FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	Monroeville Road/ Allen County
Designation Number(s):	1902826
Project Description/Termini:	Bridge 277 carrying Monroeville Road over Hoffman Drain (also referred to as Hoffman Ditch). Construction will extend approximately 400 feet east and 460 feet west from the center of the bridge for a total length of approximately 860 feet (0.16 mile).

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

Approval

N/A
INDOT DE Signature and Date

Drew Passmore April 19, 2024
INDOT ESD Signature and Date

PATRICK ALLEN CARPENTER Digitally signed by PATRICK ALLEN CARPENTER Date: 2024.05.03 16:35:23 -04'00'
FHWA Signature and Date

Release for Public Involvement

N/A
INDOT DE Initials and Date

ADWP December 28, 2023
INDOT ESD Initials and Date

Certification of Public Involvement

Matthew Garrison 3/10/2024
INDOT Consultant Services Signature and Date

INDOT DE/ESD Reviewer Signature and Date: Cindy Mauro April 19, 2024

Name and Organization of CE/EA Preparer: Cameron Fraser / Clark Dietz

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?		

**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 September 17, 2021, notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of Entry letter is included in Appendix G, page G-1.

The existing structure, Allen County bridge 277 (Structure Number 02-00207), has been classified as a Non-Select bridge by the Indiana Department of Transportation (INDOT) Historic Bridge Inventory; thus, the procedures outlined in Stipulation III.B. of the Programmatic Agreement Regarding Management and Preservation of Indiana's Historic Bridges" (Historic Bridges PA) are being followed.

To meet the public involvement requirements of Section 106, a legal notice of FHWA's finding of No Historic Properties Affected was published in *The Journal Gazette* on December 13, 2022, offering the public an opportunity to submit comment pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4). The public comment period closed 30 days later on January 13, 2023, and no public comments were received. The text of the public notice and the affidavit of publication appear in Appendix D, pages D-70 and D-71.

Pursuant to the Historic Bridge Programmatic Agreement (PA), a public hearing was held. A legal notice of public hearing was published in *The Journal Gazette* on January 23, 2024, and January 30, 2024 (Appendix G, pages G-2 to G-4). The legal notice notified the public of the hearing and offered the public an opportunity to comment on the environmental document, 800.11(e) documentation, and preliminary design plans. Potentially affected property owners (i.e. adjacent property owners) were notified of the hearing via mail on January 23, 2024 (Appendix G, page G-7). Consulting parties were also notified of the hearing via e-mail on January 23, 2024 (Appendix G, page G-8). The public hearing was held on February 8, 2024, at the Allen County Public Library-Monroeville Branch (115 Main Street, Monroeville, IN 46773). Representatives from Allen County, INDOT, and Clark Dietz (project designer and preparer of this environmental document) were in attendance. The public hearing was the last opportunity for a responsible party to step forward and provide the necessary sureties to obtain ownership of the bridge. No interested parties came forward to fund the preservation and maintenance of the bridge.

The public hearing began at 5:45 p.m. and allowed the public an opportunity to hear information on the project and comment on the environmental document, 800.11(e) documentation, and preliminary design plans. According to the sign-in sheet, 5 members of the public attended the public hearing (Appendix G, page G-10). A comment form was also provided to each attendee with instructions on how to submit comments (Appendix G, pages G-11 to G-15). The public had 30 days to provide comments on the project. The opportunity for the public to provide comments on the project and public hearing expired on February 22, 2024. One comment was received during the public comment period and is discussed below.

The only comment received was during the public hearing, and it involved the scope of the project and how far forward the project looked during the design process (Appendix G, page G-37). Clark Dietz responded to the comment, explaining that the design process included projections that look 20 years into the future for bridge use. Please see Appendix G page G-38 for a summary of the comment received and the corresponding response. No additional comments were received during the public comment period. The INDOT Fort Wayne District Consultant Services Manager (CSM) certified the public involvement documentation on March 10,

2024. All public involvement requirements are fulfilled.

Public Controversy on Environmental Grounds

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

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

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

Sponsor of the Project: Allen County INDOT District: Fort Wayne

Local Name of the Facility: Allen County Bridge 277, located on Monroeville Road over Hoffman Drain

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 principal need for the project is due to the deteriorated condition of the existing bridge (Structure Number 02-00277). If deterioration of this structure is allowed to continue, it will eventually lead to failure and no longer perpetuate vehicular crossing on Monroeville Road over Hoffman Drain (the bridge currently has an estimated remaining life span of 10 years).

According to the INDOT Bridge Inspection Report dated May 24, 2022, the superstructure (beams) is determined to be in poor condition. This corresponds with a superstructure rating of 4 out of 9 (0 having failed and 9 being excellent). Poor condition (rating of 4) includes advance section loss, deterioration, or spalling. The beams exhibit ineffective strands, spalls with exposed strands, and leaching. The deck is in poor condition (rated 4 on a 0 to 9 scale) with bottom beam spalls and exposed rusted through strands. The wearing surface is in satisfactory condition (rated 6 on a 0 to 9 scale) with longitudinal cracks over the beam edges. Satisfactory condition indicates that structural elements show some minor deterioration. The bridge railings have a condition rating of 0 which means that they do not meet current safety requirements. The existing bridge railing is not a standard INDOT bridge railing shape and has not been crash tested using National Cooperative Highway Research Program (NCHRP) 350. INDOT requires bridge rehabilitations to replace inadequate railings with an INDOT approved crash tested railing or an approved design exception.

The superstructure and substructure ratings are summarized in a structural evaluation rating. Structures with deck, superstructure, or substructure ratings of 4 or less, or a structural evaluation of 2 or less are deemed structurally deficient. Based on the superstructure rating above, the overall structural evaluation of the bridge is structurally deficient (4 “poor” on a 0 to 9 scale) (Appendix I, pages I-2 to I-11).

Purpose

The purpose of the project is to continue providing a structurally sufficient structure that perpetuates vehicular crossing on Monroeville Road over Hoffman Drain while achieving a superstructure and substructure condition rating of 7 (good condition) or greater out of 9.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Allen Municipality: Not Applicable (N/A)

Limits of Proposed Work: Bridge project along Monroeville Road over Hoffman Drain. Construction, including incidental

construction, will extend from approximately 400 feet east and 460 feet west from the center of the bridge for a total length of approximately 860 feet (0.16 mile).

Total Work Length: 0.16 Mile(s) Total Work Area: 1.28 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.

Location

Allen County and the Federal Highway Administration (FHWA) intend to proceed with a bridge project on Monroeville Road over its crossing at Hoffman Drain, approximately 455 feet (0.09 mile) west of the junction with Fackler Road in Allen County, Indiana. Specifically, the project is within Madison Township, Sections 9, 10, 15 & 16, Township 29 North, Range 14 East on the Hoagland United States Geological Survey (USGS) Quadrangle map (Appendix B, page B-2). Construction will extend approximately 400 feet east and 460 feet west from the center of the bridge for a total length of approximately 860 feet (0.16 mile) (Appendix B, page B-3).

Existing Conditions: Roadway

Within the project area, Monroeville Road functions as a Rural Minor Collector and consists of two 10-foot-wide lanes with 2-foot-wide shoulders. No median or sidewalks are present within the project area (Appendix B, pages B-12, B-17, and B-18).

Existing Conditions: Structures

The existing bridge, (Structure Number 02-00277 and National Bridge Inventory number (NBI) 0200207), has been classified as a Non-Select bridge by the INDOT Historic Bridge Inventory (2010). The decorative railing for this structure is a character-defining feature. The bridge carries Monroeville Road over Hoffman Drain. The bridge is a prestressed concrete box beam structure with a total length of 52.5 feet (single span length 49.5 feet) and a width of 30 feet (Appendix I, pages I-5 to I-6). The bridge has had no rehabilitation or reconstruction projects since it was constructed in 1960.

Per the May 24, 2022, INDOT Bridge Inspection Report, the overall structural condition of the existing bridge is rated poor (rating 4 out of 9) due to the deterioration on all parts of the bridge. The sufficiency rating for this bridge is 48.5 which is considered low. The bridge deck is in poor condition because of the advanced deterioration on the north curb with spalling and exposed rebar. The existing bridge rail and approach guardrail is non-standard and considered inadequate. The wearing surface has longitudinal hairline cracks over the beam edges but is in satisfactory condition (rating 6 out of 9). The superstructure is in poor condition because of the advanced deterioration on the bottom of the beam with spalling and exposed rusted through strands. The top of the prestressed box beams forming the deck are not visible due to the overlaid wearing surface. The substructure is in fair condition with minor section loss. The previous abutments were left in place and have minor cracking (Appendix I, pages I-2 to I-11).

One small drainage structure is present within the project area (Structure Number 10, as identified in the plan sheets located in Appendix B, page B-18). The drainage structure is located along the north side of Monroeville Road, at the eastern project area terminus. The drainage structure has a diameter of approximately 1-foot, a total length of approximately 20 feet, and it carries an agricultural field access drive over a roadside ditch (Appendix B, pages B-3 and B-18).

Existing Conditions: Surrounding Features

Surrounding land use consists of agricultural, riparian, and residential land. Hoffman Drain intersects the project area, flowing to the north (refer to project area aerial map and photos in Appendix B, pages B-3 to B-10. The apparent existing right-of-way width along this section of Monroeville Road is approximately 25 feet north and south from the center of the road (Appendix B, pages B-3, B-17, and B-18).

Preferred Alternative

The preferred alternative is demolition and replacement of the existing bridge. The new bridge will meet all INDOT requirements for

reconstruction regarding vertical and horizontal alignment, stopping sight distance, bridge width for two-lanes, and structural capacity. The new bridge will be approximately 40.67 feet in width (clear roadway width of 38.67 feet) and 71 feet in length. The anticipated superstructure type is spread concrete box beams, which will be placed to meet appropriate geometric and hydraulic requirements. The bridge would be lengthened, and the profile raised to accommodate the hydraulic needs of the site for a Q100 flow event. The Q100 flow event, also referred to as the 100-year flood event, is a flood event with a 1% probability of occurring in any given year.

Steel piles will be driven into the ground to support the end bents. Revetment riprap over geotextiles will be placed on the fill slopes at both pile end bents. A cofferdam and pump around will be utilized to dewater the channel bank to place the riprap toe and fill slopes at each end bent. Guardrail and guardrail end treatments will be constructed. Bridge railing will be placed along both edges of the deck and will connect to concrete bridge rail transitions, guardrail, and guardrail end treatments. A surface seal will be applied to the concrete bridge railing, the copings of the deck, and the underside to the face of the box beams.

The roadway profile within the construction limits will be raised to tie the existing roadway in with the new bridge. Both reinforced concrete bridge approaches (RCBAs) will be replaced. The roadway approaches will be widened to accommodate the new bridge. The roadway approaches will be graded to add fill for the wider roadway embankment. Full depth hot mix asphalt (HMA) pavement replacement and asphalt milling/resurfacing will occur throughout the project area, as needed.

The agricultural access drive located at the eastern project area terminus will be reconstructed, and the existing drainage pipe (Structure Number 10) carrying the drive will be replaced with a 1-foot-wide by 25-foot-long corrugated metal pipe. The maximum depth of excavation for the project will be approximately 8 feet below ground surface. Refer to the preliminary plans in Appendix B, pages B-11 through B-28.

Maintenance of traffic (MOT)
The MOT will require a closure for this section of Monroeville Road during construction of the Allen County Bridge 277. Refer to the Maintenance of Traffic (MOT) During Construction section of this document for further details on the proposed MOT.

Impact Summary
A total of approximately 0.622 acres of permanent right-of-way and approximately 0.045 acres of temporary right-of-way will be required for this project. No residences or businesses will be relocated. Additionally, this project will result in 85 linear feet of permanent stream impacts and 90 linear feet of temporary stream impacts. This project will also result in 0.002 acre of permanent impacts to wetlands. No trees will be cleared as part of this project. Lastly, utility relocations, including communications and electricity, may be required for the project. If any utility relocations result in any additional environmental impacts that are not assessed in this environmental document, an Additional Information (AI) document may need to be prepared.

Every effort to avoid, minimize, and/or mitigate project impacts will be made, including implementing vegetation clearing restrictions to minimize impacts to terrestrial habitat and sediment and erosion control measures to minimize impacts to streams during construction. However, as the project includes bridge replacement, placing riprap within an existing stream, and ditch grading within an existing wetland, not all impacts can be avoided.

Logical Termini/Independent Utility
The termini for the project are logical because the footprint is limited to the immediate area of the structure, which is where the deficiency that this project seeks to correct begins and ends. The project demonstrates independent utility as it is a stand-alone project that is not dependent on any other planned projects in the area.

The proposed project is feasible, prudent and meets the purpose and need by providing a structure that perpetuates vehicular crossing on Monroeville Road over Hoffman Drain while achieving a superstructure and substructure condition rating of 7 or greater out of 9.

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.

A. No Build/Do Nothing
This alternative proposes no construction takes place. There would be no environmental impacts and no construction costs associated with this alternative. However, the condition of Allen County Bridge No. 277 would continue to deteriorate, and the bridge would need to be closed from the deteriorated condition of the existing bridge around the end of the current estimated remaining life,

which is currently approximately 10 years. This alternative does not meet the purpose and need for the project because it does not address the bridge deficiencies or maintain through access on Monroeville Road; therefore, this option was not considered further.

B1. Rehabilitation for Continued Vehicular Use Meeting Secretary of Interior's Standards for Rehabilitation

This alternative involves rehabilitation of the bridge for continued vehicular use, either with two lanes or one lane of traffic across the bridge, in a way that does not adversely affect the bridge's historic features. Repairs would include replaced in-kind materials to the greatest extent practicable. Design exceptions will be needed for the bridge railing, travel lane width, shoulder width, and clear roadway width. This alternative would likely result in less cost and fewer environmental impacts. however, this alternative would not increase the superstructure rating to a "Good" rating (7 out of 9) or better because the exterior box beams would not to be replaced, and there is no viable method to repair the broken and de-bonded strands within these beams (which are supporting the historic aspect of the bridge). Therefore, this alternative does not meet the purpose and need of the project and was not considered further.

B2. Rehabilitation for Continued Vehicular Use NOT Meeting Secretary of Interior's Standards for Rehabilitation

This alternative proposes repairs are made to the existing bridge while allowing for replacement of members which have deteriorated beyond repair. The bridge dimensions would essentially remain unaltered. However, the superstructure would be replaced in-full, and the bridge railing updated. Thus, the historic materials of the bridge would not be maintained. This rehabilitation alternative would use current construction practices to recreate the look and dimensions of the existing bridge as much as possible. Design exceptions will be needed for the bridge railing, travel lane width, shoulder width, and clear roadway width. This alternative would likely result in less cost and fewer environmental impacts. However, the extent of the work required to meet the "Good" rating (7 out of 9) or better is unknown until more invasive inspection techniques are completed. Therefore, this alternative is not prudent and does not meet the purpose and need of the project. This alternative was not considered further.

C1. Rehabilitation for Continued Vehicular Use (one-way pair option) Meeting Secretary of Interior's Standards for Rehabilitation

This alternative involves rehabilitation of the bridge for continued vehicular use and would construct a new structure adjacent to the existing bridge to be used as a one-way pair option. The new structure would be constructed on the north side of the existing bridge. Repairs to the existing bridge would include replaced in-kind materials to the greatest extent practicable in a way that does not adversely affect the bridge's historic features. Design exceptions will be needed for the bridge railing, travel lane width, shoulder width, and clear roadway width. This alternative would likely result in greater cost because the existing bridge would be rehabilitated, and a new structure would be constructed. The larger footprint for this alternative would likely result in more environmental impacts. This alternative would not increase the superstructure rating to a "Good" rating (7 out of 9) or better because the exterior box beams would not to be replaced, and there is no viable method to repair the broken and de-bonded strands within these beams (which are supporting the historic aspect of the bridge). Therefore, this alternative is not prudent and does not meet the purpose and need of the project. This alternative was not considered further.

C2. Rehabilitation for Continued Vehicular Use (one-way pair option) NOT Meeting Secretary of Interior's Standards for Rehabilitation

This alternative involves rehabilitation of the bridge for continued vehicular use and would construct a new structure adjacent to the existing bridge to be used as a one-way pair option. The new structure would be constructed on the north side of the existing bridge. Repairs to the existing bridge would include full superstructure replacement, and updated bridge railing. Thus, the historic materials of the bridge would not be maintained. This alternative would likely result in greater cost because the existing bridge would be rehabilitated, and a new structure would be constructed. The larger footprint for this alternative would likely result in more environmental impacts. The extent of the work required to meet the "Good" rating (7 out of 9) or better is unknown until more invasive inspection techniques are completed. Therefore, this alternative is not prudent and does not meet the purpose and need of the project. This alternative was not considered further.

D. Bypass (non-vehicular use)/Build New Structure

This alternative would leave the existing bridge in place to be used for non-vehicular traffic and construct a new structure to current 3R geometric requirements adjacent to the existing for vehicular traffic. The existing bridge would need to be rehabilitated for non-vehicular use to achieve the desired remaining life of 25-years. This alternative would likely result in greater cost because the existing bridge would be rehabilitated, and a new structure would be constructed. The larger footprint for this alternative would likely result in more environmental impacts. This alternative meets the purpose and need of the project. However, for Non-Select bridges, a responsible party other than the owner must fund the preservation and maintenance of the historic bridge. No interested parties came forward to fund the preservation and maintenance of the bridge. Therefore, this alternative is not feasible and was discarded.

E. Relocation of Historic Bridge and New Bridge Construction

This alternative proposes to relocate the existing bridge to a new location for another use and construct a new bridge in the current location. However, concrete structures are not able to be disassembled without considerable effort which further damages the

already deteriorated material. Salvageable materials from concrete structures tend to be limited to the precast beams; due to the deteriorating condition of the precast box beams on this bridge, the salvageable material from the superstructure will be minimal. However, the historic rail may be salvageable. This alternative would likely result in greater cost because the existing bridge would be rehabilitated, and a new bridge would be constructed. The larger footprint for this alternative would likely result in more environmental impacts. This alternative meets the purpose and need of the project. However, for Non-Select bridges, a responsible party other than the owner must fund the relocation, preservation, and maintenance of the historic bridge. No interested parties came forward to fund the preservation and maintenance of the bridge. Therefore, this alternative is not feasible and was discarded.

Refer to the Historic Bridge Alternatives Analysis (HBAA) in Appendix I, pages I-22 to I-30 for more information.

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:

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

Name of Roadway	Monroeville Road				
Functional Classification:	Rural Minor Collector				
Current ADT:	2,760	VPD (2024)	Design Year ADT:	4,255	VPD (2044)
Design Hour Volume (DHV):	430	Truck Percentage (%)	5%		
Designed Speed (mph):	55	Legal Speed (mph):	55		

	Existing		Proposed	
Number of Lanes:	Two-Lane at 10 feet each		Two-Lane at 11 feet each	
Type of Lanes:	Two-Way Traffic		Two-Way Traffic	
Pavement Width:	24	ft.	34	ft.
Shoulder Width:	2	ft.	6	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

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

BRIDGES AND/OR SMALL STRUCTURE(S):

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

Structure/NBI Number(s): 02-002277

Sufficiency Rating: 48.5, INDOT Bridge Inspection Report (2022)
(Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	21" Prestressed Concrete Box Beam		Single Span Concrete Beam Bridge	
Number of Spans:	Single Span (49.5 feet)		Single Span (71 feet)	
Weight Restrictions:	N/A	ton	N/A	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	24	ft.	38.67	ft.
Outside to Outside Width:	30	ft.	40.67	ft.
Shoulder Width:	2	ft.	8.33	ft.

Small Structures

Road	Station Location	Structure Number	Culvert Type	Opening Size (ft.)	Length (ft.)
Gravel Drive off Monroeville Road	21+39.5	10	Corrugated Metal Pipe	1	20

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.

Two existing structures, Allen County Bridge 277 (Structure Number 02-00207) and a small drainage structure (Structure Number 10, as identified in the plan sheets located in Appendix B, page B-18), are within the project area.

Allen County Bridge 277 is a single-span structure carrying Monroeville Road over Hoffman Drain. The bridge has a total length of 52.5 feet (single span length 49.5 feet) and a width of 30 feet. The bridge is listed as a Non-Select Historic Bridge per the INDOT Historic Bridges Inventory (2010). This bridge will be demolished and replaced for this project. Hoffman Drain will be impacted by the bridge replacement work.

Structure Number 10 is a 1-foot-diameter by 20-foot-long corrugated metal pipe that carries a gravel drive over a roadside ditch located on the north side of Monroeville Road, near the east terminus of the project. The drainage structure will be replaced with a 1-foot-diameter by 25-foot-long corrugated metal pipe. The roadside ditch will be impacted by the drainage structure replacement.

Refer to Preferred Alternative discussion above for work activities involving the bridge and small drainage structure. No other bridges or small structures are involved in the project.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

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

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

The MOT will involve a closure for this section of Monroeville Road during construction of the Allen County Bridge 277. The detour

route will utilize Houk Road, Flatrock Road, and Grotrian Road. The detour length is 4 miles and adds 2 miles to the distance for a through trip. The road will be closed with the detour in effect for approximately 6 months (Appendix B, page B-14).

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

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: $ 298,450 (2021) Right-of-Way: $ 10,000 (2024) Construction: $ 1,461,000 (2024)

Anticipated Start Date of Construction: Fall 2024

Note: The construction cost shown is approximately 39% higher than the cost shown in the HBAA due to the general increase in construction over the last two years. The construction costs for all the alternatives in the HBAA have increased by the same percentage. The right-of-way cost listed above is 100% locally funded.

RIGHT OF WAY:

	Amount (acres)	
Land Use Impacts	Permanent	Temporary
Residential	0	0
Commercial	0	0
Agricultural	0.622	0.045
Forest	0	0
Wetlands	0	0
Other:	0	0
Other:	0	0
TOTAL	0.622	0.045

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 apparent existing right of way extends approximately 25 feet north and south from the center of the road. The project requires approximately 0.622 acres of permanent right-of-way and approximately 0.045 acres of temporary right-of-way. The required permanent and temporary right-of-way consists of roadside ditch, agricultural fields, and riparian habitat. The proposed right-of-way width will extend approximately 45 feet south and 50 feet north from the center of the bridge. The permanent right-of-way is required to construct the wider roadway and drainage ditches, and to provide room for the utilities to relocate their facilities outside of the construction limits. The temporary right-of-way is located upstream and downstream of the bridge and provides working room for the dewatering pump for the cofferdam during construction (Appendix B, pages B-3, B-17, and B-18).

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

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

SECTION A - EARLY COORDINATION:

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

Early coordination letters were sent on March 19, 2021, unless otherwise noted below (Appendix C, pages C-1 to C-3). Refer to the table below for which agencies responded to the early coordination letter.

Agency	Date Sent	Date Response Received	Appendix
Federal Highway Administration, Indiana Division	March 19, 2021	N/A	N/A
INDOT, Fort Wayne District Office	March 19, 2021	N/A	N/A
Indiana Geological & Water Survey	March 19, 2021	September 20, 2021	Appendix C, pages C-4 to C-6
U.S. Fish & Wildlife Service	March 19, 2021	March 19, 2021	Appendix C, page C-15
US Department of Housing & Urban Development	March 19, 2021	N/A	N/A
IDNR, Division of Fish & Wildlife	March 19, 2021	April 15, 2021	Appendix C, pages C-7 to C-9
National Park Service, Midwest Regional Office	March 19, 2021	N/A	N/A
IDEM, Groundwater	March 19, 2021	March 24, 2021	Appendix C, page C-10
INDOT, Office of Aviation	March 19, 2021	March 19, 2021	Appendix C, page C-13
Natural Resources Conservation Service	April 6 2023	April 10, 2023	Appendix C, pages C-11 to C-12
US Army Corps of Engineers, Detroit District	March 19, 2021	N/A	N/A
Allen County Board of Commissioners	March 19, 2021	N/A	N/A
Allen County Council	March 19, 2021	N/A	N/A
Allen County Surveyor	March 19, 2021	March 19, 2021	Appendix C, page C-14
Allen County Highway Department	March 19, 2021	N/A	N/A
Allen County Engineer	March 19, 2021	N/A	N/A
Heritage Jr/Sr High School	March 19, 2021	N/A	N/A
Town of Monroeville, Sanitary Sewer	July 20, 2022	N/A	N/A

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

SECTION B – ECOLOGICAL RESOURCES:

	Presence	Impacts	
		Yes	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: 95 Linear feet Total impacted stream(s): 85 Linear feet

Stream Name	Classification	Total Size in Project Area (linear feet)	Impacted linear feet (permanent)	Comments (i.e., location, flow direction, likely Water of the US, appendix reference)
Hoffman Drain	R3UB3	95	85	All runoff in the project area drains into Hoffman Drain, which runs north to south through the project area and flows under Bridge 277. Hoffman Drain becomes Hoffman Creek, approximately 5.8 miles downstream of the bridge. Hoffman Drain is likely a Water of the US (Appendix F, page F-4).

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

Based on the desktop review, the aerial map of the project area, and the Red Flag Investigation (RFI) report (Appendix E, pages E-2, E-3, and E-6) there are three streams, rivers, watercourse, or other jurisdictional features within the 0.5-mile search radius. There is one stream, river, watercourse, or other jurisdictional feature present within or adjacent to the project area. One stream, Hoffman Drain, was identified within the project area during the site visit on May 11, 2021, conducted by Little River Consultants.

Waters of the U.S Report

A Waters of the U.S. Determination / Wetland Delineation Report was completed on July 26, 2021. Please refer to Appendix F page F-1 to F-26, for the Waters of the U.S. Determination / Wetland Delineation Report. It was determined that one likely jurisdictional stream, Hoffman Drain, is located within the project area. The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction. Note: The Waters of the U.S. Determination / Wetland Delineation Report stated that there is 110 Linear feet of Hoffman Drain within the survey area. The survey area is used for field activities and is typically larger than the final project area.

Within the project area, Hoffman Drain flows south under Monroeville Road, has an ordinary high-water mark (OHWM) width of 13 feet, and depth of 2.08 feet. The upstream drainage area for Hoffman Drain is approximately 11.53 square miles (Appendix F, page F-27). Hoffman Drain ultimately drains to the Maumee River, a Traditionally Navigable Waterway (TNW). Hoffman Drain is not listed as a Federal Wild and Scenic River or on the National Rivers Inventory and is not listed as a State Natural, Scenic and Recreational River or as an Outstanding River for Indiana. Hoffman Drain is not designated as a navigable waterway or as a Water Trail by the IDNR. However, Hoffman Drain is a County Regulated Legal Drain (Drain Number 15-31-510).

Work below the OHWM of Hoffman Drain includes constructing a temporary cofferdam, replacing the bridge, and installing riprap. Replacing the bridge and installing riprap will permanently impact up to approximately 85 linear feet (0.025 acre) of Hoffman Drain. Constructing a temporary cofferdam will temporarily impact approximately 90 linear feet (0.026 acre) of Hoffman Drain. Because the project includes replacing a bridge and placing riprap within a stream, impacts of the stream cannot be avoided. However, appropriate sediment and erosion control measures will be implemented to minimize impacts to the stream during construction. Because stream impacts will not exceed the 300 linear feet threshold, stream mitigation will likely not be required. Permits will be needed due to stream impacts. Refer to the Permits section of this CE document for more details.

An agricultural ditch (Channel 1) was identified during the site visit on May 11, 2021. Channel 1 starts in the field southwest of Bridge 277 and runs east along the south side of Monroeville Road and is connected to Hoffman Drain via a corrugated metal pipe. Channel 1 was fully vegetated with no defined bed and banks. Standing water found in Channel 1 was due to the large rain events experienced by the site on May 9 and 10, 2021. Channel 1 lacked an ordinary high water mark (OHWM) and stream characteristics; therefore, it is not likely considered to be a jurisdictional stream feature (Appendix F, page F-4).

Two roadside ditches were also identified during the site visit. Roadside ditch 1 (RD1) runs along the south side of Monroeville Road, west of Hoffman Drain. RD2 runs along the north side of Monroeville Road, east of Hoffman Drain. Both roadside ditches were fully vegetated with no defined beds and banks. Standing water and sediment deposits found in the roadside ditches was due to the large rain events experienced by the site on May 9 and 10, 2021. The RSDs lacked an OHWM and stream characteristics; therefore, they are not likely considered to be jurisdictional stream features (Appendix F, page F-4).

Early Coordination

The Allen County Surveyor's Office responded to early coordination on March 19, 2021, and stated that more information is needed to gain the Allen County Drainage Board's approval required to allow a permanent structure in the legal drain (Appendix C, page C-14). Therefore, additional coordination occurred between the designer, the Allen County Surveyor, and the Allen County Drainage Board. On May 11, 2023, the Allen County Drainage Board approved work within Hoffman Drain for this project (Appendix I, page I-31)

The Indiana Department of Natural Resources Division of Fish and Wildlife (IDNR-DFW) responded to early coordination on April 15, 2021, with general comments and standard recommendations pertaining to stream impacts. Recommendations generally include implementing erosion and sediment control measures and stream bank stabilization measures, limiting in-channel disturbance, not working within the stream channel from April 1 through June 30, and proper use of riprap (Appendix C, pages C-7 to C-9). All applicable agency 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 aerial map of the project area, and the RFI report (Appendix E, pages E-2, E-3, and E-6) there is one open water feature within the 0.5-mile search radius. There are no open water features within or adjacent to the project area, which was confirmed by the site visit on May 11, 2021, by Little River Consultants.

Waters of the U.S Report

A Waters of the U.S. Determination / Wetland Delineation Report was completed on July 26, 2021. Please refer to Appendix F page F-1 to F-26, for the Waters of the U.S. Determination / Wetland Delineation Report. It was determined that no open water features were present within or adjacent to the project area. The USACE makes all final determinations regarding jurisdiction.

	Presence	**Impacts**	
		Yes	**No**
Wetlands	X	X	

Total wetland area: 0.028 Acre(s) Total wetland area impacted: 0.002 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 (permanent)	Comments (i.e. location, likely Water of the US, appendix reference)
Wetland 1	palustrine emergent	0.028	0.002	Wetland 1 is located in the northeast quadrant of Bridge 277. Wetland 1 is likely a Water of the U.S. (Appendix F, page F-5)

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

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 aerial map of the project area, and the RFI report (Appendix E, pages E-2, E-3, and E-6) there are two wetlands within the 0.5-mile search radius. The site visit on May 11, 2021, conducted by Little River Consultants, identified one wetland within the project area.

Waters of the U.S Report

A Waters of the U.S. Determination / Wetland Delineation Report was completed on July 26, 2021. Please refer to Appendix F page F-1 to F-26, for the Waters of the U.S. Determination / Wetland Delineation Report. It was determined that one likely jurisdictional wetland, Wetland 1, is located within the project area. The USACE makes all final determinations regarding jurisdiction.

Wetland 1 is located approximately 45 feet north of Monroeville Road in the northeast quadrant of Bridge 277, near the southwest corner of the agricultural field. Wetland 1 is approximately 0.028 acre and is classified as a palustrine emergent (PEM) wetland. Wetland 1 is located within the floodway of Hoffman Drain, so it likely receives backwater flooding.

Work within Wetland 1 includes equipment access for bridge replacement activities. This will permanently impact up to approximately 0.002 acre of Wetland 1. Because access is needed to replace the bridge, avoidance of the wetlands cannot be avoided. However, appropriate sediment and erosion control measures will be implemented to minimize impacts to the wetlands during construction. The location of Wetland 1 will be shown on the final design plan sheets. A call-out box stating Do Not Disturb Outside Construction Limits will be added to Wetland 1 on the final design plans. Because wetland impacts will not exceed the 0.10-acre mitigation threshold, wetland mitigation will not likely be required. Waterway permits will be needed due to wetland impacts. Refer to the Permits section of this CE document for more details.

Early Coordination

The IDNR-DFW responded to early coordination on April 15, 2021, with general comments and standard recommendations pertaining to wetland impacts. Recommendations generally include additional coordination with IDEM and USACE, wetland mitigation development, and limiting impacts to riparian wetlands (Appendix C, pages C-7 to C-9). All applicable agency recommendations are included in the Environmental Commitments section of this CE document.

	Presence	Impacts	
		Yes	NO
Terrestrial Habitat	X	X	

Total terrestrial habitat in project area: 1.18 Acre(s) Total tree clearing: 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 11, 2021, conducted by Little River Consultants, the aerial map of the project area (Appendix B, page B-3), approximately 1.18 acre of terrestrial habitat, consisting of agricultural, maintained roadside grass, and riparian habitat is present within and adjacent to the project area. Dominant vegetation within the project area consisted of lady's thumb (*Persicaria maculosa*), Kentucky blue grass (*Poa pratensis*), and tall fescue (*Schedonorus arundinaceus*). Avoidance of terrestrial impacts would not be practicable because the terrestrial habitat is present within the area that construction activities will occur. No trees are present within the project area. Therefore, tree clearing will not be required for this project. Mitigation for terrestrial habitat impacts is not expected as there are no unique, prime, or high-quality habitats known to exist within the project area. Because the project will result in more than one acre of land disturbance, an IDEM Rule 5/Construction Stormwater General Permit (CSGP) will likely be required. Refer to the Permits section of this CE document for more details.

Early Coordination
The IDNR-DFW responded to early coordination on April 15, 2021, with general comments and standard recommendations to minimize, avoid, or compensate for impacts to terrestrial habitat. Recommendations generally include revegetating all bare and disturbed areas, minimizing clearing of trees and brush, and seed and protect all disturbed slopes or streambanks that are not currently protected (Appendix C, pages C-7 to C-9). All applicable agency recommendations are included in the Environmental Commitments section of this CE document.

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, page E-4), completed by Clark Dietz on September 17, 2021, the IDNR Allen County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR-DFW early coordination response letter dated March 19, 2021 (Appendix C, pages C-7 to C-9), the Natural Heritage Program's Database has been checked and to date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity. An INDOT 0.5-mile bat review occurred on March 25, 2021, and the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area.

Indiana Bat and Northern Long-Eared Bat
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-16 to C-28). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and northern long-eared bat (NLEB) (*Myotis septentrionalis*).

The project qualifies for the *Rangewide 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 April 3, 2023, and no evidence of bats or birds was identified. An effect determination key was completed on May 25, 2023, and based on the responses provided, the project was found to have "Not Likely to Adversely Affect" on the Indiana bat and/or the NLEB. INDOT reviewed and concurred with the effect finding on May 26, 2023, and requested USFWS's review of the finding (Appendix C, page C-29 to C-39). 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), including lighting restrictions and general guidance were generated during the completion of the effect determination key. AMMs and/or commitments are included as firm commitments in the Environmental Commitments section of this document.

Other Species
The official species list generated from IPaC indicated three other species are present within the project area: The proposed endangered Tricolored Bat (*Perimyotis subflavus*), the experimental population/non-essential Whooping Crane (*Grus americana*), and the candidate species Monarch Butterfly (*Danaus plexippus*). The Tricolored Bat is currently proposed for endangered status, but it has not yet been formally designated as such. The Whooping Crane is an experimental population and considered non-essential. The Monarch Butterfly is listed as a candidate species. Therefore, the Tricolored Bat, Whooping Crane, and Monarch

Butterfly are not protected by the Endangered Species Act. This project qualifies for the 2013 USFWS Interim Policy for the Review of Highway Transportation Projects in Indiana. Therefore, no further coordination is needed with the USFWS.

Migratory Birds

Monroeville Road over Hoffman Drain (Structure Number 02-00207) 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 firm commitment is included in the Environmental Commitments of this document.

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

Geological and Mineral Resources	**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): N/A

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

Based on a desktop review and the Indiana Karst Region map, the project is located outside the designated Indiana Karst Region as outlined in the most current Protection of Karst Features during Project Development and Construction. According to the topo map of the project area (Appendix B, page B-2), the RFI report (Appendix E, pages E-2, E-3, and E-6) there are no karst features identified within or adjacent to the project area. In the early coordination response dated September 20, 2021, the Indiana Geological and Water Survey (IGWS) did not indicate that karst features exist in the project area (Appendix C, pages C-4 to C-6) However, the IGWS did indicate that the project is within an area that has moderate liquefaction potential; a floodway; high potential of bedrock resource; low potential of sand and gravel resource; and no documented active or abandoned mineral resources extraction sites. The response from IGWS was communicated with the designer on March 19, 2021. No impacts are expected.

SECTION C – OTHER RESOURCES

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

Wellhead Protection Area (WHPA) and Source Water Area (SWA)

The IDEM Wellhead Proximity Determinator website (http://www.in.gov/idem/cleanwater/pages/wellhead/) was accessed on March 28, 2023, by Clark Dietz. This project is not located within a Wellhead Protection Area or Source Water Area. Additionally, in an early coordination letter dated March 19, 2021, IDEM stated the project is not located within a wellhead area or a source water area (Appendix C, page C-10). No impacts are expected.

Water Wells

The Indiana Department of Natural Resources Water Well Record Database website (https://www.in.gov/dnr/water/ground-water-wells/water-well-record-database/) was accessed on March 28, 2023, by Clark Dietz. The nearest well is located over 1 mile west of the project area. Therefore, no impacts are expected.

Urban Area Boundary

Based on a desktop review of INDOT's Municipal Separate Storm Sewer System (MS4) website (https://entapps.indot.in.gov/MS4/) by Clark Dietz on March 28, 2023, this project is not located in an Urban Area Boundary. No impacts are expected.

Public Water Systems

Based on a desktop review, a site visit on April 3, 2023, by Clark Dietz, the aerial map of the project area (Appendix B, page B-3), and IDEM's Public Water Systems Search website (https://myweb.in.gov/IDEM/DWW/), no public water systems were identified within or adjacent to the project area. Additionally, a review of the Indiana Department of Environmental Management's Significant Water Withdrawal Facilities website (https://www.in.gov/dnr/water/water-availability-use-rights/significant-water-withdrawal-facility-data/) by Clark Dietz on May 12, 2023, indicated that the nearest significant water withdraw facility for public supply is located over one mile west of the project area. Therefore, no impacts are expected.

Floodplains	**Presence**	**Impacts** Yes	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 [X] Level 5 [ ]

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

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 Clark Dietz on March 28, 2023, and the RFI report (Appendix E, pages E-3 and E-6), this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, page F-30). An early coordination letter was sent on September 17, 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 states Category 4 projects involve replacement of existing drainage structures on essentially the same alignment. The site must be inspected upstream and downstream to determine existing conditions that affect the design of the replacement structure. For major drainage structures (opening larger than 100 square feet), a hydraulic design study is required as part of the preliminary design phase to assess the impacts of various structure sizes on the flood risk within the floodplain.

No homes are located within the base floodplain within 1000 feet upstream and no homes are located within the base floodplain

within 1000 feet downstream. The proposed structure will have an effective capacity such that backwater surface elevations are not expected to substantially increase. As a result, there will be no substantial adverse impacts on natural and beneficial floodplain values; there will be no substantial change in flood risks; and there will be no substantial increase in potential for interruption or termination of emergency service or emergency evacuation routes; therefore, it has been determined that this encroachment is not substantial. A hydraulic design study that addresses various structure size alternatives will be completed during the preliminary design phase. A summary of this study will be included with the Field Check Plans.

Early Coordination

In their early coordination response, the IDNR-DFW stated this proposal will require the formal approval of our agency for construction in a floodway pursuant to the Flood Control Act (IC 14-28-1), unless it qualifies for a bridge exemption (Appendix C, pages C-7 to C-9). Because the project involves a bridge, is in a rural area, and involves a stream with an upstream drainage area of 11.53 square miles (Appendix F, pages F-27 to F-29), the project qualifies for the INDOT and IDNR Memorandum of Understanding for Maintenance Activity Exemption. Therefore, a Construction in a Floodway Permit will not be required.

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

Total Points (from Section VII of CPA-106/AD-1006*) **141**

**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 April 3, 2023, by Clark Dietz, the aerial map of the project area (Appendix B, page B-3), the project will convert 0.60 acres of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on April 6 2023, to Natural Resources Conservation Services (NRCS). Coordination with NRCS resulted in a score of 141 on the (NRCS-CPA-106 Form) (Appendix C, pages C-11 to C-12). NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

SECTION D – CULTURAL RESOURCES

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

Full 106 Effect Finding

No Historic Properties Affected [X] No Adverse Effect [ ] Adverse Effect [ ]

Eligible and/or Listed Resources Present

NRHP Building/Site/District(s) [ ] Archaeology [ ] NRHP Bridge(s) [X]

Documentation Prepared (mark all that apply)		**ESD Approval Date(s)**	**SHPO Approval Date(s)**
APE, Eligibility and Effect Determination	X	April 12, 2021	April 26, 2021
800.11 Documentation	X	December 2, 2022	January 11, 2023
Historic Properties Report or Short Report	X	August 2, 2021	August 17, 2021
Archaeological Records Check and Assessment			
Archaeological Phase Ia Survey Report	X	June 15, 2022	July 12, 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.

Per Section 106 of the National Historic Preservation Act of 1966, as amended, and CFR Part 800 (Revised January 2001), federal agencies are required to consider the impact of federal undertakings upon historic properties in the area of the undertaking. Historic properties include buildings, structures, sites, objects and or districts. Under Section 106 of the National Historic Preservation Act of 1966 (NHPA), historic properties are defined as any prehistoric or historic district, site, building, structure, or object that is listed in or eligible for listing in the National Register of Historic Places (NRHP). This project is receiving funds from the FHWA which is designated as the lead Federal agency in this Section 106 undertaking.

The existing structure (Monroeville Road over Hoffman Drain; Structure Number 02-00277 and NBI 0200207), has been classified as a Non-Select bridge by the INDOT Historic Bridge Inventory (2010). The decorative railing for this structure is a character-defining feature. Therefore, the procedures outlined in Stipulation III.B. of the Historic Bridges PA were being followed. A draft HBAA and Purpose and Need Statement were prepared in consultation with consulting parties and the Indiana State Historic Preservation Officer (SHPO).

Area of Potential Effect (APE):

An Indiana Department of Historic Preservation and Archaeology (DHPA) Qualified Professional (QP) Architectural Historian from Clark Dietz, who meets the Secretary of the Interior's Professional Qualification Standards as defined in 36 CFR Part 61, established an Area of Potential Effects (APE) for the project, performed fieldwork and identified and evaluated above-ground resources within it. The APE is the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking may be different for different kinds of effects caused by the undertaking. The APE for this project was drawn to include properties immediately adjacent to the project area and within the project viewshed. The APE for this project has an irregular shape and consists of rural agricultural fields and five rural farmsteads (Appendix D, page D-11).

Coordination with Consulting Parties:

On April 12, 2021, early coordination was initiated with potential consulting parties with a letter inviting organizations and individuals to be consulting parties (Appendix C, pages C-1 to C-3). The following is a list of organizations and individuals that were sent letters. Those who indicated they wished to be consulting parties are in bold.

Section 106 Consulting Parties	Date of Response	Appendix
State Historic Preservation Office (SHPO)	**April 26, 2021**	**Appendix D, Page D-22**
Allen County Commissioners	No response received	N/A
Allen County Council	No response received	N/A
Northeastern Indiana Regional Coordinating Council (NIRCC)	**April 19, 2021**	**Appendix D, Page D-21**
Indiana Landmarks – Northeast Regional Office	No response received	N/A
African/African American Historical Museum	No response received	N/A
Allen County Historian	No response received	N/A
Allen County Genealogical Society of Indiana	No response received	N/A
The History Center (Fort Wayne) / Allen County Historical Society	No response received	N/A
Monroeville Historical Society	No response received	N/A
ARCH, Inc.	No response received	N/A

Historic Spans Task Force (Paul Brandenburg, Chair)	No response received	N/A
Professor James L. Cooper	No response received	N/A
Historic Hoosier Bridges	No response received	N/A
HistoricBridges.org	No response received	N/A
Historic Bridge Foundation	No response received	N/A
Eastern Shawnee Tribe of Oklahoma	No response received	N/A
Miami Tribe of Oklahoma	No response received	N/A
Peoria Tribe of Indians of Oklahoma	No response received	N/A
Pokagon Band of Potawatomi Indians	**May 11, 2021**	**Appendix D, Page D-24**
Shawnee Tribe	No response received	N/A
Absentee Shawnee Tribe of Oklahoma	No response received	N/A
Delaware Tribe of Indians	No response received	N/A
Forest County Potawatomi County	No response received	N/A
Wyandotte Nation	No response received	N/A

Note: INDOT is acting on behalf of FHWA and Indiana SHPO is an automatic consulting party] See the list of consulting parties in Appendix D, page D-13, and all consulting party correspondence in Appendix D, pages D-14 to D-56.

The NIRCC responded to the ECL on April 19, 2021, stating that Bridge 277 in Allen County is a - and is listed in the SHAARD with a rating of "Contributing". Flaugh-Hoffman Farm located at 15149 Monroeville Road is listed in the SHAARD with a rating of "Notable", and the property associated with the farm is within the project area. Additionally, the project area is within the floodway associated with Hoffman Drain (Appendix D, page D-21).

The Indiana SHPO responded to the ECL on April 26, 2021, and did not have any additional recommendations for consulting parties and concurred with the APE (Appendix D, pages D-22 to D-23).

The Pokagon Band of Potawatomi Indians responded to the ECL on May 11, 2021, and determined this project will not cause any negative impact on historic, religious, or culturally significant resources for the Pokagon Band of Potawatomi Indians (Appendix D, page D-24).

Archaeology:

An Indiana Archaeological Short Report was completed by a qualified professional who meets the Secretary of the Interior's Professional Qualification Standards on May 17, 2022 (Shaw, 2022) (Appendix D, pages D-61 and D-62). No sites listed on or eligible for inclusion on the NRHP were identified within the project area. The archaeological report was approved by INDOT Cultural Resources Office (CRO) on June 15, 2022. The Archaeological Short Report was distributed to consulting parties on June 17, 2022.

The Peoria Tribe of Indians of Oklahoma responded to the Archaeological Short Report on June 20, 2022, and stated they have no objection at this time to the proposed project. If, however, at any time items are discovered which fall under the protection of Native American Graves Protection and Repatriation Act (NAGPRA), the Peoria Tribe of Indians of Oklahoma requests immediate notification and consultation (Appendix D, page D-48).

The Miami Tribe of Oklahoma responded to the Archaeological Short Report on June 21, 2022, and stated the Miami Tribe offers no objection to the above-referenced project at this time, as they are currently not aware of existing documentation directly linking a specific Miamai cultural or historic site to the project site. However, given the Miami Tribe's deep and enduring relationship to its historical lands and cultural property within present-day Indiana, if any human remains or Native American cultural items falling under the NAGPRA or archaeological evidence is discovered during any phase of this project, the Miami Tribe requests immediate consultation with the entity of jurisdiction for the location of discovery (Appendix D, page D-49).

The Shawnee Tribe responded to the Archaeological Short Report on June 20, 2022, and stated they have no issues or concerns at this time, but in the event that archaeological materials are encountered during construction, use, or maintenance of this location, please re-notify them at that time as they would like to resume immediate consultation under such a circumstance (Appendix D, pages D-50 and D-51).

The Forest County Potawatomi County responded to the Archaeological Short Report on June 17, 2022, and expressed no objections to the proposed project. Additionally, they requested to remain as a consulting party for the project (Appendix D, pages D-52 and D-53).

The Indiana SHPO concurred with the findings of the archaeological report on July 12, 2022, and stated no additional archaeological assessment is necessary (Appendix D, pages D-54 to D-55).

Historic Properties:

The APE was investigated for the existence of any historic properties and/or structures by a qualified professional from Clark Dietz on April 3, 2021. Per the field visit and associated documentary research, the historian identified the subject bridge eligible for the NRHP and recommended no other properties as eligible for listing in the NRHP.

The Historic Properties Short Report (HPSR) was approved by INDOT-CRO on August 2, 2021, and SHPO on August 17, 2021. The APE contains one bridge that was previously determined eligible for listing in the NRHP: Allen County Bridge 277 (National Bridge Inventory [NBI] No. 0200207). As a result of the identification and evaluations efforts of this project, one structure, Allen County Bridge 277, was previously determined eligible for listing in the NRHP and remains eligible for the NRHP. The APE contains no additional properties that are recommended eligible for listing in the NRHP (Appendix D, pages D-58 to D-60).

The HPSR was distributed to consulting parties on August 2, 2021. The Pokagon Band of Potawatomi Indians responded to the HPSR on September 17, 2021, and stated the proposed work is occurring within a mile of a known historic site or feature that is considered sensitive or recorded in the Pokagon Band Historic Inventory Database. They made the determination that this undertaking will have No Adverse Effect on any historic, religious, or culturally significant resources to the Pokagon Band of Potawatomi Indians. Additionally, they requested that if any cultural or archaeological resources are uncovered during construction, please stop work, and contact them immediately (Appendix D, page D-32).

The HBAA was distributed on February 21, 2022, to consulting parties. The HBAA concluded that the preferred alternative is the Replacement – Demolition of Historic Bridge and New Bridge Construction. Marketing efforts have concluded, and a responsible party did not step forward to fund the preservation and maintenance of the historic bridge. Therefore, Replacement – Demolition of Historic Bridge and New Bridge Construction is the preferred alternative. This alternative noted that replacement would be a single-span bridge on the same alignment. The bridge would be lengthened, and the profile raised to accommodate the hydraulic needs of the site for a Q100 flow event. The Q100 flow event, also referred to as the 100-year flood event, is a flood event with a 1% probability of occurring in any given year. It should be noted that the hydraulics for the existing bridge are currently acceptable. However, the proposed bridge will require a deeper beam and therefore a raised profile to provide 1-foot minimum freeboard above the water elevation for the 100-year flood event. Additionally, the historic element of the bridge, the bridge railing, would be demolished as part of this alternative and the new bridge railing could be formed with colored concrete or grout to replicate the architectural features of the existing bridge rail (Appendix I, pages I-22 to I-30).

The SHPO responded to the HBAA on March 18, 2022, stating that they have no concerns regarding the proposed treatment presented in the HBAA to highlight the unique architectural feature of the existing bridge rail on the new, replacement bridge's railings. The SHPO stated that given the results of the calculations made for the alternatives and the standards pursuant to the Indiana Design Manual, it is clear why Alternative F: Replacement and Demolition of Historic Bridge is the preliminary preferred alternative.

The SHPO requested that the bridge be photographically documented prior to commencement of construction activities. In addition to the photographs, the SHPO requested a photo log that corresponds to the photographs, a photo key, and an overview thumbnail sheet will need to be provided. A draft copy of this documentation on CD, flash drive, or any other previously approved storage device or transfer method for review and approval will be sent to the SHPO. Upon approval, this documentation will be provided to a public or not-for-profit organization that is willing to accept a copy of this documentation and make it available to the public. The SHPO will be informed on which local or not-for-profit organization is willing to accept this documentation. The SHPO approval of the photo documentation shall be obtained prior to the approval of the environmental consultation form (ECF) (Appendix D, pages D-38 to D-39). A firm commitment to this effect has been added to the Environmental Commitments section of this CE document.

The Pokagon Band of Potawatomi Indians responded to the HBAA on March 21, 2022, and stated the proposed work is occurring within a mile of known archaeological sites, historic sites or features that are considered sensitive or recorded in the Pokagon Band Historic Inventory Database. They made the determination that the project will have No Adverse Effect on any historic, religious, or culturally significant resources to the Pokagon Band of Potawatomi Indians. Additionally, they requested that if any cultural or archaeological resources are uncovered during construction, please stop work, and contact them immediately (Appendix D, page D-40).

Documentation Finding:

Per the Historic Bridges PA, the FHWA will satisfy its Section 106 responsibilities involving Select and Non-Select bridges through the Project Development Process (PDP) of the Historic Bridges PA (Stipulation III). The subject bridge has been classified as a Non-

Select bridge by the INDOT Historic Bridge Inventory and, thus, the procedures outlined in Stipulation III.B of the Historic Bridges PA will be followed to fulfill FHWA's Section 106 responsibilities for the bridge. Therefore, the finding for this project only applies to other resources located within the APE and not to the subject bridge. Regarding other resources located in the project area, INDOT, acting on FHWA's behalf, has determined a No Historic Properties Affected finding is appropriate for this undertaking.

The 800.11(d) documentation for the No Historic Properties Affected was signed by INDOT CRO, on behalf of FHWA, on December 2, 2022 (Appendix D, pages D-1 to D-69). The 800.11(d) document was sent to consulting parties, including the Indiana SHPO, on December 9, 2022. The Indiana SHPO concurred with the No Historic Properties Affected Section 106 finding on January 11, 2023 (Appendix D, pages D-72 to D-73).

Marketing Requirements:

In compliance with the project development process for Non-Select bridges-per the Historic Bridge PA, a legal notice was placed in the local papers, The Journal Gazette, on August 25, 2021, and in the statewide newspaper, The Indianapolis Star, on August 26, 2021, announcing the potential availability of Allen County Bridge 277 to interested parties. The bridge was listed on the INDOT Historic Bridge Marketing Program website (https://www.in.gov/indot/current-programs/green-initiatives/historic-bridges-marketing-program/) on August 19, 2021. Additionally, signs notifying users that the bridge may be replaced, and is available for potential reuse, were placed on both approaches to the bridge on August 25, 2021 (Appendix D, pages D-63 to D-69).

Public Involvement:

To meet the public involvement requirements of Section 106, a legal notice of FHWA's finding of "No Historic Properties Affected" was published in the Journal Gazette on December 13, 2022, offering the public an opportunity to submit comment pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4). The public comment period closed 30 days later on January 13, 2023, and no public comments were received. The text of the public notice and the affidavit of publication appear in Appendix D, pages D-70 and D-71.

Pursuant to the Historic Bridge Programmatic Agreement (PA), a public hearing was held. A legal notice of public hearing was published in the Journal Gazette on January 23, 2024, and January 30, 2024 (Appendix G, pages G-2 to G-4). The legal notice notified the public of the hearing and offered the public an opportunity to comment on the environmental document, 800.11(e) documentation, and preliminary design plans. Potentially affected property owners (i.e. adjacent property owners) were notified of the hearing via mail on January 23, 2024 (Appendix G, page G-7). Consulting parties were also notified of the hearing via e-mail on January 23, 2024 (Appendix G, page G-8). The public hearing was held on February 8, 2024, at the Allen County Public Library-Monroeville Branch (115 Main Street, Monroeville, IN 46773). Representatives from Allen County, INDOT, and Clark Dietz (project designer and preparer of this environmental document) were in attendance. The public hearing was the last opportunity for a responsible party to step forward and provide the necessary sureties to obtain ownership of the bridge. No interested parties came forward to fund the preservation and maintenance of the bridge.

The public hearing began at 5:45 p.m. and allowed the public an opportunity to hear information on the project and comment on the environmental document, 800.11(e) documentation, and preliminary design plans. According to the sign-in sheet, 5 members of the public attended the public hearing (Appendix G, page G-10). A comment form was also provided to each attendee with instructions on how to submit comments (Appendix G, pages G-11 to G-15). The public had 30 days to provide comments on the project. The opportunity for the public to provide comments on the project and public hearing expired on February 22, 2024. One comment was received during the public comment period and is discussed below.

The only comment received was during the public hearing, and it involved the scope of the project and how far forward the project looked during the design process (Appendix G, page G-37). Clark Dietz responded to the comment, explaining that the design process included projections that look 20 years into the future for bridge use. Please see Appendix G page G-38 for a summary of the comment received and the corresponding response. No additional comments were received during the public comment period.

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	X	X	

	Evaluations Prepared
Programmatic Section 4(f)	X
"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, a field visit conducted on April 3, 2021, by Clark Dietz, an aerial map of the project area (Appendix B, page B-3), the infrastructure section in the RFI report (Appendix E, page E-2), and the 800.11(d) documentation (Appendix D, pages D-1 to D-69), there is one Section 4(f) resource within or adjacent to the project area.

Structure Number 02-00207 is afforded protection under Section 4(f) as a historic site that is eligible for listing on the NRHP. Section 4(f) statute places restrictions on the use of land from historic sites for highway improvements but makes no mention of historic bridges or highways that are already serving as transportation facilities. FHWA therefore, determined that Section 4(f) will only apply when a historic bridge is demolished, or if the historic quality for which the facility was determined eligible for the NRHP is substantially affected by the proposed improvements.

The proposed bridge project qualifies for the programmatic Section 4(f) evaluation and approval for FHWA projects that necessitate the use of a historic bridge when the project meets the following criteria:

1. The bridge is to be replaced or rehabilitated with Federal funds.
2. The project will require the use of a historic bridge structure which is on or is eligible for listing on the NRHP.
3. The bridge is not a National Historic Landmark.
4. The FHWA Division Administrator determines that the facts of the project match those set forth by the investigation of the appropriate Alternatives, Findings, and Mitigation.
5. Agreement among the FHWA, the SHPO, and the Advisory Council on Historic Preservation (ACHP) has been reached through procedures pursuant to Section 106 of the NHPA. Structure Number 040-067-01838B bridge project meets these criteria.

To apply the Historic Bridge Programmatic Section 4(f) Evaluation, three alternatives that avoid any use of the historic bridge must

be examined: do nothing (Alternative A), build a new structure at a different location without affecting the historic integrity of the historic bridge (Alternative D), and rehabilitate the historic bridge without affecting the historic integrity of the structure (Alternatives B1 and C1). However, the Indiana Historic Bridge PA requires a more extensive alternatives analysis evaluating additional alternatives.

The INDOT Historic Bridges PA serves as a framework for guiding INDOT and its relevant stakeholders in the evaluation of transportation projects on historical bridges. By adhering to the procedural protocols and evaluative criteria detailed in the agreement, INDOT can effectively assess and manage historic bridges while meeting the programmatic Section 4(f) evaluation requirements. Per the guidance, alternatives must be analyzed until a feasible and prudent alternative has been determined. A feasible alternative is one that is possible to engineer, design, and build, and a prudent alternative is one that does not present significantly unique or unusual factors (e.g. cost; social, economic, or environmental impacts; community disruption). Once a feasible and prudent alternative has been determined, the remaining alternatives do not need to be analyzed. The following alternatives were previously discussed in detail in the Alternatives section of this document. A summarized version of the alternatives is provided below. The formal Alternative Analysis is provided in Appendix I, pages I-22 to I-30.

Alternative A: No Build/Do Nothing
This alternative suggests taking no action, resulting in no construction, environmental impacts, or associated costs. However, the Allen County Bridge No. 277 would continue to deteriorate, eventually requiring closure in approximately 10 years. Since this alternative doesn't address the bridge deficiencies or maintain through access on Monroeville Road, it doesn't meet the project's purpose and need and was not considered further.

Alternative B1: Rehabilitation for Continued Vehicular Use Meeting Secretary of Interior's Standards for Rehabilitation
This alternative involves rehabilitating the bridge while preserving its historic features. Repairs would use similar materials to the existing bridge to the greatest extent possible. However, the exterior box beams, which support the bridge's historic aspect, cannot be repaired. Therefore, this alternative doesn't meet the project's purpose and need and was not considered further.

Alternative B2: Rehabilitation for Continued Vehicular Use NOT Meeting Secretary of Interior's Standards for Rehabilitation
This alternative proposes rehabilitating the existing bridge by replacing severely deteriorated elements. The superstructure would be entirely replaced, and the bridge railing updated, leading to the loss of historic materials. The extent of work required to meet the rating are unknown, making it imprudent and failing to meet the purpose and need of the project. This alternative was not considered further.

Alternative C1: Rehabilitation for Continued Vehicular Use (one-way pair option) Meeting Secretary of Interior's Standards for Rehabilitation
This alternative involves rehabilitating the bridge for continued vehicular use while constructing a new adjacent bridge as a one-way pair option. Repairs to the existing bridge would preserve historic features. However, the larger footprint and higher costs associated with this alternative make it imprudent and unsuitable for the project. It was not considered further.

Alternative C2: Rehabilitation for Continued Vehicular Use (one-way pair option) NOT Meeting Secretary of Interior's Standards for Rehabilitation
Similar to Alternative C1, this alternative involves rehabilitating the bridge while constructing a new one for one-way traffic. However, the historic materials would not be maintained, and the extent of work needed for the rating requirements is unknown. Due to its imprudence and failure to meet the project's purpose and need, this alternative was not considered further.

Alternative D: Bypass (non-vehicular use)/Build New Structure
This alternative suggests leaving the existing bridge for non-vehicular traffic and constructing a new structure to accommodate vehicles. The existing bridge would require rehabilitation for non-vehicular use, and the new structure would meet current requirements. However, this alternative would likely result in a larger footprint and higher costs. Additionally, no interested parties came forward to fund the preservation and maintenance of the bridge. Therefore, this alternative is not feasible and was discarded.

Alternative E: Relocation of Historic Bridge and New Bridge Construction
This alternative suggests relocating the existing bridge to a new location for another use while constructing a new bridge in the current location. However, concrete structures like the existing bridge cannot be easily disassembled without causing further damage. The salvageable materials would be limited, primarily consisting of precast beams, while the historic rail may be salvaged. This alternative would likely incur higher costs due to the rehabilitation of the existing bridge and the construction of a new bridge. Additionally, the larger footprint would result in more environmental impacts. While this alternative meets the project's purpose and need, no interested parties came forward to fund the preservation and maintenance of the bridge. Therefore, this alternative is not feasible and was discarded.

Alternative F: Replacement and Demolition of Historic Bridge (preferred alternative)
This alternative proposes the removal of the existing bridge and the construction of a new bridge in the same location. The new bridge would meet all necessary requirements regarding alignment, sight distance, width, and structural capacity set by INDOT (Indiana Department of Transportation). Since the historic element of the bridge, the bridge railing, would be demolished, the new bridge railing could be created with colored concrete or grout to replicate the architectural features of the original railing. This alternative is considered feasible, prudent, and meets the purpose and need of the project.

The programmatic Section 4(f) evaluation and approval may be used only for projects where the FHWA Division Administrator, in accordance with this evaluation, ensures that the proposed action includes all possible planning to minimize harm. The project has considered all appropriate measures to minimize harm and mitigate any adverse impacts or effects on Structure Number 02-00207, including development of the initial alternative analysis. It was determined that, since no party stepped forward to take responsibility for the existing bridge during the public involvement process or marketing period, Alternative F is the preferred choice.

Pursuant to the Programmatic Section 4(f) Evaluation and Approval for FHWA projects that necessitate the use of historic bridges, the preferred alternative (Alternative F) will result in a use of the historic bridge.

The FHWA signature of this Level 4 Categorical Exclusion will act as FHWA concurrence of this Programmatic Section 4(f) evaluation for Structure Number 02-00207.

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 23 properties in Allen County (Appendix I, page I-1). None of these properties are located within or adjacent to the project area. Therefore, there will be no impact to Section 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?	X	
Is the project exempt from conformity?	X	
If No, then:		
Is the project in the Transportation Plan (TP)?		
Is a hot spot analysis required (CO/PM)?		

Location in STIP: N/A

Name of MPO (if applicable): Northeastern Indiana Regional Coordinating Council (NIRCC)

Location in TIP (if applicable): FY 2024-2028, pg. 81

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.

Statewide Transportation Improvement Program (STIP)

This project is included in the Fiscal Year (FY) 2024-2028 Northeastern Indiana Regional Coordinating Council (NIRCC) Metropolitan Planning Organization (MPO) Transportation Improvement Program (TIP) which has been directly incorporated into the FY 2024-2028 State Transportation Improvement Program (STIP) (Appendix H, pages H-1 to H-5).

Attainment Status

This project is located in Allen County, which is currently a maintenance area for Ozone under the 1997 Ozone 8-hour standard which was revoked in 2015 but is being evaluated for conformity due to the February 16, 2018, South Coast Air Quality Management District V. Environmental Protection Agency, Et.Al. Decision according to the IDEM Office of Air Quality website (https://www.in.gov/idem/sips/files/nonattainment_county_list.pdf). This project has been identified as being exempt from air quality analysis in accordance with 40 CFR Part 93.126 and this project is not a project of air quality concern (40 CFR Part 93.123). Therefore, the project will have no significant impact on air quality.

MSAT

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 comply with the local/regional development patterns for the area. The project is not anticipated to result in substantial impacts to community cohesion because it will not change access to properties within the area or divide existing communities. The proposed project is not expected to impact the surrounding community or cause economic impacts to the surrounding area. Therefore, the project will have minimal or no negative impacts on the community or local economy.

There are no businesses within the project area. Access to all properties will be maintained during construction. Per the Fairs and Festivals website (www.fairsandfestivals.net), accessed on May 23, 2023, by Clark Dietz, no fairs or festivals are currently scheduled within a 10-mile radius of zip code 46773 (project area). Any future fairs/festivals that may be planned are unlikely to be impacted by the project since a detour route will be provided.

Title II of the ADA (28 CFR Section 35.150) mandates that state and local governmental entities must create a Transition Plan specifically for curb ramps or sloped areas at points where walkways intersect curbs. Allen County possesses an approved ADA Transition Plan, dated August 12, 2016 (Appendix I, pages I-32 and I-34). According to this plan, sidewalks and ramps constructed for planned development, as well as those replaced by or for Allen County or property owners, must adhere to the regulations and standards outlined in the PROWAG (Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way). The law states that public entities must provide accessible curb ramps or sloped areas at curb crossings along pedestrian walkways. In cases of new construction or alterations, existing noncompliant sidewalks must be improved to the greatest extent possible. However, Title II of the ADA and PROWAG do not require that sidewalks be made accessible or be provided in areas where they are currently absent. The project is located in a rural area and lacks any existing facilities within the right-of-way (Appendix B, pages B-3 to B-10). Due to its rural nature and the absence of existing ADA facilities such as walkways, sidewalks, and curb ramps, the project is not required to include ADA compliant facilities. Therefore, the project complies with the approved ADA Transition Plan for Allen County.

Public Facilities and Services

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

Based on a desktop review, the aerial map of the project area (Appendix B, page B-3), and the RFI report (Appendix E, page E-2) there are no public facilities within the 0.5-mile search radius, which was confirmed by the site visit on April 3, 2023, by Clark Dietz. Therefore, no impacts are expected. Access to all properties will be maintained during construction. Per review of Google Maps, there does not appear to be any emergency services or public transportation stations located within the 0.5 mile search radius.

Per IDEM's Public Water Systems Search website (https://myweb.in.gov/IDEM/DWW/), the project area does not contain any public drinking water systems or residential water wells. One sanitary sewer system is present within the project area. However, impacts are not expected, and the sanitary sewer system will not require relocation for this project. Additionally, utility relocations, including communications and electricity, may be required for the project. Utility coordination has been initiated and is ongoing. If any utility relocations result in any additional environmental impacts that are not assessed in this environmental document, an Additional Information (AI) document may need to be prepared. A firm commitment to this effect has been added to the Environmental Commitments section of this CE document.

An early coordination letter was sent to INDOT Office of Aviation on March 19, 2021. INDOT Aviation responded to the early coordination letter on July 22, 2022, stating that if any object will exceed 200 ft in height regardless of location, the object will need to be airspaced with the Federal Aviation Administration (FAA) 45 days prior to construction through the OEAAA portal website (https://oeaaa.faa.gov/oeaaa/external/searchAction.jsp) (Appendix C, page C-13). A firm commitment to this effect has been added to the Environmental Commitments section of this CE document.

Early coordination letters were sent to the Allen County Council, Allen County Board of Commissioners, Allen County Surveyor's Office, Allen County Highway Department, Allen County Engineer, and Heritage Highschool on March 19, 2021, and the Town of Monroeville Wastewater Department on July 20, 2022 (Appendix C, pages C-1 to C-3). These organizations did not respond to the early coordination letter.

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

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.

EJ Analysis

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 0.617 acre of 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 Allen County. The community that overlaps the project area is called the affected community (AC). In this project, the ACs are Census Tracts 118.01 and 118.02. 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 United States Census Bureau and American Community Survey was obtained from the U.S. Census Bureau Data website (https://data.census.gov) on June 14, 2023, by Clark Dietz. The data collected for minority and low-income populations within the AC are summarized in the below table.

Table: Minority and Low-Income Data (American Community Survey 2021)

	COC – Allen County	AC-1 - Census Tract 118.01	AC-2 - Census Tract 118.02
Percent Minority	28%	2%	2%
125% of COC	34%	AC < 125% COC	AC < 125% COC
EJ Population of Concern		No	No
Percent Low-Income	12%	10%	7%
125% of COC	15%	AC < 125% COC	AC < 125% COC
EJ Population of Concern		No	No

AC-1, Census Tract 118.01 has a percent minority of 2% which is below 50% and is below the 125% COC threshold. AC-2, Census Tract 118.02 has a percent minority of 2% which is below 50% and is below the 125% COC threshold. Therefore, both ACs do not contain minority populations of EJ concern.

AC-1, Census Tract 118.01 has a percent low-income of 10% which is below 50% and is below the 125% COC threshold. AC-2, Census Tract 118.02 has a percent low-income of 7% which is below 50% and is below the 125% COC threshold. Therefore, both ACs do not contain low-income populations of EJ concern.

The census data sheets, maps, and calculations can be found in Appendix I, pages I-12 to I-17. The results of the EJ analysis concluded that both AC-1 (Census Tract 118.01) and AC-2 (Census Tract 118.02) have a percent minority and percent low-income below 50% and the 125% COC threshold. Consequently, neither AC contains minority populations nor low-income populations of environmental justice 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: 0 Businesses: 0 Farms: 0 Other: 0

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

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

SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)	**Documentation**
Red Flag Investigation (RFI)	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): September 17, 2021

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, an RFI was completed on September 17, 2021, by Clark Dietz (Appendix E, pages E-1 to E-6). No sites with hazardous material concerns (hazmat sites) or sites involved with regulated substances were identified in or within 0.5 mile of the project area (Appendix E, page E-3). 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)	X
Regional General Permit (RGP)	
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	X
Other	
IN Department of Natural Resources	
Construction in a Floodway	
Navigable Waterway Permit	
Other	
Mitigation Required	
US Coast Guard Section 9 Bridge Permit	
Others (Please discuss in the discussion below)	X

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

The project will permanently impact approximately 85 linear feet (0.025 acre) and temporally impact approximately 90 linear feet

(0.026 acre) of streams. The project will permanently impact approximately 0.002 acre of wetlands. A USACE Section 404 NWP and IDEM Section 401 Water Quality Certification RGP will be required due to stream and wetland impacts. The total area of land disturbance is approximately 1.18 acres. Because the project will result in more than one acre of land disturbance, an IDEM Rule 5/ CSGP Notice of Intent will likely be required.

Per the IDNR Division of Fish and Wildlife early coordination response letter, dated April 15, 2021, the project will require formal approval for construction in a floodway under the Flood Control Act, IC 14-28-1 unless the project qualifies for a bridge exemption (Appendix C, pages C-7 to C-9). To qualify for a bridge exemption, the project must be a state or county highway department project, involve a bridge, be in a rural area, and involve a stream crossing with an upstream drainage area of less than 50 square miles. Because the project involves a bridge, is in a rural area, and involves a stream with an upstream drainage area of 11.53 square miles (Appendix F, pages F-27 to F-29), the project qualifies for the INDOT and IDNR Memorandum of Understanding for Maintenance Activity Exemption. Therefore, a Construction in a Floodway Permit will not be required.

The Allen County Surveyor's Office Drainage Board's approval is required to allow a permanent structure in the legal drain. On May 11, 2023, the Allen County Drainage Board approved work within Hoffman Drain for this project (Appendix I, page I-31)

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

3) If any utility relocations result in any additional environmental impacts that are not assessed in this environmental document, an Additional Information (AI) document may need to be prepared. (INDOT ESD)

4) The location of Wetland 1 will be shown on the final design plan sheets. A call-out box stating Do Not Disturb Outside Construction Limits will be added to Wetland 1 on the final design plans. (INDOT ESD)

5) 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. (INDOT ESD)

6) If any object will exceed 200 ft in height regardless of location, the object will need to be airspaced with the FAA 45 days prior to construction through the OEAAA portal. (INDOT Aviation)

7) Per the request of the SHPO, Bridge 277 will be photographically documented prior to commencement of construction activities. In addition to the photographs, a photo log that corresponds to the photographs, a photo key, and an overview thumbnail sheet will need to be provided. A draft copy of this documentation on CD, flash drive, or any other previously

approved storage device or transfer method for review and approval will be sent to the SHPO. Upon approval, this documentation will be provided to a public or not-for-profit organization that is willing to accept a copy of this documentation and make it available to the public. The SHPO will be informed on which local or not-for-profit organization is willing to accept this documentation. SHPO approval of the photo documentation shall be obtained prior to the approval of the environmental consultation form (ECF). (INDOT CRO)

8) USFWS Bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after (April 3, 2025), 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. (USFWS)

9) 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)

10) Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active. (USFWS)

For Further Consideration:

1) The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. When determining an appropriate bridge or culvert size, consider whether or not wildlife/vehicle collisions are a concern at the crossing site. If feasible, a larger bridge or culvert opening can allow for the movement of wildlife under the roadway in order to minimize wildlife/vehicle collisions. (IDNR DFW)

2) 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)

3) Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR DFW)

4) Operate equipment used to replace the bridge from the existing roadway. (IDNR DFW)

5) 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)

6) Do not excavate or place fill in any riparian wetland. (IDNR DFW)

7) Avoid all work within the inundated part of the stream channel during the fish spawning season (April 1 through June 30); except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below Ordinary High Water Mark during this time unless the machinery is within the caissons or on the cofferdams. (USFWS)

8) Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat. (USFWS)

9) Restrict below low-water work in streams to placement of culverts, piers, pilings, and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. (USWFS)

10) Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels, and diversion fencing. (USWFS)

Appendix G: Public Involvement

Appendix H: Air Quality

Appendix I: Additional Studies

Categorical Exclusion

Appendix A

INDOT Supporting Documentation

Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4[1]
Section 106	Falls within guidelines of Minor Projects PA	"No Historic Properties Affected"	"No Adverse Effect"	-	"Adverse Effect" Or Historic Bridge involvement[2]
Stream Impacts[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

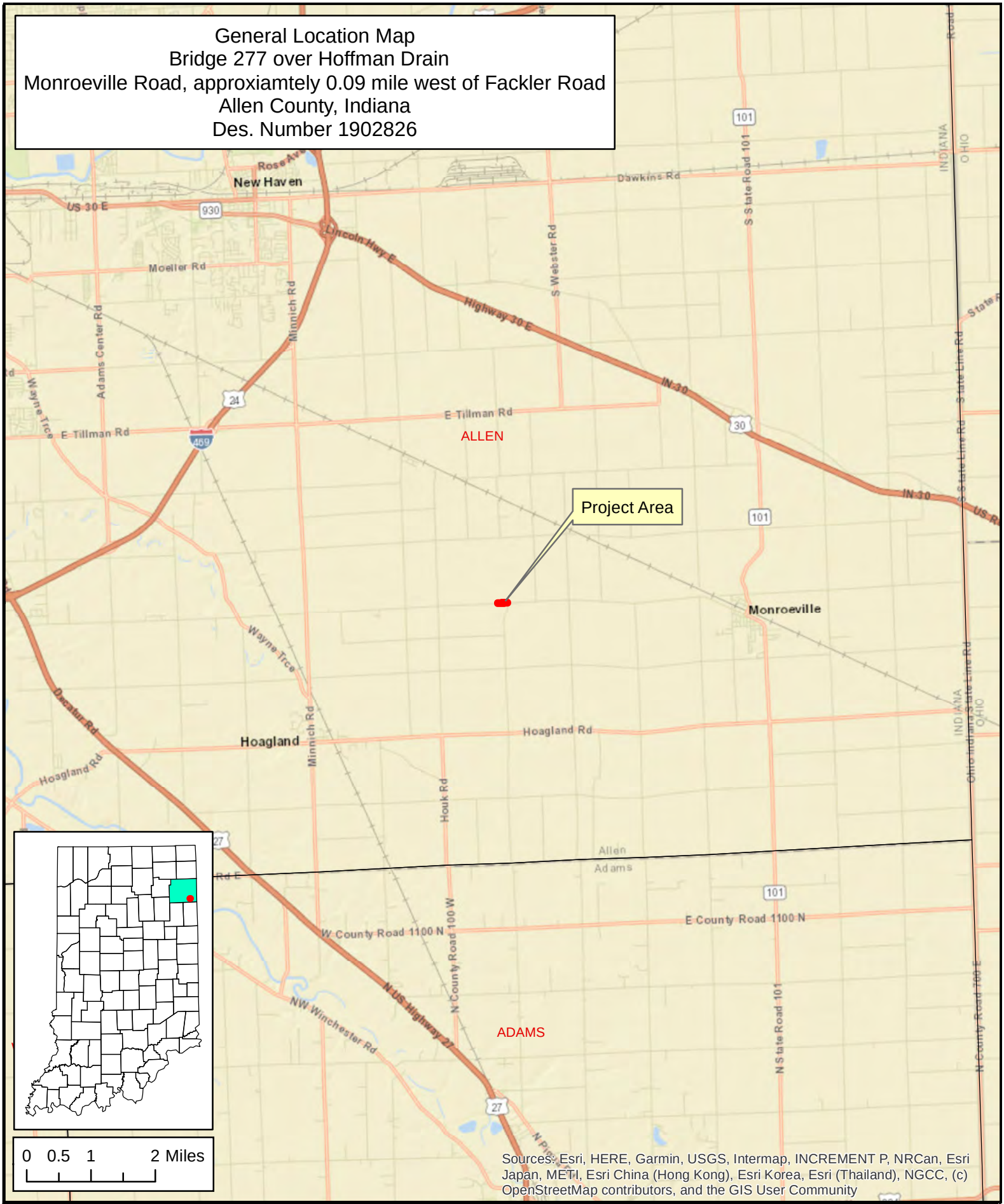
[1] Coordinate with INDOT Environmental Services Division. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.
[2] Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.
[3] Total permanent impacts to streams (linear feet) and wetlands (acres).
[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 the IPAC determination key to be required that are not tree AMMs, bridge AMMs, or structure AMMs.
[8] Projects that do not fall under a Species Specific Programmatic and results in a "Likely to Adversely Affect". Other findings can be processed as a lower level CE.
[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.

Categorical Exclusion

Appendix B

Graphics

General Location Map
Bridge 277 over Hoffman Drain
Monroeville Road, approxiamtely 0.09 mile west of Fackler Road
Allen County, Indiana
Des. Number 1902826



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

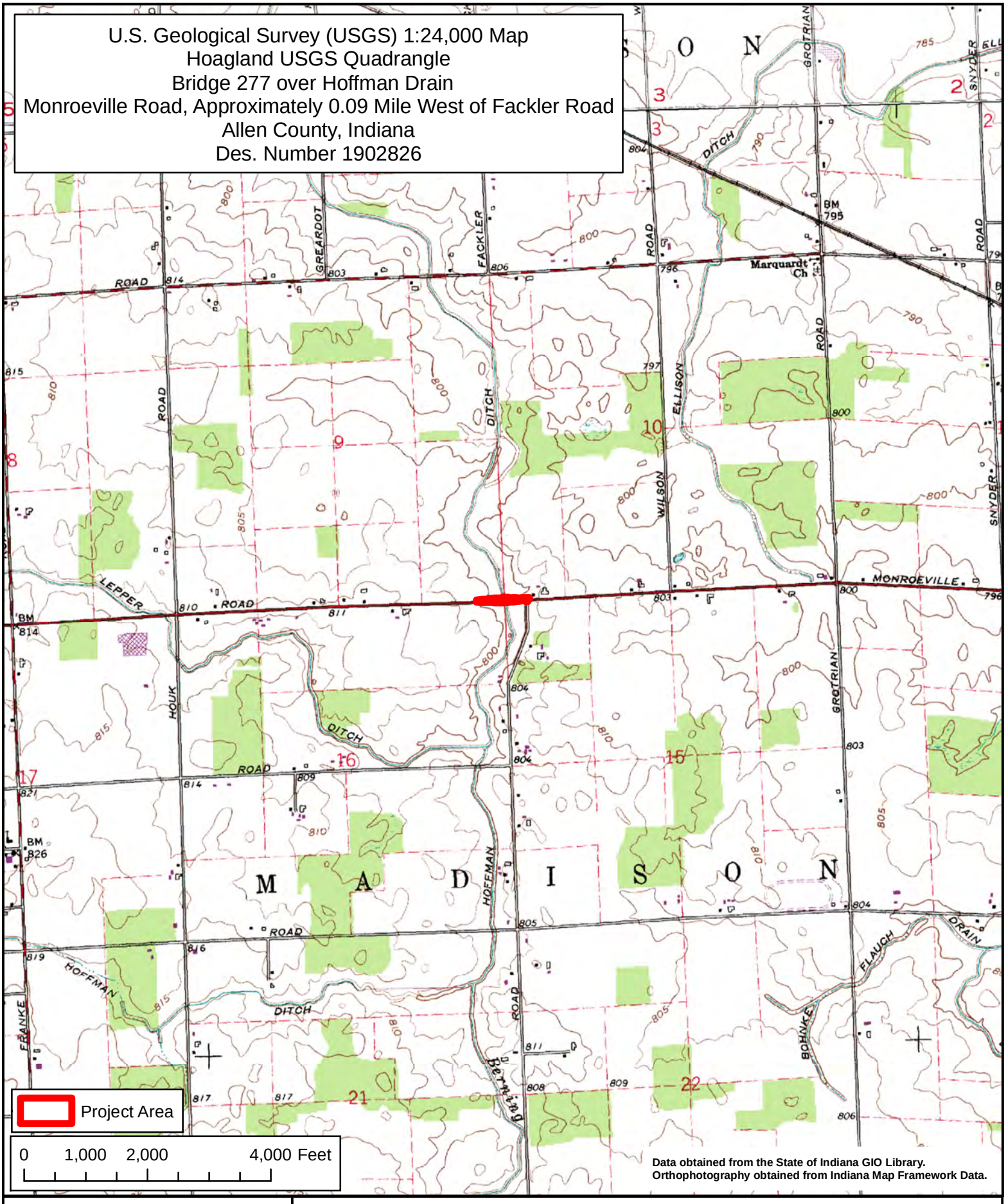
ClarkDietz

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

Map Datum: NAD 83
Map Projection: UTM Zone 16 North

N

U.S. Geological Survey (USGS) 1:24,000 Map
Hoagland USGS Quadrangle
Bridge 277 over Hoffman Drain
Monroeville Road, Approximately 0.09 Mile West of Fackler Road
Allen County, Indiana
Des. Number 1902826



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

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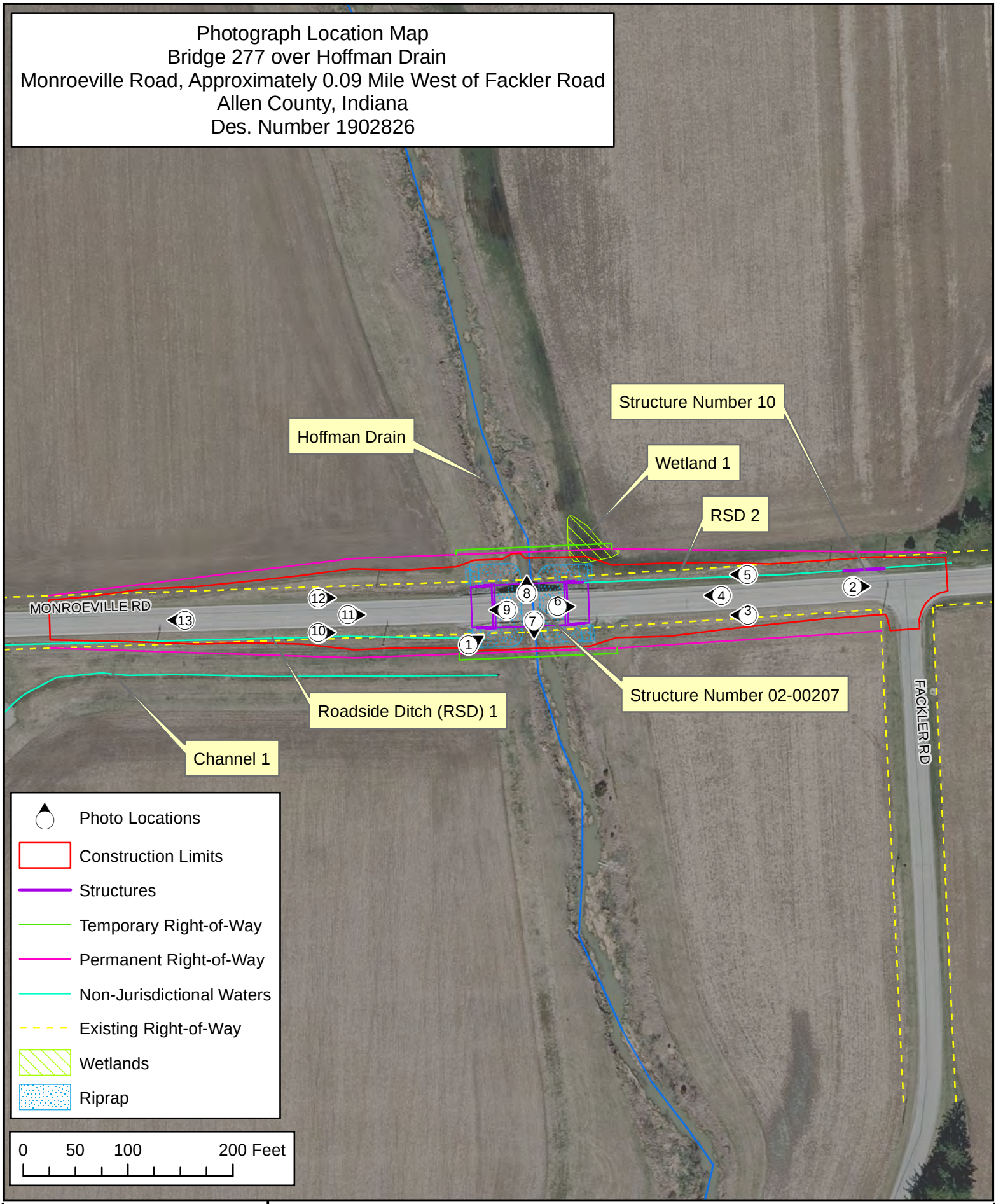


This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Map Datum: NAD 83
Map Projection: UTM Zone 16 North
(2016 aerial)

N

1. From the south side of Monroeville Road looking northeast at Bridge 277.

2. From the middle of Monroeville Road (eastern side of project area) looking east at the Fackler Road intersection and the eastern project area terminus.

3. From the south side of Monroeville Road (eastern side of project area) looking west at the Monroeville Road and surrounding landscape (Bridge 277 in distance).

4. From the middle of Monroeville Road (eastern side of project area) looking west at the Monroeville Road (Bridge 277 in distance).

5. From the north side of Monroeville Road (eastern side of project area) looking west at the Monroeville Road and surrounding landscape (Bridge 277 in distance).

6. From Bridge 277 looking east at the bridge approach and Monroeville Road.

7. From Bridge 277 looking south at Hoffman Drain and surrounding landscape.

8. From Bridge 277 looking north at Hoffman Drain and surrounding landscape.

9. From Bridge 277 looking west at the bridge approach and Monroeville Road.

10. From the south side of Monroeville Road (western side of project area) looking east at the Monroeville Road and surrounding landscape (Bridge 277 in distance).

11. From the middle of Monroeville Road (western side of project area) looking east at the Monroeville Road and surrounding landscape (Bridge 277 in distance).

12. From the north side of Monroeville Road (western side of project area) looking east at the Monroeville Road and surrounding landscape (Bridge 277 in distance).

13. From the middle of Monroeville Road (western side of project area) looking west at Monroeville Road and western project area terminus.

PROJECT	DESIGNATION
1902826	1902826
CONTRACT	BRIDGE FILE
B-42838	02-00277B

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
02-00277B	PRESTRESSED CONCRETE SPREAD BOX BEAM	SINGLE SPAN @ 69'-0" NO SKEW	HOFFMAN DRAIN	STA. 18+19.00 "A"

ALLEN COUNTY HIGHWAY DEPARTMENT

BRIDGE PLANS

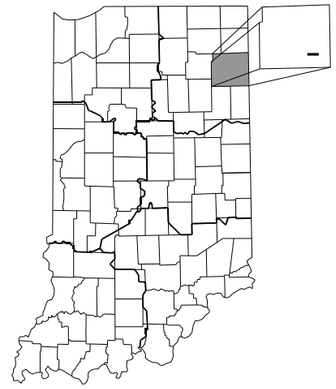
FOR SPANS OVER 20 FEET

PROJECT NO. 1902826 P.E.
1902826 R/W
1902826 CONST.

REPLACEMENT OF ALLEN COUNTY BRIDGE NO. 02-00277A OVER HOFFMAN DRAIN LOCATED ON MONROEVILLE ROAD 455 FEET WEST OF THE JUNCTION WITH FACKLER ROAD, IN SECTIONS 9, 10, 15 AND 16 , T-29-N, R-14-E, MADISON TOWNSHIP, ALLEN COUNTY, INDIANA.

TRAFFIC DATA	Monroeville Rd	
A.A.D.T. (2024)	2,760	V.P.D.
A.A.D.T. (2044)	4,255	V.P.D.
D.H.V. (2044)	430	V.P.H.
DIRECTIONAL DISTRIBUTION	50	%
TRUCKS	5%	A.A.D.T.
	10%	D.H.V.

DESIGN DATA	
DESIGN SPEED	55 mph
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	MINOR COLLECTOR
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE



PROJECT LOCATION SHOWN BY
ALLEN COUNTY

LATITUDE: 40°58'42" N LONGITUDE: 84°56'25" W

BRIDGE LENGTH: 0.013 MI.
ROADWAY LENGTH: 0.123 MI.
TOTAL LENGTH: 0.136 MI.
MAX. GRADE: -1.59 %

HUC: 041000071202

BOARD OF COMMISSIONERS

F. NELSON PETERS, SECRETARY

THERESE M. BROWN, PRESIDENT

RICHARD E. BECK, VICE PRESIDENT

EXECUTIVE DIRECTOR

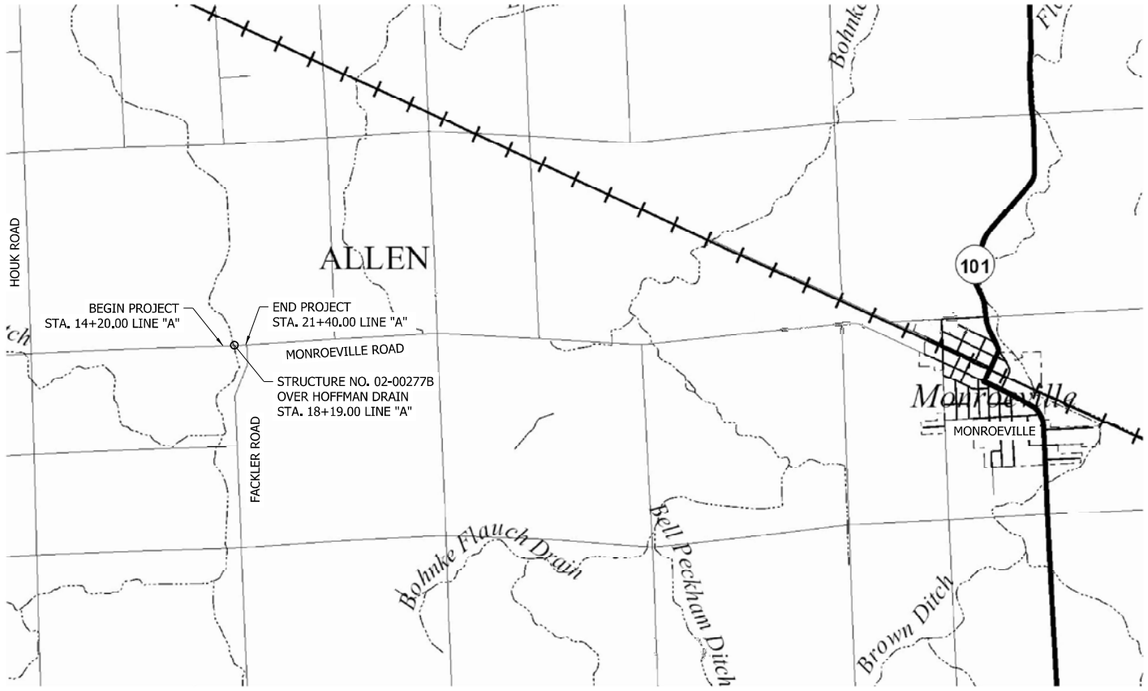
WILLIAM F. HARTMAN

COUNTY ENGINEER

MICHAEL L. THORNSON, P. E.

ATTEST

CHRIS CLOUD, ALLEN COUNTY DEPUTY AUDITOR



SCALE: 1" = 2,000'

STAGE 3 PLANS
JULY 2022

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

ClarkDietz
8900 KEYSTONE CROSSING, SUITE 475
INDIANAPOLIS, INDIANA 46240
T:317.844.8900...www.clarkdietz.com

PLANS
PREPARED BY: Clark Dietz, Inc. (317) 844-8900
PHONE NUMBER
CERTIFIED BY: _____
DATE

STAGE 3 PLANS

BRIDGE FILE
02-00277B
DESIGNATION
1902826

SURVEY BOOK	SHEETS
	1 of 29
CONTRACT	PROJECT
B-42838	1902826

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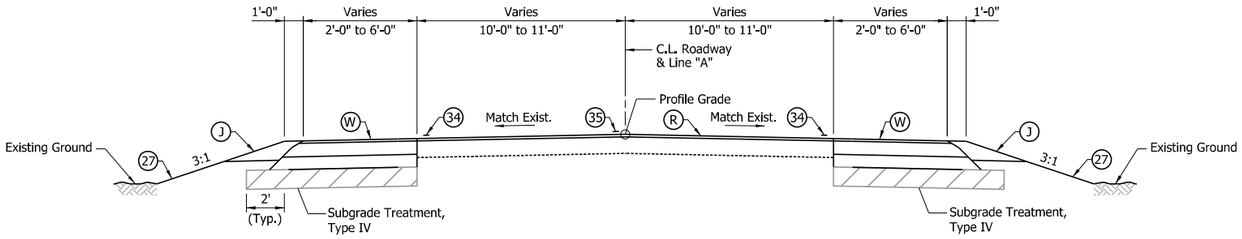
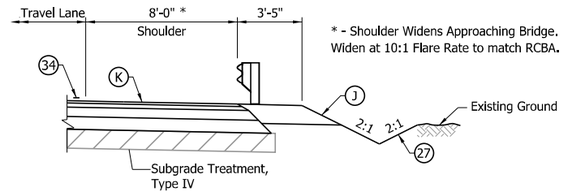


INCIDENTAL CONSTRUCTION LINE "A"

STA. 13+60.00 "A" TO STA. 14+20.00 "A"
STA. 21+40.00 "A" TO STA. 22+18.00 "A"



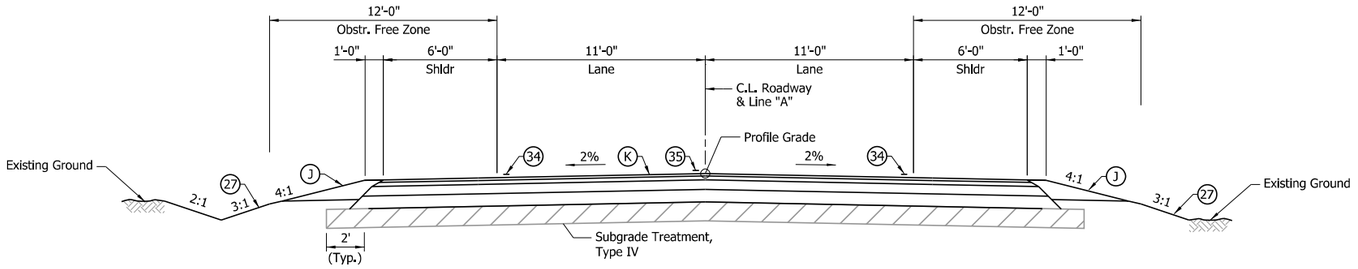
GUARD RAIL SECTION

SEE GUARDRAIL SUMMARY TABLE FOR LOCATIONS

LEGEND

- (W) Widening with QC/CA-HMA Pavement 165#/syd HMA Surface, Type B, on 440#/syd HMA Intermediate, Type B, on 6" Compacted Aggregate, No. 53, Base, on Subgrade Treatment Type IV
- (K) Full Depth HMA Pavement 165#/syd HMA Surface, Type B, on 440#/syd HMA Intermediate, Type B, on 6" Compacted Aggregate, No. 53, Base, on Subgrade Treatment Type IV
- (J) 12" Compacted Aggregate, No. 53, Base
- (R) Asphalt Milling (1/2" Min. Depth) Resurface Over Existing Pavement With 165#/syd HMA Surface, Type B
- (27) Seed Mixture, Native
- (28) Mulched Seeding, R
- (34) Line, Paint, Solid, White, 4 in.
- (35) Line, Paint, Broken, Yellow, 4 in.

NOTE TO REVIEWER:
APPROVED PAVEMENT
DESIGN PENDING

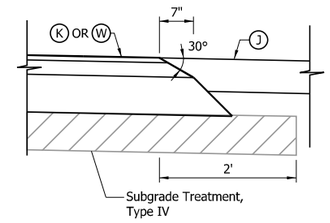


TYPICAL SECTION LINE "A"

STA. 14+20.00 "A" TO STA. 17+63.25 "A"
STA. 18+74.75 "A" TO STA. 21+40.00 "A"

CUT SECTION

FILL SECTION



SAFETY EDGE DETAIL

Not To Scale

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ClarkDietz

STAGE 3 PLANS

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KMK | DRAWN: MHF

CHECKED: KRL | CHECKED: KMK

ALLEN COUNTY
HIGHWAY DEPARTMENT

TYPICAL CROSS SECTION
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1"=4'	02-00277B
VERTICAL SCALE	DESIGNATION
1"=4'	1902826
SURVEY BOOK	SHEETS
	3 of 29
CONTRACT	PROJECT
B-42838	1902826

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00

SEC. 9, T29N, R14E
MADISON TWP.
ALLEN CO.

SEC. 10, T29N, R14E
MADISON TWP.
ALLEN CO.

HOFFMAN, KENNETH W
& JANET A

HOFFMAN, DEAN ALAN
& JAMI S

App. P.L.

App. Section Line

CURVE DATA

P.I. 18+52.87 "A"
Δ = 1° 57' 52" (LT)
D = 0° 57' 18"
T = 102.87'
L = 205.73'
R = 6,000.00'
E = 0.88'
e = N.C.

0 25' 50' 100'
SCALE: 1" = 50'

BEGIN PROJECT
STA. 14+20.00 "A"

BEGIN INCIDENTAL
CONSTRUCTION
STA. 13+60.00 "A"

END PROJECT
STA. 21+40.00 "A"

END INCIDENTAL
CONSTRUCTION
STA. 22+18.00 "A"

Proposed R/W
Temp. R/W
App. R/W
P.C. 17+50.00 "A"
App. Section Line
9 10
16 15
N 87° 34' 30" E
P.T. 19+55.73 "A"
P.O.T. 23+25.00 "A"
10 10
15 15
App. R/W
App. Section Line
MONROEVILLE ROAD
LINE "A" N 89° 32' 23" E
P.O.T. 10+00.00 "A"
App. R/W
Proposed R/W
Temp. R/W
P.I. 18+52.87 "A"
App. Section Line
HOFFMAN DRAIN
FACKLER RD.
App. P.L.

CRISP, WILLIDEAN L
& CARLIN W

HOFFMAN, KENNETH W
& JANET A

HOFFMAN, KENNETH W
& JANET A

SEC. 16, T29N, R14E
MADISON TWP.
ALLEN CO.

SEC. 15, T29N, R14E
MADISON TWP.
ALLEN CO.

16 15
16 15

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ClarkDietz

STAGE 3 PLANS

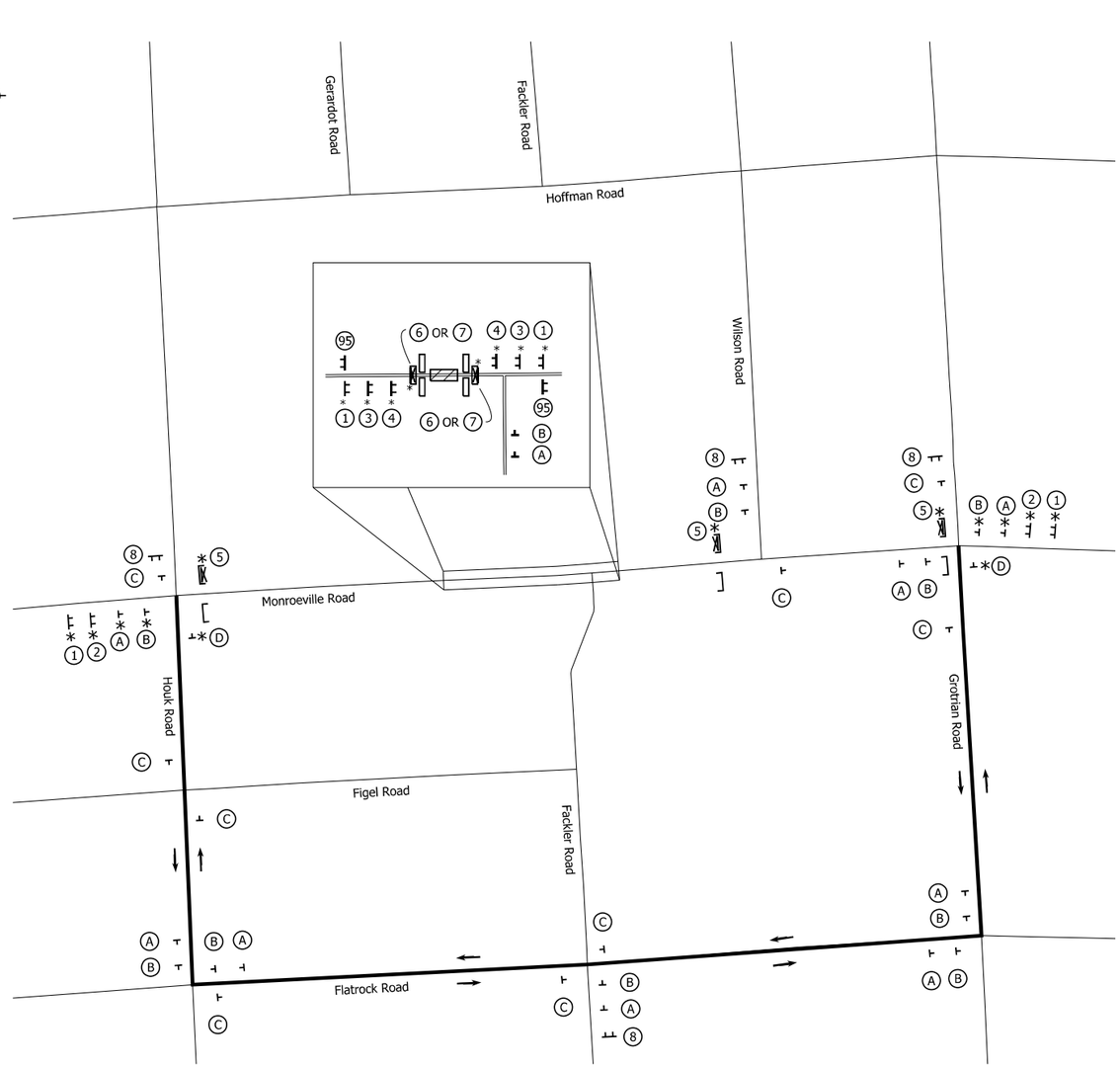
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KKK DRAWN: KKK
CHECKED: KRK CHECKED: KRK

ALLEN COUNTY
HIGHWAY DEPARTMENT

PLAT NO. 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	02-00277B
VERTICAL SCALE	DESIGNATION
NONE	1902826
SURVEY BOOK	SHEETS
	4 of 29
CONTRACT	PROJECT
B-42838	1902826



PLAN

① ROAD CLOSED AHEAD
XW20-3 (48"x48")
CONSTRUCTION SIGN

② DETOUR AHEAD
XW20-2 (48"x48")
CONSTRUCTION SIGN

③ ROAD CLOSED 1000 FT
XW20-3 (48"x48")
CONSTRUCTION SIGN

④ ROAD CLOSED 500 FT
XW20-3 (48"x48")
CONSTRUCTION SIGN

⑤ ROAD CLOSED _ . _ MILES AHEAD LOCAL TRAFFIC ONLY
R11-3 (60"x30")
DETOUR
XM4-10(L or R) (48"x18")
ROAD CLOSURE SIGN ASSEMBLY

EAST / OR / WEST — M3-1 (24"x12"), M3-3 (24"x12")
MONROE -VILLE ROAD — M1-5 (24"x24")

⑥ ROAD CLOSED
R11-2 (48"x30")
CONSTRUCTION SIGN

⑦ MONROEVILLE ROAD CLOSED ON OR AFTER __/__/____
XW20-5 (60" X 36")
CONSTRUCTION SIGN
(To be Installed 14 Days Prior to Road Closure)

⑧ DETOUR AHEAD
XW20-2 (48"x48")
CONSTRUCTION SIGN

⑨⑤ END CONSTRUCTION
XG20-2 (48"x18")
CONSTRUCTION SIGN

Ⓐ ADVANCE DIRECTIONAL DETOUR ROUTE MARKER ASSEMBLY
DETOUR — XM4-8 (24"x12")
EAST / OR / WEST — M3-2 (24"x12"), M3-4 (24"x12")
MONROE -VILLE ROAD — M1-6 (24"x24")
M5-1(L or R) (21"x15")

Ⓑ DIRECTIONAL DETOUR ROUTE MARKER ASSEMBLY
DETOUR — XM4-8 (24"x12")
EAST / OR / WEST — M3-2 (24"x12"), M3-4 (24"x12")
MONROE -VILLE ROAD — M1-6 (24"x24")
M6-1(L or R) (21"x15")

Ⓒ CONFIRMING DETOUR ROUTE MARKER ASSEMBLY
DETOUR — XM4-8 (24"x12")
EAST / OR / WEST — M3-2 (24"x12"), M3-4 (24"x12")
MONROE -VILLE ROAD — M1-6 (24"x24")
M6-3 (21"x15")

Ⓓ END DETOUR ROUTE MARKER ASSEMBLY
END DETOUR — XM4-8a (24"x12")
EAST / OR / WEST — M3-2 (24"x12"), M3-4 (24"x12")
MONROE -VILLE ROAD — M1-6 (24"x24")
M6-1(L or R) (21"x15")

PAY ITEMS	
DESCRIPTION	Total Qty For Proj.
TYPE III-A BARRICADE	72 Lft.
TYPE III-B BARRICADE	72 Lft.
CONSTRUCTION SIGN, TYPE A	18 Each
CONSTRUCTION SIGN, TYPE C	0 Each
ROAD CLOSURE SIGN ASSEMBLY	3 Each
DETOUR ROUTE MARKER ASSEMBLY	31 Each

Note: Signs shown in the Detour Route Marker Assemblies and Road Closure Sign Assemblies are not quantified individually above.

SIGN IDENTIFICATION TABLE		
SIGN CODE	MESSAGE	Qty
XW20-3	ROAD CLOSED AHEAD	4
XW20-2	DETOUR AHEAD	2
XW20-3	ROAD CLOSED 1000 FT	2
XW20-3	ROAD CLOSED 500 FT	2
R11-2	ROAD CLOSED X.X MILES	3
R11-2	ROAD CLOSED	3
XW20-5	CR 400W CLOSED ON OR AFTER X/X/XX	2
XW20-2	DETOUR AHEAD	2
XG20-2	END CONSTRUCTION	4

LEGEND
- CONSTRUCTION AREA
- * LOW INTENSITY FLASHING YELLOW LIGHT, TYPE "A"
- CONSTRUCTION SIGN AND SUPPORTS
- DETOUR ROUTE MARKER ASSEMBLY
- TYPICAL SIGN STANDARD (ROAD CLOSURE SIGN ASSEMBLY)
- STD. BARRICADE, TYPE III-A (REFLECTORIZED ONE SIDE)
- STD. BARRICADE, TYPE III-B (REFLECTORIZED BOTH SIDES)
- DIRECTION OF TRAFFIC

ClarkDietz

STAGE 3 PLANS

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KMK DRAWN: MHF
CHECKED: KRL CHECKED: KMK

ALLEN COUNTY HIGHWAY DEPARTMENT

MAINTENANCE OF TRAFFIC

HORIZONTAL SCALE	BRIDGE FILE
NONE	02-00277B
VERTICAL SCALE	DESIGNATION
NONE	1902826
SURVEY BOOK	SHEETS
	5 of 29
CONTRACT	PROJECT
B-42838	1902826

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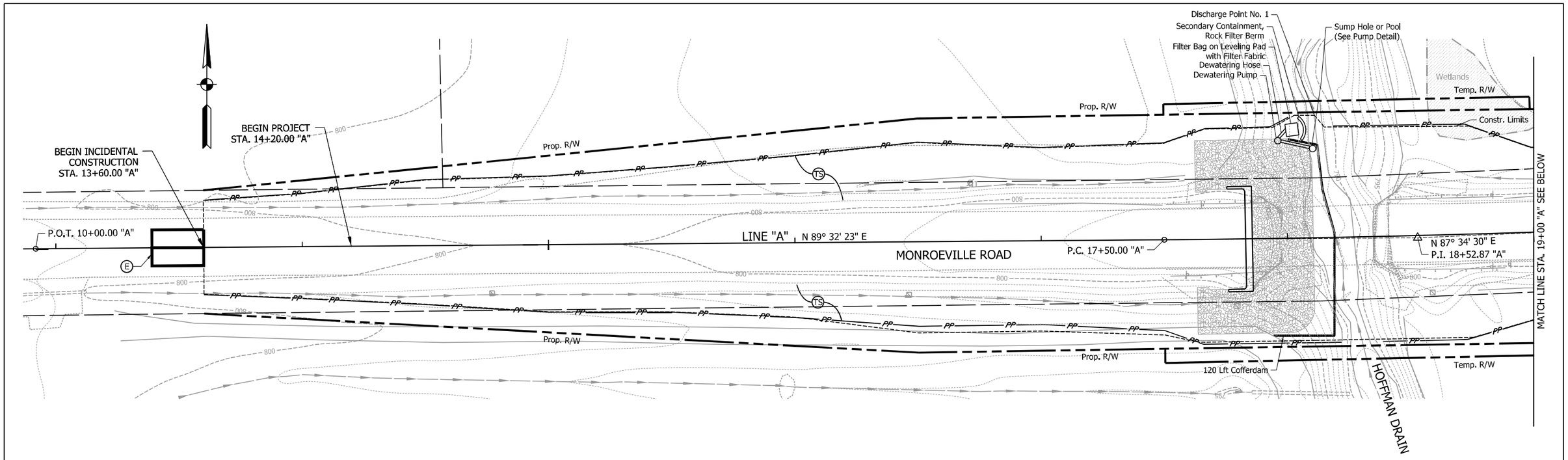
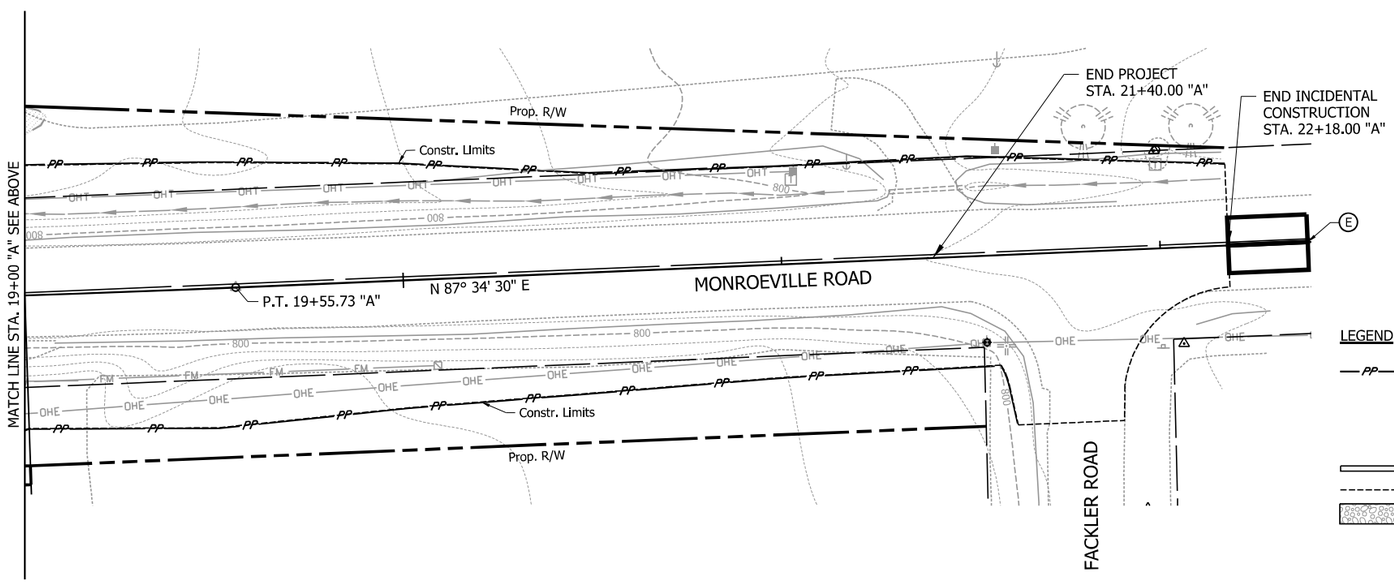
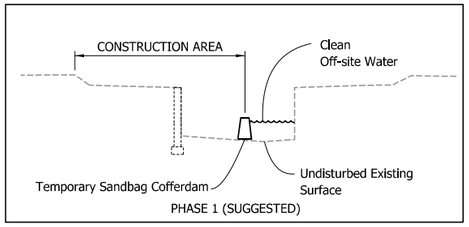




GENERAL NOTES

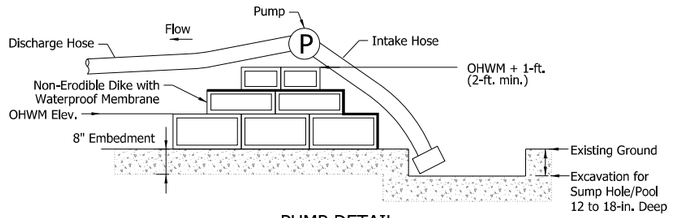
1. PRIOR TO ANY LAND DISTURBING ACTIVITIES, INSTALL DOWNSTREAM SEDIMENT CONTROL MEASURES IN ALL AREAS.
2. WITHIN DITCHES OR SWALES, EXPOSED SOILS SHALL BE IMMEDIATELY STABILIZED WITH SEEDING AND EROSION CONTROL BLANKET OR SODDING.
3. EXISTING CONTOURS ARE SHOWN AT 1 FT INTERVALS.
4. MAINTAIN EXISTING VEGETATION BEYOND CONSTRUCTION LIMITS.
5. IF REFUELING/MAINTENANCE LOCATION IS TO BE CHANGED, THE LOCAL SWCD MUST BE CONTACTED.
6. POINTS OF INGRESS/EGRESS TO BE MAINTAINED IN ACCORDANCE WITH THE INDIANA STORM WATER QUALITY MANUAL.
7. TRUCKS AND EQUIPMENT ARE TO BE FREE OF DEBRIS AT OR BEFORE THE POINT OF EGRESS.
8. RIPRAP AT BENTS TO BE CONSTRUCTED UTILIZING A SANDBAG COFFERDAM.
9. IN-STREAM CONSTRUCTION ONLY DURING NORMAL OR LOW FLOW.
10. IN-STREAM CONSTRUCTION TO OCCUR ON ONLY ONE SIDE AT A TIME.
11. IN-STREAM CONSTRUCTION NOT TO COMMENCE UNTIL COFFERDAM IS IN PLACE.
12. SEE PUMP DETAIL FOR DEWATERING OF COFFERDAM.



IN-STREAM CONSTRUCTION DETAIL
(Not to Scale)

LEGEND

- PP — TEMPORARY SILT FENCE
- (SF) TEMPORARY SEEDING
- (TS) CONSTRUCTION ENTRANCE/EXIT AREA (LOCATION OF INGRESS/EGRESS)
- (E) COFFERDAM (2'-0" WIDE)
- CONSTRUCTION LIMITS
- RIPRAP



PUMP DETAIL

ELEVATION VIEW
(NOT TO SCALE)

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ClarkDietz

STAGE 3 PLANS

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: EOS | DRAWN: EOS

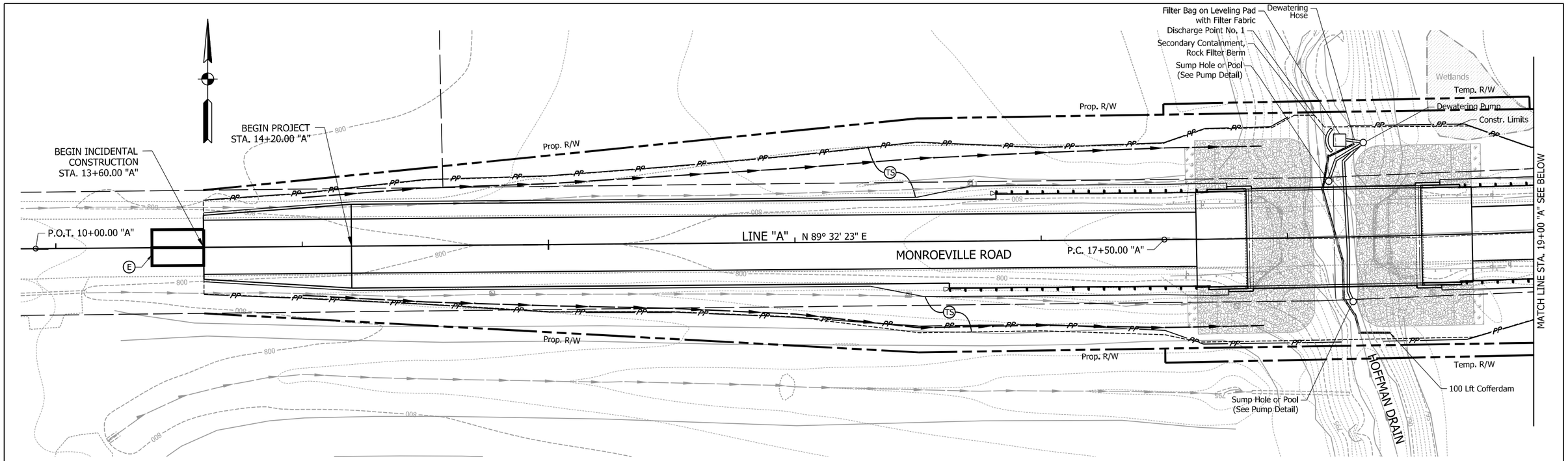
CHECKED: KRL | CHECKED: KRL

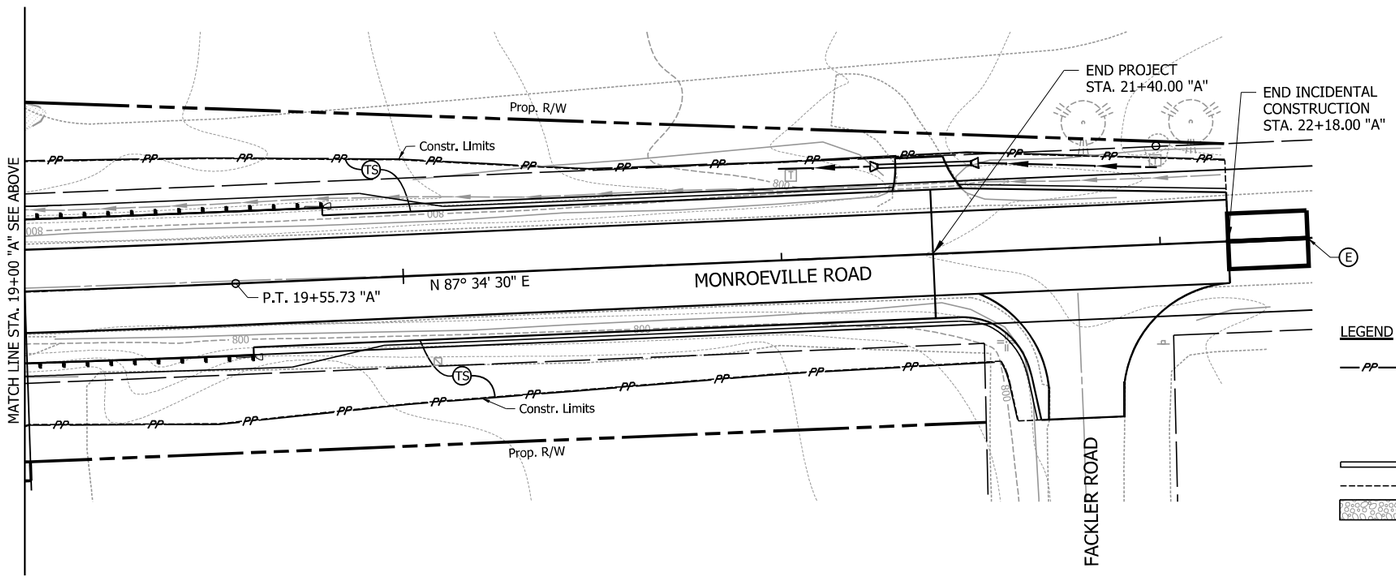
ALLEN COUNTY
HIGHWAY DEPARTMENT

EROSION CONTROL PLAN
PHASE 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	02-00277B
VERTICAL SCALE	DESIGNATION
1" = 20'	1902826

SURVEY BOOK	SHEETS
	6 of 29
CONTRACT	PROJECT
B-42838	1902826





GENERAL NOTES

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7. TRUCKS AND EQUIPMENT ARE TO BE FREE OF DEBRIS AT OR BEFORE THE POINT OF EGRESS.
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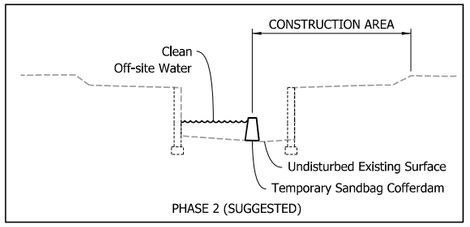
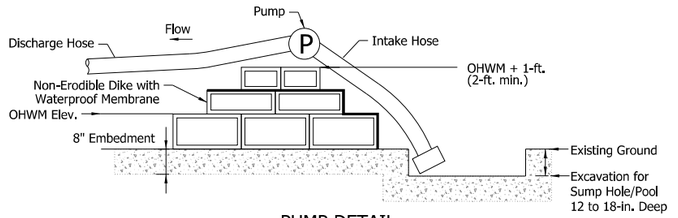


IN-STREAM CONSTRUCTION DETAIL
(Not to Scale)

LEGEND

- SF — TEMPORARY SILT FENCE
- TS — TEMPORARY SEEDING
- E — CONSTRUCTION ENTRANCE/EXIT AREA (LOCATION OF INGRESS/EGRESS)
- COFFERDAM (2'-0" WIDE)
- CONSTRUCTION LIMITS
- RIPRAP



PUMP DETAIL
ELEVATION VIEW
(NOT TO SCALE)

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ClarkDietz

STAGE 3 PLANS

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: EOS | DRAWN: EOS

CHECKED: KRL | CHECKED: KRL

ALLEN COUNTY
HIGHWAY DEPARTMENT

EROSION CONTROL PLAN
PHASE 2

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	02-00277B
VERTICAL SCALE	DESIGNATION
1" = 20'	1902826

SURVEY BOOK	SHEETS
	7 of 29
CONTRACT	PROJECT
B-42838	1902826

Survey information was obtained by global positioning equipment (GPS), utilizing the INDOT Continuously Operating Reference Station (INCORS) State Plane Indiana East NAD83 (2011), a real-time kinematic (RTK) correction service over the internet.

HOFFMAN, KENNETH W & JANET A

App. PL

15+00

CURVE DATA

P.I. 18+52.87 "A"
Δ = 1° 57' 52" (LT)
D = 0° 57' 18"
T = 102.87'
L = 205.73'
R = 6,000.00'
E = 0.88'
e = N.C.

SEC. 9, T29N, R14E
MADISON TWP.
ALLEN CO.

HOFFMAN, DEAN ALAN & JAMI S

SEC. 10, T29N, R14E
MADISON TWP.
ALLEN CO.

BEGIN INCIDENTAL CONSTRUCTION STA. 13+60.00 "A"
App. Ex. R/W

BEGIN PROJECT STA. 14+20.00 "A"
Monument Type "B" Req'd
+60
Ex. R/W

Prop. R/W

Constr. Limits

App. Ex. R/W

Overhead Telephone Line

Revetment Riprap on Geotextile (See Layout)

Temp. R/W

CL Structure
Sta. 18+19.00 "A"
No Skew

Revetment Riprap on Geotextile (See Layout)

Wetlands

Constr. Limits

App. Ex. R/W

LINE "A", N 89° 32' 23" E

P.O.T. 10+00.00 "A"

App. Section Line

MONROEVILLE ROAD

P.C. 17+50.00 "A"

P.I. 18+52.87 "A"

N 87° 34' 30" E

Section Corner Monument Req'd Use Mon. Type "D"

MATCH LINE STA. 19+00"A" SEE NEXT SHEET

FOR LEGEND SEE SHEET NO. 3

Overhead Electric

TEST HOLE 1000
EX. EL. 798.5363
D=4.8'
F.M. EL. 793.7363

Sanitary Sewer

TEST HOLE 1001
EX. EL. 797.0380
D=4.3'
F.M. EL. 792.7380

TEST HOLE 1002
EX. EL. 796.0521
D=6.5'
F.M. EL. 789.5521

TEST HOLE 1003
EX. EL. 796.6619
D=6.5'
F.M. EL. 790.1619

HOFFMAN DRAIN

CRISP, WILLIDEAN L & CARLIN W

SEC. 16, T29N, R14E
MADISON TWP.
ALLEN CO.

HOFFMAN, KENNETH W & JANET A

SEC. 15, T29N, R14E
MADISON TWP.
ALLEN CO.

All R/W described from Line "A", except as shown.

GUARDRAIL LEGEND

- A — G.R.E.T. Type "OS", 31"
- B — 18'-9" Guardrail MGS W-Beam, 6'-3" Spacing
- C — Guardrail Transition Type MGS Without Curb

P.V.I. 15+20
EL. 800.26
180' V.C.

P.V.I. 17+80
EL. 804.40
300' V.C.

BEGIN PROJECT STA. 14+20.00 "A"
EL. 800.16
(MATCH EX. EL.)

+0.10%

+1.59%

-0.72%

-1.02%

-0.50%

+20.00
El. 798.86

61'-0" Incidental Construction For Grading, Paving and Shoulder Widening

Special Ditch Grade, Lt.

Special Ditch Grade, Rt.
(Plotted 5' Below Grade)

Guardrail Req'd Lt.

Guardrail Req'd Rt.

Conc. Bridge Rail, Req'd. Lt.

Conc. Bridge Rail, Req'd. Rt.

Paving Exception

Aggregate for End Bent Backfill

6" Dia. End Bent Drain Pipe

Q100
El. 797.74

+90.00
El. 796.04

+90.00
El. 796.91

OHWM El. 790.99

F.L. El. 788.91

6" PVC Sanitary Line

Revetment Riprap on Geotextile (Typ.)

TBM #1: Mag Nail Set 1' Up Pwr. Pole
Sta. 21+53.32 "A", 22.92' Rt., El. = 801.57

TBM #2: Mag Spike Set 1' Up North Side
Sta. 11+88.02 "A", 27.31' Rt., El. = 801.86

10 N: 146,660.8950
E: 816,876.9504

Edge of Pvmnt.
Monroeville Rd
Line "A"
NE Side Pwr. Pole
NW Side Pwr. Pole
P.O.T. 10+00.00"A"
MAG NAIL FLSH.

11 N: 146,666.9213
E: 817,626.9262

U Channel Sign Post
Monroeville Rd
Line "A"
NE Side Pwr. Pole
U Channel Sign Post
P.C. 17+50.00"A"
MAG NAIL FLSH.

13 N: 146,672.1005
E: 817,832.5781

Rebar Fnd, Surv. Mrk.
Edge of Pvmnt.
Monroeville Rd
Line "A"
Rebar Fnd, Surv. Mrk.
P.T. 19+55.73"A"
MAG NAIL FLSH.

Clark Dietz

STAGE 3 PLANS

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MIA DRAWN: MIA
CHECKED: KRL CHECKED: KRL

ALLEN COUNTY HIGHWAY DEPARTMENT

PLAN & PROFILE LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	02-00277B
VERTICAL SCALE	DESIGNATION
1" = 5'	1902826

SURVEY BOOK	SHEETS
	8 of 29
CONTRACT	PROJECT
B-42838	1902826

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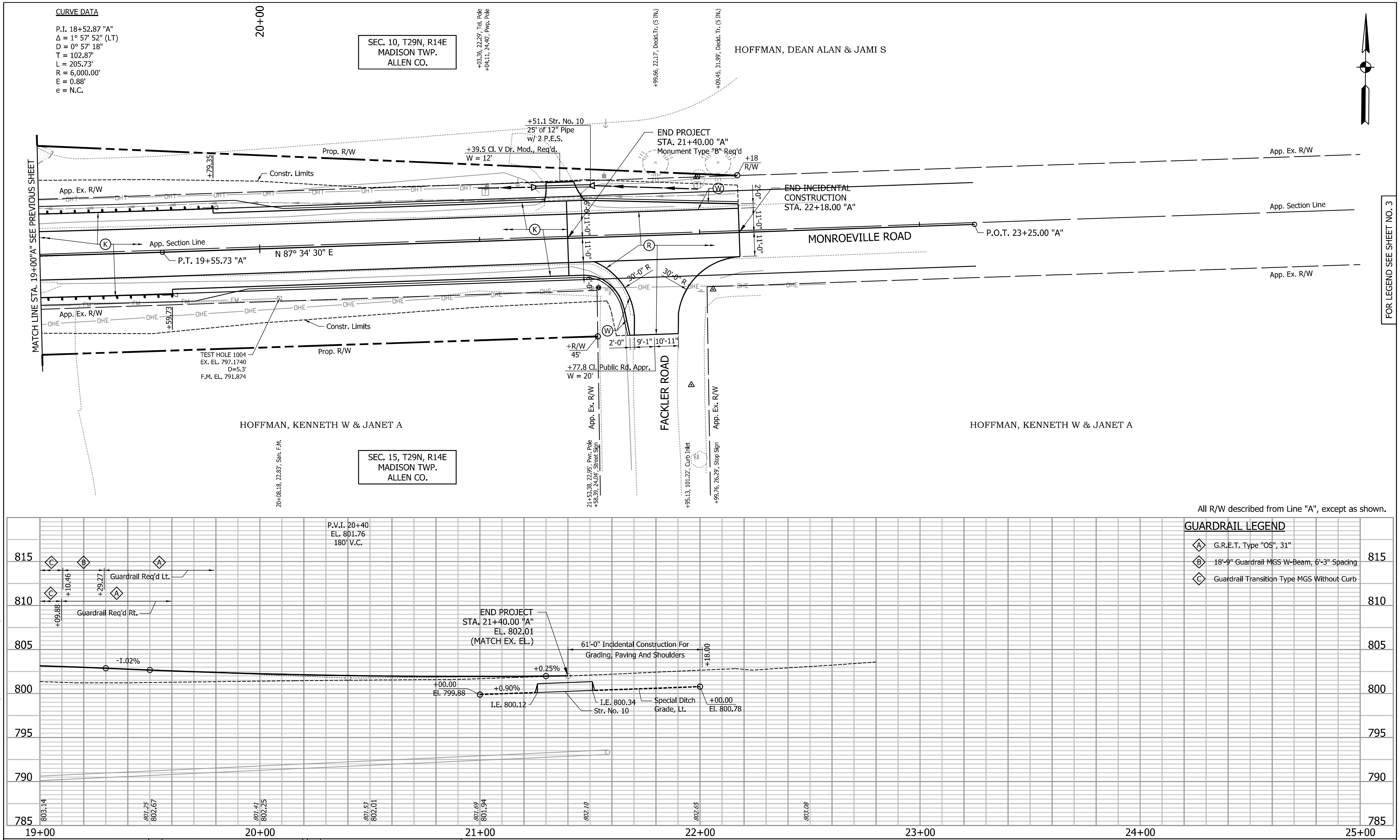

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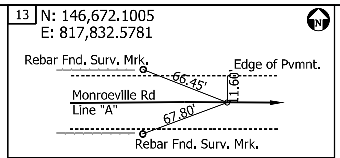
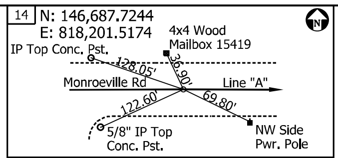
ClarkDietz



P.T. 19+55.73"A"
MAG NAIL FLSH.



P.O.T. 23+25.00"A"
MAG NAIL FLSH.

STAGE 3
PLANS

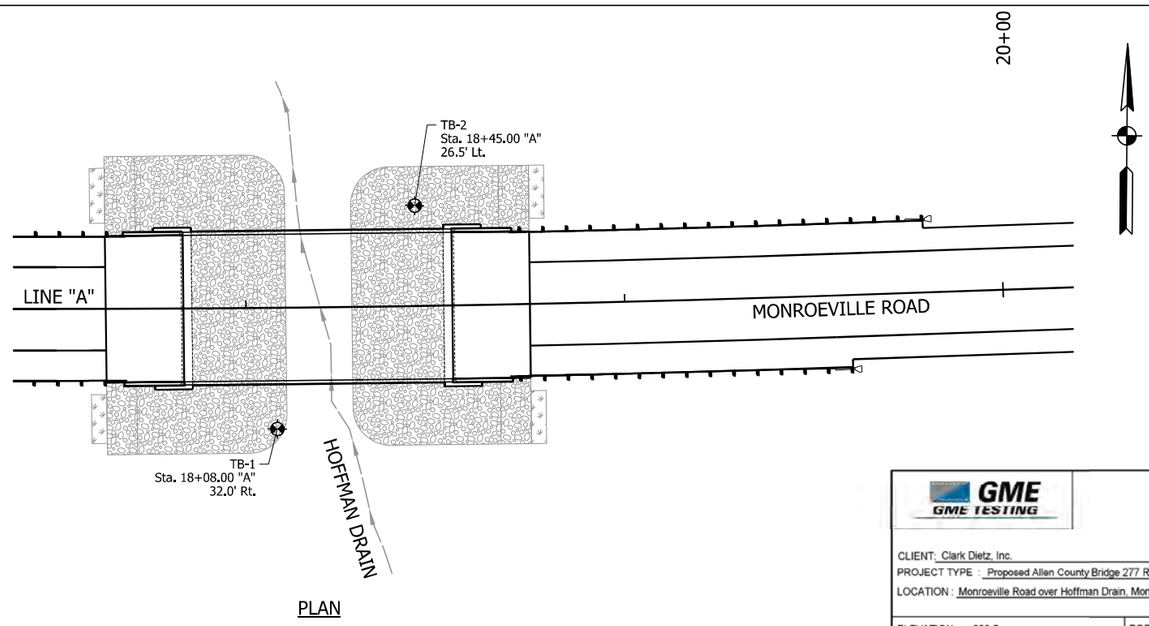
RECOMMENDED FOR APPROVAL ______ DESIGN ENGINEER DATE

DESIGNED:	MIA	DRAWN:	MIA
CHECKED:	KRL	CHECKED:	KRL

ALLEN COUNTY
HIGHWAY DEPARTMENT

PLAN & PROFILE
LINE "A"

HORIZONTAL SCALE		BRIDGE FILE	
1" = 20'		02-00277B	
VERTICAL SCALE		DESIGNATION	
1" = 5'		1902826	
SURVEY BOOK		SHEETS	
	9	of	29
CONTRACT		PROJECT	
B-42838		1902826	



PLAN

SUMMARY OF PILE LOADING FOR GEOTECHNICAL TESTING

SUPPORT	Bent No. 1	Bent No. 2
Pile Size, Type, and Grade	HP 12x74	HP 12x74
Factored Design Load, QF (kip)	321	321
Factored Design Soil Resistance, RR (kip)	322	322
Resistance Factor φdyn	0.55	0.55
Downdrag Load, DD (kip)	Neg.	Neg.
Nominal Soil Resistance, Rn (kip) *	586	586
Downdrag friction, Rs dd (kip)	Neg.	Neg.
Scour Zone Friction, Rs scour (kip)	N/A	N/A
Relaxation of Tip in Shale, Rrelax (kip)	N/A	N/A
Nominal Driving Resistance, Rndr (kip)	586	586
Estimated Pile Tip Elevation	741.00	743.00
Testing Method, See INDOT Std. Spec.	701.05(a)	701.05(a)

GME TESTING

TEST BORING LOG

BORING NO.: TB-1
SHEET 1 OF 1
GME PROJECT NO.: G22-031166
INDOT DES NO.: 1902826
DATUM:
DATE STARTED: 05-06-22
DRILLER/INSP: RS/RM

CLIENT: Clark Dietz, Inc.
PROJECT TYPE: Proposed Allen County Bridge 277 Replacement
LOCATION: Monroeville Road over Hoffman Drain, Monroeville, IN

ELEVATION: 803.5
STATION: 18+08
OFFSET: 32.0 ft Right
LINE: 'A'
DEPTH: 70.0 ft

BORING METHOD: AASHTO T-206
RIG TYPE: Skid
CASING DIA.: 3.3 in
HAMMER: Auto

LATITUDE: 40.978249
LONGITUDE: -84.940352

GROUNDWATER: ▽ Encountered at 21.0 ft ▼ At completion 19.5 ft ▼ 19.0 ft After 24 hours ▲ Caved in at 20.0 ft

STRATUM ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6" (N)	% RECOVERY	MOISTURE CONTENT	UNCONF. COMP., tsf	Qp (tsf)	ATTERBERG LIMITS LL	PL	PI	REMARKS
		Silty Clay Loam, FILL: Brown, Sandy Silty Clay, Trace Gravel and Topsoil, (VISUAL). 5.5	SS 1	3-3-3 (6)	100	21.7		2.5				
798.0			SS 2	2-1-1 (2)	100	16.2		0.5				
796.0		**Silty Clay Loam**, Brown, Wet, With Gravel, (VISUAL). 7.5	SS 3	4-2-1 (3)	100							
	10	**Silty Clay Loam**, Brown, Wet, Trace Gravel, (VISUAL).	SS 4	6-9-12 (21)	100		6.4	4.5+				
791.0		12.5	SS 5	6-8-10 (18)	100	16.2	6.1	4.0				
		Clay, A-6 (6), Gray, Trace Gravel, (LAB9601).	SS 6	6-14-14 (28)	100	18.3	4.3	4.0	28	17	11	
782.5	20	21.0	SS 7	6-6-4 (10)	100				NP	NP	NP	
777.5		**Sand, A-1-b (0)**, Gray, Trace Gravel, (LAB9602). 26.0	SS 8	12-17-19 (36)	100	12.4		4.5				pH = 7.6
	30	**Silty Clay**, Gray, Trace Gravel, (VISUAL).	SS 9	29-136-[]	100	9.2		4.5+				pH = 7.6
770.0		33.5										
		Silty Loam, Gray, Trace Gravel and Clay, (VISUAL).	SS 10	19-26-35 (61)	100		8.2					
763.5	40	40.0	SS 11	18-29-30 (59)	100	16.2	7.6					
	50		SS 12	25-54-64 (118)	100							
		Clay, A-4 (6), Gray, Occasional Clayey Sand, With Gravel Seams @ ±63.5', (LAB9603).	SS 13	23-57-70 (127)	100	12.4	14.3	4.5+				
	60		SS 14	28-45-62 (107)	100							
			SS 15	27-56-67 (123)	100	8.0			27	17	10	
733.5	70	70.0	SS 16	26-50-66 (116)	100	11.4	13.6	4.5+				

Bottom of Boring at 70.0 ft

GME TESTING

TEST BORING LOG

BORING NO.: TB-2
SHEET 1 OF 1
GME PROJECT NO.: G22-031166
INDOT DES NO.: 1902826
DATUM:
DATE STARTED: 05-05-22
DRILLER/INSP: DB/JS

CLIENT: Clark Dietz, Inc.
PROJECT TYPE: Proposed Allen County Bridge 277 Replacement
LOCATION: Monroeville Road over Hoffman Drain, Monroeville, IN

ELEVATION: 803.5
STATION: 18+45
OFFSET: 25.5 ft Left
LINE: 'A'
DEPTH: 70.0 ft

BORING METHOD: AASHTO T-206
RIG TYPE: Skid
CASING DIA.: 3.3 in
HAMMER: Auto

LATITUDE: 40.978407
LONGITUDE: -84.940185

GROUNDWATER: ▽ Encountered at 25.0 ft ▼ At completion 21.0 ft ▼ 20.0 ft After 24 hours ▲ Caved in at 25.0 ft

STRATUM ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6" (N)	% RECOVERY	MOISTURE CONTENT	UNCONF. COMP., tsf	Qp (tsf)	ATTERBERG LIMITS LL	PL	PI	REMARKS
802.5		**Clay**, ±12" Brown, Clayey TOPSOIL, (VISUAL). 1.0	SS 1	3-4-3 (7)	100	21.9	2.0	1.5				
		Silty Clay, Brown and Gray, Moist, (VISUAL).	SS 2	4-5-6 (12)	100	19.7	2.7	2.0				
796.0		7.5	SS 3	5-7-8 (15)	100	20.6	1.6	1.0				
793.5	10	**Silty Clay**, Brown, Trace Gravel, (VISUAL). 10.0	SS 4	12-25-26 (51)	100	15.0	9.0	4.5+				
		Silty Clay, Gray, Moist, (VISUAL).	SS 5	12-22-25 (47)	100	16.3	5.3	4.0				
788.5		15.0										
		Sandy Loam, Gray, Wet, (VISUAL).	SS 6	14-16-12 (28)	100							
783.5	20	20.0										
		Silty Clay Loam, Gray, Trace Gravel, (VISUAL).	SS 7	18-18-14 (33)	100	12.2	4.5	2.5				pH = 8.0
778.5		25.0										
		Sand, Gray, Wet, (VISUAL).	SS 8	20-24-26 (50)	100							
773.5	30	30.0	SS 9	74-6" []	100	10.0		4.5+				pH = 7.7
			SS 10	154-3" []	25	10.0		4.5+				
	40		SS 11	98-6" []	100			4.5+				
		Clay, A-4 (6), Gray, Trace Gravel, (LAB9603).	SS 12	134-5" []	100			4.5+				
	50		SS 13	148-5" []	100			4.5+				
			SS 14	152-5" []	100			4.5+				
	60		SS 15	141-5" []	100			4.5+				
733.5	70	70.0	SS 16	152-5" []	100			4.5+				

Bottom of Boring at 70.0 ft

Clark Dietz

STAGE 3 PLANS

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MIA DRAWN: MHF
CHECKED: KRL CHECKED: EOS

ALLEN COUNTY HIGHWAY DEPARTMENT

SOIL BORINGS

HORIZONTAL SCALE	BRIDGE FILE
NONE	02-00277B
VERTICAL SCALE	DESIGNATION
NONE	1902826
SURVEY BOOK	SHEETS
	10 of 29
CONTRACT	PROJECT
B-42838	1902826

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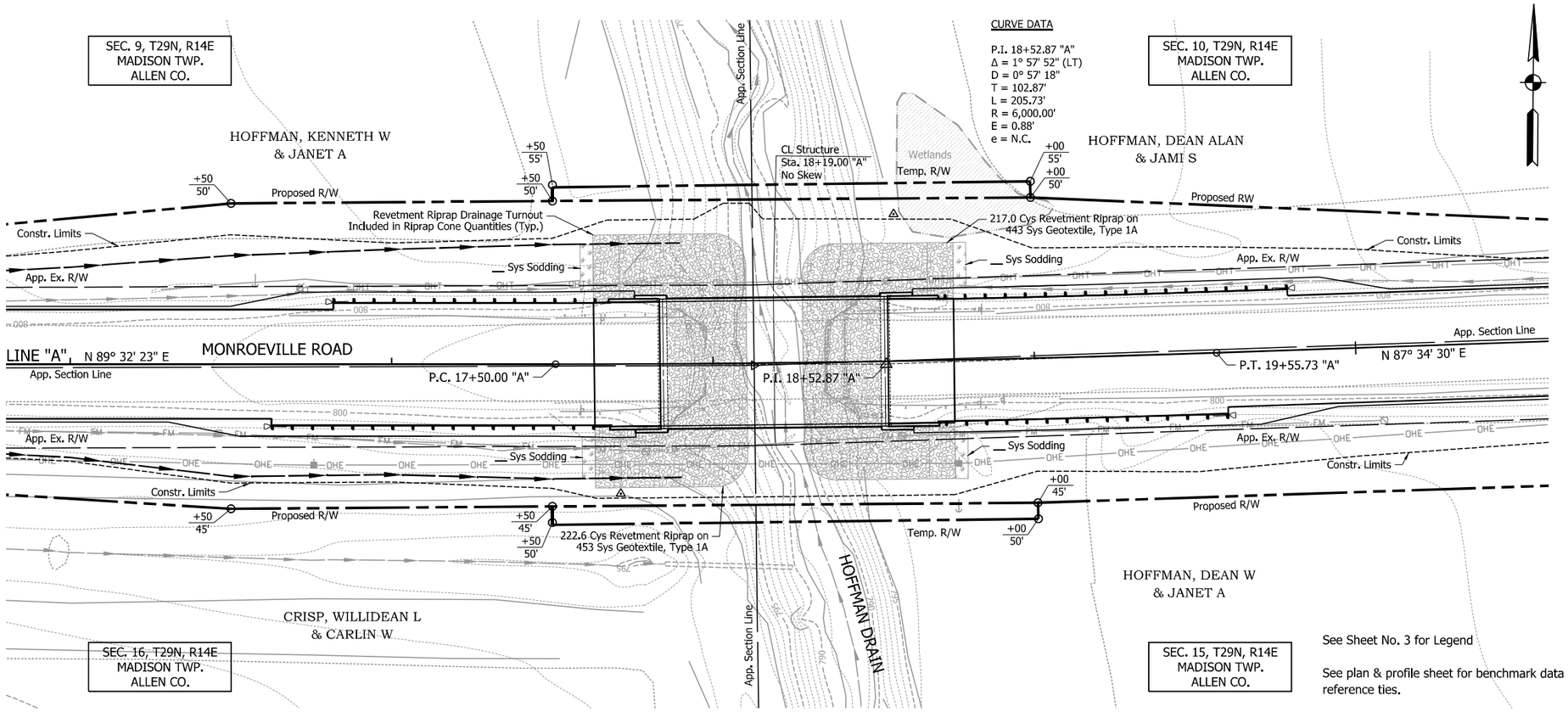


EXISTING STRUCTURE

The existing structure is a single span adjacent concrete box beam bridge on concrete abutments with an overall length of 49.5' and a clear roadway width of 24.0'. The bridge was built in 1960. The existing structure is to be removed.

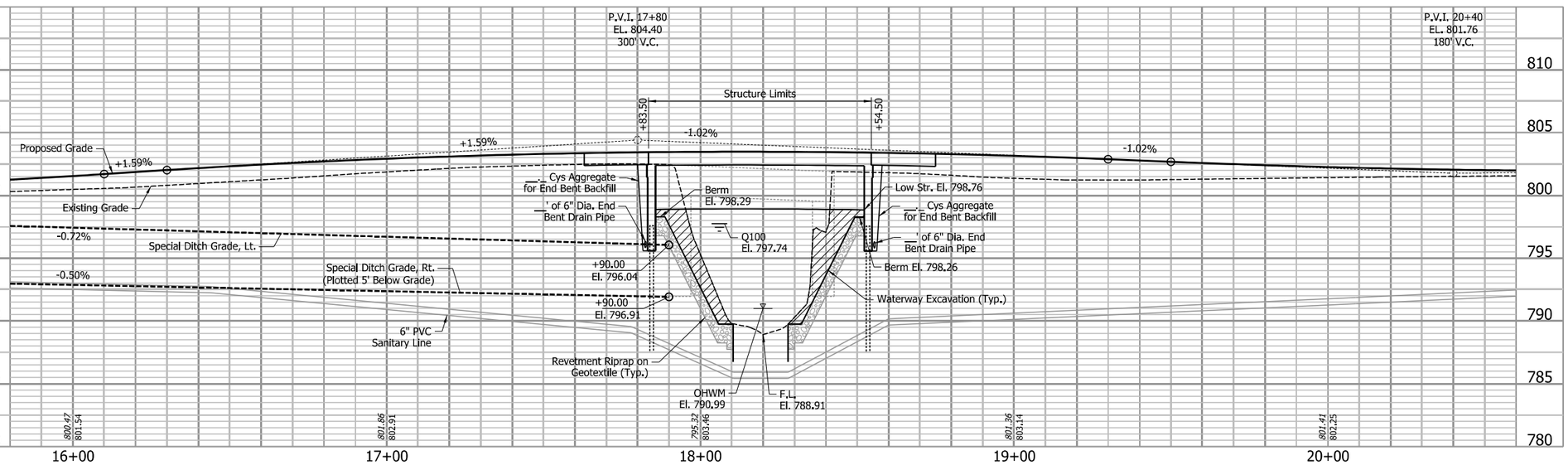
See Sheet No. 3 for Legend

See plan & profile sheet for benchmark data and reference ties.

All R/W described from Line "A", except as shown.

HYDRAULIC DATA

Drainage Area	11.50 sq mi
Q100 Discharge	1,035 cfs
Elevation @ Q100	797.74 ft
Backwater	0.23 ft
Velocity @ Q100	5.21 fps
Waterway Opening Provided Below Q100	310.80 sq ft
Low Structure Elevation	798.76 ft
Existing Waterway Opening Below Q100	296.40 sq ft
Existing Backwater	0.27 ft
Existing Low Structure Elevation	799.54 ft
Low Scour Elevation Q100	787.52 ft
Low Scour Elevation Q500	786.02 ft



PRESTRESSED CONCRETE BOX BEAM BRIDGE
Single Span @ 69'-0"
38'-8" Clear Roadway, No Skew
Monroeville Road over Hoffman Drain
Allen County

Clark Dietz

STAGE 3 PLANS

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MIA DRAWN: MIA
CHECKED: KMK CHECKED: KMK

ALLEN COUNTY
HIGHWAY DEPARTMENT

LAYOUT

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	02-00277B
VERTICAL SCALE	DESIGNATION
1" = 5'	1902826
SURVEY BOOK	SHEETS
	11 of 29
CONTRACT	PROJECT
B-42838	1902826

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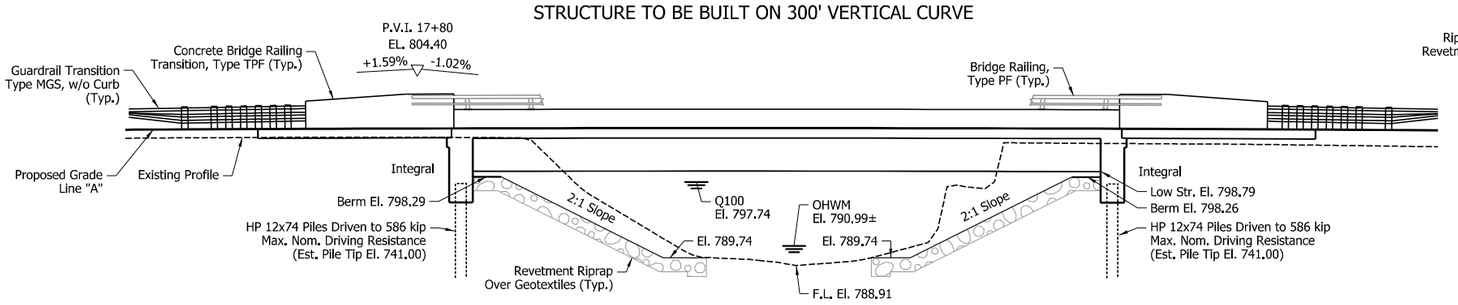
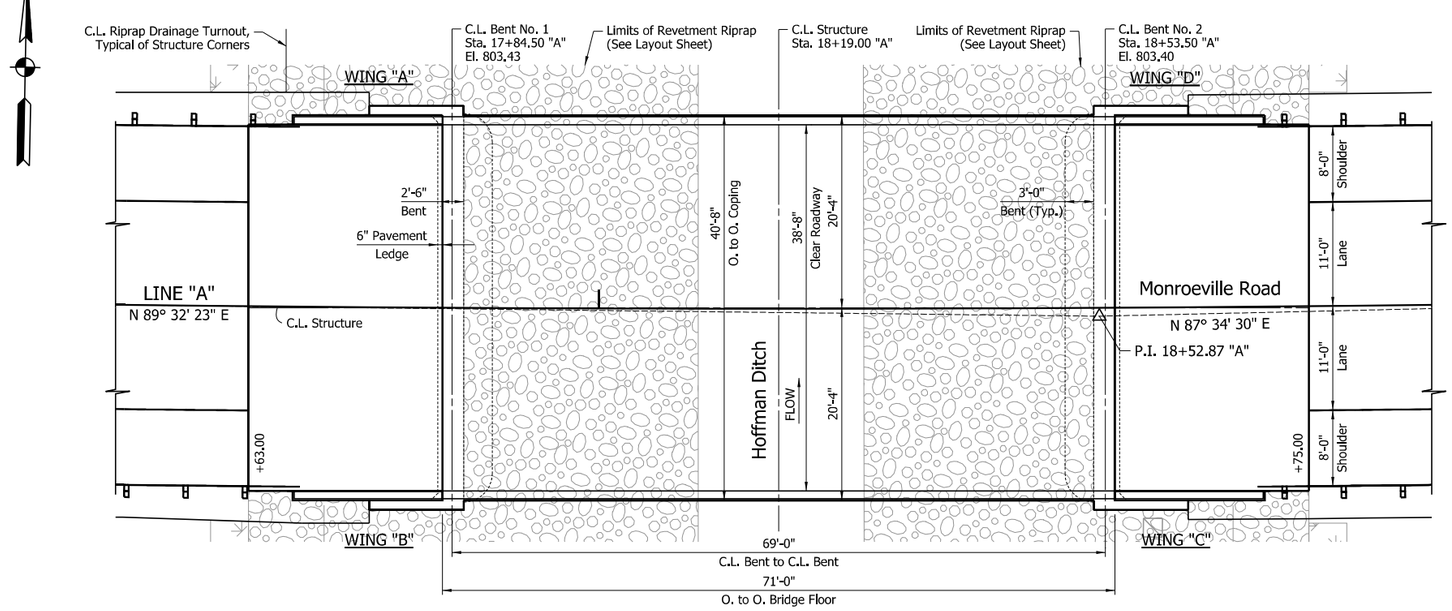
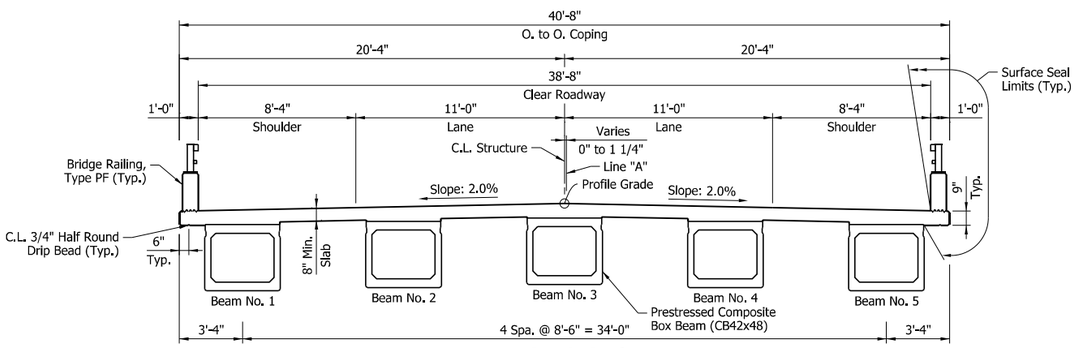
STRUCTURE TO BE BUILT ON 300' VERTICAL CURVE



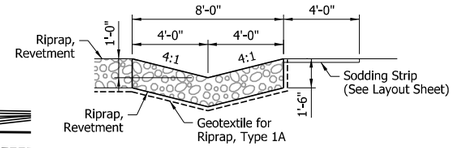
ELEVATION



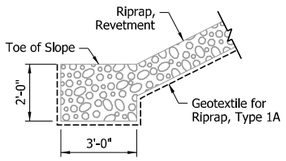
PLAN



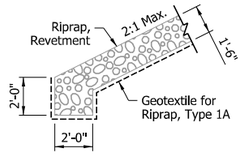
TYPICAL SECTION
Scale: 1/4" = 1'-0"



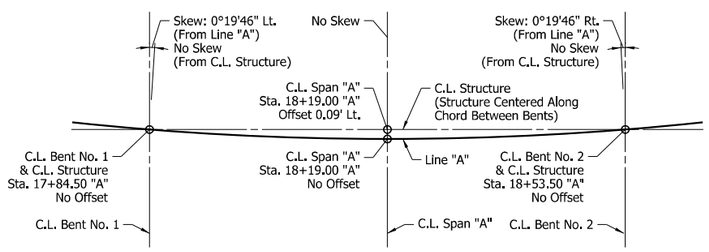
RIPRAP DRAINAGE TURNOUT
No Scale



RIPRAP DRAINAGE TURNOUT
SPLASH PAD DETAIL
No Scale



RIPRAP, REVETMENT
KEY AT TOE DETAIL
No Scale



STRUCTURE TIE-UP DETAIL
No Scale

DESIGN DATA:

LIVE LOAD: Superstructure and substructure designed for HL-93 loading, in accordance with the AASHTO LRFD Bridge Design Specifications, 8th Edition, 2017 and subsequent interims.

DEAD LOAD: Actual weight plus 35 psf for future wearing surface and 15 psf for permanent metal deck forms.

FLOOR SLAB: Slab designed with a 7 1/2" structural depth plus 1/2" sacrificial wearing surface.

DESIGN STRESSES:

Reinforcing Steel (Grade 60)	fy = 60,000 PSI.
Class "A" Concrete Strength	f'_c= 3500 PSI.
Class "B" Concrete Strength	f'_c= 3000 PSI.
Class "C" Concrete Strength	f'_c= 4000 PSI.

GENERAL NOTES

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

Surface seal all faces of bridge rails, face of deck, coping, underside of bridge slab from coping to face of top flange exterior beam, bridge approach and railing transitions. (Total Estimated Qnty. = 1,569 Sft.)

Chamfer exposed edges 1" unless noted.

PRESTRESSED CONCRETE BOX BEAM BRIDGE
Single Span @ 69'-0"
38'-8" Clear Roadway, No Skew
Monroeville Road over Hoffman Drain
Allen County

ClarkDietz

STAGE 3 PLANS

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KMK DRAWN: MHF

CHECKED: KRL CHECKED: KMK

ALLEN COUNTY HIGHWAY DEPARTMENT

GENERAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
1/8" = 1'-0"	02-00277B
VERTICAL SCALE	DESIGNATION
1/8" = 1'-0"	1902826

SURVEY BOOK	SHEETS		
	12	of	29
CONTRACT	PROJECT		
B-42838	1902826		

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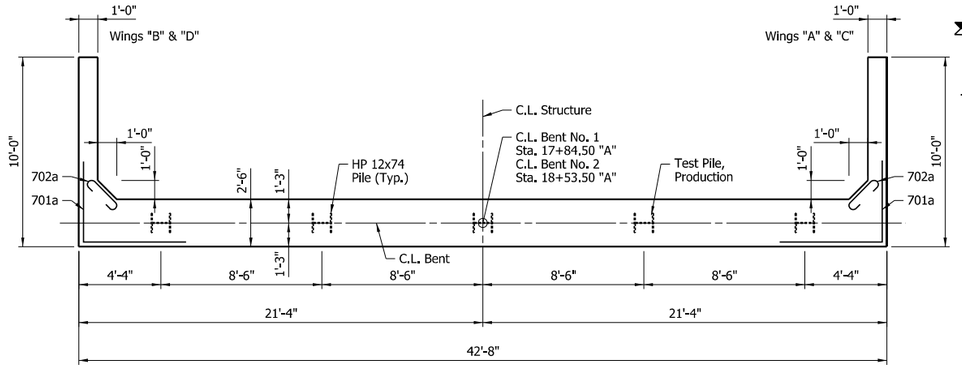
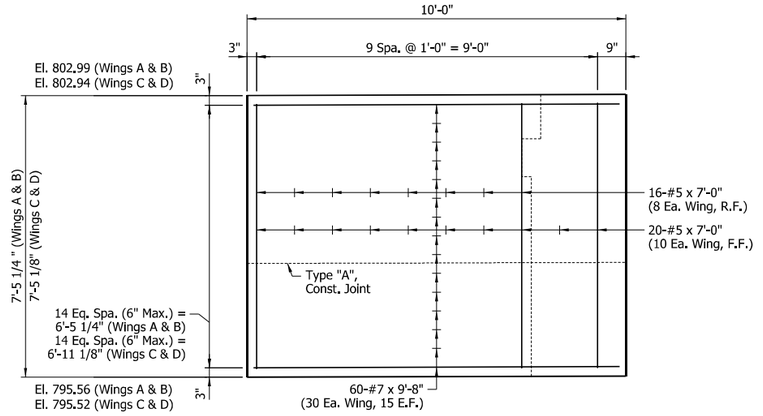


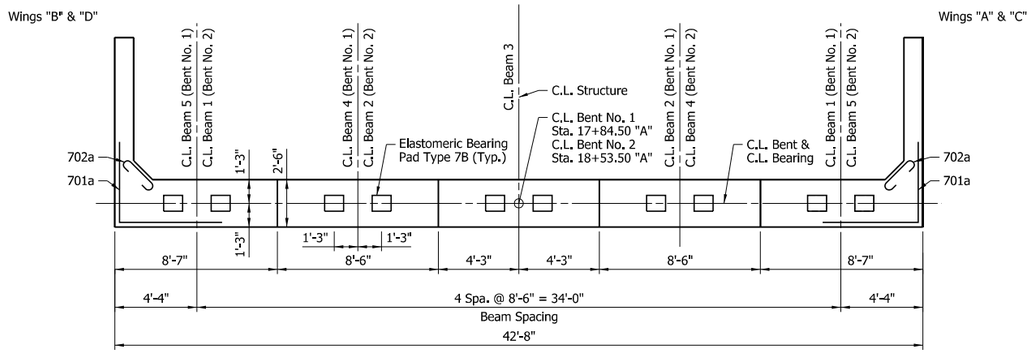
PILE PLAN

Scale: 1/4" = 1'-0"



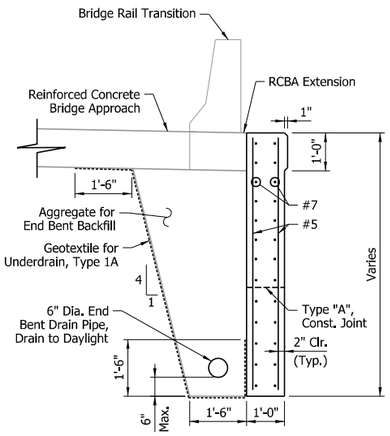
WING ELEVATION

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



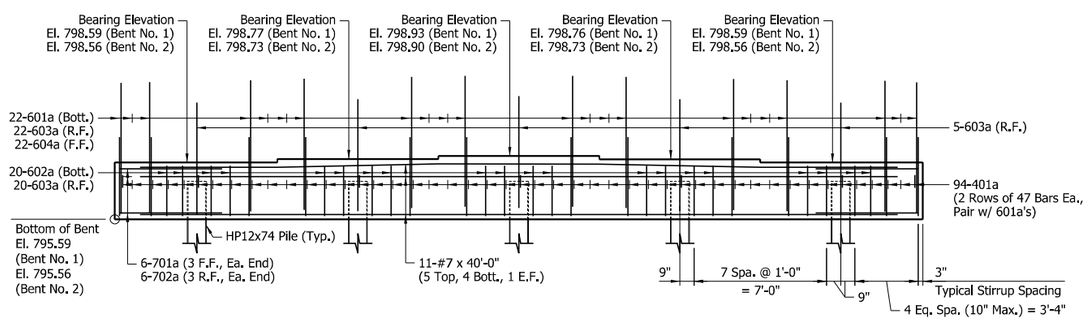
BEARING PLAN

Scale: 1/4" = 1'-0"



TYPICAL WING SECTION

No Scale



ELEVATION

Scale: 1/4" = 1'-0"

Clark Dietz

STAGE 3 PLANS

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MIA | DRAWN: MHF

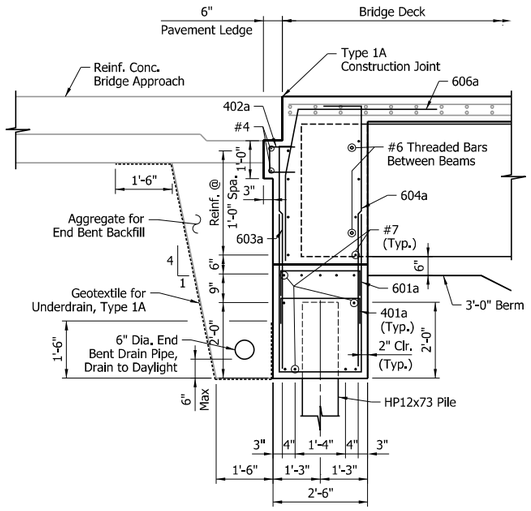
CHECKED: KRL | CHECKED: EOS

ALLEN COUNTY
HIGHWAY DEPARTMENT

BENT DETAILS
CAP PLAN

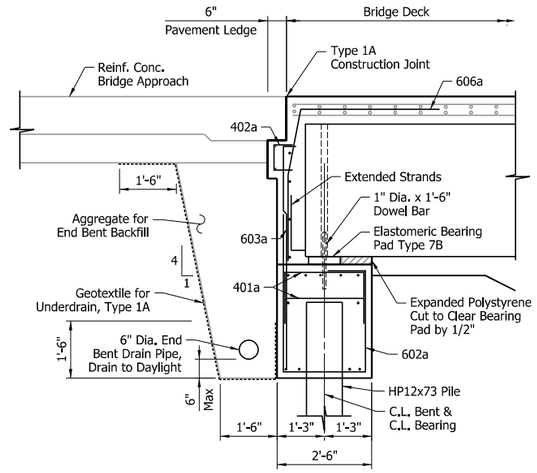
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	02-00277B
VERTICAL SCALE	DESIGNATION
AS NOTED	1902826

SURVEY BOOK	SHEETS
	13 of 29
CONTRACT	PROJECT
B-42838	1902826



SECTION "A-A"

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



SECTION "B-B"

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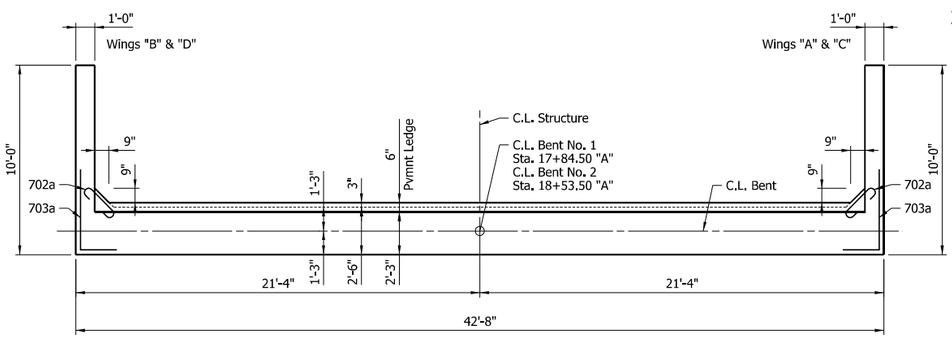
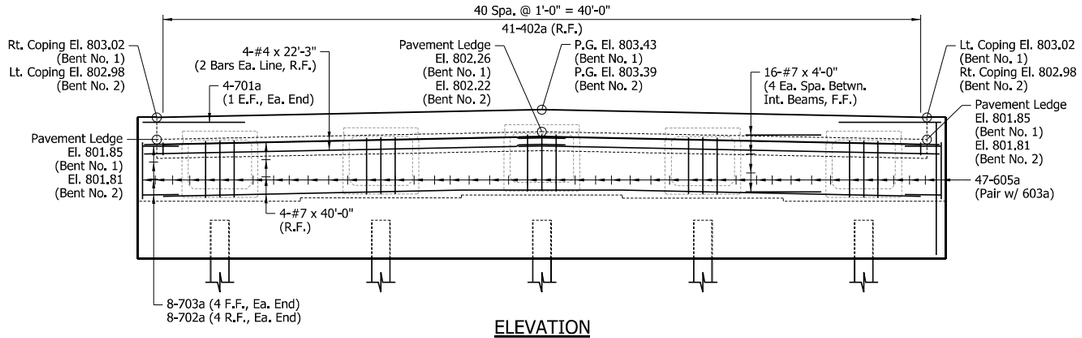


PLAN

Scale: 1/4" = 1'-0"



ELEVATION

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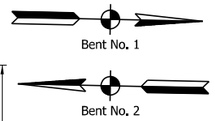
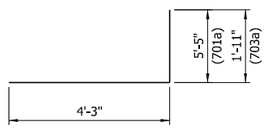
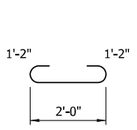


Bent No. 1

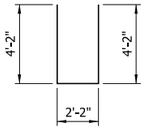
Bent No. 2



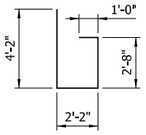
701a x 9'-8"
703a x 6'-2"



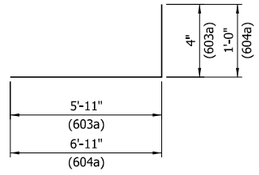
702a x 4'-4"



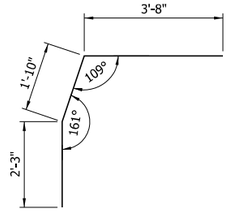
601a x 10'-6"



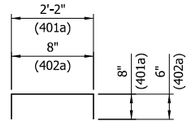
602a x 10'-0"



603a x 4'-8"
604a x 8'-0"



605a x 7'-9"



401a x 3'-6"
402a x 1'-8"

ClarkDietz

STAGE 3 PLANS

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: MIA | DRAWN: MHF

CHECKED: KRL | CHECKED: EOS

ALLEN COUNTY
HIGHWAY DEPARTMENT

BENT DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	02-00277B
VERTICAL SCALE	DESIGNATION
AS NOTED	1902826
SURVEY BOOK	SHEETS
	14 of 29
CONTRACT	PROJECT
B-42838	1902826

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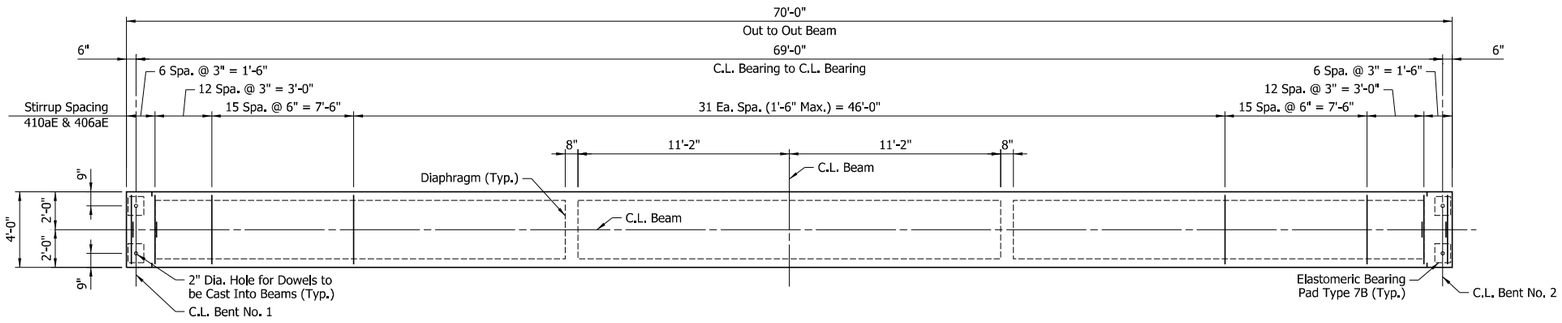
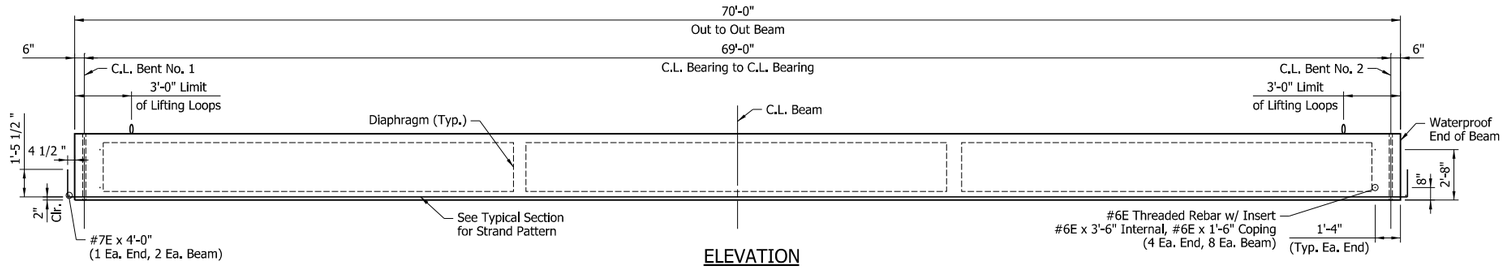
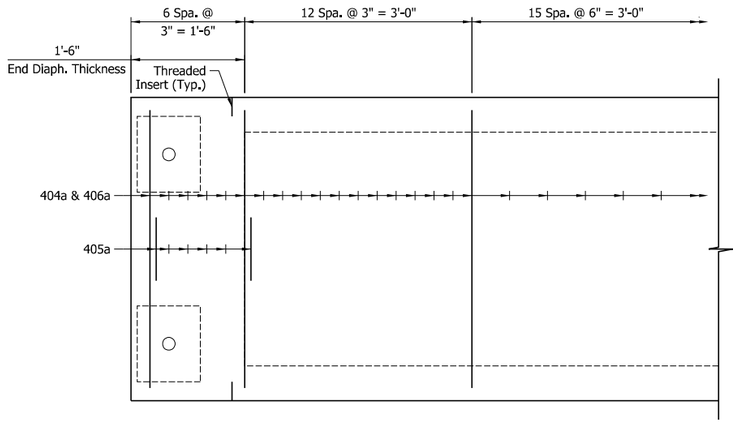


PLAN

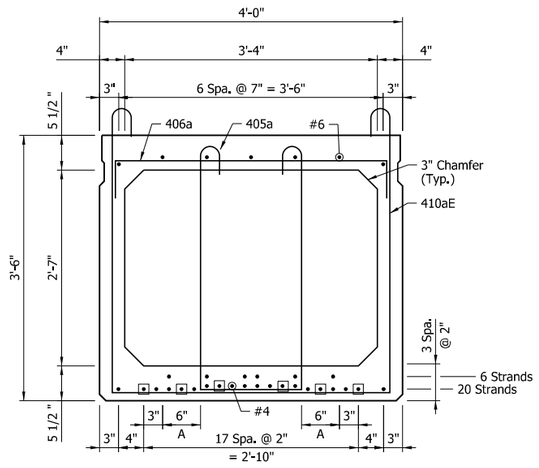


ELEVATION



BEAM END DETAIL

Scale: 1" = 1'-0"

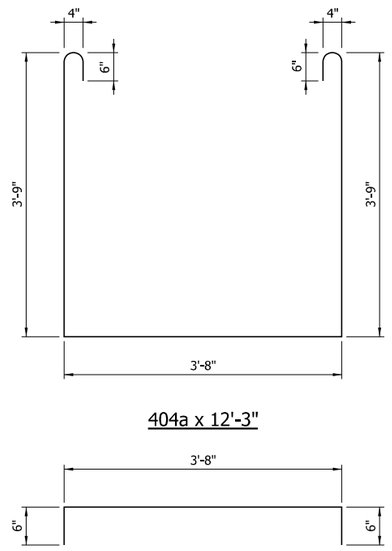


☐ - Extended (8) Prestressed Strands

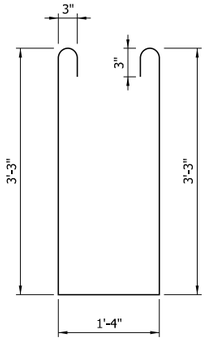
A - Void Drain Location (2 Ea. End of Open Void, 12 Total)

TYPICAL SECTION

Scale: 1" = 1'-0"



404a x 12'-3"



405a x 8'-10"

406a x 4'-8"

DESIGN DATA:

Initial pull per strand	= 33,817 lbs.
Concrete strength	
f'ci	= 6,000 psi.
f'c	= 7,000 psi.
Concrete strength to be 6,000 psi or more before prestressing force is applied.	
Anticipated beam camber at erection	= 3.486 in.
Dead load deflection	= 1.256 in.
Residual camber	= 2.230 in.

GENERAL NOTES

All strands to be special 1/2" dia., 7 wire, 270 ksi special lo-lax cable (area = 0.167 in. sq.) with a minimum tensile strength of 270,000 psi. Spacing to be as shown in details.

The beam manufacturer shall furnish to the Engineer, through the contractor, 3 sets of stamped shop drawings for approval prior to the casting of beams.

All materials shall be in accordance with 2018 Indiana Department of Transportation Standard Specifications (Effective for Lettings After September 1, 2017).

Reinforcing steel shall be A.S.T.M. A615M, Grade 60.

See General Plan, Design Data for additional information.

Beams shall be cast a minimum of 28 days before the floor slab is poured.

Beams shall be handled and erected in accordance with beam manufacturer's recommendations.

Beams are to be supported at bearing points while stored and transported to the job site.

Top of Beams are to be scored transversely at about 3" centers with pointed tool.

2" Dia. Dowel Holes to be Field Drilled in Bent Caps to ensure proper location. (Cost of Field Drilled Holes to be Included in cost of Prestressed Concrete Box Beams)

See Std. Dwg. E 703-BRST-01 for Reinforcing Bar Notes.

See Std. Dwg. E 707-BEBP-01 for additional bearing pad details.

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Clark Dietz

STAGE 3 PLANS

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MIA DRAWN: MHF

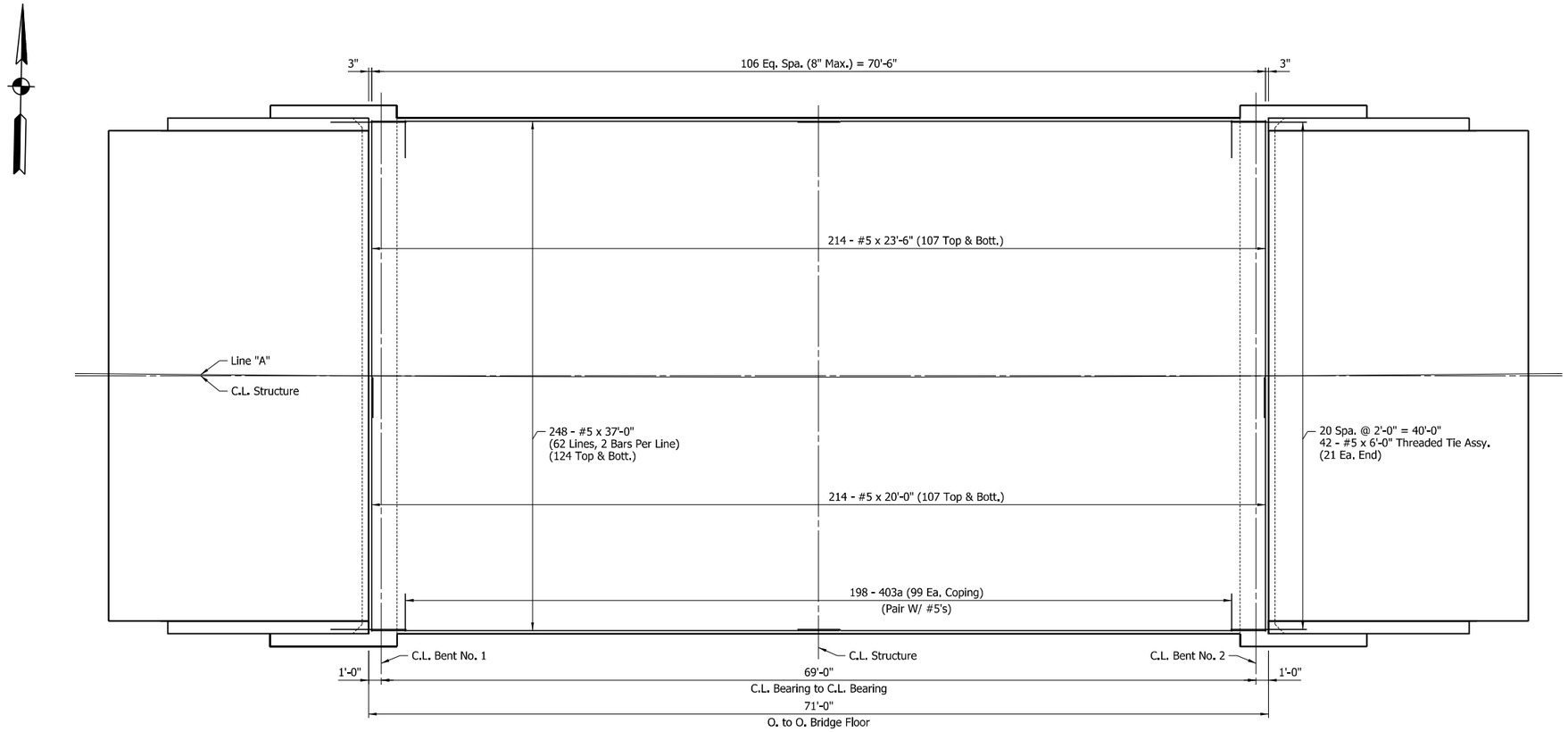
CHECKED: KRL CHECKED: EOS

ALLEN COUNTY
HIGHWAY DEPARTMENT

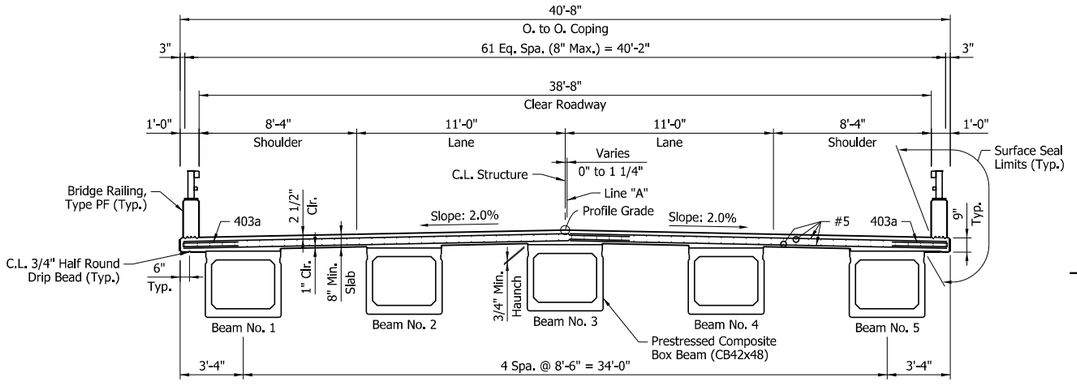
BEAM DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	02-00277B
VERTICAL SCALE	DESIGNATION
NONE	1902826

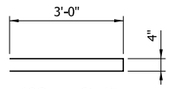
SURVEY BOOK	SHEETS
	15 of 29
CONTRACT	PROJECT
B-42838	1902826



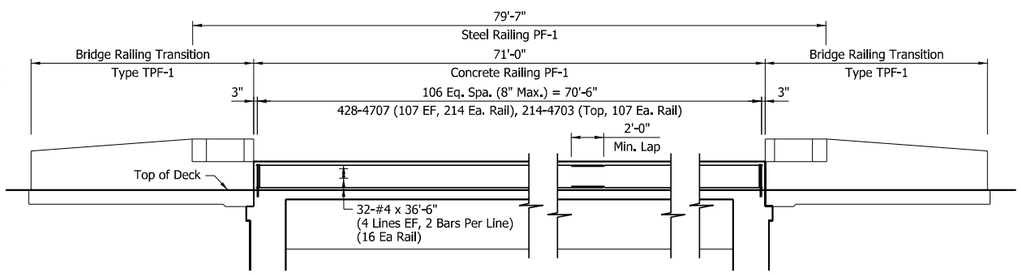
PLAN
Scale: 3/16" = 1'-0"



TYPICAL SECTION
Scale: 1/4" = 1'-0"



403a x 6'-4"



RAIL ELEVATION
Scale: 3/16" = 1'-0"

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ClarkDietz

STAGE 3 PLANS

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MIA DRAWN: MHF

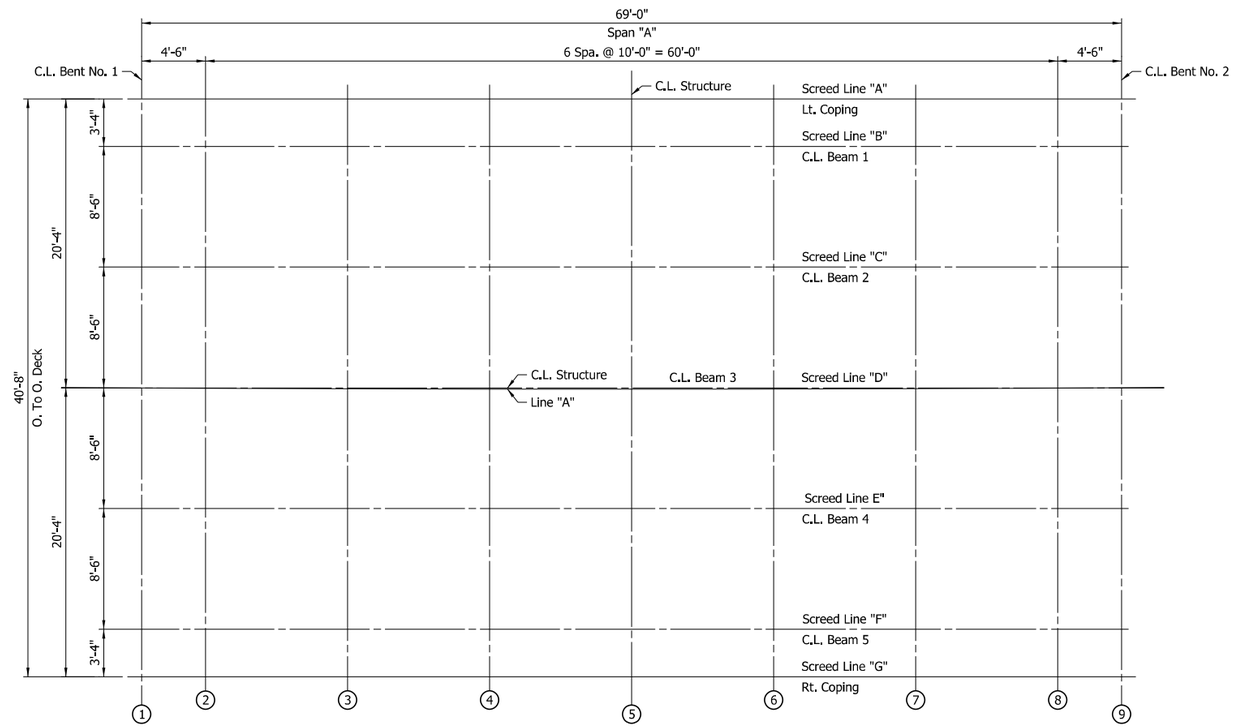
CHECKED: KRL CHECKED: EOS

ALLEN COUNTY
HIGHWAY DEPARTMENT

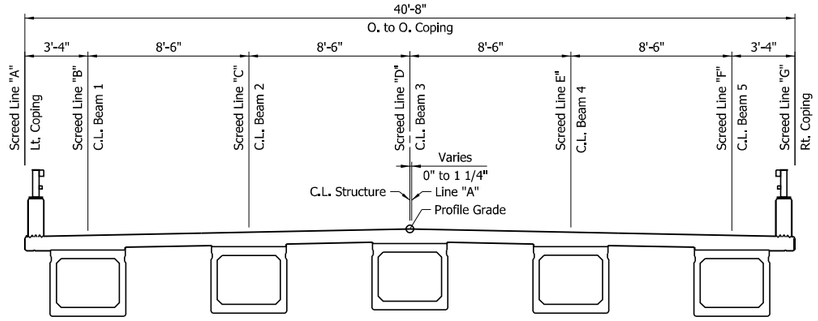
SUPERSTRUCTURE DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	02-00277B
VERTICAL SCALE	DESIGNATION
AS NOTED	1902826

SURVEY BOOK	SHEETS
	16 of 29
CONTRACT	PROJECT
B-42838	1902826



PLAN
No Scale



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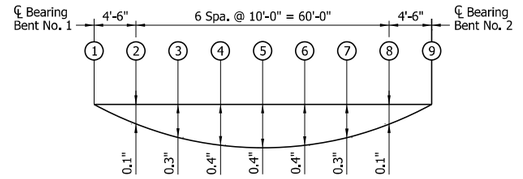

CONCRETE DEAD LOAD DEFLECTION DIAGRAM
No Scale

TABLE OF SCREED ELEVATIONS
SPAN "A"

	Point		1	2	3	4	5	6	7	8	9
SCREED LINE	A	Elevation - Top of Coping Form	803.026	803.045	803.077	803.096	803.100	803.086	803.057	803.014	802.991
		Elevation - Top of Outside Beam									
		Distance - Top of Beam to Top of Screed									
	B	Elevation - Top of Coping Form	803.093	803.111	803.143	803.161	803.164	803.151	803.122	803.080	803.058
		Elevation - Top of Outside Beam									
		Distance - Top of Beam to Top of Screed									
	C	Elevation - Top of Coping Form	803.263	803.281	803.314	803.332	803.335	803.322	803.293	803.250	803.228
		Elevation - Top of Outside Beam									
		Distance - Top of Beam to Top of Screed									
	D	Elevation - Top of Coping Form	803.433	803.451	803.484	803.502	803.505	803.492	803.463	803.420	803.398
		Elevation - Top of Outside Beam									
		Distance - Top of Beam to Top of Screed									
	E	Elevation - Top of Coping Form	803.433	803.451	803.484	803.502	803.506	803.494	803.464	803.421	803.398
		Elevation - Top of Outside Beam									
		Distance - Top of Beam to Top of Screed									
	F	Elevation - Top of Coping Form	803.093	803.112	803.145	803.165	803.168	803.155	803.125	803.082	803.058
		Elevation - Top of Outside Beam									
		Distance - Top of Beam to Top of Screed									
	G	Elevation - Top of Coping Form	803.027	803.045	803.077	803.096	803.100	803.086	803.057	803.014	802.992
		Elevation - Top of Outside Beam									
		Distance - Top of Beam to Top of Screed									

SCREED SETTING PROCEDURE AND NOTES

1. After beams are set, take elevations at all screed points on top of beams. Enter these elevations in the table. Subtract these elevations from the tabulated elevations and use the resulting dimensions as the height for setting screed forms above these points. These dimensions remain constant regardless of how much or in what order the concrete is poured.
2. Do not set screeds or coping forms by leveling.
3. No concrete in the floor slab shall be poured until the above operations are completed.
4. Screed elevations as shown in the table include an allowance for concrete dead load deflections.
5. All dimensions are in feet (ft) except as noted.
6. See General Plan sheet for General Notes.
7. See General Plan sheet for Structure Tie-Up Detail.

ClarkDietz

STAGE 3 PLANS

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MIA | DRAWN: MHF

CHECKED: KRL | CHECKED: EOS

ALLEN COUNTY
HIGHWAY DEPARTMENT

SCREEDS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	02-00277B
VERTICAL SCALE	DESIGNATION
AS NOTED	1902826

SURVEY BOOK	SHEETS
	17 of 29
CONTRACT	PROJECT
B-42838	1902826

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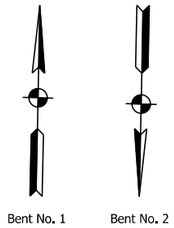
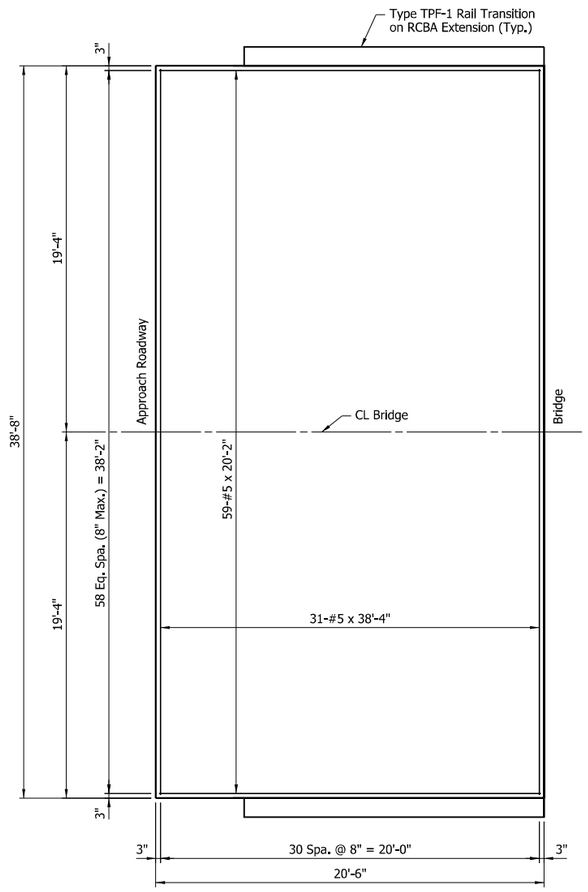
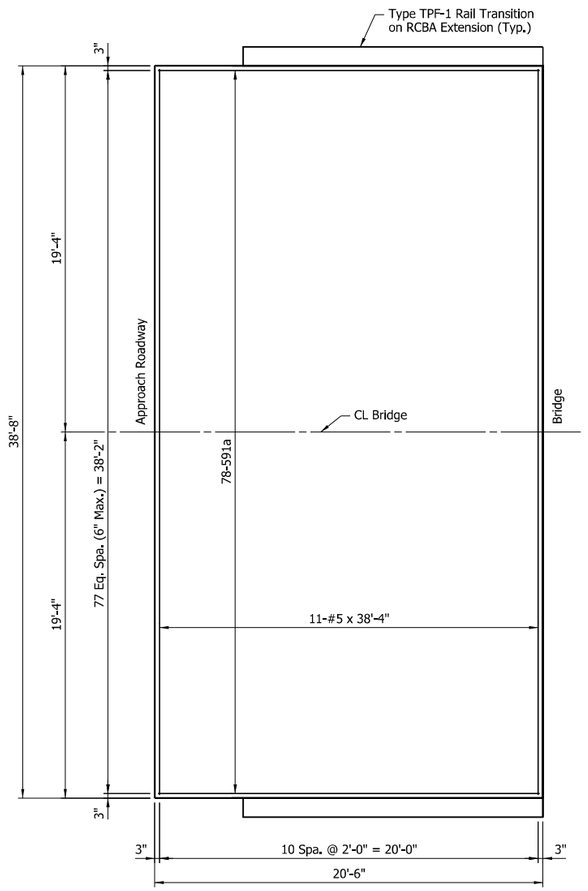
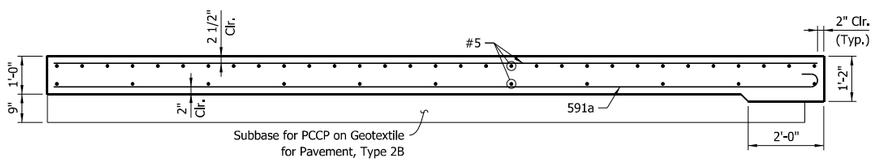




TOP MAT REINFORCING PLAN

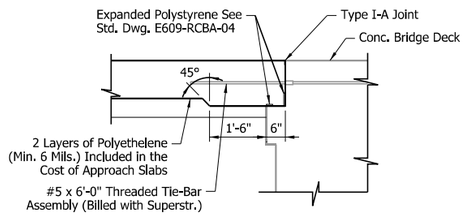


BOTTOM MAT REINFORCING PLAN



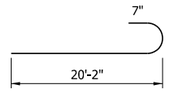
TYPICAL SECTION

Scale: None



PAVEMENT LEDGE DETAIL

Scale: None



591a x 20'-9"

NOTES:
For Reinforcing Bar Notes, See INDOT Std. Dwg. E 703-BRST-01

For RCBA Pavement Ledge Detail and Approach Slab Section Detail, See INDOT Std. E 609-RCBA-04 (Approach slab thickness shall be 1'-0")

For RCBA Extension, Type TPF-1 Details, See Std. E 609-TBAE-01 to 03, Thickness shall match approach slab thickness of 1'-2".

Bridge Rail Transitions shall be surface sealed.

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Clark Dietz

STAGE 3 PLANS

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MIA | DRAWN: MHF

CHECKED: KRL | CHECKED: EOS

ALLEN COUNTY
HIGHWAY DEPARTMENT

REINFORCED CONCRETE
BRIDGE APPROACH DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	02-00277B
VERTICAL SCALE	DESIGNATION
1/4" = 1'-0"	1902826

SURVEY BOOK	SHEETS		
	18	of	29
CONTRACT	PROJECT		
B-42838	1902826		

SUMMARY OF BRIDGE QUANTITIES

ITEM	CONCRETE				REINF. STEEL	EPOXY COATED REINF. STEEL	THREADED TIE BAR ASSEM., EPOXY COATED	CONC. BR. RAILING TRANS., TYPE TPF-1	CONC. BR. RAILING, TYPE PF-1	BARRIER, DELIN-EATOR	PILES									SHEET PILING, STEEL S=18.1	CONC. STRUCTURAL MEMBERS			12" REINF. CONCRETE BRIDGE APPROACH	DENSE GRADED SUBBASE	SURFACE SEAL **	6" END BENT DRAIN PIPE	AGGR. FOR END BENT BACKFILL	GEO-TEXTILE FOR END BENT BKFILL***	GEO-TEXTILE FOR SUBGRADE TYPE 2B
	CLASS C SUPERSTR	CLASS C SUBSTR	CLASS B IN FTG.	CLASS A SUBSTR							DYNAMIC PILE LOAD TEST	TEST PILE, INDICATOR, RESTRIKE	TEST PILE, INDICATOR, PRODUCTION		PILE, STEEL HP 12 X 53		24" PREDRILLED PILE HOLES		PILE SHOE, HP 12 X 53		PRECAST BOX-BEAM 42" x 48"	PRECAST COLUMNS	PRECAST DECK PANELS							
	Cys.	Cys.	Cys.	Cys.	Lbs.	Lbs.	EACH	EACH	Lft.	EACH	EACH	EACH	No.	Lft.	EACH	Lft.	No.	Lft.	EACH	Sft.	Lft.	Lft.	Sys.	Sys.	Cys.	Sft.	Lft.	Cys.	Sys.	Sys.
West R.C. Bridge Approach						3,460		2																93.5	23.4	215.0				93.5
Bent No. 1	21.5			13.7	3,083	4,838	19					1	1	47	5	45			6							89.0	68.2	23.9	65.3	
Superstructure	78.9					17,753			141.0												350.0					964.0				
Bent No. 2	21.5			13.5	3,038	4,838	19					1	1	47	5	45			6							86.0	68.2	22.9	65.1	
East R.C. Bridge Approach						3,460		2																93.5	23.4	215.0				93.5
Total=	121.9			27.2	6120.0	34346.5	38.0	4.0	141.0			2	2.0	94.0	10.0	450.0			12.0		350.0			187.0	46.8	1569.0	136.3	46.8	130.4	186.9
Use=	122			28	6120	34347	38	4	141			2	2	94	10	450			12		350			187	47	1569	137	47	131	187

* Avg. Length

** Estimated Quantity

*** Shall Be Included in Cost of End Bent Backfill

PAVEMENT QUANTITIES AND APPROACH TABLE

LOCATION (STATION)	LT. or RT.	DESCRIPTION (APPROACH TYPE OR CLASS)	WIDTH	LENGTH	RADII		DISTANCE BEYOND R/W LINE	SURFACE BEYOND R/W LINE			GRADE (< 10% NOT SHOWN)		EXCAVATION		QC/QA-HMA PAVEMENT FOR ROADS							LIQUID ASPHALT SEALANT	TACK COAT	COMPACTED AGGREGATE BASE, No. 53		COMPACTED AGGREGATE, No. 2	PCCP FOR APPROACHES, - IN.	HMA FOR APPROACHES, TYPE -	REMARKS
								HMA for Approaches, Type B	SUBGRADE TREATMENT, TYPE II	PCCP FOR APPROACHES, - IN.	1	2	Cut	Fill	165#/syd 3/4" SURFACE (9.5 mm)	440#/syd 3/4" HMA, 2/4" INTERMED. (12.5 mm)	660#/syd QC/QA-HMA, 2/4" BASE (19.0 mm)	660#/syd HMA, BASE TYPE B	Milling, Transition	Joint Adhesive Surface	Joint Adhesive Intermediate							
			"W"	"L"	"R"																		0.000252	6"	12"	8"		#syd.	
			Ft	Ft	Ft	Ft	Ft	Sys	Sys	Sys	%	%	Cys	Cys	Tons	Tons	Tons	Ton	Sys	LFT	LFT	LFT	Ton	Sys	Tons	Sys	Sys	Sys	
LINE A																													
13+60.00 to 14+20.00															16.8	12.8			146.7	60.0		60.0		64	8.8	80.0			
14+20 to 16+62.60	RT.														38.0	102.1				242.6	242.6	242.6	0.02	473	18.0	512.2			
14+20 to 16+93.52	LT.														42.8	115.0				30.9	30.9	30.9	0.02	532	20.3	577.4			
16+62.60 to 17+63.25	RT.														17.7	48.0				69.7	69.7	69.7	0.01	228	25.5	234.9			
16+93.52 to 17+63.25	LT.														12.3	33.7							0.01	162	17.6	162.7			
Structure																													
18+74.75 to 19+44.47	RT.														12.2	33.4				69.7	69.7	69.7	0.01	159	17.6	162.7			
18+74.75 to 19+81.97	LT.														18.8	50.8				37.5	37.5	37.5	0.01	238	27.1	250.2			
19+44.47 to 21+40	RT.														30.6	82.3							0.02	381	14.5	412.8			
19+81.97 to 21+40	LT.														24.7	66.7				158.0	158.0	158.0	0.01	310	16.2	333.6			
21+40 to 22+00															14	6.4			140.0	60		60		32		40.0			
21+39.5	LT.	Class V Drive, Mod.	12.0	12.0	10	25	10.5																						Gravel Drive
		TOTALS	12.0	12.0	10.0	25.0	10.5								227.7	550.8				728.5	608.5	728.5	0.1	2,580.1	165.6	2,766.4			
		USE	12	12	10	25	11								228	551				729	609	729	1	2,581	166	2,767			

STRUCTURE DATA

STRUCTURE NUMBER	LOCATION					SIZE	PIPE TYPE	STRUCTURE DESCRIPTION	LENGTH	SKEW	COVER	FLOW LINE		CASTING ELEVATION	SERVICE LIFE	SITE DESIGNATION	pH	BACKFILL METHOD	STRUCTURE BACKFILL TYPE 1	REVETMENT RIPRAP	CLASS 1 RIPRAP	GEOTEXTILE FOR RIPRAP TYPE 1A	PIPE END SECTION	SAFETY METAL END SECTION	GRATED BOX END SECTION			CONNECT TO STRUCTURE	REMARKS
	STATION	ALIGNMENT	LEFT	RIGHT	CROSS							UP STREAM	DOWN STREAM												TYPE	SLOPE	EA.		
			FT	FT		IN			LFT		FT	ELEV.	ELEV.		YR.				CYD	TON	TON	EA.	EA.	EA.					
1	21+38.6	"A"	X			12	1	Pipe	20			800.62	800.52		50			1											

Clark Dietz

STAGE 3 PLANS

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KMK DRAWN: MHF

CHECKED: KRL CHECKED: KMK

ALLEN COUNTY HIGHWAY DEPARTMENT

BRIDGE SUMMARY TABLE

HORIZONTAL SCALE	BRIDGE FILE
NONE	02-00277B
VERTICAL SCALE	DESIGNATION
NONE	1902826

SURVEY BOOK	SHEETS
	19 of 29
CONTRACT	PROJECT
B-42838	1902826

Categorical Exclusion

Appendix C

Early Coordination

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

PHONE: (317) 234-5168

Eric Holcomb, Governor
Joe McGuinness,
Commissioner

March 19, 2021

Re: Early Coordination Letter, Des. No. 1902826, Allen County Bridge Number 277 over Hoffman Drain carrying Monroeville Road, Allen County, Indiana

To Whom it May Concern:

Allen County, with funding from the Federal Highway Administration (FHWA) and administrative oversight from the Indiana Department of Transportation (INDOT) intends to proceed with a project to replace Allen County Bridge 277, carrying Monroeville Road over Hoffman Drain. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the designation number and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

Current Conditions: Allen County Bridge 277 is a concrete box beam bridge with bituminous surface. The project is located on Monroeville Road, approximately 3.7 miles northwest of Monroeville, Indiana. Monroeville Road is a two-lane Minor Collector (rural). The existing bridge measures 52.5 feet in length and 29.9 feet deck width. The bridge was built in 1960. Per the May 2019 Inspection report, the deck and superstructure are rated as "poor" (condition rating of 4). The bottom of the adjacent concrete box beam superstructure presents spalling with exposed and rusted strands throughout. The substructure is rated as "satisfactory" (condition rating of 5) with areas of cracking. Since the original construction in 1960, the bridge has not received any documented rehabilitation work.

Proposed Project: The proposed work will include removal and replacement of the existing bridge. The replacement is estimated to measure 70.5 feet in length and 39 feet in width. The anticipated superstructure type is spread concrete box beams, which will be placed to meet appropriate geometric and hydraulic requirements as specified by the Indiana Design Manual. To meet these requirements, the roadway profile at the site will most likely have to increase by a maximum of 2 feet. The project length is estimated to measure 540 feet long to allow adequate distance for the profile to tie back into the existing grade. The length of project is not anticipated to interfere with the Monroeville Road and Fackler Road intersection, located 340 feet from the end of the existing bridge. Other items addressed during the replacement include upgrading the bridge rail and approach guardrail to meet current standards. Replacing the existing structure will reset the service life of the bridge (goal of 75 years) and prevent future road closure prompted by safety concerns resulting from the deteriorating superstructure.

The anticipated out-to-out structure width is 31 feet as compared to the existing out-to-out structure width of 30 feet; minimum permanent right of way acquisition is anticipated. Utility relocation may be required due to the presence of overhead utility poles, located approximately 30-feet off the centerline of the roadway both north and south of the bridge.

Land use in the vicinity of the project is primarily agricultural and includes residences to the east, west, and south. The project requires the acquisition of 0.64 acre of permanent right-of-way. The project will be approximately 540 feet in length. The proposed method of traffic maintenance is anticipated to reroute traffic to a compatible rural collector detour. No trees will be cleared as part of this project. The project is anticipated to begin construction in 2024.

A consultant will perform waters and wetlands determinations to identify water resources that may be present. This project qualifies for the application of the USFWS range-wide programmatic informal consultation for the Indiana bat and northern long-eared bat and project information will be submitted through USFWS's Information for Planning and Consultation (IPaC) separately. A consultant will investigate the area for Section 106 compliance. The results of this investigation will be forwarded to the State Historic Preservation Officer for review and concurrence.

Please respond to this letter within 30 days. 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.

Thank you in advance for your input. If you have any questions regarding this matter, please feel free to contact Anne Shaw at (859) 797-0097 or anne.shaw@clarkdietz.com, or John Langmaid at (260) 969-8318 or jlangmaid@indot.in.gov.

Clark Dietz
Anne Shaw
Environmental Specialist

ATTACHMENTS:
Location Map, Aerial Map, Topographic Map
Photographs

Removed to Avoid Duplication - See Appendix B

Cc: Federal Highway Administration - Indiana Division - k.carmanygeorge@dot.gov
Environmental Manager, INDOT – Fort Wayne District Office – Knovak@indot.in.gov
Indiana Geological Survey
Field Supervisor, U.S. Fish & Wildlife Service, Bloomington, IN - elizabeth_mccloskey@fws.gov
US Department of Housing & Urban Development, Chicago, IL - Melanie.H.Castillo@hud.gov
Environmental Coordinator, Indiana Department of Natural Resources, Division of Fish & Wildlife - environmentalreview@dnr.in.gov
Regional Environmental Coordinator, Midwest Regional Office, National Park Service, Omaha, NE - Mwro_Compliance@nps.gov
Indiana Department of Environmental Management – Groundwater - ATurnbow@idem.IN.gov
Indiana Department of Transportation, Office of Aviation – JCourtade@indot.in.gov
Natural Resources Conservation Service, State Conservationist - rick.neilson@in.usda.gov
US Corps of Engineers, Detroit District - Charles.A.Uhlarik@usace.army.mil
Allen County Board of Commissioners - richard.beck@allencounty.us
Allen County Council - sheila.curry-campbell@allencounty.us; tom.harris@allencounty.us; joel.benz@allencounty.us; christopher.spurr@allencounty.us; bob.armstrong@allencounty.us; kenneth.fries@allencounty.us; kyle.kerley@allencounty.us
Allen County Surveyor - Surveyor@co.allen.in.us
Allen County Highway Department - highway@co.allen.in.us

Allen County Engineer - Mike.Thornson@co.allen.in.us
Heritage Jr/Sr High School - mwidenhoefer@eacs.k12.in.us
Town of Monroeville, Sanitary Sewer (Sent on July 20, 2022)

Organization and Project Information

Project ID:
Des. ID: Des. No. 1902826
Project Title: Bridge Replacement Monroeville Road over Hoffman Ditch
Name of Organization: Clark Dietz
Requested by: Anne Shaw

Environmental Assessment Report

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

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

DISCLAIMER:

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

This information was furnished by Indiana Geological Survey
Address: 1001 E. 10th St., Bloomington, IN 47405
Email: IGSEnvir@indiana.edu
Phone: 812 855-7428
Date: September 20, 2021

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

THIS IS NOT A PERMIT

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

DNR #: ER-23572 **Request Received:** March 19, 2021

Requestor:
Clark Dietz, Inc.
Anne Shaw
8900 Keystone Crossing, Suite 475
Indianapolis, IN 46240

Project: Monroeville Road bridge (#277) replacement over Hoffman Ditch, about 3.7 miles northwest of Monroeville; Des #1902826

County/Site info: Allen

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

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

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

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

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

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

The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. When determining an appropriate bridge or culvert size, consider whether or not wildlife/vehicle collisions are a concern at the crossing site. If feasible, a larger bridge or culvert opening can allow for the movement of wildlife under the roadway in order to minimize wildlife/vehicle collisions.

Attachments: A - Bridge Exemption Criteria

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, if required) for any unavoidable habitat impacts that will occur. The DNR's Habitat Mitigation Guidelines (and plant lists) can be found online at: http://iac.iga.in.gov/iac/20200527-IR-312200284NRA.xml.pdf.

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

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 according to the 1991 INDOT/IDNR/USFWS Memorandum of Understanding.

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:
1. Revegetate all bare and disturbed areas within the project area using a mixture of grasses (excluding all varieties of tall fescue), sedges, 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

Attachments: A - Bridge Exemption Criteria

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:** April 15, 2021

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

Attachments: A - Bridge Exemption Criteria

Indiana Department of Environmental Management
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno Pigott
Commissioner

March 24, 2021

66-33
Clark Dietz, Inc.
Attention: Anne Shaw
8900 Keystone Crossing, Suite 475
Indianapolis, Indiana 46240

Dear Anne Shaw,

RE: Wellhead Protection Area
Proximity Determination
Des No 1902826
Allen County Bridge Number 277
over Hoffman Drain carrying
Monroeville Road, Allen County,
Indiana

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

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

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

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

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

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

Sincerely,

Alisha Turnbow

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

United States Department of Agriculture

Farm Production and Conservation

Natural Resources Conservation Service

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

April 10, 2023

Cameron D. Fraser
Clark Dietz, Inc.
8900 Keystone Crossing, Suite 475
Indianapolis, Indiana 46240

Dear Ms. Fraser:

The proposed Bridge 277 project over Hoffman Drain in Allen County, Indiana (Des. No. 1902826), as referred to in your letter received on April 6, 2023, will cause a conversion of prime farmland.

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

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

Sincerely,

JOHN ALLEN

Digitally signed by JOHN ALLEN
Date: 2023.04.10 13:31:13 -04'00'

JOHN ALLEN
State Soil Scientist

Enclosers

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request **4/6/23**	4. Sheet 1 of **1**
1. Name of Project **DES1902826_Allen County Bridge 277**	5. Federal Agency Involved **FHWA**	
2. Type of Project **Bridge**	6. County and State **, Indiana**	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS	2. Person Completing Form **JRA**
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated / Average Farm Size **182 ac**
5. Major Crop(s) **Corn**	6. Farmable Land in Government Jurisdiction **Acres: 411230** **% 97**	7. Amount of Farmland As Defined in FPPA **Acres: 394025** **% 93**
8. Name Of Land Evaluation System Used **LESA**	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS **4/10/23**

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment : Corridor 1	Corridor 2	Corridor 3	Corridor 4
A. Total Acres To Be Converted Directly	0.60			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	0.00			
C. Total Acres In Corridor	0.60	0.00	0.00	0.00
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	0.60			
B. Total Acres Statewide And Local Important Farmland	0.00			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	<0.001			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	32.0			
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	87			

PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points				
1. Area in Nonurban Use	15	15			
2. Perimeter in Nonurban Use	10	9			
3. Percent Of Corridor Being Farmed	20	13			
4. Protection Provided By State And Local Government	20	0			
5. Size of Present Farm Unit Compared To Average	10	2			
6. Creation Of Nonfarmable Farmland	25	0			
7. Availablility Of Farm Support Services	5	5			
8. On-Farm Investments	20	10			
9. Effects Of Conversion On Farm Support Services	25	0			
10. Compatibility With Existing Agricultural Use	10	0			
TOTAL CORRIDOR ASSESSMENT POINTS	160	54	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	87			
Total Corridor Assessment (From Part VI above or a local site assessment)	160	54	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	141	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?
1	**0.60**	**4/11/23**	YES ☐ NO ☑

5. Reason For Selection:

Bridge project at location

Signature of Person Completing this Part:

DATE **4/11/23**

NOTE: Complete a form for each segment with more than one Alternate Corridor

From: Courtade, Julian
To: Anne M. Shaw
Subject: RE: Des. No. 1902826, Allen County Bridge Number 277 ECL
Date: Friday, March 19, 2021 2:35:46 PM
Attachments:

Anne –

I reviewed the Early Coordination Letter and found no issues with any surrounding airspace or public-use airports. This is due to the project meeting the required glideslope criteria from the nearest public-use facility according to 14 CFR Part 77 – Safe, efficient use, and preservation of the navigable airspace.

If any object will exceed 200 ft in height regardless of location, the object will need to be airspaced with the FAA 45 days prior to construction through the OEAAA portal below.

https://oeaaa.faa.gov/oeaaa/external/searchAction.jsp

Please let me know if you have any questions!

Thanks,

Julian L. Courtade
Chief Airport Inspector
100 North Senate Ave, N758-MM
Indianapolis, IN 46204
Cell: (317) 954-7385
Email: jcourtade@indot.in.gov

From: Anne M. Shaw <Anne.Shaw@clarkdietz.com>
Sent: Friday, March 19, 2021 1:37 PM
To: Courtade, Julian <JCourtade@indot.IN.gov>
Cc: Langmaid, John <JLANGMAID@indot.IN.gov>; Kevin R. Loiselle <kevin.loiselle@clarkdietz.com>
Subject: Des. No. 1902826, Allen County Bridge Number 277 ECL

From: Mike Fruchey
To: Anne M. Shaw
Subject: Des. No. 1902826, Allen County Bridge Number 277 ECL
Date: Friday, March 19, 2021 3:19:59 PM

To whom it may concern,

The Allen County Surveyor's Office has the following comments concerning the above project:

1) Allen County Drainage Board approval required to allow a permanent structure in the legal drain. The required documents would include the following:

a. Petition for Consent to Allow Permanent Structure in Legal Drain pursuant of I.C. 36-9-27-72
b. Exhibits Depicting Location and Proposed Work
    a. Exhibits typically include Project Location Map, Plan and Profile Sheets, Disturbed Area Map, Project Photographs, FIRM Map, Soil Map, and Wetland map.
    b. Stormwater technical report showing hydraulic calculations that support the structure sizing. (ACSO is generally supportive of an equal or greater physical flow area at the current invert elevation)
c. Two sets of reduced plans, typically 11"x17"

Michael R. Fruchey, P.E., CFM
Hydrologist
Allen County Surveyor's Office
200 E. Berry St., Suite 350
Fort Wayne, IN 46802
(260) 449-7625

From: McCloskey, Elizabeth
To: Anne M. Shaw
Cc: jlangmaid@indot.in.gov; Kevin R. Loiselle
Subject: Re: [EXTERNAL] Des. No. 1902826, Allen County Bridge Number 277 ECL
Date: Friday, March 19, 2021 4:07:52 PM

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

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

From: Anne M. Shaw <Anne.Shaw@clarkdietz.com>
Sent: Friday, March 19, 2021 12:36 PM
To: McCloskey, Elizabeth <elizabeth_mccloskey@fws.gov>
Cc: jlangmaid@indot.in.gov <jlangmaid@indot.in.gov>; Kevin R. Loiselle <Kevin.Loiselle@clarkdietz.com>
Subject: [EXTERNAL] Des. No. 1902826, Allen County Bridge Number 277 ECL

To Whom It May Concern,

Please see attached for the early coordination letter for the above-mentioned project in Allen County, Indiana.

Thank you!

Anne

Anne M. Shaw
Clark Dietz, Inc. 8900 Keystone Crossing, Suite 475, Indianapolis, IN 46240
p 317.808.3160 / **c** 859.797.0097
anne.shaw@clarkdietz.com / clarkdietz.com

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: May 25, 2023
Project Code: 2023-0064077
Project Name: Allen County Bridge 277 Replacement (Des. No. 1902826)

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: 2023-0064077
Project Name: Allen County Bridge 277 Replacement (Des. No. 1902826)
Project Type: Bridge - Replacement
Project Description: The Bridge 277 replacement project (Des. Number 1902826) is located 455 feet west of Fackler Road in Allen County, Indiana.

One bridge is within the project area (Structure Number 02-00277B). The bridge is a prestressed concrete box beam structure that carries Monroeville Road over Hoffman Drain (also referred to as Hoffman Ditch). The project extends approximately 321 feet east and 399 feet west from the center of the bridge for a total length of approximately 720 feet (0.14 mile). The project consists of a demolition and replacement of the existing structure. The new bridge will meet all INDOT requirements for reconstruction regarding vertical and horizontal alignment, stopping sight distance, bridge width for two-lanes, and structural capacity. The bridge will be approximately 70.5 feet in length and 40.67 feet in width. The anticipated superstructure type is spread concrete box beams, which will be placed to meet appropriate geometric and hydraulic requirements as specified by the Indiana Design Manual. To meet these requirements, the roadway profile within the construction limits will be widened to a maximum of 2 feet. One small drainage structure was also identified within the project area, on the northside of Monroeville Road at the eastern project area terminus. The small drainage structure will be replaced for this project. Approximately 0.617 acre of permanent and 0.045 acre of temporary right-of-way will be needed.

A review of the USFWS database by the INDOT Fort Wayne District on March 25, 2021, did not indicate the presence of endangered bat species, in or within, 0.50 mile of the project area. A field visit was conducted on April 3, 2023, by Clark Dietz. All structures within the project area were examined. Bats, or evidence of bats, were not seen or heard. Suitable summer habitat was observed within or adjacent to the project area.

The project will not involve clearing or trimming trees. Temporary lighting may be used during construction. The project will not install new or replace existing permanent lighting. Construction is anticipated to begin in Fall of 2024.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@40.97833475,-84.94040127636623,14z

Counties: Allen County, Indiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA 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. Your location does not overlap the critical habitat. 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. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

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

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus*	Candidate

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9743

CRITICAL HABITATS

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

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

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.

---

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)

THERE ARE NO FWS MIGRATORY BIRDS OF CONCERN WITHIN THE VICINITY OF YOUR PROJECT AREA.

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

- R5UBH

IPAC USER CONTACT INFORMATION

Agency: County of Allen
Name: Cameron Fraser
Address: 8900 Keystone Crossing
City: Indianapolis
State: IN
Zip: 46240
Email cameron.fraser@clarkdietz.com
Phone: 3178083144

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

United States Department of the Interior

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

In Reply Refer To: May 26, 2023
Project code: 2023-0064077
Project Name: Allen County Bridge 277 Replacement (Des. No. 1902826)

Subject: Concurrence verification letter for the 'Allen County Bridge 277 Replacement (Des. No. 1902826)' project under the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (NLEB).

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated May 26, 2023 to verify that the **Allen County Bridge 277 Replacement (Des. No. 1902826)** (Proposed Action) may rely on the concurrence provided in the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

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

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

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

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

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

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

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

- Monarch Butterfly *Danaus plexippus* Candidate
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

PROJECT DESCRIPTION

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

NAME

Allen County Bridge 277 Replacement (Des. No. 1902826)

DESCRIPTION

The Bridge 277 replacement project (Des. Number 1902826) is located 455 feet west of Fackler Road in Allen County, Indiana.

One bridge is within the project area (Structure Number 02-00277B). The bridge is a prestressed concrete box beam structure that carries Monroeville Road over Hoffman Drain (also referred to as Hoffman Ditch). The project extends approximately 321 feet east and 399 feet west from the center of the bridge for a total length of approximately 720 feet (0.14 mile). The project consists of a demolition and replacement of the existing structure. The new bridge will meet all INDOT requirements for reconstruction regarding vertical and horizontal alignment, stopping sight distance, bridge width for two-lanes, and structural capacity. The bridge will be approximately 70.5 feet in length and 40.67 feet in width. The anticipated superstructure type is spread concrete box beams, which will be placed to meet appropriate geometric and hydraulic requirements as specified by the Indiana Design Manual. To meet these requirements, the roadway profile within the construction limits will be widened to a maximum of 2 feet. One small drainage structure was also identified within the project area, on the northside of Monroeville Road at the eastern project area terminus. The small drainage structure will be replaced for this project. Approximately 0.617 acre of permanent and 0.045 acre of temporary right-of-way will be needed.

A review of the USFWS database by the INDOT Fort Wayne District on March 25, 2021, did not indicate the presence of endangered bat species, in or within, 0.50 mile of the project area. A field visit was conducted on April 3, 2023, by Clark Dietz. All structures within the project area were examined. Bats, or evidence of bats, were not seen or heard. Suitable summer habitat was observed within or adjacent to the project area.

The project will not involve clearing or trimming trees. Temporary lighting may be used during construction. The project will not install new or replace existing permanent lighting. Construction is anticipated to begin in Fall of 2024.

DETERMINATION KEY RESULT

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the endangered Indiana bat and/or the endangered northern long-eared bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the 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.

   No

10. 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

11. 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

12. 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

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

    No

14. Does the project include slash pile burning?

    No

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

    Yes

16. Is there *any* suitable habitat[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

17. 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

    - *Bridge Culvert Bat Assessment Form for Allen County Bridge 277_With Drain Pipe_4-3-2023.pdf https://ipac.ecosphere.fws.gov/project/UIDO54PMOFCK5AUQIXSWVXXKZU/projectDocuments/124670799*

18. 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

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

    No

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

    No

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

    Yes

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

    Yes

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

    No

24. 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

25. 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

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

    No

27. 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

28. 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

29. **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

30. **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. Please describe the proposed bridge work:

   The project consists of a demolition and replacement of the existing structure. The new bridge will meet all INDOT requirements for reconstruction regarding vertical and horizontal alignment, stopping sight distance, bridge width for two-lanes, and structural capacity. The bridge will be approximately 70.5 feet in length and 40.67 feet in width. The anticipated superstructure type is spread concrete box beams, which will be placed to meet appropriate geometric and hydraulic requirements as specified by the Indiana Design Manual. To meet these requirements, the roadway profile within the construction limits will be widened to a maximum of 2 feet. One small drainage structure was also identified within the project area, on the northside of Monroeville Road at the eastern project area terminus. The small drainage structure will be replaced for this project.

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

   Fall of 2024

5. Please enter the date of the bridge assessment:

   April 3, 2023

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

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

GENERAL AMM 1

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

LIGHTING AMM 1

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

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

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

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

This decision key should only be used to verify project applicability with the Service's 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 Gill
Address: 5333 Hattfield Road
City: Fort Wayne
State: IN
Zip: 46804
Email agill@indot.in.gov
Phone: 2609698262

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

Bridge/Structure Bat Assessment Form

Date & Time of Assessment	DOT Project Number	Route/Facility Carried	County
4/3/2023 (11:45 AM)	1902826	Monroeville Road	Allen
Federal Structure ID	**Structure Coordinates (latitude and longitude)**	**Structure Height (approximate)**	**Structure Length**
02-00277B	40.978329, -84.940202	12 feet	52 feet

Structure Type (check one)

Bridge Construction Style

○	Cast-in-place	○	Pre-stressed Girder
◉	Flat Slab/Box	○	Steel I-beam
○	Truss (Side View)	○	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	☒	Concrete
☒	Concrete	☐	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)

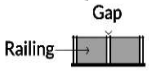
☒	Bare ground	☒	Open vegetation
☒	Rip-rap	☐	Closed vegetation
☒	Flowing water	☐	Railroad
☐	Standing water	☐	Road/trail - Type:
☐	Seasonal water	☐	Other:

Surrounding Habitat (check all that apply)

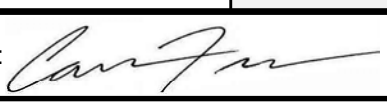
☒	Agricultural	☐	Grassland
☐	Commercial	☐	Ranching
☐	Residential-urban	☐	Riparian/wetland
☒	Residential-rural	☐	Mixed use
☐	Woodland/forested	☐	Other:

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)
☒ All crevices and cracks: **Bridges/culverts:** rough surfaces or imperfections in concrete **Other structures:** soffits, rafters, attic areas	☐ Not present: No evidence of bats.	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Concrete surfaces (open roosting on concrete)	☐ Not present: No evidence of bats.	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Spaces between concrete end walls and the bridge deck	☐ Not present: No evidence of bats.	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Crack between concrete railings on top of the bridge deck 	☐ Not present: No evidence of bats.	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Vertical surfaces on concrete I-beams	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Spaces between walls, ceiling joists	☐ Not present: No evidence of bats.	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Weep holes, scupper drains, and inlets/pipes	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ All guiderails	☐ Not present: No evidence of bats.	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ All expansion joints	☐ Not present: No evidence of bats.	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species

Name: Cameron Fraser

Signature: 

No.	Structure Number	Location	Waterbody	Inspection Date	Evidence of bats?	Existing Structure	Length (ft)	Work Type	Des. No.
1	N/A	NE project terminus	Roadside Ditch	4/3/2023	No	Corrugated Metal Pipe (12")	25	Existing structure to be replaced	1902826