvement project
Name of Organization:	American Structurepoint, Inc.
Requested by:	Nakayla Krahn

Environmental Assessment Report

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

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

DISCLAIMER:

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

This information was furnished by Indiana Geological Survey
Address: 420 N. Walnut St., Bloomington, IN 47404
Email: IGSEnvir@indiana.edu
Phone: 812 855-7428

Date: May 12, 2021

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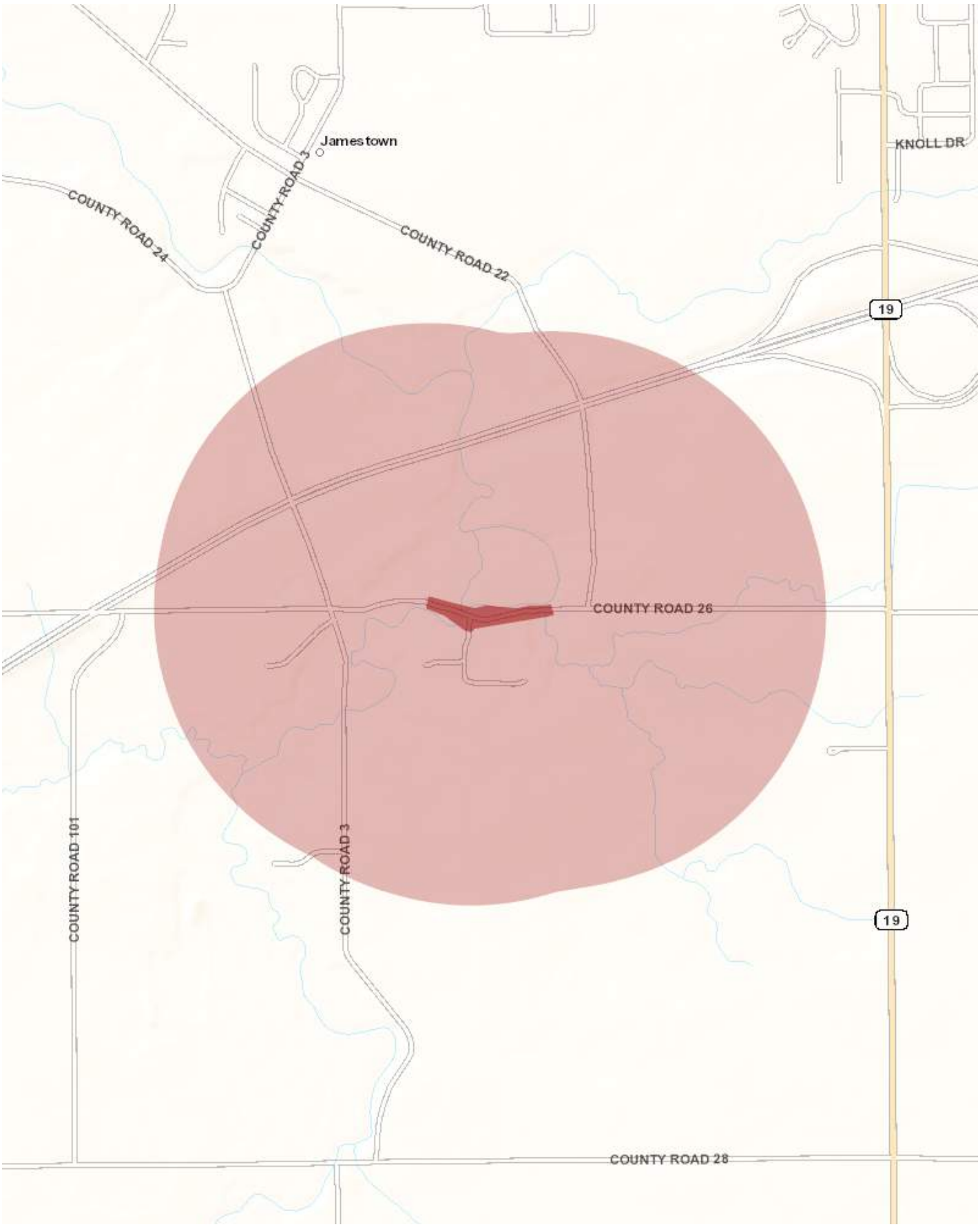

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Metadata:

- 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

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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

Elkhart County Highway Department
Tim Jackson
610 Steury Ave
Goshen
46528 , IN
Date

American Structurepoint, Inc.
Nakayla Krahn
9025 River Road, Suite 200
Indianapolis , IN 46240

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: Des. No. 1902829: The proposed project is located at the CR 26 Bridge over Baugo Creek (Bridge No. 20-00145), approximately 0.20 mile west of CR 22, near Jamestown, Elkhart County, Indiana. More specifically, the proposed project area is located on the Wakarusa Quadrangle on the United States Geological Survey (USGS) 7.5 Minute Topographic Map. The proposed project area extends approximately 820 feet east and 395 feet west from the center of the existing bridge. The existing apparent right-of-way appears to be generally 25 feet north and south from the center of CR 26. This section of CR 26 is functionally classified as a major collector and has a posted speed limit of 45 miles per hour (mph). The existing CR 26 typical section roadway approach consists of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by approximately 2-foot-wide gravel shoulders. The existing typical section of the bridge consists of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by 1.75-foot-wide paved shoulders. The existing Bridge No. 20-00145 is a single-span, prestressed concrete box beam bridge with steel bridge railings. The bridge carries CR 26 over Baugo Creek. The existing bridge has a total length of 71 feet, an out-to-out coping width of 27.5 feet, and an existing clear roadway width of 25.5 feet. The existing bridge was originally constructed in 1959 with a rehabilitation in 1979. The bridge is not eligible for listing on the National Register of Historic Places. The need for the proposed project is evidenced by the deteriorating condition of the bridge and the substandard geometry of the roadway. Specific condition ratings noted in the August 17, 2020, INDOT Bridge Inspection Report for Bridge 20-00145 include 5 (fair) out of 9 (excellent) for the deck and 4 (poor) out of 9 (excellent) for the superstructure. A score of 0 indicates failed condition and a score of 9 indicates excellent condition. Deficiencies noted in the Bridge Inspection Report include longitudinal cracking for the deck and deterioration and spalling for the substructure. The bridge inventory load rating is 31 (36 is required) and is posted at 15 tons. The bridge sufficiency rating is a 33.7 out of 100, making it structurally deficient. The sufficiency rating takes into account bridge condition, geometry, traffic, and how well the waterway passes underneath the bridge. Additionally, the bridge does not meet the standard INDOT geometric clear roadway width requirements of 30 feet, and CR 26 currently does not meet standard horizontal and vertical sight distances. The purpose of the proposed project is to improve the condition ratings of Bridge No. 20-00145 to at least a 7 (good) out of 9 (excellent) for the bridge deck and superstructure, raise the inventory load rating above a 36, and raise the bridge sufficiency rating from 33.7 to at least an 80 (out of 100). An additional purpose of the project is to meet the standard clear roadway width of 30 feet and address the substandard horizontal and vertical sight distance. The current alternative proposes the replacement of Bridge 20-00145 and realignment of CR 26 to meet horizontal and vertical sight distance standards. The proposed bridge type and new alignment of CR 26 has yet to be determined. However, the proposed typical section of the bridge would consist of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by 4- to 5-foot-wide paved shoulders with a proposed clear roadway width of approximately 32feet. The roadway could shift up to 11 feet north or 12 feet south. The amount of combined temporary and permanent right-of-way acquisition is anticipated to exceed 0.5 acre. Final right-of-way amounts will be determined during design development. No relocations are anticipated as a result of the proposed project. Brush and tree removal would occur. Maintenance of traffic (MOT) for the project is expected to include a detour for through traffic. Phased construction that maintains local access would be utilized. A full MOT plan will be developed as design further develops. Construction is expected to begin in early 2025.

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, Koscioskо, 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 (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 is it 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

Des. No. 1902829: The proposed project is located at the CR 26 Bridge over Baugo Creek (Bridge No. 20-00145), approximately 0.20 mile west of CR 22, near Jamestown, Elkhart County, Indiana. More specifically, the proposed project area is located on the Wakarusa Quadrangle on the United States Geological Survey (USGS) 7.5 Minute Topographic Map. The proposed project area extends approximately 820 feet east and 395 feet west from the center of the existing bridge. The existing apparent right-of-way appears to be generally 25 feet north and south from the center of CR 26. This section of CR 26 is functionally classified as a major collector and has a posted speed limit of 45 miles per hour (mph). The existing CR 26 typical section roadway approach consists of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by approximately 2-foot-wide gravel shoulders. The existing typical section of the bridge consists of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by 1.75-foot-wide paved shoulders. The existing Bridge No. 20-00145 is a single-span, prestressed concrete box beam bridge with steel bridge railings. The bridge carries CR 26 over Baugo Creek. The existing bridge has a total length of 71 feet, an out-to-out coping width of 27.5 feet, and an existing clear roadway width of 25.5 feet. The existing bridge was originally constructed in 1959 with a rehabilitation in 1979. The bridge is not eligible for listing on the National Register of Historic Places. The need for the proposed project is evidenced by the deteriorating condition of the bridge and the substandard geometry of the roadway. Specific condition ratings noted in the August 17, 2020, INDOT Bridge Inspection Report for Bridge 20-00145 include 5 (fair) out of 9 (excellent) for the deck and 4 (poor) out of 9 (excellent) for the superstructure. A score of 0 indicates failed condition and a score of 9 indicates excellent condition. Deficiencies noted in the Bridge Inspection Report include longitudinal cracking for the deck and deterioration and spalling for the substructure. The bridge inventory load rating is 31 (36 is required) and is posted at 15 tons. The bridge sufficiency rating is a 33.7 out of 100, making it

structurally deficient. The sufficiency rating takes into account bridge condition, geometry, traffic, and how well the waterway passes underneath the bridge. Additionally, the bridge does not meet the standard INDOT geometric clear roadway width requirements of 30 feet, and CR 26 currently does not meet standard horizontal and vertical sight distances. The purpose of the proposed project is to improve the condition ratings of Bridge No. 20-00145 to at least a 7 (good) out of 9 (excellent) for the bridge deck and superstructure, raise the inventory load rating above a 36, and raise the bridge sufficiency rating from 33.7 to at least an 80 (out of 100). An additional purpose of the project is to meet the standard clear roadway width of 30 feet and address the substandard horizontal and vertical sight distance. The current alternative proposes the replacement of Bridge 20-00145 and realignment of CR 26 to meet horizontal and vertical sight distance standards. The proposed bridge type and new alignment of CR 26 has yet to be determined. However, the proposed typical section of the bridge would consist of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by 4- to 5-foot-wide paved shoulders with a proposed clear roadway width of approximately 32feet. The roadway could shift up to 11 feet north or 12 feet south. The amount of combined temporary and permanent right-of-way acquisition is anticipated to exceed 0.5 acre. Final right-of-way amounts will be determined during design development. No relocations are anticipated as a result of the proposed project. Brush and tree removal would occur. Maintenance of traffic (MOT) for the project is expected to include a detour for through traffic. Phased construction that maintains local access would be utilized. A full MOT plan will be developed as design further develops. Construction is expected to begin in early 2025.

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: May 13, 2021

Signature of the INDOT
Project Engineer or Other Responsible Agent Tim Jackson

Tim Jackson

Date: May 12, 2021

Signature of the
For Hire Consultant 

Nakayla Krahn

Krahn, Nakayla

From: Sanders, Byron <bsanders@baugo.org>
Sent: Friday, May 14, 2021 7:20 AM
To: Krahn, Nakayla
Cc: Zack Quiett; Carol Deak
Subject: Re: Early Coordination - County Road 26 over Baugo Creek (Des. No. 1902829)

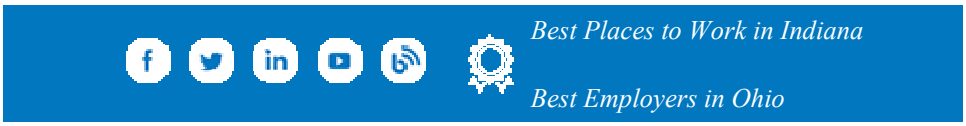
EXTERNAL EMAIL: Do not click any links or open any attachments unless you trust the sender and know the content is safe!

Greetings Nakayla,

I reviewed this project with our leadership team and we do not have a professional opinion on any environmental impact that the bridge would have. We do anticipate the project will have a significant impact on the routing of school buses. We appreciate the early notification and will appreciate future calendaring so that we can respond to the impact and make routing to and from school as smooth as possible.

On Wed, May 12, 2021 at 4:32 PM Krahn, Nakayla <nkrahn@structurepoint.com> wrote:

> Mr. Sanders,
>
> Please find attached an Early Coordination letter for the County Road (CR) 26 over Baugo Creek Bridge Improvement project (Des. No. 1902829) located near Jamestown, Elkhart County, Indiana. Please review the attached information and supply our office with any comments you may have regarding the proposed project.
>
> Sincerely,
>
> ---
>
> **NAKAYLA J. KRAHN**
>
> **Environmental Scientist**
>
> STRUCTUREPOINT
>
> 9025 River Road, Suite 200
>
> Indianapolis, IN 46240
>
> 317.547.5580 OFFICE
>
> structurepoint.com WEB



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Byron Sanders, Superintendent

Baugo Community Schools
Education Service Center
29125 County Road 22 West
Elkhart, Indiana 46517
(574) 293-8583

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USDA
United States Department of Agriculture

Natural Resources Conservation Service
Indiana State Office
6013 Lakeside Boulevard
Indianapolis, IN 46278
317-290-3200

May 20, 2021

Nakayla Krahn
American StructurePoint
9025 River Road, Suite 200
Indianapolis, Indiana 46240
nkrahn@structurepoint.com

Dear Ms. Krahn:

The proposed project to make bridge improvements along County Road 26 over Baugo Creek in Elkhart County, Indiana (Des. No. 1902829), as referred to in your letter received May 12, 2021, will not cause a conversion of prime farmland.

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

Sincerely,

RICHARD NEILSON
Digitally signed by RICHARD NEILSON
Date: 2021.05.24 09:11:49 -04'00'

RICK NEILSON
State Soil Scientist

USDA is an equal opportunity provider, employer and lender.

U.S. Department of Homeland Security

United States Coast Guard

Commander
Eighth Coast Guard District

1222 Spruce Street, Room 2.102D
St. Louis, MO 63103
Staff Symbol: (dwb)
Phone: (314) 269-2434
Email: allan.o.monterroza@uscg.mil

16211
May 28, 2020

American Structurepoint, Inc.
Attn: Ms. Nakayla J. Krahn
9025 River Road, Suite 200
Indianapolis, IN 46240

Subj: COUNTY ROAD 26 OVER BAUGO CREEK DES. NO. 1902829

Dear Ms. Krahn:

This is in response to your letter dated May 13, 2021 and corresponding information requesting whether the Coast Guard will require a permit and navigational lighting for the referenced bridge project. We have examined the proposed project area with regard to its status as a navigable water of the United States for purposes of Coast Guard bridge jurisdiction.

Our examination indicates that there is no sufficient factual support for concluding that Baugo Creek, at the project location, has current or historic navigation occurring on this waterway. Since this is the case, a Coast Guard bridge permit or exemption will not be required for the referenced bridge project.

In consideration of the uses of the waterway, bridge lighting is not required.

Sincerely,

ERIC A. WASHBURN
Bridge Administrator, Western Rivers
By direction of the District Commander

THIS IS NOT A PERMIT

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

DNR #: ER-23712 **Request Received:** May 12, 2021

Requestor: American Structurepoint, Inc
Nakayla Krahn
9025 River Road, Suite 200
Indianapolis, IN 46240

Project: CR 26 bridge (#20-00145) replacement over Baugo Creek, about 0.20 mile west of CR 22; Des #1902829

County/Site info: Elkhart

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 for construction in a floodway under the Flood Control Act, IC 14-28-1. Please submit a copy of this letter with the permit application.

Natural Heritage Database: The Natural Heritage Program's data have been checked.
The Longnose Dace (Rhinichthys cataractae), a state species of special concern, has been documented in Baugo Creek within the project area.

Fish & Wildlife Comments: We do not foresee any impacts to the Longnose Dace as a result of this project.

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) Stream Crossing:
Maintaining or improving fish and wildlife passage at existing or proposed stream crossing locations is a priority for the DFW to reduce wildlife mortality along roadways. The Division has outlined different requirements for different types of crossing structure impacts. For brand new crossings in areas that currently do not have a crossing, the new structure must accommodate white-tailed deer passage where appropriate. Minimum structure dimensions for white-tailed deer passage are 20 feet of width clearance (overall size of the structure span) and 8 feet of height clearance measured from the OHWM to the low chord elevation and where deer passage is provided. For crossing replacements, the new structure must include wildlife passage appropriate for the type of replacement structure being proposed. If the replacement structure is sized to accommodate white-tailed deer passage then it should be included in the design of the new structure. If white-tailed deer passage is not possible with the existing structure, deer passage still needs to be considered in the design and at minimum the bank lines must be restored within structures to allow for smaller wildlife passage above the ordinary high water mark. All wildlife passage designs must include a smooth level pathway a minimum of 1-2 feet in width composed of natural substrate (soil, sand, gravel, etc.) or compacted aggregate fill over riprap (#2, #53, #73, etc.) tied into existing elevations both upstream and downstream. The stream crossing repairs or modifications, and any bank stabilization under or around the structure, must not create conditions that are less favorable for wildlife passage when compared to existing

conditions. Upgrading wildlife passage for rehabilitated/modified structures is encouraged whenever possible to improve wildlife/vehicle safety.

There are a number of techniques and materials for incorporating wildlife passage into the design of a crossing structure. Coordination with a Regional Environmental Biologist to address wildlife passage issues before submitting a permit application (if required) is encouraged to avoid delays in the permitting process. The following links are good resources to consider in the design of stream crossing structures to maintain fish and wildlife passage: http://www.fs.fed.us/wildlifecrossings/library/, https://roadecology.ucdavis.edu/files/content/projects/DOT-FHWA_Wildlife_Crossing_Structures_Handbook.pdf, https://www.fs.fed.us/biology/nsaec/fishxing/aop_pdfs.html, https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf.

When designing a new or replacement structure, bridges are recommended over culverts, and three-sided culverts are recommended over box or pipe culverts. Multiple culverts or culverts with multiple openings are not recommended. These types of structures are often problematic for fish and wildlife passage as they tend to accumulate debris and become blocked. If box and pipe culverts must be used, the culvert bottoms should be sumped a minimum of 6" (or 20% of the culvert height or diameter, whichever is greater up to a maximum of 2') below the stream bed elevation. Sumping is not required for bridges or three-sided culverts. Crossings must span the entire channel width (a minimum of 1.2 times the ordinary high water mark width). Crossings must maintain the natural stream substrate within the structure (natural stream substrate must be replaced in sumped box and pipe culverts up to the existing flowline). Scour protection at the inlet and outlet must not extend above the existing flowline elevation to maintain aquatic organism passage. Stream depth, channel width and water velocities in the crossing structure during low-flow conditions must approximate those in the natural stream channel.

2) Bank Stabilization:
Establishing vegetation along the banks is critical for stabilization and erosion control. In addition to vegetation, some other form of bank stabilization may be needed. 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. 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.

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 sideslopes up to the ordinary high water mark (OHWM). The banks above the OHWM must be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion.

3) Riparian Habitat:
We recommend a mitigation plan be developed (and submitted with the permit application) 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.

4) Wetland Habitat:
Due to the presence or potential presence of wetland habitat on site, we recommend contacting and coordinating with the Indiana Department of Environmental Management (IDEM) 401 program and also the US Army Corps of Engineers (USACE) 404 program. Impacts to wetland habitat should be mitigated at the appropriate ratio (see http://iac.iga.in.gov/iac/20200527-IR-312200284NRA.xml.pdf).

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:
1. Revegetate all bare and disturbed areas within the project area using a mixture of grasses (excluding all varieties of tall fescue), sedges, wildflowers, shrubs, and trees native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion.
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. Operate equipment used to replace the bridge from the existing roadway.
8. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
9. Do not use broken concrete as riprap.
10. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
11. Minimize the movement of resuspended bottom sediment from the immediate project area.
12. Do not deposit or allow demolition/construction materials or debris to fall or otherwise enter the waterway.
13. 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.
14. 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.
15. Do not excavate or place fill in any riparian wetland.

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

Christie L. Stanifer **Date:** June 10, 2021

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

United States Department of the Interior
Fish and Wildlife Service

Indiana Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

June 16, 2021

Ms. Nakayla Krahn
American Structurepoint
9025 River Road, Suite 200
Indianapolis, Indiana 46240

Project No.: Des. 1902829
Project: Bridge Replacement CR 26 over Baugo Creek
Location: Jamestown, Elkhart County

Dear Ms. Krahn:

This responds to your letter dated May 12, 2021, requesting our comments on the aforementioned project.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (l6 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of l969, the Endangered Species Act of l973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The proposed project consists of the replacement of the existing CR 26 single span bridge over Baugo Creek. The proposed type of the new structure has not been determined, but it will be wider than the existing bridge. Also, the new structure will be realigned to correct substandard horizontal and vertical sight distances; the new alignment has not been determined.

Baugo Creek is a direct tributary of the St. Joseph River, entering the river through the Baugo Bay estuary at Ferrettie/Baugo County Park in St. Joseph County. It is one of the larger “small” tributaries of the St. Joseph River in Indiana. Therefore, water and habitat quality in Baugo Creek affect similar resources in the St. Joseph River. In order to assess the aquatic resources of Baugo Creek, several sites along the stream have been periodically monitored by the Elkhart-South Bend Aquatic Community Monitoring Program, which began in 1998. Baugo Creek has not been sampled at CR 26, but it has been sampled 6 different years (2000, 2008, 2009, 2013,

2016, 2019) just upstream of the CR 3 crossing at Jamestown, which is about 1 mile downstream of CR 26. The Aquatic Community Monitoring Program annual reports are available at https://www.elkhartindiana.org/department/division.php?structureid=245.

The CR 3 site fish composition in 2008 was 41, or Fair, based upon the Index of Biotic Integrity (IBI), whereas in 2019 it was 46, which is Good. The IBI utilizes 12 categories, or metrics, involving fish species composition, trophic category, and condition, and compares the numerical scores to reference (least impacted) streams and rivers in the same ecosystem, which in this case is warmwater Midwestern waterways, with 60 being the highest possible score. The annual reports indicated that the low IBI score is likely indicative of flashy flows, with the stream rising rapidly after precipitation events and falling just as rapidly. The agricultural nature of most of the Baugo Creek watershed is considered to be responsible for the unstable flows, as well as for nutrients that have enriched the water and affected the fishery and macroinvertebrates. However, rainbow darter, greenside darter, logperch, rock bass, longnose dace, smallmouth bass, sand shiner, shorthead redhorse, and silver redhorse, which are sensitive to degraded water quality and/or degraded habitat, were found during the 2019 survey, which is a good sign; 23 species in total were found, as shown in the attached table from the 2019 Report.

The Macroinvertebrate IBI (mIBI or ICI) at CR 3 was 20 in 2008, which is Poor, but had improved to 32 in 2019, which is Fair; a score of 36 is considered Good. The Qualitative Habitat Evaluation Index (QHEI) of the CR 3 site was 76 in 2008, which is Good, and 86 in 2019, which is Excellent. The QHEI measures 21 metrics under 6 broad categories (substrate, instream cover, channel morphology, riparian zone and bank erosion, riffle-run-pool, and gradient) with a score from 1 to 100. A score greater than 60 indicates that the effects of stream modifications are usually not severe and many natural characteristics still exist. In summery, the CR 3 site has a Poor macroinvertebrate population, but a Fair to Good fishery, including intolerant species, and Good to Excellent overall habitat.

Since CR 26 is about a mile upstream of the CR 3 survey site, we do not know how representative the IBI, ICI, and QHEI are between the 2 sections of the stream. However, the adjacent habitat is similar, with either upland or floodplain woodlands, and Baugo Creek has natural meanders (the stream channel has not been modified/channelized), instream woody habitat, and overhanging trees/overhead canopy, so visually the sites appear comparable. These stream characteristics allow for a more diversified fish assemblage due to an increase in the amounts and types of habitats available. Therefore, we are assuming that the CR 26 reach of Baugo Creek has much the same IBI, ICI, and QHEI scores as the CR 3 site. In addition, the National Wetlands Inventory (NWI) map of the area shows that extensive Palustrine forested wetlands, seasonally flooded, are present both up- and downstream of the existing CR 26 bridge.

Given the importance of Baugo Creek within the St. Joseph River Watershed, and its apparent macroinvertebrate habitat issues that indicate stream quality problems, we are concerned that the proposed project could degrade aquatic and riparian habitat within the CR 26 reach of the creek, including adjacent forested wetlands. Therefore, we request that the Federal Highway Administration and Elkhart County work with the City of Elkhart Aquatics Department and Public Works and Utilities Department to develop avoidance, minimization, and/or mitigation for the project that would help protect, and hopefully improve, Baugo Creek.

ENDANGERED SPECIES

The proposed project is within the range of the Federally endangered Indiana bat (Myotis sodalis) and the threatened northern long-eared bat (Myotis septentrionalis). The impacts on these species will be evaluated utilizing the Section 7 Range-wide Programmatic Consultation process.

We appreciate the opportunity to comment on this proposed project. Please keep us informed as project planning continues. For further discussion, please contact Elizabeth McCloskey at elizabeth_mccloskey@fws.gov.

Sincerely yours,

/s/ *Elizabeth S. McCloskey*

for Scott E. Pruitt
Supervisor

Sent via email June 16, 2021; no hard copy to follow.

cc: Christie Stanifer, Environmental Coordinator, Division of Fish and Wildlife, Indianapolis, IN
Daragh Deegan, Aquatic Biologist, City of Elkhart, Elkhart, IN

Tributaries to the St. Joseph River, Elkhart County, 2019										
Stream	Little Elkhart		Puterbaugh Creek		Christiana Creek		Baugo Creek			
Site	CR 10		CR 8		CR 4		CR 1 (S)		CR 3 (N)	
	1st Pass	2nd Pass	1st Pass	2nd Pass	1st Pass	2nd Pass	1st Pass	2nd Pass	1st Pass	2nd Pass
~American Brook Lamprey	X		X	X						
#Banded Killifish								X		
#Blacknose Dace							X	X	X	X
Blackside Darter	X	X	X	X						
Blackstripe Topminnow					X	X				
Bluegill	X	X	X	X	X	X	X	X	X	X
#Bluntnose Minnow	X	X			X	X	X	X	X	X
Bowfin					X	X				
#Brown Bullhead			X							
Brown Trout	X	X								
#Central Mudminnow	X	X				X				
Chestnut Lamprey		X								
#Common Carp						X	X	X		
Common Shiner	X	X					X	X	X	
#Creek Chub	X	X	X	X		X	X	X	X	X
Creek Chubsucker					X					
Gizzard Shad								X		
~Golden Redhorse			X		X	X	X			
#Golden Shiner								X		
#Goldfish								X		
Grass Pickerel	X	X		X	X	X				
#Green Sunfish	X	X	X	X			X	X	X	X
~Greenside Darter									X	X
~Hornyhead Chub					X	X				
Hybrid Sunfish	X							X		
Johnny Darter	X	X	X	X		X	X	X	X	X
Lake Chubsucker					X	X				
Largemouth Bass	X	X			X	X				X
~Logperch	X	X		X	X	X				X
~Longnose Dace									X	X
Mottled Sculpin	X	X	X	X						
Northern Hog Sucker	X	X			X	X				
Pirate Perch				X						
Pumpkinseed	X						X	X		X
~Rainbow Darter	X	X	X	X	X	X			X	X
Rainbow Trout	X	X								
~River Chub					X	X				
~Rock Bass	X	X			X	X	X	X	X	X

Tributaries to the St. Joseph River, Elkhart County, 2019										
Stream	Little Elkhart		Puterbaugh Creek		Christiana Creek		Baugo Creek			
Site	CR 10		CR 8		CR 4		CR 1 (S)		CR 3 (N)	
	1st Pass	2nd Pass	1st Pass	2nd Pass	1st Pass	2nd Pass	1st Pass	2nd Pass	1st Pass	2nd Pass
~Sand Shiner							X	X	X	X
~Shorthead Redhorse	X					X			X	X
Silver Lamprey	X	X			X	X				
~Silver Redhorse									X	X
Silverjaw Minnow							X	X	X	X
~Smallmouth Bass		X	X	X	X	X				X
Spotfin Shiner					X					X
Spotted Sucker		X								
~Stonecat					X					
Stoneroller, Central		X	X				X	X	X	X
Striped Shiner	X	X	X		X	X		X	X	X
~Tadpole Madtom					X					
Walleye					X					
Warmouth	X	X			X	X				
#White Sucker	X	X	X	X	X	X	X	X	X	X
#Yellow Bullhead			X		X	X	X	X		

~ - denotes a species that is SENSITIVE to environmental disturbances such as degraded water quality or habitat
# - denotes a species that is TOLERANT of environmental disturbances such as degraded water quality or habitat

Everhart, Sarah

From: McNicholas, Thomas
Sent: Wednesday, October 20, 2021 2:57 PM
To: Tim Jackson (tjackson@elkcohwy.org); Thomas M. Rushlow (trushlow@elkcohwy.org); Charlie McKenzie (cmckenzie@elkcohwy.org); aragan@macog.com; pbarker@elkhartcounty.com; daragh.deegan@coei.org; elizabeth_mccloskey@fws.gov; phil.nash@ftr.com; dnobbe@gpcom.com; kpugsley@nisource.com; KTracy@nisource.com; Byrd, Jeff; Crites, Scott; Zielinski, Rich; Hope, Briana; Everhart, Sarah; Tahir Munawar (tmunawar@kandsengineers.com); Tennancour, Skip
Subject: Des. No. 1902829, Elkhart County Bridge 145 Replacement, CR 26 over Baugo Creek - Preliminary Field Check
Attachments: PFC Plans 1902829 for Bridge Services.pdf; PFC Request 1902829 for Bridge Services.pdf

All,

I have attached the Preliminary Field Check Notification and Plans for the following project:

Des. No.: 1902829
Project Name: CR 26 over Baugo Creek – Elkhart County Bridge 145 Replacement
Contract: B-42769
Bridge File: 20-00145

The meeting will take place **November 4th at 10AM EST**, located:

Elkhart County Administrative Building
117 North 2nd Street
Goshen, IN 46526

At the end of the meeting, we will go to the project site for those who wish to attend.

If anyone needs this information mailed, please respond back as soon as possible. We can also make hard copies of the plans available at the meeting per request.

Thank you,

Thomas J. McNicholas, P.E.
Project Manager, Bridge Group

205 West Jefferson Blvd., Ste 404
South Bend, IN 46601
574.287.2231 OFFICE
517.474.2504 CELL
structurepoint.com WEB

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AMERICAN STRUCTUREPOINT INC.

9025 RIVER ROAD, SUITE 200
INDIANAPOLIS, INDIANA 46240
TEL 317.547.5580
FAX 317.543.0270

PHONE CALL RECORD

Date: 6/17/22 **Time:** 4:57 PM

Person Called: Daragh Deegan **of** Elkhart Aquatics Department

Person Calling: Sarah Everhart **of** American Structurepoint, Inc.

cc:

Project Name: CR 26 over Baugo Creek Bridge Improvement (Des. No. 1902829)

Project Number: 2020.00681

Subject: Stream habitat coordination

Summary of Conversation

Ms. Everhart called Mr. Deegan to explain that USFWS requested coordination with the Elkhart Aquatics Department concerning avoidance/minimization and potentially mitigation efforts that could be implemented with the project. She described the proposed project and asked if he had any recommendations concerning the project.

Mr. Deegan noted that there is some high quality habitat along Baugo Creek that provides for different fish species; however, Baugo Creek is highly modified and unstable. He did not have any recommendations concerning the forested wetland that will be impacted due to regrading and placement of riprap for erosion protection. He did note that there are significant fluctuations in the stream level, which causes erosion along the stream corridor. Many of the fish species they've identified in Baugo Creek upstream like shallow fast moving water where riffles are present. To his knowledge, Baugo Creek at CR 26 is deeper around the bridge and doesn't provide that riffle habitat. He noted that as long as the project isn't impacting a riffle or shallow part of the stream, then he doesn't anticipate the project would impact any quality habitat or affect fish species. He noted that implementing glacial stone along the edges or in the stream would be beneficial to provide habitat.

Ms. Everhart noted that in the area of the bridge there are no riffle areas present and it is generally deeper than locations upstream and downstream. Due to this, the project is not anticipated to impact any riffle habitat. She noted that it is anticipated that the project will place riprap along the new bridge abutments and along the bottom of the stream for

AMERICAN STRUCTUREPOINT INC.

9025 RIVER ROAD, SUITE 200
INDIANAPOLIS, INDIANA 46240
TEL 317.547.5580
FAX 317.543.0270

scour protection, which has been an issue at this location. She asked if Mr. Deegan thought that the use of riprap in those locations and riprap along the stream bottom would have a negative impact on the quality or if it would be beneficial since it will stabilize the area and may provide riffle habitat.

Mr. Deegan noted that glacial stone is the preferred option for riffle habitat in the stream; however, he noted that with the flashy nature of the system riprap would likely be the better approach for stabilization and would be acceptable. Riprap would provide more environment for fish species like rock bass and blue gill. It would be important that it would not create conditions that would shallow the stream to a point that it would create a barrier. He did not have any recommendations concerning the impact to the forested wetland. He noted that for the project location he would not have any further recommendations and he doesn't anticipate the project would negatively affect habitat or the stream quality upstream/downstream.

United States Department of the Interior

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

In Reply Refer To: August 16, 2022
Project Code: 2022-0040108
Project Name: CR 26 over Baugo Creek Bridge Project (Des. No. 1902829)

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

To Whom It May Concern:

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

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

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

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

determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process. For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

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

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

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

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

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

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

Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

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

Attachment(s):

- Official Species List
- Migratory Birds
- Wetlands

Official Species List

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

This species list is provided by:

Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
(812) 334-4261

Project Summary

Project Code: 2022-0040108
Project Name: CR 26 over Baugo Creek Bridge Project (Des. No. 1902829)
Project Type: Bridge - Replacement
Project Description: The proposed project consists of replacing INDOT Bridge No. 20-00145 and reconstruction and shifting the roadway alignment of County Road (CR) 26 slightly south. INDOT Bridge No. 20-00145 (Elkhart County Bridge 145) that carries CR 26 over Baugo Creek located approximately 0.20 mile west of CR 22 near Jamestown, Elkhart County, Indiana. The project area begins approximately 0.08 mile west of CR 22 to 0.31 mile west of CR 22. Additionally, the width of the project area varies along CR 26 with a maximum width of approximately 140 feet north and 160 feet south. The project area extends approximately 85 feet north and 160 feet south from the center of the existing bridge. The current proposed project would replace Bridge 20-00145 and realign CR 26 to meet horizontal and vertical sight distance standards. The proposed bridge type is a single-span composite prestressed concrete hybrid bulb-tee beam bridge with a typical section of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by 4- to 5-foot-wide paved shoulders with a proposed clear roadway width of approximately 32 feet. The roadway would shift approximately 11 feet south. The existing bridge has a total length of 71 feet, an out-to-out coping width of 27.5 feet and an existing clear roadway width of 25.5 feet. The existing bridge was constructed in 1959 with a rehabilitation in 1979. The bridge is not eligible for listing on the National Register of Historic Places. Suitable summer habitat is located within and adjacent to the project area; approximately 1.0 acre of tree clearing is anticipated. Tree clearing is anticipated to generally extend approximately 60 feet north from the edge of pavement in the northeast quadrant, approximately 65 feet south from the edge of pavement in the southeast quadrant, approximately 35 feet north from the edge of pavement in the northwest quadrant and approximately 85 feet south from edge of pavement in the southwest quadrant of the project area. Tree species to be cleared include silver maple (Acer saccharinum), honey locust (Gleditsia triacanthos) and box elder (Acer negundo). Mitigation for tree clearing is not necessary as tree clearing will occur within 100 feet from the existing roadway. Tree clearing will occur during the inactive season between October and March. It is anticipated that the proposed project would require the acquisition of more than 0.5 acre of temporary and permanent right-of-way. No relocations are anticipated as a result of the proposed project. While temporary lighting will likely be utilized during construction, no permanent lighting is going to be installed as part of this project. Construction is anticipated to occur between February 2025 and December 2025.

A review of the USFWS database on March 1, 2021 by INDOT staff did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. American Structurepoint, Inc. staff inspected the bridge on May 27, 2021 and evidence of bats (live bats, guano, and staining) were seen and heard on the vertical surfaces of the concrete I-beams on the west bank of Baugo Creek. During a site visit on July 28, 2021, six pooled guano samples were collected from the site and sent to Northern Arizona University (NAU) Bat Ecology and Genetics Lab for genetic analysis. The results of the genetic testing detected one bat species, Eptesicus fuscus (big brown bat), among all samples. No federally listed bat species were detected in any of the samples.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.623276700000005,-86.01658814927991,14z

Counties: Elkhart County, Indiana

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], 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.

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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 *Myotis sodalis* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* 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

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

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

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25

NAME	BREEDING SEASON
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Upland Sandpiper *Bartramia longicauda* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9294	Breeds May 1 to Aug 31
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

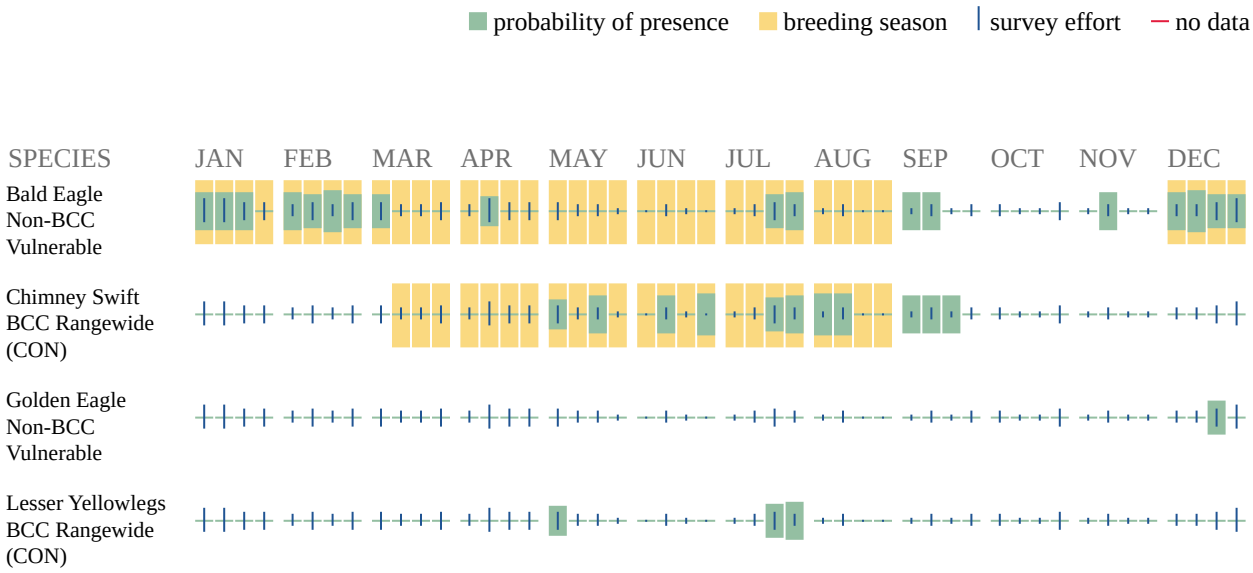
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

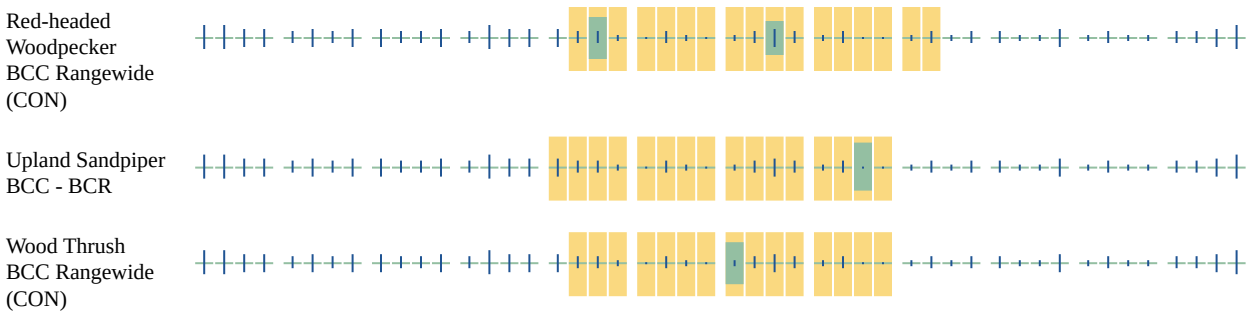
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list

of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical

Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Wetlands

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

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

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

RIVERINE

- Riverine

FRESHWATER FORESTED/SHRUB WETLAND

- Palustrine

IPaC User Contact Information

Agency: American Structurepoint Inc.
Name: Hannah Walker
Address: 9025 River Road
Address Line 2: Suite 200
City: Indianapolis
State: IN
Zip: 46240
Email hwalker@structurepoint.com
Phone: 3175475580

Lead Agency Contact Information

Lead Agency: Federal Highway Administration
Name: Hannah Walker
Email: hwalker@structurepoint.com
Phone: 3175475580

United States Department of the Interior

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

In Reply Refer To: September 26, 2022
Project code: 2022-0040108
Project Name: CR 26 over Baugo Creek Bridge Project (Des. No. 1902829)

Subject: Concurrence verification letter for the 'CR 26 over Baugo Creek Bridge Project (Des. No. 1902829)' 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 dated September 26, 2022 to verify that the **CR 26 over Baugo Creek Bridge Project (Des. No. 1902829)** (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*). Consultation with the 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.

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

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities: If your initial bridge/culvert or structure assessments failed to detect Indiana bats, but you later detect bats prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office. 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.

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

- Monarch Butterfly *Danaus plexippus* Candidate

Project Description

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

Name

CR 26 over Baugo Creek Bridge Project (Des. No. 1902829)

Description

The proposed project consists of replacing INDOT Bridge No. 20-00145 and reconstruction and shifting the roadway alignment of County Road (CR) 26 slightly south. INDOT Bridge No. 20-00145 (Elkhart County Bridge 145) that carries CR 26 over Baugo Creek located approximately 0.20 mile west of CR 22 near Jamestown, Elkhart County, Indiana. The project area begins approximately 0.08 mile west of CR 22 to 0.31 mile west of CR 22. Additionally, the width of the project area varies along CR 26 with a maximum width of approximately 140 feet north and 160 feet south. The project area extends approximately 85 feet north and 160 feet south from the center of the existing bridge. The current proposed project would replace Bridge 20-00145 and realign CR 26 to meet horizontal and vertical sight distance standards. The proposed bridge type is a single-span composite prestressed concrete hybrid bulb-tee beam bridge with a typical section of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by 4- to 5-foot-wide paved shoulders with a proposed clear roadway width of approximately 32 feet. The roadway would shift approximately 11 feet south. The existing bridge has a total length of 71 feet, an out-to-out coping width of 27.5 feet and an existing clear roadway width of 25.5 feet. The existing bridge was constructed in 1959 with a rehabilitation in 1979. The bridge is not eligible for listing on the National Register of Historic Places. Suitable summer habitat is located within and adjacent to the project area; approximately 1.0 acre of tree clearing is anticipated. Tree clearing is anticipated to generally extend approximately 60 feet north from the edge of pavement in the northeast quadrant, approximately 65 feet south from the edge of pavement in the southeast quadrant, approximately 35 feet north from the edge of pavement in the northwest quadrant and approximately 85 feet south from edge of pavement in the southwest quadrant of the project area. Tree species to be cleared include silver maple (Acer saccharinum), honey locust (Gleditsia triacanthos) and box elder (Acer negundo). Mitigation for tree clearing is not necessary as tree clearing will occur within 100 feet from the existing roadway. Tree clearing will occur during the inactive season between October and March. It is anticipated that the proposed project would require the acquisition of more than 0.5 acre of temporary and permanent right-of-way. No relocations are anticipated as a result of the proposed project. While temporary lighting will likely be utilized during construction, no permanent lighting is going to be installed as part of this project. Construction is anticipated to occur between February 2025 and December 2025.

A review of the USFWS database on March 1, 2021 by INDOT staff did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. American Structurepoint, Inc. staff inspected the bridge on May 27, 2021 and evidence of bats (live bats, guano, and staining) were seen and heard on the vertical surfaces of the concrete I-beams on the west bank of Baugo Creek. During a site visit on July 28, 2021, six pooled guano samples were collected from the site and sent to Northern Arizona University (NAU) Bat Ecology and Genetics Lab for genetic analysis. The results of the genetic testing detected one bat species, Eptesicus fuscus (big brown bat), among all samples. No federally listed bat species were detected in any of the samples.

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 User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat.

   Yes

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

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

   Yes

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

    No

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

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

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

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

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

    No

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

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

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

    No

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

    Yes

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

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

    B) During the inactive season

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

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

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

    No

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

    Yes

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

    B) During the inactive season

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

    Yes

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

    No

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

    Yes

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

    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

    - *CR 26 over Baugo_Bridge Inspection_Sample Results.pdf https://ipac.ecosphere.fws.gov/project/AC2DDWRUXJHATDTT7HTD2IBGRI/projectDocuments/112801587*

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?

   N/A

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

   N/A

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

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

   1.0

4. Please describe the proposed bridge work:

   The existing Bridge 20-00145 is a single-span prestressed concrete box beam bridge built in 1959 with a rehabilitation in 1979. The proposed bridge work will remove and replace the existing bridge with a single-span composite prestressed concrete hybrid bulb-tee beam bridge.

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

   All proposed bridge work will take place between February 2025 and December 2025.

6. Please enter the date of the bridge assessment:

   May 27, 2021

Avoidance And Minimization Measures (AMMs)

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

TREE REMOVAL AMM 1

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

LIGHTING AMM 1

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

TREE REMOVAL AMM 2

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

TREE REMOVAL AMM 3

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

TREE REMOVAL AMM 4

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

GENERAL AMM 1

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

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

This key was last updated in IPaC on April 28, 2022. 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.

IPaC User Contact Information

Agency: Indiana Department of Transportation
Name: Arianna Papadakis
Address: 5333 Hatfield Road
City: Fort Wayne
State: IN
Zip: 46808
Email apapadakis@indot.in.gov
Phone: 2609698262

Lead Agency Contact Information

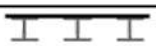
Lead Agency: Federal Highway Administration
Name: Hannah Walker
Email: hwalker@structurepoint.com
Phone: 3175475580

Bridge/Structure Bat Assessment Form

Date & Time of Assessment: May 27, 2021 / AM	DOT Project Number: Des No. 1902829	Route/Facility Carried: CR 26 / Baugo Creek	County: Elkhart
Federal Structure ID: County Bridge: 20-00145	Structure Coordinates (latitude and longitude): 41.62329, -86.017708	Structure Height (approximate): 100-ft	Structure Length: 71-ft

Structure Type (check one)

Bridge Construction Style

(•) Cast-in-place		( ) Pre-stressed Girder	
( ) Flat Slab/Box		( ) Steel I-beam	
( ) Truss		( ) Covered	
( ) Parallel Box Beam		( ) Other:	

Culvert Type

(•) Box	
( ) Pipe/Round	
( ) Other:	

Other Structure

( )

Structure Material (check all that apply)

Deck Material	*Beam Material*	*End/Back Wall Material*
[ ] Metal	[ ] None	[X] Concrete
[X] Concrete	[X] Concrete	[ ] Timber
[ ] Timber	[ ] Steel	[ ] Stone/Masonry
[ ] Open grid	[ ] Timber	[ ] Other:
[ ] Other:	[ ] Other:	

Culvert Material

[ ] Metal
[ ] Concrete
[ ] Plastic
[ ] Stone/Masonry
[ ] Other:

Creosote Evidence

( ) Yes (•) No ( ) Unknown

Notes:

Crossings Traversed (check all that apply)

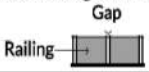
[ ] Bare ground	[ ] Open vegetation
[ ] Rip-rap	[ ] Closed vegetation
[X] Flowing water	[ ] Railroad
[ ] Standing water	[ ] Road/trail - Type:
[ ] Seasonal water	[ ] Other:

Surrounding Habitat (check all that apply)

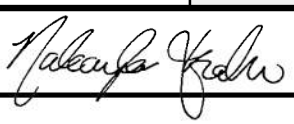
[ ] Agricultural	[ ] Grassland
[ ] Commercial	[ ] Ranching
[ ] Residential-urban	[X] Riparian/wetland
[X] Residential-rural	[ ] Mixed use
[X] Woodland/forested	[ ] Other:

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)	Assessment Notes	Evidence of Bats (include photos if present)		
[X] All crevices and cracks: **Bridges/culverts:** rough surfaces or imperfections in concrete **Other structures:** soffits, rafters, attic areas	[ ] Not present	[ ] Visual - live # dead # [ ] Guano [ ] Staining	[ ] Audible [ ] Odor [ ] Photos	[ ] Species
[X] Concrete surfaces (open roosting on concrete)	[ ] Not present	[ ] Visual - live # dead # [ ] Guano [ ] Staining	[ ] Audible [ ] Odor [ ] Photos	[ ] Species
[X] Spaces between concrete end walls and the bridge deck	[ ] Not present	[ ] Visual - live # dead # [ ] Guano [ ] Staining	[ ] Audible [ ] Odor [ ] Photos	[ ] Species
[ ] Crack between concrete railings on top of the bridge deck 	[X] Not present	[ ] Visual - live # dead # [ ] Guano [ ] Staining	[ ] Audible [ ] Odor [ ] Photos	[ ] Species
[X] Vertical surfaces on concrete I-beams	[ ] Not present At least 25 present - west bank of Baugo Creek	[X] Visual - live # 25 dead # [X] Guano [X] Staining	[X] Audible [X] Odor [X] Photos	[ ] Species unknown
[X] Spaces between walls, ceiling joists	[ ] Not present .	[ ] Visual - live # dead # [ ] Guano [ ] Staining	[ ] Audible [ ] Odor [ ] Photos	[ ] Species
[X] Weep holes, scupper drains, and inlets/pipes	[ ] Not present	[ ] Visual - live # dead # [ ] Guano [ ] Staining	[ ] Audible [ ] Odor [ ] Photos	[ ] Species
[X] All guiderails	[ ] Not present	[ ] Visual - live # dead # [ ] Guano [ ] Staining	[ ] Audible [ ] Odor [ ] Photos	[ ] Species
[X] All expansion joints	[ ] Not present	[ ] Visual - live # dead # [ ] Guano [ ] Staining	[ ] Audible [ ] Odor [ ] Photos	[ ] Species

Name: Nakayla J. Krahn

Signature: 

Walker, Hannah

From: Lewandowski, Tyler <TLewandowski@indot.IN.gov>
Sent: Tuesday, December 27, 2022 9:38 AM
To: Walker, Hannah
Cc: Everhart, Sarah
Subject: RE: CR 26 over Baugo Creek Bridge Improvement Project (Des. No. 1902829)

EXTERNAL EMAIL: Do not click any links or open any attachments unless you trust the sender and know the content is safe!

Good morning,

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

Thank you,

The use of equipment over 200 feet in height is not anticipated for this project. The contractor will be restricted to a crane under 200 feet or be required to obtain the permit if necessary.

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

From: Walker, Hannah <hwalker@structurepoint.com>
Sent: Friday, December 23, 2022 1:47 PM
To: Lewandowski, Tyler <TLewandowski@indot.IN.gov>
Cc: Everhart, Sarah <severhart@structurepoint.com>
Subject: CR 26 over Baugo Creek Bridge Improvement Project (Des. No. 1902829)

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

Hello Tyler,

We are coordinating with you today concerning the CR 26 over Baugo Creek Bridge Improvement Project (Des. No. 1902829), which is located within 3.8 miles of the Mishawaka Pilots Club. The proposed project is located at the CR 26 Bridge over Baugo Creek (Bridge No. 20-00145), approximately 0.20 mile west of CR 22, near Jamestown, Elkhart County, Indiana. More specifically, the proposed project area is located on the Wakarusa Quadrangle on the United States Geological Survey (USGS) 7.5 Minute Topographic Map. The proposed project area extends approximately 820 feet east and 395 feet west from the center of the existing bridge.

The project will replace the existing CR 26 over Baugo Creek bridge (Bridge 20-00145) and realign CR 26 to meet horizontal and vertical sight distance standards. The existing 71-foot long, single span, prestressed concrete box beam bridge will be replaced with a 97-foot, 6-inch composite prestressed concrete hybrid bulb-tree beam bridge. The out-to-out coping width of the new superstructure will be 35-feet with a clear roadway width of 32-feet. The bridge will have a 13-degree skew and the center of the bridge will be shifted approximately 16-feet south. The vertical alignment of the bridge and roadway will be raised by approximately 4-feet to meet vertical site distance standards and have a superelevation of 4%. The existing bridge abutments will be removed and replaced. The project will require approximately 0.87 acre of temporary ROW and approximately 2.19 acres of permanent ROW acquisition. No relocations are anticipated as a result of the proposed project.

Please review the above information, as well as the attached maps, and supply our office with any comments your office may have regarding the proposed project.

Thank you,

Hannah

Hannah R. Walker
Environmental Specialist

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Minor Projects PA Project Assessment Form

Date: 4/4/2022

Project Designation Number: 1902829

Project Description: Replacement of Elkhart County Bridge No. 145 over Baugo Creek

The proposed project is located along CR 26 at the Elkhart County Bridge 145 over Baugo Creek (Bridge No. 20-00145), approximately 0.20 mile west of CR 22, near Jamestown, Elkhart County, Indiana. More specifically, the proposed project area is located on the Wakarusa Quadrangle on the United States Geological Survey (USGS) 7.5 Minute Topographic Map. The proposed project area extends approximately 820 feet east and 395 feet west from the center of the existing bridge. The existing apparent right-of-way appears to be generally 25 feet north and south from the center of CR 26.

This section of CR 26 is functionally classified as a major collector and has a posted speed limit of 45 miles per hour (mph). The existing CR 26 typical section roadway approach consists of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by approximately 2-foot-wide gravel shoulders. The existing typical section of the bridge consists of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by 1.75-foot-wide paved shoulders. The existing Bridge No. 20-00145 is a single-span, prestressed concrete box beam bridge with steel bridge railings. The bridge carries CR 26 over Baugo Creek. The existing bridge has a total length of 71 feet, an out-to-out coping width of 27.5 feet, and an existing clear roadway width of 25.5 feet. The existing bridge was originally constructed in 1959 with a rehabilitation in 1979.

The need for the proposed project is evidenced by the deteriorating condition of the bridge and the substandard geometry of the roadway. Specific condition ratings noted in the August 17, 2020, INDOT Bridge Inspection Report for Bridge 20-00145 include 5 (fair) out of 9 (excellent) for the deck and 4 (poor) out of 9 (excellent) for the superstructure. A score of 0 indicates failed condition and a score of 9 indicates excellent condition. Deficiencies noted in the Bridge Inspection Report include longitudinal cracking for the deck and deterioration and spalling for the substructure. The bridge inventory load rating is 31 (36 is required) and is posted at 15 tons. The bridge sufficiency rating is a 33.7 out of 100, making it structurally deficient. The sufficiency rating takes into account bridge condition, geometry, traffic, and how well the waterway passes underneath the bridge. Additionally, the bridge does not meet the standard INDOT geometric clear roadway width requirements of 30 feet, and CR 26 currently does not meet standard horizontal and vertical sight distances. The purpose of the proposed project is to improve the condition ratings of Bridge No. 20-00145 to at least a 7 (good) out of 9 (excellent) for the bridge deck and superstructure, raise the inventory load rating above a 36, and raise the bridge sufficiency rating from 33.7 to at least an 80 (out of 100). An additional purpose of the project is to meet the standard clear roadway width of 30 feet and address the substandard horizontal and vertical sight distance.

The current alternative proposes the replacement of Bridge 20-00145 and realignment of CR 26 to meet horizontal and vertical sight distance standards. The proposed bridge type and new alignment of CR 26 has yet to be determined. However, the proposed typical section of the bridge would consist of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by 4- to 5-foot-wide paved shoulders with a proposed clear roadway width of approximately 32 feet. The roadway could shift up to 11 feet north or 12 feet south.

The amount of combined temporary and permanent right-of-way acquisition is anticipated to exceed 0.5 acre. Final right-of-way amounts will be determined during design development. No relocations are anticipated as a result of the proposed project.

Feature crossed (if applicable): Baugo Creek

City/Township: Baugo Township **County:** Elkhart County

Information reviewed (please check all that apply):
General project location map ☒ USGS map ☒ Aerial photograph ☒ Written description of project area ☐

General project area photos ☒ Previously completed archaeology reports ☒ Interim Report ☒

Previously completed historic property reports ☐ Soil survey data ☒ Bridge inspection information ☒

SHAARD ☒ SHAARD GIS ☒ Street-view Imagery ☒

Other (please specify): Bridge Inspection Application System (BIAS); Indiana Historic Bridge Inventory; Indiana State Historic Architectural and Archaeological Research Database (SHAARD); Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM) website; *Elkhart County Interim Report*; Arc Map GIS; Elkhart County GIS (accessed via http://maps.macog.com); online street-view imagery; MPPA application (including maps and photographs) sent by Weintraut & Associates dated June 28th, 2021 (submitted November 12th), and on file at INDOT-CRO.

Arnold, Craig
2022 Archaeological Records Check and Phase Ia Reconnaissance: Bridge 145 Rehabilitation or Repair Project on County Road 26 over Baugo Creek, in Baugo Township, Elkhart County, Indiana., Des. No. 1902829. Weintraut & Associates, Inc. Report of file, Indiana Department of Transportation, Cultural Resources Office.

Please specify all applicable categories and condition(s) (conditions that are applicable are highlighted):

B-3. Construction of added travel, turning, or auxiliary lanes (e.g., bicycle, truck climbing, acceleration, and deceleration lanes) and shoulder widening 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)
Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource.

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 historian who meets 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 Elkhart 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 the project scope and setting.

The Indiana Historic Sites and Structures Inventory (IHSSI) and National Register information for Elkhart County is available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM). The *Elkhart County Interim Report* (2005; Baugo Township) of the IHSSI was also consulted. All sites were reviewed through the IHBBCM, which contains the most recently updated SHAARD information. No IHSSI documented resource 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, the Elkhart County GIS website, and consultant provided photographs. The project area is located in a rural, wooded setting. The adjacent building stock consists primarily of mid to late twentieth century residential buildings. None of the structures adjacent to the project area appear to possess the historic significance or material integrity required to be considered NRHP-eligible.

The most-recent inspection report (S. Minnich ; 08/12/2021) was accessed via the INDOT Bridge Inspection Application System (BIAS). The subject structure (Elkhart Co. Bridge No. 20-00145; NBI No. 2000027) carries County Road 26 over Baugo Creek and is a single-span, prestressed concrete box beam bridge. The bridge was built in 1959 and was last reconstructed in 1979. The 2009 INDOT-sponsored Indiana Historic Bridge Inventory (HBI) (M & H Architecture, Inc., 2009) lists the bridge as "Non-Historic" (Vol. 2; Section 2, pg. 427); therefore, the bridge is not eligible for inclusion in the National Register of Historic Places.

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

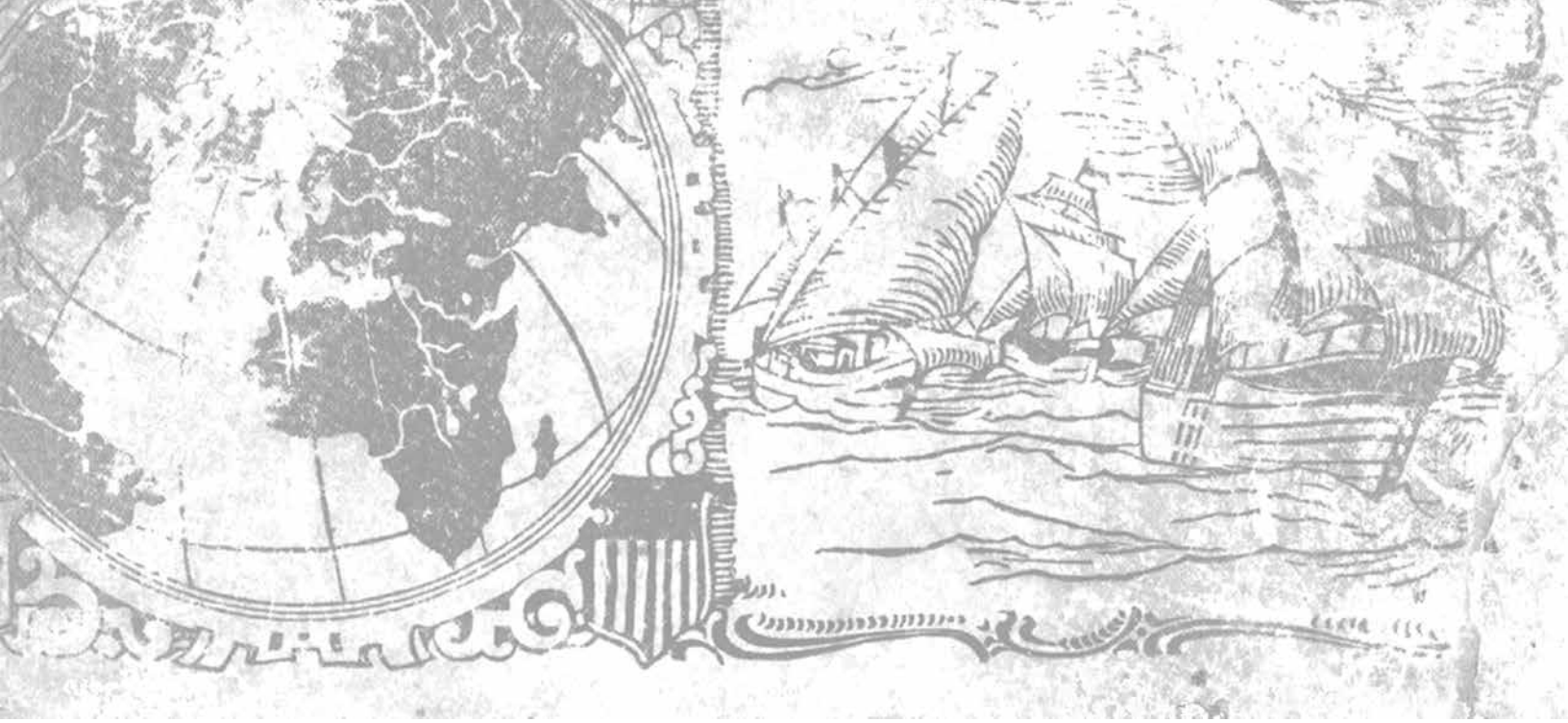
Archaeological Resources

An INDOT Cultural Resources Office (CRO) archaeologist, who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61, reviewed and approved the Phase Ia field reconnaissance survey report completed for the project by Weintraut and Associates (Arnold 2022). No archaeological sites were previously recorded within or adjacent to the project area. An approximate 5.79-acre survey area was investigated through shovel probing of undisturbed soils. Two new archaeological sites, 12E0520 and 12E0521, were identified during the Phase Ia archaeological field reconnaissance. Site 12E0520 is multicomponent, being a precontact lithic scatter and a historic isolated find. Site 12E0521 is a historic era concrete foundation wall. The ephemeral nature of each site combined with a paucity of artifacts and a low probability of containing significant intact cultural deposits or features suggests neither of these sites appear to meet eligibility requirements. Because they lack the potential to yield further important information beyond that recovered during the Phase Ia investigations, neither site is recommended as eligible for listing in the IRHSS and/or the NRHP (Arnold 2022). INDOT, CRO agrees with the results and recommendations of Weintraut and Associates that no further archaeological work is necessary. Therefore, there are no archaeological concerns as long as the project scope does not change.

Accidental Discovery: If any archaeological artifacts or human remains are uncovered during construction, demolition, or earth moving activities, construction within 100 feet of the discovery will be stopped, and 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 Shaun Miller

****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.*



Archaeological Records Check and Phase Ia Reconnaissance: Bridge 145 Rehabilitation or Repair Project on County Road 26 over Baugo Creek

In Baugo Township, Elkhart County, Indiana

Des. No.: 1902829

Prepared for

Elkhart County Highway Department, American Structurepoint Inc., and Indiana Department of Transportation/Federal Highway Administration

Prepared by

Weintraut & Associates, Inc.

Principal Investigator: Craig R. Arnold

P.O. Box 5034 | Zionsville, Indiana | (317)733-9770 |

(carnold@weintrautinc.com)

November 2021

Management Summary

The Elkhart County Highway Department, with funding from the Federal Highway Administration (FHWA) and administrative oversight from the Indiana Department of Transportation (INDOT), proposes to proceed with a transportation project involving Bridge 145 (Bridge No. 20-00145) on County Road (CR) 26 in Baugo Township, Indiana (Des. No.:1902829). The Bridge 145 Project is approximately 400 meters (m) [1,312 feet (ft)] in length, or approximately 0.40 kilometer (km) (0.25 mile [mi]). The bridge is located between CR 3 and CR 22, it being approximately 0.22 mi west of CR 22. The undertaking is within the USGS 7.5'-series Wakarusa, Indiana, topographic quadrangle map in Sections 25 and 36, Township 37 North, Range 4 East.

This INDOT project is utilizing FHWA funding, which requires a Section 106 review. Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to take into account the impacts of their undertakings on historic properties. At the request of American Structurepoint (Structurepoint), Weintraut & Associates, Inc. (W&A) archaeologists completed an archaeological records check and a Phase Ia archaeological field reconnaissance for this undertaking.

An archaeological records check conducted within the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) of the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology (IDNR/DHPA 2021), was completed on June 7 and 9, 2021, by archaeologist Craig Arnold, M.A. A review of SHAARD identified no previously recorded sites within the survey area (IDNR/DHPA 2021). Phase Ia fieldwork was completed on June 24, and July 7 and 8, 2021, by W&A personnel.

This investigation was conducted in accordance with the IDNR/DHPA *Guidebook for Indiana Historic Sites and Structures Inventory – Archaeological Sites* (2019), and with the *Cultural Resource Manual* issued by INDOT (INDOT/FHWA 2019). The goals of the W&A Phase Ia reconnaissance were to identify and verify the presence or absence of cultural deposits within the survey area. Assess the potential of any sites identified for inclusion in the Indiana Register of Historic Sites and Structures (IRHSS) or the National Register of Historic Places (NRHP) and offer recommendations for any additional necessary work.

Structurepoint provided an initial survey area intended to encompass all project improvements but then enlarged the reconnaissance area after the commencement of June 24 fieldwork. The survey area generally parallels CR 26 totaling approximately 2.34 hectares (ha), or 5.79 acres (ac). The project is anticipated to exceed 0.2 ha,

or 0.5 ac, of combined temporary and permanent right-of-way (R/W). The existing apparent R/W throughout the length of the project corridor is generally 25 ft north and south of the roadway centerline.

Two new archaeological sites, 12E0520 and 12E0521, were identified during the Phase Ia archaeological field reconnaissance. Site 12E0520 is multicomponent, being a precontact lithic scatter and a historic isolated find. Site 12E0521 is a historic era concrete foundation wall. The ephemeral nature of each site combined with a paucity of artifacts and a low probability of containing significant intact cultural deposits or features suggests neither of these sites appear to meet eligibility requirements. Because they lack the potential to yield further important information beyond that recovered during the Phase Ia investigations, neither site is recommended as eligible for listing in the IRHSS and/or the NRHP. No further archaeological investigations appear warranted and project clearance is suggested.

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

AMERICAN STRUCTUREPOINT INC.

9025 River Road, Suite 200, Indianapolis, Indiana 46240
TEL 317.547.5580 FAX 317.543.0270

www.structurepoint.com

M E M O R A N D U M

Date: October 13, 2021

To: Site Assessment & Management (SAM)
Environmental Policy Office - Environmental Services Division (ESD)
Indiana Department of Transportation
100 N Senate Avenue, Room N758-ES
Indianapolis, IN 46204

From: Sarah J. Everhart
American Structurepoint, Inc.
9025 River Road, Suite 200
Indianapolis, Indiana
severhart@structurepoint.com

Re: RED FLAG INVESTIGATION
DES #1902829, Local Project
Bridge Improvement
County Road (CR) 26 over Baugo Creek, 0.20 Mile West of CR 22
Elkhart County, Indiana

PROJECT DESCRIPTION

The proposed project is located at the CR 26 Bridge over Baugo Creek (Bridge No. 20-00145), approximately 0.20 mile west of CR 22, near Jamestown, Elkhart County, Indiana. The proposed project area extends approximately 820-feet east and 395-feet west from the center of the existing bridge. The current alternative proposes the replacement of Elkhart County Bridge 20-00145 and realignment of CR 26 to meet horizontal and vertical sight distance standards. The proposed bridge type and new alignment of CR 26 has yet to be determined. However, the proposed typical section of the bridge would consist of two, 11-foot wide travel lanes (one eastbound, one westbound) bordered by 4 to 5-foot wide paved shoulders with a proposed clear roadway width of approximately 32-feet wide. The roadway could shift up to 11-feet north or 12-feet south.

Bridge and/or Culvert Work Included in Project: Yes ☒ No ☐ Structure # 20-00145
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 <0.5 Permanent ☒ # Acres >0.5, Not Applicable ☐

Type and proposed depth of excavation: Excavation is anticipated to be a maximum of 8 feet for the installation of the bridge foundations along the east and west side of Baugo Creek.

Maintenance of traffic (MOT): MOT for the project is expected to include a full closure for CR 26 with a detour for through traffic. Additionally, phased construction that maintains local access would be utilized.

Work in waterway: Yes ☒ No ☐ Below ordinary high water mark: Yes ☒ No ☐
State Project: ☐ LPA: ☒
Any other factors influencing recommendations: N/A

INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	**N/A**	Recreational Facilities	**N/A**
Airports[1]	**1**	Pipelines	**3**
Cemeteries	**N/A**	Railroads	**N/A**
Hospitals	**N/A**	Trails	**N/A**
Schools	**N/A**	Managed Lands	**N/A**

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

Explanation:

Airports: Although not located within the 0.5 mile search radius, one (1) public-use airport, Mishawaka Pilots Club, is located within 3.8 miles (20,000 feet) of the project area. The public-use airport is located approximately 2.6 miles northwest of the project area; therefore, early coordination with INDOT Aviation will occur.

Pipelines: Three (3) pipeline segments are located within the 0.5 mile search radius. The nearest pipeline segment, Northern Indiana Public Service Co., is located approximately 0.02 mile north of the project area. Coordination with Northern Indiana Public Service Co. will occur.

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	**18**
Canal Structures – Historic	**N/A**	Lakes	**4**
NPS NRI Listed	**N/A**	Floodplain - DFIRM	**10**
NWI-Lines	**10**	Cave Entrance Density	**N/A**
IDEM 303d Listed Streams and Lakes (Impaired)	**7**	Sinkhole Areas	**N/A**
Rivers and Streams	**22**	Sinking-Stream Basins	**N/A**

Explanation:

NWI-Lines: Ten (10) NWI-Line segments are located within the 0.5 mile search radius. Four (4) NWI-Line segments, associated with Baugo Creek, are located within the project area. A Waters of the US Report is recommended and coordination with the appropriate agency, if applicable, will occur.

IDEM 303d Listed Streams and Lakes (Impaired): Seven (7) 303d Listed Stream segments are located within the 0.5 mile search radius. Three (3) impaired stream segments, associated with Baugo Creek, are located within the project area. Baugo Creek is listed as impaired for E.coli. Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.

Rivers and Streams: Twenty-two (22) stream segments are located within the 0.5 mile search radius. Five (5) stream segments, associated with Baugo Creek, are located within the project area. A Waters of the US Report is recommended and coordination with the appropriate agency, if applicable, will occur.

NWI-Wetlands: Eighteen (18) NWI-Wetlands are located within the 0.5 mile search radius. Two (2) NWI-Wetlands are located within the project area. A Waters of the US Report is recommended and coordination with the appropriate agency, if applicable, will occur.

Lakes: Four (4) lakes are located within the 0.5 mile search radius. The nearest lake is located approximately 0.07 mile west of the project area. No impact is expected.

Floodplain – DFIRM: Ten (10) floodplain polygons are located within the 0.5 mile search radius. The project area is located within two (2) of the floodplain polygons. Coordination with the appropriate agency will occur.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

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

Explanation: No mining and mineral resources were identified within the 0.5 mile search radius.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

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

Unless otherwise noted, site specific details presented in this section were obtained from documents reviewed on the Indiana Department of Environmental Management (IDEM) Virtual File Cabinet (VFC).

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

ECOLOGICAL INFORMATION SUMMARY

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

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project area is located in a rural area surrounded by forested and residential land. The August 17, 2020 Bridge Inspection Report for Bridge No. 20-00145 states that evidence of bats was seen or heard under the bridge. Additional coordination with INDOT District Environmental personnel will be necessary, and the range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

RECOMMENDATIONS SECTION

Include recommendations from each section. If there are no recommendations, please indicate N/A:

INFRASTRUCTURE:

Airports: Although not located within the 0.5 mile search radius, one (1) public-use airport, Mishawaka Pilots Club, is located within 3.8 miles (20,000 feet) of the project area. Coordination with INDOT Aviation will occur.

Pipelines: One (1) pipeline segment, Northern Indiana Public Service Co., is located approximately 0.02 mile north of the project area. Coordination with Northern Indiana Public Service Co. will occur.

WATER RESOURCES:

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

- Four (4) NWI-Line segments, associated with Baugo Creek, are located within the project area.
- Five (5) stream segments, associated with Baugo Creek, are located within the project area.
- Two (2) NWI-Wetlands are located within the project area.
- The project area is located within two (2) of the floodplain polygons (coordination only).

IDEM 303d Listed Streams and Lakes (Impaired): Three (3) impaired stream segments, associated with Baugo Creek, are located within the project area. Baugo Creek is listed as impaired for E.coli. Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: N/A

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

INDOT ESD concurrence: Nicole Fohey-Breting Digitally signed by Nicole Fohey-Breting Date: 2021.10.13 14:50:36 -04'00' (Signature)

Prepared by:
Sarah J. Everhart
Senior Environmental Specialist
American Structurepoint, Inc.

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

SITE LOCATION: YES

INFRASTRUCTURE: YES

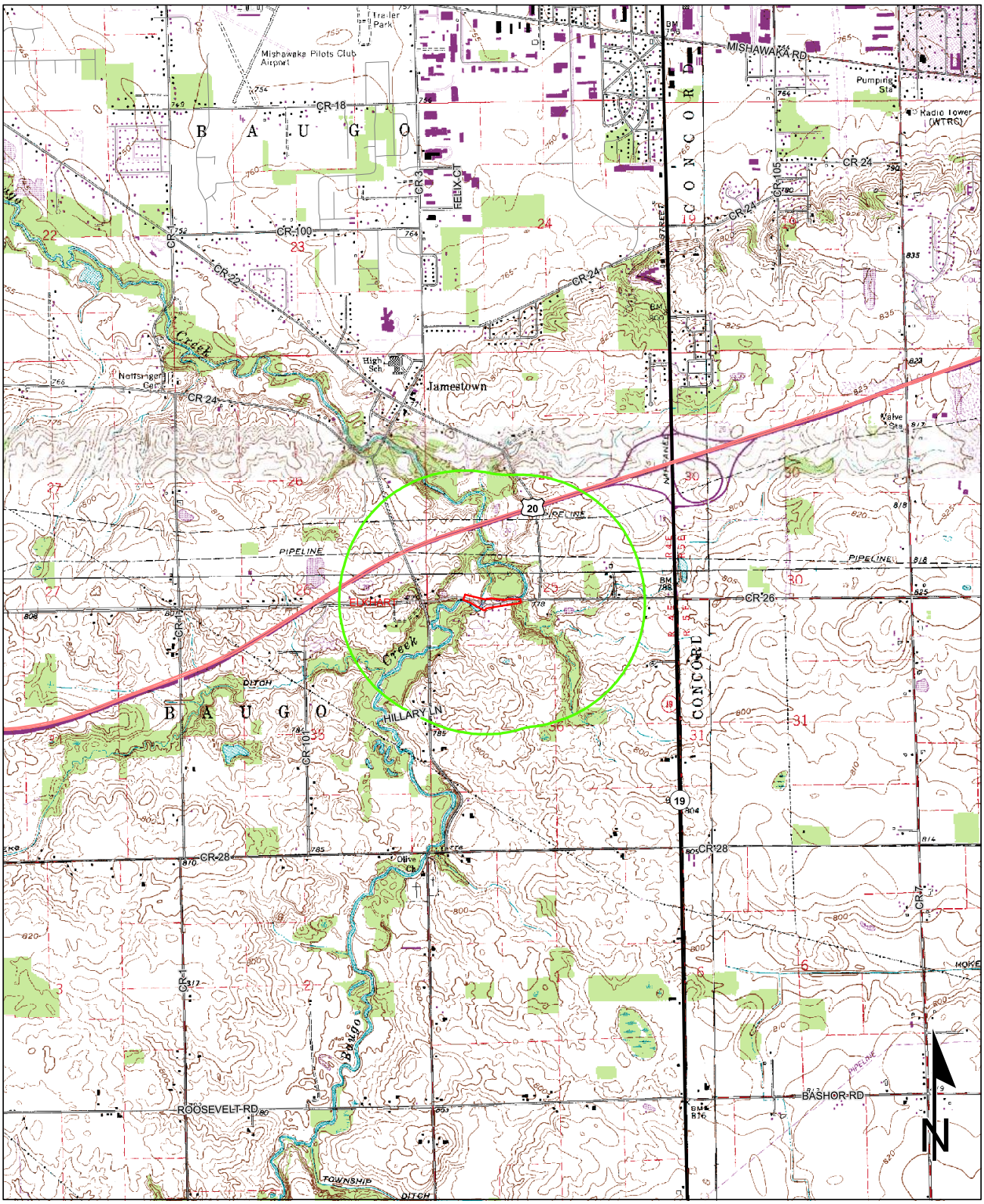
WATER RESOURCES: YES

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: N/A

AMERICAN STRUCTUREPOINT INC.

Red Flag Investigation - Site Location
CR 26 over Baugo Creek, 0.20 Mile West of CR 22
Des. No. 1902829, Bridge Improvement
Elkhart County, Indiana



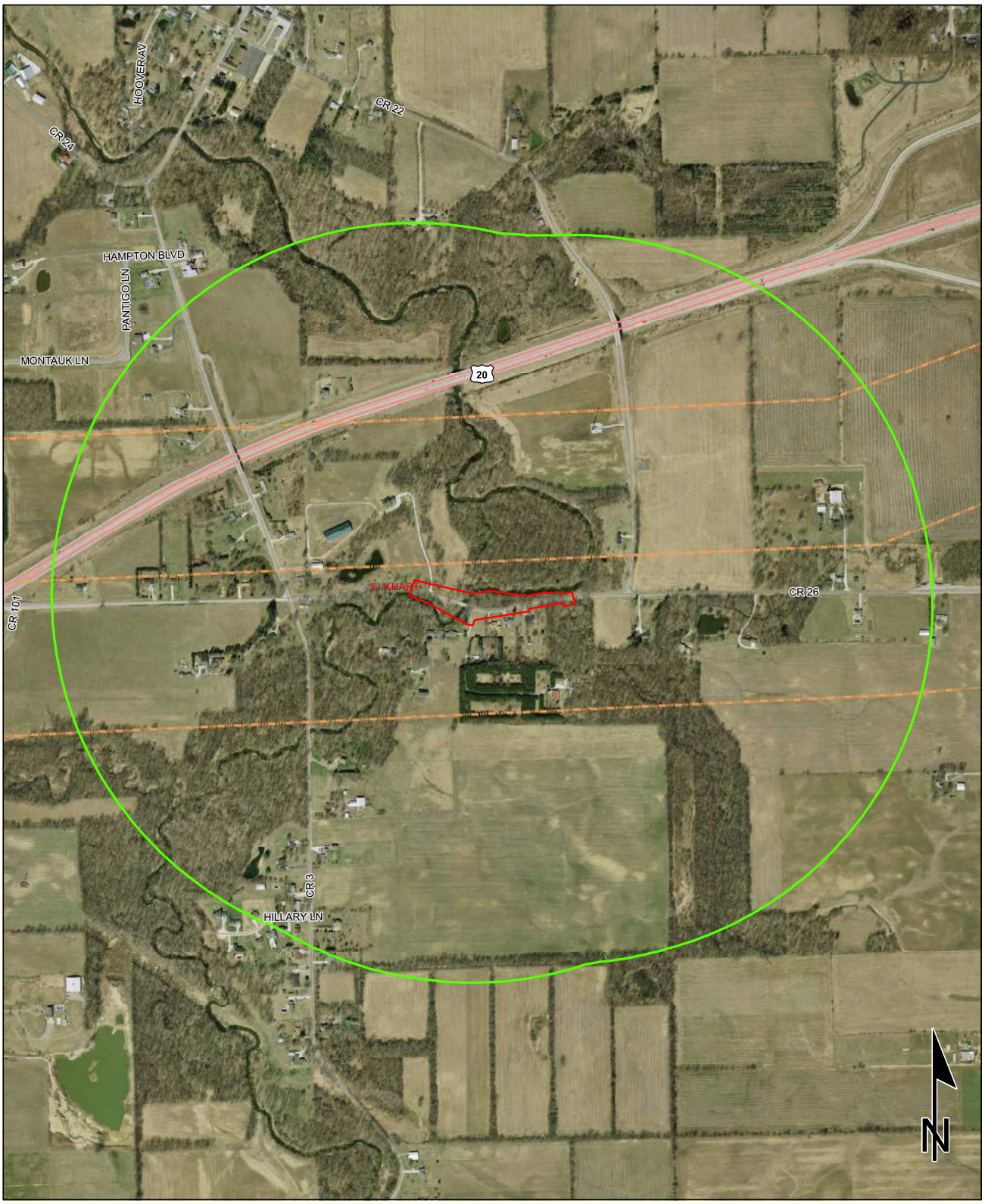
0.5 0.25 0 0.5 Miles

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

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

ELKHART, FORAKER, OSCEOLA, & WAKARUSA QUADRANGLES INDIANA 7.5 MINUTE SERIES

Red Flag Investigation - Infrastructure
CR 26 over Baugo Creek, 0.20 Mile West of CR 22
Des. No. 1902829, Bridge Improvement
Elkhart County, Indiana



0.15 0.075 0 0.15 Miles

Sources:

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

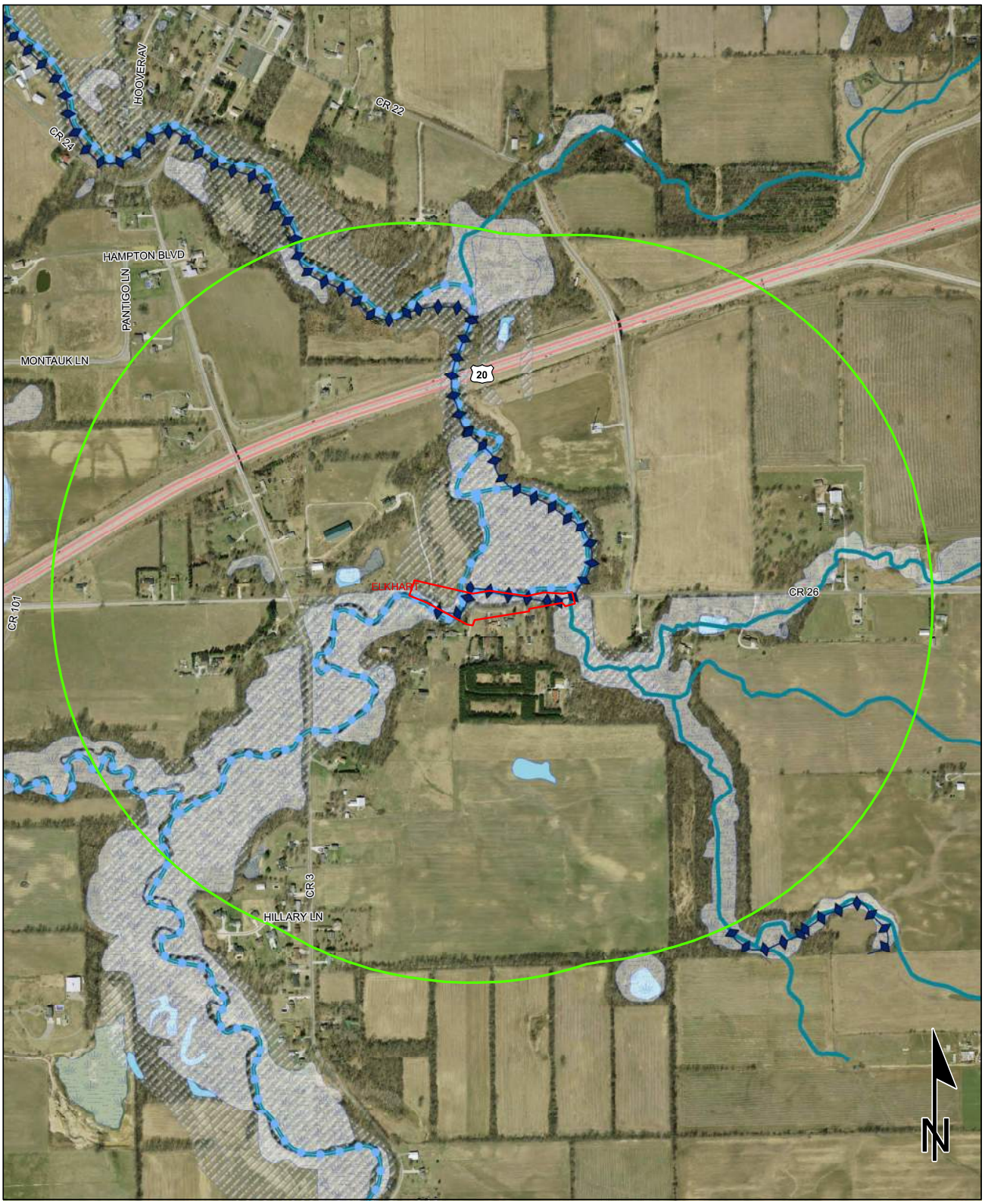
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

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

Red Flag Investigation - Water Resources
CR 26 over Baugo Creek, 0.20 Mile West of CR 22
Des. No. 1902829, Bridge Improvement
Elkhart County, Indiana



0.15 0.075 0 0.15 Miles

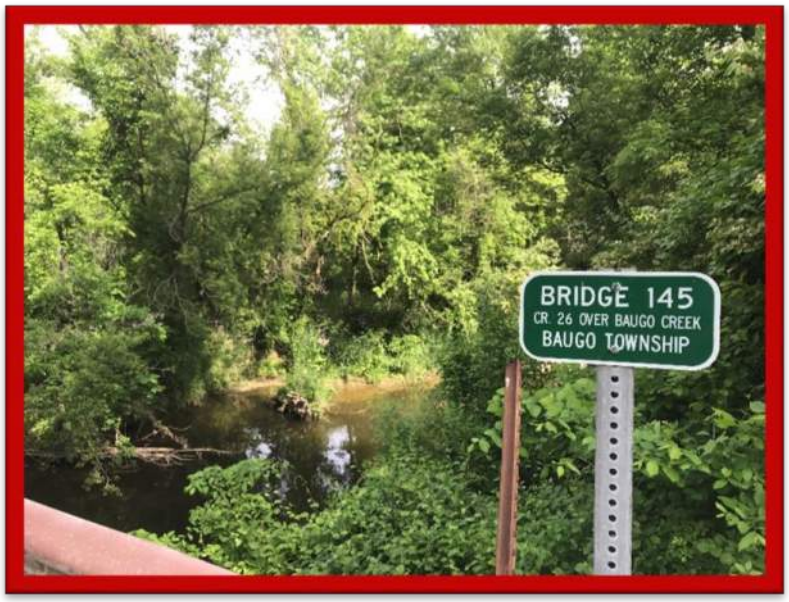
Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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

- NWI - Point
- Karst Spring
- NWI- Line
- Impaired_Stream_Lake
- NPS NRI listed
- River
- Canal Structure - Historic
- Canal Route - Historic
- Wetlands
- Lake
- Floodplain - DFIRM
- Cave Entrance Density
- Sinkhole Area
- Sinking-Stream Basin
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

WETLAND DELINEATION AND WATERS REPORT

COUNTY ROAD (CR) 26 OVER BAUGO CREEK, BRIDGE IMPROVEMENT
DES. NO. 1902829
ASSET ID#: 20-000145 (NBI#: 2000027)
NEAR JAMESTOWN, ELKHART COUNTY, INDIANA
41.623258, -86.016843



Prepared for:

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July 1, 2022

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1.0 Introduction

American Structurepoint, Inc. was contracted by the Elkhart County Highway Department to perform a wetland delineation and waters investigation on CR 26 over Baugo Creek near Jamestown, Osolo Township, Elkhart County, Indiana. The proposed project is located at the Bridge No. 20-00145 crossing over Baugo Creek along CR 26, approximately 0.20 mile west of CR 22. The investigated area extends approximately 820 feet east and 395 feet west from the center of the bridge. The investigated area also extends a maximum of 145 feet north and 160 feet south from the centerline of CR 26. The center coordinates of the site are 41.623258, -86.016843. The investigated area is located on the United States Geological Survey (USGS) Wakarusa 7.5 Minute Quadrangle Map in Sections 25 and 36, Township 27 North, Range 4 East. The location and approximate boundaries of the investigated area can be seen in the attached maps and aerial photographs (Appendix D).

American Structurepoint staff visited the site on May 27, 2021, to conduct a wetland delineation and waters investigation. The proposed project is located in Land Resource Region (LRR) M, as recognized by the US Department of Agriculture. As such, this wetland delineation was conducted in accordance with the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (U.S. Army Corps of Engineers, 2010).

One wetland (Wetland A) totaling 0.07 acre and two streams (Baugo Creek and Unnamed Tributary to Baugo Creek) totaling 596 linear feet (0.65 acre) were identified within the investigated area. Baugo Creek appears to have perennial flow and the Unnamed Tributary (UNT) to Baugo Creek appears to have intermittent flow. Wetland A appears to have surface hydrological connection to, and is inundated in a typical year by, Baugo Creek. These delineated streams and wetland have a hydrologic connection to the St. Joseph River, a Traditional Navigable Water (TNW). Therefore, these streams and wetland are anticipated to be jurisdictional waters of the U.S.

2.0 Definitions

2.1 "Waters of the US"

"Waters of the US" are within the jurisdiction of the US Department of the Army Corps of Engineers (USACE) under the Clean Water Act of 1972, Section 404. "Waters of the US" is a broad term that describes all interstate waters and any water that affects interstate traffic or commerce. Included are wetlands and tributaries adjacent to navigable "waters of the US" and other waters where degradation or destruction could affect interstate or foreign commerce. This includes rivers, streams, wetlands, and many ditches where permits are required for the discharge of dredged or fill material pursuant to Section 404 of the Clean Water Act.

2.2 "Waters of the State" and Isolated Wetlands

"Waters of the State" include all intrastate waters and wetlands that are not hydrologically connected or adjacent to interstate waters. "Waters of the State" include isolated wetlands determined not to be "waters of the US" or jurisdictional wetlands under the January 9, 2001, US Supreme Court ruling [see Solid Waste

Agency of Northern Cook County (SWANCC) v. US Army Corps of Engineers]. Isolated wetlands refer to those non-tidal "waters of the US" that are not part of a surface tributary in interstate/navigable waters and are not adjacent to such tributary water bodies.

2.3 Wetlands

Wetlands are "waters of the US" or "waters of the State". Section 404 of the Clean Water Act defines wetlands as those areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal conditions do support a prevalence of vegetation typically adapted for life in saturated soil conditions.

2.4 Regulatory Authority and Requirements

The USACE regulates the nation's waters for navigation and the full public interest for both the protection and utilization of water resources. The regulatory authorities and responsibilities of the USACE are based on the following laws:

- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) prohibits the obstruction or alteration of navigable waters of the United States without a permit from the USACE.
- Section 404 of the Clean Water Act (33 U.S.C. 1344). Section 301 of this Act prohibits the discharge of dredged or fill material into "waters of the US" without a permit from the USACE.
- Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972, as amended (33 U.S.C. 1413) authorizes the USACE to issue permits for the transportation of dredged material for the purpose of dumping it into ocean waters.

If filling or dredging operations are proposed to occur with the boundary of a "waters of the US" a Section 404 permit must be obtained from USACE before those activities are conducted. Three types of permits are issued by USACE within the State of Indiana: nationwide permits, the Regional General Permit for Indiana, and Individual Permits. Nationwide permits have been developed for projects meeting specific criteria and have a minimal impact to the regulated resources. Minimal impacts are generally classified as less than 0.5 acre of permanent impacts or temporary impacts depending on the activity to be undertaken. The Regional General Permit (RGP) for Indiana has been developed for projects meeting specific criteria and has a minimal impact to the regulated resources within the State of Indiana. The RGP authorizes activities associated with any construction activities impacting less than one acre of wetlands or less than 1,500 linear feet of regulated waterway. Individual Section 404 Permits (site specific permits) are required for any construction activities impacting greater than one acre of regulated resources.

All activities that require a Section 404 Permit from USACE will also require a Section 401 Water Quality Certification (or a waiver) from the Indiana Department of Environmental Management (IDEM). On December 12, 2014 IDEM issued a Water Quality Certification for projects meeting specific criteria and conditions for the Indiana RGP and on March 15, 2017 IDEM issued a Water Quality Certification for projects meeting specific criteria and conditions for multiple Nationwide Permits. The specific conditions limit these Water Quality Certifications to projects with less than 0.1 acre and 300 linear feet of impacts to wetlands and waterways. An Individual Section 401 Water Quality Certification is required for projects impacting greater than 0.1 acre or 300 linear feet of wetlands or waterways.

Under the 2001 US Supreme Court Ruling (SWANCC), filling or dredging of isolated wetlands does not require notification of USACE. However, it is necessary to notify the IDEM for such projects and obtain a permit from the agency under State Wetland Law. All activities affecting "waters of the State" that are not considered to be "waters of the US" will require a State Wetland Permit under IC 13-18.

3.0 Methodology

The investigated area was analyzed using methods outlined in the Routine Determination, On-site Inspection Necessary procedure in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (U.S. Army Corps of Engineers, 2010). The 1987 USACE Manual and the Regional Supplemental Documents require wetland boundaries to be delineated using a 3-parameter approach: hydrophytic vegetation, hydric soils, and wetland hydrology.

3.1 Hydrophytic Vegetation

Hydrophytic vegetation criteria are met by the rapid test for hydrophytic vegetation, the dominance test, the prevalence index, or morphological adoptions.

The rapid test for hydrophytic vegetation is met if all dominated species across all strata are rated as obligate (OBL), or facultative wetland (FACW), or a combination based on a visual assessment.

The indicator status of plant species is based on the estimated probabilities of that species occurring in wetland conditions. The indicator status categories are defined as follows.

PLANT INDICATOR STATUS CATEGORIES
(Environmental Laboratory, 1987)

INDICATOR CATEGORY	INDICATOR SYMBOL	DEFINITION
Obligate Wetland Plants	OBL	Plants that occur almost always (probability >99 percent) in wetland under natural conditions. Species rarely occur in non-wetland (probability <1 percent).
Facultative Wetlands Plants	FACW	Plants that usually occur in wetland (probability 67 to 99 percent) may also occur in non-wetland (probability 1 to 33 percent).
Facultative Plants	FAC	Plants that are equally likely to occur in wetland or non-wetland (probability 33 to 67 percent).
Facultative Upland Plants	FACU	Plants that sometimes occur in wetland (probability 1 to 33 percent) but occur more often in non-wetland (probability 67 to 99 percent).
Upland Plants	UPL	Plants that occur almost always (probability >99 percent) in non-wetland under natural conditions. Species rarely occur in wetland (probability <1 percent).

The dominance test for hydrophytic vegetation is met if more than 50 percent of the dominant plants species across all strata are rated OBL, FACW, or FAC.

If a community fails the Rapid Test and the Dominance Test, and both hydric soils and hydrology are present, then two additional wetland vegetation indicators should be assessed. These are the prevalence index and morphological adaptations. If either a prevalence of species noted in the sampling plot are hydrophytic or if morphological indicators are present, then the area is considered to have hydrophytic vegetation.

3.2 Hydric Soils

Hydric soils criteria are met with the presence of soils flooded for a long duration or very long duration during the growing season. Hydric soil indicators are formed predominately by the accumulation or loss of iron, manganese, sulfur, or carbon compounds in saturated and anaerobic conditions. Anaerobic conditions created by repeated or prolonged saturation or flooding result in permanent changes in soil color and chemistry, which are used to determine the presence of hydric soils.

Soils on a particular site are analyzed to determine whether they meet the hydric criteria. In the absence of groundwater, this analysis is performed by looking for acceptable indicators that suggest the soil is saturated, flooded, or ponded for a duration long enough to support anaerobic conditions near the surface. Field indicators of hydric soils, such as gleyed matrix, depleted matrix, redox dark surface or depressions, or depleted dark surface, are common hydric soil indicators in Indiana.

3.3 Wetland Hydrology

Wetland hydrology criteria is met or assumed by the presence of soils inundated or saturated under normal circumstances for periods long enough to support a prevalence of wetland vegetation. Hydrology is controlled by such factors as rainfall patterns, local geology and topography, soil type, local water table, and drainage. Primary indicators of wetland hydrology include inundation, soil saturation, watermarks, sediment deposits, sparse vegetation, and inundation visible on the aerial photography. Secondary indicators include cracked soils, drainage patterns, and FAC-neutral vegetation. A single primary indicator or two secondary indicators are necessary to determine the presence of wetland hydrology.

All three parameters must be present for a site to be considered “waters of the State” or “waters of the US.”

3.4 Stream Habitat

The Qualitative Habitat Evaluation Index (QHEI) is used to determine existing stream impairments and aid in mitigating future impacts. The QHEI is composed of six metrics; substrate, in-stream cover, channel morphology, riparian zone and bank erosion, pool/glide and riffle run quality, and map gradient. Each metric is scored individually and then summed, resulting in a total QHEI score for the targeted reach of stream.

Methodology described in the *Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index* (QHEI) manual (Ohio EPA, Division of Surface Water, 2006)) was used for assessing streams. Additional methodology described in the *Field Evaluation Manual for Ohio’s Primary Headwater Habitat Streams* (Ohio EPA, Division of Surface Water, 2020) was used in assessing primary headwaters.

4.0 Site Characterization – Records Review

4.1 USGS Topographic Mapping

The 1:24,000-scale Topographic Quadrangle Map is the primary scale of topographic data produced by the United States Geological Survey (USGS). Since the late 19th century, the USGS has been producing topographic quadrangle maps that show shape and elevation of the land, transportation networks, drainage patterns, vegetation, and buildings. These maps are used for a variety of purposes, including industrial site selection, highway planning, and recreation, and they are also a valuable source for local history. Features such as vegetation (green), water (blue) and densely built-up areas (gray or red) are shown as shaded areas on the map. Many features are shown by lines that may be straight, curved, solid, dashed, dotted, or in any combination. Colors of the lines usually indicate similar classes of information: topographic contours (brown); lakes, streams, irrigation ditches, and other hydrographic features (blue); land grids and important roads (red); and other roads and trails, railroads, boundaries, and other cultural features (black). Various point symbols are used to depict features such as buildings, campgrounds, springs, water tanks, mines, survey control points, and wells. Names of places and features are shown in a color corresponding to the type of feature.

The investigated area is located on the Wakarusa USGS 7.5 Minute Quadrangle Topographic Map in Section 36, Township 27 North, Range 4 East. The topographic map depicts the investigated area as generally developed residential area with some undeveloped, forested areas present along CR 26. The topography is generally flat to the north of CR 26 and becomes a moderate topographically decline south of CR 26, sloping away from CR 26, Baugo Creek and UNT to Baugo Creek. Baugo Creek is mapped as a USGS solid blue line, perennial stream flowing south to north in the western portion of the investigated area. Baugo Creek enters the investigated area from the southern investigated area boundary until crossing under CR 26 via the bridge. After exiting the bridge under CR 26, Baugo Creek flows west to east, parallel to CR 26 and along the northern boundary of the investigated area before turning and continuing north. Baugo Creek renters the investigated area briefly along the northern boundary. UNT to Baugo Creek is depicted as a USGS dashed blue line, intermittent stream flowing south to north in the western portion of the investigated area. UNT to Baugo Creek enters the investigated area from the south, flows until it enters into two, twin pipes, which outlet at the confluence of Baugo Creek and UNT to Baugo Creek. Both Baugo Creek and UNT to Baugo Creek were field verified as present and being depicted correctly on the USGS Topographic map during the May 27, 2021 field investigation.

4.2 National Wetlands Inventory Mapping (NWI) Maps

For 25 years, the US Fish and Wildlife Service (USFWS) has provided federal and state agencies, the private sector, and citizens with scientific data on wetland location, extent, status, and trends. The USFWS's National Wetlands Inventory (NWI) program works to complete baseline wetland mapping in the lower 48 states and Alaska. Most NWI maps were produced using photography from the 1980s. Maps for less than five percent of the nation were made using 1990s or more recent photography. Most NWI map products have not been field verified and are subject to regulatory review. However, these maps serve as a planning tool for service and non-profit wetland acquisition programs, fishery restoration, floodplain and watershed planning, endangered species recovery efforts, and to plan for energy resource and infrastructure development.

The NWI Mapping was reviewed for the proposed project corridor. One mapped NWI, a Palustrine, Forested, Persistent, Seasonally Flooded (PFO1C) wetland, is mapped within the investigated area. The mapped NWI wetland is located within the eastern portion of the investigated area and correlates to the riparian buffer of UNT to Baugo Creek south of CR 26 and part of the riparian buffer of Baugo Creek north of CR 26. Data Point (DP) 3 was taken within the mapped NWI wetland south of CR 26, but lacked wetland hydrology indicators and hydric sois required to be a wetland. The mapped NWI area located along Baugo Creek north of CR 26 had sloped topography from CR 26 to Baugo Creek that prevented the formation of wetland conditions (see Photos 25 and 27.). Therefore, these areas were not found to be wetlands.

4.3 County Soil Survey

The Natural Resource Conservation Services (NRCS) has prepared soil survey and mapping for each county. Soil surveys furnish soil maps and interpretations necessary to provide technical assistance to farmers and ranchers to be utilized in planning and land management. Soil surveys generally contain mapping of unique or potential areas of concern such as areas of peat or muck, steep slopes, wetlands, and drainage lines.

The *NRCS Soil Survey Geographic Database (SSURGO)* was reviewed to determine soil classification within the investigated area. Soil types mapped within the investigated area include:

Soil Map Unit Summary			
Map Unit Name	**Map Unit Symbol**	**SSURGO Hydric Rating by Map Unit**	**SSURGO Hydric Rating by Map Unit**
Bristol loamy sand, 0 to 1 percent slopes	BtxB	Nonhydric	0
Waterford loam, 0 to 2 percent slopes, frequently flooded, long duration	WcnAl	Predominantly Hydric	90

4.4 Aerial Photography

The Indiana Geographic Information Council (IGIC), in partnership with state and local agencies, sponsored a program that created high-resolution orthophotography for counties on a statewide basis to support homeland security, emergency management, and other business and government applications. Digital orthophotography provides all of the visual content of a photograph, while being as accurate as a map for measurements. These qualities allow for accurate distance measurements, area calculations, determination of feature shape, direction calculations, and determination of coordinates at a given location. Orthophotography provides a base map in a geographic information system (GIS) for emergency response planning and modeling, law enforcement, public health agencies, property management, census, tax assessment, flood mapping, planning, and economic development.

Aerial photography from 2021 NearMap Aerial Photography was reviewed for the investigated area. The 2021 NearMap Aerial Photography shows the investigated area as primarily low-density residential area with some patches of non-developed forested lands. Two streams are visible on the aerial photography which were verified to be Baugo Creek and UNT to Baugo Creek during the May 27, 2021 field investigation. Baugo Creek can be seen crossing through the center of the investigated area and running parallel along the north side of CR 26. UNT to Baugo Creek can be seen at the east end of the investigated area where it crosses

CR 26 and connects to Baugo Creek. Visible in the aerial photography is a dark colored area which possibly indicates the presence of hydric soils and/or wetland hydrology, located between Baugo Creek and CR 26. Wetland A was delineated within this area during the May 27, 2021 field investigation by American Structurepoint, Inc. staff. The 2021 NearMap Aerial Photography depicts the investigated area as observed during the May 27, 2021 field investigation.

4.5 Floodways and Floodplains

A "Regulatory Floodway" is the channel of a river or other watercourse and the adjacent land that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. The Indiana Department of Natural Resources Division of Water regulates these floodways within the state. Mapping of the regulated floodway and the floodplain, if a floodway had not been designated was completed by the Federal Emergency Management Agency (FEMA).

The FEMA Flood Insurance Mapping (FIRM) was reviewed for the investigated area. The floodway and floodplain of Baugo Creek extends throughout the entire northern and western portions of the investigated area. A portion of the investigated area south of CR 26 between Baugo Creek and UNT to Baugo Creek is not within the mapped floodway or floodplain.

4.6 National Hydrography Dataset Flow Lines

Nine USGS National Hydrography Dataset (NHD) flow lines segments, eight classified segments and one unclassified segment, are present in the investigated area.

Four classified NHD flow line segments are associated with Baugo Creek and are along the same alignment as seen in the 2021 NearMaps Aerial Photography and USGS Topographic Map. One classified NHD flow line segment is associated with UNT to Baugo Creek and is in the same location as seen in the 2020 aerial photography. Baugo Creek and UNT to Baugo Creek were field verified during the May 27, 2021 field investigation.

Two classified NHD flow line segments are mapped entering the investigated area near the western end and crossing CR 26 to Baugo Creek. One classified NHD flow line segment and one unclassified NHD flow line segment are mapped entering the investigated area southeast of Baugo Creek and CR 26 before connecting to Baugo Creek. These segments were not field verified during the May 27, 2021 field investigation.

4.7 Legal Drain

Some waterways in which the function of the channel is considered necessary to drain the landscape to protect the livelihood and safety of the general public are considered to be “legal drains.” These waterways often include a system of pipes and open ditches and are generally under the jurisdiction of the County Surveyor who is responsible for their continued maintenance and function. Funding for maintenance of legal drains is typically provided by assessments to the adjoining property owners.

The 2021 Elkhart County Surveyors Office was contacted on May 12, 2021 by American Structurepoint, Inc. staff. The Elkhart County Surveyor did not respond. The Elkhart County Surveyors Office Website (https://surveyor.elkhartcounty.com/en/elkhart-county-regulated-drains/) was accessed on May 2, 2022 by American Structurepoint, Inc. staff. Baugo Creek is mapped as a legal drain within the investigated area. UNT to Baugo Creek is not mapped as an Elkhart County legal drain.

4.8 12-Digit Hydrologic Unit Code

The investigated unit lies within the 12-Digit Hydrologic Unit Code (HUC) #040500012203, also known as Rogers Ditch – Baugo Creek.

5.0 Field Reconnaissance

The CR 26 over Baugo Creek Bridge Improvement Project was examined for the presence of wetlands and waters of the U.S. on the site on May 27, 2021. Data points were strategically placed to identify appropriate boundaries of delineated wetlands and to determine the presence or absence of jurisdictional wetlands and waters of the U.S. One wetland (Wetland A) totaling 0.07 acre and two streams (Baugo Creek and UNT to Baugo Creek) totaling 596 linear feet (0.65 acre) were identified within the investigated area. Data sheets and a map indicating the location of data points documenting the field investigation are included in Appendix B.

5.1 Wetlands

5.1.1 Wetland A

Wetland A is scrub-shrub wetland and is located approximately 235 feet east of the CR 26 Bridge over Baugo Creek and approximately 40 feet north of CR 26. Wetland A is in a low-lying area with a floodplain that receives water runoff from CR 26 from the south, and from overflow of Baugo Creek. Excess water from the wetland drains back into Baugo Creek. The wetland drains to Baugo Creek, which as described below has surface connection to St. Joseph's, a Traditional Navigable Waterway (TNW). Therefore, it is anticipated Wetland A would be considered a jurisdictional water of the U.S.

The dominant vegetation consisted of Silver Maple (*Acer saccharnium,* FACW) within the tree stratum, Green Ash (*Fraxinus pennsylvanica,* FACW) and Spice Bush (*Lindera benzoin,* FACW) within the sapling/shrub stratum, and Creeping Jenny (*Lysimachia nummularia,* FACW) within the herbaceous stratum. Wetland hydrology indicators included Drift Deposits (B3), Sparsely Vegetated Concave Surface (B8), Water-stained Leaves (B9), Geomorphic Position (D2), and FAC-Neutral Test (D5). Due to the wetland close proximity to Baugo Creek and its location in a low elevation area within a floodplain, the soil within Wetland A is naturally problematic due to fluvial sediment deposits with a floodplain. The sediment deposits are indicated by the presence of sand throughout the soil profile. It is anticipated DP 1 would meet Sandy Redox (S5) without the recurring accumulation of sand deposit from Baugo Creek during periods of high water. Wetland A would be considered Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Temporarily Flooded/Saturated (PSS1E) under the Cowardin Classification System. Wetland A is a 0.07 acre and is wholly contained within the investigated area. Wetland A would be considered an average quality wetland due to the lack of disturbance, location within Baugo Creek's riparian buffer and floodplain, and lack of species diversity. For reference to field data collected for this wetland, see Data Point (DP) 1 included in Appendix B. DP 2 was taken outside of the wetland boundary. DP 2 did possess hydric vegetation but lacked the hydric soils or wetland hydrology to be determined a wetland. DP 2 included in Appendix B is representative of the upland area surrounding Wetland A.

5.2 Drainage Features, Streams, and Other Potential "Waters of the U.S."

5.2.1 Baugo Creek

Baugo creek generally flows northwest, however due to its sinuosity, Baugo Creek enters and exits the investigated area a total of three times. The stream first enters the investigated area south of CR 26 approximately 0.24 mile east of the CR 3 and CR 26 intersection. The stream temporarily flows south for approximately 101 linear feet before exiting the investigated area. The stream then reenters the center of the investigated area from the south, approximately 150 feet from the edge of the CR 26 bridge and flows northeast for 251 linear feet before exiting the investigate area. Baugo Creek then turns east and briefly reenters along the north boundary of the investigated area and flows for an additional 154 linear feet. The total length of Baugo Creek within the CR 26 over Baugo Creek investigation area is 506 linear feet. The majority of Baugo Creek is open channel; however, the bridge encapsulates the stream for approximately 30 linear feet.

The stream is depicted on the USGS Topographic map as a perennial stream. StreamStats (https://water.usgs.gov/osw/streamstats/) reports the upstream drainage area of Baugo Creek is approximately 70.1 square miles. The stream is an Elkhart County Legal Drain. Baugo Creek was flowing during the field investigation on May 27, 2021 and stream flow appears to be perennial as indicated by field observations and the above-mentioned drainage area. The stream appears to derive water from upstream tributaries and local runoff. Baugo Creek outlets into St. Joseph River, a TNW. Therefore, it is anticipated Baugo Creek would be considered a jurisdictional waters of the U.S.

Baugo Creek is crossed once within the proposed project area by CR 26 via the existing box beam bridge. The stream has a wide riparian zone along the downstream-left banks, and a narrow riparian zone along the right-downstream banks as it flows adjacent to residential lawns and along CR 26 north of the crossing. The stream has a canopy cover approximately 30-55% open, due to the large channel and forested riparian zone. Current conditions of the streambanks appear stable; however, sheet piling was noted along the downstream-right banks. The ordinary high water mark (OHWM) of Baugo Creek was 54 feet wide by 2.5 feet deep. Top-of-bank measurement was 66 feet wide by 6 feet deep. The substrate consisted of 100% sand. Baugo Creek would be considered an average stream due to presence of a large forested riparian buffer, strong meandering channel sinuosity, presence of logs and woody debris, slow stream flow, ability to support wildlife, and location within the floodplain. Baugo Creek would be classified as a Riverine, Lower Perennial, Unconsolidated Bottom, Sand, Permanently Flooded (R2UBH) Deepwater habitat using the Cowardin Classification System.

5.2.2 UNT to Baugo Creek

UNT to Baugo Creeks enters the investigated area from the south near the eastern end of the investigated area, crossing under CR 26 through two, twin 8-foot-diameter reinforced concrete pipes (RCP) which outlet at the confluence of UNT to Baugo Creek and Baugo Creek. Of the 90 linear feet of UNT to Baugo Creek delineated within the investigated area, 60 linear feet is encapsulated by the twin RCPs.

The stream is depicted on the USGS Topographic map as an intermittent stream. StreamStats (https://water.usgs.gov/osw/streamstats/) reports that the upstream drainage area of UNT to Baugo Creek is approximately 3.1 square miles. The stream is not an Elkhart County Legal Drain. UNT to Baugo Creek was flowing during field investigation on May 27, 2021 and stream flow appears to be intermittent as indicated

by a moderate drainage area and sparse vegetation growing within the channel near the eastern banks. UNT to Baugo Creek outlets into Baugo Creek which drains into St. Joseph River, a TNW. Therefore, it is anticipated UNT to Baugo Creek would be considered a jurisdictional waters of the U.S.

UNT to Baugo Creek is crossed once within the proposed project area beneath CR 26 via the twin RCPs. The stream has a wide riparian buffer along the downstream-left banks and a moderate riparian buffer along the downstream-right banks. The stream has moderate sinuosity and a 10-30% closed canopy due to the riparian buffer and smaller channel width. The OHWM of UNT to Baugo Creek is 10.5 feet wide by 0.8 feet deep at the assessment location. Top-of-bank measurement was 30 feet wide by 4.5 feet deep due to a graduate topographic incline on the downstream-right bank. The substrate of UNT to Baugo Creek is dominated by 90% sand with 10% small gravel. UNT to Baugo Creek would be considered an average stream due to moderate riparian buffer, moderate meandering stream sinuosity, moderate-to-fast flow regime, and location within the floodplain. UNT to Baugo Creek would be classified as a Riverine, Intermittent, Streambed, Sand (R4SB4) Deepwater habitat using the Cowardin Classification System.

5.3 Non-Wetland Data Points

Data Point (DP) 3 was taken near the eastern end of the investigated area south of CR 26 and west of UNT to Baugo Creek. The data point was taken due to presentence of hydric soils, presence of mapped NWI wetland, and presence of hydric vegetation. Dominant vegetation included Box Elder (*Acer negundo,* FAC) in the tree stratum; Box Elder and Ohio Buckeye (*Aesculus glabra,* FAC) in the sapling/shrub stratum; Clustered Black-Snakeroot (*Sanicula ordorata,* FAC), and Grey's Sedge (*Carex grayi,* FACW) in the herbaceous stratum. DP 3 lacked the wetland hydrology and hydric soil indicators required to be a wetland. For reference to field data collected for DP 3, see Appendix B, B-5 to B-7.

6.0 Conclusions

One wetland (Wetland A) totaling 0.07 acre, and two streams (Baugo Creek and UNT to Baugo Creek) totaling 596 linear feet (0.65 acre), were delineated within the investigated area. All features appear to have a jurisdictional connection to the St. Joseph River, a TNW. Therefore, these streams and wetland are anticipated to be jurisdictional waters of the U.S.

All jurisdictional waters of the U.S. are under the regulatory authority of the USACE under Section 404 of the Clean Water Act. Every effort should be taken to avoid and minimize impacts to the waterway and wetlands. If impacts are necessary, then mitigation may be required. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by the USACE. This report is our best judgment based on the guidelines set forth by the USACE.

7.0 Acknowledgement

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

AUTHORS: 7/01/2022

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8.0 References

Bates, R.L. and J. A. Jackson (Eds). 1987. Glossary of Geology, 3rd. ed. American Geological Institute. Falls Church, VA.

Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y–87–1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

Lichvar, R.W., et al. 2020. "The National Wetland Plant List: 2018 wetland ratings." Phytoneuron 2018-30: 1-17. Published 28 May 2020. ISSN 2153 733X.

Ohio EPA. 2018. Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams. Version 3.0. Ohio EPA Division of Surface Water, Columbus, Ohio. 117 pp.

OhioEPA. 2006. Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI). OHIO EPA Technical Bulletin EAS/2006-06-01.

Ruhe, R.V. 1975. *Geomorphology*. Houghton Mifflin, Boston, MA.

Schneider, A.F. 1966. "Physiography in Indiana." A.A. Lindsey, editor, Natural Features of Indiana. Indiana Academy of Science.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database for Elkhart County, Indiana. Available online at http://soildatamart.nrcs.usda.gov. Accessed 04/22/2022.

US Fish and Wildlife Service. National Wetlands Inventory website. US Department of the Interior, Fish and Wildlife Service, Washington, D.C. http://www.fws.gov/wetlands.

US Geological Survey. *Wakarusa, Osceola, Indiana* [map]. 1967. 1:24,000. 7.5 Minute Series. Reston, Va: United States Department of the Interior, USGS.

U. S. Army Corps of Engineers. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0),* ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Elkhart County, Osolo Township, IN [Legal County Drain Database] - Osolo Township Regulated Drain.pdf (elkhartcounty.com). Accessed 05/02/2022.

Appendix A - Aquatic Resource Summary Tables

Table 1 – Data Points Summary

Data Points Summary							
Data Point	**Photos**	**Lat/ Long**	**Water Resource**	**Hydrophytic Vegetation**	**Hydric Soils**	**Wetland Hydrology**	**Within a Wetland**
DP 1	13, 14	41.623349, -86.016739	Wetland A	Y	Y	Y	Y
DP 2	17, 18	41.623324, -86.016798	Upland of Wetland A	Y	N	N	N
DP 3	34, 35	41.623275, -86.014982	Non-Wetland Data Point	Y	N	N	N

Table 2 – Aquatic Resources Summary

Aquatic Resources Summary: Wetlands						
Delineated Resource	**Photos**	**Lat/ Long**	**Type**	**Quality**	**Likely Jurisdiction**	**Total Acreage Acres**
Wetland A	12, 14, 15, 20-22	41.623349, -86.016739	PSS	Average	Waters of the U.S	0.07
Total						0.07

Aquatic Resources Summary: Streams												
Delineated Resource	Photos	Lat/ Long	USGS Blue Line & Type	OHWM Width	OHWM Depth	Flow Regime	Quality	Riffle/Run Presence	Substrate	Jurisdiction	Total Linear Feet	Total Acres
Baugo Creek	5-7, 9, 41, 24, 27, 41, 43, 46-47 49	41.623450, -86.017566	Yes, PER	54 feet	2.5 feet	PER	Average	Yes, Yes	Sand 100%	"Waters of the US"	506	0.63
UNT to Baugo Creek	30, 31	41.623263, -86.014755	Yes, INT	10.5 feet	0.8 feet	INT	Average	Yes, Yes	Sand (90%) Gravel (10%)	"Waters of the US"	90	0.02
Total											**596**	**0.65**

Total Aquatic Resources Summary		
Resource	**Wetlands**	**Streams**
Grand Total	**0.07 acre**	**596 linear feet (0.65 acre)**

Appendix B - Routine Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: CR 26 over Baugo Creek (Des No. 1902829) City/County: near Jamestown / Elkhart Sampling Date: 05.27.2021

Applicant/Owner: Elkhart County Highway Department State: IN Sampling Point: DP 1

Investigator(s): J. Iddings & N. Krahn Section, Township, Range: Sec 36, T37N, R4E

Landform (hillside, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave

Slope (%): 0 Lat: 41.623349 Long: -86.016739 Datum: WGS 1984

Soil Map Unit Name: Waterford loam (WcnAl) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil X, 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 X No ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
DP 1 is representitive of Wetland A.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	30	Yes	FACW
2. *Ulmus americana*	5	No	FACW
3. *Acer negundo*	3	No	FAC
4.			
5.			
	38	=Total Cover	

Sapling/Shrub Stratum (Plot size: 15 ft)			
1. *Fraxinus pennsylvanica*	30	Yes	FACW
2. *Lindera benzoin*	10	Yes	FACW
3. *Acer saccharinum*	5	No	FACW
4. *Acer negundo*	3	No	FAC
5.			
	48	=Total Cover	

Herb Stratum (Plot size: 5 ft)			
1. *Lysimachia nummularia*	40	Yes	FACW
2. *Symphyotrichum lanceolatum*	10	No	FAC
3. *Sanicula odorata*	8	No	FAC
4. *Phalaris arundinacea*	5	No	FACW
5. *Galium aparine*	2	No	FACU
6. *Solidago gigantea*	2	No	FACW
7. *Urtica dioica*	1	No	FACW
8.			
9.			
10.			
	68	=Total Cover	

Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	128	x 2 =	256
FAC species	24	x 3 =	72
FACU species	2	x 4 =	8
UPL species	0	x 5 =	0
Column Totals:	154 (A)		336 (B)

Prevalence Index = B/A = 2.18

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 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** X **No** ____

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

SOIL

Sampling Point: DP 1

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 4/4	100					Sandy	
3 - 18	10YR 3/2	92	7.5YR 4/3	8	C	PL	Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: 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)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 8.2, 2018 to include the NRCS Field Indicators of Hydric Soils, Version 8.2, 2018 Errata. (https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_053171.pdf). The soil is naturally problematic due to fluvial deposits within a floodplain. This is indicated by the data point being located in a low lying elevation within a floodplain near Baugo Creek and the soil profiles being sand which occurs as the (100%) sand substrate of Baugo Creek accumulates within the area. It is anticipated the soil would meet Sandy Redox (S5) if recent sand was not recurringly accumulated during times of high water in Baugo Creek.

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)
- X Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- X Sparsely Vegetated Concave Surface (B8)
- X 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)

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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: CR 26 over Baugo Creek (Des No. 1902829) City/County: near Jamestown / Elkhart Sampling Date: 05.27.2021

Applicant/Owner: Elkhart County Highway Department State: IN Sampling Point: DP 2

Investigator(s): J. Iddings & N. Krahn Section, Township, Range: Section 36, T37N, R1E

Landform (hillside, terrace, etc.): Floodplain Local relief (concave, convex, none): None

Slope (%): 0.5 Lat: 41.623324 Long: -86.016798 Datum: WGS 1984

Soil Map Unit Name: Waterford loam (WcnAl) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
DP 2 is representative of the upland area surrounding Wetland A.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	25	Yes	FACW
2. *Gleditsia triacanthos*	15	Yes	FACU
3. *Juglans nigra*	10	No	FACU
4. *Acer negundo*	8	No	FAC
5.			
	58	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft)			
1. *Lonicera maackii*	10	Yes	UPL
2. *Fraxinus pennsylvanica*	7	Yes	FACW
3. *Acer negundo*	5	No	FAC
4. *Rosa multiflora*	5	No	FACU
5. *Aesculus glabra*	3	No	FAC
	30	=Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. *Solidago gigantea*	35	Yes	FACW
2. *Urtica dioica*	10	No	FACW
3. *Rudbeckia laciniata*	7	No	FACW
4. *Asarum canadense*	5	No	FACU
5. *Impatiens capensis*	3	No	FACW
6.			
7.			
8.			
9.			
10.			
	60	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	87	x 2 =	174
FAC species	16	x 3 =	48
FACU species	35	x 4 =	140
UPL species	10	x 5 =	50
Column Totals:	148 (A)		412 (B)

Prevalence Index = B/A = 2.78

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 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 X No ____

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic Vegetation is most likely present due to the location of the data point being in close proximity to Baugo Creek and a low elevation area within a floodplain.

SOIL

Sampling Point: DP 2

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 15	10YR 3/2	100					Loamy/Clayey	
15 -18	10YR 3/2	97	10YR 3/4	3	C	M	Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: 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)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Midwest Regional Supplement Version 8.2, 2018 to include the NRCS Field Indicators of Hydric Soils, Version 8.2, 2018 Errata. (https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_053171.pdf). This data point does not meet the fluvial sediments within a floodplain as indicated by the texture of the first profile being loamy/clayey while the substrate of Baugo Creek is 100% sand.

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)
- ___ 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)

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)
- X FAC-Neutral Test (D5)

Field Observations:

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:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: CR 26 over Baugo Creek (Des No. 1902829) City/County: near Jamestown / Elkhart Sampling Date: 05.27.2021

Applicant/Owner: Elkhart County Highway Department State: IN Sampling Point: DP 3

Investigator(s): J. Iddings & N. Krahn Section, Township, Range: Section 36, T37N, R4E

Landform (hillside, terrace, etc.): Floodplain Local relief (concave, convex, none): None

Slope (%): 0.5 Lat: 41.623275 Long: -86.014982 Datum: WGS 1984

Soil Map Unit Name: Waterford loam (WcnAl) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
DP 3 is a non-wetland datapoint collected due to the presence of hydric vegetation.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*	55	Yes	FAC
2. *Ulmus americana*	15	No	FACW
3. *Gleditsia triacanthos*	7	No	FACU
4. *Carya ovata*	5	No	FACU
5. *Populus deltoides*	5	No	FAC
	88	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft)			
1. *Acer negundo*	10	Yes	FAC
2. *Aesculus glabra*	5	Yes	FAC
3. *Fraxinus pennsylvanica*	3	No	FACW
4.			
5.			
	18	=Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. *Sanicula odorata*	35	Yes	FAC
2. *Carex grayi*	15	Yes	FACW
3. *Geum canadense*	10	No	FAC
4. *Persicaria virginiana*	5	No	FAC
5. *Urtica dioica*	5	No	FACW
6. *Cinna latifolia*	3	No	FACW
7. *Viola sororia*	1	No	FAC
8. *Cryptotaenia canadensis*	1	No	FAC
9.			
10.			
	75	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	41	x 2 =	82
FAC species	127	x 3 =	381
FACU species	13	x 4 =	52
UPL species	0	x 5 =	0
Column Totals:	181 (A)		515 (B)

Prevalence Index = B/A = 2.85

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 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 X No ____

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic Vegetation is most likely present due to the location of the data point being in close proximity to Baugo Creek and a low elevation area within a floodplain.

VEGETATION Continued – Use scientific names of plants. Sampling Point: DP 3

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
6. *Juglans nigra*	1	No	FACU
7.			
8.			
9.			
10.			
11.			
12.			
13.			
	88	=Total Cover	
Sapling/Shrub Stratum			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
	18	=Total Cover	
Herb Stratum			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
	75	=Total Cover	
Woody Vine Stratum			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	

Definitions of Vegetation Strata:

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

Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

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

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic Vegetation is most likely present due to the location of the data point being in close proximity to Baugo Creek and a low elevation area within a floodplain.

SOIL

Sampling Point: DP 3

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 3/2	100					Loamy/Clayey	
12 - 18	10YR 5/4	97	10YR 4/6	3	C	M	Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: 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)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
This data form is revised from Midwest Regional Supplement Version 8.2, 2018 to include the NRCS Field Indicators of Hydric Soils, Version 8.2, 2018 Errata. (https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_053171.pdf) This data point does not meet the fluvial sediments within a floodplain as indicated by the texture of the first profile being loamy/clayey while the substrate of Baugo Creek is 100% sand.

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)
___ 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)

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)
X FAC-Neutral Test (D5)

Field Observations:

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:

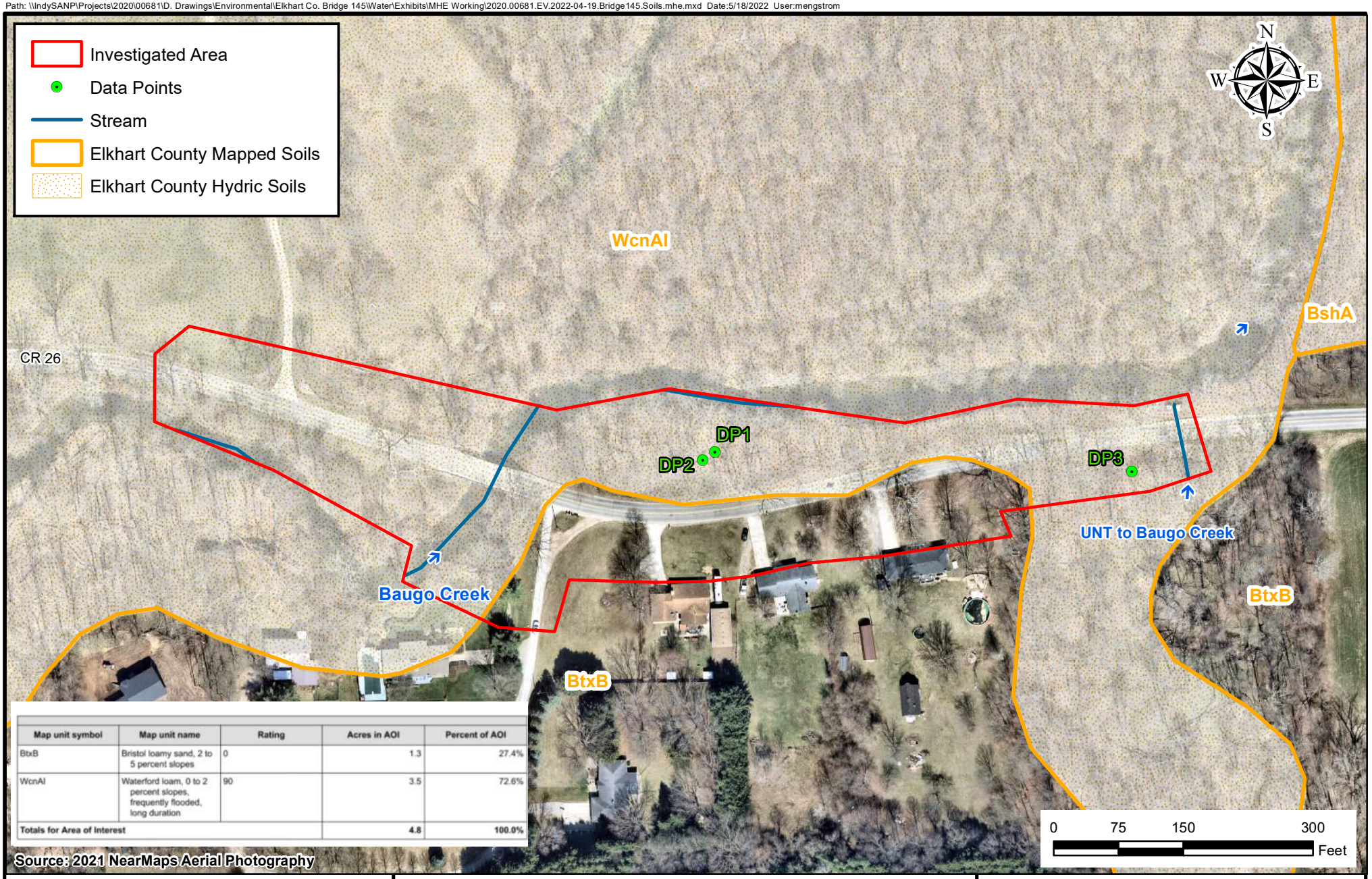
Remarks:

Appendix C - Mapping

Figure 1 – Project Location Map
Figure 2 – USGS Topographic Mapping
Figure 3 – Elkhart County Mapped Soils - SSURGO
Figure 4 – 12-Digit HUC Map
Figure 5 – NWI, NHD, and FEMA 100-Year Floodplain Mapping
Figure 6 – 2020 Aerial Photography
Figure 7 – Indiana Department of Natural Resources Floodplain Analysis & Regulatory Assessment
Figure 8 – Baugo Creek StreamStats Report
Figure 9 – UNT to Baugo Creek StreamStats Report
Figure 10 – field investigation and Photo Location Map

Duplicate Mapping and Photos have been removed to reduce file size and can be found in Appendix B, pages B-1 to B-2.

Path: \\IndySANP\Projects\2020\00681\D. Drawings\Environmental\Elkhart Co. Bridge 145\Water\Exhibits\MHE Working\2020.00681.EV.2022-04-19.Bridge145.Soils.mhe.mxd Date:5/18/2022 User:mengstrom



Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BtxB	Bristol loamy sand, 2 to 5 percent slopes	0	1.3	27.4%
WcnAl	Waterford loam, 0 to 2 percent slopes, frequently flooded, long duration	90	3.5	72.6%
Totals for Area of Interest			4.8	100.0%

Source: 2021 NearMaps Aerial Photography

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Figure 3: Elkhart County Mapped Soils - SSURGO

Elkhart County Highway Department
610 Steury Avenue
Goshen, IN 46528

CR 26 over Baugo Creek, Bridge Improvement
Des. No. 1902829
Location: near Jamestown
Township: Baugo
County: Elkhart
State: Indiana
Date: 05/18/2022

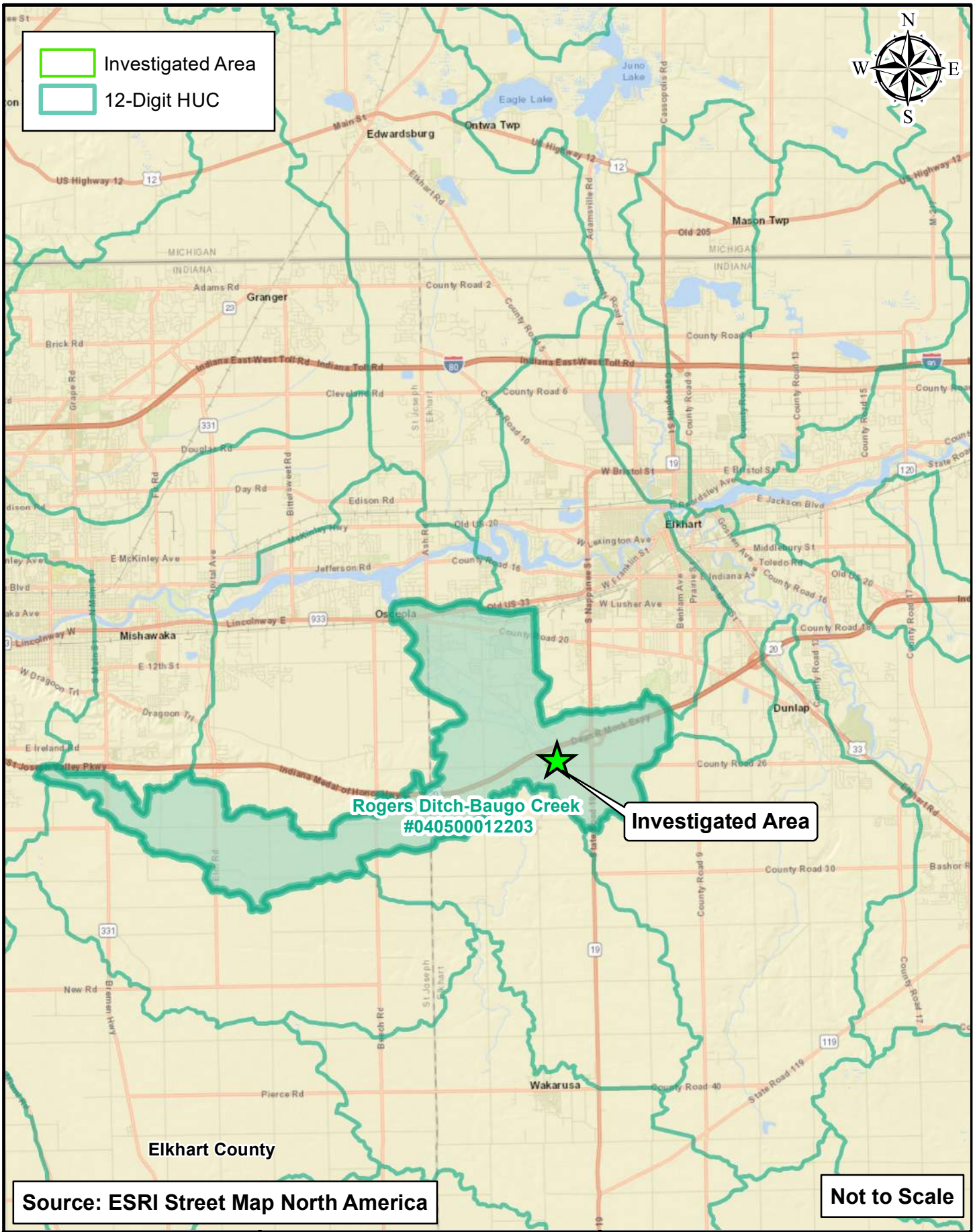

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Figure 4: 12-Digit HUC Map

Elkhart County Highway Department
610 Steury Avenue
Goshen, IN 46528

CR 26 over Baugo Creek, Bridge Improvement
Des. No. 1902829

Location: near Jamestown
Township: Baugo
County: Elkhart
State: Indiana

Date: 04/29/2022

Path: \\IndySANP\Projects\2020\00681\D. Drawings\Environmental\Elkhart Co. Bridge 145\Water\Exhibits\MHE Working\2020.00681.EV.2021.02.12.Bridge145.HUC_WOTUS.FEMA.mhe.mxd Date:5/18/2022 User:mengstrom

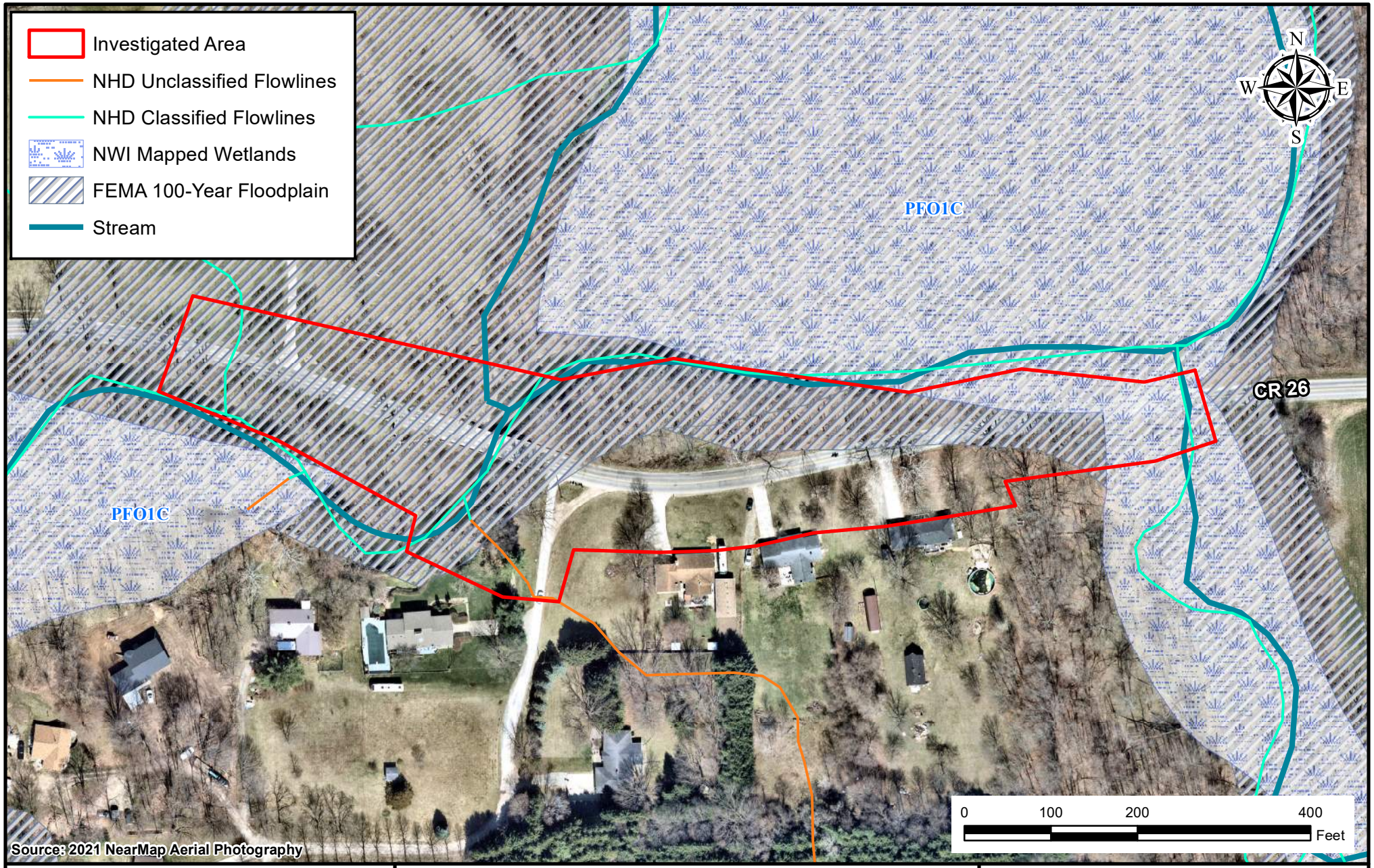

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Figure 5: NWI Wetlands, NHD Classified and Unclassified Flowlines, and FEMA 100-Year Floodplain Map

Elkhart County Highway Department
610 Steury Avenue
Goshen, IN 46528

CR 26 over Baugo Creek, Bridge Improvement
Des. No. 1902829

Location: near Jamestown
Township: Baugo
County: Elkhart
State: Indiana

Date: 05/18/2022

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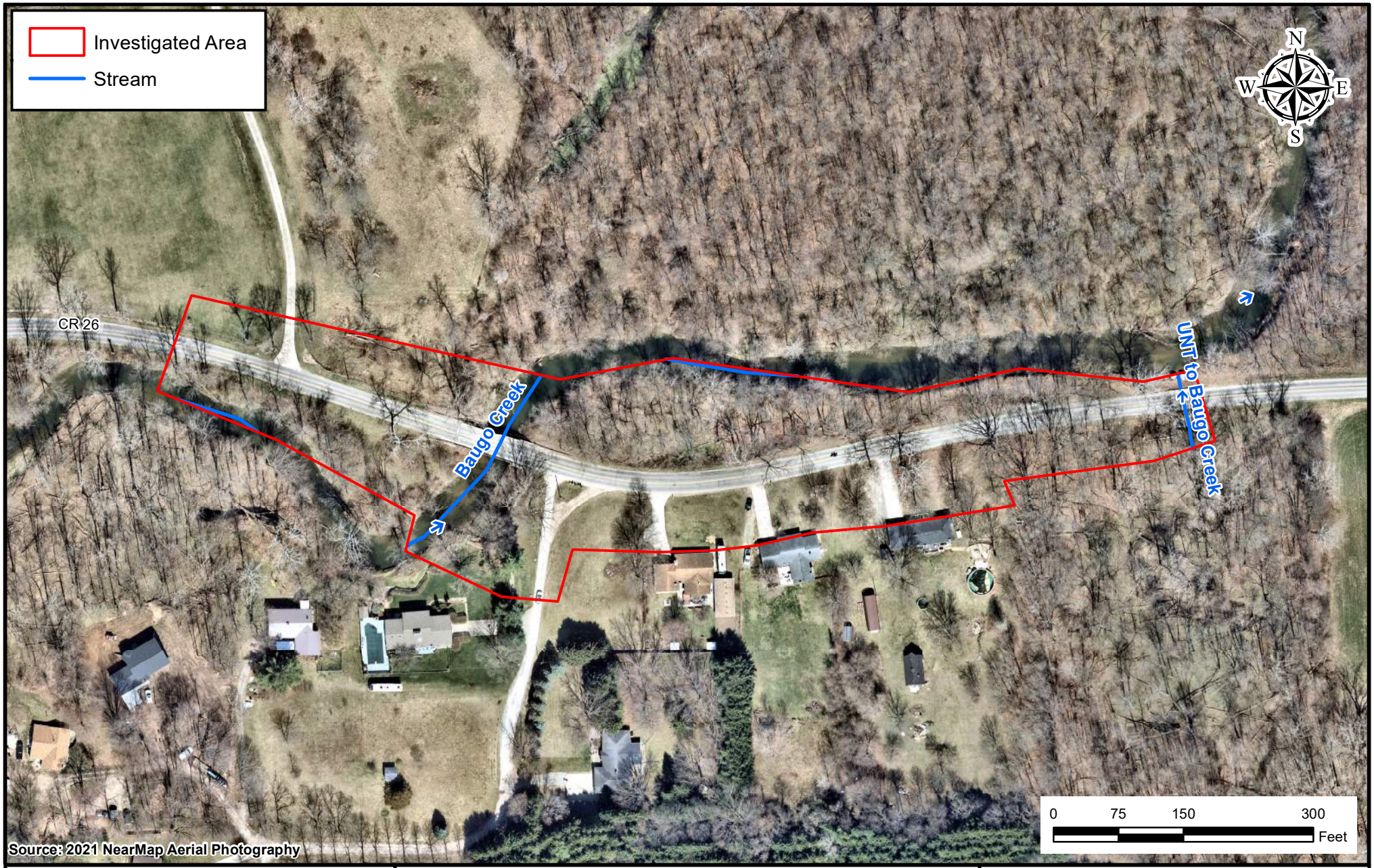

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Figure 6: 2021 NearMap Aerial Photography and Water Resources Map

Elkhart County Highway Department
610 Steury Avenue
Goshen, IN 46528

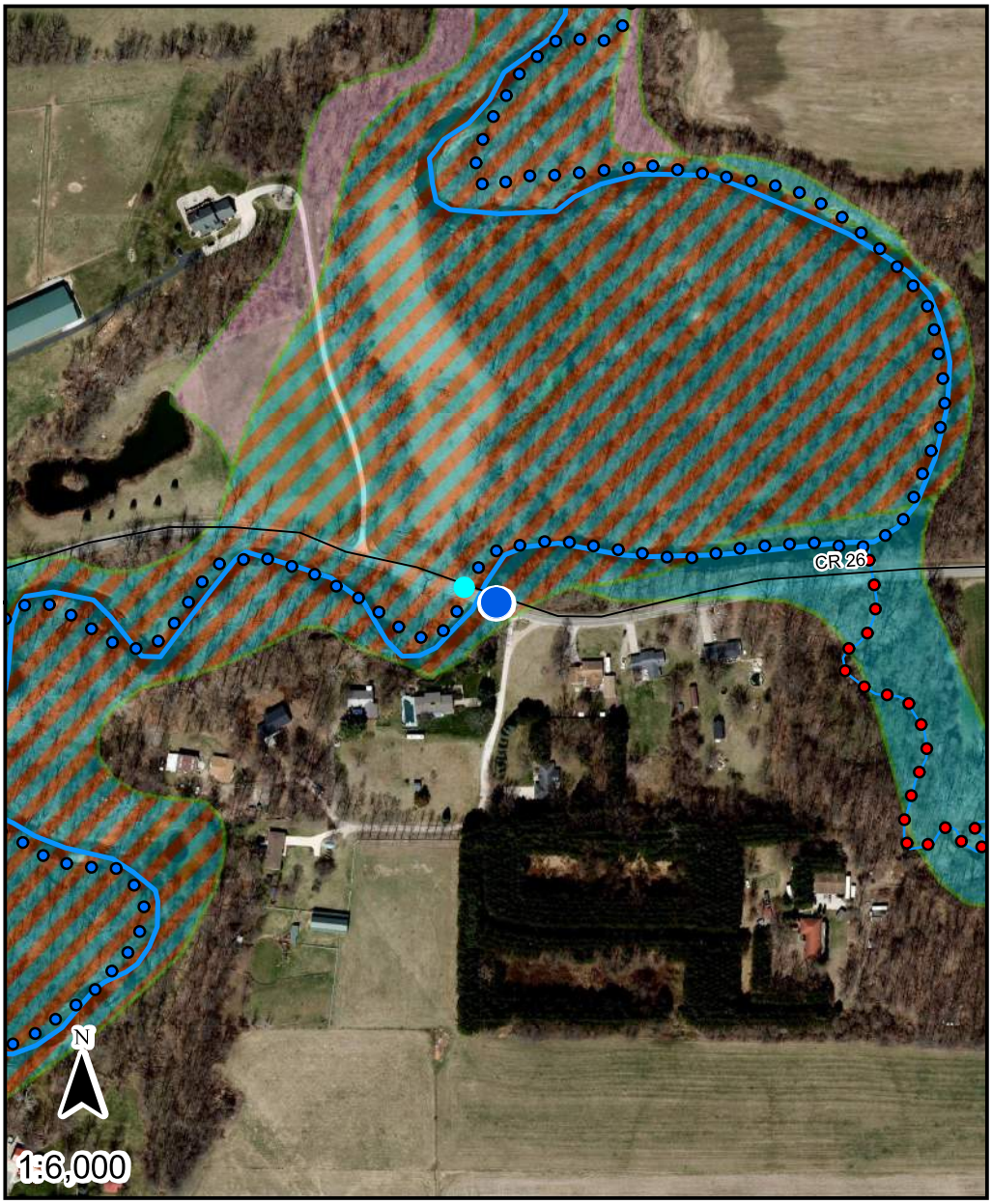
CR 26 over Baugo Creek, Bridge Improvement
Des. No. 1902829

Location: near Jamestown
Township: Baugo
County: Elkhart
State: Indiana

Date: 05/18/2022

Floodplain Analysis & Regulatory Assessment (FARA)

Indiana Department of Natural Resources



Point of Interest

Base Flood Elevation Point

Flood Elevation Points

STUDIED STREAM

JURISDICTIONAL UNSTUDIED STREAM

Rivers and Streams at least 1 square mile

Drainage Area (sq. miles)

1 - 10

10 - 100

FEMA Zone AE Floodway; FEMA Administrative Floodway

FEMA Zone AE

Additional Floodplain Area; DNR .2 Percent Flood Hazard

Point of Interest Coordinates (WGS84)

Long: **-86.0175506136**

Lat: **41.6232505802**

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

County: **Elkhart**

Stream Name: **Baugo Creek**

Approximate Ground Elevation: **766.5 feet (NAVD88)**

Base Flood Elevation: **763.9 feet (NAVD88)**

Drainage Area: **Not available**

Best Available Flood Hazard Zone: **FEMA Zone AE Floodway**

National Flood Hazard Zone: **FEMA Zone AE Floodway**

Is a Flood Control Act permit from the DNR needed for this location? **yes**

Is a local floodplain permit needed for this location? **yes-**

Floodplain Administrator: **Mae Kratzer, Planner**

Community Jurisdiction: **Elkhart County, County proper**

Phone: **(574) 971-4678**

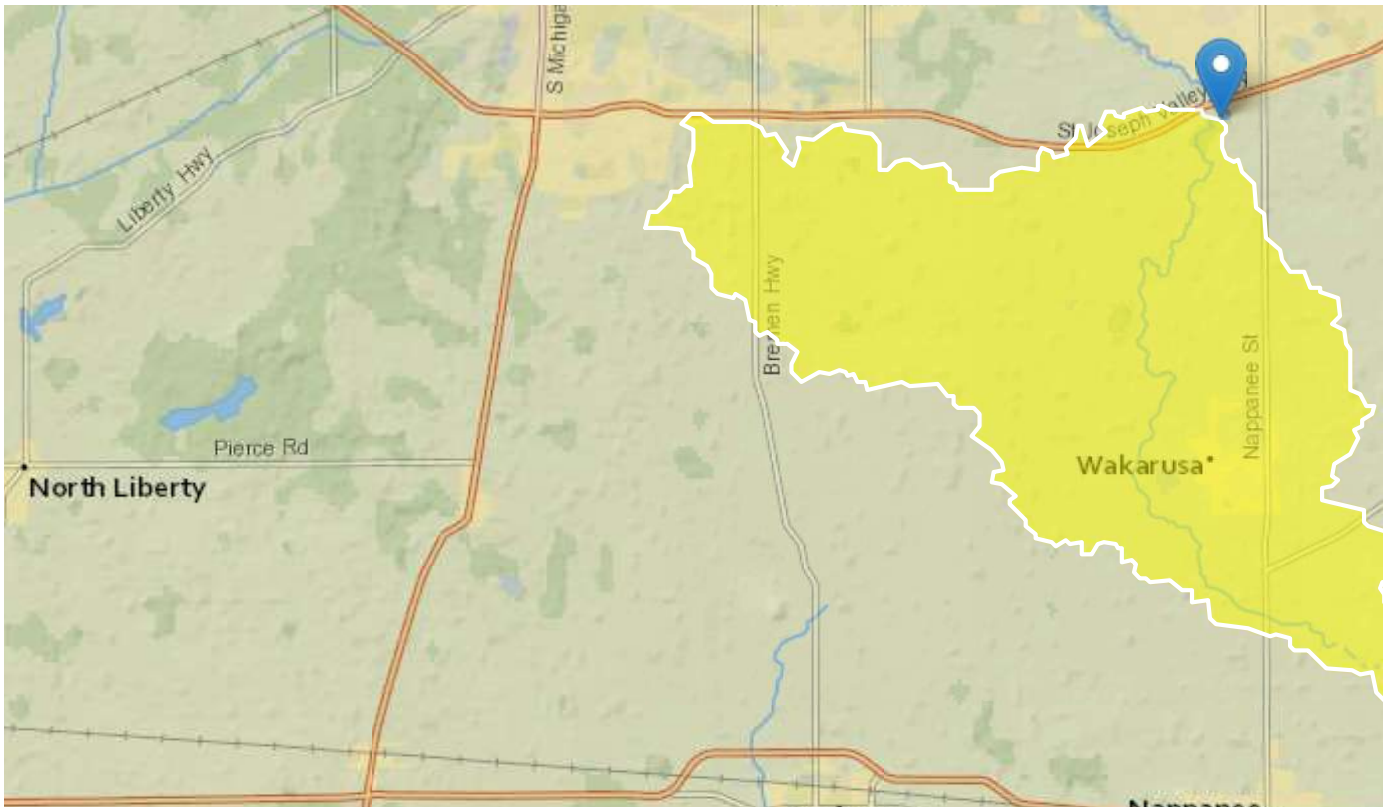
Email: **MKratzer@elkhartcounty.com**

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

Date Generated: 4/20/2022

CR 26 over Baugo Creek StreamStats Report

Region ID: IN
Workspace ID: IN20220630140412408000
Clicked Point (Latitude, Longitude): 41.62314, -86.01741
Time: 2022-06-30 10:04:34 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BFREGNO	BFREGNO	1565	dimensionless
BSLDEM10M	Mean basin slope computed from 10 m DEM	1.66	percent
DRNAREA	Area that drains to a point on a stream	70.104	square miles
K1INDNR	Average hydraulic conductivity (ft/d) for the top 70 ft of unconsolidated deposits from InDNR well database.	20	ft per day

Bankfull Statistics Parameters [USA Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	70.104	square miles	0.07722	59927.7393

Bankfull Statistics Flow Report [Bankfull North Moraine and Lake Region 2013 5078]

Statistic	Value	Unit
Bankfull Width	51.8	ft
Bankfull Depth	2.75	ft
Bankfull Area	139	ft^2

Bankfull Statistics Flow Report [Interior Plains D Bieger 2015]

Statistic	Value	Unit
Bieger_D_channel_width	52.1	ft
Bieger_D_channel_depth	3.37	ft
Bieger_D_channel_cross_sectional_area	160	ft^2

Bankfull Statistics Flow Report [Central Lowland P Bieger 2015]

Statistic	Value	Unit
Bieger_P_channel_width	57.3	ft
Bieger_P_channel_depth	3.81	ft
Bieger_P_channel_cross_sectional_area	147	ft^2

Bankfull Statistics Flow Report [USA Bieger 2015]

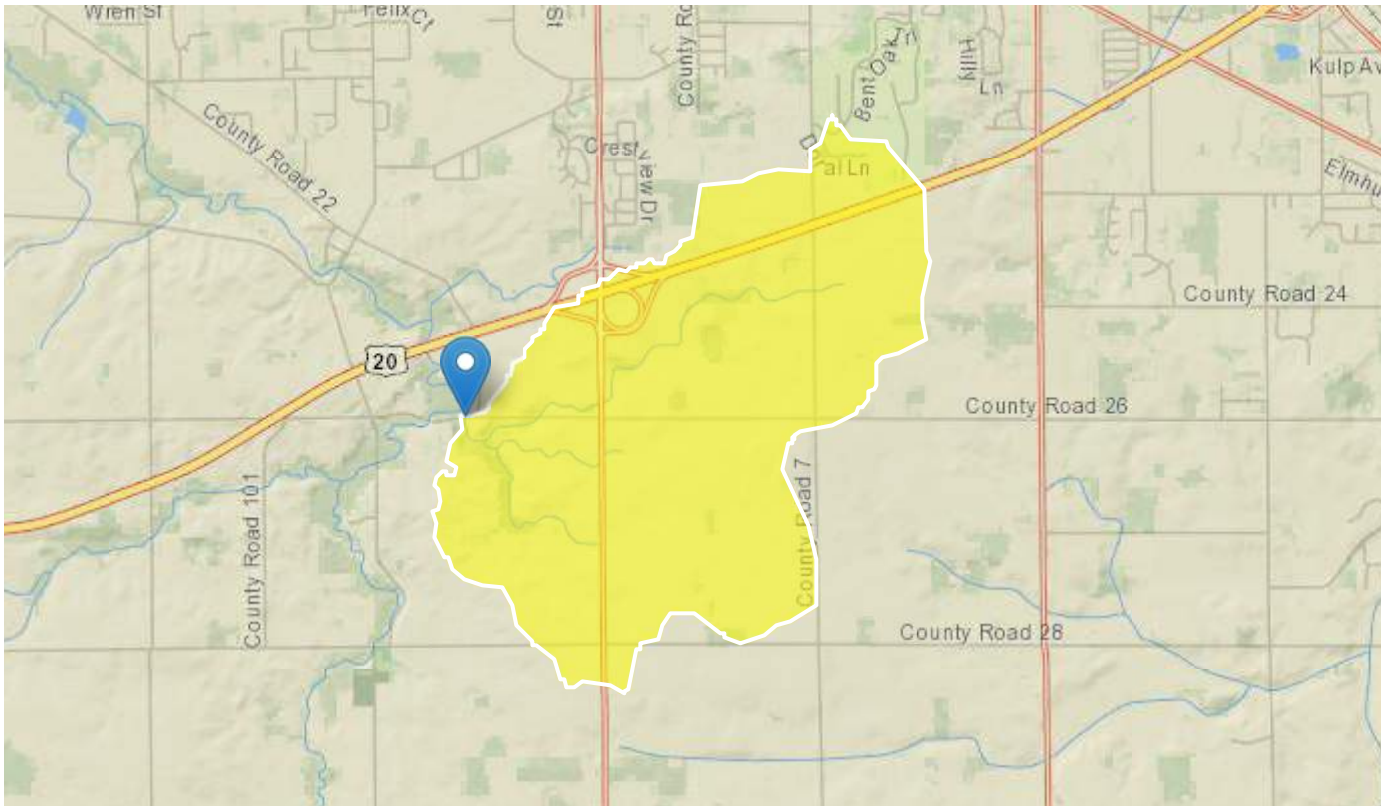
Statistic	Value	Unit
Bieger_USA_channel_width	55.3	ft
Bieger_USA_channel_depth	2.98	ft
Bieger_USA_channel_cross_sectional_area	170	ft^2

Bankfull Statistics Flow Report [Area-Averaged]

Statistic	Value	Unit

UNT to Baugo Creek StreamStats Report

Region ID: IN
Workspace ID: IN20220419155036550000
Clicked Point (Latitude, Longitude): 41.62340, -86.01426
Time: 2022-04-19 11:50:56 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BFREGNO	BFREGNO	1565	dimensionless
DRNAREA	Area that drains to a point on a stream	3.1	square miles
WETLAND	Percentage of Wetlands	0.66	percent

Bankfull Statistics Parameters [Bankfull North Moraine and Lake Region 2013 5078]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit

Statistic	Value	Unit
Bieger_P_channel_cross_sectional_area	35.1	ft^2

Bankfull Statistics Flow Report [USA Bieger 2015]

Statistic	Value	Unit
Bieger_USA_channel_width	18.4	ft
Bieger_USA_channel_depth	1.53	ft
Bieger_USA_channel_cross_sectional_area	31.5	ft^2

Bankfull Statistics Flow Report [Area-Averaged]

Statistic	Value	Unit
Bankfull Width	19.2	ft
Bankfull Depth	1.59	ft
Bankfull Area	29.8	ft^2
Bieger_D_channel_width	17.4	ft
Bieger_D_channel_depth	1.86	ft
Bieger_D_channel_cross_sectional_area	36.8	ft^2
Bieger_P_channel_width	19.9	ft
Bieger_P_channel_depth	2.24	ft
Bieger_P_channel_cross_sectional_area	35.1	ft^2
Bieger_USA_channel_width	18.4	ft
Bieger_USA_channel_depth	1.53	ft
Bieger_USA_channel_cross_sectional_area	31.5	ft^2

Bankfull Statistics Citations

Robinson, B.A.,2013, Regional bankfull-channel dimensions of non-urban wadeable streams in Indiana: U.S. Geological Survey, Scientific Investigations Report 2013–5078, 33 p. (http://pubs.usgs.gov/sir/2013/5078/)

Bieger, Katrin; Rathjens, Hendrik; Allen, Peter M.; and Arnold, Jeffrey G.,2015, Development and Evaluation of Bankfull Hydraulic Geometry Relationships for the Physiographic Regions of the United States, Publications from USDA-ARS / UNL Faculty, 17p. (https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm_medium=PDF&utm_can

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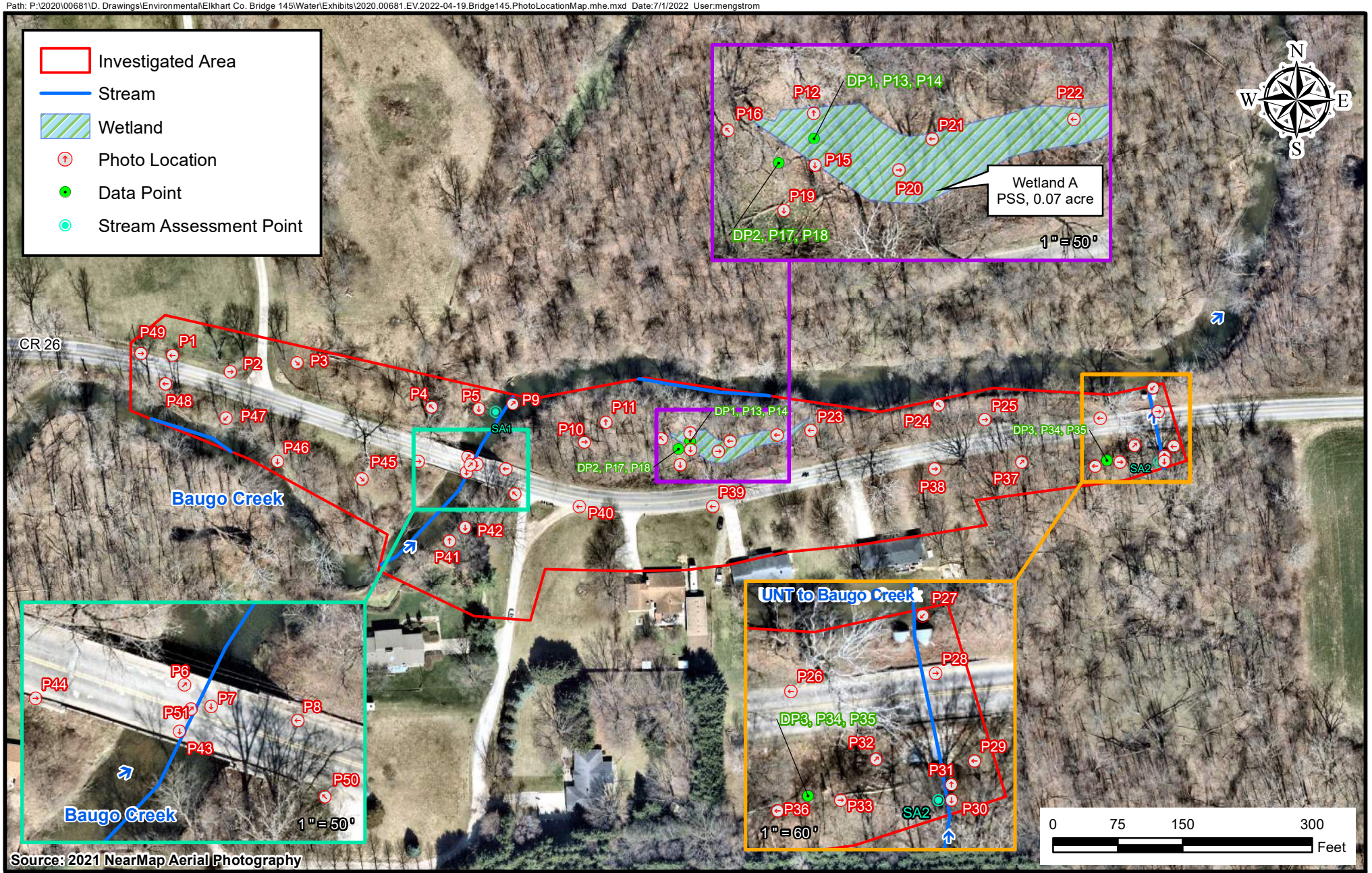

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Figure 10: Field Investigation and Photo Location Map

Elkhart County Highway Department
610 Steury Avenue
Goshen, IN 46528

CR 26 over Baugo Creek, Bridge Improvement
Des. No. 1902829
Location: near Jamestown
Township: Baugo
County: Elkhart
State: Indiana
Date: 05/17/2022

Appendix D - Photographs

Photo 1. Looking west towards outside of investigated area near western limits along CR 26 north ROW

Photo 2. Looking east along CR 26 north ROW towards residential lawn.

Photo 3. Looking southeast towards northern forested area within residential lawn and north ROW near north investigated area limits.

Photo 4. View within northern forested area north of CR 26, looking northwest.

Photo 5. Looking south, upstream Baugo Creek from west bank, north of CR 26 at Stream Assessment 1.

Photo 6. Northeast, downstream view of Baugo Creek from CR 26 Bridge north side.

Photo 7. View under CR 26 Bridge, looking south, upstream of Baugo Creek, showing bank conditions. Note the steel sheet piling along east bank.

Photo 8. Looking west along northside CR 26 Bridge over Baugo Creek.

Photo 9. Looking northeast (downstream) of Baugo Creek, north of Stream Assessment 1, north of CR 26 over Baugo Creek Bridge.

Photo 10. View within northern forest area between Baugo Creek and CR 26, looking east.

Photo 11. View within forested area, north of CR 26, looking north towards Baugo Creek.

Photo 12. Looking north toward Wetland A boundary, north of DP1 at upland transition and start of northern forested area.

Photo 13. Wetland A at DP1 hydric soil sample, dug to 18 inches.

Photo 14. View of DP1 within Wetland A. Wetland A is dominated by herbaceous vegetation and environmentally stunted trees and shrubs.

Photo 15. Looking south from DP 1 within Wetland A south boundary, showing geomorphic position and topography indicators used to delineate wetland.

Photo 16. Looking northwest from DP2 at upland area surrounding Wetland A.

Photo 17. Upland Wetland A at DP2, non-hydric soil sample, dug to 18 inches.

Photo 18. View of DP2 within upland of Wetland A. DP2 is dominated by trees and herbaceous vegetation.

Photo 19. Looking south from DP2 upland of Wetland A at dominant herbaceous and tree vegetation communities.

Photo 20. Looking east from within Wetland A. Sparse vegetation, minimum trees, and increasing topography used to delineate wetland shown here.

Photo 21. Looking west along Wetland A north boundary and upland transition zone.

Photo 22. Looking west within Wetland A.

Photo 23. Looking west within upland forested area. Wetland A can be seen in background as the sparsely vegetated concave depression.

Photo 24. Looking northwest at Baugo Creek south bank at north riparian buffer.

Photo 25. Looking east within northern forested area, north of CR 26.

Photo 26. Looking west toward CR 26 Bridge along CR 26 north ROW.

Photo 26. Looking west along CR 26 north ROW.

Photo 27. Looking southwest at confluence of UNT to Baugo Creek and Baugo Creek at the outlet of the twin pipes.

Photo 28. Looking east along CR 26 north ROW outside of eastern investigated area limits.

Photo 29. Looking west within southern forested area from eastern investigated area limits, south of CR 26.

Photo 30. Looking south, upstream of UNT to Baugo Creek at Stream Assessment 2 showing bank conditions.

Photo 31. Looking north, downstream UNT to Baugo Creek at twin pipe inlets, leading to Baugo Creek confluence.

Photo 32. Looking northeast towards UNT to Baugo Creek at vegetation.

Photo 33. Looking east from DP3 within non-wetland forested area, south of CR 26.

Photo 34. Non-Wetland DP3 non-hydric soil sample, dug to 18 inches.

Photo 35. View of non-wetland DP3. Data point met hydric vegetation but lacked hydric soils and indicators of hydrology.

Photo 36. Looking east at non-wetland forested area, south of CR 26.

Photo 37. Looking northeast within southern forest area at varied topography.

Photo 38. Looking west from south CR 26 ROW at start of southern forested upland area and end of residential lawn.

Photo 39. Looking west from south CR 26 ROW near center of investigated area.

Photo 40. Looking west at CR 26 south ROW near center of investigated area.

Photo 41. Along Baugo Creek, looking downstream, north towards CR 26 Bridge crossing.

Photo 42. View south within Baugo Creek southeast riparian buffer, south of CR 26.

Photo 43. Looking south, downstream of Baugo Creek from CR 26 Bridge.

Photo 44. View east along CR 26 south ROW towards Baugo Creek.

Photo 45. Looking southeast within residential lawn, south of CR 26.

Photo 46. Looking south, downstream Baugo Creek from western stream segment.

Photo 47. View of riparian buffer along western Baugo Creek Stream segment, looking south.

Photo 48. Looking west outside of investigated area from western limits, along CR 26 south ROW.

Photo 49. Looking southeast along CR 26 north ROW, overlooking residential lawn from western portion towards investigated area.

Photo 50. Photo evidence of bats under the CR 26 Bridge over Baugo Creek.

Photo 51. Downstream view of Baugo Creek from under CR 26 Bridge, looking northeast.

Appendix E - Preliminary Jurisdictional Determination

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD:

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: Sarah Everhart, American Structurepoint, Inc.
9025 River Road, Suite 200 Indianapolis, IN 46240

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The Elkhart county Highway Department intends to proceed with the County Road (CR) over Baugo Creek Bridge Improvement project (Des. 1902829) located near Jamestown, Elkhart County, Indiana. The proposed project is to realign and replace the existing bridge crossing CR 26 over Baugo Creek in order to meet horizontal and vertical sight distance standards. The investigated area extends for 820 feet east and 395 feet west from the center of the CR 26 over Baugo Creek Bridge, and a maximum of 145 feet north, and 160 feet south from the centerline of CR 26. The investigated area is located on the Wakarusa United State Geological Survey (USGS) 7.5 Minute Topographic Quadrangle Map in Section 36, Township 27 North, Range 4 East. One wetland (Wetland A) totaling 0.07 acre and two streams (Baugo Creek, UNT to Baugo Creek) totaling 592 linear feet (0.0021 acre) were delineated within the investigated area on May 27, 2021.

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

State: Indiana County/parish/borough: Elkhart County City: near Jamestown

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

Lat.: 41.623258 °N Long.: 86.016843°W

Universal Transverse Mercator: 16 T 582076 E 4608418 N

Name of nearest waterbody: Baugo 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)
Baugo Creek	41.623450	-86.017566	507 linear feet (0.002 acre)	Non-Wetland	Section 404
UNT to Baugo Creek	41.623263	-86.014755	88 linear feet (0.0001 acre)	Non-Wetland	Section 404
Wetland A	41.623349	-86.016739	0.07 acre	Wetland	Section 404

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

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

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

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

☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map:_____

☒ 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: HUC-14;_____.
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.

☒ U.S. Geological Survey map(s). Cite scale & quad name: 7.5 Min Quadrangle.

☒ Natural Resources Conservation Service Soil Survey. Citation: SSURGO

☒ National wetlands inventory map(s). Cite name: 2016 National Wetland Inventory.

☐ State/local wetland inventory map(s):_____.

☒ FEMA/FIRM maps: FEMA 100-Year Floodplain Mapping .

☐ 100-year Floodplain Elevation is:_____.(National Geodetic Vertical Datum of 1929)

☒ Photographs: ☒ Aerial (Name & Date): See Wetland Delineation Report; (Date and Aerial Source) Aerial

or ☒ Other (Name & Date): Field Photos.

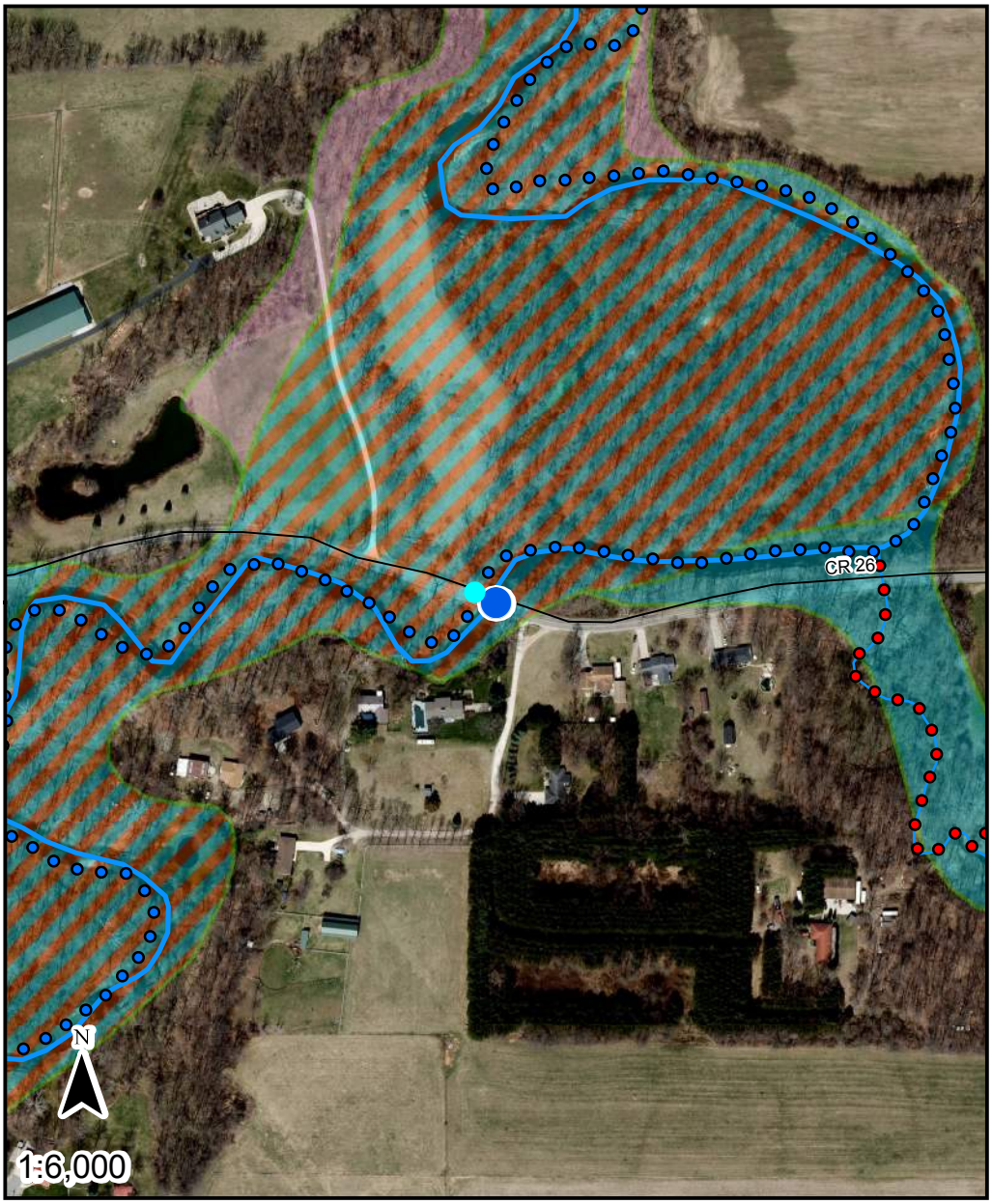
☐ Previous determination(s). File no. and date of response letter:_____.

☐ 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	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.



Point of Interest

Base Flood Elevation Point

Flood Elevation Points

STUDIED STREAM

JURISDICTIONAL UNSTUDIED STREAM

Rivers and Streams at least 1 square mile

Drainage Area (sq. miles)

1 - 10

10 - 100

FEMA Zone AE Floodway; FEMA Administrative Floodway

FEMA Zone AE

Additional Floodplain Area; DNR .2 Percent Flood Hazard

Point of Interest Coordinates (WGS84)

Long: **-86.0176268196**

Lat: **41.6232788885**

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

County: **Elkhart**

Stream Name: **Baugo Creek**

Approximate Ground Elevation: **755.0 feet (NAVD88)**

Base Flood Elevation: **763.9 feet (NAVD88)**

Drainage Area: **Not available**

Best Available Flood Hazard Zone: **FEMA Zone AE Floodway**

National Flood Hazard Zone: **FEMA Zone AE Floodway**

Is a Flood Control Act permit from the DNR needed for this location? **yes**

Is a local floodplain permit needed for this location? **yes-**

Floodplain Administrator: **Mae Kratzer, Planner**

Community Jurisdiction: **Elkhart County, County proper**

Phone: **(574) 971-4678**

Email: **MKratzer@elkhartcounty.com**

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

Date Generated: 5/18/2022

AMERICAN STRUCTUREPOINT INC.

9025 RIVER ROAD, SUITE 200
INDIANAPOLIS, INDIANA 46240
TEL 317.547.5580
FAX 317.543.0270

December 11, 2020

Sample Notice of Survey Letter

Re: Notice of Survey and Environmental Work
Elkhart County Road 26 (Des No. 1902829)
Elkhart, Indiana

Dear Property Owner:

American Structurepoint, Inc., has been retained by the Elkhart County Highway Department to perform survey and environmental work for a bridge improvement project that is located on CR 26 in Baugo Township, Elkhart County, Indiana. The scope of the work that is being conducted is for the bridge over Baugo Creek. The project limits are approximately 500 feet west of the bridge and 1,000 feet east of the bridge between County Road 3 and County Road 22.

Our information indicates you either own or occupy property near this proposed improvement project. Our employees will begin conducting a topographic survey and environmental survey of the project area in the near future and may continue for several weeks. It may be necessary for us to enter onto your property (exterior only) to complete this work. The work may include, but is not limited to shovel probes for archeological studies and wetland identification; topographic survey; photographing; and geotechnical surveys. The information we obtain from the above-mentioned work is necessary for the development of this transportation project. Our employees have been instructed to identify themselves to you, if you are available, before they enter onto your property. If you no longer own this property, or it is currently occupied by someone other than yourself, please let us know the name and/or address of the new owner or occupant so we may contact them about the survey.

Please be advised that you have the right to be compensated for damage that occurs to your property as a result of the entry upon, over, or under your property or work performed during the entry.

Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey. If you have any questions or concerns, please contact me at (317) 547-5580.

Very truly yours,

Thomas McNicholas

Thomas McNicholas, PE
Project Manager

TJM:mgn

2020.00681.0001

DES. # 1902829

LEGAL NOTICE OF PLANNED IMPROVEMENT

The Elkhart County Highway Department is developing plans for the proposed County Road (CR) 26 over Baugo Creek Bridge Improvement project (Des. No. 1902829) located along CR 26 at Bridge No. 20-00145, approximately 0.20 mile west of CR 22, near Jamestown, in Baugo Township, Elkhart County, Indiana.

The purpose of this project is to improve the condition of Bridge No. 20-00145 by increasing the inventory load rating to 36; increasing the bridge sufficiency rating from 40.9 to at least an 80 out of 100; improving the bridge to meet the standard clear roadway width of 30 feet; and improving the bridge and roadway to meet standard horizontal and vertical sight distances. The need for the project is evidenced by the deteriorating condition of Bridge No. 20-00145 which includes a bridge inventory rating of 26 (36 is required); a substandard sufficiency rating of 40.9 (structurally deficient); and substandard geometry of the roadway. The sufficiency rating takes into account bridge condition, geometry, traffic and how well the waterway passes under the bridge.

The proposed project will replace the existing CR 26 over Baugo Creek bridge (Bridge 20-00145) and realign CR 26 to meet horizontal and vertical sight distance standards. The existing 71-foot long, single span, prestressed concrete box beam bridge will be replaced with a 97-foot, 6-inch composite prestressed concrete hybrid bulb-tree beam bridge. The out-to-out coping width of the new superstructure will be 35-feet with a clear roadway width of 32-feet. The bridge will have a 13-degree skew and the center of the bridge will be shifted approximately 16-feet south. The vertical alignment of the bridge and roadway will be raised by approximately 4-feet to meet vertical site distance standards and have a superelevation of 4%. The existing bridge abutments will be removed and replaced. Class I riprap over geotextile will be installed at the bridge abutments for scour protection and across the stream channel. Additionally, riprap drainage turnouts with sodding strips and riprap keyways will be installed for drainage.

The bridge typical section will consist of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by 5-foot-wide paved shoulders and 1-foot, 4-inch-wide concrete bridge rails. The existing approach slabs will be removed and replaced. The typical section of the new approach slabs east and west of the bridge will consist of two 11-foot-wide travel lanes (one eastbound, one westbound) bordered by 5-foot, 4-inch-wide paved shoulders. Guardrail will be replaced along both sides of the roadway approaching the bridge. The roadway will be realigned east and west of the bridge to meet horizontal site distance standards, which will shift the roadway a maximum of approximately 12-feet south. Adjacent drives will be reconstructed to tie-in to the realigned roadway. The roadway typical section will consist of two 11-foot-wide travel lanes (one eastbound, one west bound) bordered by 2-foot-wide paved shoulders.

The proposed construction of this project will require approximately 2.19 acres of new permanent right-of-way and approximately 0.87 acre of temporary right-of-way. No relocations are anticipated as a result of the proposed project.

The maintenance of traffic (MOT) plan will include a full road closure with a detour utilizing SR 19, CR 28, and CR 3. The detour will close CR 26 to through traffic between CR 22 and CR 3. The approximately 3-mile detour will be in place for approximately 8 months. Access to all properties within

and adjacent to the project limits will be maintained at all times during project construction. School corporations and emergency services will be notified of closures prior to construction. The proposed start of construction is February 2025.

The cost associated with this project is approximately $2,848,841 which includes preliminary engineering, right-of-way, construction with both federal and local funds anticipated to be used. The Federal Highway Administration (FHWA) and Indiana Department of Transportation (INDOT) have agreed this project falls within the guidelines of a Categorical Exclusion (CE) Level 2 environmental document. Preliminary design plans along with the CE are available for review at the following locations:

1. Online at the American Structurepoint, Inc. Website – www.structurepointpublic.com/cr26overbaugo
2. Elkhart Public Library – Pierre Moran Branch, 2400 Benham Ave, Elkhart, IN 46517
3. Elkhart County Highway Department – 610 Steury Avenue, Goshen, IN 46528

Persons with limited internet access may request the project information be mailed, please contact Hannah R. Walker at (317) 547-5580 or hwalker@structurepoint.com. A copy of the CE may also be mailed upon request.

All interested persons may request a public hearing be held and/or express their concerns by submitting comments to the attention of Hannah R. Walker, American Structurepoint Inc., 9025 River Road, Suite 200, Indianapolis, IN 46240 or hwalker@structurepoint.com on or before March 17, 2023.

In accordance with the Americans with Disabilities Act (ADA), persons and/or groups requiring project information be made available in alternative formats are encouraged to contact Hannah R. Walker at (317) 547-5580 or hwalker@structurepoint.com for the arrangement and coordination of services. In accordance with Title VI of the Civil Rights Act of 1964, persons and/or groups requiring project information be made available in another language are encouraged to contact Hannah R. Walker at (317) 547-5580 or hwalker@structurepoint.com.

This notice is published in compliance with: 1) Code of Federal Regulations, Title 23, Section 771 (CFR 771.111(h)(1) stating, "Each State must have procedures approved by the FHWA to carry out a public involvement/public hearing program."; 2) 23 CFR 450.210(a)(1)(ix) stating, "Provide for the periodic review of the effectiveness of the public involvement process to ensure that the process provides full and open access to all interested parties and revise the process, as appropriate."; and 3) The *INDOT Project Development Public Involvement Procedures* approved by the Federal Highway Administration on July 7, 2021.

AFFP
DES. # 1902829

Affidavit of Publication

STATE OF IN }
COUNTY OF ELKHART } SS

Connie Muhlbradt, being duly sworn, says:

That she is Advertising Clerk of the Elkhart Truth, a daily newspaper of general circulation, printed and published in Elkhart, Elkhart County, IN; that the publication, a copy of which is attached hereto, was published in the said newspaper on the following dates:

March 03, 2023
March 10, 2023

Publication Fees: $ 127.98

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

Subscribed to and sworn to me this 10th day of March 2023.

Hope R Stevens, Notary Public 06/07/2024

70084669 70607840

Hannah Walker
American Structurepoint
9025 River Road Suite 200
Indianapolis, IN 46240

DES. # 1902829
LEGAL NOTICE OF PLANNED IMPROVEMENT

The Elkhart County Highway Department Is developing plans for the proposed County Road (CR) 26 over Baugo Creek Bridge Improvement project (Des. No. 1902829) located along CR 26 at Bridge No. 20-00145, approximately 0.20 mile west of CR 22, near Jamestown, in Baugo Township, Elkhart County, Indiana.

The purpose of this project is to improve the condition of Bridge No. 20-00145 by increasing the inventory load rating to 36; increasing the bridge sufficiency rating from 40.9 to at least an 80 out of 100; improving the bridge to meet the standard clear roadway width of 30 feet; and improving the bridge and roadway to meet standard horizontal and vertical sight distances. The need for the project is evidenced by the deteriorating condition of Bridge No. 20-00145 which includes a bridge inventory rating of 26 (36 is required); a substandard sufficiency rating of 40.9 (structurally deficient); and substandard geometry of the roadway. The sufficiency rating takes into account bridge condition, geometry, traffic and how well the waterway passes under the bridge.

The proposed project will replace the existing CR 26 over Baugo Creek bridge (Bridge 20-00145) and realign CR 26 to meet horizontal and vertical sight distance standards. The existing 71-foot long, single span, prestressed concrete box beam bridge will be replaced with a 97-foot, 6-inch composite prestressed concrete hybrid bulb-tree beam bridge. The out-to-out coping width of the new superstructure will be 35-feet with a clear roadway width of 32-feet. The bridge will have a 13-degree skew and the center of the bridge will be shifted approximately 16-feet south. The vertical alignment of the bridge and roadway will be raised by approximately 4-feet to meet vertical site distance standards and have a superelevation of 4%. The existing bridge abutments will be removed and replaced. Class I riprap over geotextile will be installed at the bridge abutments for scour protection and across the stream channel. Additionally, riprap drainage turnouts with sodding strips and riprap keyways will be installed for drainage.

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The proposed construction of this project will require approximately 2.19 acres of new permanent right-of-way and approximately 0.87 acre of temporary right-of-way. No relocations are anticipated as a result of the proposed project.

The maintenance of traffic (MOT) plan will include a full road closure with a detour utilizing SR 19, CR 28, and CR 3. The detour will close CR 26 to through traffic between CR 22 and CR 3. The approximately 3-mile detour will be in place for approximately 8 months. Access to all properties within and adjacent to the project limits will be maintained at all times during project construction. School corporations and emergency services will be notified of

closures prior to construction. The proposed start of construction is February 2025.

The cost associated with this project is approximately $2,848,841 which includes preliminary engineering, right-of-way, construction with both federal and local funds anticipated to be used. The Federal Highway Administration (FHWA) and Indiana Department of Transportation (INDOT) have agreed this project falls within the guidelines of a Categorical Exclusion (CE) Level 2 environmental document. Preliminary design plans along with the CE are available for review at the following locations:

1. Online at the American Structurepoint, Inc. Website – www.structurepointpublic.com/cr26overbaugo
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3. Elkhart County Highway Department – 610 Steury Avenue, Goshen, IN 46528

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This notice is published in compliance with: 1) Code of Federal Regulations, Title 23, Section 771 (CFR 771.111(h)(1) stating, "Each State must have procedures approved by the FHWA to carry out a public involvement/public hearing program."; 2) 23 CFR 450.210(a)(1)(ix) stating, "Provide for the periodic review of the effectiveness of the public involvement process to ensure that the process provides full and open access to all interested parties and revise the process, as appropriate."; and 3) The INDOT Project Development Public Involvement Procedures approved by the Federal Highway Administration on July 7, 2021.
hspaxlp

Public Notice Mailing List

Project Name:	CR 26 over Baugo Creek
Route/Street:	CR 26
DES No:	1902829
Location:	near Jamestown, Elkhart County, Indiana
ASI Project No:	2020.00681

Salu	Name	Title	Attn:	Agency/Company	Address 1	Address 2	City	State	Zip	Delivery Method
Mr. Tucker	Mr. Miguel Tucker	Project Manager		INDOT Fort Wayne District Office						Email
Ms. Gill	Ms. Arianna Gill	Sr Environmental Mngr Supervisor		INDOT Fort Wayne District Office						Email
Mr. Turnwald	Mr. James Turnwald	Executive Director		Michiana Area Council of Governments			South Bend	Indiana	46601	Email
Mr. Hess	Mr. Jim Hess	District Manager		Elkhart County Soil and Water Conservation District	59358 County Road 7		Elkhart	Indiana	46517	Email
Sir or Madam				Elkhart County Council Members	117 North Second Street, Room 203		Goshen	Indiana	46526	Mail
Sheriff Siegel	Mr. Jeff Siegel	Elkhart County Sheriff		Elkhart County Sheriff's Office	26861 County Road 26		Elkhart	Indiana	46517	Mail
Mr. Barker	Mr. Phil Barker	Surveyor		Elkhart County Surveyor	4230 Elkhart Road		Goshen	Indiana	46256	Email
Mr. Sanders	Mr. Byron Sanders	Superintendent		Baugo Community Schools	29125 County Road 22 West		Elkhart	Indiana	46517	Email
Ms. Kratzer	Ms. Mae Kratzer	Planner		Elkhart County Floodplain Administrator						Email
Mr. Heiliger	Mr. John Heiliger	Elkhart County MS4 Coordinator/Operator		MS4 Coordinator						Email
Ms. Tobey	Ms. Jennifer Tobey	Director of Emergency Management		Elkhart County EMA						Email
	Darin & Michelle Miller				59976 County Road 3		Elkhart	Indiana	46517	Mail
	Greg & Pamela Dennis				59925 County Road 22		Elkhart	Indiana	46517	Mail
	Alicia K. Brenneman				60094 County Road 7		Elkhart	Indiana	46517	Mail
	Andrew & Alicia Figueroa				28680 W County Road 26		Elkhart	Indiana	46517	Mail
	Brandon & Nicole LaPlace				28708 County Road 26		Elkhart	Indiana	46517	Mail
	William & Constance Coffey				28728 County Road 26		Elkhart	Indiana	46517	Mail
	Jason & Tonda Miller				28752 County Road 26		Elkhart	Indiana	46517	Mail
	William G. Burke				28756 County Road 26		Elkhart	Indiana	46517	Mail
	Terry & Marian Frick				28754-3 County Road 26		Elkhart	Indiana	46517	Mail
	Arlene Silba				28754 County Road 26		Elkhart	Indiana	46517	Mail
	Kevin & Kathleen Johnston				28754 County Road 26		Elkhart	Indiana	46517	Mail
	Brett & Amy Vail				57388 Penny Lane		Elkhart	Indiana	46517	Mail
	Douglas Thursby				28754-2 County Road 26		Elkhart	Indiana	46517	Mail

CR 26 OVER BAUGO CREEK
BRIDGE IMPROVEMENT PROJECT
NEAR JAMESTOWN, ELKHART COUNTY, INDIANA
DES. NO. 1902829

PROJECT INFORMATION PACKET

Contact: Hannah R. Walker, American Structurepoint, Inc.

(317) 547-5580 or **hwalker@structurepoint.com**

February 28, 2023

Dear Concerned Citizens, Local Residents, and Elected/Local Public Officials:

The purpose of this Project Information Packet is to explain the proposed project and to receive your comments, concerns, and suggestions and/or request for a public hearing. There are several ways your comments may be submitted, as outline below:

1. **E-mail** comments to Hannah R. Walker of American Structurepoint, Inc. at hwalker@structurepoint.com.
2. **Mail** comments to Hannah R. Walker of American Structurepoint, Inc. at 9025 River Road, Suite 200, Indianapolis, Indiana 46240.
3. **Submit** comments online at www.structurepointpublic.com/cr26overbaugo
4. **Fax** comments to Hannah R. Walker of American Structurepoint, Inc. at (317) 547-2070.

Please submit comments by (or have comments postmarked by) **March 17, 2023**. Comments will be reviewed and considered as part of the decision making process. If you have any questions concerning the proposed project or submitting comments, please contact Hannah R. Walker of American Structurepoint, Inc. at (317) 547-5580 or hwalker@structurepoint.com.

Preliminary design plans along with the CE document and other project documents are available for review at following locations:

1. Online at the American Structurepoint, Inc. Website – www.structurepointpublic.com/cr26overbaugo
2. Elkhart Public Library – Pierre Moran Branch, 2400 Benham Ave, Elkhart, IN 46517
3. Elkhart County Highway Department – 610 Steury Avenue, Goshen, IN 46528

The CR 26 over Baugo Creek Bridge Improvement Project Team thanks you for your participation in this project.

Project Description

The Elkhart County Highway Department, with funding from the Federal Highway Administration (FHWA) and administrative oversight from the Indiana Department of Transportation (INDOT), is developing plans for the proposed CR 26 over Baugo County Bridge Improvement Project (Des. No. 1902829) located along CR 26 at Bridge No. 20-00145 approximately 0.20 mile west of CR 22, near Jamestown, in Baugo Township, Elkhart County, Indiana.

The need for the project is evidenced by the deteriorating condition of Bridge No. 20-00145 which includes a bridge inventory rating of 26 (36 is required); a substandard sufficiency rating of 40.9 (structurally deficient); and substandard geometry of the roadway. The sufficiency rating takes into account bridge condition, geometry, traffic and how well the waterway passes under the bridge. The purpose of this project is to improve the condition of Bridge No. 20-00145 by increasing the inventory load rating to 36; increasing the bridge sufficiency rating from 40.9 to at least an 80 out of 100; improving the bridge to meet the standard clear roadway width of 30 feet; and improving the bridge and roadway to meet standard horizontal and vertical sight distances.

The project proposes to replace the existing CR 26 over Baugo Creek bridge (Bridge 20-00145) and realign CR 26 to meet horizontal and vertical sight distance standards. The existing 71-foot long, single span, prestressed concrete box beam bridge will be replaced with a 97-foot, 6-inch composite prestressed concrete hybrid bulb-tree beam bridge. The out-to-out coping width of the new superstructure will be 35-feet with a clear roadway width of 32-feet. The bridge will have a 13-degree skew and the center of the bridge will be shifted approximately 16-feet south. The vertical alignment of the bridge and roadway will be raised by approximately 4-feet to meet vertical site distance standards and have a superelevation of 4%. The existing bridge abutments will be removed and replaced. Class I riprap over geotextile will be installed at the bridge abutments for scour protection and across the stream channel. Additionally, riprap drainage turnouts with sodding strips and riprap keyways will be installed for drainage.

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emergency services will be notified of closures prior to construction. The proposed start of construction is February 2025.

Project Schedule

Milestone	Completed/Expected Dates
Environmental Document Release for Public Involvement	February 27, 2023
Public Comment Opportunity	March 17, 2023
Right-of-Way Acquisition Begins	June 2023
Anticipated Construction Start	February 2025

Description of Right-of-Way

The project will require the acquisition of right-of-way. Acquisition information can also be viewed at the online at the project website www.structurepointpublic.com/cr26overbaugo or on FHWA's website at http://www.fhwa.dot.gov/real_estate/. The project requires approximately 2.19 acres of permanent ROW due to the construction of the new bridge, realignment of CR 26, and associated grading. Of the 2.19 acres of permanent ROW, 1.17 acres will be from residential properties, 0.92 acre will be from forested land, 0.002 acre will be from wetlands, and 0.09 acre will be from Baugo Creek. The project requires approximately 0.87 acre of temporary ROW due to grading. Of the 0.87 acre of temporary ROW, 0.29 acre will be from residential properties, 0.41 acre will be from forested lands, 0.68 acre will be from wetlands, and 0.07 acre will be from Baugo Creek. No relocations are required.

Estimated Project Cost

The estimated cost for this project is $2,848,841 which includes design, right-of-way, and construction costs. Both federal and local funding will be used. The project is included in the 2022-2026 Statewide Transportation Improvement Program.

Maintenances of Traffic (MOT)

The MOT plan for the project includes a full road closure with a detour utilizing SR 19, CR 28, and CR 3. The detour will close CR 26 to through traffic between CR 22 and CR 3. The approximately 3-mile detour will be in place for approximately 8 months. Access to all properties within and adjacent to the project limits will be maintained at all times during project construction. School corporations and emergency services will be notified of closures prior to construction.

Environmental Documentation

The FHWA and INDOT have reviewed the Categorical Exclusion (CE) Level 2 environmental document prepared by American Structurepoint, Inc. for this project and released the document for public involvement on February 27, 2023. The CE evaluates the impact of the CR 26 over Baugo Creek Bridge Improvement Project on the natural and human environment. No area of potentially significant impacts has been identified.

Water Resources

The project area was examined for the presence of wetlands and "waters of the U.S." One wetland (Wetland A) and two streams (Baugo Creek and an unnamed tributary to Baugo Creek) were identified within the project area as potentially regulated resources.

The preferred alternative is anticipated to permanently impact approximately 0.07 acre of wetland and approximately 65 linear-feet of streams. It is anticipated that the impacts to the wetland and streams will required the issuance of an Indiana Department of Environmental Management (IDEM) 401 Regional General Permit (RGP), a USACE 404 RGP. Additionally, an Indiana Department of Natural Resources (IDNR) Navigable Waterways Permit will be required for work below the ordinary high water mark (OHWM) of Baugo Creek. No mitigation is anticipated but will be determined during permitting.

Additionally, the project occurs within the 100-year floodplain of Baugo Creek, therefore a formal application for a Construction in a Floodway (CIF) permit from the IDNR is required pursuant to the Flood Control Act (IC-14-28-1).

Terrestrial Habitat

The project will impact a total of approximately 1.91 acres of terrestrial habitat due to the construction of the new bridge, realigning CR 26, associated grading, and placement of Class I riprap. Of the approximately 1.91 acres of terrestrial habitat impact, approximately 0.91 acre is residential lawns and approximately 1.00 acre is trees. Tree removal will occur during bat inactive season (between October 1st and March 31st). Mitigation for tree clearing is not necessary as tree clearing will occur within 100 feet from the existing roadway.

For more information regarding the project plans and potential impacts of the proposed project, please refer to the CE document, which is available at the following locations:

1. Online at the American Structurepoint, Inc. Website – www.structurepointpublic.com/cr26overbaugo
2. Elkhart Public Library – Pierre Moran Branch, 2400 Benham Ave, Elkhart, IN 46517
3. Elkhart County Highway Department – 610 Steury Avenue, Goshen, IN 46528

Comment Sheet

Please provide your comments, concerns and/or suggestions regarding the proposed County Road (CR) 26 over Baugo Creek Bridge Improvement project (Des. No. 1902829) located along CR 26 at Bridge No. 20-00145 approximately 0.20 mile west of CR 22, near Jamestown, in Baugo Township, Elkhart County, Indiana. Your comments are important to us, and we sincerely appreciate your time and participation during the public involvement process. Please submit comments by **March 17, 2023**. **Comments may be mailed, faxed, emailed, or submitted online:**

Mail:
American Structurepoint, Inc.
Attn: Hannah Walker
9025 River Road, Suite 200
Indianapolis, Indiana 46240

Email:
hwalker@structurepoint.com

Fax:
(317) 543-0270

Online:
www.structurepointpublic.com/cr26overbaugo

NAME: _____

ADDRESS: _____

COMMENT: _____

SIGNATURE: _____

INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (855) 463-6848

Eric Holcomb, Governor
Michael Smith, Commissioner

April 26, 2022

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

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

Dear Mr. Hannon /Ms. Brookins:

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

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

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

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

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

We greatly appreciate FHWA/FTA support in the development of the STIP 2022-2026 and look forward to working together to achieve our mutual goals. Should you have any questions pertaining to this amendment, please contact Michael McNeil, STIP Specialist at 317-232-0223 or at mmcneil@indot.in.gov.

Sincerely,

Michael Smith, Commissioner
Indiana Department of Transportation

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

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

U.S. Department
of Transportation

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

June 17, 2022

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

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

Dear Mr. Smith:

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

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

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

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

Sincerely,

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

Kelley Brookins
Regional Administrator
FTA Region V

Sincerely,

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

Jermaine R. Hannon
Division Administrator
FHWA Indiana Division

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

Sponsor	DES	Contract	Resolution	Route	Location	Work Type	Fund Type	Phase	Federal	Match	SFY 2022	SFY 2023	SFY 2024	SFY 2025	SFY 2026	Estimated Total Project Cost	Letting Date
Elkhart	1801611	R-41395	M03-21		Bristol St: from Jeanwood Dr. to CR 15	Added Travel Lanes	STBG	RW	$ 480,000	$ 120,000	$ 600,000					$ 7,400,000	10/12/2023
Elkhart	1801611	R-41395	Res. 26-19		Bristol St: from Jeanwood Dr. to CR 15	Added Travel Lanes	STBG	CN	$ 4,800,000	$ 1,200,000			$ 6,000,000			$ 7,400,000	10/12/2023
Elkhart	1801933	B-41845	Res. 06-22		Hively Avenue, east of Main St, crossing the NS Railroad	New Bridge, Other	Local Trax	PE	$ 1,058,937	$ -	$ 1,058,937					$ 24,138,193	7/12/2023
Elkhart	1801933	B-41845	M02-22		Hively Avenue, east of Main St, crossing the NS Railroad	New Bridge, Other	Local Trax	RW	$ 2,625,000	$ 875,000		$ 3,500,000				$ 24,138,193	7/12/2023
Elkhart	1801933	B-41845	M02-22		Hively Avenue, east of Main St, crossing the NS Railroad	New Bridge, Other	Local Trax	CN	$ 7,991,301	$ 2,345,568			$ 10,336,869			$ 24,138,193	7/12/2023
Elkhart	1900821	B-41845	M03-22		Hively Avenue, east of Main St, crossing the NS Railroad	New Bridge, Other	Local Trax	CN	$ 1,634,650	$ 4,081,537			$ 5,716,187			$ 24,138,193	7/12/2023
Elkhart	2001662	B-41845	M04-22		Hively Avenue, east of Main St, crossing the NS Railroad	New Bridge, Other	Local Trax	CN	$ 2,742,600	$ 783,600			$ 3,526,200			$ 24,138,193	7/12/2023
Elkhart Co.	1401749	R-38158	M12-21		CR 18 at CR 13 and CR 115 Intersection	Intersection Improvement	CMAQ	CN	$ 1,916,000	$ 479,000		$ 2,395,000				$ 3,750,164	11/16/2022
Elkhart Co.	1592887	_	Res. 20-17	Various	Countywide Bridge Inspection and inventory program for Cycle Years 2018-2021	Bridge Inspections	Bridge	PE	$ 54,386	$ 13,597	$ 67,983					$ 67,983	2022
Elkhart Co.	2100291		Res. 06-22		Countywide Bridge Inspection and Inventory Program for Cycle Years 2023-2024	Bridge Inspections	Bridge	PE	$ 183,846	$ 45,961		$ 206,640	$ 23,167			$ 229,807	2025
Elkhart Co.	1700310	R-40098	Res. 07-20		CR 17 Multi-Use Path: From US 33 to CR 45	Bike/Pedestrian Facilities	CMAQ	CN	$ 2,878,765	$ 719,691		$ 3,598,456				$ 3,771,555	1/19/2023
Elkhart Co.	1702848	R-41142	Res. 24-21		CR 40: from SR 19 to CR 7	Road Reconstruction (3R/4R Standards)	ST STBG	CN	$ 1,893,340	$ 473,335		$ 2,366,675				$ 2,387,845	12/7/2022
Elkhart Co.	1900465	B-419953	Res. 38-19		Bridge #312: on CR 142 over Turkey Creek	Bridge Replacement	ST STBG	RW	$ 30,151	$ 7,538		$ 37,689				$ 2,282,179	3/13/2024
Elkhart Co.	1900465	B-419953	Res. 38-19		Bridge #312: on CR 142 over Turkey Creek	Bridge Replacement	ST STBG	CN	$ 1,795,592	$ 448,898			$ 2,244,490			$ 2,282,179	3/13/2024
Elkhart Co.	1900486	B-42769			CR 17 from CR 142 to CR 38	New Road Construction	STBG	RW	$ 1,949,414	$ 487,354		$ 497,768		$ 1,939,000		$ 25,944,000	7/9/2025
Elkhart Co.	1900821	B-41846			Sunnyside Ave/ Mall Dr at US 33 (Main St) over NS Railroad	New Bridge Construction	Local Trax	PE	$ 2,712,744	$ 164,700		$ 2,877,444				$ 27,015,962	3/15/2023
Elkhart Co.	1801913	B-41846	25-21		Sunnyside Ave/ Mall Dr at US 33 (Main St) over NS Railroad	New Bridge Construction	Local Trax	RW	$ 4,562,446	$ 1,440,772	$ 3,650	$ 5,999,569				$ 22,239,675	3/15/2023
Elkhart Co.	1801913	B-41846	26-21		Sunnyside Ave/ Mall Dr at US 33 (Main St) over NS Railroad	New Bridge Construction	Local Trax	CN	$ 6,266,804	$ 8,708,133		$ 14,974,937				$ 22,239,675	3/15/2023
Elkhart Co.	1900836		Res 33-21		County Bridge 148 - Sunnyside Ave / Mall Dr at US 33 over Norfolk Southern Railroad	New Bridge Construction	ST Bridge	PE	$ 2,413,550	$ -	$ 2,413,550					$ 9,175,523	5/10/2023
Elkhart Co.	1900836	B-41846	27-21		County Bridge 148 - Sunnyside Ave / Mall Dr at US 33 over Norfolk Southern Railroad	New Bridge Construction	Local Trax	CN	$ 3,694,427	$ 974,354		$ 4,668,781				$ 9,175,523	5/10/2023
Elkhart Co.	1902829	B-42769	Res. 16-20		Bridge 145: on CR 26 over Baugo Creek	Bridge Rehabilitation of Repair	ST Bridge	RW	$ 43,073	$ 10,768		$ 57,841				$ 2,440,652	12/11/2024
Elkhart Co.	1902829	B-42769			Bridge 145: on CR 26 over Baugo Creek	Bridge Rehabilitation of Repair	ST Bridge	CN	$ 1,909,449	$ 477,362				$ 2,386,811		$ 2,440,652	12/11/2024
Elkhart Co.	2100065		Res 33-21		Extension and realignment of CR 13 from Sunnyside Avenue to CR 45	New Bridge Construction	ST Bridge	RW	$ -	$ 250,000		$ 250,000				$ 2,032,990	5/10/2023
Elkhart Co.	2100065	B-41846	30-21		Extension and realignment of CR 13 from Sunnyside Avenue to CR 45	New Bridge Construction	Local Trax	CN	$ -	$ 1,349,800		$ 1,349,800				$ 2,032,990	5/10/2023
Elkhart Co.	2001723	B-41846	28-21		County Bridge 151 - Concord Mall Drive over Yellow Creek	New Bridge Construction	Local Trax	CN	$ 997,912	$ 263,186		$ 1,261,098				$ 1,261,098	5/10/2023

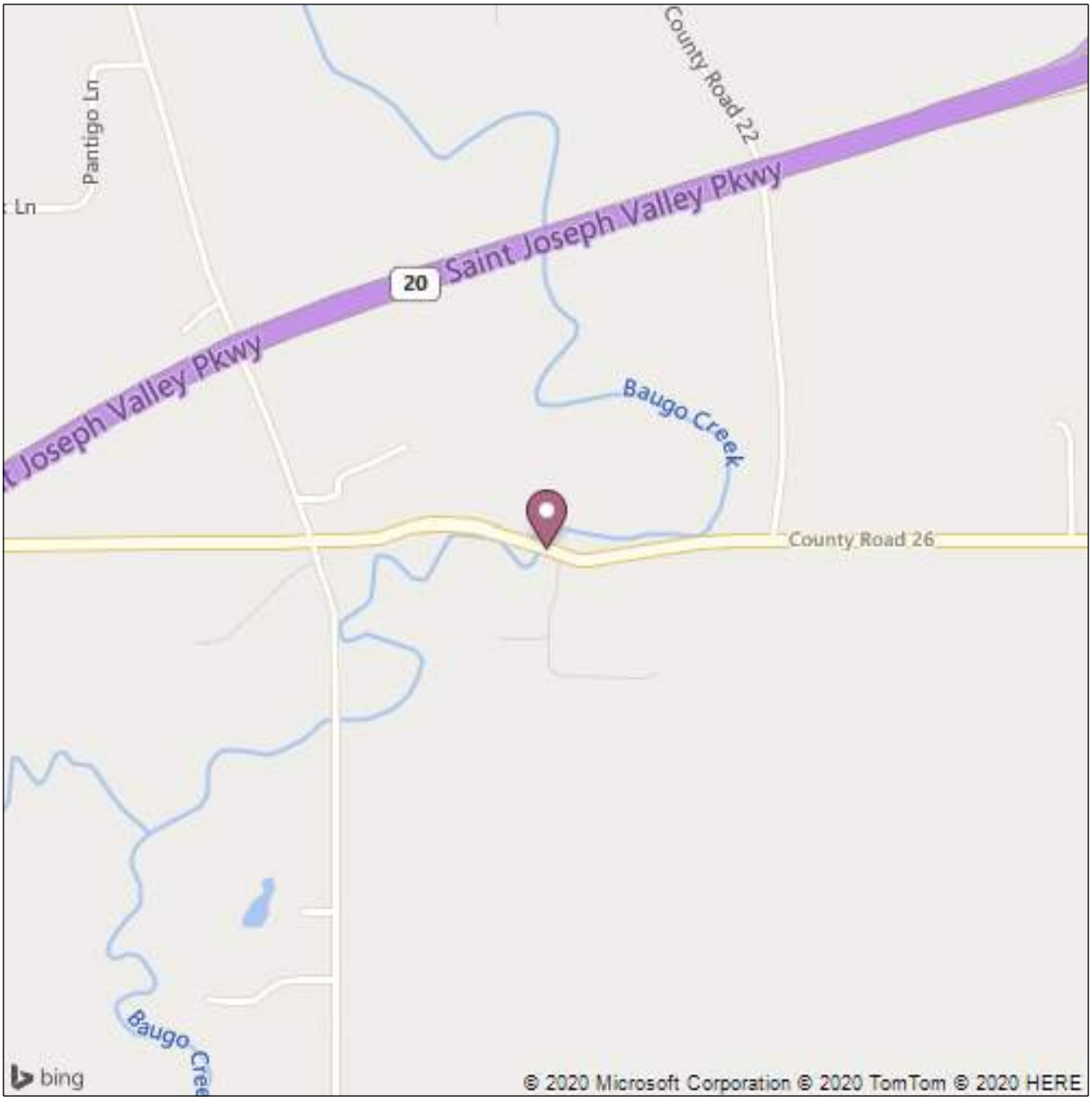
Bridge Inspection Report

20-00145
CR 26
over
BAUGO CREEK

Inspection Date: 08/12/2021

Inspected By: Scott G. Minnich

Inspection Type(s): Routine



Latitude: 41.62329

Longitude: -86.017708

GEOMETRIC DATA

(48) LENGTH OF MAX SPAN:	**0067.0**	**FT**
(49) STRUCTURE LENGTH:	**00071.0**	**FT**
(50) CURB/SIDEWALK WIDTHS:		
A) LEFT	**01.0**	**FT**
B) RIGHT:	**01.0**	**FT**
(51) BRDG RDWY WIDTH CURB-TO-CURB:	**025.5**	**FT**
(52) DECK WIDTH, OUT-TO-OUT:	**027.5**	**FT**
(32) APPROACH ROADWAY	**022.0**	**FT**
(33) BRIDGE MEDIAN:	**0 - No median**	
(34) SKEW:	**00**	**DEG**

(35) STRUCTURE FLARED:	**0 - No flare**	
(10) INV RTE, MIN VERT CLEARANCE:	**99.99**	**FT**
(47) TOT HORIZ CLEARANCE:	**025.5**	**FT**
(53) VERT CLEAR OVER BR RDWY:	**99.99**	**FT**
(54) MIN VERTICAL UNDERCLEARANCE:		
A) REFERENCE FEATURE:	**N**	
B) MIN VERT UNDERCLEAR:	**0**	**FT**
(55) LATERAL UNDERCLEARANCE RIGHT:		
A) REFERENCE FEATURE:	**N**	
B) MIN LATERAL UNDERCLEAR:	**000.0**	**FT**
(56) MIN LATERAL UNDERCLEAR ON LEFT:	**000.0**	**FT**

INSPECTIONS

(90) INSPECTION DATE:	**08/12/2021**
(92) CRITICAL FEATURE INSPECTION:	
A) FRACTURE CRITICAL REQUIRED/FREQUENCY:	**N**
B) UNDERWATER INSPECTION REQUIRED/FREQUENCY:	**N**
C) OTHER SPECIAL INSPECTION REQUIRED/FREQUENCY:	**N**

(91) DESIGNATED INSPECTION FREQUENCY:	**12 MONTHS**
(93) CRITICAL FEATURE INSPECTION DATE:	
A) FRACTURE CRITICAL DATE:	
B) UNDERWATER INSP DATE:	
C) OTHER SPECIAL INSP DATE:	

CONDITION

(58) DECK:	**5 - Fair Condition (minor section loss)**
(58.01) WEARING SURFACE:	**8 - Very Good Condition**
(59) SUPERSTRUCTURE:	**4 - Poor Condition (advanced deterioration)**

(60) SUBSTRUCTURE:	**6 - Satisfactory Condition (minor deterioration)**
(61) CHANNEL/CHANNEL PROTECTION:	**5 - Bank eroded.. major damage**
(62) CULVERTS:	**N - Not Applicable**

CONDITION COMMENTS

(58) DECK: **5 - Fair Condition (minor section loss)**

Comments:
FAIR - SPALLS, BEAMS CONNECTED AT 1/3 POINTS, LONGITUDINAL CRACKS, DELAMINATIONS
Material:
CONCRETE

(58.01) WEARING SURFACE: **8 - Very Good Condition**

Comments:
VERY GOOD - NEW BITUMINOUS
Material:
CHIP & SEAL (2")

(59) SUPERSTRUCTURE: **4 - Poor Condition (advanced deterioration)**

Comments:
POOR - BEAMS 1, 4, 6, 7, AND 8 HAVE SPALLS WITH EXPOSED OR BROKEN STRANDS AND CRACKS, BEARING PAD MOVEMENT AT SOUTHWEST CORNER
Material:
PRESTR. CONC. BOX BEAMS

(60) SUBSTRUCTURE: **6 - Satisfactory Condition (minor deterioration)**

Comments:
SATIS - VERTICAL CRACKS AT EAST ABUTMENT, WEST ABUTMENT SPALL WITH EXPOSED STEEL AT SOUTHWEST CORNER, WATER SEEPAGE ONTO SEATS
Material:
CONC. ABUTMENTS

(61) CHANNEL/CHANNEL PROTECTION **5 - Bank eroded.. major damage**

Comments:
FAIR - FLOWS AGAINST EAST ABUTMENT, NEWER RIPRAP, MODERATE BANK EROSION
Material:
NATURAL/RIPRAP

(62) CULVERTS: **N - Not Applicable**

Comments:
N/A
Material:
N/A

LOAD RATING AND POSTING

(31) DESIGN LOAD:	**5 - HS 20**	(66) INVENTORY RATING:	**0.602**
(70) BRIDGE POSTING	**4 - 0.1-9.9% below legal loads (11-15 tons)**	(65) INVENTORY RATING METHOD:	**8 - Load and Resistance Factor Rating (LRFR) rating report by rating factor (RF) method using HL-93 loadings.**
(41) STRUCTURE OPEN/POSTED/CLOSED:	**P - Posted for Load**		
(64) OPERATING RATING:	**0.823**		
(63) OPERATING RATING METHOD:	**8 - Load and Resistance Factor Rating (LRFR) rating report by rating factor (RF) method using HL-93 loadings.**	(66B) INVENTORY RATING (H):	**26**
		(66C) TONS POSTED :	**15**
		(66D) DATE POSTED/CLOSED:	**17-APR-07**

APPRAISAL

SUFFICIENCY RATING:	**40.9**	(36) TRAFFIC SAFETY FEATURE:	
STATUS:	**1**	36A) BRIDGE RAILINGS:	**0**
(67) STRUCTURAL EVALUATION:	**4**	36B) TRANSITIONS:	**0**
(68) DECK GEOMETRY:	**4**	36C) APPROACH GUARDRAIL:	**0**
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL:	**N**	36D) APPROACH GUARDRAIL ENDS:	**0**

(71) WATERWAY ADEQUACY: **8 - Bridge Above Approaches**
Comments:
ADEQUATE

Paint: ** Indicate if paint present , year painted & condition rating.*

N

Comments:

Endangered Species: ** If yes, add one photo to the dropdown field*

Bats: seen or heard under structure? *	Y
Birds/swallows/nests seen? Empty nests present? *	N - No Birds and/or Nests Visi

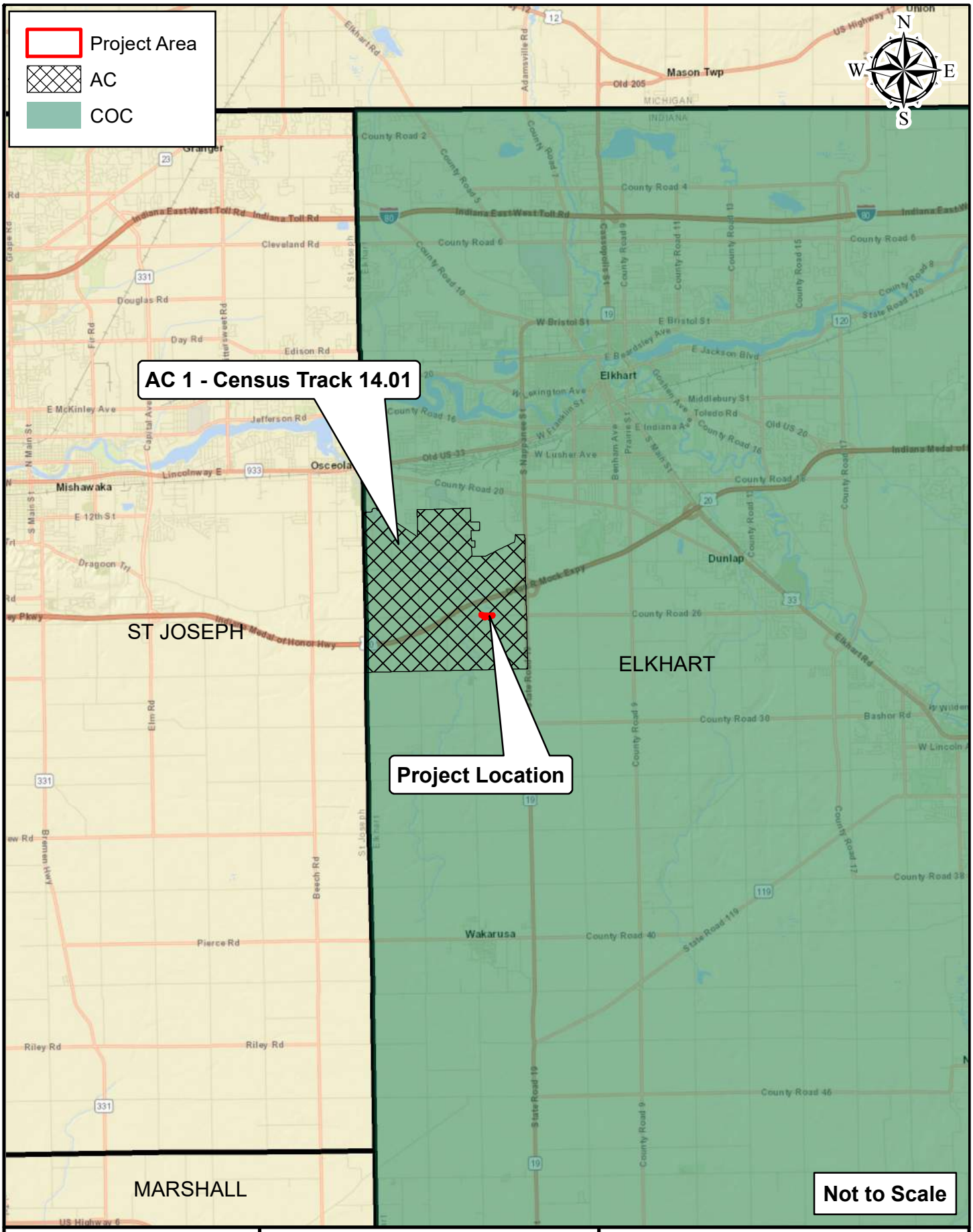
BRIDGE Culvert Geometry:

Barrel Length:	000.00
Height:	00.0
Width:	00.0

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated March 2022)

ProjectNumber	SubProjectCode	County	Property
1800054	1800054	Elkhart	Oxbow County Park
1800064	1800064	Elkhart	Stauffer Park, Derksen Park & McCormicks Creek G.C.
1800074	1800074	Elkhart	Oxbow County Park
1800099	1800099	Elkhart	Stauffer Park, Derksen Park & McCormicks Creek G.C.
1800257	1800257A	Elkhart	Elliott Park
1800257	1800257B	Elkhart	Lundquist Bicentennial Park
1800257	1800257C	Elkhart	Pinewood Park
1800283	1800283	Elkhart	High Dive Park
1800310	1800310	Elkhart	McNaughton Park
1800337	1800337	Elkhart	Stauffer Park, Derksen Park & McCormicks Creek G.C.
1800339	1800339	Elkhart	Shoup-Parsons Woods Park
1800340	1800340	Elkhart	Reith Park
1800354	1800354	Elkhart	Pierre Moran Park
1800441	1800441	Elkhart	High Dive Park
1800450	1800450	Elkhart	Stauffer Park, Derksen Park & McCormicks Creek G.C.
1800470	1800470	Elkhart	Studebaker Park
1800554	1800554	Elkhart	Cobus Creek County Park
1800628	1800628	Elkhart	Corson Riverwoods County Park
1800631	1800631	Elkhart	South Park

*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination with IDNR, Division of Outdoor Recreation, should occur.



Path: P:\2020\00681\D. Drawings\Environmental\Elkhart Co. Bridge 145\EJ Analysis\Exhibits\2020.00681.EV.6.2.2022.EJanalysis.CR26overBaugoCreek.Map1.hw.mxd Date:6/2/2022 User:hwalker

AMERICAN STRUCTUREPOINT INC.

Environmental Justice Mapping

Elkhart County Highway Department
610 Steury Avenue
Goshen, IN 46528

CR 26 over Baugo Creek Bridge Improvement
Des. No. 1902829
Location: near Jamestown
Township: Baugo
County: Elkhart
State: Indiana

Date: 6/2/2022

EJ Analysis Summary Table for CE/EA

	COC Elkhart County	AC 1 Census Tract 14.01
LOW-INCOME POPULATION		
Total Population for Whom Poverty Status is Determined	201,533	5,219
Total Population Below Poverty Level	23,506	82
Percent Low-Income	11.66%	1.57%
125 Percent of COC	14.58%	
AC Percent Low-Income Greater Than 125 Percent of COC?		No
AC Percent Low-Income Greater Than 50 Percent?		No
Population of EJ Concern?		No
MINORITY POPULATION		
Total Population	205,184	5,287
Not Hispanic or Latino: White Alone	152,461	4,108
Minority Population	52,723	1,179
Percent Minority	25.70%	22.30%
125 Percent of COC	32.12%	
AC Percent Minority Greater Than 125 Percent of COC?		No
AC Percent Minority Greater Than 50 Percent?		No
Population of EJ Concern?		No

% Low Income = (Total population Below Poverty Level/Total Popluation for Whom Poverty Status is Determined)

% Minority = (Total population - Not Hispanic or Latino: White Alone)/Total Population

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

United States Census Bureau

Note: The table shown may have been modified by user selections. Some information may be missing.

DATA NOTES	
TABLE ID:	B17001
SURVEY/PROGRAM:	American Community Survey
VINTAGE:	2020
DATASET:	ACSDT5Y2020
PRODUCT:	ACS 5-Year Estimates Detailed Tables
UNIVERSE:	Population for whom poverty status is determined
FTP URL:	None
API URL:	https://api.census.gov/data/2020/acs/acs5
USER SELECTIONS	
GEOS	Elkhart County, Indiana; Census Tract 14.01, Elkhart County, Indiana
TOPICS	Income and Poverty
EXCLUDED COLUMNS	None
APPLIED FILTERS	None
APPLIED SORTS	None
PIVOT & GROUPING	None
WEB ADDRESS	https://data.census.gov/cedsci/table?t=Income%20and%20Poverty&g=0500000US18039_1400000US18039001401&tid=ACSDT5Y2020.B17001
TABLE NOTES	Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, for 2020, the 2020 Census provides the official counts of the population and housing units for the nation, states, counties, cities, and towns. For 2016 to 2019, the Population Estimates Program provides estimates of the population for the nation, states, counties, cities, and towns and intercensal housing unit estimates for the nation, states, and counties.
	Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section. Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.
	Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates
	Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see ACS Technical Documentation). The effect of nonsampling error is not represented in these tables.
	The 2016-2020 American Community Survey (ACS) data generally reflect the September 2018 Office of Management and Budget (OMB) delineations of metropolitan and micropolitan statistical areas. In certain instances, the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB delineation lists due to differences in the effective dates of the geographic entities.
	Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

	Explanation of Symbols:- The estimate could not be computed because there were an insufficient number of sample observations. For a ratio of medians estimate, one or both of the median estimates falls in the lowest interval or highest interval of an open-ended distribution.N The estimate or margin of error cannot be displayed because there were an insufficient number of sample cases in the selected geographic area. (X) The estimate or margin of error is not applicable or not available.median- The median falls in the lowest interval of an open-ended distribution (for example "2,500-")median+ The median falls in the highest interval of an open-ended distribution (for example "250,000+").** The margin of error could not be computed because there were an insufficient number of sample observations.*** The margin of error could not be computed because the median falls in the lowest interval or highest interval of an open-ended distribution.***** A margin of error is not appropriate because the corresponding estimate is controlled to an independent population or housing estimate. Effectively, the corresponding estimate has no sampling error and the margin of error may be treated as zero.
COLUMN NOTES	None

Table: ACSDT5Y2020.B17001

	Elkhart County, Indiana		Census Tract 14.01, Elkhart County, Indiana	
Label	**Estimate**	**Margin of Error**	**Estimate**	**Margin of Error**
Total:	201,533	±482	5,219	±501
Income in the past 12 months below poverty level:	23,506	±2,193	82	±104
Male:	10,849	±1,317	35	±38
Under 5 years	1,582	±358	0	±17
5 years	168	±123	0	±17
6 to 11 years	1,853	±503	0	±17
12 to 14 years	723	±297	18	±28
15 years	337	±216	0	±17
16 and 17 years	302	±140	0	±17
18 to 24 years	1,332	±373	0	±17
25 to 34 years	764	±180	0	±17
35 to 44 years	1,172	±278	0	±17
45 to 54 years	1,278	±336	3	±12
55 to 64 years	720	±197	0	±17
65 to 74 years	299	±100	0	±17
75 years and over	319	±110	14	±23
Female:	12,657	±1,237	47	±72
Under 5 years	1,147	±300	0	±17
5 years	170	±98	0	±17
6 to 11 years	1,725	±457	0	±17
12 to 14 years	814	±244	0	±17
15 years	115	±105	0	±17
16 and 17 years	258	±147	4	±14
18 to 24 years	1,364	±251	8	±31
25 to 34 years	1,895	±360	0	±17
35 to 44 years	1,704	±429	0	±17
45 to 54 years	1,166	±302	4	±15
55 to 64 years	989	±242	0	±17
65 to 74 years	566	±145	17	±27
75 years and over	744	±179	14	±23

Table: ACSDT5Y2020.B17001

	Elkhart County, Indiana		Census Tract 14.01, Elkhart County, Indiana	
Label	**Estimate**	**Margin of Error**	**Estimate**	**Margin of Error**
Income in the past 12 months at or above poverty level:	178,027	±2,258	5,137	±511
Male:	88,427	±1,373	2,725	±333
Under 5 years	6,250	±358	89	±101
5 years	1,175	±260	0	±17
6 to 11 years	8,000	±624	227	±138
12 to 14 years	3,820	±514	242	±127
15 years	1,404	±260	55	±61
16 and 17 years	2,705	±318	172	±115
18 to 24 years	7,808	±366	165	±97
25 to 34 years	12,222	±210	223	±131
35 to 44 years	10,855	±330	263	±98
45 to 54 years	11,118	±348	333	±141
55 to 64 years	10,977	±200	285	±111
65 to 74 years	7,661	±173	483	±159
75 years and over	4,432	±176	188	±83
Female:	89,600	±1,269	2,412	±354
Under 5 years	6,303	±325	136	±93
5 years	1,037	±293	18	±30
6 to 11 years	7,018	±515	170	±114
12 to 14 years	4,635	±590	216	±228
15 years	1,305	±267	24	±40
16 and 17 years	3,008	±289	108	±77
18 to 24 years	7,109	±273	219	±117
25 to 34 years	11,090	±378	213	±112
35 to 44 years	10,619	±426	418	±146
45 to 54 years	11,319	±316	284	±97
55 to 64 years	11,340	±260	183	±81
65 to 74 years	8,481	±184	176	±83
75 years and over	6,336	±232	247	±96

HISPANIC OR LATINO ORIGIN BY RACE

United States Census Bureau

Note: The table shown may have been modified by user selections. Some information may be missing.

DATA NOTES	
TABLE ID:	B03002
SURVEY/PROGRAM:	American Community Survey
VINTAGE:	2020
DATASET:	ACSDT5Y2020
PRODUCT:	ACS 5-Year Estimates Detailed Tables
UNIVERSE:	Total population
FTP URL:	None
API URL:	https://api.census.gov/data/2020/acs/acs5
USER SELECTIONS	
GEOS	Elkhart County, Indiana; Census Tract 14.01, Elkhart County, Indiana
TOPICS	Race and Ethnicity
EXCLUDED COLUMNS	None
APPLIED FILTERS	None
APPLIED SORTS	None
PIVOT & GROUPING	None
WEB ADDRESS	https://data.census.gov/cedsci/table?t=Race%20and%20Ethnicity&g=0500000US18039_1400000US18039001401&tid=ACSDT5Y2020.B03002
TABLE NOTES	Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, for 2020, the 2020 Census provides the official counts of the population and housing units for the nation, states, counties, cities, and towns. For 2016 to 2019, the Population Estimates Program provides estimates of the population for the nation, states, counties, cities, and towns and intercensal housing unit estimates for the nation, states, and counties.
	Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section. Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.
	Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates
	Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see ACS Technical Documentation). The effect of nonsampling error is not represented in these tables.
	The Hispanic origin and race codes were updated in 2020. For more information on the Hispanic origin and race code changes, please visit the American Community Survey Technical Documentation website.
	The 2016-2020 American Community Survey (ACS) data generally reflect the September 2018 Office of Management and Budget (OMB) delineations of metropolitan and micropolitan statistical areas. In certain instances, the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB delineation lists due to differences in the effective dates of the geographic entities.

	Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.
	Explanation of Symbols:- The estimate could not be computed because there were an insufficient number of sample observations. For a ratio of medians estimate, one or both of the median estimates falls in the lowest interval or highest interval of an open-ended distribution.N The estimate or margin of error cannot be displayed because there were an insufficient number of sample cases in the selected geographic area. (X) The estimate or margin of error is not applicable or not available.median- The median falls in the lowest interval of an open-ended distribution (for example "2,500-")median+ The median falls in the highest interval of an open-ended distribution (for example "250,000+").** The margin of error could not be computed because there were an insufficient number of sample observations.*** The margin of error could not be computed because the median falls in the lowest interval or highest interval of an open-ended distribution.***** A margin of error is not appropriate because the corresponding estimate is controlled to an independent population or housing estimate. Effectively, the corresponding estimate has no sampling error and the margin of error may be treated as zero.
COLUMN NOTES	None

Table: ACSDT5Y2020.B03002

	Elkhart County, Indiana		Census Tract 14.01, Elkhart County, Indiana	
Label	**Estimate**	**Margin of Error**	**Estimate**	**Margin of Error**
Total:	205,184	*****	5,287	±499
Not Hispanic or Latino:	171,845	*****	4,489	±535
White alone	152,461	±278	4,108	±535
Black or African American alone	10,798	±698	53	±97
American Indian and Alaska Native alone	327	±124	29	±33
Asian alone	1,892	±214	13	±22
Native Hawaiian and Other Pacific Islander alone	76	±70	0	±17
Some other race alone	437	±250	0	±17
Two or more races:	5,854	±781	286	±339
Two races including Some other race	195	±136	14	±22
Two races excluding Some other race, and three or more races	5,659	±779	272	±339
Hispanic or Latino:	33,339	*****	798	±435
White alone	22,528	±1,475	358	±317
Black or African American alone	108	±95	0	±17
American Indian and Alaska Native alone	238	±208	0	±17
Asian alone	0	±29	0	±17
Native Hawaiian and Other Pacific Islander alone	49	±48	0	±17
Some other race alone	6,200	±1,324	440	±304
Two or more races:	4,216	±1,060	0	±17
Two races including Some other race	3,376	±1,090	0	±17
Two races excluding Some other race, and three or more races	840	±397	0	±17